

⇨ **TECHNICAL DESCRIPTION**

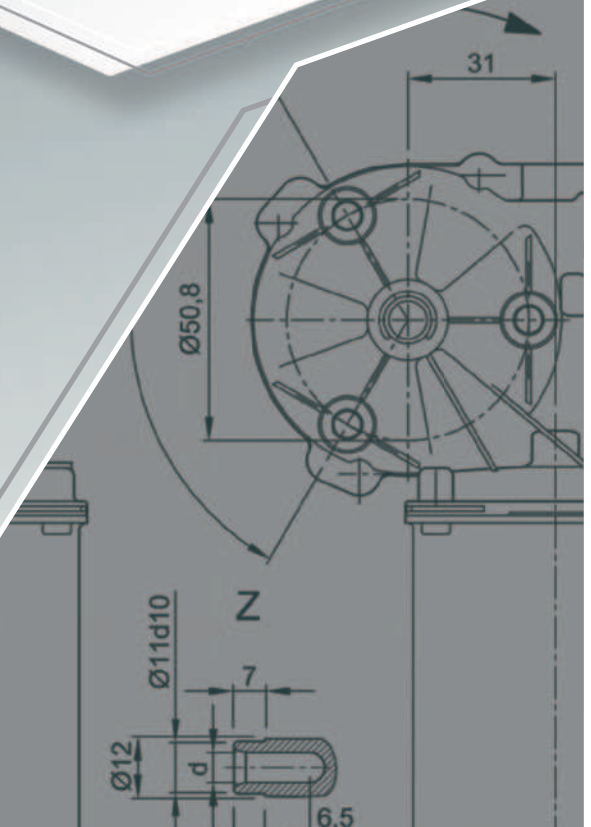
Motorhousing:	deep drawn & corrosion protected
Excitation field:	permanent magnet
Type of gear mesh:	worm gear
Gear housing:	zinc die cast
Gear wheel material:	plastic, steel
Lubrication:	grease
Mechanical interface:	steel shaft
Electric interface:	connector or leads with connector
Sensor:	optional
Thermal protection:	optional
EMC suppression:	optional

⇨ **INDUSTRIAL APPLICATION**

Door & gate openers, pumps,
lubricating technology, appliance, linear actuators

⇨ **AUTOMOTIVE APPLICATION**

Trunk & tailgate opening & closing



Design Data	
Commutation	Brushed
Direction of rotation	Bi-directional
Bearing type	A:ball - B:sleeve

