DOGA

Sistemas Limpiaparabrisas
Windshield Wiper Systems
Systèmes d'Essuyage
Scheibenwischeranlagen

DOGA

3/2003

DOGA

DOGA presenta su gama de sistemas limpiaparabrisas, compuesta por motorreductores oscilantes y rotativos con diversas opciones en cuanto a ejes, ángulos y potencia, brazos simples y paralelos de distintas longitudes y una amplia oferta de escobillas limpiaparabrisas para conseguir un sistema óptimo.

Estos elementos permiten instalar sistemas limpiaparabrisas completos para múltiples aplicaciones.

Todos los componentes son diseñados y fabricados en DOGA, controlando el proceso productivo para asegurar la calidad del producto final.

Los sistemas limpiaparabrisas se complementan con equipos lavaparabrisas, diseñados para ser montados en cualquier tipo de vehículo.

Para componer su equipo puede consultar-la última sección de este catálogo.

Introducing DOGA's complete range of windshield wiper systems, including both oscillating and rotary geared motor types, with a wide variety of shaft configurations, sweep angles and output torques. Both simple and pantograph arms plus a wide selection of wiper blades are available to achieve the optimum wiper system for all size and shape windows.

DOGA's extensive wiper component selection makes possible the concept of complete windshield wiper systems for virtually any application.

At DOGA, all of our components are designed in-house to insure control of the production process and guarantee the quality of the final product.

Wiper systems are completed with windshield washer systems, easily adaptable to any type of vehicle.

To put together your own system, please turn to the last section of this catalogue.

DOGA vous présente sa gamme de systèmes essuie-glace composée de moteurs réducteurs oscillants et rotatifs avec plusieurs options d'axes, d'angles et de puissance ; de bras simples et pantographes de différentes longueurs ; ainsi qu'un grand choix de balais essuie-glace, afin d'obtenir un système optimal.

Ces éléments permettent d'installer des systèmes essuie-glaces complets destinés à de multiples applications. Tous les composants sont conçus par DOGA, nous permettant ainsi de contrôler le processus fabrication et d'assurer la qualité de notre produit final.

Les systèmes essuie-glaces sont complétés par nos équipements lave-glaces, adaptables à tout type de véhicule.

Pour composer votre équipement, vous pouvez consulter la dernière section de ce catalogue.

DOGA präsentiert seine Scheibenwischanlagen, bestehend aus Pendel- und Rundläufergetriebemotoren mit verschiedenen Wahlmöglichkeiten bei Achsen, Wischwinkel und Leistung, mit Einzelwischarmen und Parallelwischarmen in verschiedenen Längen, sowie einem umfangreichen Angebot an Scheibenwischblättern für eine perfekte Reinigung.

Diese Bauteile ermöglichen den Einbau kompletter Wischersysteme für zahlreiche Anwendungen. Alle Bauteile werden bei DOGA konzipiert und gefertigt, so dass höchste Qualität garantiert ist.

Dieses Angebot wird durch die Scheibenwaschanlagen vervollständigt, die jedem Fahrzeugtyp angepasst werden können. Eine Anleitung, wie Sie Ihre Anlage selbst zusammenstellen können, finden Sie im letzten Abschnitt dieses Katalogs.

DOGA

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DOGA

Manual de Uso
User's Guide
Guide d'Utilisation
Hinweise zum Gebrauch dieses Katalogs

- El catálogo que tiene en sus manos ha sido creado para ofrecerle soluciones rápidas en la búsqueda del SISTEMA LIMPIAPARABRISAS que más se ajuste a sus necesidades.
- This catalogue has been created to offer you a quick solution when looking for the WINDSHIELD WIPER SYSTEM best suited for your needs.
- Le catalogue que vous tenez entre vos mains a été spécialement réalisé dans le but de pouvoir vous donner une solution rapide à votre recherche de SYSTEME ESSUIE-GLACE.
- Der Katalog, den Sie in Händen halten, wurde erstellt, um Ihnen bei der Suche nach WISCHERSYSTEMEN eine schnelle Hilfe zu bieten, die Ihren Bedarf möglichst genau trifft.

1

- El primer paso para definir su proyecto es seleccionar el BRAZO y ESCOBILLA LIMPIAPARABRISAS adecuados para la aplicación a la que serán destinados. Para ello puede apoyarse en el formulario de CÓMO DEFINIR UN PROYECTO que encontrará al final de este catálogo.
- The first step in defining your wiper system is to select the WIPER ARM and BLADE according to the window coverage required. To help you in the process, you can refer to the How to Define a Wiper System form at the end of this catalogue.
- Afin de définir votre projet, vous devrez tout d'abord sélectionner le type de BRAS et BALAI ESSUIE-GLACE selon l'application voulue. Vous pouvez aussi vous aider du formulaire intitulé COMMENT DEFINIR UN PROJET, que vous trouverez à la fin de notre catalogue.
- Der erste Schritt ist die Auswahl des WISCHERARMS und des WISCHERBLATTS, die für Ihre Einsatzzweck am besten geeignet sind. Am Ende des Katalogs finden Sie ein Formblatt über WIE SOLL MANN EINEN PROJEKT DEFINIEREN, das Ihnen dabei helfen kann.

2

- Posteriormente, en la sección CORRESPONDENCIA BRAZOS/MOTORES encontrará el motor adecuado al brazo y escobilla seleccionados.
  En el caso de tener que utilizar MOTORES ROTATIVOS que requieran TRANSMISIÓN, contacte con nuestro Departamento Comercial.
- Second, in the section ARM/MOTOR COMPATIBILITY, you will find the proper motor for the selected arm and blade.
  In case you need a ROTATING MOTOR that requires a separate LINKAGE SYSTEM, please contact our Sales Department.
- Dans un deuxième temps, dans la section CORRESPONDANCE BRAS/MOTEURS vous y trouverez le moteur approprié aux bras et balais selectionnés.
  Dans le cas ou vous souhaiteriez utiliser un MOTEUR ROTATIF avec TRANSMISSION, veuillez vous mettre en contact avec notre département commercial.
- Der zweite Schritt ist die Auswahl des für diese Kombination passenden Motors, siehe Abschnitt CROSSLIST WISCHARME/MOTOREN.
  Falls Sie einen RUNDLÄUFERMOTOR einsetzen, für den Sie auch ein GESTÄNGE benötigen, setzen Sie sich bitte mit unserem Verkauf in Verbindung.

3

- El detalle de los componentes que forman el sistema se puede consultar en las secciones: MOTORES LIMPIAPARABRISAS, BRAZOS LIMPIAPARABRISAS, ESCOBILLAS LIMPIAPARABRISAS y EQUIPOS LAVAPARABRISAS.
- The technical details of the system components can be reviewed in the following sections: WINDSHIELD WIPER MOTORS, WINDSHIELD WIPER ARMS, WIPER BLADES and WINDSHIELD WASHER SYSTEMS.
- Vous trouverez également le détail des différents élements dont se compose le système essuie-glace dans les sections suivantes : MOTEURS ESSUIE-GLACE, BRAS ESSUIE-GLACE, BALAIS ESSUIE-GLACE et ÉQUIPEMENTS LAVE-GLACE.
- Einzelheiten zu allen Bauteilen finden Sie in den Abschnitten: SCHEIBENWISCHERMOTOREN, SCHEIBENWISCHERARME, SCHEIBENWISCHERBLÄTTER und SCHEIBENWASCHANLAGEN.

DOGA

Simbolos
Symbols
Symboles
Zeichenerklärungen

I	IZQUIERDA LEFT GAUCHE LINKS
R	RECTO CENTER DROIT SENKRECHT
D	DERECHA RIGHT DROITE RECHTS
∠	ÁNGULO ANGLE ANGLE WINKEL
L	LONGITUD LENGTH LONGUEUR LÄNGE
	EJE DEL MOTOR MOTOR SHAFT AXE DU MOTEUR MOTORWELLE
AMP 4 (1 2)	**1**- CONECTOR / CONNECTOR / CONNECTEUR / ANSCHLUSS **2**- Nº VIAS / Nº LEADS / Nº VOIES / ANZAHL KONTAKTE
⊕ ⊖	BORNES POLARITY BORNES KLEMME
(a) (b)	TIPOS DE BARRIDO WIPER TYPE TYPES DE BALAYAGE WISCHTYPEN
(a) (b)	TIPOS DE BARRIDO WIPER TYPE TYPES DE BALAYAGE WISCHTYPEN

	BRAZO PARALELO PANTOGRAPH ARM BRAS PARALLELOGRAMME PARALLEL WISCHARM
	BRAZO SIMPLE SIMPLE ARM BRAS SIMPLE EINZELWISCHARM
	ESCOBILLA LIMPIAPARABRISAS WIPER BLADE BALAI ESSUIE-GLACE SCHEIBENWISCHERBLATT
*	APLICACIONES DIVERSAS DIFFERENTS APPLICATIONS APLICATIONS DIFFERENTS VERSCHIEDENE ANWENDUNGEN
	SURTIDOR NOZZLE GICLEUR SPRITZDÜSE
	CRISTAL POSTERIOR REAR WINDOW VITRE D'ARRIERE HECKSCHEIBE
	LADO CONDUCTOR DRIVER'S SIDE CÔTE CONDUCTEUR FAHRERSEITE
	LADO ACOMPAÑANTE PASSENGER'S SIDE CÔTE PASSAGER BEIFAHRERSEITE

Los motores DOGA para
sistemas limpiaparabrisas se presentan con movimiento oscilante para ser acoplados directamente al brazo y movimiento rotativo, montando un sistema de biela-manivela para conseguir el movimiento oscilante.

Así mismo se ofrece la posibilidad de incorporar intermitencia integrada en algunos de los grupos de motores.

■

DOGA's geared wiper system motors are available in either oscillating (which allows for direct attachment of the arm) or rotating, which includes a linkage system to achieve the oscillating motion.

DOGA also offers integrated intermittent wipe for our more popular motor models.

■

Les moteurs DOGA, pour les systèmes essuie-glaces, sont présentés, soit avec mouvement oscillant pour fixer directement le bras ; ou bien avec un mouvement rotatif pour adapter un système de bielle-manivelle, ceci afin d'obtenir le mouvement oscillant.

Nous vous offrons aussi la possibilité d'incorporer une intermittence intégrée dans certains groupes moteur.

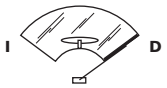
■

Die DOGA-Wischermotore gibt es als Pendelmotor, auf dem der Wischerarm direkt angetrieben wird, oder als Rundläufermotor, der über ein Hebelsystem die Pendelbewegung erzielt.

Einige Motorentypen können auch mit Intervallschaltung versehen werden.

recuerde - remember - rappelez-vous - Bitte beachten Sie

Posición paro
Automatic park position
Position arrêt
Parkstellung



I*	D*
Izquierda	Derecha
Left	Right
Gauche	Droite
Links	Rechts

*
Vista desde el exterior del vehículo.
View from outside the vehicle.
Vue depuis l'extérieur du véhicule.
Gegen die Fahrtrichtung gesehen.

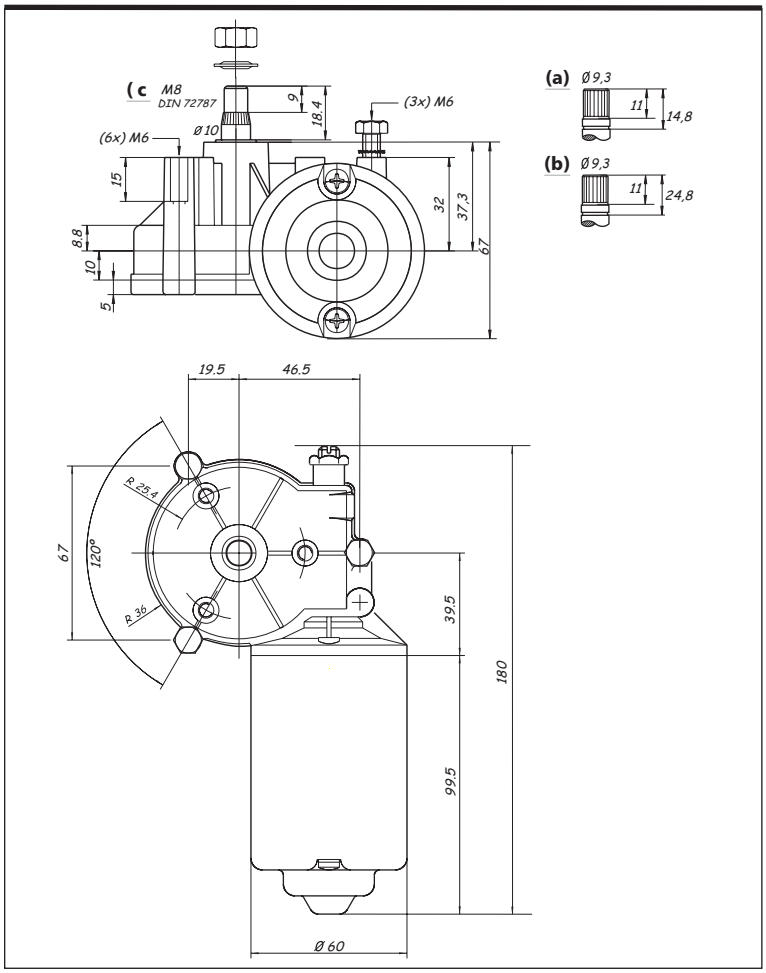
MOTORES LIMPIAPARABRISAS
WINDSHIELD WIPER MOTORS
MOTEURS ESSUIE-GLACE
SCHEIBENWISCHERMOTOREN

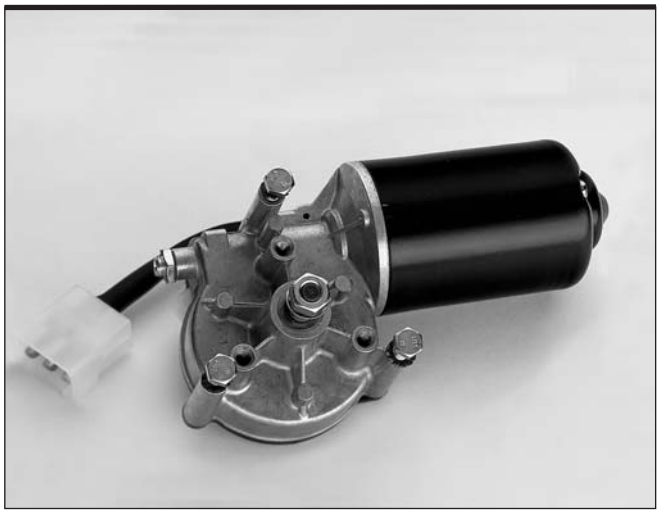
DOGA

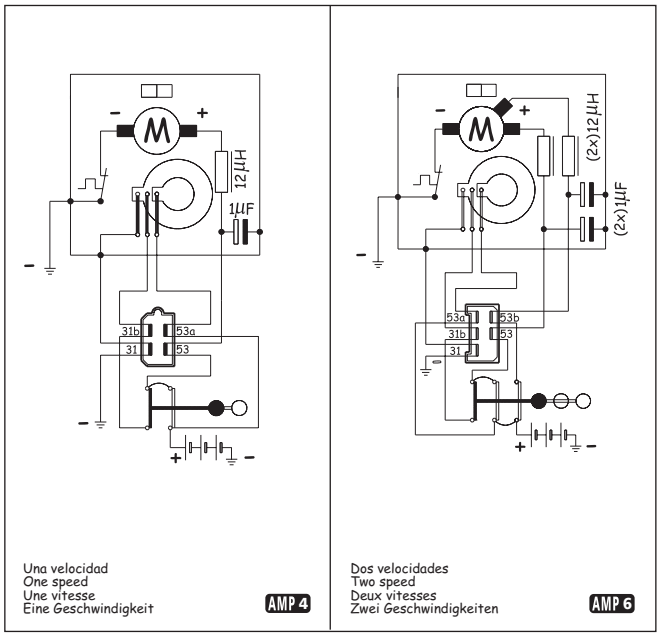
motores limpiaparabrisas
windshield wiper motors
moteurs essuie-glace
Scheibenwischermotoren

mod. **111**

PAR NOMINAL NOMINAL TORQUE COUPLE NOMINAL NENNDREHMOMENT	**5** **Nm**	PAR DE ARRANQUE STALL TORQUE COUPLE DE DEMARRAGE ANZUGSMOMENT	**25** **Nm**	EJE - mm SHAFT - mm AXE - mm WELLE - mm	**Ø 9,3**	**M8**







REFERENCIA PART NUMBER REFERENCE REFERENZNUMMER	EXTREMO EJE SHAFT END EXTREMITE AXE WELLENENDE	EJE - mm SHAFT - mm AXE - mm WELLE - mm	R.P.M.	DISYUNTOR THERMOSWITCH DISJONCTEUR THERMOSCHALTER	PARO AUTOMÁTICO AUTOMATIC PARK ARRET AUTOMATIQUE PARKSTELLUNG	VOLTIOS VOLTS VOLTS VOLT
111.3715.2B.00.E	**(a)**	**Ø 9,3**	**50**	**-**	**✓**	**12**
111.3715.3B.00.E	**(a)**	**Ø 9,3**	**50**	**-**	**✓**	**24**
111.3717.2B.00.E	**(a)**	**Ø 9,3**	**34/52**	**-**	**✓**	**12**
111.3717.3B.00.E	**(a)**	**Ø 9,3**	**34/52**	**-**	**✓**	**24**
111.3736.2B.00.E	**(b)**	**Ø 9,3**	**40/58**	**-**	**✓**	**12**
111.3736.3B.00.E	**(b)**	**Ø 9,3**	**40/58**	**-**	**✓**	**24**
111.3754.2B.00.E	**(c)**	**M 8**	**34**	**-**	**✓**	**12**
111.3754.3B.00.E	**(c)**	**M 8**	**34**	**-**	**✓**	**24**
111.3756.2B.00.E	**(c)**	**M 8**	**40/58**	**-**	**✓**	**12**
111.3756.3B.00.E	**(c)**	**M 8**	**40/58**	**-**	**✓**	**24**
111.3757.2B.00.E	**(c)**	**M 8**	**34/52**	**-**	**✓**	**12**
111.3757.3B.00.E	**(c)**	**M 8**	**34/52**	**-**	**✓**	**24**

NOTAS - NOTES - REMARQUES - ANMERKUNGEN

- Motores antiparasitados, con diferentes opciones en cuánto a eje. Disponibles bajo demanda con disyuntor, sin filtro antiparasitario y sin paro automático. También con otras características de eje.
- RFI suppressed motors with different shaft options. Available upon request with thermoswitch, without RFI suppression and without automatic park. Also available with different shaft types.
- Moteurs antiparasités avec différentes options d'axe. Disponibles sur demande avec disjoncteur, sans système antiparasites et sans arrêt automatique. Disponibles aussi avec d'autres caractéristiques d'axe.
- Motoren mit unterschiedlichen Optionen für die Achsen. Auf Wunsch mit Thermoschalter, ohne oder mit Entstörfilter (E) oder ohne Parkstellung lieferbar. Andere Achsausführungen sind ebenfalls erhältlich.

OPCIÓN DE INTERMITENCIA INTEGRADA (ver final motores 111)
INTEGRATED INTERMITTENT OPTION (see end of 111 motors)
OPTION D'INTERMITTENCE INTEGREE (voir fin moteurs 111)
OPTION INTEGRIERTER INTERVALLSCHALTUNG (siehe Motoren 111 am Ende)

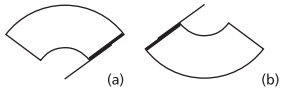
DOGA

motores limpiaparabrisas
windshield wiper motors
moteurs essuie-glace
Scheibenwischermotoren

mod. **111**

PAR NOMINAL NOMINAL TORQUE COUPLE NOMINAL NENNDREHMOMENT	**5** **Nm**	PAR DE ARRANQUE STALL TORQUE COUPLE DE DEMARRAGE ANZUGSMOMENT	**25** **Nm**	EJE - mm SHAFT - mm AXE - mm WELLE - mm	**M8**

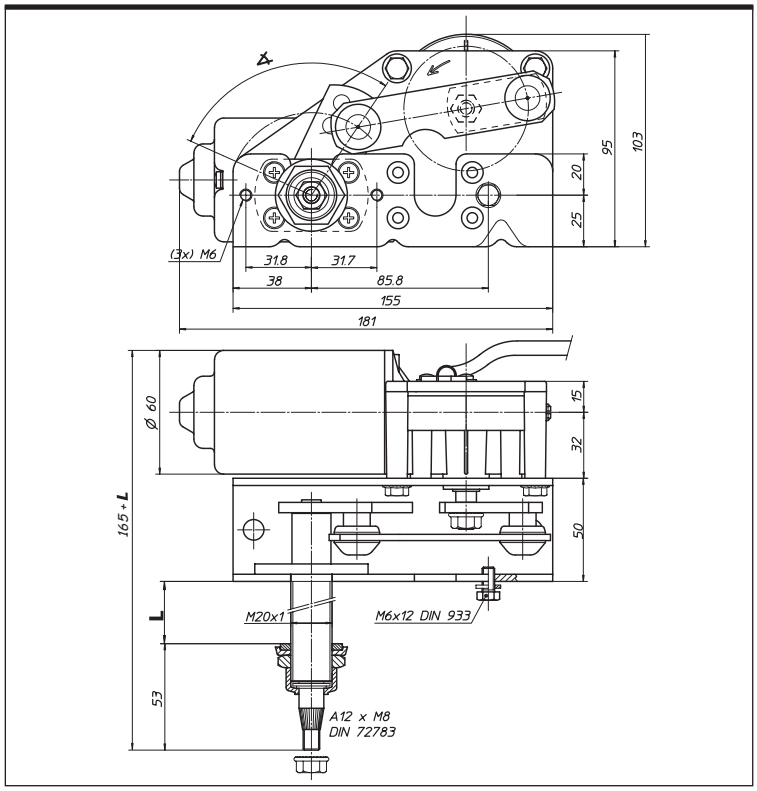
APLICACIONES ORIENTATIVAS - SUGGESTED APPLICATIONS - APPLICATIONS POUR INFORMATION - MÖGLICHE ANWENDUNGEN

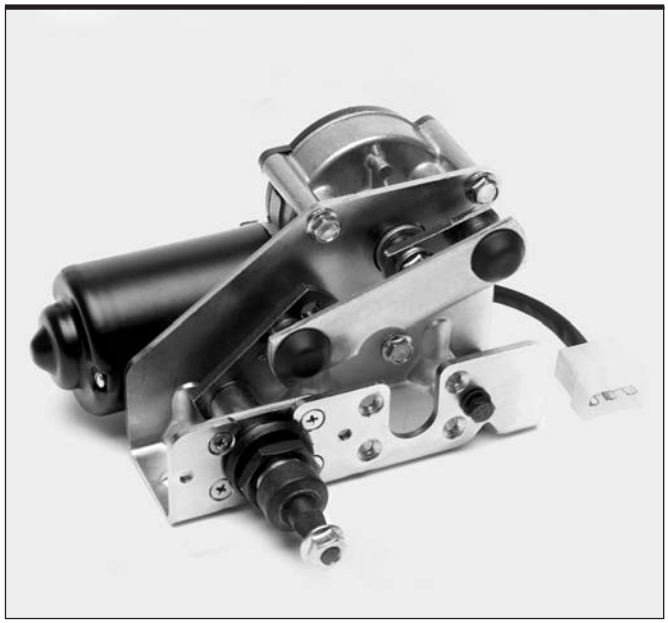


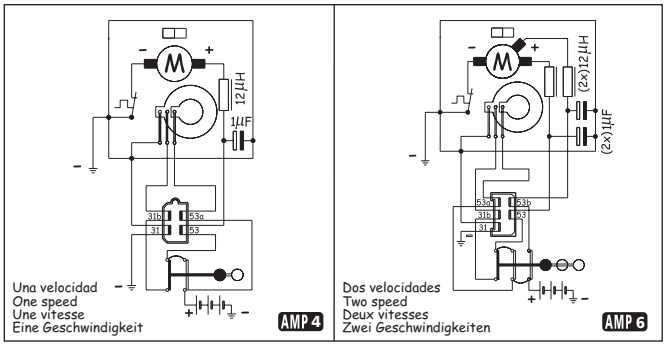
(a) max. 765 mm - 90º
(b) max. 900 mm - 110º

(a) max. 600 mm
(b) max. 650 mm

VER CORRESPONDENCIA MOTORES/BRAZOS PÁG. 39 - REFER TO MOTOR/ARM COMPATIBILITY PAGE 39 - VOIR LA SECTION CORRESPONDANCE MOTEURS/BRAS PAGE 39 - SIEHE CROSSLIST MOTOREN UND WISCHARME SEITE 39







REFERENCIA PART NUMBER REFERENCE REFERENZNUMMER	∡	L	EJE - mm SHAFT - mm AXE - mm WELLE - mm	CICLOS x min CYCLES x m CYCLES x m ZYKLEN x m	DISYUNTOR THERMOSWITCH DISJONCTEUR THERMOSCHALTER	PARO AUTOMÁTICO AUTOMATIC PARK ARRET AUTOMATIQUE PARKSTELLUNG	INTERRUPTOR SWITCH INTERRUPTEUR SCHALTER	VOLTIOS VOLTS VOLTS VOLT
111.6247.2B.*0.E	**70º**	**60**	**M8**	**32/50**	**-**	**✓**	**-**	**12**
111.6247.3B.*0.E	**70º**	**60**	**M8**	**32/50**	**-**	**✓**	**-**	**24**
111.6322.2B.*0.E	**80º**	**30**	**M8**	**32/50**	**✓**	**✓**	**-**	**12**
111.6322.3B.*0.E	**80º**	**30**	**M8**	**32/50**	**✓**	**✓**	**-**	**24**
111.6424.2B.*0.E	**90º**	**30**	**M8**	**32**	**-**	**✓**	**-**	**12**
111.6424.3B.*0.E	**90º**	**30**	**M8**	**32**	**-**	**✓**	**-**	**24**
111.6427.2B.*0.E	**90º**	**30**	**M8**	**32/50**	**-**	**✓**	**-**	**12**
111.6427.3B.*0.E	**90º**	**30**	**M8**	**32/50**	**-**	**✓**	**-**	**24**
111.6444.2B.*0.E	**90º**	**60**	**M8**	**32**	**-**	**✓**	**-**	**12**
111.6444.3B.*0.E	**90º**	**60**	**M8**	**32**	**-**	**✓**	**-**	**24**
111.6447.2B.*0.E	**90º**	**60**	**M8**	**32/50**	**-**	**✓**	**-**	**12**
111.6447.3B.*0.E	**90º**	**60**	**M8**	**32/50**	**-**	**✓**	**-**	**24**
111.6627.2B.*0.E	**110º**	**30**	**M8**	**32/50**	**-**	**✓**	**-**	**12**
111.6627.3B.*0.E	**110º**	**30**	**M8**	**32/50**	**-**	**✓**	**-**	**24**
111.6647.2B.*0.E	**110º**	**60**	**M8**	**32/50**	**-**	**✓**	**-**	**12**
111.6647.3B.*0.E	**110º**	**60**	**M8**	**32/50**	**-**	**✓**	**-**	**24**

* Sustituir por I o D. Replace with I or D. Remplacer par I ou D. Durch I oder D ersetzen.

NOTAS - NOTES - REMARQUES - ANMERKUNGEN

- Motores antiparasitados con diferentes opciones en cuanto a longitud de espiga y ángulo de barrido. Disponibles bajo demanda con 1ó 2 velocidades, sin filtro antiparasitario o con disyuntor.
- RFI suppressed motors with various shaft lengths and sweep angle options. Available upon request with 1 or 2 speeds, without RFI suppression, without automatic park or with thermoswitch.
- Moteurs antiparasités avec différentes options de longueur de tenon et d'angle de balayage. Disponibles sur demande avec 1 ou 2 vitesses sans système antiparasites, sans arrêt ou avec disjoncteur.
- Motoren mit unterschiedlichen Optionen für Wellenlänge und Wischwinkel. Auf Wunsch mit einer oder zwei Geschwindigkeiten, ohne oder mit Entstörfilter (E), ohne Parkstellung oder mit Thermoschalter erhältlich.

OPCIÓN DE INTERMITENCIA INTEGRADA (ver final motores 111)
INTEGRATED INTERMITTENT OPTION (see end of 111 motors)
OPTION D'INTERMITTENCE INTEGREE (voir fin moteurs 111)
OPTION INTEGRIERTER INTERVALLSCHALTUNG (siehe Motoren 111am Ende)

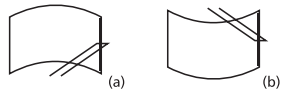
DOGA

motores limpiaparabrisas
windshield wiper motors
moteurs essuie-glace
Scheibenwischermotoren

mod. **111**

PAR NOMINAL NOMINAL TORQUE COUPLE NOMINAL NENNDREHMOMENT	**5** **Nm**	PAR DE ARRANQUE STALL TORQUE COUPLE DE DEMARRAGE ANZUGSMOMENT	**25** **Nm**	EJE - mm SHAFT - mm AXE - mm WELLE - mm	**M8**

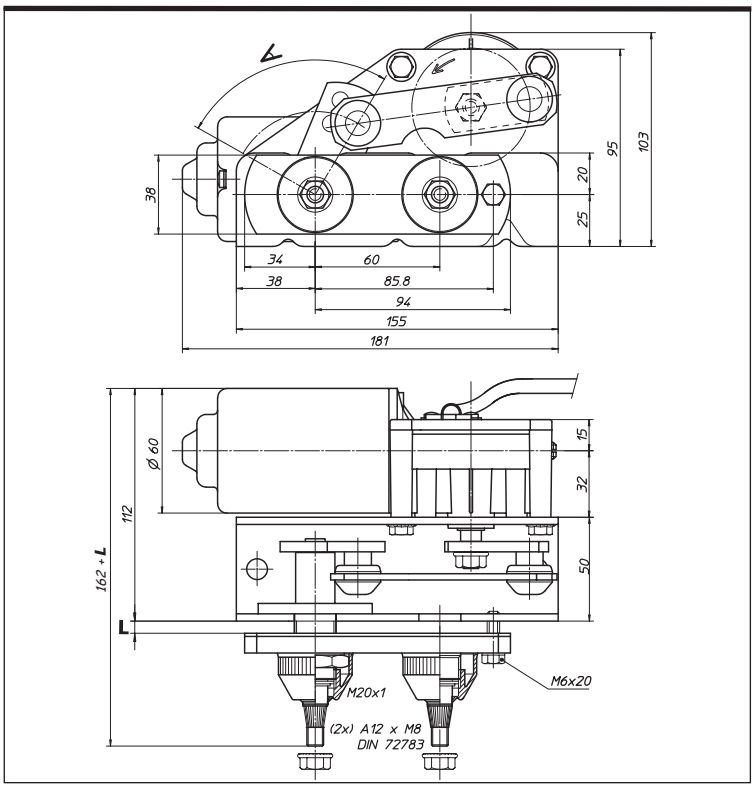
APLICACIONES ORIENTATIVAS - SUGGESTED APPLICATIONS - APPLICATIONS POUR INFORMATION - MÖGLICHE ANWENDUNGEN

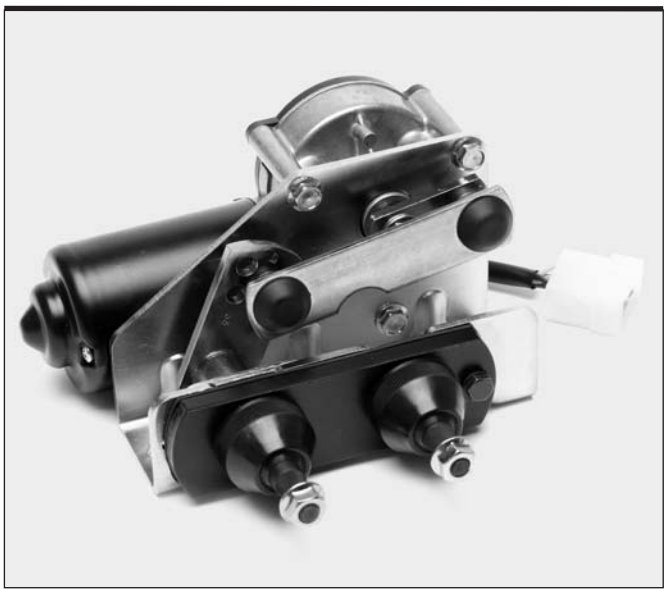


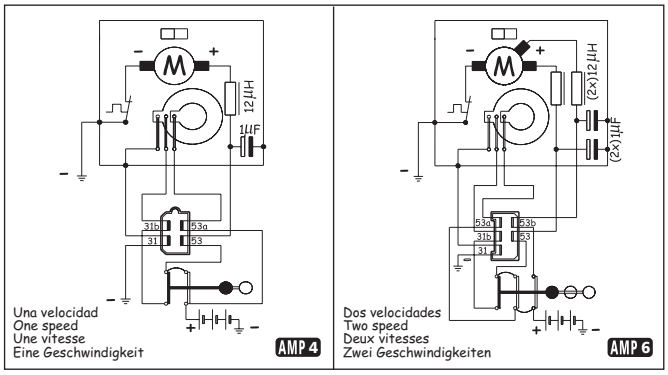
(a) max. 950 mm - 80º
(b) max. 1050 mm - 90º

(a) max. 650 mm
(b) max. 700 mm

VER CORRESPONDENCIA MOTORES/BRAZOS PÁG. 39 - REFER TO MOTOR/ARM COMPATIBILITY PAGE 39 - VOIR LA SECTION CORRESPONDANCE MOTEURS/BRAS PAGE 39 - SIEHE CROSSLIST MOTOREN UND WISCHARME SEITE 39







REFERENCIA PART NUMBER REFERENCE REFERENZNUMMER	∠	L	EJE - mm SHAFT - mm AXE - mm WELLE - mm	CICLOS x min CYCLES x m CYCLES x m ZYKLEN x m	DISYUNTOR THERMOSWITCH DISJONCTEUR THERMOSCHALTER	PARO AUTOMÁTICO AUTOMATIC PARK ARRET AUTOMATIQUE PARKSTELLUNG	INTERRUPTOR SWITCH INTERRUPTEUR SCHALTER	VOLTIOS VOLTS VOLTS VOLT
111.7105.2B.*0.E	**60º**	**5**	**M 8**	**50**	-	✓	-	**12**
111.7105.3B.*0.E	**60º**	**5**	**M 8**	**50**	-	✓	-	**24**
111.7107.2B.*0.E	**60º**	**5**	**M 8**	**32/50**	-	✓	-	**12**
111.7107.3B.*0.E	**60º**	**5**	**M 8**	**32/50**	-	✓	-	**24**
111.7307.2B.*0.E	**80º**	**5**	**M 8**	**32/50**	-	✓	-	**12**
111.7307.3B.*0.E	**80º**	**5**	**M 8**	**32/50**	-	✓	-	**24**
111.7402.2B.*0.E	**90º**	**5**	**M 8**	**32/50**	✓	✓	-	**12**
111.7402.3B.*0.E	**90º**	**5**	**M 8**	**32/50**	✓	✓	-	**24**
111.7407.2B.*0.E	**90º**	**5**	**M 8**	**32/50**	-	✓	-	**12**
111.7407.3B.*0.E	**90º**	**5**	**M 8**	**32/50**	-	✓	-	**24**

* Sustituir por I o D. Replace with I or D. Remplacer par I ou D. Durch I oder D ersetzen.

NOTAS - NOTES - REMARQUES - ANMERKUNGEN

- Motores antiparasitados (E) con diferentes opciones en cuanto a ángulo de barrido. Disponibles bajo demanda con 1 ó 2 velocidades, sin filtro antiparasitario, sin paro o con disyuntor opcional.
- RFI suppressed motors (E) with different sweep angle options. Available upon request with 1 or 2 speeds, without RFI suppression, without automatic park or with optional thermoswitch.
- Moteurs antiparasités (E) avec différentes options d'angle de balayage. Disponibles sur demande avec 1 ou 2 vitesses, sans système antiparasites, sans arrêt ou avec disjoncteur en option.
- Motoren mit unterschiedlichen Optionen für den Wischwinkel. Auf Wunsch mit einer oder zwei Geschwindigkeiten, ohne oder mit Entstörfilter (E), ohne Parkstellung oder mit Thermoschalter erhältlich.

OPCIÓN DE INTERMITENCIA INTEGRADA (ver final motores 111)
INTEGRATED INTERMITTENT OPTION (see end of 111 motors)
OPTION D'INTERMITTENCE INTEGREE (voir fin moteurs 111)
OPTION INTEGRIERTER INTERVALLSCHALTUNG (siehe Motoren 111 am Ende)

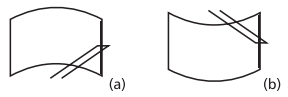
DOGA

motores limpiaparabrisas
windshield wiper motors
moteurs essuie-glace
Scheibenwischermotoren

mod. **111**

PAR NOMINAL NOMINAL TORQUE COUPLE NOMINAL NENNDREHMOMENT	**5** **Nm**	PAR DE ARRANQUE STALL TORQUE COUPLE DE DEMARRAGE ANZUGSMOMENT	**25** **Nm**	EJE - mm SHAFT - mm AXE - mm WELLE - mm	**M8**

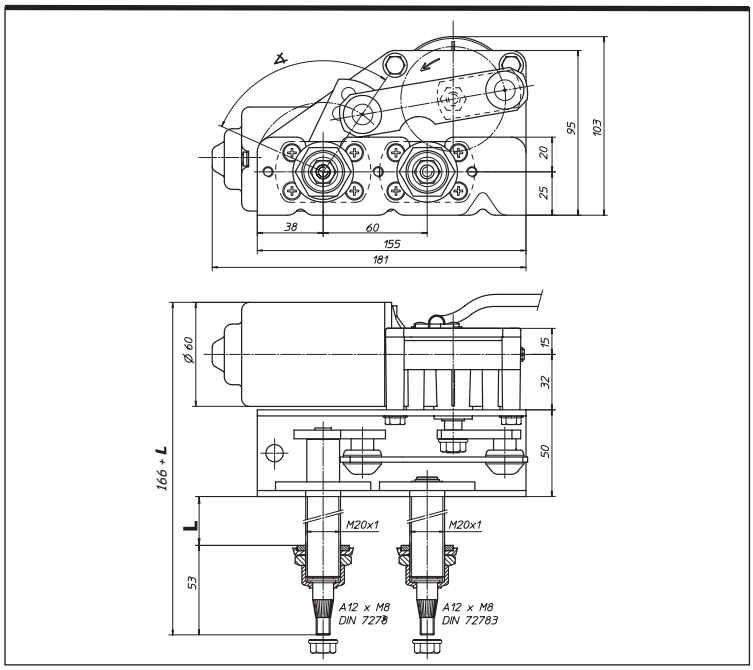
APLICACIONES ORIENTATIVAS - SUGGESTED APPLICATIONS - APPLICATIONS POUR INFORMATION - MÖGLICHE ANWENDUNGEN

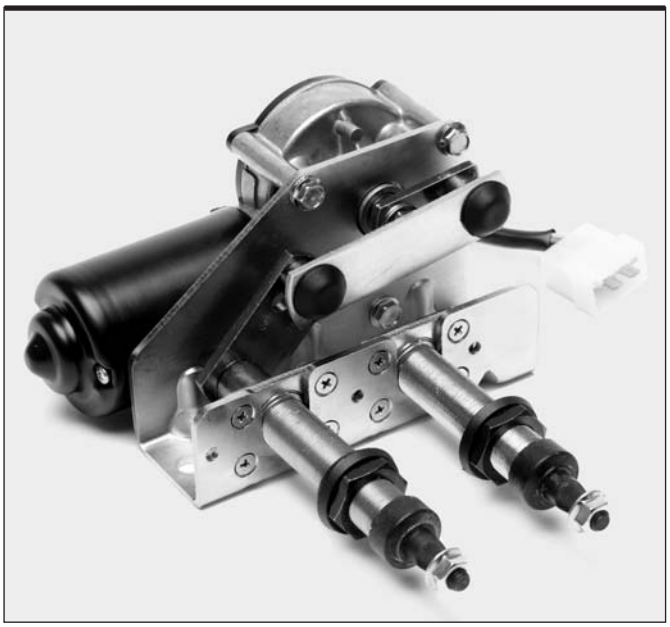


(a) max. 950 mm - 80º
(b) max. 1050 mm - 90º

(a) max. 650 mm
(b) max. 700 mm

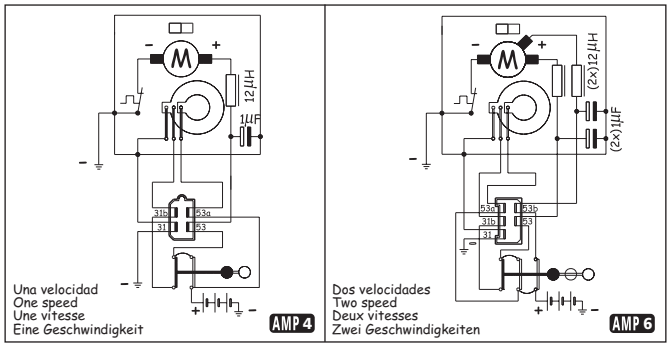
VER CORRESPONDENCIA MOTORES/BRAZOS PÁG. 39 - REFER TO MOTOR/ARM COMPATIBILITY PAGE 39 - VOIR LA SECTION CORRESPONDANCE MOTEURS/BRAS PAGE 39 - SIEHE CROSSLIST MOTOREN UND WISCHARME SEITE 39





REFERENCIA PART NUMBER REFERENCE REFERENZNUMMER	∠	L	EJE - mm SHAFT - mm AXE - mm WELLE - mm	CICLOS x min CYCLES x m CYCLES x m ZYKLEN x m	DISYUNTOR THERMOSWITCH DISJONCTEUR THERMOSCHALTER	PARO AUTOMÁTICO AUTOMATIC PARK ARRET AUTOMATIQUE PARKSTELLUNG	INTERRUPTOR SWITCH INTERRUPTEUR SCHALTER	VOLTIOS VOLTS VOLTS VOLT
111.7124.2B.*0.E	**60º**	**30**	**M 8**	**32**	**-**	**✓**	**-**	**12**
111.7124.3B.*0.E	**60º**	**30**	**M 8**	**32**	**-**	**✓**	**-**	**24**
111.7129.2B.*0.E	**60º**	**30**	**M 8**	**50**	**✓**	**✓**	**-**	**12**
111.7129.3B.*0.E	**60º**	**30**	**M 8**	**50**	**✓**	**✓**	**-**	**24**
111.7222.2B.*0.E	**70º**	**30**	**M 8**	**32/50**	**✓**	**✓**	**-**	**12**
111.7222.3B.*0.E	**70º**	**30**	**M 8**	**32/50**	**✓**	**✓**	**-**	**24**
111.7227.2B.*0.E	**70º**	**30**	**M 8**	**32/50**	**-**	**✓**	**-**	**12**
111.7227.3B.*0.E	**70º**	**30**	**M 8**	**32/50**	**-**	**✓**	**-**	**24**
111.7242.2B.*0.E	**70º**	**60**	**M 8**	**32/50**	**✓**	**✓**	**-**	**12**
111.7242.3B.*0.E	**70º**	**60**	**M 8**	**32/50**	**✓**	**✓**	**-**	**24**
111.7244.2B.*0.E	**70º**	**60**	**M 8**	**32**	**-**	**✓**	**-**	**12**
111.7244.3B.*0.E	**70º**	**60**	**M 8**	**32**	**-**	**✓**	**-**	**24**
111.7247.2B.*0.E	**70º**	**60**	**M 8**	**32/50**	**-**	**✓**	**-**	**12**
111.7247.3B.*0.E	**70º**	**60**	**M 8**	**32/50**	**-**	**✓**	**-**	**24**
111.7327.2B.*0.E	**80º**	**30**	**M 8**	**32/50**	**-**	**✓**	**-**	**12**
111.7327.3B.*0.E	**80º**	**30**	**M 8**	**32/50**	**-**	**✓**	**-**	**24**
111.7340.2B.*0.E	**80º**	**60**	**M 8**	**40/58**	**✓**	**✓**	**-**	**12**
111.7340.3B.*0.E	**80º**	**60**	**M 8**	**40/58**	**✓**	**✓**	**-**	**24**
111.7342.2B.*0.E	**80º**	**60**	**M 8**	**32/50**	**✓**	**✓**	**-**	**12**
111.7342.3B.*0.E	**80º**	**60**	**M 8**	**32/50**	**✓**	**✓**	**-**	**24**
111.7344.2B.*0.E	**80º**	**60**	**M 8**	**32**	**-**	**✓**	**-**	**12**
111.7344.3B.*0.E	**80º**	**60**	**M 8**	**32**	**✓**	**✓**	**-**	**24**
111.7347.2B.*0.E	**80º**	**60**	**M 8**	**32/50**	**-**	**✓**	**-**	**12**
111.7347.3B.*0.E	**80º**	**60**	**M 8**	**32/50**	**-**	**✓**	**-**	**24**
111.7424.2B.*0.E	**90º**	**30**	**M 8**	**32**	**-**	**✓**	**-**	**12**
111.7424.3B.*0.E	**90º**	**30**	**M 8**	**32**	**-**	**✓**	**-**	**24**
111.7440.2B.*0.E	**90º**	**60**	**M 8**	**40/58**	**✓**	**✓**	**-**	**12**
111.7440.3B.*0.E	**90º**	**60**	**M 8**	**40/58**	**✓**	**✓**	**-**	**24**

* Sustituir por I o D. Replace with I or D. Remplacer par I ou D. Durch I oder D ersetzen.



NOTAS - NOTES - REMARQUES - ANMERKUNGEN

- Motores antiparasitados (E) con diferentes opciones en cuanto a ángulo de barrido. Disponibles bajo demanda con 1 ó 2 velocidades, sin filtro antiparasitario, sin paro o con disyuntor opcional.

- RFI suppressed motors (E) with different sweep angle options. Available upon request with 1 or 2 speeds, without RFI suppression, without automatic park or with optional thermoswitch.

- Moteurs antiparasités (E) avec différentes options d'angle de balayage. Disponibles sur demande avec 1 ou 2 vitesses, sans système antiparasites, sans arrêt ou avec disjoncteur en option.

- Motoren mit unterschiedlichen Optionen für den Wischwinkel. Auf Wunsch mit einer oder zwei Geschwindigkeiten, ohne oder mit Entstörfilter (E), ohne Parkstellung oder mit Thermoschalter erhältlich.

OPCIÓN DE INTERMITENCIA INTEGRADA (ver final motores 111)
INTEGRATED INTERMITTENT OPTION (see end of 111 motors)
OPTION D'INTERMITTENCE INTEGREE (voir fin moteurs 111)
OPTION INTEGRIERTER INTERVALLSCHALTUNG (siehe Motoren 111 am Ende)

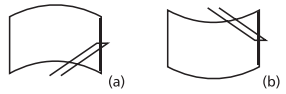
DOGA

motores limpiaparabrisas
windshield wiper motors
moteurs essuie-glace
Scheibenwischermotoren

mod. **111**

PAR NOMINAL NOMINAL TORQUE COUPLE NOMINAL NENNDREHMOMENT	**5** **Nm**	PAR DE ARRANQUE STALL TORQUE COUPLE DE DEMARRAGE ANZUGSMOMENT	**25** **Nm**	EJE - mm SHAFT - mm AXE - mm WELLE - mm	**M8**

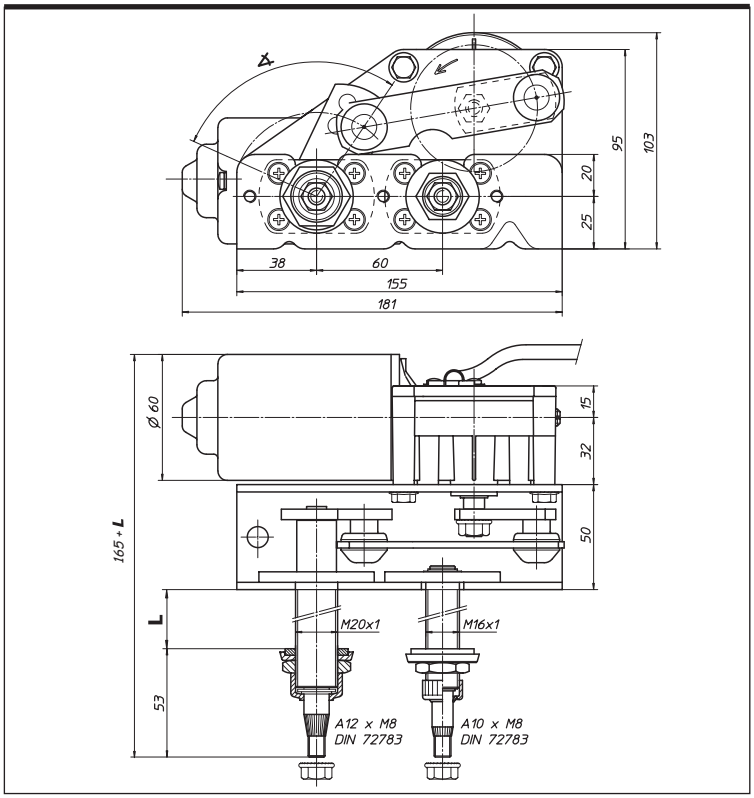
APLICACIONES ORIENTATIVAS - SUGGESTED APPLICATIONS - APPLICATIONS POUR INFORMATION - MÖGLICHE ANWENDUNGEN

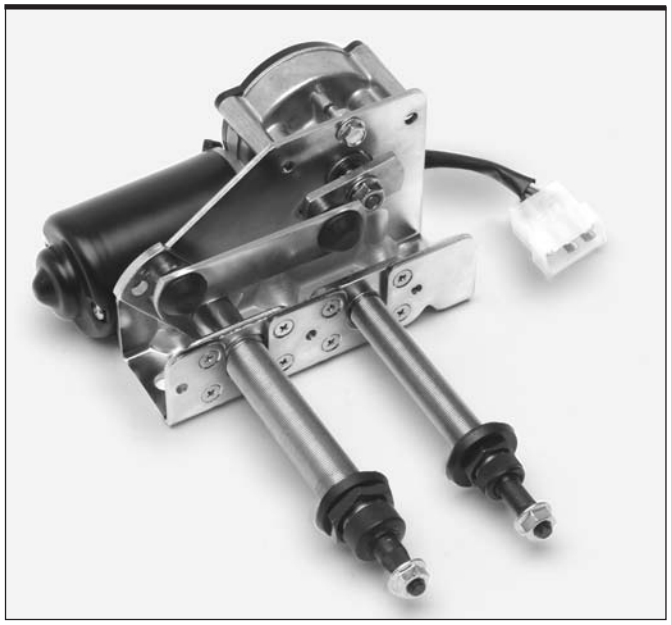


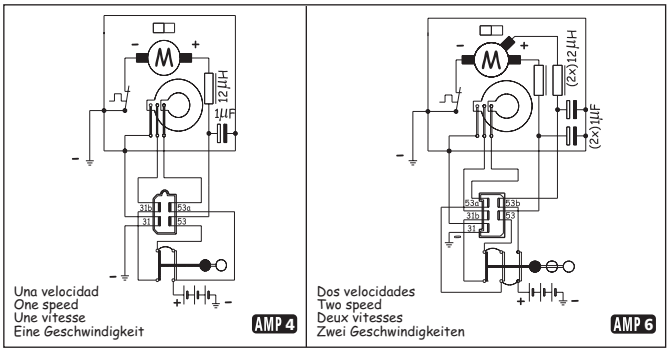
(a) max. 950 mm - 80º
(b) max. 1050 mm - 90º

(a) max. 650 mm
(b) max. 700 mm

VER CORRESPONDENCIA MOTORES/BRAZOS PÁG. 39 - REFER TO MOTOR/ARM COMPATIBILITY PAGE 39 - VOIR LA SECTION CORRESPONDANCE MOTEURS/BRAS PAGE 39 - SIEHE CROSSLIST MOTOREN UND WISCHARME SEITE 39







REFERENCIA PART NUMBER REFERENCE REFERENZNUMMER	∡	L	EJE - mm SHAFT - mm AXE - mm WELLE - mm	CICLOS x min CYCLES x m CYCLES x m ZYKLEN x m	DISYUNTOR THERMOSWITCH DISJONCTEUR THERMOSCHALTER	PARO AUTOMÁTICO AUTOMATIC PARK ARRET AUTOMATIQUE PARKSTELLUNG	INTERRUPTOR SWITCH INTERRUPTEUR SCHALTER	VOLTIOS VOLTS VOLTS VOLT
111.8147.2B.*0.E	**60º**	**60**	**M 8**	**32/50**	**-**	**✓**	**-**	**12**
111.8147.3B.*0.E	**60º**	**60**	**M 8**	**32/50**	**-**	**✓**	**-**	**24**
111.8247.2B.*0.E	**70º**	**60**	**M 8**	**32/50**	**-**	**✓**	**-**	**12**
111.8247.3B.*0.E	**70º**	**60**	**M 8**	**32/50**	**-**	**✓**	**-**	**24**
111.8327.2B.*0.E	**80º**	**30**	**M 8**	**32/50**	**-**	**✓**	**-**	**12**
111.8327.3B.*0.E	**80º**	**30**	**M 8**	**32/50**	**-**	**✓**	**-**	**24**
111.8377.2B.*0.E	**80º**	**90**	**M 8**	**32/50**	**-**	**✓**	**-**	**12**
111.8377.3B.*0.E	**80º**	**90**	**M 8**	**32/50**	**-**	**✓**	**-**	**24**
111.8422.2B.*0.E	**90º**	**30**	**M 8**	**32/50**	**✓**	**✓**	**-**	**12**
111.8422.3B.*0.E	**90º**	**30**	**M 8**	**32/50**	**✓**	**✓**	**-**	**24**
111.8424.2B.*0.E	**90º**	**30**	**M 8**	**32**	**-**	**✓**	**-**	**12**
111.8424.3B.*0.E	**90º**	**30**	**M 8**	**32**	**-**	**✓**	**-**	**24**

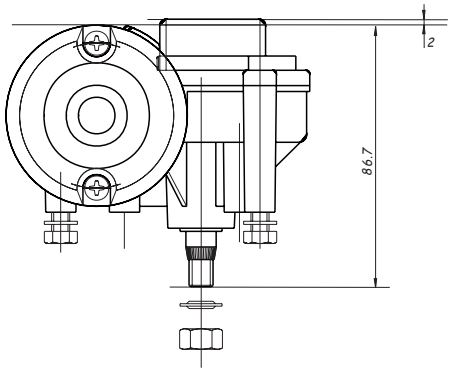
* Sustituir por I o D. Replace with I or D. Remplacer par I ou D. Durch I oder D ersetzen.

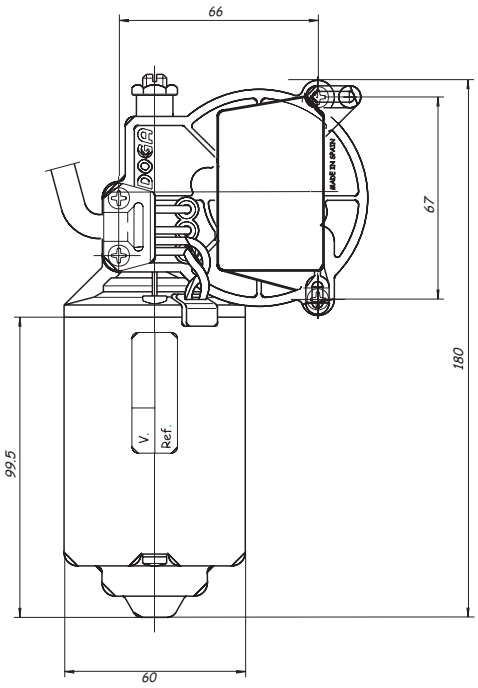
NOTAS - NOTES - REMARQUES - ANMERKUNGEN

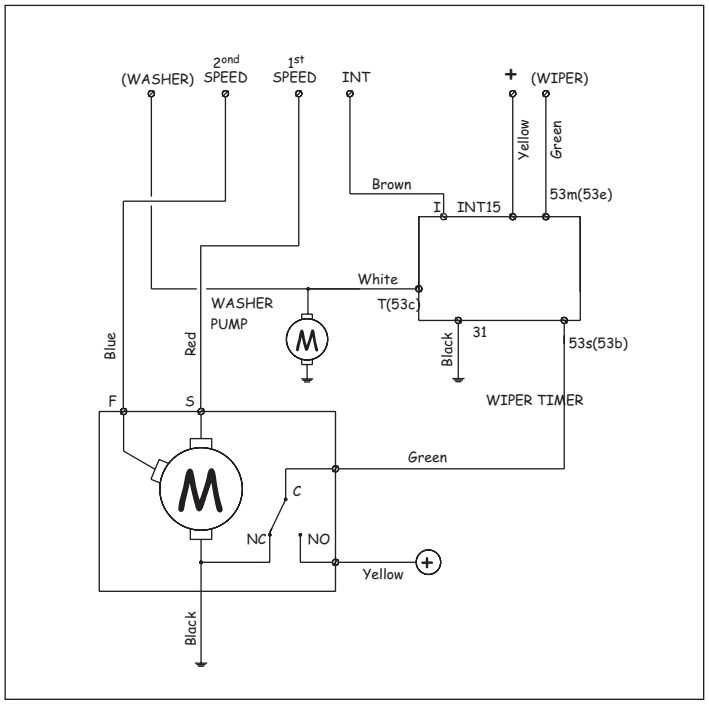
- Motores antiparasitados (E) con diferentes opciones en cuanto a ángulo de barrido. Disponibles bajo demanda con 1 ó 2 velocidades, sin filtro antiparasitario, sin paro o con disyuntor opcional.
- RFI suppressed motors (E) with different sweep angle options. Available upon request with 1 or 2 speeds, without RFI suppression, without automatic park or with optional thermoswitch.
- Moteurs antiparasités (E) avec différentes options d'angle de balayage. Disponibles sur demande avec 1 ou 2 vitesses, sans système antiparasites, sans arrêt ou avec disjoncteur en option.
- Motoren mit unterschiedlichen Optionen für den Wischwinkel. Auf Wunsch mit einer oder zwei Geschwindigkeiten, ohne oder mit Entstörfilter (E), ohne Parkstellung oder mit Thermoschalter erhältlich.

OPCIÓN DE INTERMITENCIA INTEGRADA (ver final motores 111)
INTEGRATED INTERMITTENT OPTION (see end of 111 motors)
OPTION D'INTERMITTENCE INTEGREE (voir fin moteurs 111)
OPTION INTEGRIERTER INTERVALLSCHALTUNG (siehe Motoren 111 am Ende)

INTERMITENCIA INTEGRADA PARA MOTORES DEL GRUPO 111
INTEGRATED INTERMITTENT FOR 111-TYPE MOTORS
INTERMITTENCE INTEGREE POUR MOTEURS DU GROUPE 111
INTEGRIERTER INTERVALLSCHALTUNG FÜR MOTOREN DER BAUREIHE 111







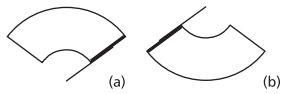
NOTAS - NOTES - REMARQUES - ANMERKUNGEN

- Los motores del grupo 111 estan disponibles, bajo demanda, con intermitencia integrada añadiendo a la referencia original una " T " en la posición 13.
- 111-type oscillating motors are available upon request with integrated intermittent: simply add a "T" to the original part number in position 13.
- Les moteurs oscillants du groupe 111 peuvent être disponibles sur demande avec intermittence intégrée, en ajoutant à la référence d'origine un " T " dans la position 13.
- Die Pendelmotoren der Baureihe 111 können auf Wunsch mit einer integrierten Intervallschaltung geliefert werden. In diesem Fall wird an die Teilenummer ein "T" in der Position 13 hinzugefügt.

1	1	1	*	*	*	*	*	B	*	*	*	T
1	2	3	4	5	6	7	8	9	10	11	12	13

PAR NOMINAL NOMINAL TORQUE COUPLE NOMINAL NENNDREHMOMENT	**0,8** **Nm**	PAR DE ARRANQUE STALL TORQUE COUPLE DE DEMARRAGE ANZUGSMOMENT	**4,5** **Nm**	EJE - mm SHAFT - mm AXE - mm WELLE - mm	**⌀ 6**

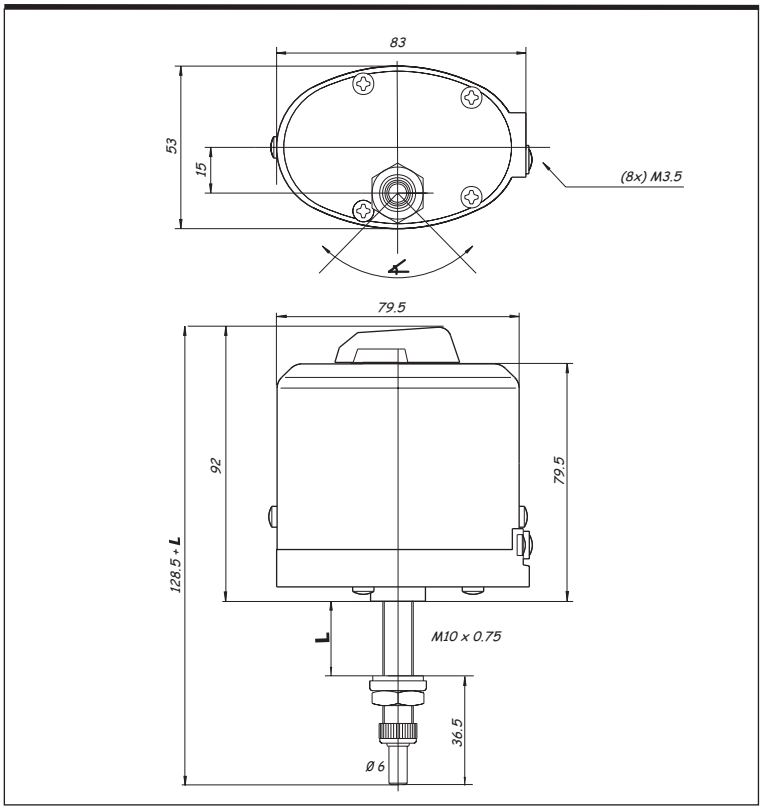
APLICACIONES ORIENTATIVAS - SUGGESTED APPLICATIONS - APPLICATIONS POUR INFORMATION - MÖGLICHE ANWENDUNGEN

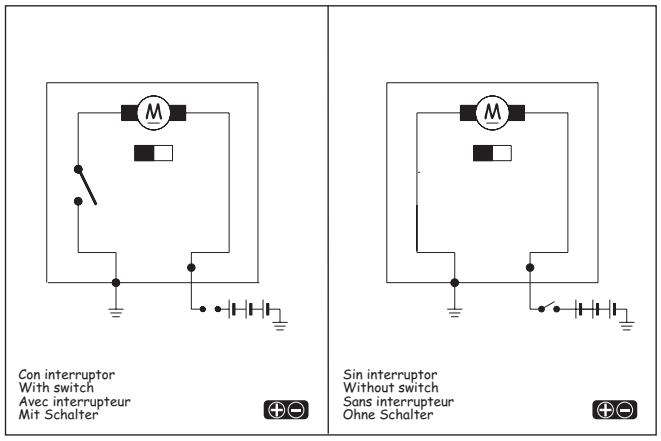


(a) max. 500 mm - 95º
(b) max. 550 mm - 110º

(a) max. 300 mm
(b) max. 330 mm

VER CORRESPONDENCIA MOTORES/BRAZOS PÁG. 39 - REFER TO MOTOR/ARM COMPATIBILITY PAGE 39 - VOIR LA SECTION CORRESPONDANCE MOTEURS/BRAS PAGE 39 - SIEHE CROSSLIST MOTOREN UND WISCHARME SEITE 39





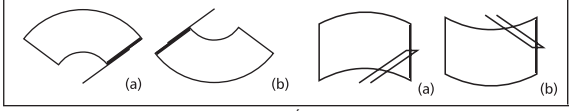
REFERENCIA PART NUMBER REFERENCE REFERENZNUMMER	∡	L	EJE - mm SHAFT - mm AXE - mm WELLE - mm	CICLOS x min CYCLES x m CYCLES x m ZYKLEN x m	DISYUNTOR THERMOSWITCH DISJONCTEUR THERMOSCHALTER	PARO AUTOMÁTICO AUTOMATIC PARK ARRET AUTOMATIQUE PARKSTELLUNG	INTERRUPTOR SWITCH INTERRUPTEUR SCHALTER	VOLTIOS VOLTS VOLTS VOLT
112.1340.2B.00	**85º**	**25**	**⌀ 6**	**40**	**-**	**-**	**✓**	**12**
112.1340.3B.00	**85º**	**25**	**⌀ 6**	**40**	**-**	**-**	**✓**	**24**
112.1380.2B.00	**85º**	**84**	**⌀ 6**	**40**	**-**	**-**	**✓**	**12**
112.1380.3B.00	**85º**	**84**	**⌀ 6**	**40**	**-**	**-**	**✓**	**24**
112.1540.2B.00	**110º**	**25**	**⌀ 6**	**40**	**-**	**-**	**✓**	**12**
112.1540.3B.00	**110º**	**25**	**⌀ 6**	**40**	**-**	**-**	**✓**	**24**
112.1580.2B.00	**110º**	**84**	**⌀ 6**	**40**	**-**	**-**	**✓**	**12**
112.1580.3B.00	**110º**	**84**	**⌀ 6**	**40**	**-**	**-**	**✓**	**24**
112.1642.2B.00	**120º**	**25**	**⌀ 6**	**40**	**✓**	**-**	**✓**	**12**
112.1642.3B.00	**120º**	**25**	**⌀ 6**	**40**	**✓**	**-**	**✓**	**24**

NOTAS - NOTES - REMARQUES - ANMERKUNGEN

- Motores con diferentes opciones en cuanto a longitud de espiga y ángulo de barrido.Disponibles bajo demanda con disyuntor (12v) o sin interruptor.
- Motors with different shaft lengths and sweep angle options. Available upon request with thermoswitch (12V) or without switch.
- Moteurs avec différentes options de longueur de tenon et d'angle de balayage. Disponibles sur demande avec disjoncteur (12 V) ou sans interrupteur.
- Motoren mit unterschiedlichen Optionen für Wellenlänge und Wischwinkel. Auf Wunsch mit Thermoschalter (12V) oder ohne Schalter.

PAR NOMINAL NOMINAL TORQUE COUPLE NOMINAL NENNDREHMOMENT	**1,4** **Nm**	PAR DE ARRANQUE STALL TORQUE COUPLE DE DEMARRAGE ANZUGSMOMENT	**7** **Nm**	EJE - mm SHAFT - mm AXE - mm WELLE - mm	**Ø 6**

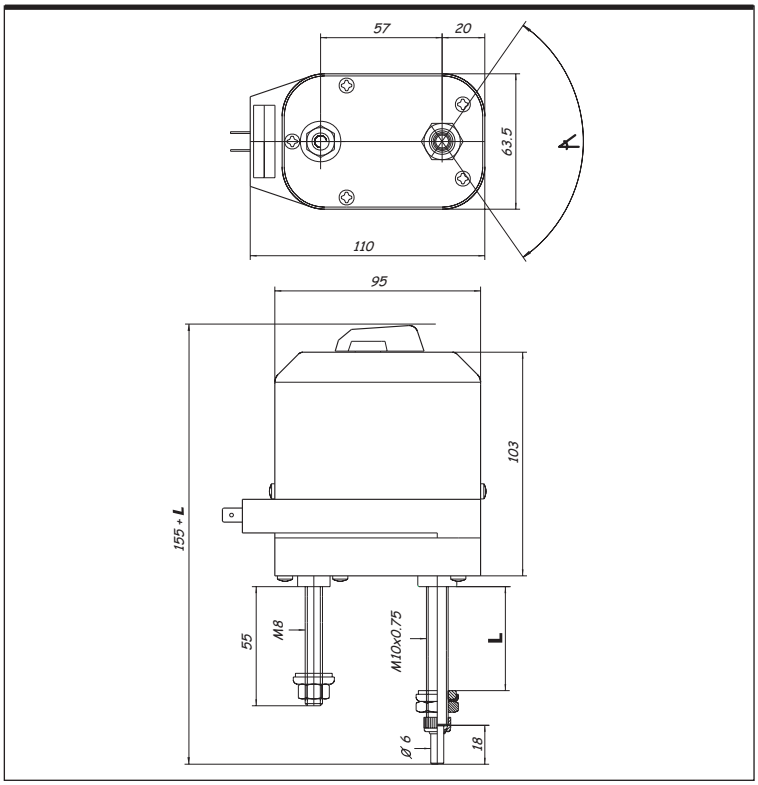
APLICACIONES ORIENTATIVAS - SUGGESTED APPLICATIONS - APPLICATIONS POUR INFORMATION - MÖGLICHE ANWENDUNGEN

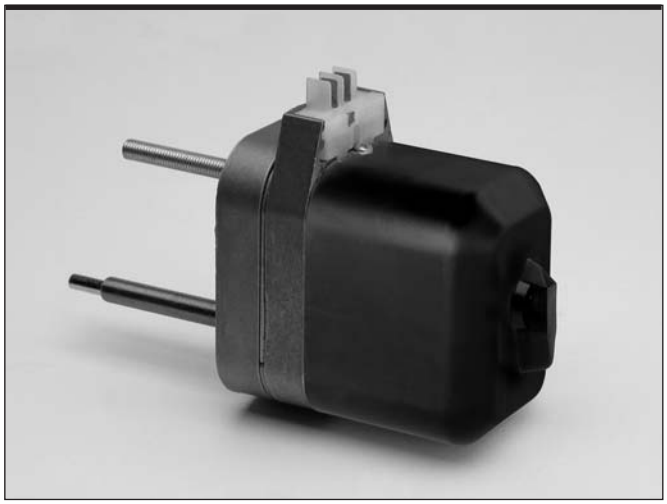


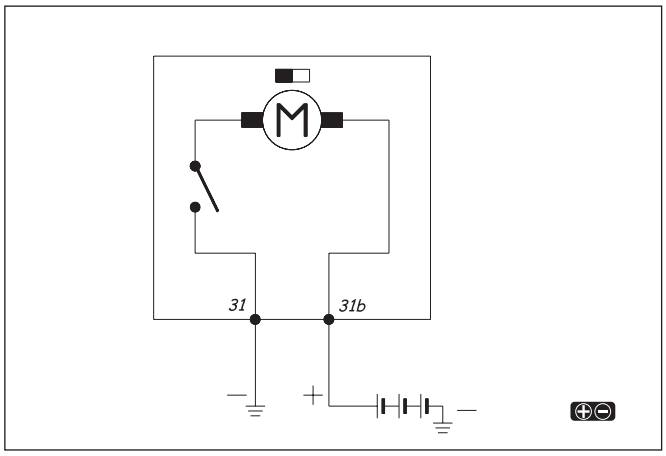
(a) max. 600 mm - 90º
(b) max. 600 mm - 110º

(a) max. 400 mm
(b) max. 400 mm

VER CORRESPONDENCIA MOTORES/BRAZOS PÁG. 39 - REFER TO MOTOR/ARM COMPATIBILITY PAGE 39 - VOIR LA SECTION CORRESPONDANCE MOTEURS/BRAS PAGE 39 - SIEHE CROSSLIST MOTOREN UND WISCHARME SEITE 39







REFERENCIA PART NUMBER REFERENCE REFERENZNUMMER	A	L	EJE - mm SHAFT - mm AXE - mm WELLE - mm	CICLOS x min CYCLES x m CYCLES x m ZYKLEN x m	DISYUNTOR THERMOSWITCH DISJONCTEUR THERMOSCHALTER	PARO AUTOMATICO AUTOMATIC PARK ARRET AUTOMATIQUE PARKSTELLUNG	INTERRUPTOR SWITCH INTERRUPTEUR SCHALTER	VOLTIOS VOLTS VOLTS VOLT
113.2450.2B.00	**90º**	**48**	**Ø 6**	**43**	**-**	**-**	**✓**	**12**
113.2450.3B.00	**90º**	**48**	**Ø 6**	**43**	**-**	**-**	**✓**	**24**
113.2550.2B.00	**110º**	**48**	**Ø 6**	**43**	**-**	**-**	**✓**	**12**
113.2550.3B.00	**110º**	**48**	**Ø 6**	**43**	**-**	**-**	**✓**	**24**

NOTAS - NOTES - REMARQUES - ANMERKUNGEN

- Motores con diferentes opciones en cuanto a longitud de espiga y ángulo de barrido.Disponibles bajo demanda con paro, con disyuntor (sólo 12V).
- Motors with different shaft length and sweep angle options. Available upon request with automatic park, with thermoswitch (12V only).
- Moteurs avec différentes options de longueur de tenon et d'angle de balayage. Disponibles sur demande avec arrêt, disjoncteur (seulement 12V).
- Motoren mit unterschiedlichen Optionen für Wellenlänge und Wischwinkel. Auf Wunsch mit Parkstellung, mit Thermoschalter (nur 12V).

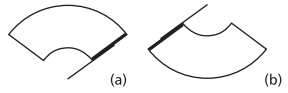
DOGA

motores limpiaparabrisas
windshield wiper motors
moteurs essuie-glace
Scheibenwischermotoren

mod. **113**

PAR NOMINAL NOMINAL TORQUE COUPLE NOMINAL NENNDREHMOMENT	**1,4** **Nm**	PAR DE ARRANQUE STALL TORQUE COUPLE DE DEMARRAGE ANZUGSMOMENT	**7** **Nm**	EJE - mm SHAFT - mm AXE - mm WELLE - mm	**Ø 6**

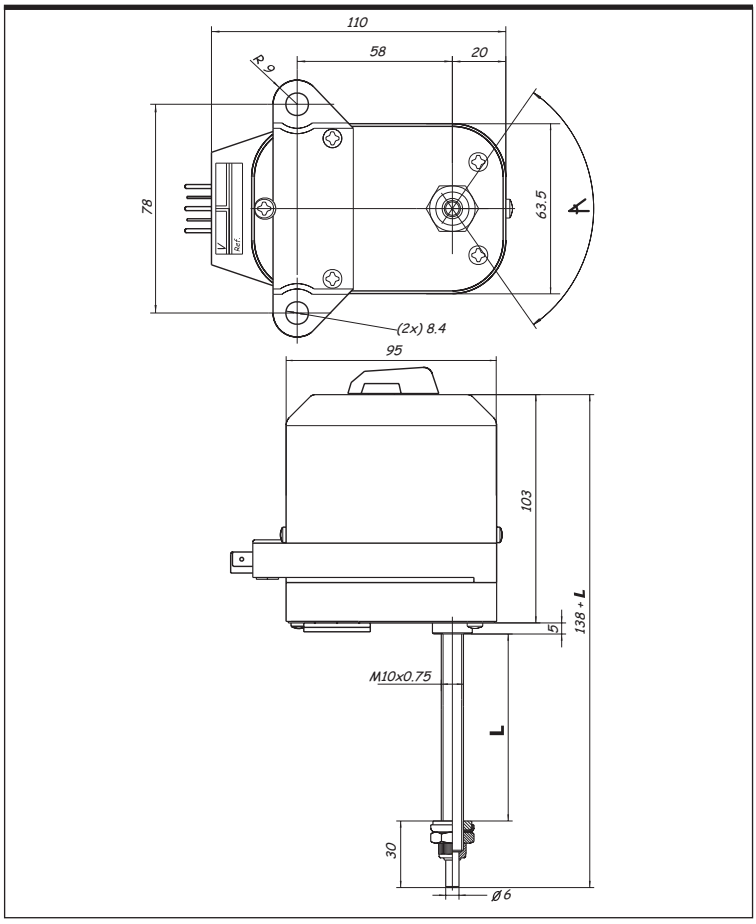
APLICACIONES ORIENTATIVAS - SUGGESTED APPLICATIONS - APPLICATIONS POUR INFORMATION - MÖGLICHE ANWENDUNGEN

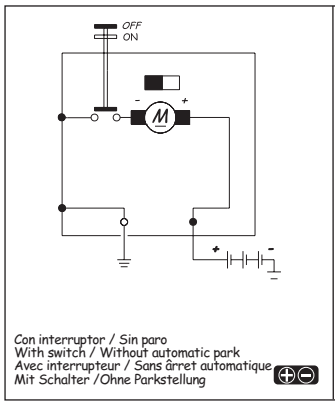


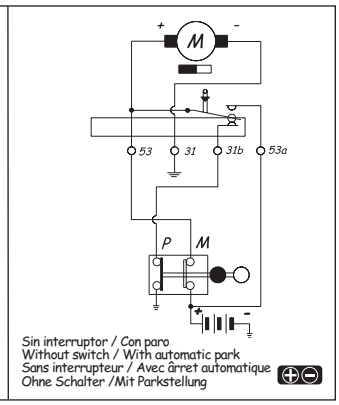
(a) max. 600 mm - 90º
(b) max. 600 mm - 110º

(a) max. 400 mm
(b) max. 400 mm

VER CORRESPONDENCIA MOTORES/BRAZOS PÁG. 39 - REFER TO MOTOR/ARM COMPATIBILITY PAGE 39 - VOIR LA SECTION CORRESPONDANCE MOTEURS/BRAS PAGE 39 - SIEHE CROSSLIST MOTOREN UND WISCHARME SEITE 39







REFERENCIA PART NUMBER REFERENCE REFERENZNUMMER	∡	L	EJE - mm SHAFT - mm AXE - mm WELLE - mm	CICLOS x min CYCLES x m CYCLES x m ZYKLEN x m	DISYUNTOR THERMOSWITCH DISJONCTEUR THERMOSCHALTER	PARO AUTOMÁTICO AUTOMATIC PARK ARRET AUTOMATIQUE PARKSTELLUNG	INTERRUPTOR SWITCH INTERRUPTEUR SCHALTER	VOLTIOS VOLTS VOLTS VOLT
113.3450.2B.00	**90º**	**48**	**Ø 6**	**43**	**-**	**-**	**✓**	**12**
113.3450.3B.00	**90º**	**48**	**Ø 6**	**43**	**-**	**-**	**✓**	**24**
113.3480.2B.00	**90º**	**84**	**Ø 6**	**43**	**-**	**-**	**✓**	**12**
113.3480.3B.00	**90º**	**84**	**Ø 6**	**43**	**-**	**-**	**✓**	**24**
113.3483.2B.*0	**90º**	**84**	**Ø 6**	**43**	**-**	**✓**	**-**	**12**
113.3483.3B.*0	**90º**	**84**	**Ø 6**	**43**	**-**	**✓**	**-**	**24**
113.3580.2B.00	**110º**	**84**	**Ø 6**	**43**	**-**	**-**	**✓**	**12**
113.3580.3B.00	**110º**	**84**	**Ø 6**	**43**	**-**	**-**	**✓**	**24**
113.3583.2B.*0	**110º**	**84**	**Ø 6**	**43**	**-**	**✓**	**-**	**12**
113.3583.3B.*0	**110º**	**84**	**Ø 6**	**43**	**-**	**✓**	**-**	**24**

* Sustituir por I o D. Replace with I or D. Remplacer par I ou D. Durch I oder D ersetzen.

NOTAS - NOTES - REMARQUES - ANMERKUNGEN

- Motores con diferentes opciones en cuanto a longitud de espiga y ángulo de barrido. Disponibles bajo demanda con paro, con disyuntor (sólo 12V) o interruptor.
- Motors with different shaft length and sweep angle options. Available upon request with automatic park, with thermoswitch (12V only) or with switch.
- Moteurs avec différentes options de longueur de tenon et d'angle de balayage. Disponibles sur demande avec arrêt, disjoncteur (seulement 12V) ou interrupteur.
- Motoren mit unterschiedlichen Optionen für Wellenlänge und Wischwinkel. Auf Wunsch mit Parkstellung, mit Thermoschalter (nur 12V) oder Schalter erhältlich.

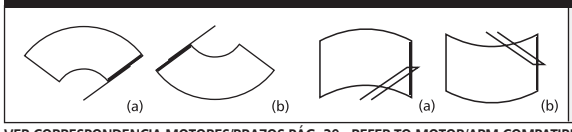
DOGA

motores limpiaparabrisas
windshield wiper motors
moteurs essuie-glace
Scheibenwischermotoren

mod. **113**

PAR NOMINAL NOMINAL TORQUE COUPLE NOMINAL NENNDREHMOMENT	**1,4** **Nm**	PAR DE ARRANQUE STALL TORQUE COUPLE DE DEMARRAGE ANZUGSMOMENT	**7** **Nm**	EJE - mm SHAFT - mm AXE - mm WELLE - mm	**M6**

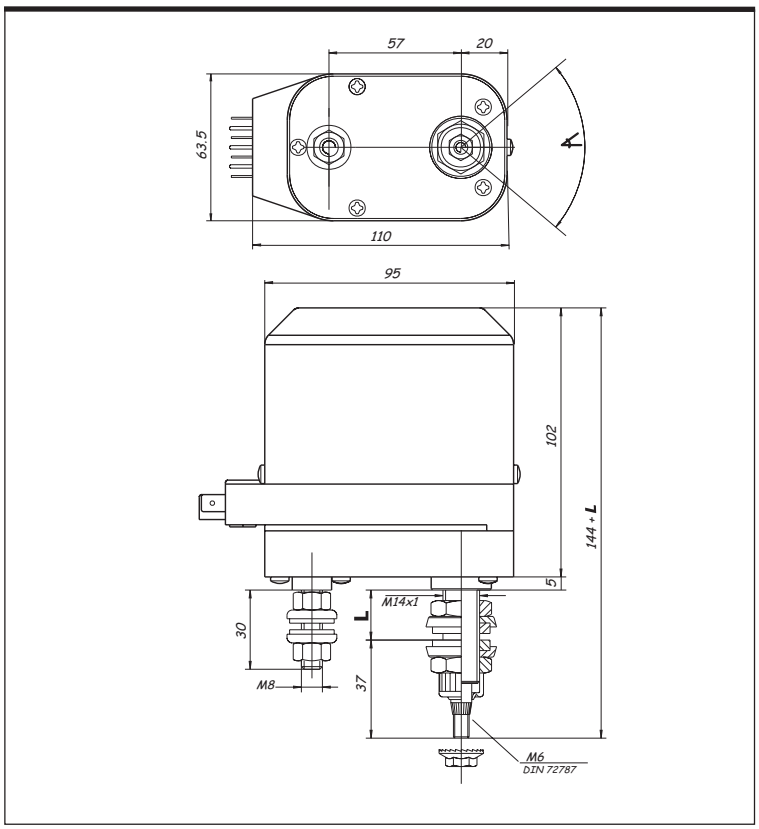
APLICACIONES ORIENTATIVAS - SUGGESTED APPLICATIONS - APPLICATIONS POUR INFORMATION - MÖGLICHE ANWENDUNGEN

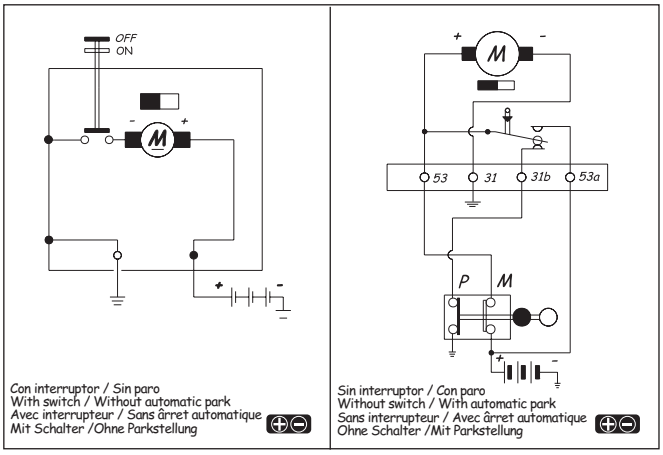


(a) max. 650 mm - 95º
(b) max. 750 mm - 110º

(a) max. 400 mm
(b) max. 500 mm

VER CORRESPONDENCIA MOTORES/BRAZOS PÁG. 39 - REFER TO MOTOR/ARM COMPATIBILITY PAGE 39 - VOIR LA SECTION CORRESPONDANCE MOTEURS/BRAS PAGE 39 - SIEHE CROSSLIST MOTOREN UND WISCHARME SEITE 39





Con interruptor / Sin paro
With switch / Without automatic park
Avec interrupteur / Sans ârret automatique
Mit Schalter /Ohne Parkstellung

Sin interruptor / Con paro
Without switch / With automatic park
Sans interrupteur / Avec ârret automatique
Ohne Schalter /Mit Parkstellung

REFERENCIA PART NUMBER REFERENCE REFERENZNUMMER	∡	L	EJE - mm SHAFT - mm AXE - mm WELLE - mm	CICLOS x min CYCLES x m CYCLES x m ZYKLEN x m	DISYUNTOR THERMOSWITCH DISJONCTEUR THERMOSCHALTER	PARO AUTOMÁTICO AUTOMATIC PARK ARRET AUTOMATIQUE PARKSTELLUNG	INTERRUPTOR SWITCH INTERRUPTEUR SCHALTER	VOLTIOS VOLTS VOLTS VOLT
113.5323.2B.*0	**80º**	**19**	**M 6**	**43**	**-**	**√**	**-**	**12**
113.5323.3B.*0	**80º**	**19**	**M 6**	**43**	**-**	**√**	**-**	**24**
113.5330.2B.00	**80º**	**30**	**M 6**	**43**	**-**	**-**	**√**	**12**
113.5330.3B.00	**80º**	**30**	**M 6**	**43**	**-**	**-**	**√**	**24**
113.5420.2B.00	**90º**	**19**	**M 6**	**43**	**-**	**-**	**√**	**12**
113.5420.3B.00	**90º**	**19**	**M 6**	**43**	**-**	**-**	**√**	**24**
113.5423.2B.*0	**90º**	**19**	**M 6**	**43**	**-**	**√**	**-**	**12**
113.5423.3B.*0	**90º**	**19**	**M 6**	**43**	**-**	**√**	**-**	**24**
113.5470.2B.00	**90º**	**60**	**M 6**	**43**	**-**	**-**	**√**	**12**
113.5470.3B.00	**90º**	**60**	**M 6**	**43**	**-**	**-**	**√**	**24**
113.5520.2B.00	**110º**	**19**	**M 6**	**43**	**-**	**-**	**√**	**12**
113.5520.3B.00	**110º**	**19**	**M 6**	**43**	**-**	**-**	**√**	**24**
113.5523.2B.*4	**110º**	**19**	**M 6**	**43**	**-**	**√**	**-**	**12**
113.5523.3B.*4	**110º**	**19**	**M 6**	**43**	**-**	**√**	**-**	**24**
113.5526.2B.00	**110º**	**19**	**M 6**	**43**	**√**	**-**	**√**	**12**
113.5623.2B.*0	**95º**	**19**	**M 6**	**43**	**-**	**√**	**-**	**12**
113.5623.3B.*0	**95º**	**19**	**M 6**	**43**	**-**	**√**	**-**	**24**

* Sustituir por I o D. Replace with I or D. Remplacer par I ou D. Durch I oder D ersetzen.

NOTAS - NOTES - REMARQUES - ANMERKUNGEN

- Motores con diferentes opciones en cuanto a longitud de espiga y ángulo de barrido. Disponibles bajo demanda sin paro, con disyuntor (sólo 12V), o interruptor.
- Motors with different shaft lengths and sweep angle options. Available upon request without automatic park, with thermoswitch (12V only), or with switch.
- Moteurs avec différentes options de longueur de tenon et d'angle de balayage. Disponibles sur demande sans arrêt, avec disjoncteur (seulement 12 V), ou avec interrupteur.
- Motoren mit unterschiedlichen Optionen für Zapfenlänge und Wischwinkel. Auf Wunsch ohne Parkstellung, mit Thermoschalter (nur 12V), mit Schalter erhältlich.

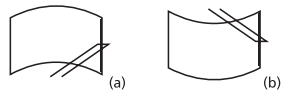
DOGA

motores limpiaparabrisas
windshield wiper motors
moteurs essuie-glace
Scheibenwischermotoren

mod. **113**

PAR NOMINAL NOMINAL TORQUE COUPLE NOMINAL NENNDREHMOMENT	**1,4** **Nm**	PAR DE ARRANQUE STALL TORQUE COUPLE DE DEMARRAGE ANZUGSMOMENT	**7** **Nm**	EJE - mm SHAFT - mm AXE - mm WELLE - mm	**M6**

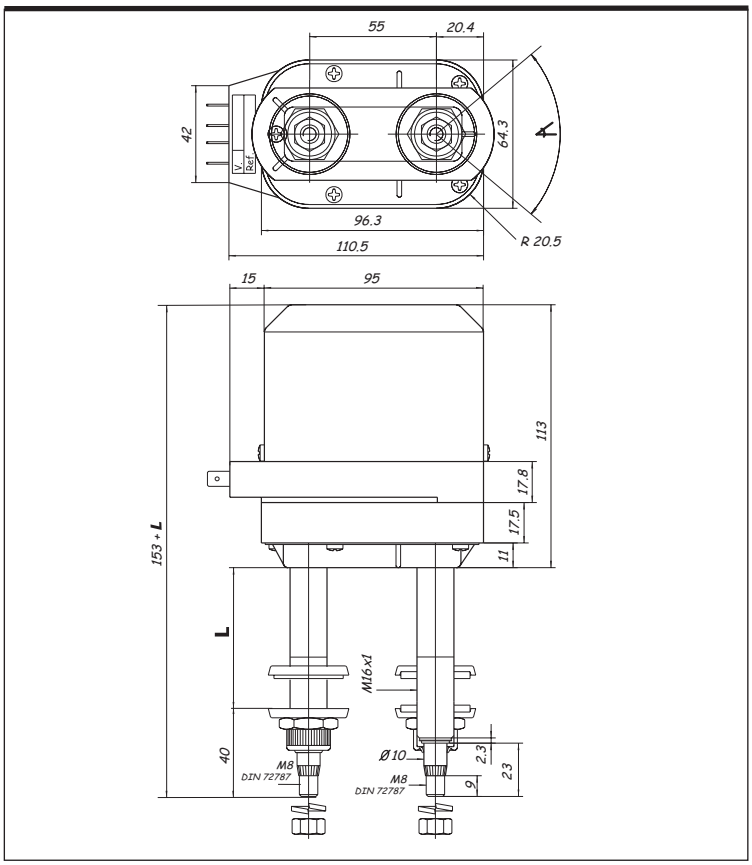
APLICACIONES ORIENTATIVAS - SUGGESTED APPLICATIONS - APPLICATIONS POUR INFORMATION - MÖGLICHE ANWENDUNGEN

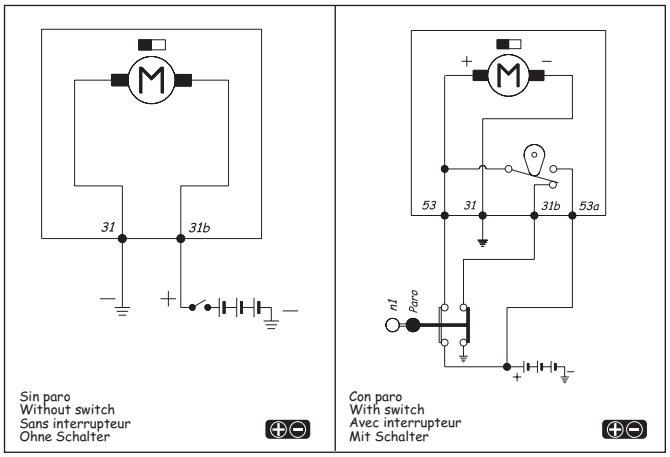


(a) max. 650 mm - 90º
(b) max. 750 mm - 90º

(a) max. 400 mm
(b) max. 500 mm

VER CORRESPONDENCIA MOTORES/BRAZOS PÁG. 39 - REFER TO MOTOR/ARM COMPATIBILITY PAGE 39 - VOIR LA SECTION CORRESPONDANCE MOTEURS/BRAS PAGE 39 - SIEHE CROSSLIST MOTOREN UND WISCHARME SEITE 39





REFERENCIA PART NUMBER REFERENCE REFERENZNUMMER	4	L	EJE - mm SHAFT - mm AXE - mm WELLE - mm	CICLOS x min CYCLES x m CYCLES x m ZYKLEN x m	DISYUNTOR THERMOSWITCH DISJONCTEUR THERMOSCHALTER	PARO AUTOMÁTICO AUTOMATIC PARK ARRET AUTOMATIQUE PARKSTELLUNG	INTERRUPTOR SWITCH INTERRUPTEUR SCHALTER	VOLTIOS VOLTS VOLTS VOLT
113.7213.2B.*4	**60º**	**4**	**M 8**	**43**	**-**	**√**	**-**	**12**
113.7213.3B.*4	**60º**	**4**	**M 8**	**43**	**-**	**√**	**-**	**24**
113.7243.2B.*0	**60º**	**25**	**M 8**	**43**	**-**	**√**	**-**	**12**
113.7243.3B.*0	**60º**	**25**	**M 8**	**43**	**-**	**√**	**-**	**24**
113.7263.2B.*0	**60º**	**54**	**M 8**	**43**	**-**	**√**	**-**	**12**
113.7263.3B.*0	**60º**	**54**	**M 8**	**43**	**-**	**√**	**-**	**24**
113.7443.2B.*0	**90º**	**25**	**M 8**	**43**	**-**	**√**	**-**	**12**
113.7443.3B.*0	**90º**	**25**	**M 8**	**43**	**-**	**√**	**-**	**24**
113.7463.2B.*0	**90º**	**54**	**M 8**	**43**	**-**	**√**	**-**	**12**
113.7463.3B.*0	**90º**	**54**	**M 8**	**43**	**-**	**√**	**-**	**24**

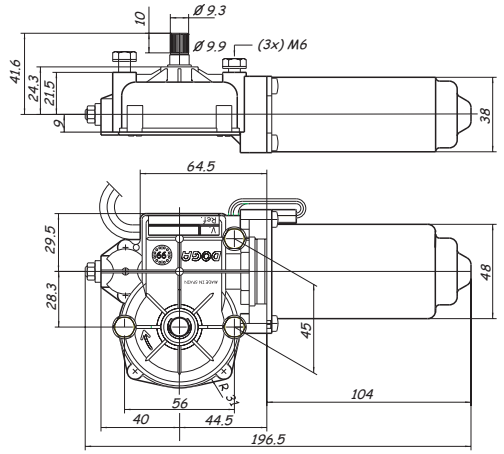
* Sustituir por I o D. Replace with I or D. Remplacer par I ou D. Durch I oder D ersetzen.

NOTAS - NOTES - REMARQUES - ANMERKUNGEN

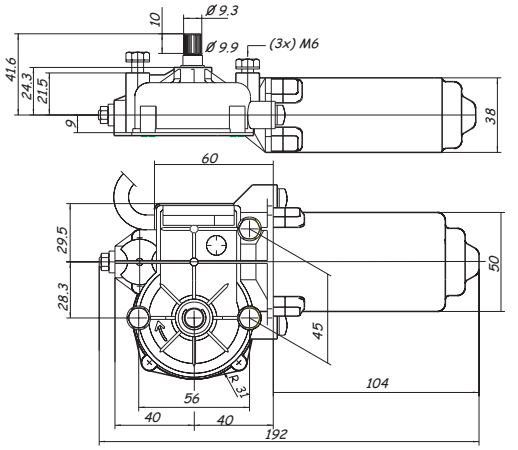
- Motores con diferentes opciones en cuanto a longitud de espiga y ángulo de barrido. Disponibles bajo demanda sin paro, con disyuntor (sólo 12V) o con interruptor.
- Motors with different shaft lengths and sweep angle options. Available upon request without automatic park, with thermoswitch (12V only) or with switch.
- Moteurs avec différentes options de longueur de tenon et d'angle de balayage. Disponibles sur demande sans arrêt, avec disjoncteur (seulement 12 V) ou avec interrupteur.
- Motoren mit unterschiedlichen Optionen für Zapfenlänge und Wischwinkel. Auf Wunsch ohne Parkstellung, mit Thermoschalter (nur 12V) oder mit Schalter.

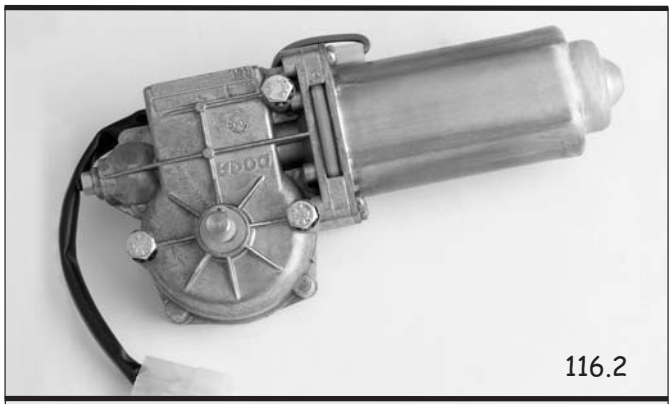
PAR NOMINAL NOMINAL TORQUE COUPLE NOMINAL NENNDREHMOMENT	**1,8** **Nm**	PAR DE ARRANQUE STALL TORQUE COUPLE DE DEMARRAGE ANZUGSMOMENT	**10** **Nm**	EJE - mm SHAFT - mm AXE - mm WELLE - mm	**Ø 9,3**

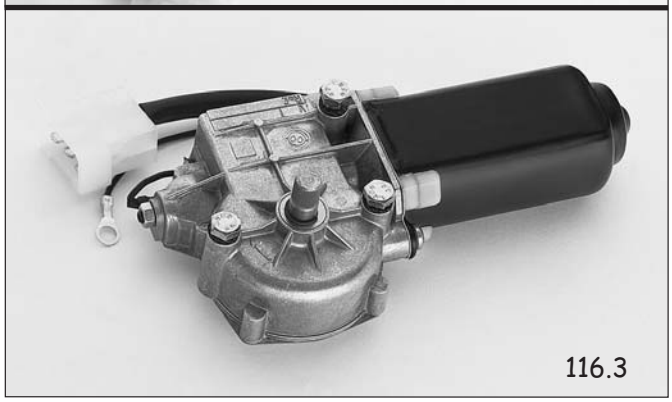
116.2

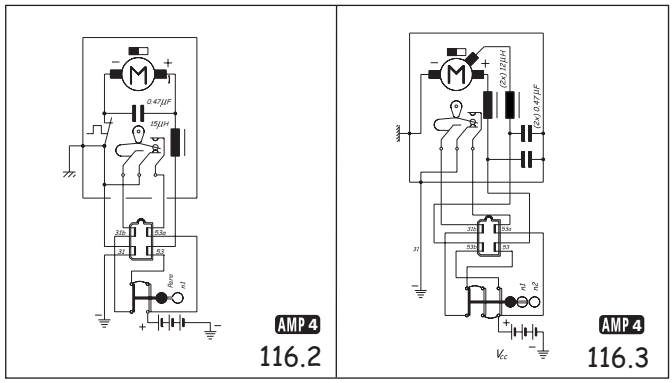


116.3









REFERENCIA PART NUMBER REFERENCE REFERENZNUMMER	EJE - mm SHAFT - mm AXE - mm WELLE - mm	R.P.M.	DISYUNTOR THERMOSWITCH DISJONCTEUR THERMOSCHALTER	PARO AUTOMÁTICO AUTOMATIC PARK ARRET AUTOMATIQUE PARKSTELLUNG	VOLTIOS VOLTS VOLTS VOLT
116.2719.2B.00.E	**ø 9,3**	**50**	**✓**	**✓**	**12**
116.2719.3B.00.E	**ø 9,3**	**50**	**✓**	**✓**	**24**
116.3716.2B.00.E	**ø 9,3**	**47/60**	**-**	**✓**	**12**
116.3716.3B.00.E	**ø 9,3**	**47/60**	**-**	**✓**	**24**

NOTAS - NOTES - REMARQUES - ANMERKUNGEN

- Motores antiparasitados (E), disponibles bajo demanda con disyuntor y sin filtro antiparasitario. También con otras características de eje.
- Motors are available upon request with thermoswitch, without RFI supression and with other shaft configurations.
- Moteurs antiparasités (E) disponibles sur demande avec disjoncteur, et sans système antiparasites. Disponibles aussi avec d'autres caractéristiques d'axe.
- Motoren sind auf Wunsch mit Thermoschalter und ohne Entstörfilter (E) lieferbar. Andere Achsausführungen sind lieferbar.

OPCIÓN DE INTERMITENCIA INTEGRADA (ver final motores 116)
INTEGRATED INTERMITTENT OPTION (see end of 116 motors)
OPTION D'INTERMITTENCE INTEGREE (voir fin moteurs 116)
OPTION INTEGRIERTER INTERVALLSCHALTUNG (siehe Motoren 116 am Ende)

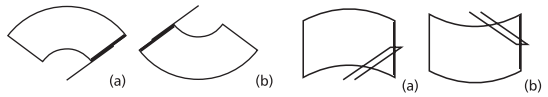
DOGA

motores limpiaparabrisas
windshield wiper motors
moteurs essuie-glace
Scheibenwischermotoren

mod. **116**

PAR NOMINAL NOMINAL TORQUE COUPLE NOMINAL NENNDREHMOMENT	**1,8** **Nm**	PAR DE ARRANQUE STALL TORQUE COUPLE DE DEMARRAGE ANZUGSMOMENT	**10** **Nm**	EJE - mm SHAFT - mm AXE - mm WELLE - mm	**M8**

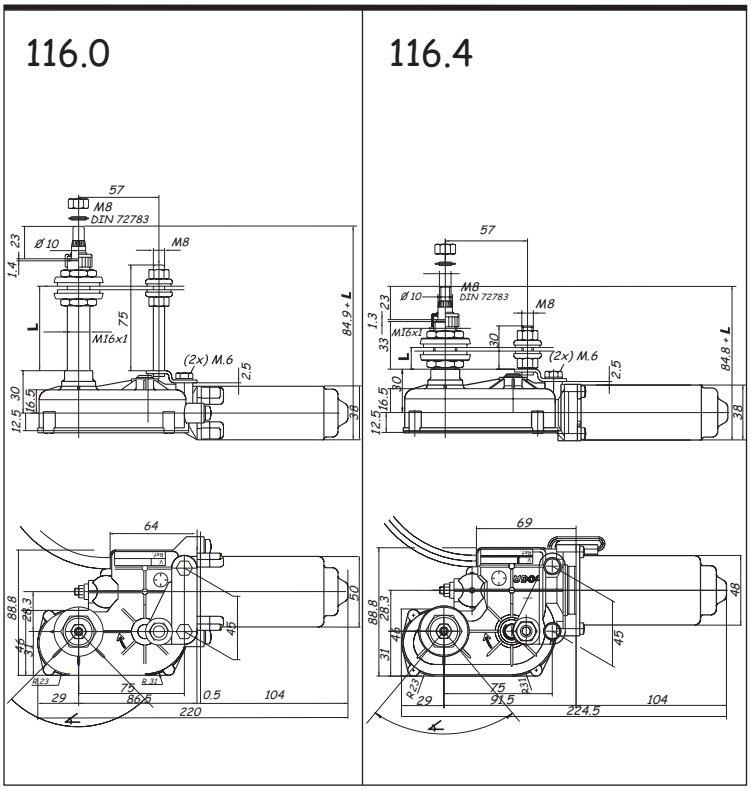
APLICACIONES ORIENTATIVAS - SUGGESTED APPLICATIONS - APPLICATIONS POUR INFORMATION - MÖGLICHE ANWENDUNGEN

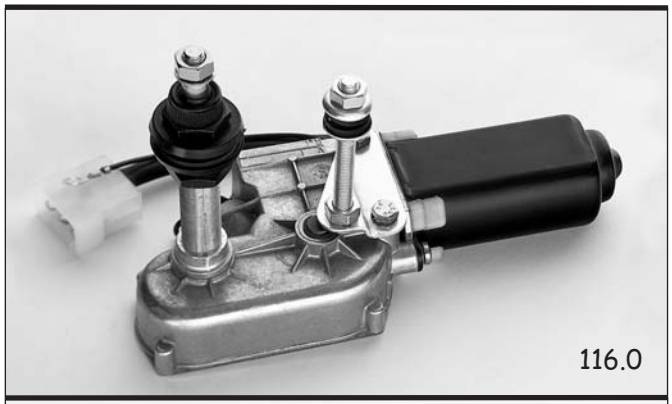


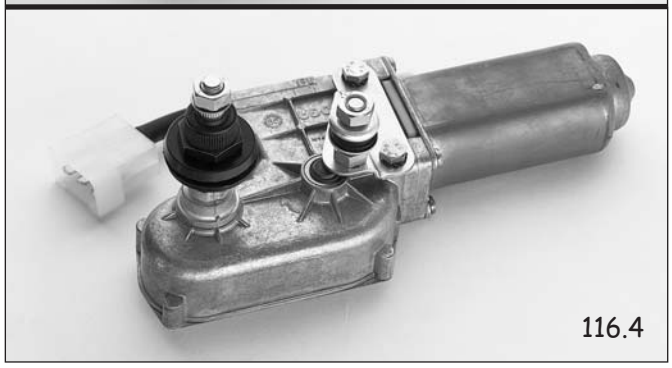
(a) max. 750 mm - 90º
(b) max. 850 mm - 110º

(a) max. 500 mm
(b) max. 500 mm

VER CORRESPONDENCIA MOTORES/BRAZOS PÁG. 39 - REFER TO MOTOR/ARM COMPATIBILITY PAGE 39 - VOIR LA SECTION CORRESPONDANCE MOTEURS/BRAS PAGE 39 - SIEHE CROSSLIST MOTOREN UND WISCHARME SEITE 39



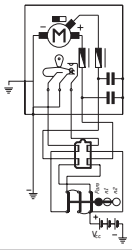




REFERENCIA PART NUMBER REFERENCE REFERENZNUMMER	∠	L	EJE - mm SHAFT - mm AXE - mm WELLE - mm	CICLOS x min CYCLES x m CYCLES x m ZYKLEN x m	DISYUNTOR THERMOSWITCH DISJONCTEUR THERMOSCHALTER	PARO AUTOMÁTICO AUTOMATIC PARK ARRET AUTOMATIQUE PARKSTELLUNG	INTERRUPTOR SWITCH INTERRUPTEUR SCHALTER	VOLTIOS VOLTS VOLTS VOLT
116.0180.2B.*0.E	**70º**	**60**	**M 8**	**47/60**	✓	✓	-	**12**
116.0180.3B.*0.E	**70º**	**60**	**M 8**	**47/60**	✓	✓	-	**24**
116.0480.2B.*0.E	**90º**	**60**	**M 8**	**47/60**	✓	✓	-	**12**
116.0480.3B.*0.E	**90º**	**60**	**M 8**	**47/60**	✓	✓	-	**24**
116.0866.2B.*0.E	**110º**	**30**	**M 8**	**47/60**	-	✓	-	**12**
116.0866.3B.*0.E	**110º**	**30**	**M 8**	**47/60**	-	✓	-	**24**
116.4455.2B.*0.E	**90º**	**15**	**M 8**	**50**	-	✓	-	**12**
116.4455.3B.*0.E	**90º**	**15**	**M 8**	**50**	-	✓	-	**24**
116.4459.2B.*0.E	**90º**	**15**	**M 8**	**50**	✓	✓	-	**12**
116.4459.3B.*0.E	**90º**	**15**	**M 8**	**50**	✓	✓	-	**24**
116.4465.2B.*0.E	**90º**	**30**	**M 8**	**50**	-	✓	-	**12**
116.4465.3B.*0.E	**90º**	**30**	**M 8**	**50**	-	✓	-	**24**
116.4469.2B.*0.E	**90º**	**30**	**M 8**	**50**	✓	✓	-	**12**
116.4469.3B.*0.E	**90º**	**30**	**M 8**	**50**	✓	✓	-	**24**
116.4485.2B.*0.E	**90º**	**60**	**M 8**	**50**	-	✓	-	**12**
116.4485.3B.*0.E	**90º**	**60**	**M 8**	**50**	-	✓	-	**24**

* Sustituir por I o D. Replace with I or D. Remplacer par I ou D. Durch I oder D ersetzen.

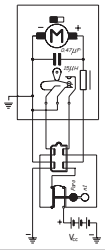
Dos velocidades / Sin disyuntor
Two speed / Without thermoswitch
Deux vitesses / Sans disjoncteur
Zwei Geschwindigkeiten / Ohne Thermoschalter



AMP 4

116.0

Una velocidad / Sin disyuntor
One speed / Without thermoswitch
Une vitesse / Sans disjoncteur
Eine Geschwindigkeit / Ohne Thermoschalter



AMP 4

116.4

NOTAS - NOTES - REMARQUES - ANMERKUNGEN

- Motores antiparasitados con diferentes opciones en cuanto a longitud de espiga y ángulo de barrido. Disponibles bajo demanda con espiga M 14, sin filtro antiparasitario, sin paro, con disyuntor o con interruptor. Para opción de dos velocidades ver ref. 116.0.
- RFI suppressed motors with different shaft lengths and sweep angle options. Available upon request with M 14 shafts, without RFI suppression, without automatic park, with thermoswitch or with switch. For two-speed option, see model no. 116.0.
- Moteurs antiparasités avec différentes options de longueur de tenon et d'angle de balayage. Disponibles sur demande avec tenon M 14, sans système antiparasites, sans arrêt, avec disjoncteur ou avec interrupteur. Pour option deux vitesses, voir réf. 116.0.
- Motoren mit unterschiedlichen Optionen für Wellenlänge und Wischwinkel. Auf Wunsch mit Welle M 14, mit oder ohne Entstörfilter (E), ohne Parkstellung, mit Thermoschalter oder mit Schalter erhältlich. Für die Option mit zwei Geschwindigkeiten siehe Ref. 116.0.

OPCIÓN DE INTERMITENCIA INTEGRADA (ver final motores 116)
INTEGRATED INTERMITTENT OPTION (see end of 116 motors)
OPTION D'INTERMITTENCE INTEGREE (voir fin moteurs 116)
OPTION INTEGRIERTER INTERVALLSCHALTUNG (siehe Motoren 116 am Ende)

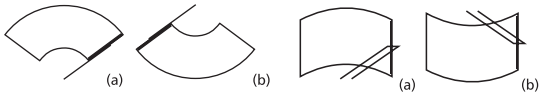
DOGA

motores limpiaparabrisas
windshield wiper motors
moteurs essuie-glace
Scheibenwischermotoren

mod. **116**

PAR NOMINAL NOMINAL TORQUE COUPLE NOMINAL NENNDREHMOMENT	**1,8** **Nm**	PAR DE ARRANQUE STALL TORQUE COUPLE DE DEMARRAGE ANZUGSMOMENT	**10** **Nm**	EJE - mm SHAFT - mm AXE - mm WELLE - mm	**M6**

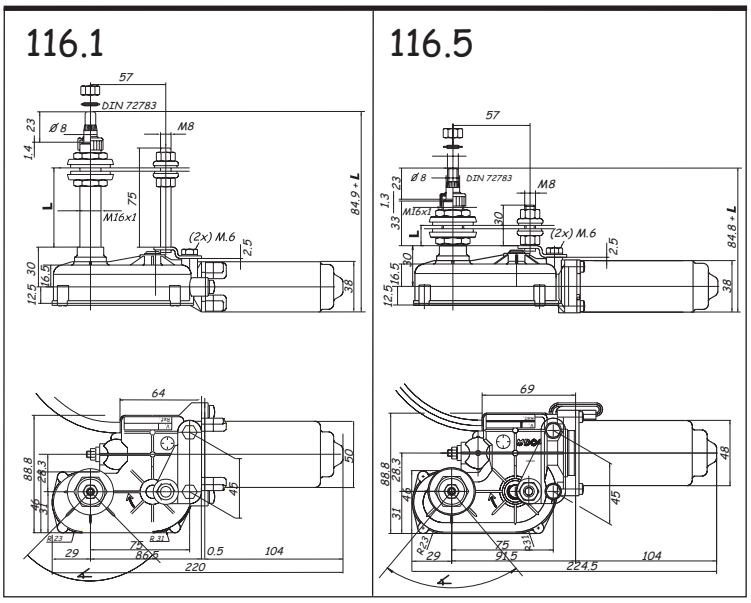
APLICACIONES ORIENTATIVAS - SUGGESTED APPLICATIONS - APPLICATIONS POUR INFORMATION - MÖGLICHE ANWENDUNGEN

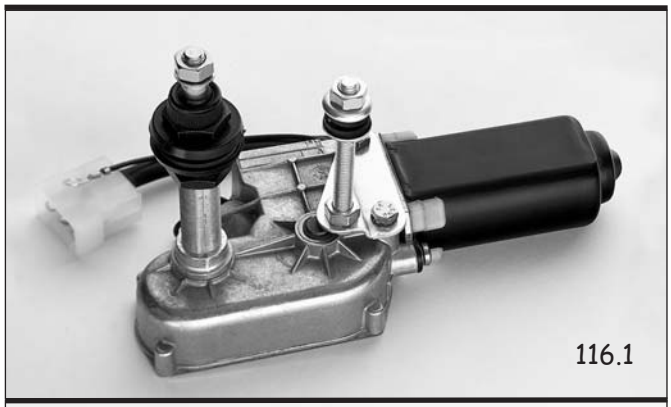


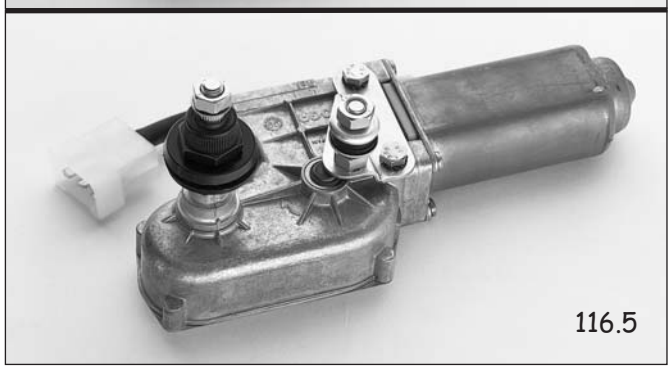
(a) max. 750 mm - 90º
(b) max. 850 mm - 110º

(a) max. 500 mm
(b) max. 500 mm

VER CORRESPONDENCIA MOTORES/BRAZOS PÁG. 39 - REFER TO MOTOR/ARM COMPATIBILITY PAGE 39 - VOIR LA SECTION CORRESPONDANCE MOTEURS/BRAS PAGE 39 - SIEHE CROSSLIST MOTOREN UND WISCHARME SEITE 39



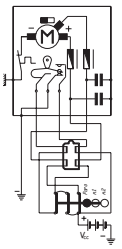




REFERENCIA PART NUMBER REFERENCE REFERENZNUMMER	∠	L	EJE - mm SHAFT - mm AXE - mm WELLE - mm	CICLOS x min CYCLES x m CYCLES x m ZYKLEN x m	DISYUNTOR THERMOSWITCH DISJONCTEUR THERMOSCHALTER	PARO AUTOMÁTICO AUTOMATIC PARK ARRET AUTOMATIQUE PARKSTELLUNG	INTERRUPTOR SWITCH INTERRUPTEUR SCHALTER	VOLTIOS VOLTS VOLTS VOLT
116.1410.2B.*0.E	**90º**	**15** (M14)	**M 6**	**47/60**	✓	✓	-	**12**
116.1410.3B.*0.E	**90º**	**15** (M14)	**M 6**	**47/60**	✓	✓	-	**24**
116.1486.2B.*0.E	**90º**	**60** (M16)	**M 6**	**47/60**	-	✓	-	**12**
116.1486.3B.*0.E	**90º**	**60** (M16)	**M 6**	**47/60**	-	✓	-	**24**
116.1816.2B.*0.E	**110º**	**30** (M14)	**M 6**	**47/60**	-	✓	-	**12**
116.1816.3B.*0.E	**110º**	**30** (M14)	**M 6**	**47/60**	-	✓	-	**24**
116.5265.2B.*0.E	**80º**	**30** (M16)	**M 6**	**50**	-	✓	-	**12**
116.5265.3B.*0.E	**80º**	**30** (M16)	**M 6**	**50**	-	✓	-	**24**
116.5269.2B.*0.E	**80º**	**30** (M16)	**M 6**	**50**	✓	✓	-	**12**
116.5269.3B.*0.E	**80º**	**30** (M16)	**M 6**	**50**	✓	✓	-	**24**
116.5365.2B.*0.E	**85º**	**30** (M16)	**M 6**	**50**	-	✓	-	**12**
116.5365.3B.*0.E	**85º**	**30** (M16)	**M 6**	**50**	-	✓	-	**24**
116.5455.2B.*0.E	**90º**	**15** (M16)	**M 6**	**50**	-	✓	-	**12**
116.5455.3B.*0.E	**90º**	**15** (M16)	**M 6**	**50**	-	✓	-	**24**
116.5465.2B.*0.E	**90º**	**30** (M16)	**M 6**	**50**	-	✓	-	**12**
116.5465.3B.*0.E	**90º**	**30** (M16)	**M 6**	**50**	-	✓	-	**24**
116.5469.2B.*0.E	**90º**	**30** (M16)	**M 6**	**50**	✓	✓	-	**12**
116.5469.3B.*0.E	**90º**	**30** (M16)	**M 6**	**50**	✓	✓	-	**24**
116.5565.2B.*0.E	**95º**	**30** (M16)	**M 6**	**50**	-	✓	-	**12**
116.5565.3B.*0.E	**95º**	**30** (M16)	**M 6**	**50**	-	✓	-	**24**
116.5862.2B.00.E	**110º**	**30** (M16)	**M 6**	**50**	-	-	✓	**12**
116.5862.3B.00.E	**110º**	**30** (M16)	**M 6**	**50**	-	-	✓	**24**
116.5865.2B.*0.E	**110º**	**30** (M16)	**M 6**	**50**	-	✓	-	**12**
116.5865.3B.*0.E	**110º**	**30** (M16)	**M 6**	**50**	-	✓	-	**24**
116.5869.2B.*0.E	**110º**	**30** (M16)	**M 6**	**50**	✓	✓	-	**12**
116.5869.3B.*0.E	**110º**	**30** (M16)	**M 6**	**50**	✓	✓	-	**24**

* Sustituir por I o D. Replace with I or D. Remplacer par I ou D. Durch I oder D ersetzen.

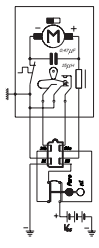
Dos velocidades / Con disyuntor
Two speed / With thermoswitch
Deux vitesses / Avec disjoncteur
Zwei Geschwindigkeiten / Mit Thermoschalter



AMP 4

116.1

Una velocidad / Con disyuntor
One speed / With thermoswitch
Une vitesse / Avec disjoncteur
Eine Geschwindigkeit / Mit Thermoschalter



AMP 4

116.5

NOTAS - NOTES - REMARQUES - ANMERKUNGEN

- Motores antiparasitados (E), disponibles bajo demanda con disyuntor, sin filtro antiparasitario y sin paro automático. También con otras características de eje.
- RFI suppressed motors (E), available upon request with thermoswitch, without RFI suppression and without automatic park. Also available with various shaft types.
- Moteurs antiparasites (E), disponibles sur demande sur demande avec disjoncteur, sans système antiparasites et sans arrêt automatique. Disponibles aussi avec d'autres caractéristiques d'axe.
- Auf Wunsch mit Thermoschalter, mit oder ohne Entstörfilter (E) erhältlich. Andere Achsausführungen sind lieferbar.

OPCIÓN DE INTERMITENCIA INTEGRADA (ver final motores 116)
INTEGRATED INTERMITTENT OPTION (see end of 116 motors)
OPTION D'INTERMITTENCE INTEGREE (voir fin moteurs 116)
OPTION INTEGRIERTER INTERVALLSCHALTUNG (siehe Motoren 116 am Ende)

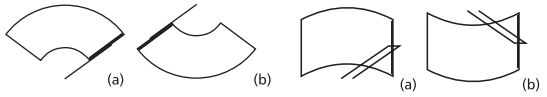
DOGA

motores limpiaparabrisas
windshield wiper motors
moteurs essuie-glace
Scheibenwischermotoren

mod. **116** special

PAR NOMINAL NOMINAL TORQUE COUPLE NOMINAL NENNDREHMOMENT	**1,8** **Nm**	PAR DE ARRANQUE STALL TORQUE COUPLE DE DEMARRAGE ANZUGSMOMENT	**10** **Nm**	EJE - mm SHAFT - mm AXE - mm WELLE - mm	**M8**	**M6**

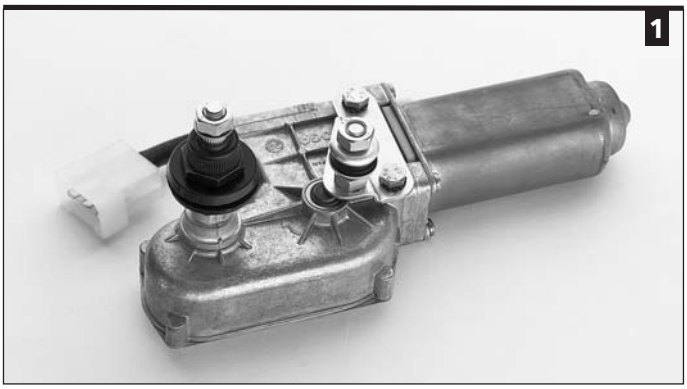
APLICACIONES ORIENTATIVAS - SUGGESTED APPLICATIONS - APPLICATIONS POUR INFORMATION - MÖGLICHE ANWENDUNGEN

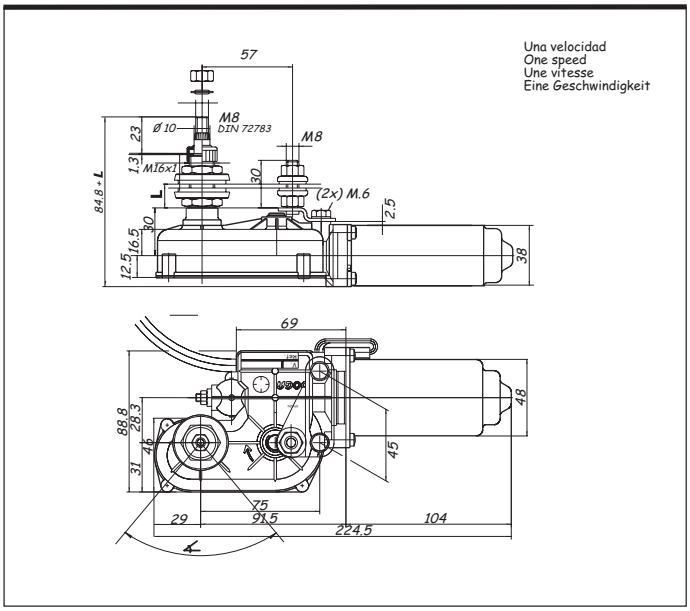


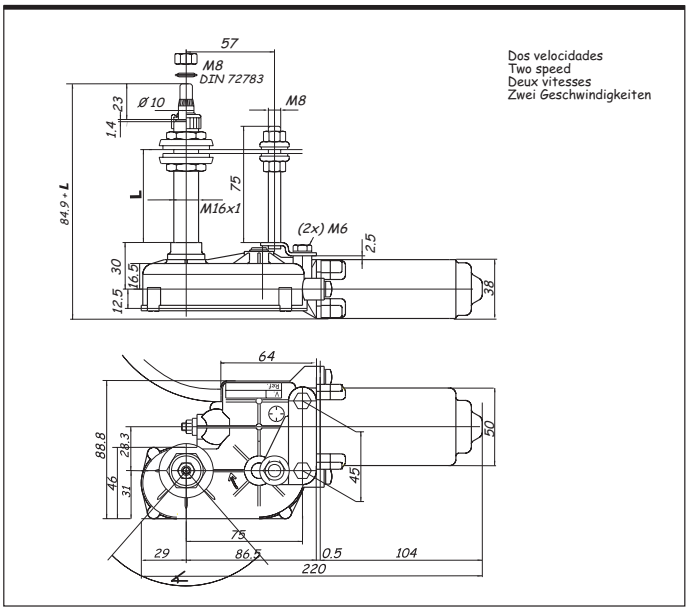
(a) max. 650 mm
(b) max. 700 mm

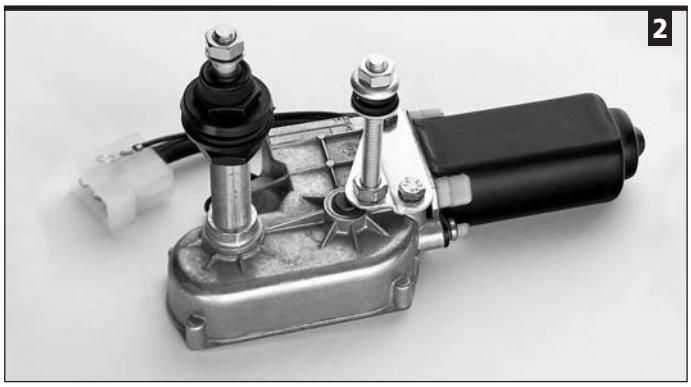
(a) max. 400 mm
(b) max. 450 mm

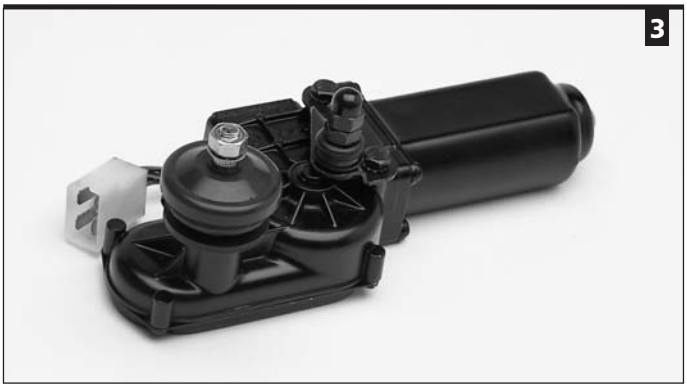
VER CORRESPONDENCIA MOTORES/BRAZOS PÁG. 39 - REFER TO MOTOR/ARM COMPATIBILITY PAGE 39 - VOIR LA SECTION CORRESPONDANCE MOTEURS/BRAS PAGE 39 - SIEHE CROSSLIST MOTOREN UND WISCHARME SEITE 39

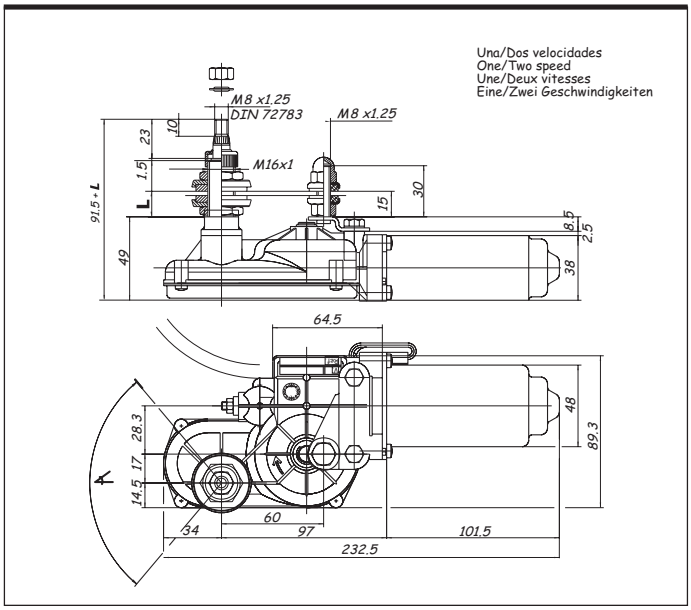










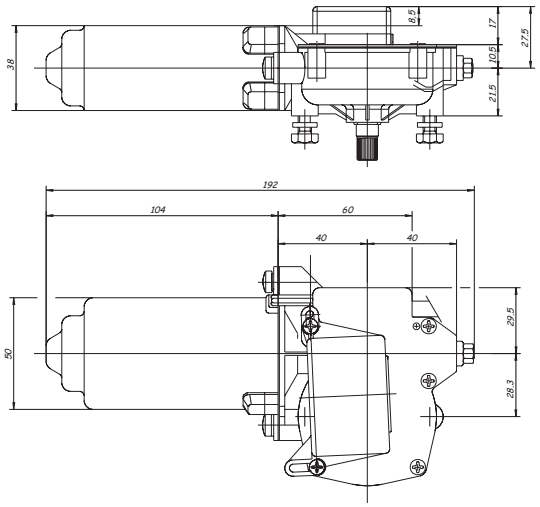


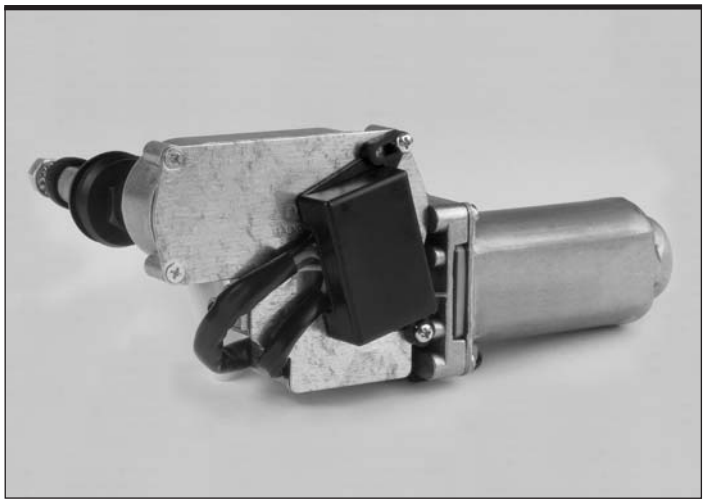
REFERENCIA PART NUMBER REFERENCE REFERENZNUMMER	∡	L	EJE - mm SHAFT - mm AXE - mm WELLE - mm	CICLOS x min CYCLES x m CYCLES x m ZYKLEN x m	ANTIPARASITADO RFI ANTIPARASITE ENTSTÖRFILTER	DISYUNTOR THERMOSWITCH DISJONCTEUR THERMOSCHALTER	CONECTOR CONNECTOR CONNECTEUR ANSCHLUSS	PARO AUTOMÁTICO AUTOMATIC PARK ARRET AUTOMATIQUE PARKSTELLUNG	INTERRUPTOR SWITCH INTERRUPTEUR SCHALTER	VOLTIOS VOLTS VOLTS VOLT	PLANO ILLUSTRATION PLAN ZEICHNUNG
116.9067.2B.D0	105º	45	M 8	47 / 60	✓	✓	AMP 4	✓	-	12	2
116.9075.3B.*0	60º	15	M 8	47 / 60	-	✓	DEUTSCH 6	✓	-	24	2
116.9076.3B.*0	85º	3	M 8	47 / 60	-	✓	DEUTSCH 6	✓	-	24	2
116.9109.2B.*0	95º	15	M 8	47 / 60	✓	-	AMP 4	✓	-	12	2
116.9133.2B.I4.T	110º	30	M 8	47 / 60	✓	✓	AMP 4	✓	-	12	2
116.9134.2B.I0	90º	15	M 8	50	✓	✓	DEUTSCH 4	✓	-	12	1
116.9172.2B.I4	110º	15	M 8	50	-	✓	SUMITOMO 4	✓	-	12	1
116.9172.3B.I4	110º	15	M 8	50	-	✓	SUMITOMO 4	✓	-	24	1
116.9181.2B.D4	110º	15	M 8	50	✓	✓	SUMITOMO 4	✓	-	12	1
116.9181.3B.D4	110º	15	M 8	50	✓	✓	SUMITOMO 4	✓	-	24	1
116.9182.2B.*0	90º	15	M 6	50	✓	✓	SUMITOMO 4	✓	-	12	1
116.9182.3B.*0	90º	15	M 6	50	✓	✓	SUMITOMO 4	✓	-	24	1
116.9183.2B.D4	90º	15	M 6	50	✓	✓	SUMITOMO 2	-	✓	12	1
116.9183.3B.D4	90º	15	M 6	50	✓	✓	SUMITOMO 2	-	✓	24	1
116.9184.2B.00	80º	40	M 6	50	✓	✓	AMP 2	-	-	12	1
116.9184.3B.00	80º	40	M 6	50	✓	✓	AMP 2	-	-	24	1
116.9185.2B.D4	90º	15	M 8	50	✓	✓	AMP 4	✓	-	12	1
116.9185.3B.D4	90º	15	M 8	50	✓	✓	AMP 4	✓	-	24	1
116.9186.3B.D0	110º	30	M 6	50	✓	✓	ITT 4	✓	-	24	1
116.9188.2B.*0	80º	15	M 8	50	✓	-	AMP 4	-	-	12	1
116.9189.2B.D0	95º	60	M 8	50	✓	-	AMP 6	✓	-	12	1
116.9190.2B.D4	105º	15	M 8	50	✓	✓	AMP 4	✓	-	12	1
116.9191.2B.D0	95º	60	M 6	50	✓	-	AMP 4	✓	-	12	1
116.9192.2B.*0	90º	30	M 8	50	-	-	AMP 4	✓	-	12	1
116.9192.3B.*0	90º	30	M 8	50	-	-	AMP 4	✓	-	24	1
116.9206.2B.D0	60º	15	M 6	50	✓	✓	DEUTSCH 4	✓	-	12	1
116.9208.2B.I0	90º	30	M 8	50	✓	-	AMP 4	✓	-	12	1
116.9213.2B.I0	70º	60	M 8	50	✓	✓	DEUTSCH 4	✓	-	12	1
116.9637.2B.D0	115º	3	M 6	50	-	-	AMP 4	✓	-	12	3
116.9638.2B.I0	135º	15	M 6	50	-	✓	AMP 4	✓	-	12	3
116.9638.3B.I0	135º	15	M 6	50	-	✓	AMP 4	✓	-	24	3
116.9639.3B.D0	175º	30	M 8	50	-	-	AMP 4	✓	-	24	3
116.9640.3B.*0	115º	60	M 8	50	-	-	AMP 4	✓	-	24	3
116.9641.2B.D0	175º	3	M 8	50	-	-	AMP 4	✓	-	12	3
116.9641.3B.D0	175º	3	M 8	50	-	-	AMP 4	✓	-	24	3
116.9643.3B.D0	135º	15	M 8	50	-	-	AMP 4	✓	-	24	3
116.9645.2B.D4	135º	15	M 8	50	-	✓	AMP 6	✓	-	12	3
116.9649.2B.D0	175º	3	M 8	50	-	-	special	✓	-	12	3
116.9651.2B.D4	135º	15	M 8	50	✓	✓	AMP 4	✓	-	12	3
116.9652.2B.*0	175º	3	M 8	50	✓	-	AMP 4	✓	-	12	3
116.9652.3B.*0	175º	3	M 8	50	✓	-	AMP 4	✓	-	24	3
116.9653.2B.D0	160º	3	M 8	50	✓	-	DEUTSCH 4	✓	-	12	3
116.9654.3B.D0	135º	15	M 8	50	✓	-	AMP 4	✓	-	24	3
116.9656.2B.I0	175º	3	M 8	50	✓	✓	PACKARD 4	✓	-	12	3
116.9657.2B.D0	175º	3	M 8	50	✓	✓	AMP 4 & PACKARD 3	✓	-	12	3
116.9658.2B.*0	109º	15	M 8	50	✓	✓	AMP 4	✓	-	12	3
116.9659.2B.D0	175º	3	M 8	50	-	✓	AMP 4	✓	-	12	3
116.9659.3B.D0	175º	3	M 8	50	-	✓	AMP 4	✓	-	24	3
116.9660.2B.*0	135º	3	M 8	50	✓	✓	AMP 4	✓	-	12	3
116.9660.3B.*0	135º	3	M 8	50	✓	✓	AMP 4	✓	-	24	3
116.9661.2B.I0	115º	45	M 8	50	✓	✓	AMP 4	✓	-	12	3
116.9662.3B.D0	125º	60	M 8	50	✓	✓	AMP 4	✓	-	24	3
116.9663.2B.D4	175º	15	M 8	50	✓	✓	AMP 4	✓	-	12	3
116.9663.3B.D4	175º	15	M 8	50	✓	✓	AMP 4	✓	-	24	3
116.9664.2B.D0	175º	3	M 8	50	✓	✓	AMP 4	✓	-	12	3
116.9666.2B.I0	160º	3	M 8	50	✓	✓	AMP 4	✓	-	12	3
116.9667.3B.D0	135º	45	M 8	50	-	-	AMP 4	✓	-	24	3
116.9668.2B.*0	135º	15	M 8	50	✓	✓	DEUTSCH 4	✓	-	12	3
116.9668.3B.*0	135º	15	M 8	50	✓	✓	DEUTSCH 4	✓	-	24	3
116.9670.2B.D4	135º	15	M 8	50	✓	✓	AMP 6	✓	-	12	3
116.9671.3B.D0	140º	3	M 8	50	✓	✓	DEUTSCH 4	✓	-	24	3
116.9672.3B.I0	175º	3	M 8	50	✓	✓	DEUTSCH 4	✓	-	24	3
116.9673.2B.D4	175º	3	M 8	50		✓	AMP 4	✓	-	12	3

INTERMITENCIA INTEGRADA PARA MOTORES DEL GRUPO 116
INTEGRATED INTERMITTENT FOR 116-TYPE MOTORS
INTERMITTENCE INTEGREE POUR MOTEURS DU GROUPE 116
INTEGRIERTER INTERVALLSCHALTUNG FÜR MOTOREN DER BAUREIHE 116

ROTATIVO - ROTATING - ROTATIF - RUNDLÄUFERMOTOR

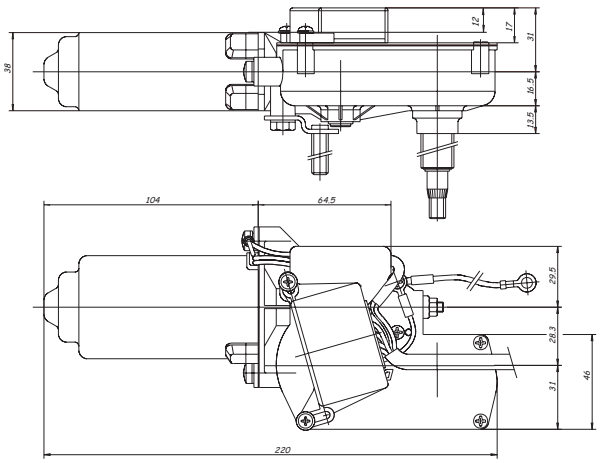
116.2 - 116.3

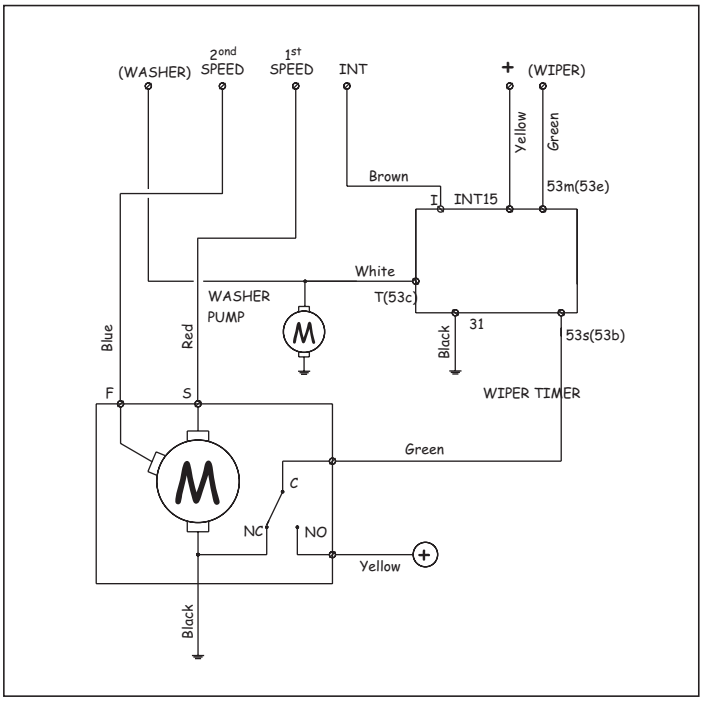




OSCILANTE - OSCILLATING - OSCILLANT - PENDELMOTOR

116.0 - 116.1 - 116.4 - 116.5





NOTAS - NOTES - REMARQUES - ANMERKUNGEN

Los motores del grupo 116 estan disponibles, bajo demanda, con intermitencia integrada añadiendo a la referencia original una " T " en la posición 13.

- 116-type oscillating motors can be supplied upon request with integrated intermittent: simply add a "T" to the original part number in position 13.

- Les moteurs oscillants du groupe 116 peuvent être disponibles sur demande avec intermittence intégrée, en ajoutant à la référence d'origine un " T " dans la position 13.

- Die Pendelmotoren der Baureihe 116 können auf Wunsch mit einer integrierten Intervallschaltung geliefert werden. In diesem Fall wird an die Teilenummer ein "T" in der Position 13 hinzugefügt.

1	1	6	*	*	*	*	*	B	*	*	*	T
1	2	3	4	5	6	7	8	9	10	11	12	13

DOGA

motores limpiaparabrisas
windshield wiper motors
moteurs essuie-glace
Scheibenwischermotoren

mod. **146**

PAR NOMINAL NOMINAL TORQUE COUPLE NOMINAL NENNDREHMOMENT	**1,8** **Nm**	PAR DE ARRANQUE STALL TORQUE COUPLE DE DEMARRAGE ANZUGSMOMENT	**10** **Nm**	EJE - mm SHAFT - mm AXE - mm WELLE - mm	**M8**

NOTAS - NOTES - REMARQUES - ANMERKUNGEN

- Este grupo consta de un motor de la serie 116 que se monta dentro de un soporte-cubierta especial para ir anclado directamente al cristal del parabrisas. (Piezas de montaje incluídas).
- Doga's 146 series has a 116 motor installed in a special closed housing for through-the-glass mounting. (Mounting hardware included).
- Ce groupe est composé d'un moteur de la série 116 et d'un support-boîte permettant ainsi de le monter directement sur le pare-brise. (Pièces de montage inclues).
- Diese Baugruppe besteht aus einem Motor der Baureihe 116 der in einem speziellen Gehäuse untergebracht ist, um direkt auf die Scheibe montiert werden zu können. (Montage elemente beiliegend).

REFERENCIA PART NUMBER REFERENCE REFERENZNUMMER	∠	EJE - mm SHAFT - mm AXE - mm WELLE - mm	CICLOS x min CYCLES x m CYCLES x m ZYKLEN x m	ANTIPARASITADO RFI ANTIPARASITE ENTSTÖRFILTER	DISYUNTOR THERMOSWITCH DISJONCTEUR THERMOSCHALTER	PARO AUTOMÁTICO AUTOMATIC PARK ARRET AUTOMATIQUE PARKSTELLUNG	INTERRUPTOR SWITCH INTERRUPTEUR SCHALTER	SURTIDOR NOZZLESS GICLEURS SPRITZDÜSEN	CONECTOR CONNECTOR CONNECTEUR ANSCHLUSS	VOLTIOS VOLTS VOLTS VOLT	ESPESOR CRISTAL WINDSHIELD TICKNESS EPAISSEUR GLACE DURCHMESSER DER SCHEIBE	Ø TALADRO FIJACIÓN Ø MOUNTING HOLE Ø TROU DE FIXATION Ø BOHRUNG	pag.28-29 SOPORTE-CUBIERTA MOUNTING SUPPORT SUPPORT-BOÎTE HALTEPLATTE
146.0030.2B.*4	**85º**	**M 8**	**50**	✓	✓	✓	-	✓	AMP 4	**12**	**≤ 6**	**16**	**1**
146.0030.3B.*4	**85º**	**M 8**	**50**	✓	✓	✓	-	✓	AMP 4	**24**	**≤ 6**	**16**	**1**
146.0035.2B.*4	**110º**	**M 8**	**50**	✓	✓	✓	-	✓	AMP 4	**12**	**≤ 6**	**16**	**1**
146.0035.3B.*4	**110º**	**M 8**	**50**	✓	✓	✓	-	✓	AMP 4	**24**	**≤ 6**	**16**	**1**
146.0037.2B.*4	**110º**	**M 8**	**47/60**	✓	✓	✓	-	-	AMP 4	**12**	**≤ 6**	**16**	**2**
146.0037.3B.*4	**110º**	**M 8**	**47/60**	✓	✓	✓	-	-	AMP 4	**24**	**≤ 6**	**16**	**2**
146.0038.2B.*4	**95º**	**M 8**	**50**	✓	✓	✓	✓	-	AMP 2	**12**	**≤ 5**	**14**	**3**
146.0038.3B.*4	**95º**	**M 8**	**50**	✓	✓	✓	✓	-	AMP 2	**24**	**≤ 5**	**14**	**3**
146.0040.2B.*4	**85º**	**M 8**	**50**	✓	✓	✓	✓	-	AMP 2	**12**	**≤ 5**	**14**	**3**
146.0040.3B.*4	**85º**	**M 8**	**50**	✓	✓	✓	✓	-	AMP 2	**24**	**≤ 5**	**14**	**3**
146.0400.2B.*4	**175º**	**M 8**	**50**	-	-	✓	-	✓	AMP 4	**12**	**≤ 6**	**16**	**4**
146.0400.3B.*4	**175º**	**M 8**	**50**	-	-	✓	-	✓	AMP 4	**24**	**≤ 6**	**16**	**4**
146.0406.2B.*4	**175º**	**M 8**	**50**	-	-	✓	-	✓	AMP 4	**12**	**≤ 6**	**16**	**4**
146.0406.3B.*4	**175º**	**M 8**	**50**	-	-	✓	-	✓	AMP 4	**24**	**≤ 6**	**16**	**4**
146.0413.2B.*4	**175º**	**M 8**	**50**	-	-	✓	-	✓	DEUTSCH 6	**12**	**≤ 7,4**	**16**	**4**
146.0413.3B.*4	**175º**	**M 8**	**50**	-	-	✓	-	✓	DEUTSCH 6	**24**	**≤ 7,4**	**16**	**4**
146.0414.2B.D4	**160º**	**M 8**	**50**	✓	✓	✓	-	-	AMP 4	**12**	**≤ 6**	**16/20**	**5**
146.0416.2B.*4	**175º**	**M 8**	**50**	✓	-	✓	-	✓	AMP 4	**12**	**≤ 6**	**16**	**4**
146.0416.3B.*4	**175º**	**M 8**	**50**	✓	-	✓	-	✓	AMP 4	**24**	**≤ 6**	**16**	**4**
146.0419.2B.D4	**175º**	**M 8**	**50**	✓	✓	✓	✓	✓	PACKARD 3	**12**	**≤ 6**	**16**	**6**
146.0420.2B.*4	**175º**	**M 8**	**50**	✓	✓	✓	-	✓	DEUTSCH 4	**12**	**≤ 6**	**16**	**7**
146.0420.3B.*4	**175º**	**M 8**	**50**	✓	✓	✓	-	✓	DEUTSCH 4	**24**	**≤ 6**	**16**	**7**
146.0421.2B.I4	**175º**	**M 8**	**50**	✓	✓	✓	-	-	PACKARD 4	**12**	**≤ 6**	**16**	**8**
146.0422.2B.D4	**175º**	**M 8**	**50**	-	✓	✓	-	-	AMP 4	**12**	**≤ 6**	**16**	**5**
146.0422.3B.D4	**175º**	**M 8**	**50**	-	✓	✓	-	-	AMP 4	**24**	**≤ 6**	**16**	**5**
146.0426.2B.D4	**175º**	**M 8**	**50**	✓	✓	✓	-	✓	AMP 4	**12**	**≤ 6**	**16**	**4**
146.0427.2B.*4	**135º**	**M 8**	**50**	✓	✓	✓	-	✓	DEUTSCH 4	**12**	**≤ 6**	**16**	**7**
146.0427.3B.*4	**135º**	**M 8**	**50**	✓	✓	✓	-	✓	DEUTSCH 4	**24**	**≤ 6**	**16**	**7**
146.0428.2B.*4	**160º**	**M 8**	**50**	✓	✓	✓	✓	-	AMP 2	**12**	**≤ 6**	**16**	**9**
146.0428.3B.*4	**160º**	**M 8**	**50**	✓	✓	✓	✓	-	AMP 2	**24**	**≤ 6**	**16**	**9**
146.0429.2B.*4	**140º**	**M 8**	**50**	✓	✓	✓	-	✓	DEUTSCH 4	**12**	**≤ 6**	**16**	**4**
146.0429.3B.*4	**140º**	**M 8**	**50**	✓	✓	✓	-	✓	DEUTSCH 4	**24**	**≤ 6**	**16**	**4**
146.0430.2B.*4	**175º**	**M 8**	**50**	✓	✓	✓	-	✓	DEUTSCH 4	**12**	**≤ 6**	**16**	**4**
146.0430.3B.*4	**175º**	**M 8**	**50**	✓	✓	✓	-	✓	DEUTSCH 4	**24**	**≤ 6**	**16**	**4**

* Sustituir por I o D. Replace with I or D. Remplacer par I ou D. Durch I oder D ersetzen.

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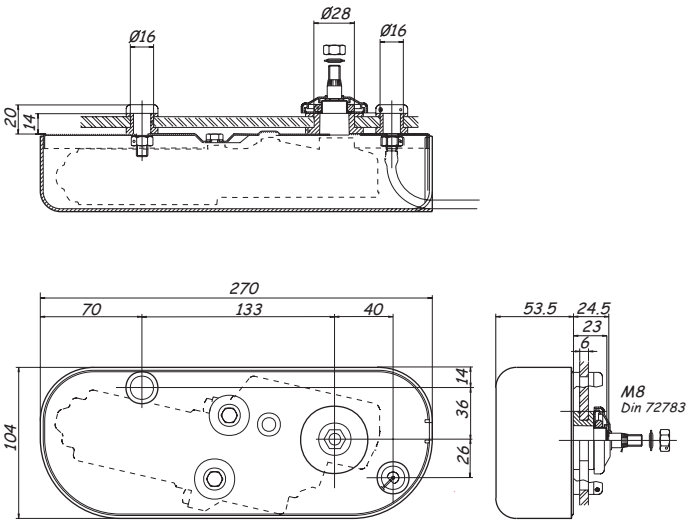
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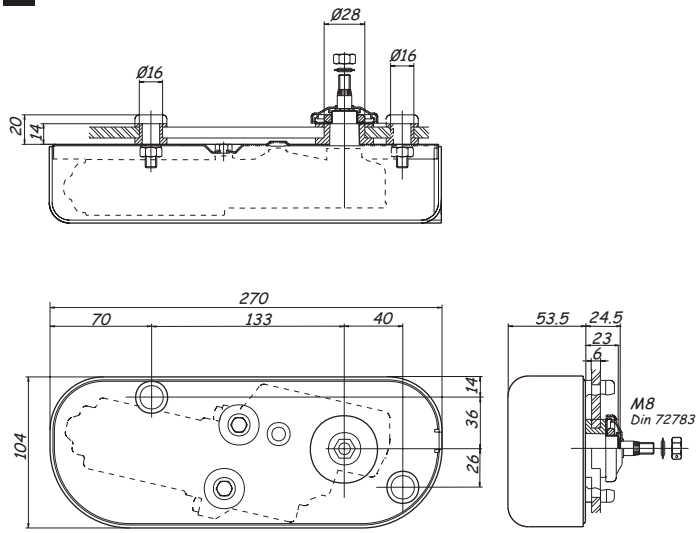
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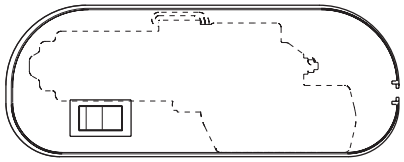

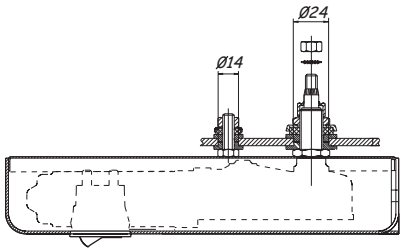
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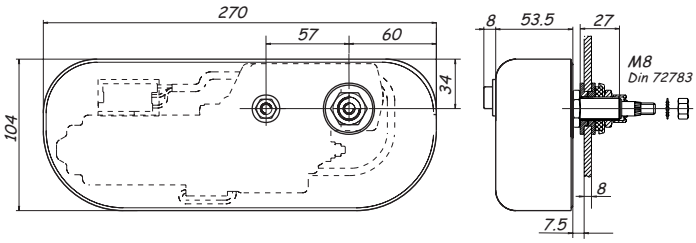
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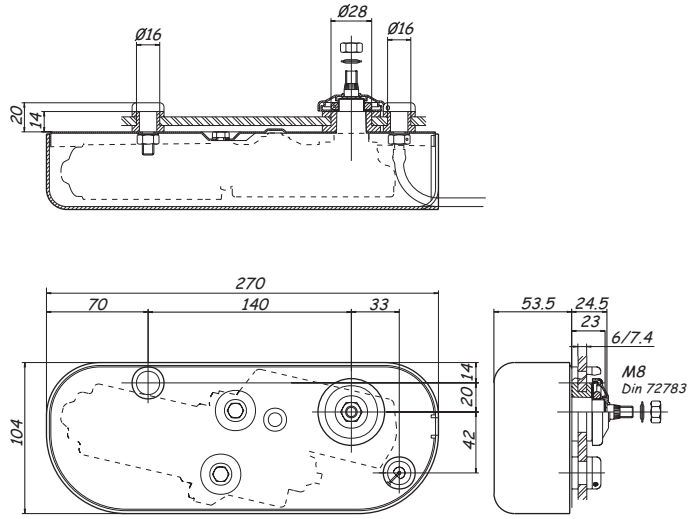
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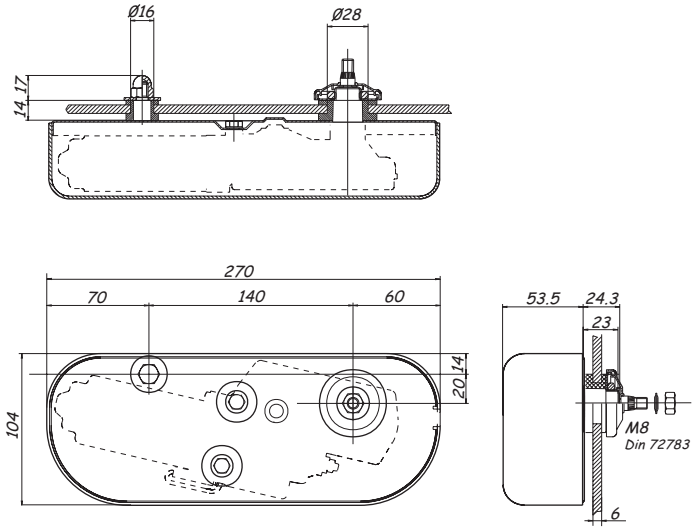
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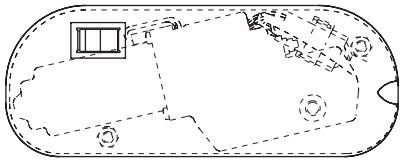

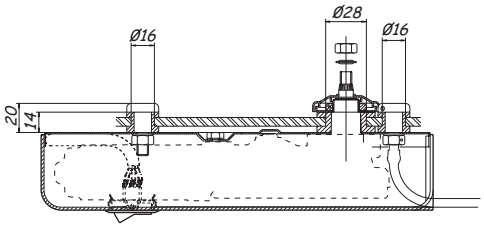
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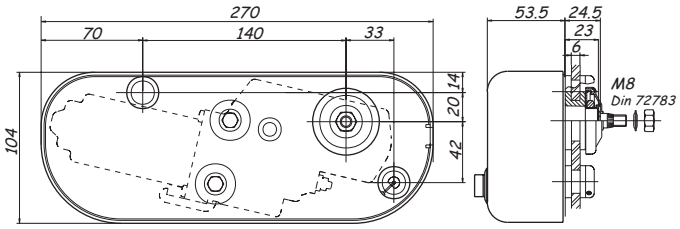
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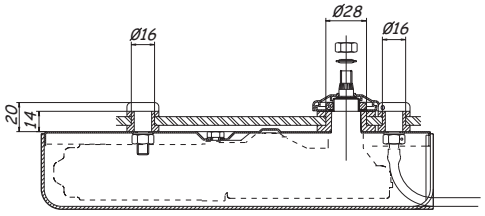
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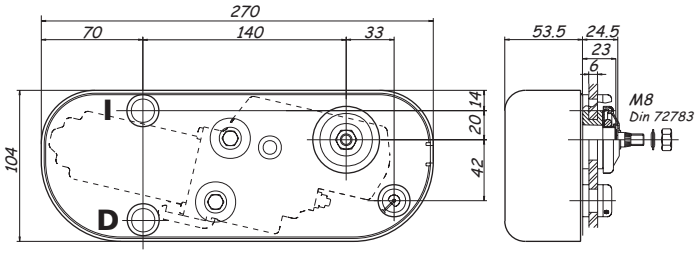
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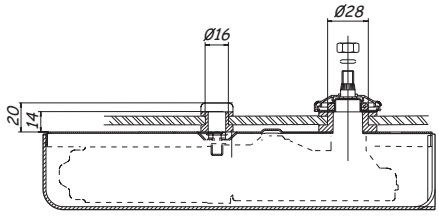
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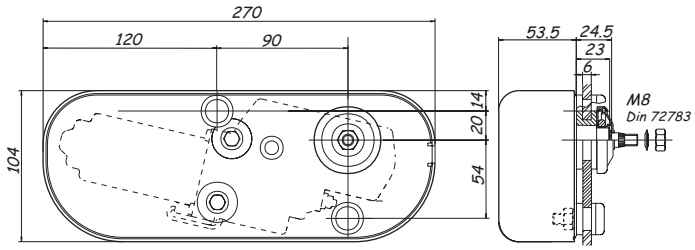
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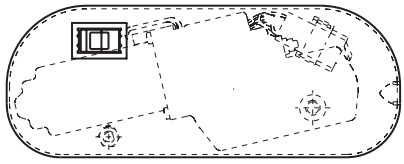
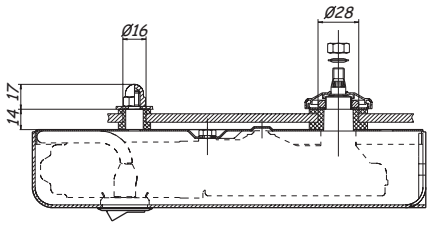
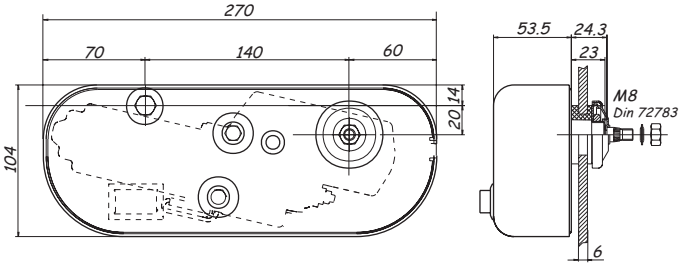
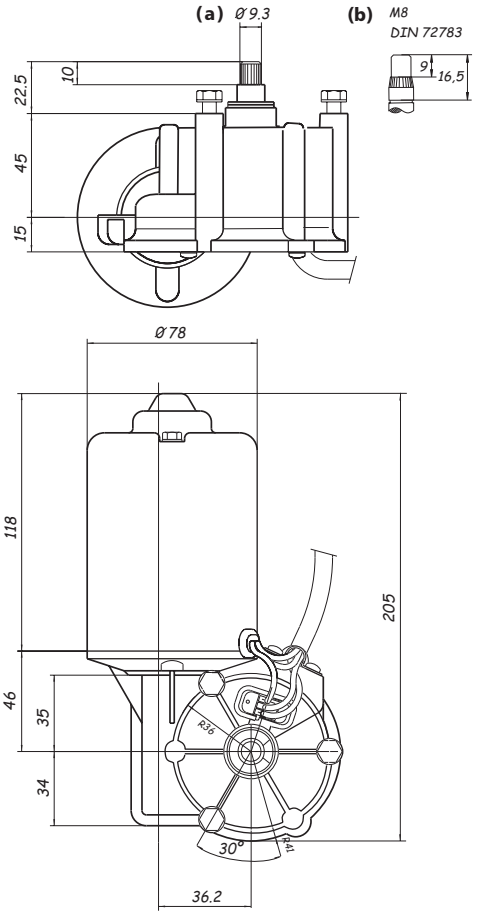
9

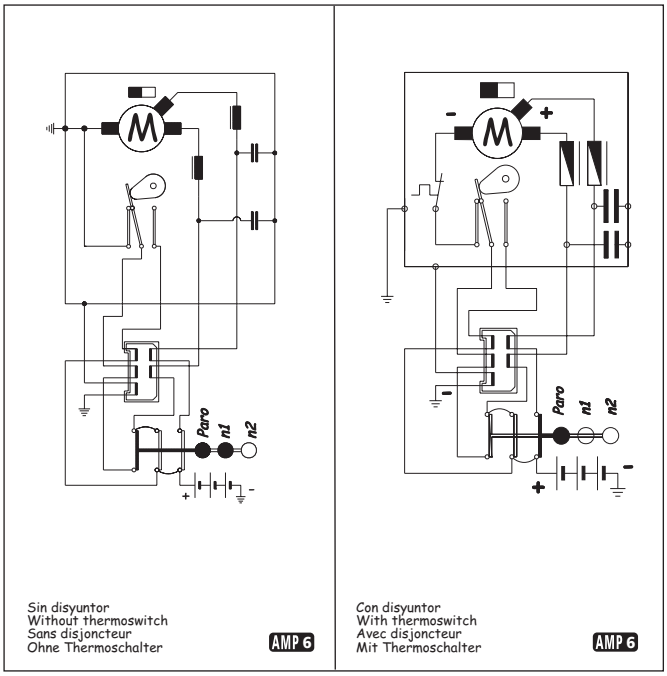



Ø16
Ø28
14
17


270
70
140
60
53.5
24.3
23
M8
Din 72783
14
20
104
6

PAR NOMINAL NOMINAL TORQUE COUPLE NOMINAL NENNDREHMOMENT	**10** **Nm**	PAR DE ARRANQUE STALL TORQUE COUPLE DE DEMARRAGE ANZUGSMOMENT	**50** **Nm**	EJE - mm SHAFT - mm AXE - mm WELLE - mm	**⌀ 9,3**	**M8**





Sin disyuntor
Without thermoswitch
Sans disjoncteur
Ohne Thermoschalter
AMP 6

Con disyuntor
With thermoswitch
Avec disjoncteur
Mit Thermoschalter
AMP 6

REFERENCIA PART NUMBER REFERENCE REFERENZNUMMER	EXTREMO EJE SHAFT END EXTREMITE AXE WELLENENDE	EJE - mm SHAFT - mm AXE - mm WELLE - mm	R.P.M.	DISYUNTOR THERMOSWITCH DISJONCTEUR THERMOSCHALTER	PARO AUTOMÁTICO AUTOMATIC PARK ARRET AUTOMATIQUE PARKSTELLUNG	VOLTIOS VOLTS VOLTS VOLT
119.2725.2B.00.E	**(a)**	**Ø 9,3**	**40/62**	**✓**	**✓**	**12**
119.2725.3B.00.E	**(a)**	**Ø 9,3**	**40/62**	**✓**	**✓**	**24**
119.3723.2B.00.E	**(a)**	**Ø 9,3**	**32/50**	**-**	**✓**	**12**
119.3723.3B.00.E	**(a)**	**Ø 9,3**	**32/50**	**-**	**✓**	**24**
119.3725.2B.00.E	**(a)**	**Ø 9,3**	**40/62**	**-**	**✓**	**12**
119.3725.3B.00.E	**(a)**	**Ø 9,3**	**40/62**	**-**	**✓**	**24**
119.3753.2B.00.E	**(b)**	**M8**	**32/50**	**-**	**✓**	**12**
119.3753.3B.00.E	**(b)**	**M8**	**32/50**	**-**	**✓**	**24**
119.3755.2B.00.E	**(b)**	**M8**	**40/62**	**-**	**✓**	**12**
119.3755.3B.00.E	**(b)**	**M8**	**40/62**	**-**	**✓**	**24**

NOTAS - NOTES - REMARQUES - ANMERKUNGEN

- Motores antiparasitados (E) disponibles bajo demanda con disyuntor, sin filtro antiparasitario y sin paro automático. También con otras características de eje.
- RFI suppressed motors (E) available upon request with thermoswitch, without RFI suppression and without automatic park. Also available with various shaft types.
- Moteurs antiparasites (E), disponibles sur demande avec disjoncteur, sans système antiparasites et sans arrêt automatique. Disponibles aussi avec d'autres caractéristiques d'axe.
- Auf Wunsch mit Thermoschalter, mit Parkstellung oder ohne Entstörfilter (E) erhältlich. Andere Achsausführungen sind lieferbar.

OPCIÓN DE INTERMITENCIA INTEGRADA (ver final motores 119)
INTEGRATED INTERMITTENT OPTION (see end of 119 motors)
OPTION D'INTERMITTENCE INTEGREE (voir fin moteurs 119)
OPTION INTEGRIERTER INTERVALLSCHALTUNG (siehe Motoren 119 am Ende)

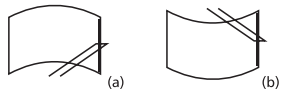
DOGA

motores limpiaparabrisas
windshield wiper motors
moteurs essuie-glace
Scheibenwischermotoren

mod. **119**

PAR NOMINAL NOMINAL TORQUE COUPLE NOMINAL NENNDREHMOMENT	**10** **Nm**	PAR DE ARRANQUE STALL TORQUE COUPLE DE DEMARRAGE ANZUGSMOMENT	**50** **Nm**	EJE - mm SHAFT - mm AXE - mm WELLE - mm	**M8**

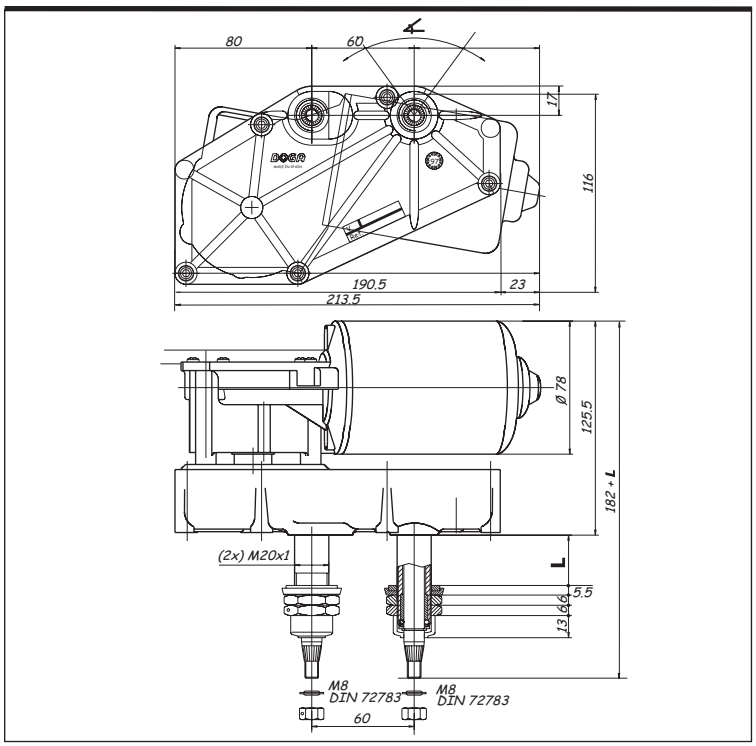
APLICACIONES ORIENTATIVAS - SUGGESTED APPLICATIONS - APPLICATIONS POUR INFORMATION - MÖGLICHE ANWENDUNGEN

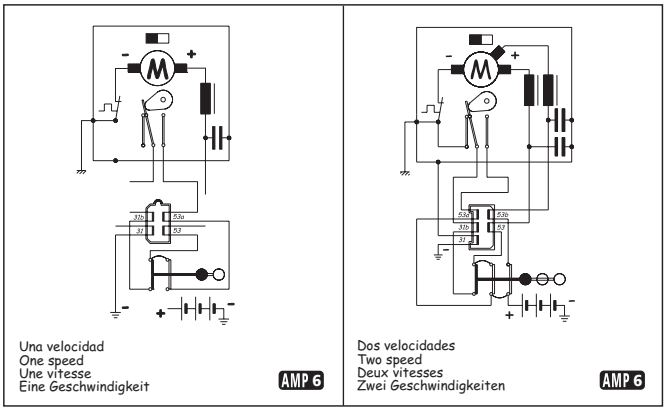


(a) máx. 1200 mm - 72º
(b) máx. 1300 mm - 80º

(a) máx. 800 mm
(b) máx. 900 mm

VER CORRESPONDENCIA MOTORES/BRAZOS PÁG. 39 - REFER TO MOTOR/ARM COMPATIBILITY PAGE 39 - VOIR LA SECTION CORRESPONDANCE MOTEURS/BRAS PAGE 39 - SIEHE CROSSLIST MOTOREN UND WISCHARME SEITE 39





REFERENCIA PART NUMBER REFERENCE REFERENZNUMMER	∠	L	EJE - mm SHAFT - mm AXE - mm WELLE - mm	CICLOS x min CYCLES x m CYCLES x m ZYKLEN x m	DISYUNTOR THERMOSWITCH DISJONCTEUR THERMOSCHALTER	PARO AUTOMATICO AUTOMATIC PARK ARRET AUTOMATIQUE PARKSTELLUNG	INTERRUPTOR SWITCH INTERRUPTEUR SCHALTER	VOLTIOS VOLTS VOLTS VOLT
119.5282.2B.*0.E	**60º**	**68**	**M 8**	**32**	✓	✓	-	**12**
119.5282.3B.*0.E	**60º**	**68**	**M 8**	**32**	✓	✓	-	**24**
119.5362.2B.*0.E	**72º**	**48**	**M 8**	**32**	✓	✓	-	**12**
119.5362.3B.*0.E	**72º**	**48**	**M 8**	**32**	✓	✓	-	**24**
119.5463.2B.*0.E	**80º**	**48**	**M 8**	**32/50**	✓	✓	-	**12**
119.5463.3B.*0.E	**80º**	**48**	**M 8**	**32/50**	✓	✓	-	**24**
119.6062.2B.*0.E	**40º**	**48**	**M 8**	**32**	-	✓	-	**12**
119.6062.3B.*0.E	**40º**	**48**	**M 8**	**32**	-	✓	-	**24**
119.6263.2B.*0.E	**60º**	**48**	**M 8**	**32/50**	-	✓	-	**12**
119.6263.3B.*0.E	**60º**	**48**	**M 8**	**32/50**	-	✓	-	**24**
119.6353.2B.*0.E	**72º**	**28**	**M 8**	**32/50**	-	✓	-	**12**
119.6353.3B.*0.E	**72º**	**28**	**M 8**	**32/50**	-	✓	-	**24**
119.6363.2B.*0.E	**72º**	**48**	**M 8**	**32/50**	-	✓	-	**12**
119.6363.3B.*0.E	**72º**	**48**	**M 8**	**32/50**	-	✓	-	**24**
119.6382.2B.*0.E	**72º**	**68**	**M 8**	**32**	-	✓	-	**12**
119.6382.3B.*0.E	**72º**	**68**	**M 8**	**32**	-	✓	-	**24**
119.6383.2B.*0.E	**72º**	**68**	**M 8**	**32/50**	-	✓	-	**12**
119.6383.3B.*0.E	**72º**	**68**	**M 8**	**32/50**	-	✓	-	**24**
119.6463.2B.*0.E	**80º**	**48**	**M 8**	**32/50**	-	✓	-	**12**
119.6463.3B.*0.E	**80º**	**48**	**M 8**	**32/50**	-	✓	-	**24**

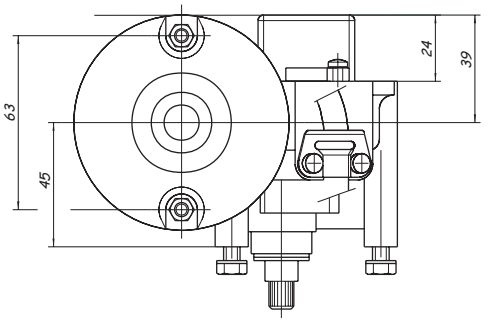
* Sustituir por I o D. Replace with I or D. Remplacer par I ou D. Durch I oder D ersetzen.

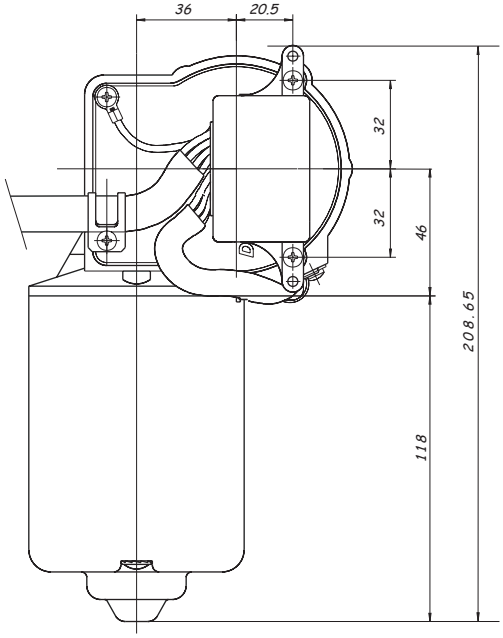
NOTAS - NOTES - REMARQUES - ANMERKUNGEN

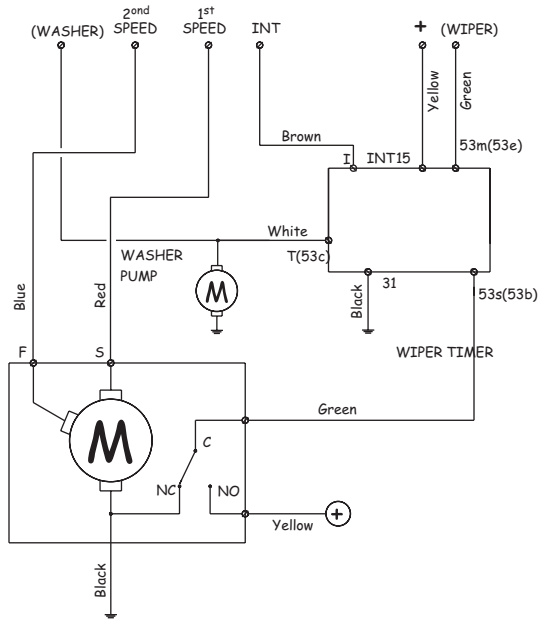
- Motores antiparasitados (E) disponibles bajo demanda con disyuntor, sin filtro antiparasitario y sin paro automático. También con otras características de eje.
- RFI suppressed motors (E) available upon request with thermoswitch, without RFI suppression and without automatic park. Also available with various shaft types.
- Moteurs antiparasites (E), disponibles sur demande avec disjoncteur, sans système antiparasites et sans arrêt automatique. Disponibles aussi avec d'autres caractéristiques d'axe.
- Auf Wunsch mit Thermoschalter, mit Parkstellung oder ohne Entstörfilter (E) erhältlich. Andere Achsausführungen sind lieferbar.

OPCIÓN DE INTERMITENCIA INTEGRADA (ver final motores 119)
INTEGRATED INTERMITTENT OPTION (see end of 119 motors)
OPTION D'INTERMITTENCE INTEGREE (voir fin moteurs 119)
OPTION INTEGRIERTER INTERVALLSCHALTUNG (siehe Motoren 119 am Ende)

INTERMITENCIA INTEGRADA PARA MOTORES DEL GRUPO 119
INTEGRATED INTERMITTENT FOR 119-TYPE MOTORS
INTERMITTENCE INTEGREE POUR MOTEURS DU GROUPE 119
INTEGRIERTER INTERVALLSCHALTUNG FÜR MOTOREN DER BAUREIHE 119





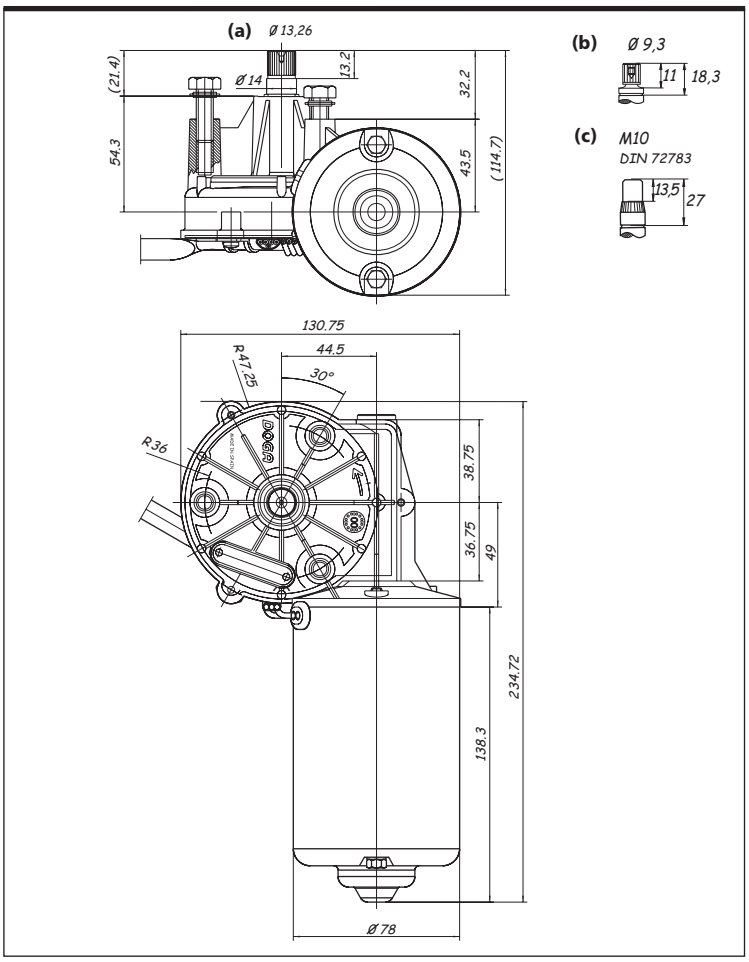


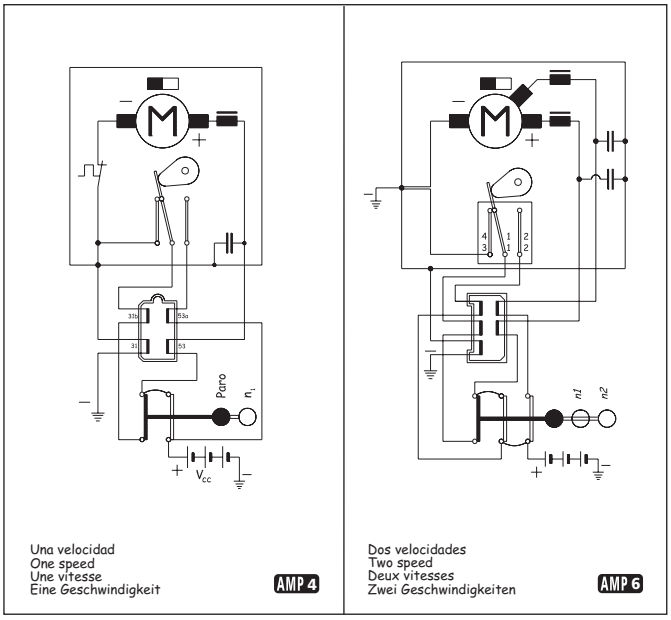
NOTAS - NOTES - REMARQUES - ANMERKUNGEN

- Los motores del grupo 119 estan disponibles, bajo demanda, con intermitencia integrada añadiendo a la referencia original una " T " en la posición 13.
- 119-type oscillating motors are available upon request with integrated intermittent: simply add a "T" to the original part number in position 13.
- Les moteurs oscillants du groupe 119 peuvent être disponibles sur demande avec intermittence intégrée, en ajoutant à la référence d'origine un " T " dans la position 13.
- Die Pendelmotoren der Baureihe 119 können auf Wunsch mit einer integrierten Intervallschaltung geliefert werden. In diesem Fall wird an die Teilenummer ein "T" in der Position 13 hinzugefügt.

1	1	9	*	*	*	*	*	B	*	*	*	T
1	2	3	4	5	6	7	8	9	10	11	12	13

PAR NOMINAL NOMINAL TORQUE COUPLE NOMINAL NENNDREHMOMENT	**15** **Nm**	PAR DE ARRANQUE STALL TORQUE COUPLE DE DEMARRAGE ANZUGSMOMENT	**80** **Nm**	EJE - mm SHAFT - mm AXE - mm WELLE - mm	**M10**	**ø 9,3**	**ø 13,26**





Una velocidad
One speed
Une vitesse
Eine Geschwindigkeit
AMP 4

Dos velocidades
Two speed
Deux vitesses
Zwei Geschwindigkeiten
AMP 6

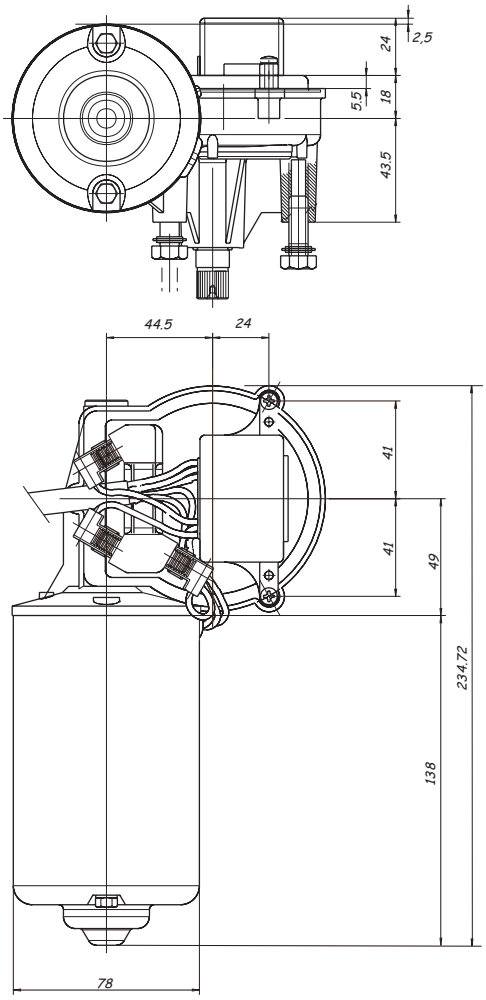
REFERENCIA PART NUMBER REFERENCE REFERENZNUMMER	EXTREMO EJE SHAFT END EXTREMITE AXE WELLENENDE	EJE - mm SHAFT - mm AXE - mm WELLE - mm	R.P.M.	DISYUNTOR THERMOSWITCH DISJONCTEUR THERMOSCHALTER	PARO AUTOMÁTICO AUTOMATIC PARK ARRET AUTOMATIQUE PARKSTELLUNG	VOLTIOS VOLTS VOLTS VOLT
258.0764.2B.00	(c)	**M10**	**32/50**	✓	✓	**12**
258.0764.3B.00	(c)	**M10**	**32/50**	✓	✓	**24**
258.1734.2B.00	(b)	**ø 9,3**	**32/50**	-	✓	**12**
258.1734.3B.00	(b)	**ø 9,3**	**32/50**	-	✓	**24**
258.1744.2B.00	(a)	**ø 13,26**	**32/50**	-	✓	**12**
258.1744.3B.00	(a)	**ø 13,26**	**32/50**	-	✓	**24**

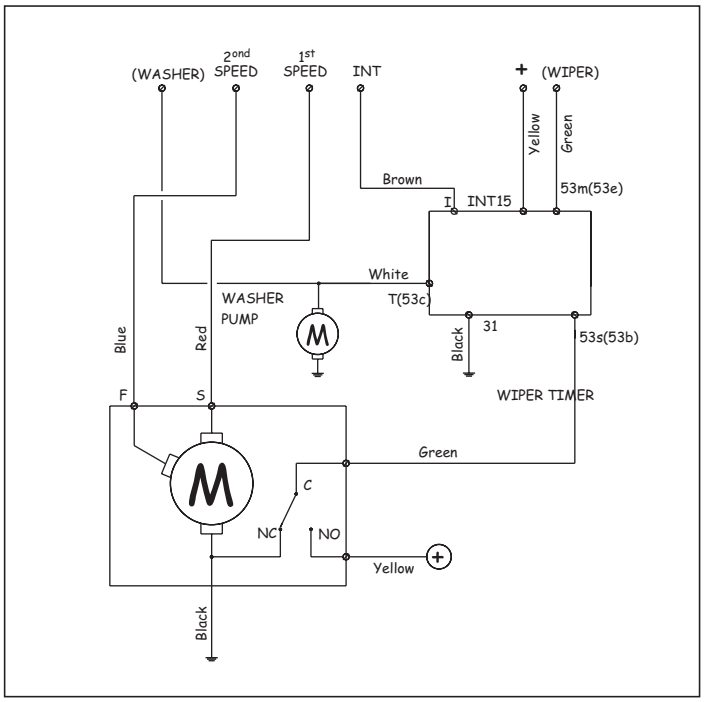
NOTAS - NOTES - REMARQUES - ANMERKUNGEN

- Motores antiparasitados. Disponibles bajo demanda con otras opciones de eje, con una velocidad y sin paro.
- RFI suppressed motors. Available upon request with other shaft options, with a single speed and without automatic park.
- Moteurs antiparasités. Disponibles sur demande avec d'autres options d'axe, avec une vitesse et sans arrêt.
- Entstörte Motoren. Auf Wunsch mit anderen Wellenausführungen, mit einer Geschwindigkeit und ohne Parkstellung lieferbar.

OPCIÓN DE INTERMITENCIA INTEGRADA (ver final motores 258)
INTEGRATED INTERMITTENT OPTION (see end of 258 motors)
OPTION D'INTERMITTENCE INTEGREE (voir fin moteurs 258)
OPTION INTEGRIERTER INTERVALLSCHALTUNG (siehe Motoren 258 am Ende)

INTERMITENCIA INTEGRADA PARA MOTORES DEL GRUPO 258
INTEGRATED INTERMITTENT FOR 258-TYPE MOTORS
INTERMITTENCE INTEGREE POUR MOTEURS DU GROUPE 258
INTEGRIERTER INTERVALLSCHALTUNG FÜR MOTOREN DER BAUREIHE 258





NOTAS - NOTES - REMARQUES - ANMERKUNGEN

- Los motores del grupo 258 estan disponibles bajo demanda con intermitencia integrada añadiendo a la referencia original una " T " en la posición 13.
- 258-type oscillating motors are available upon request with integrated intermittent: simply add a "T" to the original part number in position 13.
- Les moteurs oscillants du groupe 258 peuvent être disponibles sur demande avec intermittence intégrée, en ajoutant à la référence d'origine un " T " dans la position 13.
- Die Pendelmotoren der Baureihe 258 können auf Wunsch mit einer integrierten Intervallschaltung geliefert werden. In diesem Fall wird an die Teilenummer ein "T" in der Position 13 hinzugefügt.

2	5	8	.	*	*	*	*	.	*	B	.	*	*	.	*	T
1	2	3	4	5	6	7	8		9	10		11	12		13	

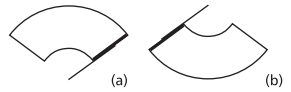
DOGA

motores limpiaparabrisas
windshield wiper motors
moteurs essuie-glace
Scheibenwischermotoren

mod. **248**

PAR NOMINAL NOMINAL TORQUE COUPLE NOMINAL NENNDREHMOMENT	**15** **Nm**	PAR DE ARRANQUE STALL TORQUE COUPLE DE DEMARRAGE ANZUGSMOMENT	**80** **Nm**	EJE - mm SHAFT - mm AXE - mm WELLE - mm	**M10**

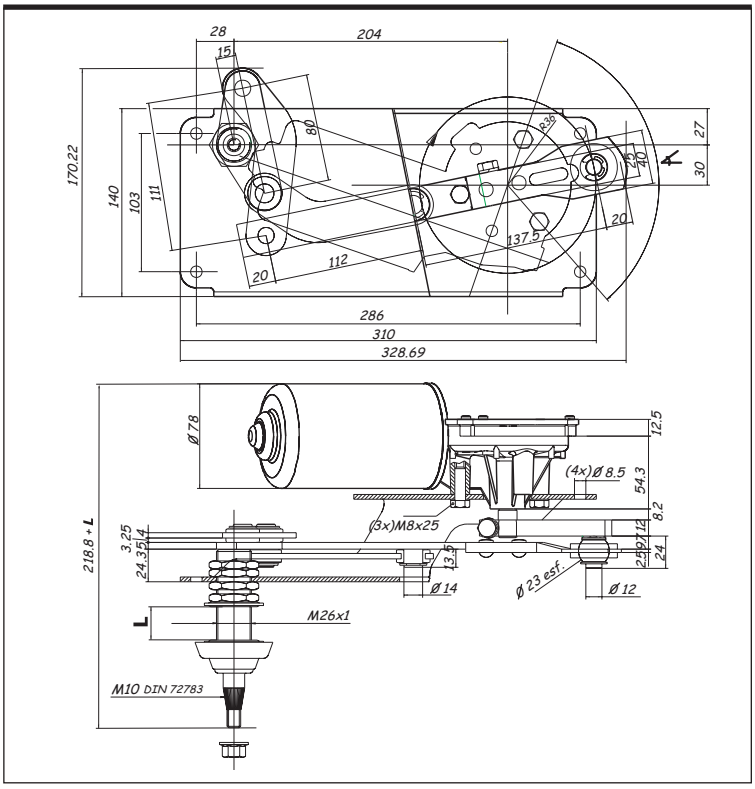
APLICACIONES ORIENTATIVAS - SUGGESTED APPLICATIONS - APPLICATIONS POUR INFORMATION - MÖGLICHE ANWENDUNGEN

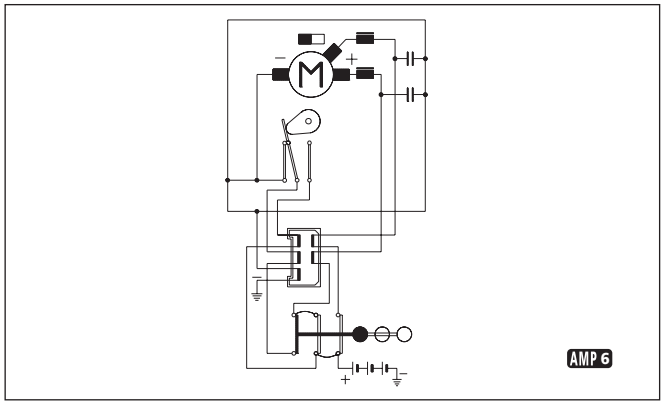


(a) máx. 970 mm - 140º
(b) máx. 1100 mm - 165º

(a) máx. 800 mm
(b) máx. 900 mm

VER CORRESPONDENCIA MOTORES/BRAZOS PÁG. 39 - REFER TO MOTOR/ARM COMPATIBILITY PAGE 39 - VOIR LA SECTION CORRESPONDANCE MOTEURS/BRAS PAGE 39 - SIEHE CROSSLIST MOTOREN UND WISCHARME SEITE 39





REFERENCIA PART NUMBER REFERENCE REFERENZNUMMER	∡	L	EJE - mm SHAFT - mm AXE - mm WELLE - mm	CICLOS x min CYCLES x m CYCLES x m ZYKLEN x m	DISYUNTOR THERMOSWITCH DISJONCTEUR THERMOSCHALTER	PARO AUTOMÁTICO AUTOMATIC PARK ARRET AUTOMATIQUE PARKSTELLUNG	INTERRUPTOR SWITCH INTERRUPTEUR SCHALTER	VOLTIOS VOLTS VOLTS VOLT
248.1010.2B.*0	**140º**	**72**	**M10**	**32/50**	**-**	**✓**	**-**	**12**
248.1010.3B.*0	**140º**	**72**	**M10**	**32/50**	**-**	**✓**	**-**	**24**
248.1011.2B.*0	**140º**	**122**	**M10**	**32/50**	**-**	**✓**	**-**	**12**
248.1011.3B.*0	**140º**	**122**	**M10**	**32/50**	**-**	**✓**	**-**	**24**
248.1012.2B.*0	**165º**	**72**	**M10**	**32/50**	**-**	**✓**	**-**	**12**
248.1012.3B.*0	**165º**	**72**	**M10**	**32/50**	**-**	**✓**	**-**	**24**

* Sustituir por I o D. Replace with I or D. Remplacer par I ou D. Durch I oder D ersetzen.

NOTAS - NOTES - REMARQUES - ANMERKUNGEN

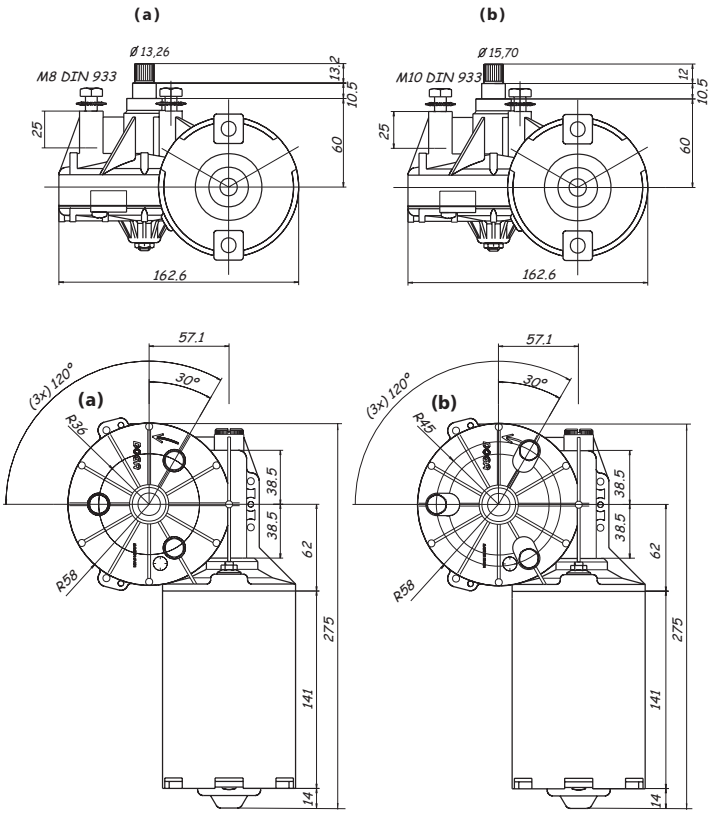
- Equipo limpiaparabrisas de gran barrido,compuesto de motor 258 con soporte más transmisión. Disponible también con otros ángulos de barrido.
- Wide sweep angle windshield wiper system, with 258 motor (including bracket) and linkage. Also available with various sweep angles.
- Équipement essuie-glace à grand balayage, composé de moteur 258 avec support plus transmission. Disponible aussi avec d'autres angles de balayage.
- Scheibenwischanlage mit großem Wischwinkel, bestehend aus 258 Motor mit Halterung und Gestänge. Auf Wunsch auch mit anderen Wischwinkeln lieferbar.

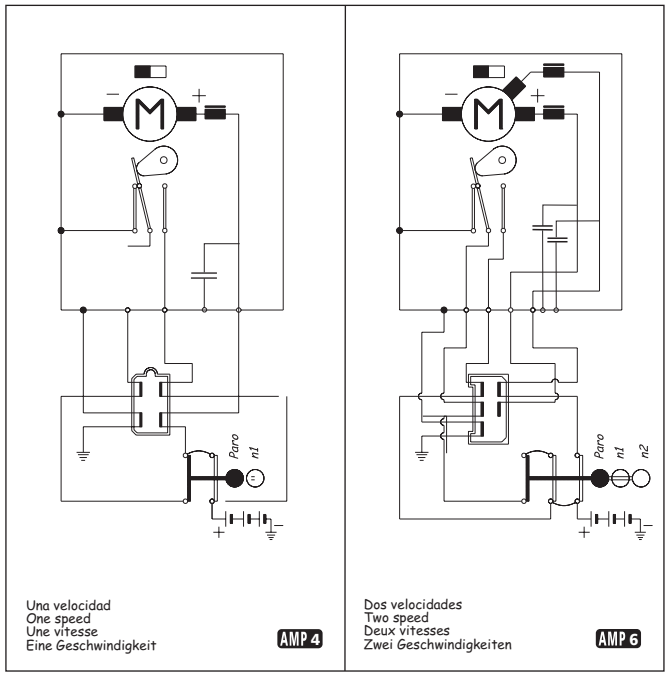
DOGA

motores limpiaparabrisas
windshield wiper motors
moteurs essuie-glace
Scheibenwischermotoren

mod. **259**

PAR NOMINAL NOMINAL TORQUE COUPLE NOMINAL NENNDREHMOMENT	**20** **Nm**	PAR DE ARRANQUE STALL TORQUE COUPLE DE DEMARRAGE ANZUGSMOMENT	**130** **Nm**	EJE - mm SHAFT - mm AXE - mm WELLE - mm	**ø 13,26**	**ø 15,70**





Una velocidad
One speed
Une vitesse
Eine Geschwindigkeit
AMP 4

Dos velocidades
Two speed
Deux vitesses
Zwei Geschwindigkeiten
AMP 6

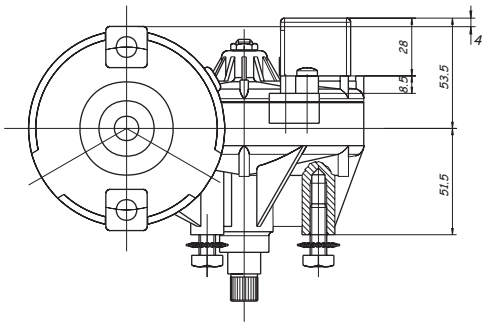
REFERENCIA PART NUMBER REFERENCE REFERENZNUMMER	EXTREMO EJE SHAFT END EXTREMITE AXE WELLENENDE	EJE - mm SHAFT - mm AXE - mm WELLE - mm	R.P.M.	DISYUNTOR THERMOSWITCH DISJONCTEUR THERMOSCHALTER	PARO AUTOMÁTICO AUTOMATIC PARK ARRET AUTOMATIQUE PARKSTELLUNG	VOLTIOS VOLTS VOLTS VOLT
259.3705.2B.00	**(a)**	**ø 13,26**	**30/43**	**-**	**✓**	**12**
259.3705.3B.00	**(a)**	**ø 13,26**	**30/43**	**-**	**✓**	**24**
259.2728.2B.00	**(b)**	**ø 15,70**	**30/43**	**✓**	**✓**	**12**
259.2728.3B.00	**(b)**	**ø 15,70**	**30/43**	**✓**	**✓**	**24**

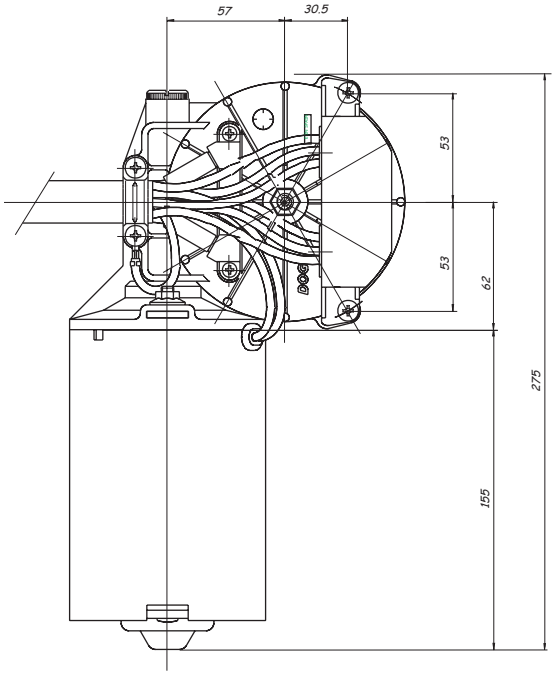
NOTAS - NOTES - REMARQUES - ANMERKUNGEN

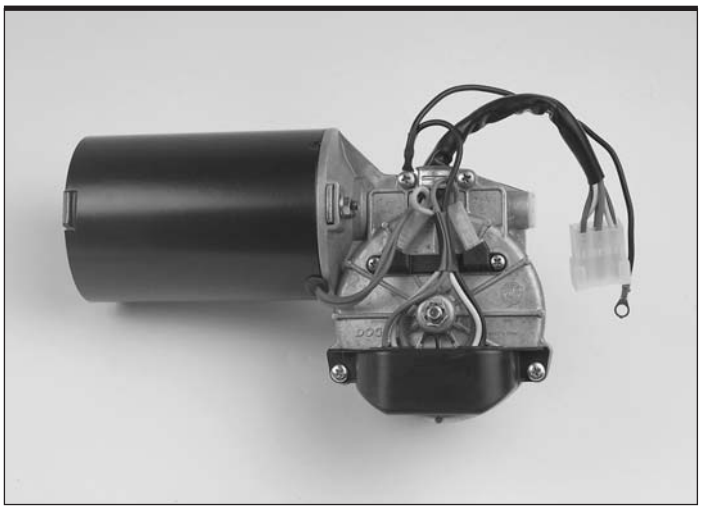
- Motores antiparasitados. Disponibles bajo demanda con otras opciones de eje, con una velocidad y sin paro.
- RFI suppressed motors. Available upon request with other shaft options, with a single speed and without automatic park.
- Moteurs antiparasités. Disponibles sur demande avec d'autres options d'axe, avec une vitesse et sans arrêt.
- Entstörte Motoren. Auf Wunsch mit anderen Wellenausführungen, mit einer Geschwindigkeit und ohne Parkstellung lieferbar.

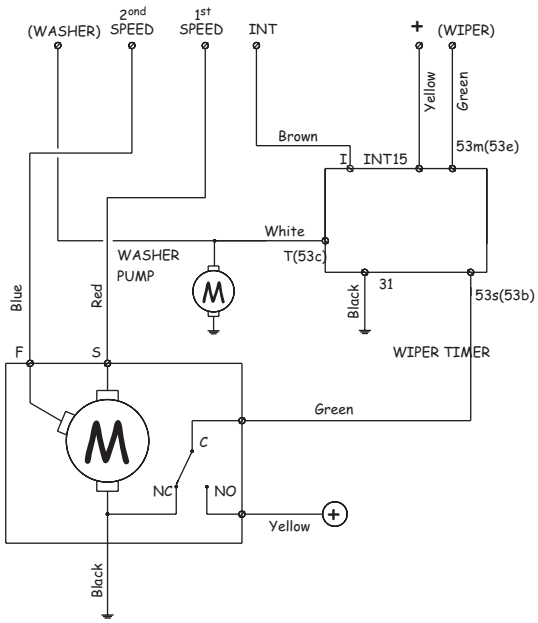
OPCIÓN DE INTERMITENCIA INTEGRADA (ver final motores 259)
INTEGRATED INTERMITTENT OPTION (see end of 259 motors)
OPTION D'INTERMITTENCE INTEGREE (voir fin moteurs 259)
OPTION INTEGRIERTER INTERVALLSCHALTUNG (siehe Motoren 259 am Ende)

INTERMITENCIA INTEGRADA PARA MOTORES DEL GRUPO 259
INTEGRATED INTERMITTENT FOR 259-TYPE MOTORS
INTERMITTENCE INTEGREE POUR MOTEURS DU GROUPE 259
INTEGRIERTER INTERVALLSCHALTUNG FÜR MOTOREN DER BAUREIHE 259









NOTAS - NOTES - REMARQUES - ANMERKUNGEN

- Los motores del grupo 259 estan disponibles bajo demanda con intermitencia integrada añadiendo a la referencia original una " T " en la posición 13.
- 259-type oscillating motors are available upon request with integrated intermittent: simply add a "T" to the original part number in position 13.
- Les moteurs oscillants du groupe 259 peuvent être disponibles sur demande avec intermittence intégrée, en ajoutant à la référence d'origine un " T " dans la position 13.
- Die Pendelmotoren der Baureihe 259 können auf Wunsch mit einer integrierten Intervallschaltung geliefert werden. In diesem Fall wird an die Teilenummer ein "T" in der Position 13 hinzugefügt.

2	5	9	*	*	*	*	*	B	*	*	*	T
1	2	3	4	5	6	7	8	9	10	11	12	13

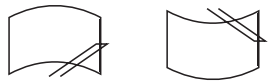
DOGA

motores limpiaparabrisas
windshield wiper motors
moteurs essuie-glace
Scheibenwischermotoren

mod. **249**

PAR NOMINAL NOMINAL TORQUE COUPLE NOMINAL NENNDREHMOMENT	**20** **Nm**	PAR DE ARRANQUE STALL TORQUE COUPLE DE DEMARRAGE ANZUGSMOMENT	**130** **Nm**	EJE - mm SHAFT - mm AXE - mm WELLE - mm	**M10** **M8**	**M8** **M8**

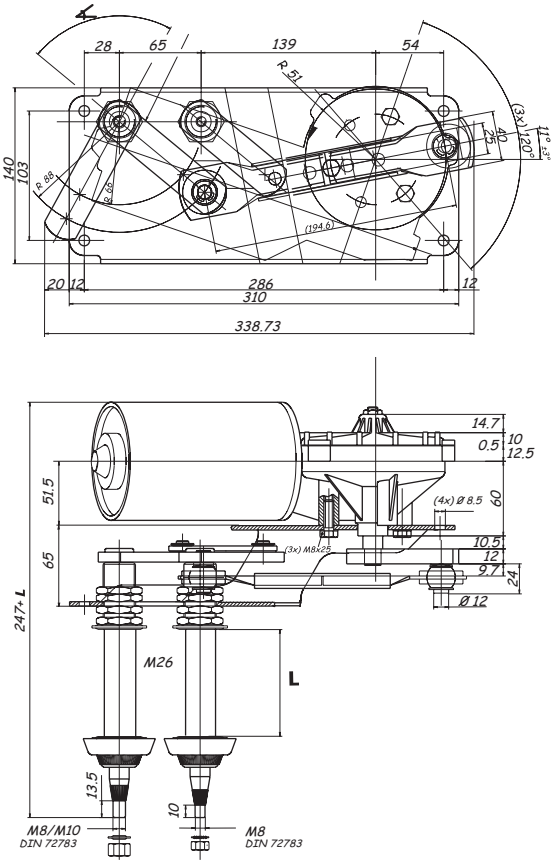
APLICACIONES ORIENTATIVAS - SUGGESTED APPLICATIONS - APPLICATIONS POUR INFORMATION - MÖGLICHE ANWENDUNGEN



máx. 1500 mm

máx. 1000 mm

VER CORRESPONDENCIA MOTORES/BRAZOS PÁG. 39 - REFER TO MOTOR/ARM COMPATIBILITY PAGE 39 - VOIR LA SECTION CORRESPONDANCE MOTEURS/BRAS PAGE 39 - SIEHE CROSSLIST MOTOREN UND WISCHARME SEITE 39



REFERENCIA PART NUMBER REFERENCE REFERENZNUMMER	∡	L	EJE - mm SHAFT - mm AXE - mm WELLE - mm	CICLOS x min CYCLES x m CYCLES x m ZYKLEN x m	DISYUNTOR THERMOSWITCH DISJONCTEUR THERMOSCHALTER	PARO AUTOMATICO AUTOMATIC PARK ARRET AUTOMATIQUE PARKSTELLUNG	INTERRUPTOR SWITCH INTERRUPTEUR SCHALTER	VOLTIOS VOLTS VOLTS VOLT
249.5601.2B.*0	**80º**	**30**	**M10/M8**	**30/43**	-	✓	-	**12**
249.5601.3B.*0	**80º**	**30**	**M10/M8**	**30/43**	-	✓	-	**24**
249.5602.2B.*0	**70º**	**90**	**M10/M8**	**30/43**	-	✓	-	**12**
249.5602.3B.*0	**70º**	**90**	**M10/M8**	**30/43**	-	✓	-	**24**
249.5606.2B.*0	**80º**	**30**	**M8/M8**	**30/43**	-	✓	-	**12**
249.5606.3B.*0	**80º**	**30**	**M8/M8**	**30/43**	-	✓	-	**24**

* Sustituir por I o D. Replace with I or D. Remplacer par I ou D. Durch I oder D ersetzen.

NOTAS - NOTES - REMARQUES - ANMERKUNGEN

- Este grupo de motores consta de un motor del grupo 259 rotativo y un soporte especial que realiza el movimiento oscilante.
- Doga's 249 motor is comprised of a 130 Nm output 259 series rotating motor with added bracket and linkage for oscillation.
- Ce groupe de moteurs est composé d'un moteur rotatif de la série 259 et d'un support qui permet d'obtenir un mouvement oscillant.
- Diese Motoreinheit besteht aus einem Motor der Baureihe 259 und einer speziellen Mechanik, durch die die Pendelbewegung erreicht wird.

A continuación se presenta una tabla orientativa de correspondencias entre tipos de brazos y modelos de motor recomendados según potencia del motor y eje.

Para cualquier otra combinación pueden consultar con nosotros.

■

The following table lists recommended motors for different arms based on motor torque and shaft type.

For other combinations, please contact us.

■

Vous trouverez ci-après un tableau d'information sur les correspondances entre types de bras et modèles de moteur recommandés suivant la puissance du moteur et l'axe.

Pour toute autre combinaison, veuillez nous consulter.

■

Nachfolgend finden Sie eine Übersichtstabelle mit den je nach Motorleistung und Achse empfohlenen Kombinationen von Wischarmtypen und Motormodellen.

Wir beraten Sie gern über andere mögliche Kombinationen.

CORRESPONDENCIA BRAZOS/MOTORES
ARM/MOTOR COMPATIBILITY
CORRESPONDANCE BRAS/MOTEURS
CROSSLIST WISCHARME/MOTOREN

DOGA

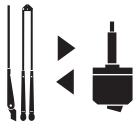
brazos y motores
arms and motors
bras et moteurs
Wischarme und Motoren

TYP			REFERENCIA MOTOR MOTOR PART NUMBER REFERENCE MOTEUR REFERENZNUMMER MOTOR		EJE SHAFT AXE WELLE	(a) Max. L mm	(b) Max. L mm	(a) Max. L mm	(b) Max. L mm
120.01	x		112.13	85º	∅ 6	300	330	500	550
120.05	x		112.15	110º	∅ 6	300	330	500	550
120.06	x		112.16	120º	∅ 6	300	330	500	550
	x		113.24	90º	∅ 6	400	500	650	750
	x		113.25	110º	∅ 6	400	500	650	750
	x		113.34	90º	∅ 6	300	400	500	600
	x		113.35	110º	∅ 6	300	400	500	600
120.20	x		111.62	70º	M 8	650	700	765	900
	x		111.63	80º	M 8	650	700	765	900
	x		111.64	90º	M 8	600	650	765	900
	x		111.66	110º	M 8	600	650	765	900
	x		116.01	70º	M 8	500	500	750	850
	x		116.04	90º	M 8	500	500	750	850
	x		116.08	110º	M 8	500	500	750	850
	x		116.44	90º	M 8	500	500	750	850
	x		116.9067	105º	M 8	450	500	725	850
	x		116.9075	60º	M 8	500	500	750	850
	x		116.9076	85º	M 8	500	500	750	850
	x		116.9109	95º	M 8	450	500	725	850
	x		116.9133	110º	M 8	450	500	725	850
	x		116.9134	90º	M 8	500	500	750	850
	x		116.9172	110º	M 8	450	500	725	850
	x		116.9181	110º	M 8	450	500	725	850
	x		116.9185	90º	M 8	500	500	750	850
	x		116.9188	80º	M 8	500	500	750	850
	x		116.9189	95º	M 8	500	500	750	850
	x		116.9190	105º	M 8	450	500	725	850
	x		116.9192	90º	M 8	500	500	750	850
	x		116.9208	90º	M 8	500	500	750	850
	x		116.9213	70º	M 8	500	500	750	850
	x		116.9639	175º	M 8	450	450	700	800
	x		116.9640	115º	M 8	400	400	650	750
	x		116.9641	175º	M 8	450	500	725	850
	x		116.9643	135º	M 8	400	400	650	750
	x		116.9645	135º	M 8	450	450	700	800
	x		116.9649	175º	M 8	400	400	650	750
	x		116.9651	135º	M 8	450	450	700	800
	x		116.9652	175º	M 8	400	400	650	750
	x		116.9653	160º	M 8	400	400	650	750
	x		116.9654	135º	M 8	450	450	700	800
	x		116.9656	175º	M 8	400	400	650	750
	x		116.9657	175º	M 8	400	400	650	750
	x		116.9658	109º	M 8	450	500	725	850
	x		116.9659	175º	M 8	400	400	650	750
	x		116.9660	135º	M 8	450	450	700	800
	x		116.9661	115º	M 8	450	500	725	850
	x		116.9662	125º	M 8	450	450	700	800
	x		116.9663	175º	M 8	400	400	650	750
	x		116.9664	175º	M 8	400	400	650	750
	x		116.9666	160º	M 8	400	400	650	750
	x		116.9667	135º	M 8	450	450	700	800
	x		116.9668	135º	M 8	450	450	700	800
	x		116.9670	135º	M 8	450	450	700	800
	x		116.9671	140º	M 8	450	450	700	800
	x		116.9672	175º	M 8	400	400	650	750
	x		116.9673	175º	M 8	400	400	650	750
	x		146.0030	85º	M 8	500	500	750	850
	x		146.0035	110º	M 8	450	500	725	850
	x		146.0037	110º	M 8	450	500	725	850
	x		146.0038	95º	M 8	500	500	750	850
	x		146.0040	85º	M 8	500	500	750	850
	x		146.0400	175º	M 8	400	400	650	750
	x		146.0406	175º	M 8	400	400	650	750
	x		146.0413	175º	M 8	400	400	650	750
	x		146.0414	160º	M 8	400	400	650	750
	x		146.0416	175º	M 8	400	400	650	750
	x		146.0419	175º	M 8	400	400	650	750
	x		146.0420	175º	M 8	400	400	650	750
	x		146.0421	175º	M 8	400	400	650	750
	x		146.0422	175º	M 8	400	400	650	750
	x		146.0426	175º	M 8	400	400	650	750

TYP			REFERENCIA MOTOR MOTOR PART NUMBER REFERENCE MOTEUR REFERENZNUMMER MOTOR		EJE SHAFT AXE WELLE	(a) Max. L mm	(b) Max. L mm	(a) Max. L mm	(b) Max. L mm
	x		146.0427	135º	M 8	450	450	700	800
	x		146.0428	160º	M 8	400	400	650	750
	x		146.0429	140º	M 8	450	450	700	800
	x		146.0430	175º	M 8	400	400	650	750
120.27	x		112.13	85º	∅ 6	300	330	500	550
	x		112.15	110º	∅ 6	300	330	500	550
	x		112.16	120º	∅ 6	300	330	500	550
	x		113.24	90º	∅ 6	400	500	650	750
	x		113.25	110º	∅ 6	400	500	650	750
	x		113.34	90º	∅ 6	300	400	500	600
	x		113.35	110º	∅ 6	300	400	500	600
120.30	x		111.62	70º	M 8	650	700	765	900
120.41	x		111.63	80º	M 8	650	700	765	900
	x		111.64	90º	M 8	600	650	765	900
	x		111.66	110º	M 8	600	650	765	900
	x		116.01	70º	M 8	500	500	750	850
	x		116.04	90º	M 8	500	500	750	850
	x		116.08	110º	M 8	500	500	750	850
	x		116.44	90º	M 8	500	500	750	850
	x		116.9067	105º	M 8	450	500	725	850
	x		116.9075	60º	M 8	500	500	750	850
	x		116.9076	85º	M 8	500	500	750	850
	x		116.9109	95º	M 8	450	500	725	850
	x		116.9133	110º	M 8	450	500	725	850
	x		116.9134	90º	M 8	500	500	750	850
	x		116.9172	110º	M 8	450	500	725	850
	x		116.9181	110º	M 8	450	500	725	850
	x		116.9185	90º	M 8	500	500	750	850
	x		116.9188	80º	M 8	500	500	750	850
	x		116.9189	95º	M 8	500	500	750	850
	x		116.9190	105º	M 8	450	500	725	850
	x		116.9192	90º	M 8	500	500	750	850
	x		116.9208	90º	M 8	500	500	750	850
	x		116.9213	70º	M 8	500	500	750	850
	x		116.9639	175º	M 8	450	450	700	800
	x		116.9640	115º	M 8	400	400	650	750
	x		116.9641	175º	M 8	450	500	725	850
	x		116.9643	135º	M 8	400	400	650	750
	x		116.9645	135º	M 8	450	450	700	800
	x		116.9649	175º	M 8	400	400	650	750
	x		116.9651	135º	M 8	450	450	700	800
	x		116.9652	175º	M 8	400	400	650	750
	x		116.9653	160º	M 8	400	400	650	750
	x		116.9654	135º	M 8	450	450	700	800
	x		116.9656	175º	M 8	400	400	650	750
	x		116.9657	175º	M 8	400	400	650	750
	x		116.9658	109º	M 8	450	500	725	850
	x		116.9659	175º	M 8	400	400	650	750
	x		116.9660	135º	M 8	450	450	700	800
	x		116.9661	115º	M 8	450	500	725	850
	x		116.9662	125º	M 8	450	450	700	800
	x		116.9663	175º	M 8	400	400	650	750
	x		116.9664	175º	M 8	400	400	650	750
	x		116.9666	160º	M 8	400	400	650	750
	x		116.9667	135º	M 8	450	450	700	800
	x		116.9668	135º	M 8	450	450	700	800
	x		116.9670	135º	M 8	450	450	700	800
	x		116.9671	140º	M 8	450	450	700	800
	x		116.9672	175º	M 8	400	400	650	750
	x		116.9673	175º	M 8	400	400	650	750
	x		146.0030	85º	M 8	500	500	750	850
	x		146.0035	110º	M 8	450	500	725	850
	x		146.0037	110º	M 8	450	500	725	850
	x		146.0038	95º	M 8	500	500	750	850
	x		146.0040	85º	M 8	500	500	750	850
	x		146.0400	175º	M 8	400	400	650	750
	x		146.0406	175º	M 8	400	400	650	750
	x		146.0413	175º	M 8	400	400	650	750
	x		146.0414	160º	M 8	400	400	650	750

DOGA

brazos y motores
arms and motors
bras et moteurs
Wischarme und Motoren



TYP			REFERENCIA MOTOR MOTOR PART NUMBER REFERENCE MOTEUR REFERENZNUMMER MOTOR		EJE SHAFT AXE WELLE	(a) Max. L mm	(b) Max. L mm	(a) Max. L mm	(b) Max. L mm
	x		146.0416	175º	M 8	400	400	650	750
	x		146.0419	175º	M 8	400	400	650	750
	x		146.0420	175º	M 8	400	400	650	750
	x		146.0421	175º	M 8	400	400	650	750
	x		146.0422	175º	M 8	400	400	650	750
	x		146.0426	175º	M 8	400	400	650	750
	x		146.0427	135º	M 8	450	450	700	800
	x		146.0428	160º	M 8	400	400	650	750
	x		146.0429	140º	M 8	450	450	700	800
	x		146.0430	175º	M 8	400	400	650	750
120.42	x		113.53	80º	M 6	400	500	650	750
	x		113.54	90º	M 6	400	500	650	750
	x		113.55	110º	M 6	400	500	650	750
	x		113.56	95º	M 6	400	500	650	750
	x		116.14	90º	M 6	500	500	750	850
	x		116.18	110º	M 6	500	500	750	850
	x		116.52	80º	M 6	500	500	750	850
	x		116.53	85º	M 6	500	500	750	850
	x		116.54	90º	M 6	500	500	750	850
	x		116.55	95º	M 6	500	500	750	850
	x		116.58	110º	M 6	500	500	750	850
	x		116.9182	90º	M 6	500	500	750	850
	x		116.9183	90º	M 6	500	500	750	850
	x		116.9184	80º	M 6	500	500	750	850
	x		116.9186	110º	M 6	450	500	725	850
	x		116.9191	95º	M 6	450	500	725	850
	x		116.9206	60º	M 6	500	500	750	850
	x		116.9637	115º	M 6	450	500	725	850
	x		116.9638	135º	M 6	450	500	725	850
120.45	x		111.62	70º	M 8	650	700	765	900
	x		111.63	80º	M 8	650	700	765	900
	x		111.64	90º	M 8	600	650	765	900
	x		111.66	110º	M 8	600	650	765	900
	x		116.01	70º	M 8	500	500	750	850
	x		116.04	90º	M 8	500	500	750	850
	x		116.08	110º	M 8	500	500	750	850
	x		116.44	90º	M 8	500	500	750	850
	x		116.9067	105º	M 8	450	500	725	850
	x		116.9075	60º	M 8	500	500	750	850
	x		116.9076	85º	M 8	500	500	750	850
	x		116.9109	95º	M 8	450	500	725	850
	x		116.9133	110º	M 8	450	500	725	850
	x		116.9134	90º	M 8	500	500	750	850
	x		116.9172	110º	M 8	450	500	725	850
	x		116.9181	110º	M 8	450	500	725	850
	x		116.9185	90º	M 8	500	500	750	850
	x		116.9188	80º	M 8	500	500	750	850
	x		116.9189	95º	M 8	500	500	750	850
	x		116.9190	105º	M 8	450	500	725	850
	x		116.9192	90º	M 8	500	500	750	850
	x		116.9208	90º	M 8	500	500	750	850
	x		116.9213	70º	M 8	500	500	750	850
	x		116.9639	175º	M 8	450	450	700	800
	x		116.9640	115º	M 8	400	400	650	750
	x		116.9641	175º	M 8	450	500	725	850
	x		116.9643	135º	M 8	400	400	650	750
	x		116.9645	135º	M 8	450	450	700	800
	x		116.9649	175º	M 8	400	400	650	750
	x		116.9651	135º	M 8	450	450	700	800
	x		116.9652	175º	M 8	400	400	650	750
	x		116.9653	160º	M 8	400	400	650	750
	x		116.9654	135º	M 8	450	450	700	800
	x		116.9656	175º	M 8	400	400	650	750
	x		116.9657	175º	M 8	400	400	650	750
	x		116.9658	109º	M 8	450	500	725	850
	x		116.9659	175º	M 8	400	400	650	750
	x		116.9660	135º	M 8	450	450	700	800
	x		116.9661	115º	M 8	450	500	725	850
	x		116.9662	125º	M 8	450	450	700	800

TYP			REFERENCIA MOTOR MOTOR PART NUMBER REFERENCE MOTEUR REFERENZNUMMER MOTOR		EJE SHAFT AXE WELLE	(a) Max. L mm	(b) Max. L mm	(a) Max. L mm	(b) Max. L mm
	x		116.9663	175º	M 8	400	400	650	750
	x		116.9664	175º	M 8	400	400	650	750
	x		116.9666	160º	M 8	400	400	650	750
	x		116.9667	135º	M 8	450	450	700	800
	x		116.9668	135º	M 8	450	450	700	800
	x		116.9670	135º	M 8	450	450	700	800
	x		116.9671	140º	M 8	450	450	700	800
	x		116.9672	175º	M 8	400	400	650	750
	x		116.9673	175º	M 8	400	400	650	750
	x		146.0030	85º	M 8	500	500	750	850
	x		146.0035	110º	M 8	450	500	725	850
	x		146.0037	110º	M 8	450	500	725	850
	x		146.0038	95º	M 8	500	500	750	850
	x		146.0040	85º	M 8	500	500	750	850
	x		146.0400	175º	M 8	400	400	650	750
	x		146.0406	175º	M 8	400	400	650	750
	x		146.0413	175º	M 8	400	400	650	750
	x		146.0414	160º	M 8	400	400	650	750
	x		146.0416	175º	M 8	400	400	650	750
	x		146.0419	175º	M 8	400	400	650	750
	x		146.0420	175º	M 8	400	400	650	750
	x		146.0421	175º	M 8	400	400	650	750
	x		146.0422	175º	M 8	400	400	650	750
	x		146.0426	175º	M 8	400	400	650	750
	x		146.0427	135º	M 8	450	450	700	800
	x		146.0428	160º	M 8	400	400	650	750
	x		146.0429	140º	M 8	450	450	700	800
	x		146.0430	175º	M 8	400	400	650	750
120.48	x		248.1010	140º	M 10	800	900	970	1100
	x		248.1011	140º	M 10	800	900	970	1100
	x		248.1012	165º	M 10	800	900	970	1100
120.50	x		111.62	70º	M 8	650	700	765	900
120.52	x		111.63	80º	M 8	650	700	765	900
120.53	x		111.64	90º	M 8	600	650	765	900
120.58	x		111.66	110º	M 8	600	650	765	900
	x		116.01	70º	M 8	500	500	750	850
	x		116.04	90º	M 8	500	500	750	850
	x		116.08	110º	M 8	500	500	750	850
	x		116.44	90º	M 8	500	500	750	850
	x		116.9067	105º	M 8	450	500	725	850
	x		116.9075	60º	M 8	500	500	750	850
	x		116.9076	85º	M 8	500	500	750	850
	x		116.9109	95º	M 8	450	500	725	850
	x		116.9133	110º	M 8	450	500	725	850
	x		116.9134	90º	M 8	500	500	750	850
	x		116.9172	110º	M 8	450	500	725	850
	x		116.9181	110º	M 8	450	500	725	850
	x		116.9185	90º	M 8	500	500	750	850
	x		116.9188	80º	M 8	500	500	750	850
	x		116.9189	95º	M 8	500	500	750	850
	x		116.9190	105º	M 8	450	500	725	850
	x		116.9192	90º	M 8	500	500	750	850
	x		116.9208	90º	M 8	500	500	750	850
	x		116.9213	70º	M 8	500	500	750	850
	x		116.9639	175º	M 8	450	450	700	800
	x		116.9640	115º	M 8	400	400	650	750
	x		116.9641	175º	M 8	450	500	725	850
	x		116.9643	135º	M 8	400	400	650	750
	x		116.9645	135º	M 8	450	450	700	800
	x		116.9649	175º	M 8	400	400	650	750
	x		116.9651	135º	M 8	450	450	700	800
	x		116.9652	175º	M 8	400	400	650	750
	x		116.9653	160º	M 8	400	400	650	750
	x		116.9654	135º	M 8	450	450	700	800
	x		116.9656	175º	M 8	400	400	650	750
	x		116.9657	175º	M 8	400	400	650	750
	x		116.9658	109º	M 8	450	500	725	850
	x		116.9659	175º	M 8	400	400	650	750
	x		116.9660	135º	M 8	450	450	700	800

DOGA

brazos y motores
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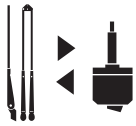
Wischarme und Motoren



TYP			REFERENCIA MOTOR MOTOR PART NUMBER REFERENCE MOTEUR REFERENZNUMMER MOTOR		EJE SHAFT AXE WELLE	(a) Max. L mm	(b) Max. L mm	(a) Max. L mm	(b) Max. L mm
	x		116.9661	115º	M 8	450	500	725	850
	x		116.9662	125º	M 8	450	450	700	800
	x		116.9663	175º	M 8	400	400	650	750
	x		116.9664	175º	M 8	400	400	650	750
	x		116.9666	160º	M 8	400	400	650	750
	x		116.9667	135º	M 8	450	450	700	800
	x		116.9668	135º	M 8	450	450	700	800
	x		116.9670	135º	M 8	450	450	700	800
	x		116.9671	140º	M 8	450	450	700	800
	x		116.9672	175º	M 8	400	400	650	750
	x		116.9673	175º	M 8	400	400	650	750
	x		146.0030	85º	M 8	500	500	750	850
	x		146.0035	110º	M 8	450	500	725	850
	x		146.0037	110º	M 8	450	500	725	850
	x		146.0038	95º	M 8	500	500	750	850
	x		146.0040	85º	M 8	500	500	750	850
	x		146.0400	175º	M 8	400	400	650	750
	x		146.0406	175º	M 8	400	400	650	750
	x		146.0413	175º	M 8	400	400	650	750
	x		146.0414	160º	M 8	400	400	650	750
	x		146.0416	175º	M 8	400	400	650	750
	x		146.0419	175º	M 8	400	400	650	750
	x		146.0420	175º	M 8	400	400	650	750
	x		146.0421	175º	M 8	400	400	650	750
	x		146.0422	175º	M 8	400	400	650	750
	x		146.0426	175º	M 8	400	400	650	750
	x		146.0427	135º	M 8	450	450	700	800
	x		146.0428	160º	M 8	400	400	650	750
	x		146.0429	140º	M 8	450	450	700	800
	x		146.0430	175º	M 8	400	400	650	750
120.61	x		113.53	80º	M 6	400	500	650	750
120.63	x		113.54	90º	M 6	400	500	650	750
	x		113.55	110º	M 6	400	500	650	750
	x		113.56	95º	M 6	400	500	650	750
	x		116.14	90º	M 6	500	500	750	850
	x		116.18	110º	M 6	500	500	750	850
	x		116.52	80º	M 6	500	500	750	850
	x		116.53	85º	M 6	500	500	750	850
	x		116.54	90º	M 6	500	500	750	850
	x		116.55	95º	M 6	500	500	750	850
	x		116.58	110º	M 6	500	500	750	850
	x		116.9182	90º	M 6	500	500	750	850
	x		116.9183	90º	M 6	500	500	750	850
	x		116.9184	80º	M 6	500	500	750	850
	x		116.9186	110º	M 6	450	500	725	850
	x		116.9191	95º	M 6	450	500	725	850
	x		116.9206	60º	M 6	500	500	750	850
	x		116.9637	115º	M 6	450	500	725	850
	x		116.9638	135º	M 6	450	500	725	850
120.65	x		111.62	70º	M 8	650	700	765	900
	x		111.63	80º	M 8	650	700	765	900
	x		111.64	90º	M 8	600	650	765	900
	x		111.66	110º	M 8	600	650	765	900
	x		116.01	70º	M 8	500	500	750	850
	x		116.04	90º	M 8	500	500	750	850
	x		116.08	110º	M 8	500	500	750	850
	x		116.44	90º	M 8	500	500	750	850
	x		116.9067	105º	M 8	450	500	725	850
	x		116.9075	60º	M 8	500	500	750	850
	x		116.9076	85º	M 8	500	500	750	850
	x		116.9109	95º	M 8	450	500	725	850
	x		116.9133	110º	M 8	450	500	725	850
	x		116.9134	90º	M 8	500	500	750	850
	x		116.9172	110º	M 8	450	500	725	850
	x		116.9181	110º	M 8	450	500	725	850
	x		116.9185	90º	M 8	500	500	750	850
	x		116.9188	80º	M 8	500	500	750	850
	x		116.9189	95º	M 8	500	500	750	850
	x		116.9190	105º	M 8	450	500	725	850

TYP			REFERENCIA MOTOR MOTOR PART NUMBER REFERENCE MOTEUR REFERENZNUMMER MOTOR		EJE SHAFT AXE WELLE	(a) Max. L mm	(b) Max. L mm	(a) Max. L mm	(b) Max. L mm
	x		116.9192	90º	M 8	500	500	750	850
	x		116.9208	90º	M 8	500	500	750	850
	x		116.9213	70º	M 8	500	500	750	850
	x		116.9639	175º	M 8	450	450	700	800
	x		116.9640	115º	M 8	400	400	650	750
	x		116.9641	175º	M 8	450	500	725	850
	x		116.9643	135º	M 8	400	400	650	750
	x		116.9645	135º	M 8	450	450	700	800
	x		116.9649	175º	M 8	400	400	650	750
	x		116.9651	135º	M 8	450	450	700	800
	x		116.9652	175º	M 8	400	400	650	750
	x		116.9653	160º	M 8	400	400	650	750
	x		116.9654	135º	M 8	450	450	700	800
	x		116.9656	175º	M 8	400	400	650	750
	x		116.9657	175º	M 8	400	400	650	750
	x		116.9658	109º	M 8	450	500	725	850
	x		116.9659	175º	M 8	400	400	650	750
	x		116.9660	135º	M 8	450	450	700	800
	x		116.9661	115º	M 8	450	500	725	850
	x		116.9662	125º	M 8	450	450	700	800
	x		116.9663	175º	M 8	400	400	650	750
	x		116.9664	175º	M 8	400	400	650	750
	x		116.9666	160º	M 8	400	400	650	750
	x		116.9667	135º	M 8	450	450	700	800
	x		116.9668	135º	M 8	450	450	700	800
	x		116.9670	135º	M 8	450	450	700	800
	x		116.9671	140º	M 8	450	450	700	800
	x		116.9672	175º	M 8	400	400	650	750
	x		116.9673	175º	M 8	400	400	650	750
	x		146.0030	85º	M 8	500	500	750	850
	x		146.0035	110º	M 8	450	500	725	850
	x		146.0037	110º	M 8	450	500	725	850
	x		146.0038	95º	M 8	500	500	750	850
	x		146.0040	85º	M 8	500	500	750	850
	x		146.0400	175º	M 8	400	400	650	750
	x		146.0406	175º	M 8	400	400	650	750
	x		146.0413	175º	M 8	400	400	650	750
	x		146.0414	160º	M 8	400	400	650	750
	x		146.0416	175º	M 8	400	400	650	750
	x		146.0419	175º	M 8	400	400	650	750
	x		146.0420	175º	M 8	400	400	650	750
	x		146.0421	175º	M 8	400	400	650	750
	x		146.0422	175º	M 8	400	400	650	750
	x		146.0426	175º	M 8	400	400	650	750
	x		146.0427	135º	M 8	450	450	700	800
	x		146.0428	160º	M 8	400	400	650	750
	x		146.0429	140º	M 8	450	450	700	800
	x		146.0430	175º	M 8	400	400	650	750
120.67	x		248.1010	140º	M 10	800	900	970	1100
	x		248.1011	140º	M 10	800	900	970	1100
	x		248.1012	165º	M 10	800	900	970	1100
120.69	x		113.53	80º	M 6	400	500	650	750
	x		113.54	90º	M 6	400	500	650	750
	x		113.55	110º	M 6	400	500	650	750
	x		113.56	95º	M 6	400	500	650	750
	x		116.14	90º	M 6	500	500	750	850
	x		116.18	110º	M 6	500	500	750	850
	x		116.52	80º	M 6	500	500	750	850
	x		116.53	85º	M 6	500	500	750	850
	x		116.54	90º	M 6	500	500	750	850
	x		116.55	95º	M 6	500	500	750	850
	x		116.58	110º	M 6	500	500	750	850
	x		116.9182	90º	M 6	500	500	750	850
	x		116.9183	90º	M 6	500	500	750	850
	x		116.9184	80º	M 6	500	500	750	850
	x		116.9186	110º	M 6	450	500	725	850
	x		116.9191	95º	M 6	450	500	725	850
	x		116.9206	60º	M 6	500	500	750	850
	x		116.9637	115º	M 6	450	500	725	850

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brazos y motores
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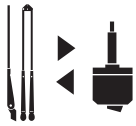
Wischarme und Motoren



TYP			REFERENCIA MOTOR MOTOR PART NUMBER REFERENCE MOTEUR REFERENZNUMMER MOTOR		EJE SHAFT AXE WELLE	(a) Max. L mm	(b) Max. L mm	(a) Max. L mm	(b) Max. L mm
	x		116.9638	135º	M 6	450	500	725	850
120.70	x		111.62	70º	M 8	650	700	765	900
120.71	x		111.63	80º	M 8	650	700	765	900
	x		111.64	90º	M 8	600	650	765	900
	x		111.66	110º	M 8	600	650	765	900
	x		116.01	70º	M 8	500	500	750	850
	x		116.04	90º	M 8	500	500	750	850
	x		116.08	110º	M 8	500	500	750	850
	x		116.44	90º	M 8	500	500	750	850
	x		116.9067	105º	M 8	450	500	725	850
	x		116.9075	60º	M 8	500	500	750	850
	x		116.9076	85º	M 8	500	500	750	850
	x		116.9109	95º	M 8	450	500	725	850
	x		116.9133	110º	M 8	450	500	725	850
	x		116.9134	90º	M 8	500	500	750	850
	x		116.9172	110º	M 8	450	500	725	850
	x		116.9181	110º	M 8	450	500	725	850
	x		116.9185	90º	M 8	500	500	750	850
	x		116.9188	80º	M 8	500	500	750	850
	x		116.9189	95º	M 8	500	500	750	850
	x		116.9190	105º	M 8	450	500	725	850
	x		116.9192	90º	M 8	500	500	750	850
	x		116.9208	90º	M 8	500	500	750	850
	x		116.9213	70º	M 8	500	500	750	850
	x		116.9639	175º	M 8	450	450	700	800
	x		116.9640	115º	M 8	400	400	650	750
	x		116.9641	175º	M 8	450	500	725	850
	x		116.9643	135º	M 8	400	400	650	750
	x		116.9645	135º	M 8	450	450	700	800
	x		116.9649	175º	M 8	400	400	650	750
	x		116.9651	135º	M 8	450	450	700	800
	x		116.9652	175º	M 8	400	400	650	750
	x		116.9653	160º	M 8	400	400	650	750
	x		116.9654	135º	M 8	450	450	700	800
	x		116.9656	175º	M 8	400	400	650	750
	x		116.9657	175º	M 8	400	400	650	750
	x		116.9658	109º	M 8	450	500	725	850
	x		116.9659	175º	M 8	400	400	650	750
	x		116.9660	135º	M 8	450	450	700	800
	x		116.9661	115º	M 8	450	500	725	850
	x		116.9662	125º	M 8	450	450	700	800
	x		116.9663	175º	M 8	400	400	650	750
	x		116.9664	175º	M 8	400	400	650	750
	x		116.9666	160º	M 8	400	400	650	750
	x		116.9667	135º	M 8	450	450	700	800
	x		116.9668	135º	M 8	450	450	700	800
	x		116.9670	135º	M 8	450	450	700	800
	x		116.9671	140º	M 8	450	450	700	800
	x		116.9672	175º	M 8	400	400	650	750
	x		116.9673	175º	M 8	400	400	650	750
	x		146.0030	85º	M 8	500	500	750	850
	x		146.0035	110º	M 8	450	500	725	850
	x		146.0037	110º	M 8	450	500	725	850
	x		146.0038	95º	M 8	500	500	750	850
	x		146.0040	85º	M 8	500	500	750	850
	x		146.0400	175º	M 8	400	400	650	750
	x		146.0406	175º	M 8	400	400	650	750
	x		146.0413	175º	M 8	400	400	650	750
	x		146.0414	160º	M 8	400	400	650	750
	x		146.0416	175º	M 8	400	400	650	750
	x		146.0419	175º	M 8	400	400	650	750
	x		146.0420	175º	M 8	400	400	650	750
	x		146.0421	175º	M 8	400	400	650	750
	x		146.0422	175º	M 8	400	400	650	750
	x		146.0426	175º	M 8	400	400	650	750
	x		146.0427	135º	M 8	450	450	700	800
	x		146.0428	160º	M 8	400	400	650	750
	x		146.0429	140º	M 8	450	450	700	800
	x		146.0430	175º	M 8	400	400	650	750

TYP			REFERENCIA MOTOR MOTOR PART NUMBER REFERENCE MOTEUR REFERENZNUMMER MOTOR		EJE SHAFT AXE WELLE	(a) Max. L mm	(b) Max. L mm	(a) Max. L mm	(b) Max. L mm
120.72		x	113.53	80º	M 6	400	500	650	750
		x	113.54	90º	M 6	400	500	650	750
		x	113.55	110º	M 6	400	500	650	750
		x	113.56	95º	M 6	400	500	650	750
		x	116.14	90º	M 6	500	500	750	850
		x	116.18	110º	M 6	500	500	750	850
		x	116.52	80º	M 6	500	500	750	850
		x	116.53	85º	M 6	500	500	750	850
		x	116.54	90º	M 6	500	500	750	850
		x	116.55	95º	M 6	500	500	750	850
		x	116.58	110º	M 6	500	500	750	850
		x	116.9182	90º	M 6	500	500	750	850
		x	116.9183	90º	M 6	500	500	750	850
		x	116.9184	80º	M 6	500	500	750	850
		x	116.9186	110º	M 6	450	500	725	850
		x	116.9191	95º	M 6	450	500	725	850
		x	116.9206	60º	M 6	500	500	750	850
		x	116.9637	115º	M 6	450	500	725	850
		x	116.9638	135º	M 6	450	500	725	850
120.79	x		111.62	70º	M 8	650	700	765	900
120.83	x		111.63	80º	M 8	650	700	765	900
120.87	x		111.64	90º	M 8	600	650	765	900
120.88	x		111.66	110º	M 8	600	650	765	900
120.89	x		116.01	70º	M 8	500	500	750	850
120.91	x		116.04	90º	M 8	500	500	750	850
120.93	x		116.08	110º	M 8	500	500	750	850
120.97	x		116.44	90º	M 8	500	500	750	850
	x		116.9067	105º	M 8	450	500	725	850
	x		116.9075	60º	M 8	500	500	750	850
	x		116.9076	85º	M 8	500	500	750	850
	x		116.9109	95º	M 8	450	500	725	850
	x		116.9133	110º	M 8	450	500	725	850
	x		116.9134	90º	M 8	500	500	750	850
	x		116.9172	110º	M 8	450	500	725	850
	x		116.9181	110º	M 8	450	500	725	850
	x		116.9185	90º	M 8	500	500	750	850
	x		116.9188	80º	M 8	500	500	750	850
	x		116.9189	95º	M 8	500	500	750	850
	x		116.9190	105º	M 8	450	500	725	850
	x		116.9192	90º	M 8	500	500	750	850
	x		116.9208	90º	M 8	500	500	750	850
	x		116.9213	70º	M 8	500	500	750	850
	x		116.9639	175º	M 8	450	450	700	800
	x		116.9640	115º	M 8	400	400	650	750
	x		116.9641	175º	M 8	450	500	725	850
	x		116.9643	135º	M 8	400	400	650	750
	x		116.9645	135º	M 8	450	450	700	800
	x		116.9649	175º	M 8	400	400	650	750
	x		116.9651	135º	M 8	450	450	700	800
	x		116.9652	175º	M 8	400	400	650	750
	x		116.9653	160º	M 8	400	400	650	750
	x		116.9654	135º	M 8	450	450	700	800
	x		116.9656	175º	M 8	400	400	650	750
	x		116.9657	175º	M 8	400	400	650	750
	x		116.9658	109º	M 8	450	500	725	850
	x		116.9659	175º	M 8	400	400	650	750
	x		116.9660	135º	M 8	450	450	700	800
	x		116.9661	115º	M 8	450	500	725	850
	x		116.9662	125º	M 8	450	450	700	800
	x		116.9663	175º	M 8	400	400	650	750
	x		116.9664	175º	M 8	400	400	650	750
	x		116.9666	160º	M 8	400	400	650	750
	x		116.9667	135º	M 8	450	450	700	800
	x		116.9668	135º	M 8	450	450	700	800
	x		116.9670	135º	M 8	450	450	700	800
	x		116.9671	140º	M 8	450	450	700	800
	x		116.9672	175º	M 8	400	400	650	750
	x		116.9673	175º	M 8	400	400	650	750
	x		146.0030	85º	M 8	500	500	750	850
	x		146.0035	110º	M 8	450	500	725	850
	x		146.0037	110º	M 8	450	500	725	850

TYP			REFERENCIA MOTOR MOTOR PART NUMBER REFERENCE MOTEUR REFERENZNUMMER MOTOR		EJE SHAFT AXE WELLE	(a) Max. L mm	(b) Max. L mm	(a) Max. L mm	(b) Max. L mm
	x		146.0038	95º	M 8	500	500	750	850
	x		146.0040	85º	M 8	500	500	750	850
	x		146.0400	175º	M 8	400	400	650	750
	x		146.0406	175º	M 8	400	400	650	750
	x		146.0413	175º	M 8	400	400	650	750
	x		146.0414	160º	M 8	400	400	650	750
	x		146.0416	175º	M 8	400	400	650	750
	x		146.0419	175º	M 8	400	400	650	750
	x		146.0420	175º	M 8	400	400	650	750
	x		146.0421	175º	M 8	400	400	650	750
	x		146.0422	175º	M 8	400	400	650	750
	x		146.0426	175º	M 8	400	400	650	750
	x		146.0427	135º	M 8	450	450	700	800
	x		146.0428	160º	M 8	400	400	650	750
	x		146.0429	140º	M 8	450	450	700	800
	x		146.0430	175º	M 8	400	400	650	750
121.01		x	113.24	90º	∅ 6	400	500	650	750
		x	113.25	110º	∅ 6	400	500	650	750
121.02 **121.03**		x	113.53	80º	M 6	400	500	650	750
		x	113.54	90º	M 6	400	500	650	750
		x	113.55	110º	M 6	400	500	650	750
		x	113.56	95º	M 6	400	500	650	750
		x	116.14	90º	M 6	500	500	750	850
		x	116.18	110º	M 6	500	500	750	850
		x	116.52	80º	M 6	500	500	750	850
		x	116.53	85º	M 6	500	500	750	850
		x	116.54	90º	M 6	500	500	750	850
		x	116.55	95º	M 6	500	500	750	850
		x	116.58	110º	M 6	500	500	750	850
		x	116.9182	90º	M 6	500	500	750	850
		x	116.9183	90º	M 6	500	500	750	850
		x	116.9184	80º	M 6	500	500	750	850
		x	116.9186	110º	M 6	450	500	725	850
		x	116.9191	95º	M 6	450	500	725	850
		x	116.9206	60º	M 6	500	500	750	850
		x	116.9637	115º	M 6	450	500	725	850
		x	116.9638	135º	M 6	450	500	725	850
121.05 **121.06** **121.09**		x	116.01	70º	M 8	500	500	750	850
		x	116.04	90º	M 8	500	500	750	850
		x	116.08	110º	M 8	500	500	750	850
		x	116.44	90º	M 8	500	500	750	850
		x	116.9067	105º	M 8	450	500	725	850
		x	116.9075	60º	M 8	500	500	750	850
		x	116.9076	85º	M 8	500	500	750	850
		x	116.9109	95º	M 8	450	500	725	850
		x	116.9133	110º	M 8	450	500	725	850
		x	116.9134	90º	M 8	500	500	750	850
		x	116.9172	110º	M 8	450	500	725	850
		x	116.9181	110º	M 8	450	500	725	850
		x	116.9185	90º	M 8	500	500	750	850
		x	116.9188	80º	M 8	500	500	750	850
		x	116.9189	95º	M 8	500	500	750	850
		x	116.9190	105º	M 8	450	500	725	850
		x	116.9192	90º	M 8	500	500	750	850
		x	116.9208	90º	M 8	500	500	750	850
		x	116.9213	70º	M 8	500	500	750	850
		x	116.9639	175º	M 8	450	450	700	800
		x	116.9640	115º	M 8	400	400	650	750
		x	116.9641	175º	M 8	450	500	725	850
		x	116.9643	135º	M 8	400	400	650	750
		x	116.9645	135º	M 8	450	450	700	800
		x	116.9649	175º	M 8	400	400	650	750
		x	116.9651	135º	M 8	450	450	700	800
		x	116.9652	175º	M 8	400	400	650	750
		x	116.9653	160º	M 8	400	400	650	750
		x	116.9654	135º	M 8	450	450	700	800
		x	116.9656	175º	M 8	400	400	650	750

TYP			REFERENCIA MOTOR MOTOR PART NUMBER REFERENCE MOTEUR REFERENZNUMMER MOTOR		EJE SHAFT AXE WELLE	(a) Max. L mm	(b) Max. L mm	(a) Max. L mm	(b) Max. L mm
		x	116.9657	175º	M 8	400	400	650	750
		x	116.9658	109º	M 8	450	500	725	850
		x	116.9659	175º	M 8	400	400	650	750
		x	116.9660	135º	M 8	450	450	700	800
		x	116.9661	115º	M 8	450	500	725	850
		x	116.9662	125º	M 8	450	450	700	800
		x	116.9663	175º	M 8	400	400	650	750
		x	116.9664	175º	M 8	400	400	650	750
		x	116.9666	160º	M 8	400	400	650	750
		x	116.9667	135º	M 8	450	450	700	800
		x	116.9668	135º	M 8	450	450	700	800
		x	116.9670	135º	M 8	450	450	700	800
		x	116.9671	140º	M 8	450	450	700	800
		x	116.9672	175º	M 8	400	400	650	750
		x	116.9673	175º	M 8	400	400	650	750
		x	146.0030	85º	M 8	500	500	750	850
		x	146.0035	110º	M 8	450	500	725	850
		x	146.0037	110º	M 8	450	500	725	850
		x	146.0038	95º	M 8	500	500	750	850
		x	146.0040	85º	M 8	500	500	750	850
		x	146.0400	175º	M 8	400	400	650	750
		x	146.0406	175º	M 8	400	400	650	750
		x	146.0413	175º	M 8	400	400	650	750
		x	146.0414	160º	M 8	400	400	650	750
		x	146.0416	175º	M 8	400	400	650	750
		x	146.0419	175º	M 8	400	400	650	750
		x	146.0420	175º	M 8	400	400	650	750
		x	146.0421	175º	M 8	400	400	650	750
		x	146.0422	175º	M 8	400	400	650	750
		x	146.0426	175º	M 8	400	400	650	750
		x	146.0427	135º	M 8	450	450	700	800
		x	146.0428	160º	M 8	400	400	650	750
		x	146.0429	140º	M 8	450	450	700	800
		x	146.0430	175º	M 8	400	400	650	750
		x	249.5606	80º	M 8	1000	1000	1500	1500
123.07		x	113.72	60º	M 8	400	500	650	750
123.11		x	113.74	90º	M 8	400	500	650	750
		x	249.5606	80º	M 8	1000	1000	1500	1500
127.06		x	111.71	60º	M 8	700	750	950	1050
127.07		x	111.72	70º	M 8	650	700	950	1050
127.09		x	111.73	80º	M 8	650	700	950	1050
127.10		x	111.74	90º	M 8	650	700	950	1050
127.13		x	111.81	60º	M 8	700	750	950	1050
127.14		x	111.82	70º	M 8	650	700	950	1050
127.15		x	111.83	80º	M 8	650	700	950	1050
127.16		x	111.84	90º	M 8	650	700	950	1050
127.17		x	119.52	60º	M 8	800	900	1200	1300
128.01		x	119.53	72º	M 8	800	900	1200	1300
128.03		x	119.54	80º	M 8	800	900	1200	1300
128.04		x	119.60	40º	M 8	800	900	1200	1300
		x	119.62	60º	M 8	800	900	1200	1300
		x	119.63	72º	M 8	800	900	1200	1300
		x	119.64	80º	M 8	800	900	1200	1300
		x	249.5606	80º	M 8	1000	1000	1500	1500
128.08		x	119.52	60º	M 8	800	900	1200	1300
		x	119.53	72º	M 8	800	900	1200	1300
		x	119.54	80º	M 8	800	900	1200	1300
		x	119.60	40º	M 8	800	900	1200	1300
		x	119.62	60º	M 8	800	900	1200	1300
		x	119.63	72º	M 8	800	900	1200	1300
		x	119.64	80º	M 8	800	900	1200	1300
		x	249.5606	80º	M 8	1000	1000	1500	1500
128.09		x	249.5601	80º	M10/M8	1000	1000	1500	1500
		x	249.5602	70º	M10/M8	1000	1000	1500	1500

Los brazos DOGA, simples y paralelos,
se encuentran ordenados por TYP,
es decir, por tipo de brazo.

Para determinar la combinación óptima
de brazo y escobilla según sus necesidades puede
consultar los datos en la hoja correspondiente del
apartado de motores o completar la ficha técnica
del último apartado de este catálogo.

■

DOGA's arms, both simple and pantograph,
are grouped by TYP, that is, by type of arm
for your convenience.

To work out the best combination of arm
and blade for your needs, consult
the information in the motor section or
complete the form in the last
section of this catalogue.

■

Les bras DOGA, simples et parallèles, sont
classés par TYPE, c'est-à-dire par type de bras.

Pour décider quelle est la meilleure
combinaison de bras et de balais selon vos besoins,
vous pouvez consulter les données sur
la feuille correspondante de la section
des moteurs ou compléter la fiche technique
de la dernière section de ce catalogue.

■

Die DOGA-Wischarme, Einzel- und
Parallelogrammarme, sind nach unterschiedlichen
TYPEN geordnet.

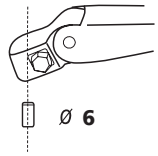
Die für Ihre Anforderungen optimale Kombination
von Wischarm und Wischerblatt können Sie dem
Datenblatt im Abschnitt Motoren entnehmen,
oder füllen Sie das technische Datenblatt
im letzten Abschnitt dieses Katalogs aus.

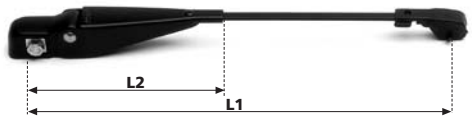
recuerde - remember - rappelez-vous - Bitte beachten Sie

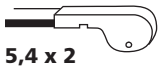
Inclinación del brazo
Arm bend angle
Inclinaison du bras
Wischarmneigung

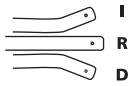
I	R	D
Izquierda Left Gauche Links	Recto Center Droit Senkrecht	Derecha Right Droite Rechts

BRAZOS LIMPIAPARABRISAS
WINDSHIELD WIPER ARMS
BRAS ESSUIE-GLACE
SCHEIBENWISCHERARME

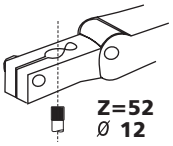


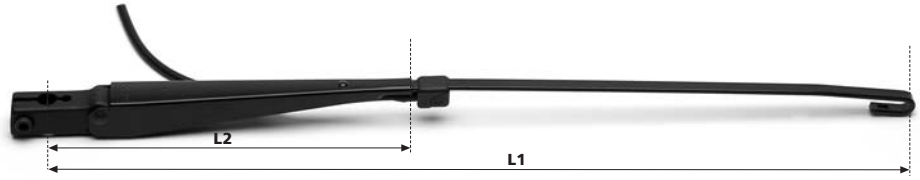


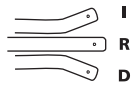




TYP	Ref.	Mod.	L1(mm)	L2(mm)		
120.01	**120.0102.GA.R4**	LAND ROVER (1series)	**216**	**102**	**R**	**-**

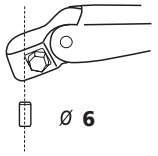


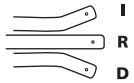




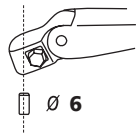
TYP	Ref.	Mod.	L1(mm)	L2(mm)		
120.02	**120.0251.GA.R4**	*	**500**	**210**	**R**	**✓**

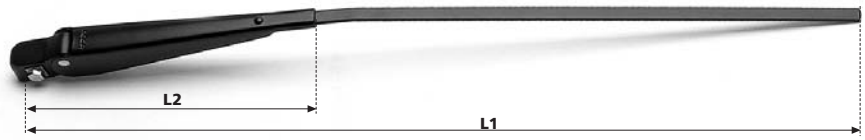
Brazos alta resistencia - High-resistance arms - Bras de haute résistance - Besonders robuste Wischarme

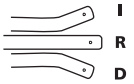




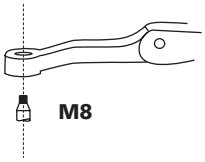
TYP	Ref.	Mod.	L1(mm)	L2(mm)		
120.05	**120.0503.GA.R4**	*	**280**	**163**	**R**	**-**
	120.0505.GA.R4	*	**340**	**163**	**R**	**-**
	120.0508.GA.R4	*	**390**	**163**	**R**	**-**
	120.0510.GA.R4	*	**420**	**163**	**R**	**-**

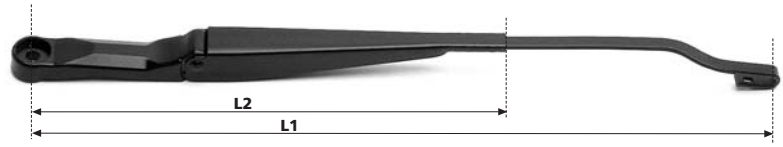


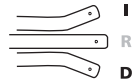




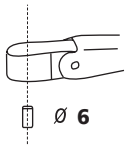
TYP	Ref.	Mod.	L1(mm)	L2(mm)		
120.06	**120.0601.GA.R4**	*	**450**	**163**	**R**	**-**

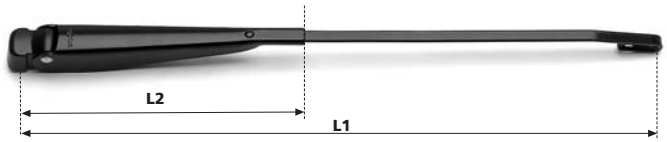


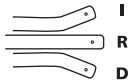




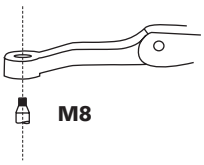
TYP	Ref.	Mod.	L1(mm)	L2(mm)		
120.20	**120.2002.GA.I4**	SEAT Ibiza (92→99), Córdoba(→99), Córdoba Vario(→99), SEAT Inca, VW Caddy VW Polo Classic (95→99), Polo Variant (95→99)	**430**	**275**	**I**	**-**
	120.2002.GA.I4	SEAT Ibiza (92→99), Córdoba(→99), Córdoba Vario(→99), SEAT Inca, VW Caddy VW Polo Classic (95→99), Polo Variant (95→99)	**430**	**275**	**D**	**-**
	120.2002.GA.I4	SEAT Ibiza (92→99), Córdoba(→99), Córdoba Vario(→99), SEAT Inca, VW Caddy VW Polo Classic (95→99), Polo Variant (95→99)	**448**	**275**	**I**	**-**
	120.2002.GA.I4	SEAT Ibiza (92→99), Córdoba(→99), Córdoba Vario(→99), SEAT Inca, VW Caddy VW Polo Classic (95→99), Polo Variant (95→99)	**448**	**275**	**D**	**-**

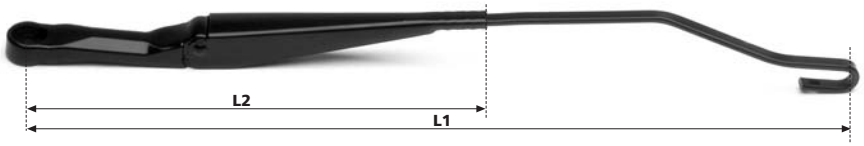


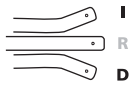




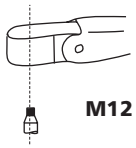
TYP	Ref.	Mod.	L1(mm)	L2(mm)		
120.27	**120.2701.GA.R4**	Piaggio	**340**	**148**	**R**	**-**

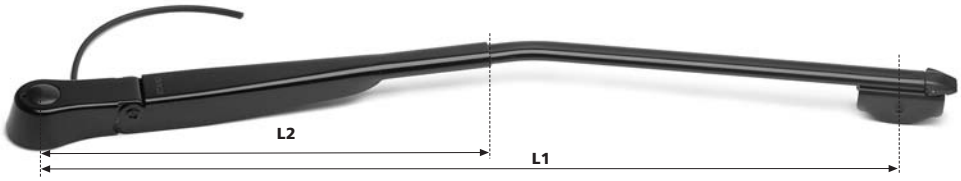


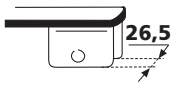


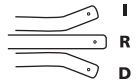


TYP	Ref.	Mod.	L1(mm)	L2(mm)		
120.30	**120.3002.GA.I4**	SEAT Ibiza, Córdoba, Córdoba Vario, (99→) VW Polo Variant, Polo Classic	**434**	**255**	**I**	**-**
	120.3002.GA.D4	SEAT Ibiza, Córdoba, Córdoba Vario, (99→) VW Polo Variant, Polo Classic	**434**	**255**	**D**	**-**
	120.3001.GA.I4	SEAT Ibiza, Córdoba, Córdoba Vario, (99→) VW Polo Variant, Polo Classic	**450,5**	**255**	**I**	**-**
	120.3001.GA.D4	SEAT Ibiza, Córdoba, Córdoba Vario, (99→) VW Polo Variant, Polo Classic	**450,5**	**255**	**D**	**-**

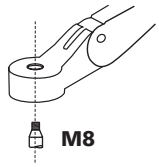


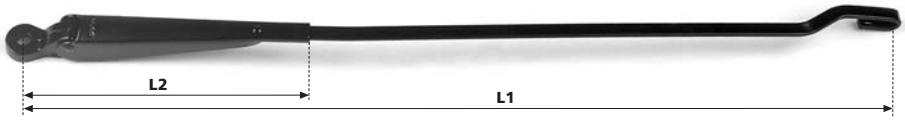


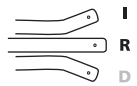




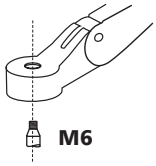
TYP	Ref.	Mod.	L1(mm)	L2(mm)		
120.32	**120.3201.GA.D4**	*	**750**	**420**	**D (40º)**	✓
	120.3202.GA.I4	*	**750**	**420**	**I (23º)**	✓
	120.3203.GA.D4	*	**800**	**420**	**D (18º)**	✓
	120.3204.GA.I4	*	**800**	**420**	**I (30º)**	✓

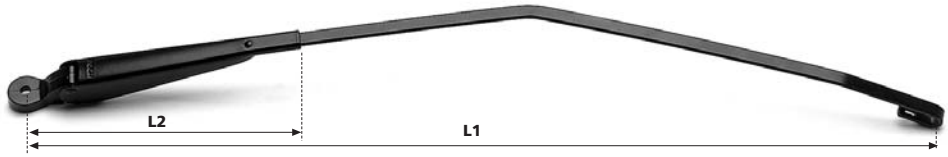


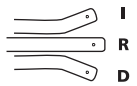




TYP	Ref.	Mod.	L1(mm)	L2(mm)		
120.41	**120.4102.GA.R4**	OPEL Corsa (G.B.) (→ 94)	**486**	**166**	**R**	**-**
	120.4101.GA.I4	OPEL Corsa (G.B.) (→ 94)	**522**	**166**	**I (4º)**	**-**



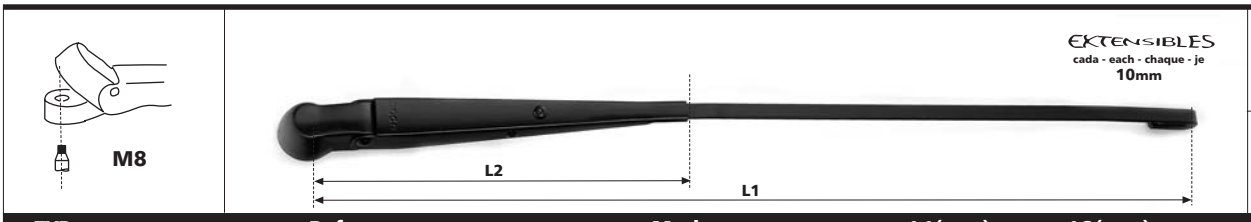




TYP	Ref.	Mod.	L1(mm)	L2(mm)		
120.42	**120.4201.GA.D4**	OPEL Tigra	**532**	**166**	**D (21º)**	**-**

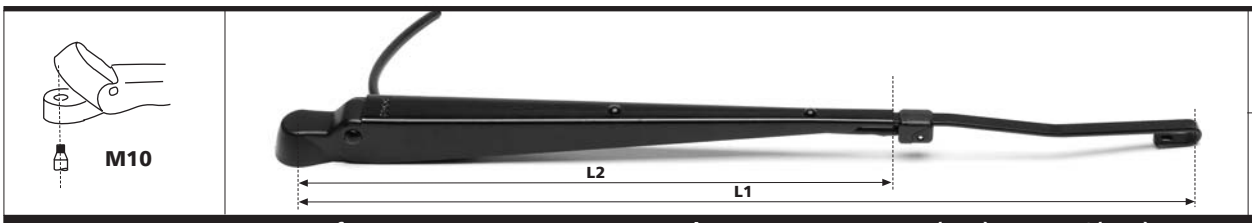
DOGA

brazos limpiaparabrisas
windshield wiper arms
bras essuie-glace
Scheibenwischerarme

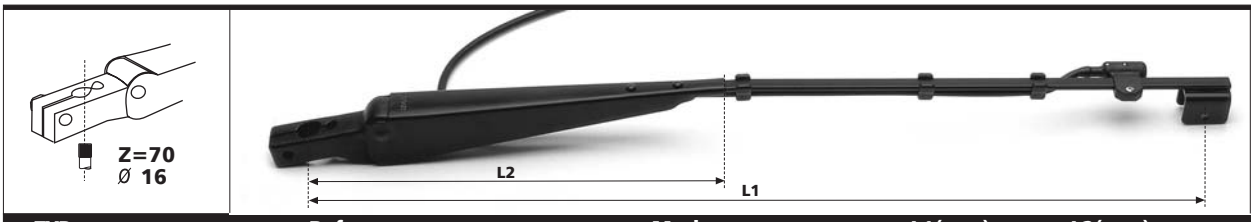


TYP	Ref.	Mod.	L1(mm)	L2(mm)		
120.45	**120.4501.GA.R6**	*	**340 → 420**	**210**	**R**	**-**
	120.4510.GA.R6	*	**430 → 500**	**210**	**R**	**-**

Brazos extensibles en acero inoxidable - Extendable stainless steel arms - Bras extensibles en acier inoxydable - Verstellbare Arme aus Edelstahl

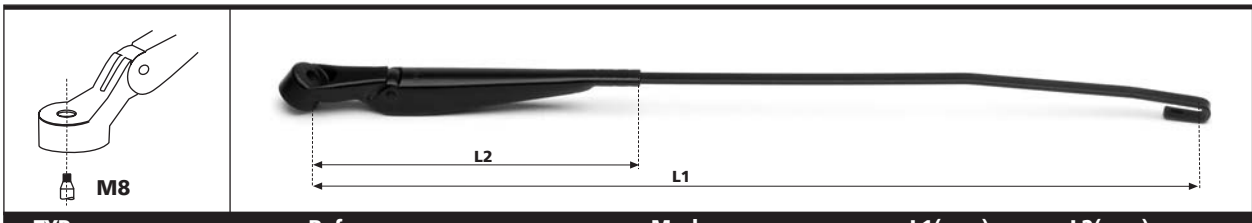


TYP	Ref.	Mod.	L1(mm)	L2(mm)		
120.48	**120.4851.GA.D4**	NISSAN Cabstar (98→)	**485**	**320**	**D (12º)**	**✓**
	120.4851.GA.I4	NISSAN Cabstar (98→)	**485**	**320**	**I (12º)**	**✓**

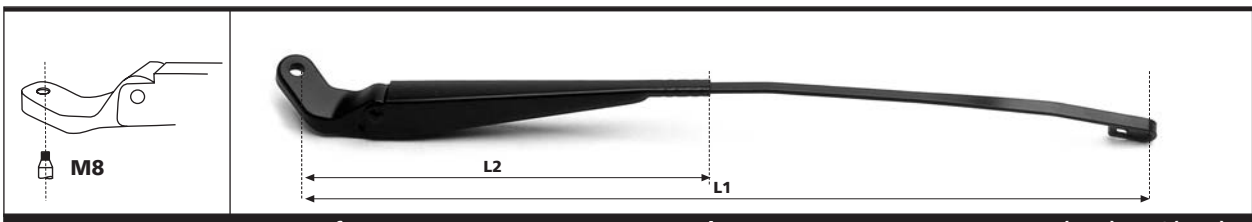


TYP	Ref.	Mod.	L1(mm)	L2(mm)		
120.49	**120.4901.GA.R4**	*	**580**	**258**	**R**	**✓**
	120.4902.GA.R4	*	**665**	**258**	**R**	**✓**

Brazos alta resistencia - High-resistance arms - Bras de haute résistance - Besonders robuste Wischarme



TYP	Ref.	Mod.	L1(mm)	L2(mm)		
120.50	**120.5002.GA.D4**	SUZUKI Jimny	**432**	**178**	**D**	**-**
	120.5002.GA.I4	SUZUKI Jimny	**432**	**178**	**I**	**-**
	120.5001.GA.D4	SUZUKI Jimny	**490**	**178**	**D**	**-**
	120.5001.GA.I4	SUZUKI Jimny	**490**	**178**	**I**	**-**

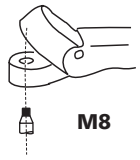


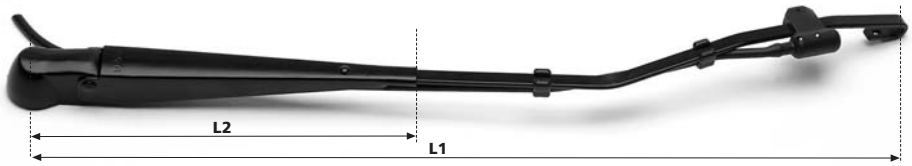
TYP	Ref.	Mod.	L1(mm)	L2(mm)		
120.52	**120.5201.GA.R4**	JOHN DEERE, Tractor, Series 4000/6000/7000	**463**	**227**	**R**	**-**

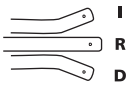
Para ventanas abatibles - For folding windshields - Pour glaces rabattables - Für schwenkbare Fenster

DOGA

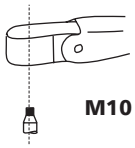
brazos limpiaparabrisas
windshield wiper arms
bras essuie-glace
Scheibenwischerarme

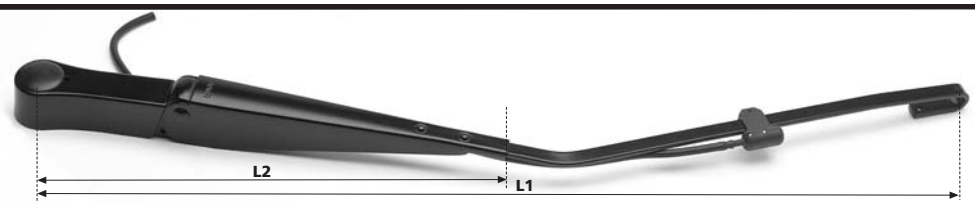


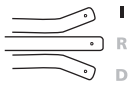




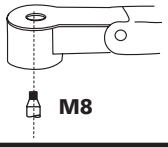
TYP	Ref.	Mod.	L1(mm)	L2(mm)		
120.53	**120.5302.GA.I4**	MITSUBISHI Canter	**476**	**210**	**I**	✓
	120.5302.GA.D4	MITSUBISHI Canter	**476**	**210**	**D**	✓
	120.5301.GA.I4	MITSUBISHI Canter	**490,5**	**210**	**I**	✓

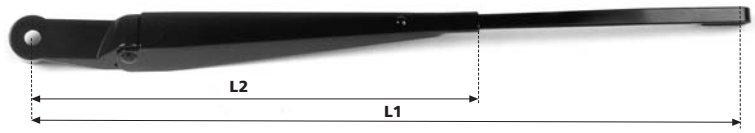


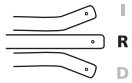




TYP	Ref.	Mod.	L1(mm)	L2(mm)		
120.57	**120.5751.GA.I4**	*	**628**	**320**	**I (30º)**	✓

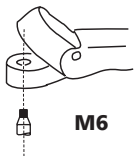


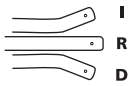




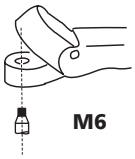
TYP	Ref.	Mod.	L1(mm)	L2(mm)		
120.58	**120.5802.GA.R4**	*	**310**	**230**	**R**	-
	120.5801.GA.R4	*	**370**	**230**	**R**	-
	120.5803.GA.R4	*	**464**	**230**	**R**	-

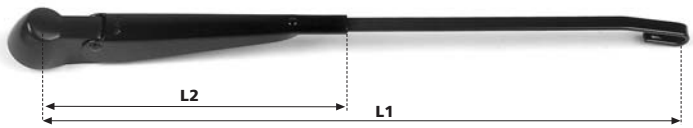
Para ventanas abatibles - For folding windshields - Pour glaces rabattables - Für schwenkbare Fenster

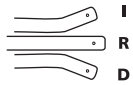




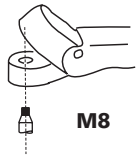
TYP	Ref.	Mod.	L1(mm)	L2(mm)		
120.61	**120.6107.GA.R4**	PEGASO 7217	**280**	**166**	**R**	-

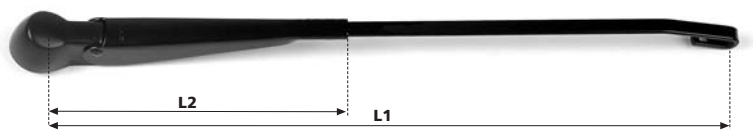


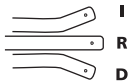




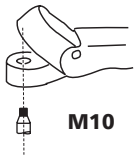
TYP	Ref.	Mod.	L1(mm)	L2(mm)		
120.63	**120.6306.GA.R4**	*	**300**	**166**	**R**	-
	120.6317.GA.R4	*	**335**	**166**	**R**	-
	120.6301.GA.R4	*	**350**	**166**	**R**	-
	120.6313.GA.I4	SUZUKI Vitara Mod V	**356**	**166**	**I (25º)**	-
	120.6302.GA.R4	*	**400**	**166**	**R**	-
	120.6316.GA.I4	SUZUKI Vitara Mod JHT	**405**	**166**	**I (28º)**	-
	120.6303.GA.R4	*	**450**	**166**	**R**	-
	120.6304.GA.R4	*	**500**	**166**	**R**	-

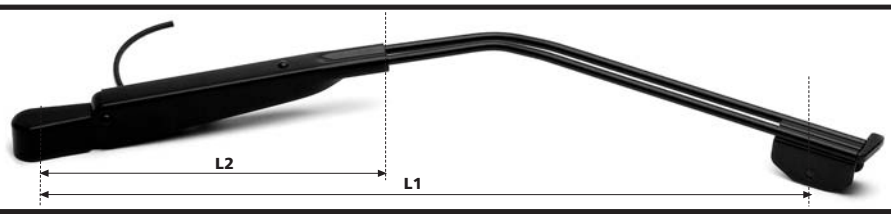


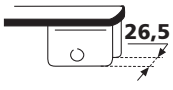


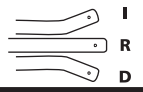


TYP	Ref.	Mod.	L1(mm)	L2(mm)		
120.65	120.6523.GA.R4	*	275	166	R	-
	120.6508.GA.R4	*	290	166	R	✓
	120.6516.GA.R4	*	290	166	R	-
	120.6515.GA.D4	*	320	166	D (10º)	-
	120.6519.GA.D4	SEAT Inca, VW Caddy, (97→),	320	166	D (19º)	-
	120.6520.GA.I4	*	340	166	I (20º)	-
	120.6522.GA.D4	*	350	166	D (17º)	-
	120.6522.GA.I4	*	350	166	I (17º)	-
	120.6526.GA.R4	*	350	166	R	✓
	120.6524.GA.I4	*	370	166	I (19º)	-
	120.6527.GA.R4	*	372	166	R	-
	120.6513.GA.R4	*	372	166	R	-
	120.6501.GA.R4	*	380	166	R	-
	120.6507.GA.R4	*	385	166	R	-
	120.6503.GA.D4	SEAT Ibiza (→ 89)	405	166	D (46º)	-
	120.6503.GA.R4	*	405	166	R	-
	120.6505.GA.R4	*	420	166	R	-
	120.6509.GA.R4	*	450	166	R	-
	120.6504.GA.D4	NISSAN Patrol (3.89→)	452	166	D (15º)	-
	120.6502.GA.R4	SEAT Ibiza (→ 89)	465	166	R	-
	120.6528.GA.D4	*	500	166	D (20º)	-
	120.6517.GA.I4	*	500	166	I (36º)	-
	120.6521.GA.I4	*	500	166	I (12º)	-

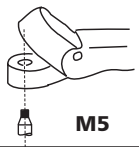


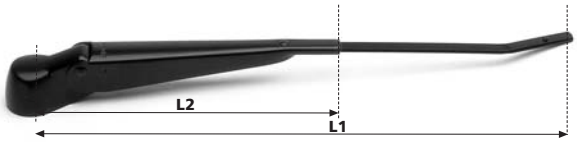


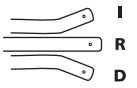




TYP	Ref.	Mod.	L1(mm)	L2(mm)		
120.67	120.6706.GA.D4	bus	650	348	D (40º)	✓
	120.6707.GA.D4	*	650	348	D (23º)	✓
	120.6707.GA.I4	bus	650	348	I (23º)	✓
	120.6703.GA.R4	bus	675	348	R	✓
	120.6709.GA.D4	bus	675	348	D (15º)	✓
	120.6710.GA.I4	bus	675	348	I (20º)	✓
	120.6708.GA.R4	*	725	348	R	✓
	120.6701.GA.D4	bus	750	348	D (40º)	✓
	120.6701.GA.I4	*	750	348	I (40º)	✓
	120.6702.GA.D4	*	750	348	D (23º)	✓
	120.6702.GA.I4	bus	750	348	I (23º)	✓
	120.6705.GA.D4	*	750	348	D(18º)	✓



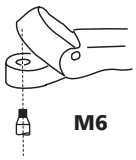


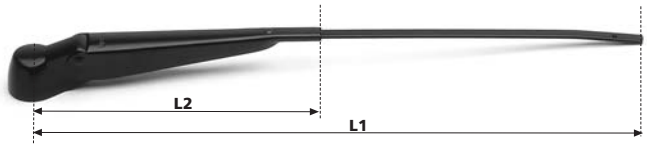


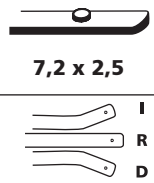
TYP	Ref.	Mod.	L1(mm)	L2(mm)		
120.68	120.6801.GA.I4	LAND ROVER SANTANA, 88, 109 *(6.82→9.83)*	275	166	I (26º)	-
	120.6802.GA.I4	LAND ROVER SANTANA, 88, 109 *(10.83→)*	300	166	I (24º)	-

DOGA

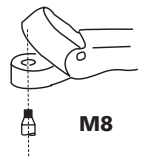
brazos limpiaparabrisas
windshield wiper arms
bras essuie-glace
Scheibenwischerarme

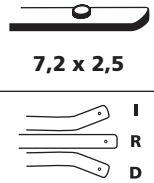




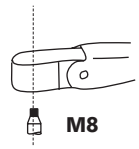


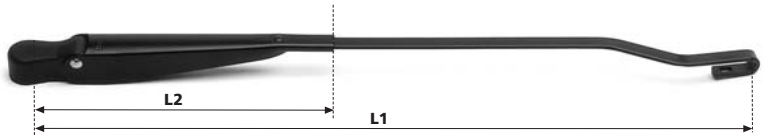
TYP	Ref.	Mod.	L1(mm)	L2(mm)		
120.69	**120.6907.GA.R4**	LAND ROVER 88, 109	**230**	**166**	**R**	**-**
	120.6908.GA.D4	SUZUKI SANTANA ModS J, V,	**270**	**166**	**D (16º)**	**-**
	120.6908.GA.I4	SUZUKI SANTANA ModS J, V,	**270**	**166**	**I (16º)**	**-**
	120.6902.GA.R4	SUZUKI-SANTANA Mod J	**330**	**166**	**R**	**-**
	120.6909.GA.D4	NISSAN Vanette (85→)	**398**	**166**	**D (14º)**	**-**

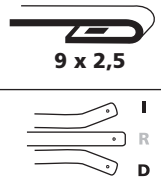




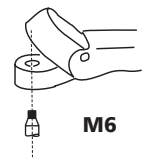
TYP	Ref.	Mod.	L1(mm)	L2(mm)		
120.70	**120.7002.GA.R4**	NISSAN Patrol (85→2.89)	**210**	**166**	**R**	**-**

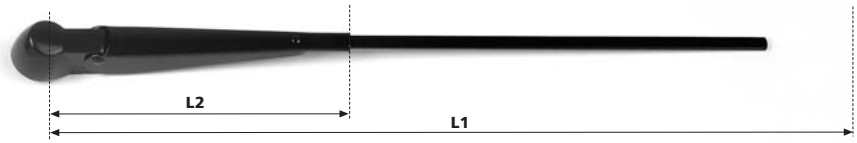


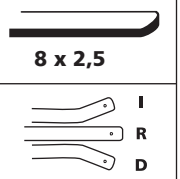




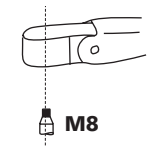
TYP	Ref.	Mod.	L1(mm)	L2(mm)		
120.71	**120.7101.GA.D4**	NISSAN Patrol (86→)	**385**	**166**	**D (18º)**	**-**
	120.7101.GA.I4	NISSAN Patrol (86→)	**385**	**166**	**I (18º)**	**-**

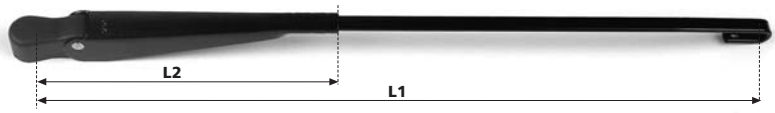


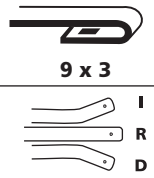




TYP	Ref.	Mod.	L1(mm)	L2(mm)		
120.72	**120.7206.GA.R4**	*	**280**	**166**	**R**	**-**
	120.7204.GA.R4	*	**350**	**166**	**R**	**-**
	120.7201.GA.R4	*	**400**	**166**	**R**	**-**
	120.7202.GA.R4	*	**450**	**166**	**R**	**-**
	120.7203.GA.R4	*	**500**	**166**	**R**	**-**



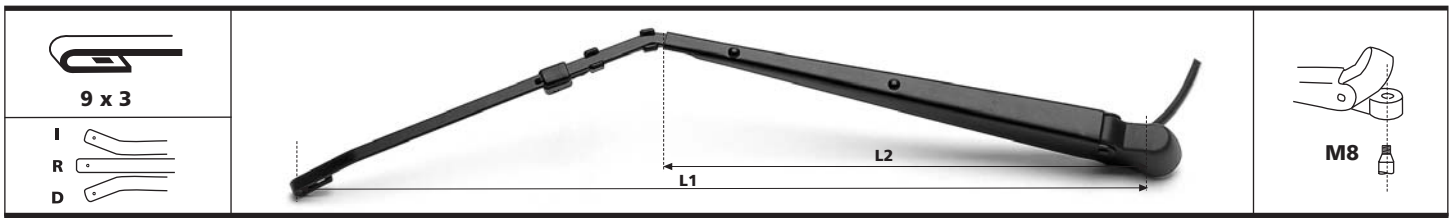




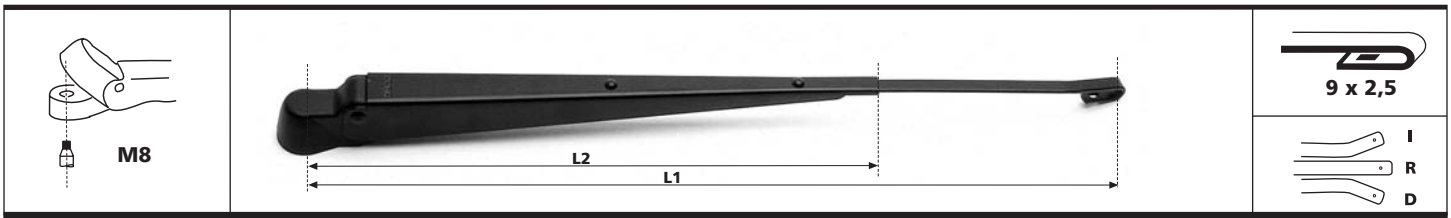
TYP	Ref.	Mod.	L1(mm)	L2(mm)		
120.79	**120.7908.GA.D4**	*	**330**	**166**	**D (20º)**	**-**
	120.7908.GA.I4	*	**330**	**166**	**I (20º)**	**-**

...

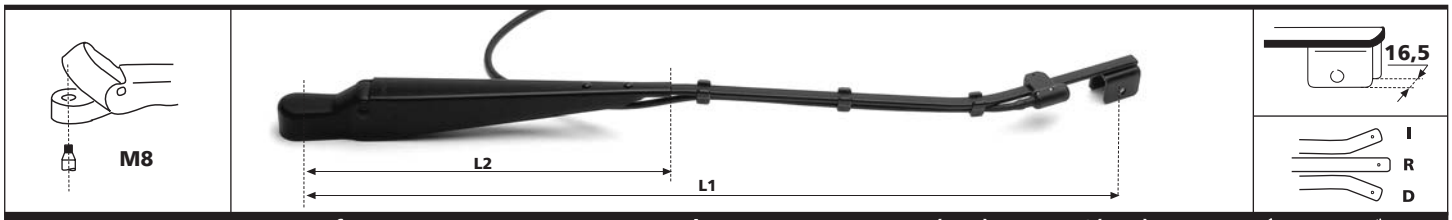
TYP	Ref.	Mod.	L1(mm)	L2(mm)		
...						
	120.7916.GA.D4	*	330	166	D (20º)	✓
	120.7916.GA.I4	*	330	166	I (20º)	✓
	120.7903.GA.I4	*	395	166	I (7º)	-
	120.7910.GA.D4	*	400	166	D (12º)	-
	120.7917.GA.D4	*	405	166	D (15º)	✓
	120.7906.GA.R4	*	420	166	R	-
	120.7909.GA.R4	*	435	166	R	-



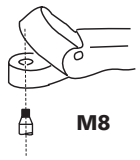
TYP	Ref.	Mod.	L1(mm)	L2(mm)		
120.83	120.8301.GA.I4	PEGASO Mod Troner	546	320	I (35º)	✓

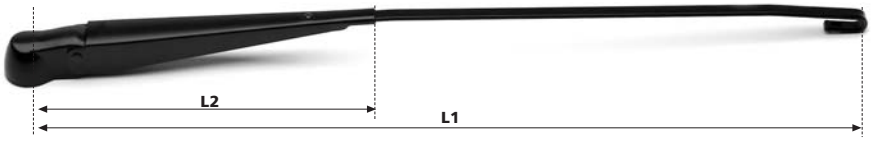


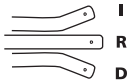
TYP	Ref.	Mod.	L1(mm)	L2(mm)		
120.87	120.8703.GA.I4	IPV Mod UT 115,URO TT.U12, TT.U14	445	320	I (20º)	-
	120.8701.GA.I4	EBRO Mods L, M (12.87→), P AVIA 1600,3600,5600	460	320	I (20º)	-
	120.8701.GA.D4	EBRO Mods L, M (12.87→), P	460	320	D (20º)	-
	120.8702.GA.I4	PEGASO Mods 1135-3189 (→85) 1214-2431 (85→)	505	320	I (12º)	-



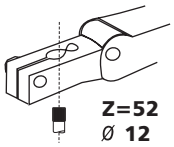
TYP	Ref.	Mod.	L1(mm)	L2(mm)		
120.88	120.8806.GA.R4	*	445	270	R	-
	120.8852.GA.I4	*	445	270	I (16º)	✓
	120.8852.GA.R4	*	445	270	R	✓
	120.8801.GA.R4	*	500	270	R	-
	120.8851.GA.I4	*	500	270	I (22º)	✓
	120.8855.GA.I4	*	500	270	I (15º)	✓
	120.8802.GA.R4	*	530	270	R	✓
	120.8804.GA.I4	*	540	270	I (20º)	-
	120.8856.GA.I4	*	560	270	I (29º)	✓
	120.8807.GA.D4	*	600	270	D (23º)	-
	120.8853.GA.D4	*	600	270	D (23º)	✓
	120.8853.GA.I4	*	600	270	I (23º)	✓
	120.8854.GA.I4	*	600	270	I (27º)	✓
	120.8858.GA.I4	*	630	270	I (18º)	✓

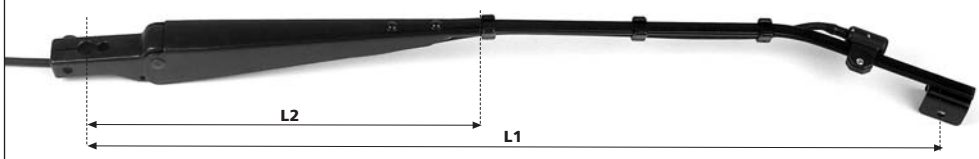


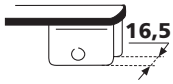


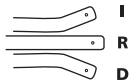


TYP	Ref.	Mod.	L1(mm)	L2(mm)		
120.89	120.8923.GA.R4	*	375	210	R	-
	120.8916.GA.R4	*	380	210	R	✓
	120.8917.GA.R4	*	380	210	R	✓
	120.8902.GA.I4	*	400	210	I (15º)	-
	120.8907.GA.R4	*	400	210	R	✓
	120.8914.GA.R4	*	400	210	R	✓
	120.8918.GA.R4	*	400	210	R	✓
	120.8925.GA.R4	*	410	210	R	-
	120.8926.GA.R4	*	425	210	R	-
	120.8922.GA.D4	*	440	210	D (15º)	-
	120.8905.GA.D4	*	450	210	D (15º)	-
	120.8905.GA.R4	*	450	210	R	-
	120.8912.GA.D4	*	450	210	D (15º)	✓
	120.8912.GA.I4	*	450	210	I (15º)	✓
	120.8927.GA.I4	*	450	210	I (36º)	-
	120.8924.GA.R4	*	470	210	R	-
	120.8910.GA.R4	*	480	210	R	-
	120.8911.GA.D4	*	480	210	D (10º)	✓
	120.8901.GA.R4	*	500	210	R	-
	120.8906.GA.R4	*	500	210	R	✓
	120.8928.GA.D4	*	500	210	D(15º)	-
	120.8930.GA.I4	*	500	210	I (10º)	✓
	120.8903.GA.I4	*	520	210	I (6º)	-
	120.8915.GA.R4	*	535	210	R	✓

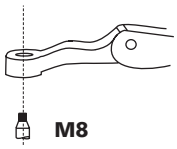


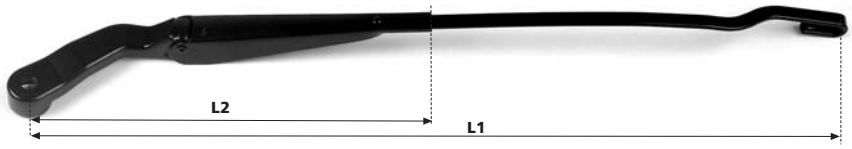


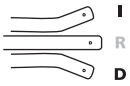




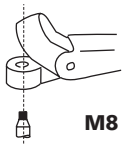
TYP	Ref.	Mod.	L1(mm)	L2(mm)		
120.90	120.9053.GA.D4	*	580	270	D (12º)	✓
	120.9053.GA.I4	*	580	270	I (12º)	✓
	120.9051.GA.D4	*	600	270	D (23º)	✓
	120.9052.GA.I4	*	630	270	I (18º)	✓

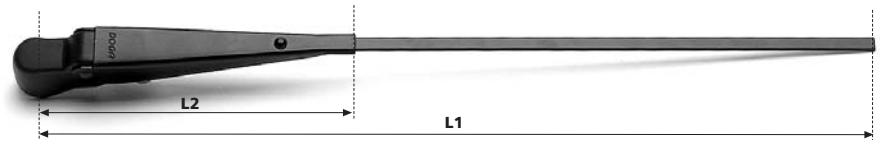


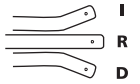




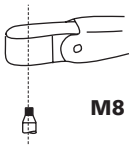
TYP	Ref.	Mod.	L1(mm)	L2(mm)		
120.91	120.9101.GA.I4	SUZUKI Vitara	450	146	I (38º)	-
	120.9101.GA.D4	SUZUKI Vitara	450	146	D (38º)	-

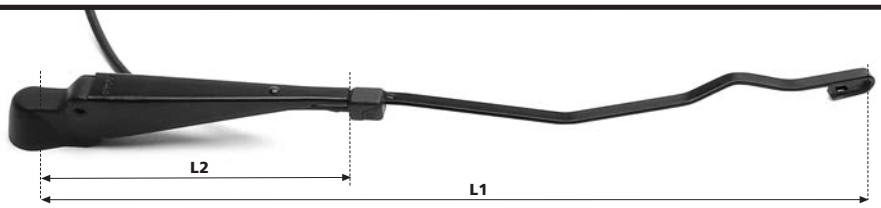


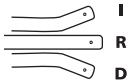




TYP	Ref.	Mod.	L1(mm)	L2(mm)		
120.93	**120.9301.GA.R4**	EBRO Tractor	**465**	**178**	**R**	**-**

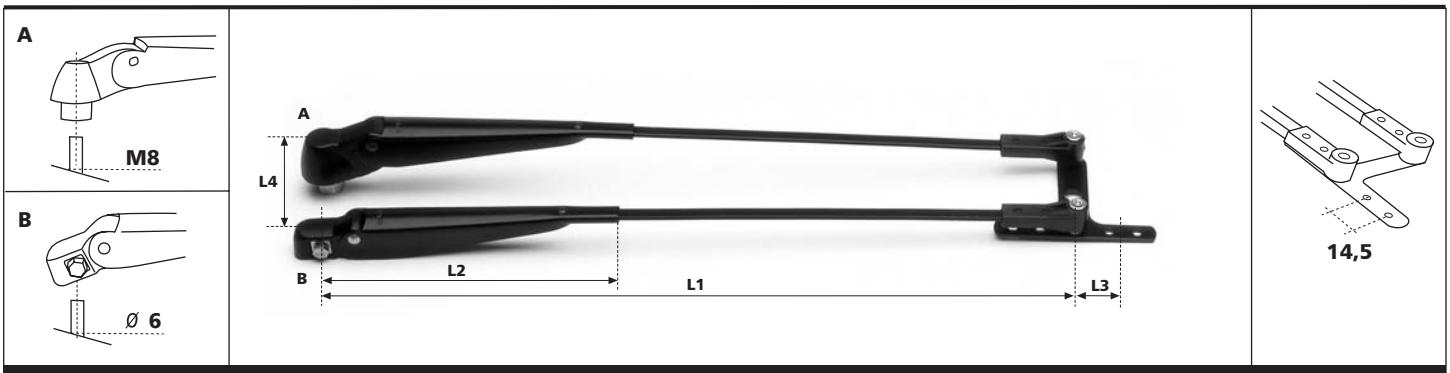




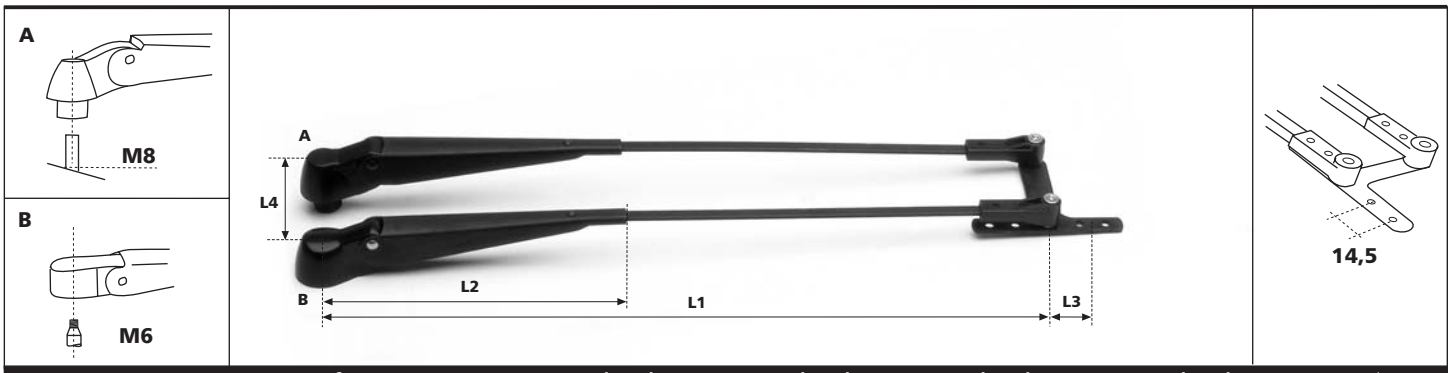


TYP	Ref.	Mod.	L1(mm)	L2(mm)		
120.97	**120.9701.GA.I4**	NISSAN Ebro Mods L, M (88→)	**460**	**178**	**I (26º)**	**✓**

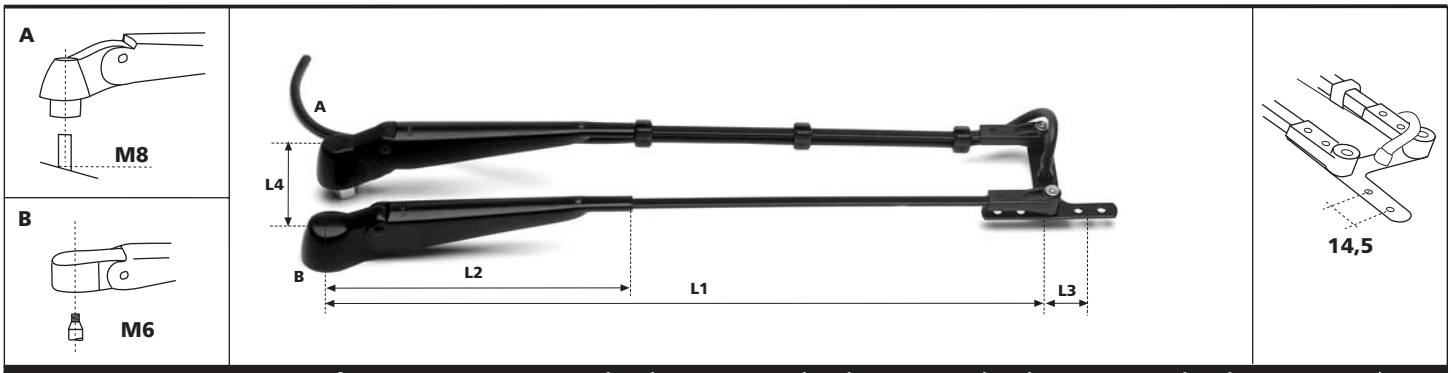
L3 Desplazamiento de la Escobilla - Wiper Blade Displacement - Déplacement du Balais - Überstand des Wischblatts



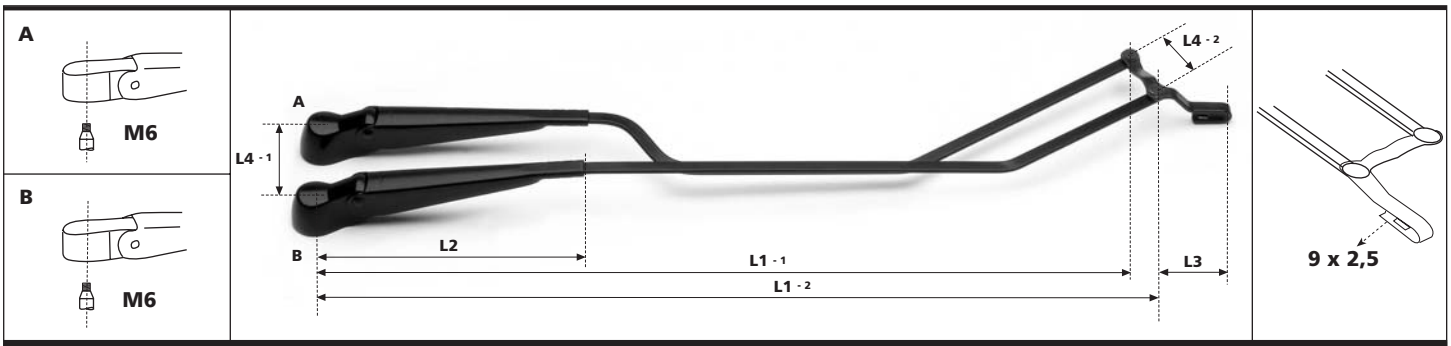
TYP	Ref.	L1(mm)	L2(mm)	L3(mm)	L4(mm)	
121.01	121.0108.GA.04	360	165	25	57	-
	121.0109.GA.04	400	165	25	57	-
	121.0110.GA.04	450	165	25	57	-
	121.0111.GA.04	500	165	25	57	-



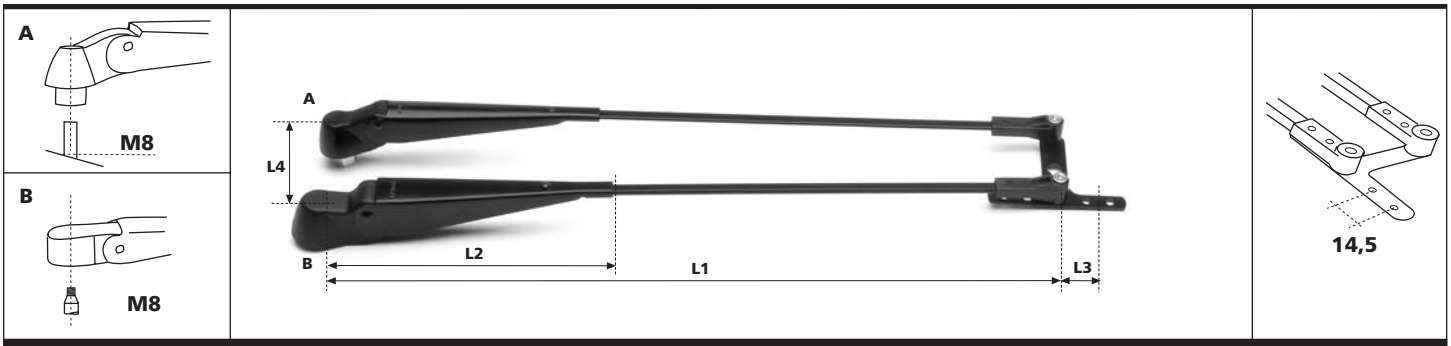
TYP	Ref.	L1(mm)	L2(mm)	L3(mm)	L4(mm)	
121.02	121.0224.GA.04	400	165	25	57	-
	121.0225.GA.04	450	165	25	57	-
	121.0226.GA.04	500	165	25	57	-
	121.0227.GA.04	550	165	25	57	-



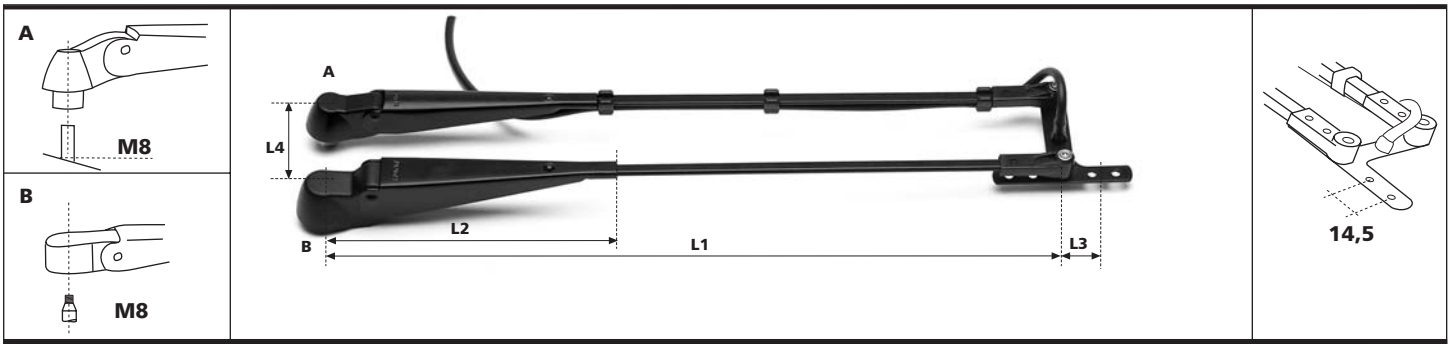
TYP	Ref.	L1(mm)	L2(mm)	L3(mm)	L4(mm)	
121.03	121.0324.GA.04	400	165	25	57	✓
	121.0325.GA.04	450	165	25	57	✓
	121.0326.GA.04	500	165	25	57	✓



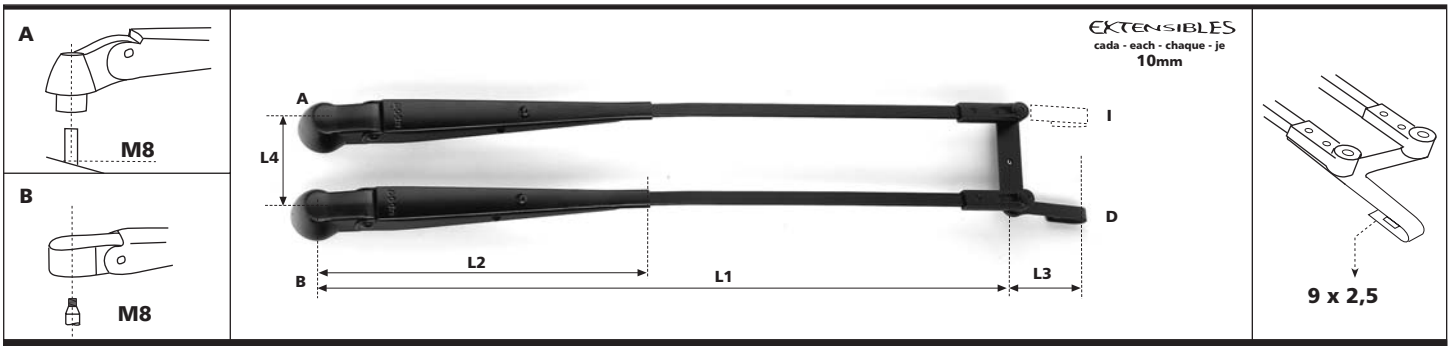
TYP	Ref.	L1(mm)	L2(mm)	L3(mm)	L4(mm)	
121.04	121.0401.GA.I4	440,5/451	165	45	50/42,3	-



TYP	Ref.	L1(mm)	L2(mm)	L3(mm)	L4(mm)	
121.05	121.0505.GA.04	400	165/180	25	57	-
	121.0501.GA.04	450	165/180	25	57	-
	121.0502.GA.04	500	165/180	25	57	-
	121.0503.GA.04	550	165/180	25	57	-

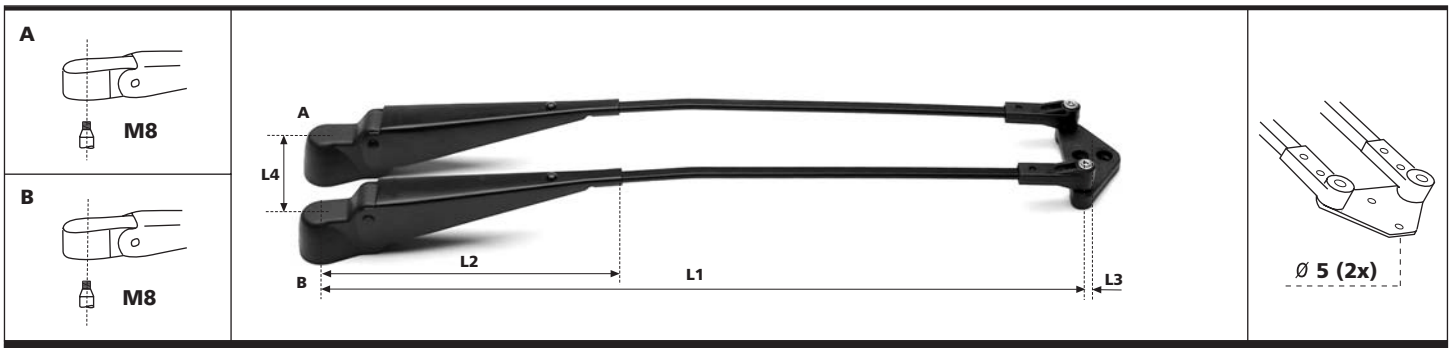


TYP	Ref.	L1(mm)	L2(mm)	L3(mm)	L4(mm)	
121.06	121.0605.GA.04	400	165/180	25	57	✓
	121.0601.GA.04	450	165/180	25	57	✓
	121.0602.GA.04	500	165/180	25	57	✓
	121.0603.GA.04	550	165/180	25	57	✓

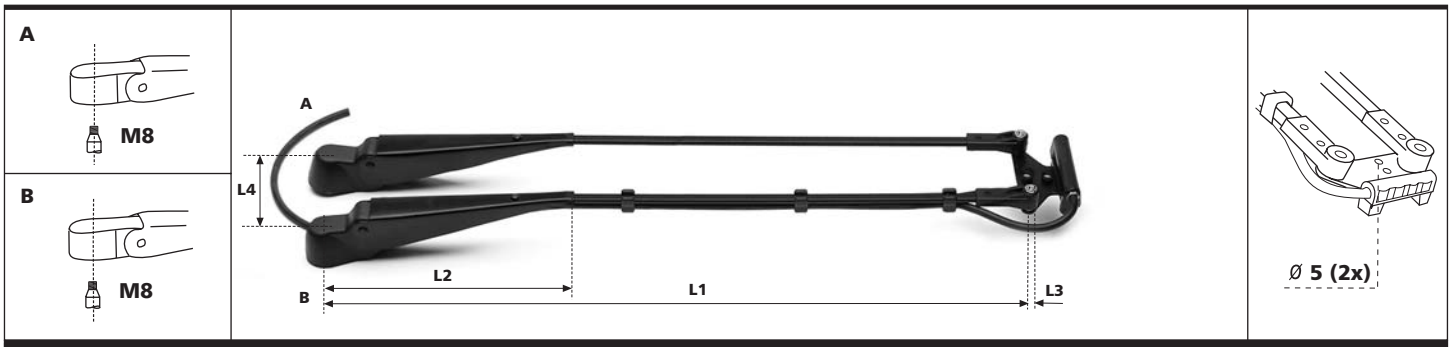


TYP	Ref.	L1(mm)	L2(mm)	L3(mm)	L4(mm)	
121.09	121.0901.GA.*6	340 → 420	210	45	57	-
	121.0910.GA.*6	430 → 500	210	45	57	-

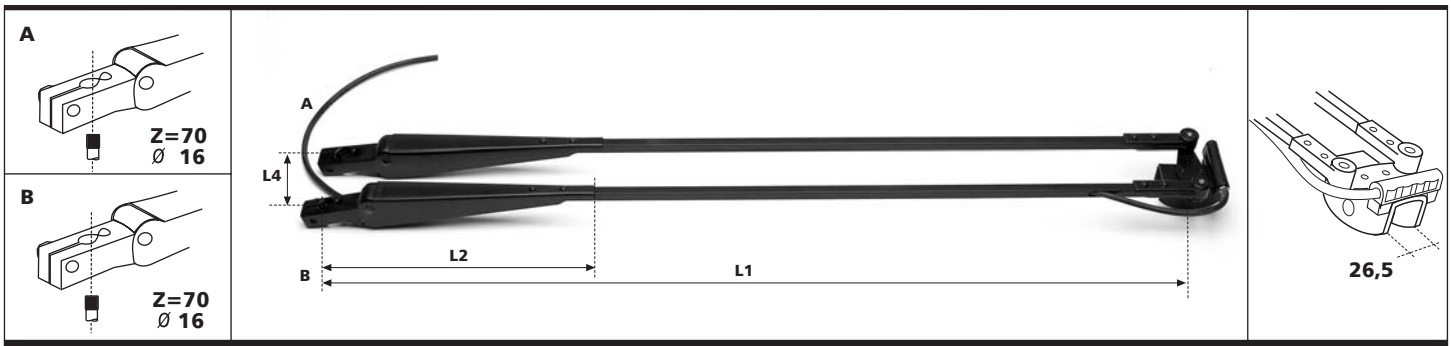
Brazos extensibles en acero inoxidable - Extendable stainless steel arms - Bras extensibles en acier inoxydable - Verstellbare Arme aus Edelstahl



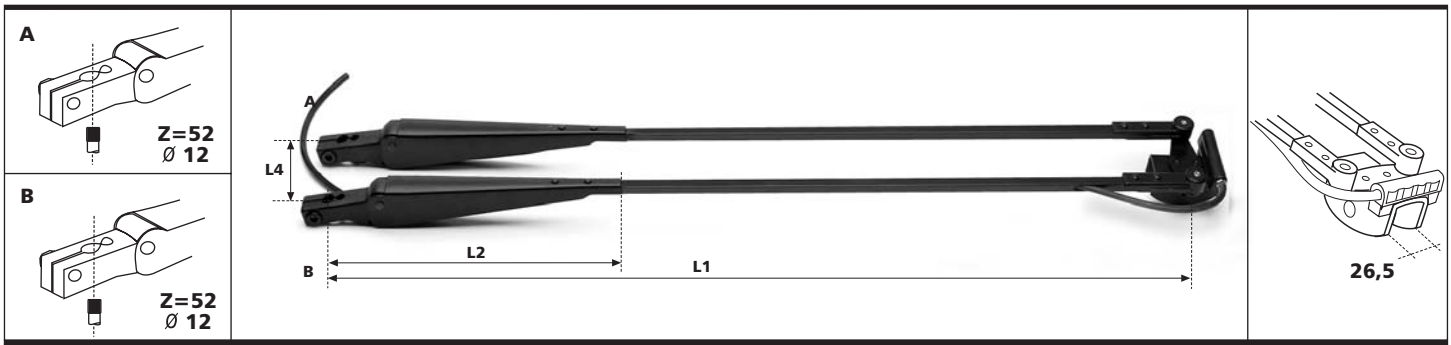
TYP	Ref.	L1(mm)	L2(mm)	L3(mm)	L4(mm)	
123.07	123.0722.GA.04	450	180	10	55	-
	123.0723.GA.04	500	180	10	55	-



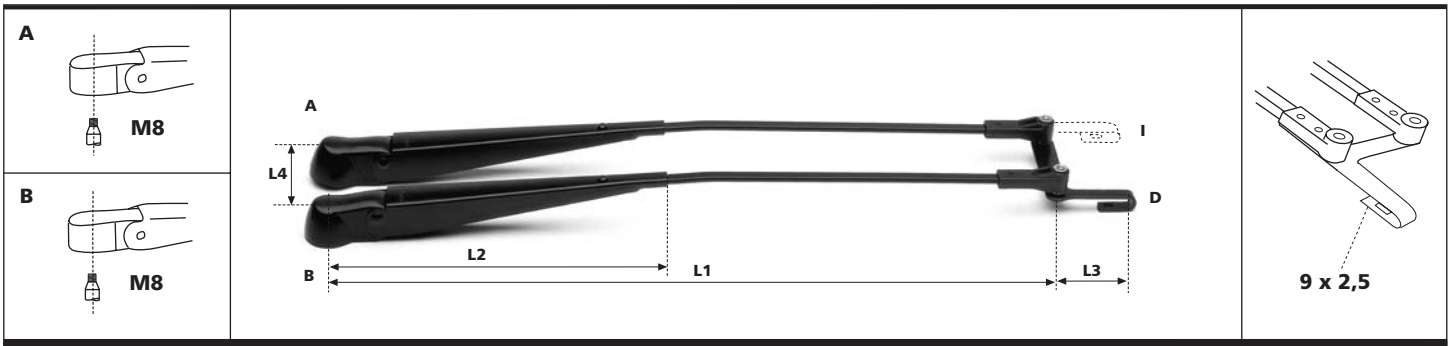
TYP	Ref.	L1(mm)	L2(mm)	L3(mm)	L4(mm)	
123.11	123.1102.GA.04	450	180	10	55	✓
	123.1103.GA.04	500	180	10	55	✓



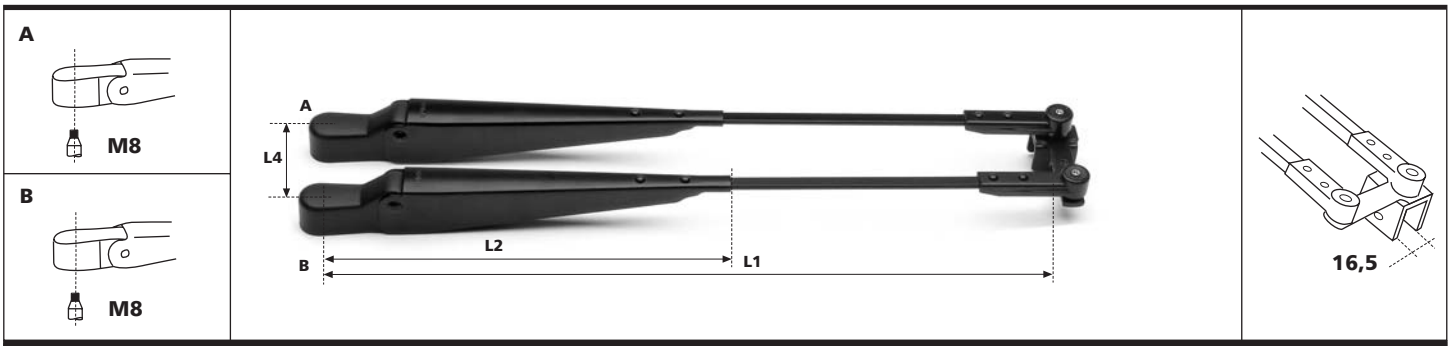
TYP	Ref.	L1(mm)	L2(mm)	L3(mm)	L4(mm)	
124.02	124.0201.GA.04	860	270	-	65	✓



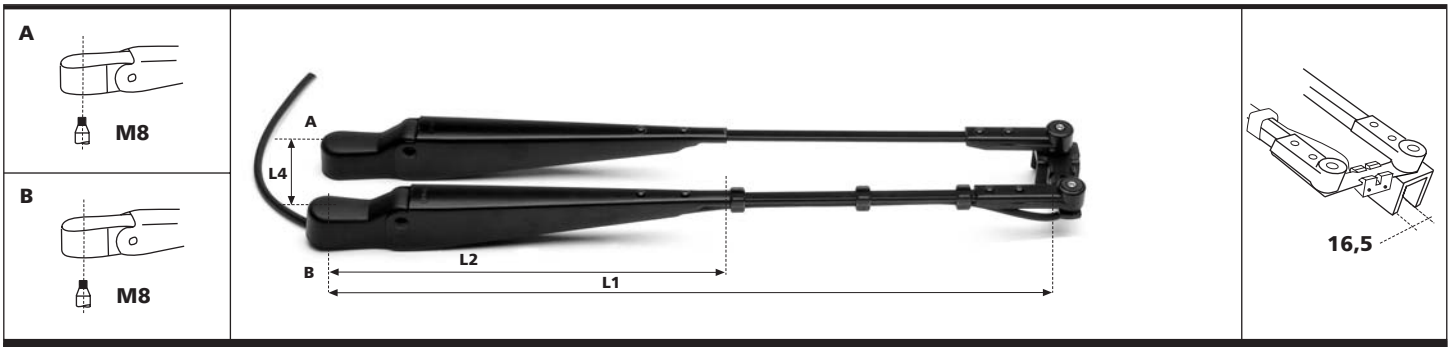
TYP	Ref.	L1(mm)	L2(mm)	L3(mm)	L4(mm)	
124.03	124.0301.GA.04	800	270	-	60	✓



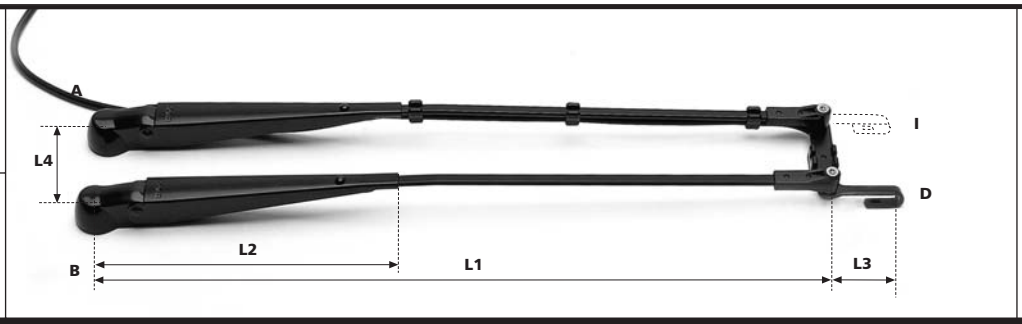
TYP	Ref.	L1(mm)	L2(mm)	L3(mm)	L4(mm)	
127.06	127.0603.GA.D4	455	210	45	60	-
	127.0603.GA.I4	455	210	45	60	-
	127.0604.GA.D4	505	210	45	60	-
	127.0604.GA.I4	505	210	45	60	-
	127.0605.GA.D4	555	210	45	60	-
	127.0605.GA.I4	555	210	45	60	-



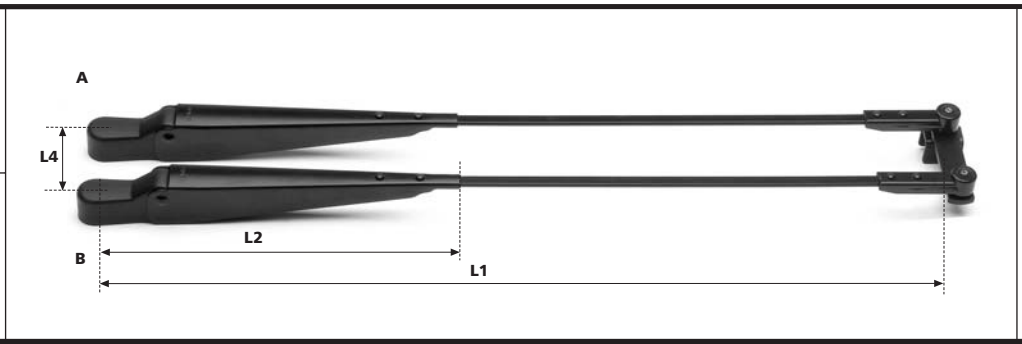
TYP	Ref.	L1(mm)	L2(mm)	L3(mm)	L4(mm)	
127.07	127.0701.GA.04	500	270	-	60	-
	127.0702.GA.04	550	270	-	60	-
	127.0703.GA.04	600	270	-	60	-
	127.0704.GA.04	650	270	-	60	-
	127.0707.GA.04	680	270	-	60	-
	127.0705.GA.04	700	270	-	60	-



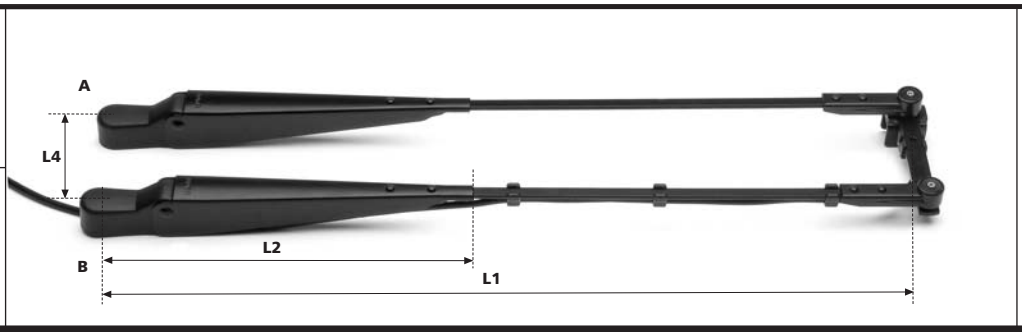
TYP	Ref.	L1(mm)	L2(mm)	L3(mm)	L4(mm)	
127.09	127.0901.GA.04	500	270	-	60	✓
	127.0902.GA.04	550	270	-	60	✓
	127.0903.GA.04	600	270	-	60	✓
	127.0904.GA.04	650	270	-	60	✓
	127.0907.GA.04	680	270	-	60	✓
	127.0905.GA.04	700	270	-	60	✓
	127.0906.GA.04	750	270	-	60	✓



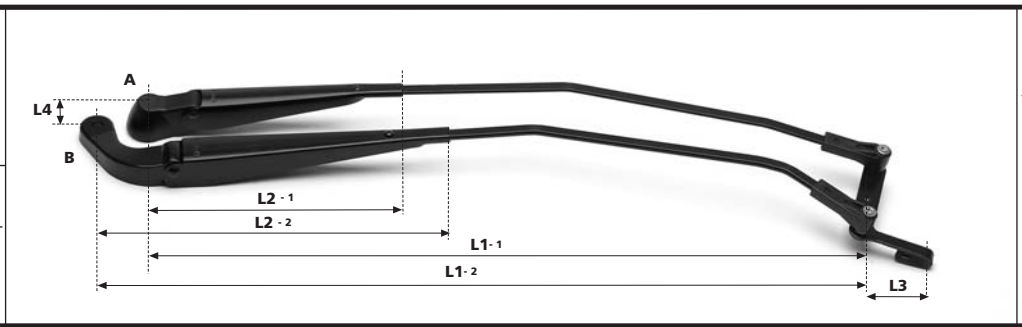
TYP	Ref.	L1(mm)	L2(mm)	L3(mm)	L4(mm)	
127.10	127.1003.GA.D4	455	210	45	60	✓
	127.1003.GA.I4	455	210	45	60	✓
	127.1004.GA.D4	505	210	45	60	✓
	127.1004.GA.I4	505	210	45	60	✓
	127.1005.GA.D4	555	210	45	60	✓
	127.1005.GA.I4	555	210	45	60	✓



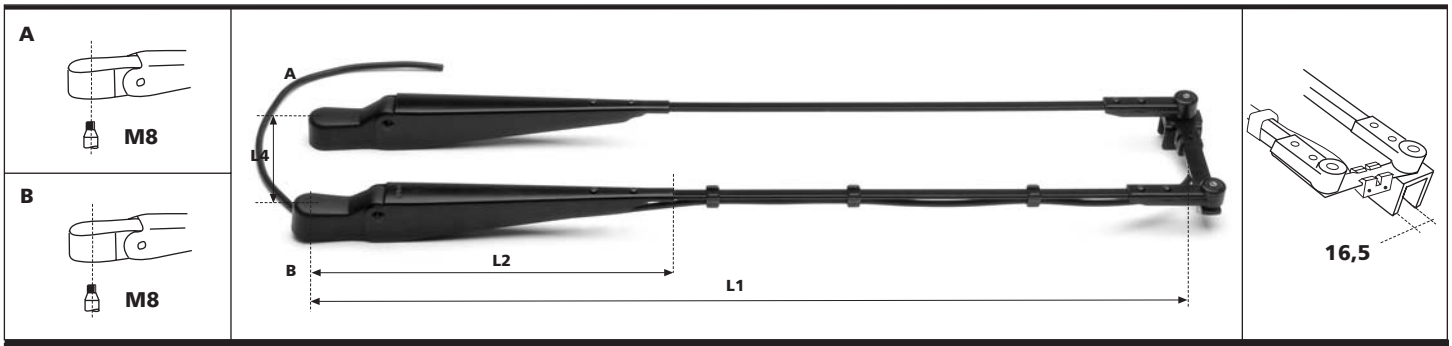
TYP	Ref.	L1(mm)	L2(mm)	L3(mm)	L4(mm)	
127.13	127.1301.GA.04	650	270	-	70	-



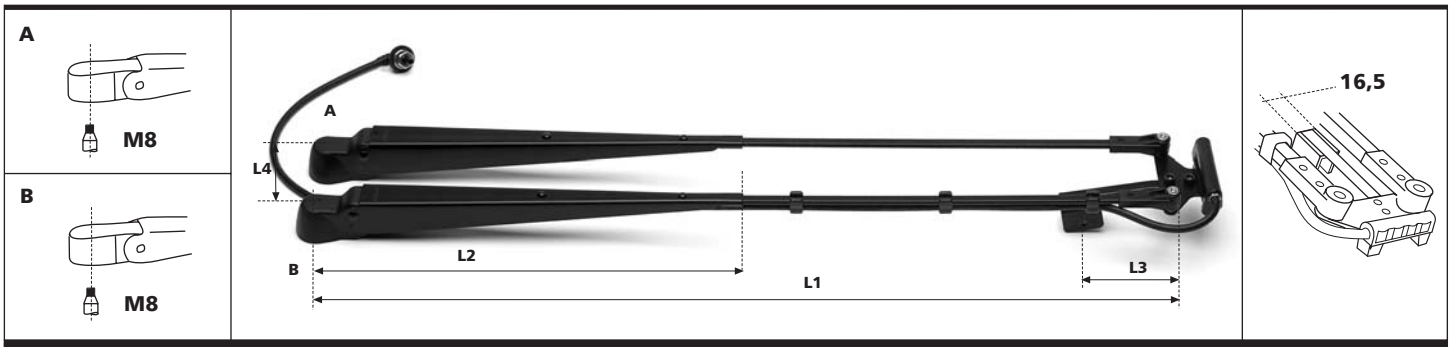
TYP	Ref.	L1(mm)	L2(mm)	L3(mm)	L4(mm)	
127.14	127.1402.GA.04	600	270	-	95	✓
	127.1401.GA.04	700	270	-	95	✓



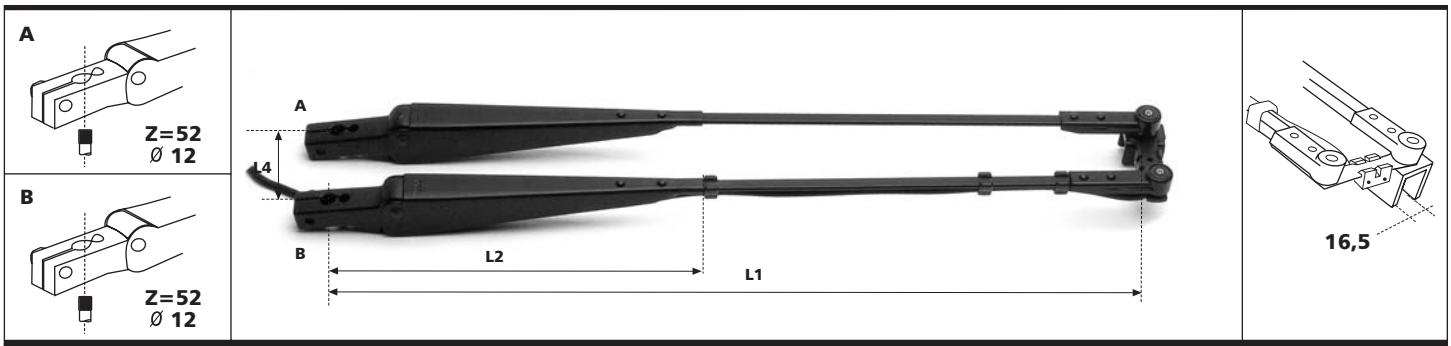
TYP	Ref.	L1(mm)	L2(mm)	L3(mm)	L4(mm)	
127.15	127.1501.GA.D4	R483/R505.5	165/230	43	33	-



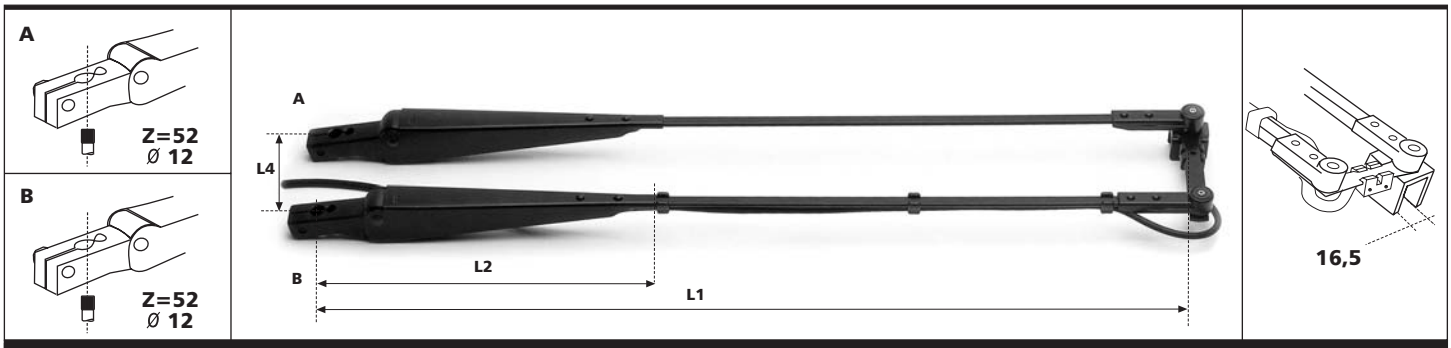
TYP	Ref.	L1(mm)	L2(mm)	L3(mm)	L4(mm)	
127.16	127.1601.GA.04	680	270	-	110	✓



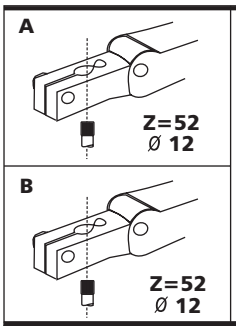
TYP	Ref.	L1(mm)	L2(mm)	L3(mm)	L4(mm)	
127.17	127.1701.GA.04	635	320	60	60	✓
	127.1702.GA.04	600	320	60	60	✓

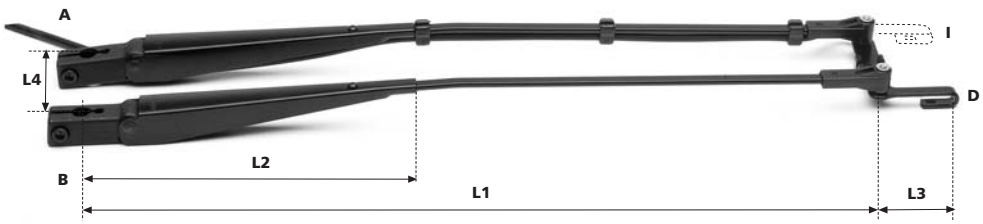


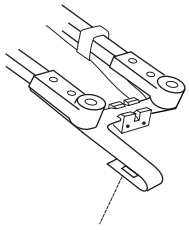
TYP	Ref.	L1(mm)	L2(mm)	L3(mm)	L4(mm)	
127.18	127.1801.GA.04	600	270	-	60	-
	127.1851.GA.04	600	270	-	60	✓
	127.1852.GA.04	680	270	-	60	✓
	127.1853.GA.04	600	270	-	60	✓



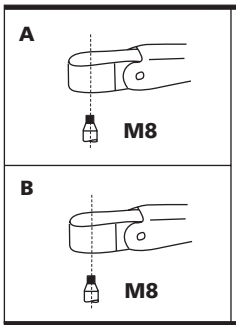
TYP	Ref.	L1(mm)	L2(mm)	L3(mm)	L4(mm)	
127.19	127.1901.GA.04	700	270	-	95	✓

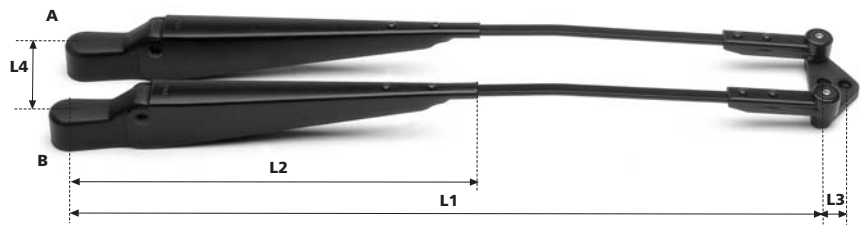


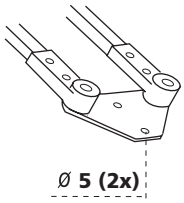




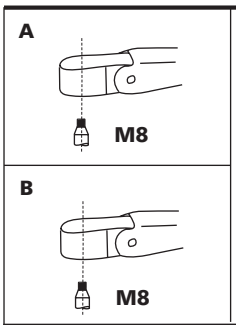
TYP	Ref.	L1(mm)	L2(mm)	L3(mm)	L4(mm)	
127.20	127.2051.GA.I4	505	210	45	60	✓
	127.2051.GA.D4	505	210	45	60	✓

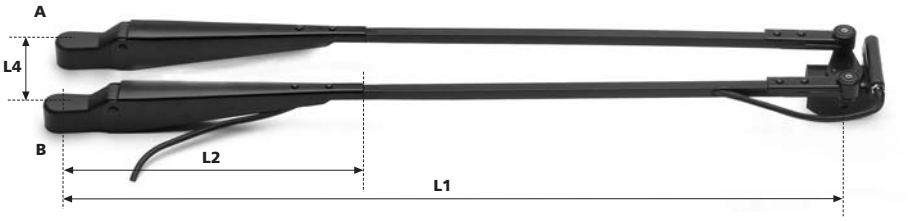


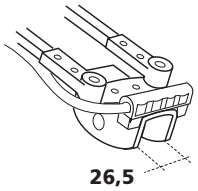




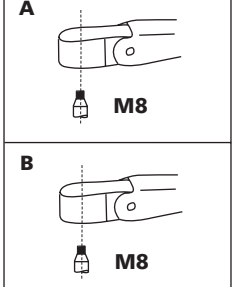
TYP	Ref.	L1(mm)	L2(mm)	L3(mm)	L4(mm)	
128.01	128.0102.GA.04	500	270	10	60	-
	128.0104.GA.04	600	270	10	60	-
	128.0105.GA.04	650	270	10	60	-
	128.0106.GA.04	700	270	10	60	-

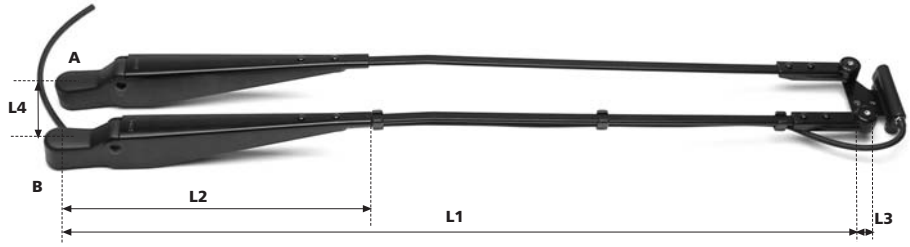


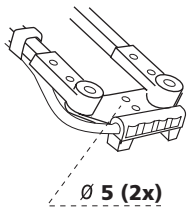




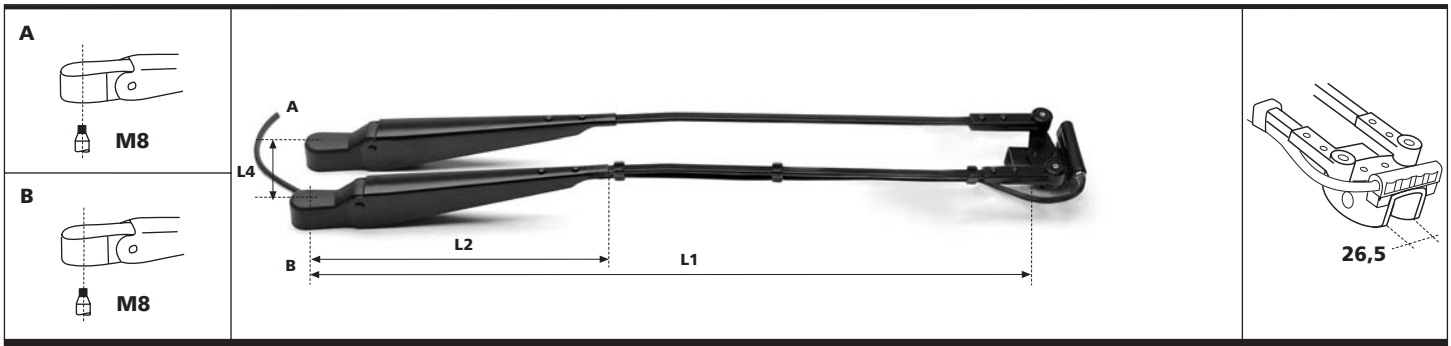
TYP	Ref.	L1(mm)	L2(mm)	L3(mm)	L4(mm)	
128.03	128.0303.GA.04	700	270	-	60	✓
	128.0305.GA.04	800	270	-	60	✓
	128.0307.GA.04	900	270	-	60	✓
	128.0309.GA.04	1000	270	-	60	✓



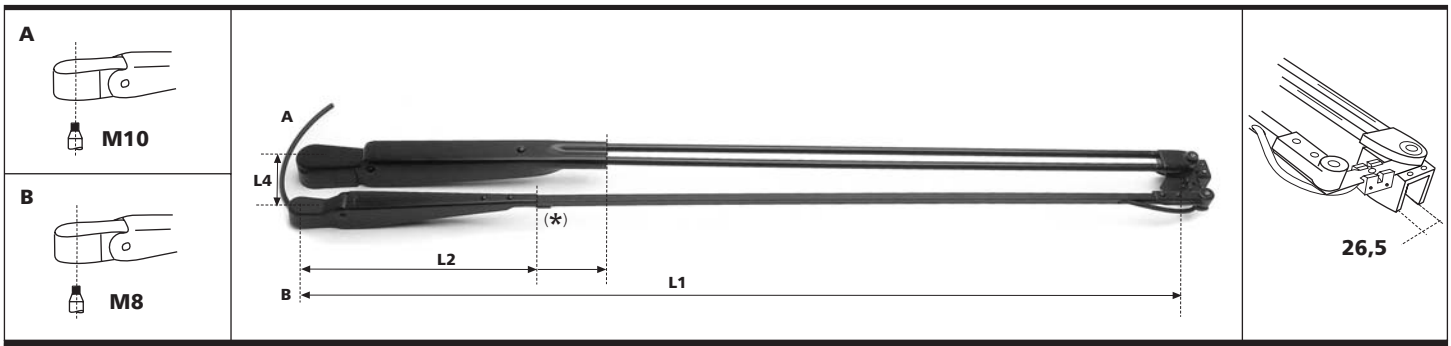




TYP	Ref.	L1(mm)	L2(mm)	L3(mm)	L4(mm)	
128.04	128.0402.GA.04	600	270	10	60	✓
	128.0403.GA.04	650	270	10	60	✓
	128.0405.GA.04	700	270	10	60	✓
	128.0406.GA.04	750	270	10	60	✓

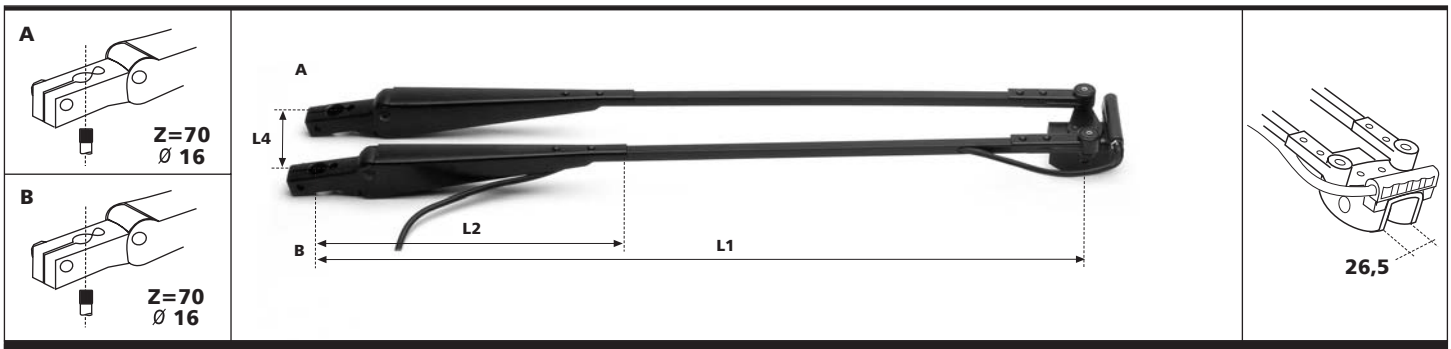


TYP	Ref.	L1(mm)	L2(mm)	L3(mm)	L4(mm)	
128.08	128.0803.GA.04	600	270	-	60	✓
	128.0804.GA.04	650	270	-	60	✓
	128.0805.GA.04	700	270	-	60	✓

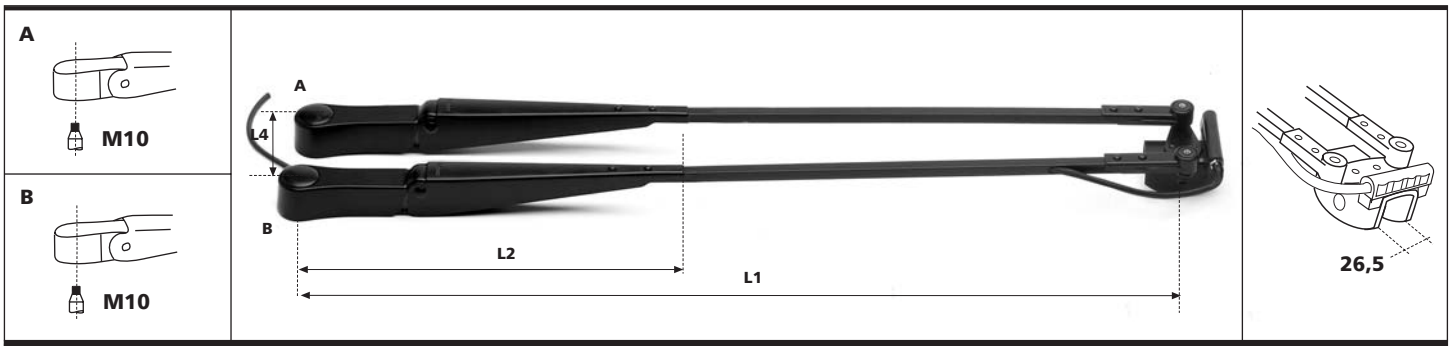


TYP	Ref.	L1(mm)	L2(mm)	L3(mm)	L4(mm)	
128.09	128.0901.GA.04	1070	348/270	-	60	✓
	128.0910.GA.04	1070	348/270	-	60	✓(*)

(*) - Surtidor extra opcional - Optional extra nozzle - Gicleur optionnel extra - Zusätzliche Spritzdüse af Aufrage



TYP	Ref.	L1(mm)	L2(mm)	L3(mm)	L4(mm)	
128.11	128.1101.GA.04	660	270	-	60	✓



TYP	Ref.	L1(mm)	L2(mm)	L3(mm)	L4(mm)	
128.12	128.1201.GA.04	1000	400	-	60	✓

DOGA ofrece una amplia variedad
de escobillas, para diferentes tipos de brazos,
con diversas longitudes.

Asímismo disponemos de escobillas con
arquillos, que se adaptan a la curvatura del
parabrisas, y escobillas planas
para vidrios sin curva.

Esto permite conseguir, en cualquier vehículo,
una limpieza perfecta en el área deseada.

■

DOGA offers a wide range of
wiper blades in various lengths for
different types of arms.

We also offer multiple pressure
point wiper blades,
which adapt to the curve of the
windshield as well as flat blades
for flat glass.

This means you can achieve matchless
cleaning of the required area on any
type of vehicle.

■

DOGA offre une grande variété de balais
pour différents types de bras et
diverses longueurs.

Nous disposons de même de balais
à archets, qui s'adaptent à la courbure du
pare-brise, et de balais plats pour
glaces non courbées.

Cela permet un nettoyage parfait de la zone
voulue sur n'importe quel véhicule.

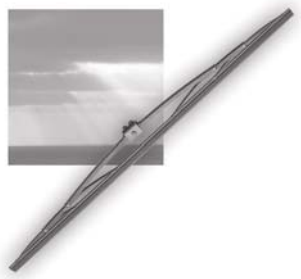
■

DOGA bietet eine Vielzahl von
Wischerblättern in verschiedenen Längen
für alle Wischarmtypen an.

Bügelförmige Wischerblätter, die sich der
Wölbung der Windschutzscheibe anpassen,
und flache Wischerblätter für
Windschutzscheiben
ohne Wölbung sind erhältlich.

Dadurch wird bei allen Fahrzeugtypen eine
perfekte Reinigung des gewünschten
Wischfelds erreicht.

ESCOBILLAS LIMPIAPARABRISAS
WIPER BLADES
BALAIS ESSUIE-GLACE
SCHEIBENWISCHERBLÄTTER



DOGA

escobillas limpiaparabrisas
wiper blades
balais essuie-glace
Scheibenwischerblätter

	varilla style tige Stab	5,4 x 2	7,2 x 2,5	7 x 2,2	9 x 2,5 9 x 3	9 x 4	8 x 2 8 x 2,5
	adaptador adapter adaptateur Adapter	E	F	C	D	S	K
280 mm		134.0628.GA.04	134.0728.GA.04	134.0228.GA.04	134.0328.GA.04	-	134.1628.GA.04 (a,b)
300 mm		134.0630.GA.04	134.0730.GA.04	134.0230.GA.04	134.0330.GA.04	-	134.1630.GA.04 (a,b)
330 mm		134.0633.GA.04	134.0733.GA.04	134.0233.GA.04	134.0333.GA.04	-	134.1633.GA.04 (a,b)
350 mm		134.0635.GA.04	134.0735.GA.04	134.0235.GA.04	134.0335.GA.04	-	134.1635.GA.04 (a,b)
380 mm		134.0638.GA.04	134.0738.GA.04	134.0238.GA.04	134.0338.GA.04	-	134.1638.GA.04 (a,b)
400 mm		-	134.0740.GA.04	134.0240.GA.04	134.0340.GA.04	-	134.1640.GA.04 (a,b)
450 mm		-	135.0745.GA.04	-	135.0345.GA.04	-	135.1645.GA.04 (b)
480 mm		-	-	-	135.0348.GA.04	-	135.1648.GA.04 (b)
500 mm		-	-	-	135.0350.GA.04	135.3050.GA.04	135.1650.GA.04 (b)
530 mm		-	-	-	133.0353.GA.04	133.3053.GA.04	
550 mm		-	-	-	133.0355.GA.04	133.3055.GA.04	135.1655.GA.04 (b)
600 mm		-	-	-	133.0360.GA.04	133.3060.GA.04	136.1660.GA.04 (b)

	varilla style tige Stab	9 x 2,5 9 x 3	9 x 4	12 x 4	7 x 2,2	16,5	26,5
	adaptador adapter adaptateur Adapter	D	V1	T	K 6	4	A1
400 mm		136.0340.GA.04	-	-	136.1640.GA.04 (a,b,c)	-	-
450 mm		136.0345.GA.04	-	-	136.1645.GA.04 (b,c)	-	-
500 mm		136.0350.GA.04	-	-	136.1650.GA.04 (b,c)	136.2050.GA.04	-
560 mm		-	-	136.2256.GA.04	-	-	-
600 mm		136.0360.GA.04	136.1460.GA.04	-	136.1660.GA.04 (c)	136.2060.GA.04	-
650 mm		-	136.1465.GA.04	136.2265.GA.04	136.1765.GA.04 (c)	136.2065.GA.04	-
700 mm		-	136.1470.GA.04	136.2270.GA.04	136.1770.GA.04 (c)	136.2070.GA.04	-
800 mm		-	-	-	-	-	136.2080.GA.04
900 mm		-	-	-	-	-	136.2090.GA.04
1000 mm		-	-	-	-	-	136.2010.GA.04
1180 mm		-	-	-	-	-	136.2011.GA.04
1360 mm		-	-	-	-	-	136.2013.GA.04

	varilla style tige Stab	5 6	5 x 2,5	8 x 2 8 x 2,5
200 mm		138.0920.GA.04 (a)	-	-
225 mm		-	138.3222.GA.04	138.3622.GA.04 (a)
250 mm		138.0925.GA.04 (a)	138.3225.GA.04	-
270 mm		138.0927.GA.04 (a)	-	-
300 mm		138.0930.GA.04 (a)	138.3230.GA.04	138.3630.GA.04 (a)
360 mm		-	-	138.3936.GA.04 (a)
400 mm		-	-	138.3940.GA.04 (a,b,c)-139.3940.GA04 (b,c)
450 mm		139.0945.GA.04 (b)	-	139.3945.GA.04 (b,c)
500 mm		139.0950.GA.04 (b)	-	139.3950.GA.04 (b,c)

La gama de equipos lavaparabrisas, aptos para las más diversas aplicaciones, ofrece depósitos con una amplia variedad de capacidades junto con multitud de accesorios.

Esta gama representa el complemento necesario a las soluciones de sistemas limpiaparabrisas contenidas en este catálogo.

Our range of windshield washer systems is designed for a wide variety of applications. Tanks of varying capacities and additional accessories are offered.

This range integrates with the windshield wiper systems shown in this catalogue.

La gamme d'équipements lave-glaces, aptes pour les plus diverses applications, offre des réservoirs avec une grande variété de capacités et une multitude d'accessoires.

Cette gamme représente le complément nécessaire aux solutions des systèmes essuie-glaces contenues dans ce catalogue.

Die Scheibenwaschanlagen, die in verschiedensten Bereichen Anwendung finden, sind in zahlreichen Behältergrößen mit unterschiedlichem Fassungsvermögen und reichhaltigem Zubehör erhältlich.

Sie sind die notwendige Ergänzung zu den Scheibenwischanlagen, die in diesem Katalog vorgestellt werden.

EQUIPOS LAVAPARABRISAS
WINDSHIELD WASHER SYSTEMS
EQUIPEMENTS LAVE-GLACES
SCHEIBENWASCHANLAGEN

EQUIPOS ESTANDAR - STANDARD SYSTEMS - EQUIPEMENTS STANDARDS - STANDARDANLAGEN

2 l.

PARA 1 ó 2 BOMBAS
FOR 1 or 2 PUMPS
POUR 1 ou 2 POMPES
FUR 1 oder 2 PUMPEN

- Material: PE HD
  Tapón con antipérdida ∅40mm.
- Material: PE HD
  Tethered cap ∅40mm.
- Matériau: PE HD
  Bouchon anti-fuite ∅40mm.
- Material: PE HD
  Verlustsichere Kappe ∅40mm.

New

BOMBAS / PUMPS / POMPES / PUMPEN	CON INDICADOR DE NIVEL / WITH LEVEL INDICATOR / AVEC INDICATEUR DE NIVEAUX / MIT FÜLLSTANDANZEIGE	SIN INDICADOR DE NIVEL / WITHOUT LEVEL INDICATOR / SANS INDICATEUR DE NIVEAUX / OHNE FÜLLSTANDANZEIGE
1	232.1003.20.00 (12 V) 232.1003.30.00 (24 V)	232.1001.20.00 (12 V) 232.1001.30.00 (24 V)
2	232.2002.20.00 (12 V) 232.2002.30.00 (24 V)	232.2001.20.00 (12 V) 232.2001.30.00 (24 V)

5 l.

PARA 1, 2 ó 3 BOMBAS
FOR 1, 2 or 3 PUMPS
POUR 1, 2 ou 3 POMPES
FUR 1, 2 oder 3 PUMPEN

- Material: PE HD
  Tapón con antipérdida ∅40mm.
- Material: PE HD
  Tethered cap ∅40mm.
- Matériau: PE HD
  Bouchon anti-fuite ∅40mm.
- Material: PE HD
  Verlustsichere Kappe ∅40mm.

New

BOMBAS / PUMPS / POMPES / PUMPEN	CON INDICADOR DE NIVEL / WITH LEVEL INDICATOR / AVEC INDICATEUR DE NIVEAUX / MIT FÜLLSTANDANZEIGE	SIN INDICADOR DE NIVEL / WITHOUT LEVEL INDICATOR / SANS INDICATEUR DE NIVEAUX / OHNE FÜLLSTANDANZEIGE
1	235.1002.20.00 (12 V) 235.1002.30.00 (24 V)	235.1001.20.00 (12 V) 235.1001.30.00 (24 V)
2	235.2002.20.00 (12 V) 235.2002.30.00 (24 V)	235.2001.20.00 (12 V) 235.2001.30.00 (24 V)
3		235.3001.20.00 (12 V) 235.3001.30.00 (24 V)

8 l.

PARA 1, 2 ó 3 BOMBAS
FOR 1, 2 or 3 PUMPS
POUR 1, 2 ou 3 POMPES
FUR 1, 2 oder 3 PUMPEN

- Material: PE HD
  Tapón con antipérdida ∅40mm.
- Material: PE HD
  Tethered cap ∅40mm.
- Matériau: PE HD
  Bouchon anti-fuite ∅40mm.
- Material: PE HD
  Verlustsichere Kappe ∅40mm.

New

BOMBAS / PUMPS / POMPES / PUMPEN	CON INDICADOR DE NIVEL / WITH LEVEL INDICATOR / AVEC INDICATEUR DE NIVEAUX / MIT FÜLLSTANDANZEIGE	SIN INDICADOR DE NIVEL / WITHOUT LEVEL INDICATOR / SANS INDICATEUR DE NIVEAUX / OHNE FÜLLSTANDANZEIGE
1	238.1002.20.00 (12 V) 238.1002.30.00 (24 V)	238.1001.20.00 (12 V) 238.1001.30.00 (24 V)
2	238.2002.20.00 (12 V) 238.2002.30.00 (24 V)	238.2001.20.00 (12 V) 238.2001.30.00 (24 V)
3		238.3001.20.00 (12 V) 238.3001.30.00 (24 V)

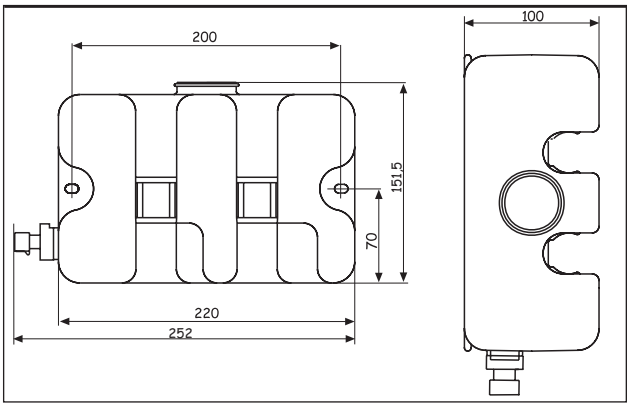
20 l.

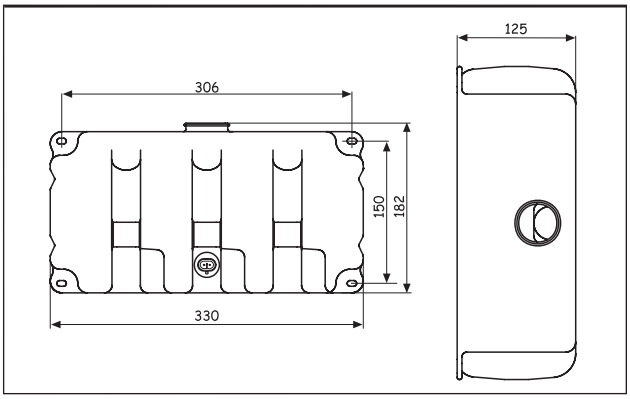
PARA 1 BOMBA INDEPENDIENTE
FOR 1 REMOTE PUMP
POUR 1 POMPE INDEPENDANTE
FUR UNABHAENGIG PUMPE

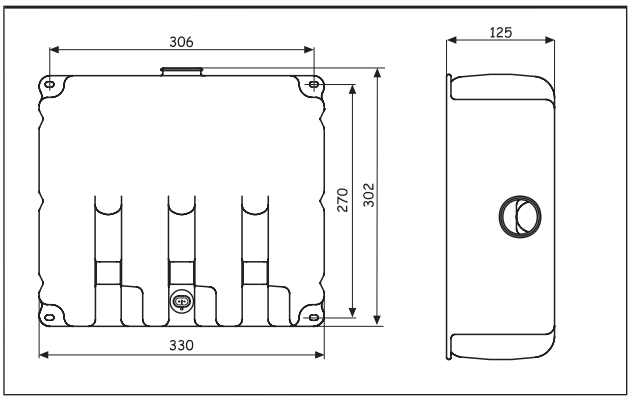
- Material: termoplástico
  Con tapón.
- Material: thermoplastic
  Cap included.
- Matériau: thermoplastique
  Avec bouchon.
- Material: thermoplastisch
  Mit Kappe.

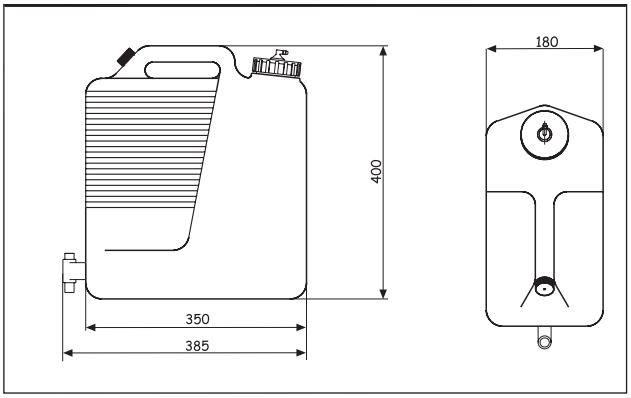
BOMBAS / PUMPS / POMPES / PUMPEN	CON INDICADOR DE NIVEL / WITH LEVEL INDICATOR / AVEC INDICATEUR DE NIVEAUX / MIT FÜLLSTANDANZEIGE	SIN INDICADOR DE NIVEL / WITHOUT LEVEL INDICATOR / SANS INDICATEUR DE NIVEAUX / OHNE FÜLLSTANDANZEIGE
1		230.0007.20.00 (12 V) 230.0007.30.00 (24 V)

EQUIPOS ESTANDAR - STANDARD SYSTEMS - EQUIPEMENTS STANDARDS - STANDARDANLAGEN









ACCESORIOS - ACCESSORIES - ACCESSOIRES - ZUBEHÖR

BRAZO
ARM
BRAS
ARM

(*)
SURTIDORES PARA BRAZOS
NOZZLES ARMS
GICLEURS POUR BRAS
SPRITZDÜSEN FÜR ARME

Ø3mm

TUBO NEGRO
BLACK HOSE
TUYAU NOIR
SCHWARZER SCHLAUCH

100.0007.39.C0 (1m)
100.0017.39.C0 (5m)

SURTIDORES
NOZZLES
GICLEURS
SPRITZDÜSEN

100.5044.39.C0

100.5035.39.C0

PASATUBOS
ELBOW CONNECTOR
TRAVERSEE DE CLOISON
DURCHFÜHRUNGSSTÜCK

101.5026.39.C0

121.5005.39.C0

PASACLABLES
GROMMET
PASSE-FIL
KABELSCHUTZ AM POLTOPF

100.0063.39.C0

(*)

Ø3mm

TUBO NEGRO
BLACK HOSE
TUYAU NOIR
SCHWARZER SCHLAUCH

100.0007.39.C0 (1m)
100.0017.39.C0 (5m)

Ø4mm

TUBO TRANSPARENTE
TRANSPARENT HOSE
TUYAU TRANSPARENT
TRANSPARENTER SCHLAUCH

100.0061.39.C0 (1m)
100.0062.39.C0 (5m)

Ø3mm
100.0053.39.C0
Ø4mm

Ø4mm
100.0052.39.C0
Ø4mm

100.0052.39.C0
Ø4mm
Ø4mm

CONECTORES
CONNECTORS
CONNECTEURS
ANSCHLUSS

100.0057.39.C0

VÁLVULA ANTIRRETORNO DOBLE SALIDA
CHECK VALVE DOUBLE OUTPUT
VALVE ANTI-RETOUR DOUBLE SORTIE
RÜCKSCHLAGVENTIL FÜR ZWEI ANSCHLÜSSEN

100.5046.39.C0

VÁLVULA ANTIRRETORNO
CHECK VALVE
VALVE ANTI-RETOUR
RÜCKSCHLAGVENTIL

100.5039.39.C0

BOMBA
PUMP
POMPE
PUMPE

(*) *Para más información consulte nuestro catálogo de Equipos Lavaparabrisas.*
For more accesories please refer to our Washer Systems catalogue.
Pour plus d'accessoires consultez notre catalogue d'Equipements d'Essuie-glace.
Für weiteres Zuberhör können Sie unseren Waschanlagen Katalog zu Rate ziehen.

A continuación se indican
los recambios para los motores indicados.

Los componentes que se ofrecen como
recambio son las ruedas, inducidos
y escobillas de carbono, cuyas referencias
se listan en la tabla adjunta.

The following table lists replacement
parts for various motors.

The components offered are brush sets ,
gear wheels and armatures. Part numbers
are listed in the attached table.

Vous trouverez ci-après les pièces
de rechange pour les moteurs indiqués.

Les composants qui sont proposés
comme rechange sont les roues, les induits
et les charbons , dont les références sont
listées dans le tableau ci-joint.

Im folgenden sind die Ersatzteile für
die bisher gezeigten Motoren aufgeführt.

Als Ersatzteil können Sie die Zahnräder, den
Anker und die Kohlebürsten erhalten, deren
Referenznummern der beigefügten Tabelle
zu entnehmen sind.

RECAMBIOS PARA MOTORES
REPLACEMENT PARTS FOR MOTORS
PIECES DE RECHANGES POUR MOTEURS
ERSATZTEILE FÜR MOTOREN

REFERENCIA MOTOR MOTOR PART NUMBER REFERENCE MOTEUR REFERENZNUMMER MOTOR	REFERENCIA CARBÓN BRUSH PART NUMBER REFERENCE CHARBON REFERENZNUMMER KOHLEBÜRSTE	REFERENCIA RUEDA GEAR WHEEL PART NUMBER REFERENCE ROUE REFERENZNUMMER ZAHNRAD	REFERENCIA INDUCIDO ARMATURE PART NUMBER REFERENCE INDUIT REFERENZNUMMER ANKER
111			
111.3715.**.**	111.0001.14.C0	111.5202.16.C0	111.5006.12/24.C0
111.3717.**.**	111.0001.14.C0	111.5202.16.C0	111.5005.12/24.C0
111.3736.**.**	111.0001.14.C0	111.5204.16.C0	111.5007.12/24.C0
111.3754.**.**	111.0001.14.C0	111.5206.16.C0	111.5005.12/24.C0
111.3756.**.**	111.0001.14.C0	111.5206.16.C0	111.5007.12/24.C0
111.3757.**.**	111.0001.14.C0	111.5206.16.C0	111.5005.12/24.C0
111.6247.**.**	111.0001.14.C0	111.5206.16.C0	111.5005.12/24.C0
111.6322.**.**	111.0001.14.C0	111.5206.16.C0	111.5005.12/24.C0
111.6424.**.**	111.0001.14.C0	111.5206.16.C0	111.5005.12/24.C0
111.6427.**.**	111.0001.14.C0	111.5206.16.C0	111.5005.12/24.C0
111.6444.**.**	111.0001.14.C0	111.5206.16.C0	111.5005.12/24.C0
111.6447.**.**	111.0001.14.C0	111.5206.16.C0	111.5005.12/24.C0
111.6627.**.**	111.0001.14.C0	111.5206.16.C0	111.5005.12/24.C0
111.6647.**.**	111.0001.14.C0	111.5206.16.C0	111.5005.12/24.C0
111.7105.**.**	111.0001.14.C0	111.5206.16.C0	111.5006.12/24.C0
111.7107.**.**	111.0001.14.C0	111.5206.16.C0	111.5005.12/24.C0
111.7124.**.**	111.0001.14.C0	111.5206.16.C0	111.5005.12/24.C0
111.7129.**.**	111.0001.14.C0	111.5206.16.C0	111.5006.12/24.C0
111.7222.**.**	111.0001.14.C0	111.5206.16.C0	111.5005.12/24.C0
111.7227.**.**	111.0001.14.C0	111.5206.16.C0	111.5005.12/24.C0
111.7242.**.**	111.0001.14.C0	111.5206.16.C0	111.5005.12/24.C0
111.7244.**.**	111.0001.14.C0	111.5206.16.C0	111.5005.12/24.C0
111.7247.**.**	111.0001.14.C0	111.5206.16.C0	111.5005.12/24.C0
111.7307.**.**	111.0001.14.C0	111.5206.16.C0	111.5005.12/24.C0
111.7327.**.**	111.0001.14.C0	111.5206.16.C0	111.5005.12/24.C0
111.7340.**.**	111.0001.14.C0	111.5206.16.C0	111.5007.12/24.C0
111.7342.**.**	111.0001.14.C0	111.5206.16.C0	111.5005.12/24.C0
111.7344.**.**	111.0001.14.C0	111.5206.16.C0	111.5005.12/24.C0
111.7347.**.**	111.0001.14.C0	111.5206.16.C0	111.5005.12/24.C0
111.7402.**.**	111.0001.14.C0	111.5206.16.C0	111.5005.12/24.C0
111.7407.**.**	111.0001.14.C0	111.5206.16.C0	111.5005.12/24.C0
111.7424.**.**	111.0001.14.C0	111.5206.16.C0	111.5005.12/24.C0
111.7440.**.**	111.0001.14.C0	111.5206.16.C0	111.5007.12/24.C0
111.8147.**.**	111.0001.14.C0	111.5206.16.C0	111.5005.12/24.C0
111.8247.**.**	111.0001.14.C0	111.5206.16.C0	111.5005.12/24.C0
111.8327.**.**	111.0001.14.C0	111.5206.16.C0	111.5005.12/24.C0
111.8377.**.**	111.0001.14.C0	111.5206.16.C0	111.5005.12/24.C0
111.8422.**.**	111.0001.14.C0	111.5206.16.C0	111.5005.12/24.C0
111.8424.**.**	111.0001.14.C0	111.5206.16.C0	111.5005.12/24.C0
112			
112.1340.**.**	112.5027.13.C0	112.5101.16.C0 (85º) Ø6	112.5003.12/24.C0
112.1380.**.**	112.5027.13.C0	112.5101.16.C0 (85º) Ø6	112.5003.12/24.C0
112.1540.**.**	112.5027.13.C0	112.5102.16.C0 (110º) Ø6	112.5003.12/24.C0
112.1580.**.**	112.5027.13.C0	112.5102.16.C0 (110º) Ø6	112.5003.12/24.C0
112.1642.**.**	112.5027.13.C0	112.5103.16.C0 (120º) Ø6	112.5003.12/24.C0
113			
113.2450.**.**	113.0003.14.C0	113.5002.16.C0 L = 9,5mm	113.5001.12/24.C0
113.2550.**.**	113.0003.14.C0	113.5002.16.C0 L = 9,5mm	113.5001.12/24.C0
113.3450.**.**	113.0003.14.C0	113.5002.16.C0 L = 9,5mm	113.5001.12/24.C0
113.3480.**.**	113.0003.14.C0	113.5002.16.C0 L = 9,5mm	113.5001.12/24.C0

REFERENCIA MOTOR MOTOR PART NUMBER REFERENCE MOTEUR REFERENZNUMMER MOTOR	REFERENCIA CARBÓN BRUSH PART NUMBER REFERENCE CHARBON REFERENZNUMMER KOHLEBÜRSTE	REFERENCIA RUEDA GEAR WHEEL PART NUMBER REFERENCE ROUE REFERENZNUMMER ZAHNRAD	REFERENCIA INDUCIDO ARMATURE PART NUMBER REFERENCE INDUIT REFERENZNUMMER ANKER
113.3483.**.**	113.0003.14.C0	113.5002.16.C0 L = 9,5mm	113.5001.12/24.C0
113.3580.**.**	113.0003.14.C0	113.5002.16.C0 L = 9,5mm	113.5001.12/24.C0
113.3583.**.**	113.0003.14.C0	113.5002.16.C0 L = 9,5mm	113.5001.12/24.C0
113.5323.**.**	113.0003.14.C0	113.5002.16.C0 L = 9,5mm	113.5001.12/24.C0
113.5330.**.**	113.0003.14.C0	113.5002.16.C0 L = 9,5mm	113.5001.12/24.C0
113.5420.**.**	113.0003.14.C0	113.5002.16.C0 L = 9,5mm	113.5001.12/24.C0
113.5423.**.**	113.0003.14.C0	113.5002.16.C0 L = 9,5mm	113.5001.12/24.C0
113.5470.**.**	113.0003.14.C0	113.5002.16.C0 L = 9,5mm	113.5001.12/24.C0
113.5520.**.**	113.0003.14.C0	113.5002.16.C0 L = 9,5mm	113.5001.12/24.C0
113.5523.**.**	113.0003.14.C0	113.5002.16.C0 L = 9,5mm	113.5001.12/24.C0
113.5526.**.**	113.0003.14.C0	113.5002.16.C0 L = 9,5mm	113.5001.12/24.C0
113.5623.**.**	113.0003.14.C0	113.5002.16.C0 L = 9,5mm	113.5001.12/24.C0
113.7213.**.**	113.0003.14.C0	113.5002.16.C0 L = 9,5mm	113.5001.12/24.C0
113.7243.**.**	113.0003.14.C0	113.5002.16.C0 L = 9,5mm	113.5001.12/24.C0
113.7263.**.**	113.0003.14.C0	113.5002.16.C0 L = 9,5mm	113.5001.12/24.C0
113.7443.**.**	113.0003.14.C0	113.5002.16.C0 L = 9,5mm	113.5001.12/24.C0
113.7463.**.**	113.0003.14.C0	113.5002.16.C0 L = 9,5mm	113.5001.12/24.C0
116			
116.0180.**.**	116.0001.14.C0	116.5340.16.D/I 0 (70º)	116.5004.12/24.C0
116.0480.**.**	116.0001.14.C0	116.5343.16.D/I 0 (90º)	116.5004.12/24.C0
116.0866.**.**	116.0001.14.C0	116.5345.16.D/I 0 (110º)	116.5004.12/24.C0
116.1410.**.**	116.0001.14.C0	116.5343.16.D/I 0 (90º)	116.5004.12/24.C0
116.1486.**.**	116.0001.14.C0	116.5343.16.D/I 0 (90º)	116.5004.12/24.C0
116.1816.**.**	116.0001.14.C0	116.5345.16.D/I 0 (110º)	116.5004.12/24.C0
116.2719.**.**	116.0005.14.C0	116.5223.16.C0	116.5012.12/24.C0
116.3716.**.**	116.0001.14.C0	116.5223.16.C0	116.5004.12/24.C0
116.4455.**.**	116.0005.14.C0	116.5343.16.D/I 0 (90º)	116.5012.12/24.C0
116.4459.**.**	116.0005.14.C0	116.5343.16.D/I 0 (90º)	116.5012.12/24.C0
116.4465.**.**	116.0005.14.C0	116.5343.16.D/I 0 (90º)	116.5012.12/24.C0
116.4469.**.**	116.0005.14.C0	116.5343.16.D/I 0 (90º)	116.5012.12/24.C0
116.4485.**.**	116.0005.14.C0	116.5343.16.D/I 0 (90º)	116.5012.12/24.C0
116.5265.**.**	116.0005.14.C0	116.5341.16.D/I 0 (80º)	116.5012.12/24.C0
116.5269.**.**	116.0005.14.C0	116.5341.16.D/I 0 (80º)	116.5012.12/24.C0
116.5365.**.**	116.0005.14.C0	116.5342.16.D/I 0 (85º)	116.5012.12/24.C0
116.5455.**.**	116.0005.14.C0	116.5343.16.D/I 0 (90º)	116.5012.12/24.C0
116.5465.**.**	116.0005.14.C0	116.5343.16.D/I 0 (90º)	116.5012.12/24.C0
116.5469.**.**	116.0005.14.C0	116.5341.16.D/I 0 (80º)	116.5012.12/24.C0
116.5565.**.**	116.0005.14.C0	116.5344.16.D/I 0 (95º)	116.5012.12/24.C0
116.5862.**.**	116.0005.14.C0	116.5345.16.D/I 0 (110º)	116.5012.12/24.C0
116.5865.**.**	116.0005.14.C0	116.5345.16.D/I 0 (110º)	116.5012.12/24.C0
116.5869.**.**	116.0005.14.C0	116.5345.16.D/I 0 (110º)	116.5012.12/24.C0
119			
119.2725.**.**	116.0001.14.C0	119.5015.16.C0	119.5004.12/24.C0
119.3723.**.**	116.0001.14.C0	119.5015.16.C0	119.5001.12/24.C0
119.3725.**.**	116.0001.14.C0	119.5015.16.C0	119.5004.12/24.C0
119.3753.**.**	116.0001.14.C0	119.5017.16.C0	119.5001.12/24.C0
119.3755.**.**	116.0001.14.C0	119.5017.16.C0	119.5004.12/24.C0
119.5282.**.**	116.0001.14.C0	119.5068.16.C0	119.5001.12/24.C0
119.5362.**.**	116.0001.14.C0	119.5068.16.C0	119.5001.12/24.C0
119.5463.**.**	116.0001.14.C0	119.5068.16.C0	119.5001.12/24.C0
119.6062.**.**	116.0001.14.C0	119.5068.16.C0	119.5001.12/24.C0
119.6263.**.**	116.0001.14.C0	119.5068.16.C0	119.5001.12/24.C0

REFERENCIA MOTOR MOTOR PART NUMBER REFERENCE MOTEUR REFERENZNUMMER MOTOR	REFERENCIA CARBÓN BRUSH PART NUMBER REFERENCE CHARBON REFERENZNUMMER KOHLEBÜRSTE	REFERENCIA RUEDA GEAR WHEEL PART NUMBER REFERENCE ROUE REFERENZNUMMER ZAHNRAD	REFERENCIA INDUCIDO ARMATURE PART NUMBER REFERENCE INDUIT REFERENZNUMMER ANKER
119.6353.**.**	116.0001.14.C0	119.5068.16.C0	119.5001.12/24.C0
119.6363.**.**	116.0001.14.C0	119.5068.16.C0	119.5001.12/24.C0
119.6382.**.**	116.0001.14.C0	119.5068.16.C0	119.5001.12/24.C0
119.6383.**.**	116.0001.14.C0	119.5068.16.C0	119.5001.12/24.C0
119.6463.**.**	116.0001.14.C0	119.5068.16.C0	119.5001.12/24.C0
258			
258.0764.**.**	116.0001.14.C0	258.5032.16.C0	258.5002.12/24.C0
258.1734.**.**	116.0001.14.C0	258.5031.16.C0	258.5002.12/24.C0
258.1744.**.**	116.0001.14.C0	258.5030.16.C0	258.5002.12/24.C0
248			
248.1010.**.**	116.0001.14.C0	258.5030.16.C0	258.5002.12/24.C0
248.1011.**.**	116.0001.14.C0	258.5030.16.C0	258.5002.12/24.C0
248.1012.**.**	116.0001.14.C0	258.5030.16.C0	258.5002.12/24.C0
259			
259.3705.**.**	259.0001.14.C0	259.5004.16.C0	259.5018.12/24.C0
259.2728.**.**	259.0001.14.C0	259.5004.16.C0	259.5018.12/24.C0
249			
249.5601.**.**	259.0001.14.C0	259.5004.16.C0	259.5018.12/24.C0
249.5602.**.**	259.0001.14.C0	259.5004.16.C0	259.5018.12/24.C0
249.5606.**.**	259.0001.14.C0	259.5004.16.C0	259.5018.12/24.C0

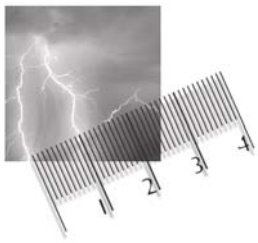
Partiendo del punto de fijación del motor (x), dibujar el contorno del parabrisas y, dentro del mismo, el equipo más adecuado teniendo en cuenta el ángulo de barrido de los motores y las medidas de los diferentes brazos y escobillas.

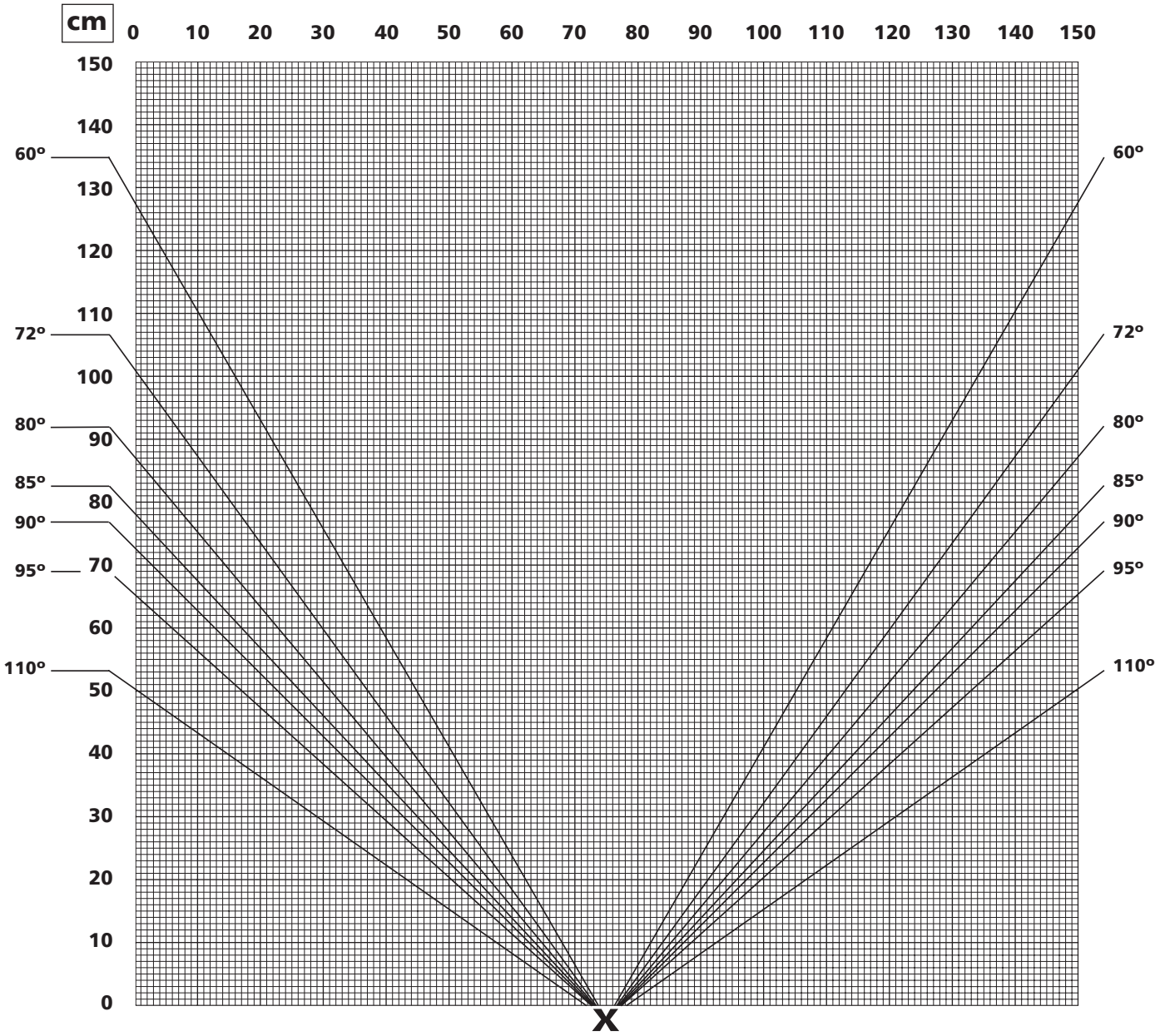
Using point (x) as the wiper arm pivot, draw the outline of the windshield and a preferred sweep pattern. Keep in mind the sweep angle and length of the different arms and wiper blades.

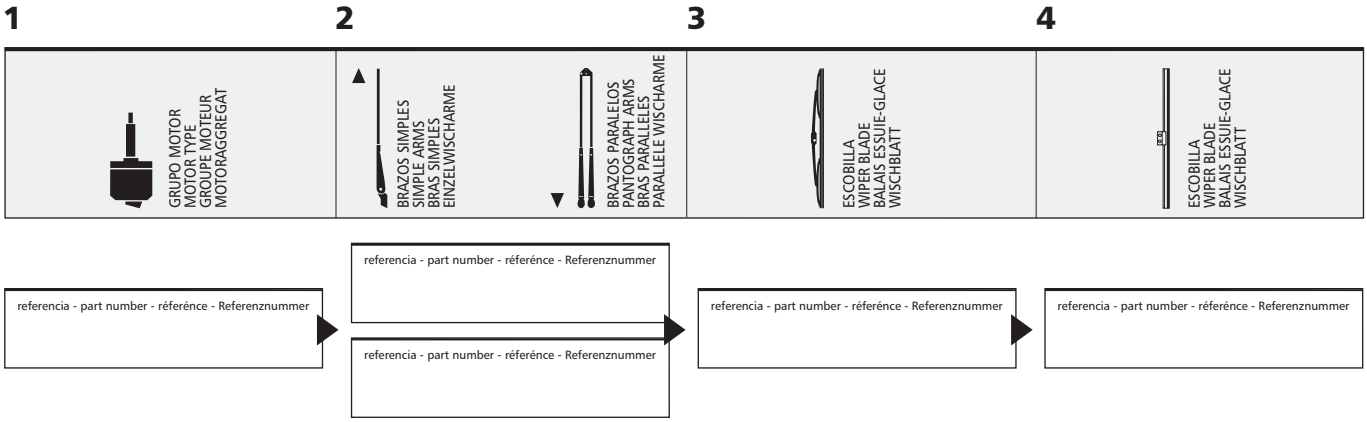
À partir du point de fixation du moteur (x), dessiner le contour du pare-brise et, à l'intérieur de celui-ci, l'équipement le plus adéquat en tenant compte de l'angle de balayage des moteurs et des mesures des différents bras et balais.

Ausgehend vom Befestigungspunkt des Motors (x), zeichnen Sie bitte den Umriss des Wischfeldes auf und tragen Sie darin die geeigneten Bauteile ein, wobei der Wischwinkel der Motoren und die unterschiedlichen Längen von Wischerarm und –blatt berücksichtigt werden sollten.

COMO DEFINIR UN PROYECTO
WIPER SYSTEM LAYOUT
COMMENT DEFINIR UN PROJET
ENTWURFSPLANUNG




cm
0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0
60º
72º
80º
85º
90º
95º
110º
X


1
2
3
4
GRUPO MOTOR
MOTOR TYPE
GROUPE MOTEUR
MOTORAGGREGAT
BRAZOS SIMPLES
SIMPLE ARMS
BRAS SIMPLES
EINZELWISCHARME
BRAZOS PARALELOS
PANTOGRAPH ARMS
BRAS PARALLELES
PARALLELE WISCHARME
ESCOBILLA
WIPER BLADE
BALAIS ESSUIE-GLACE
WISCHBLATT
ESCOBILLA
WIPER BLADE
BALAIS ESSUIE-GLACE
WISCHBLATT
referencia - part number - référénce - Referenznummer
referencia - part number - référénce - Referenznummer
referencia - part number - référénce - Referenznummer
referencia - part number - référénce - Referenznummer
referencia - part number - référénce - Referenznummer

CLIENTE - CUSTOMER - CLIENT - KUNDE

Fecha - Date - Date - Datum

Tipo vehículo / Vehicle type / Type de véhicule / Fahrzeug Typ .....

Marca vehículo / Vehicle model / Marque de vehicule / Fahrzeugmodell .....

Mod. .....

vel/max. / max./speed / vit./max. / geschw./max. .....

Entrega de muestras
Samples delivery
Livraison d'échantillons
Musterlieferung

No / Non / Nein ☐

Si / Yes / Oui / Ja ☐ *fecha / date / Datum* .....

cantidad / quantity / quantité / Menge .....

Preserie
Pre-production
Pré-série
Vorserie

No / Non / Nein ☐

Si / Yes / Oui / Ja ☐ *fecha / date / Datum* .....

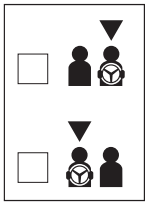
cantidad / quantity / quantité / Menge .....

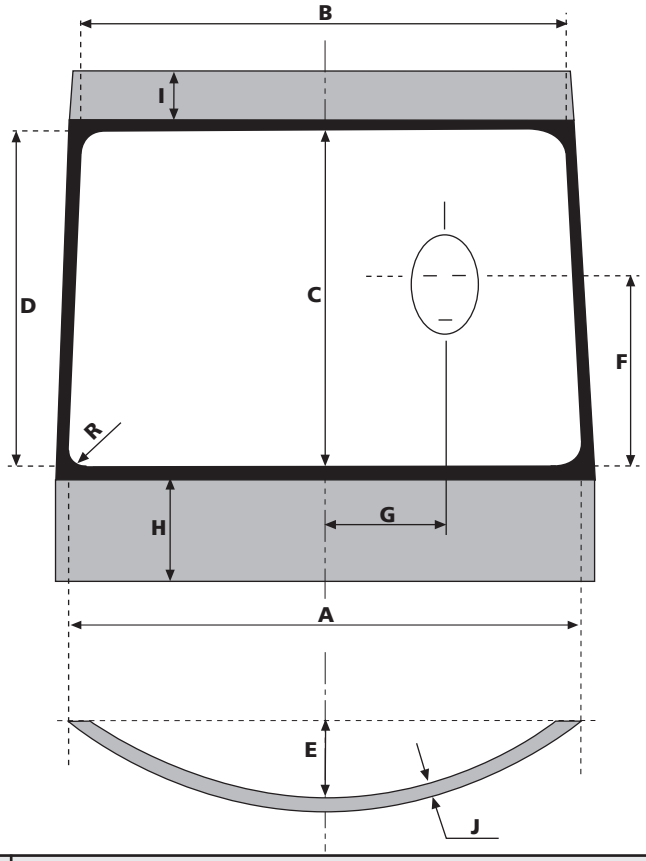
Serie
Production
Série
Serie

fecha / date / Datum .....

Consumo previsto / año
Estimated quantity / year
Consommation prévue / année
Vorgesehene Abnahme / Jahr

.....





GENERAL - GENERAL - GENERAL -GENERAL

Dimensiones cristal Measurements windshield Dimension glace Abmessungen Scheibe	A ..... B ..... C ..... D ..... R .....
Cristal dividido Twin screen Pare brise divisé Geteilte Scheibe	*No / Non / Nein* ☐ *Si / Yes / Oui / Ja* ☐ *Ancho de la división / Divider width / Largeur division / Teilungsbreite* .....
Curvatura cristal Windshield curve Courbure glace Krümmung der Scheibe	E .....
Situación conductor Driver's position Position conducteur Position Fahrer	F ..... G .....
Espacio disponible accionamientos Assembly room Espace disponible ensemble Einbauraum	H ..... I .....
Espesor carrocería Thickness of body Epaisseur carrosserie Durchmesser der Karosserie	J .....

MOTOR - MOTEUR - MOTOREN

Fijación motor / Motor fitting / Fixation moteur / Befestigung Motor ☐ *chapa / body / carrosserie / Karosserie* ☐ *cristal / windshield / glace / Scheibe*

Tensión eléctrica / Nominal voltage / Tension electrique / Nennspannung ..... Volts.

Intermitencia integrada en motor limpiaparabrisas / Integrated intermittence in windshield wiper motor / Intermittence integrée sur moteur essuie-glace / Scheibenwischermotor mit integrierter Intervallschaltung *No / Non / Nein* ☐ *Si / Yes / Oui / Ja* ☐

Tipo conector / Connector type / Type de connecteur / Anschluss Typ .....

LAVAPARABRISAS - WASHER SYSTEM - EQUIPEMENT LAVE-GLACE - WASCHANLAGEN

¿Desea equipo lavaparabrisas? / Do you need washer-system? / Désirez-vous un équipement lave-glaces? / Benötigen Sie Waschanlage? *Si / Yes / Oui / Ja* ☐ *No / Non / Nein* ☐

Surtidor / Nozzle / Gicleur / Spritzdüse ☐ *en brazo / arm integrated / sur le bras / integriert in Arm* ☐ *en carroceria / body integrated / sur la carrosserie / in Karosserie*

CAD

☐ *CATIA* ☐ *PRO-E* ☐ *SOLID DESIGNER* ☐ *ME-10* *otro / other / autre / andere* .....

Formato de intercambio / Exchange format / Format d'échange / Astauschformat ☐ *dxf* ☐ *igs* *otro / other / autre / andere* .....

OBSERVACIONES - COMMENTS - COMMENTAIRES - BEMERKUNGEN

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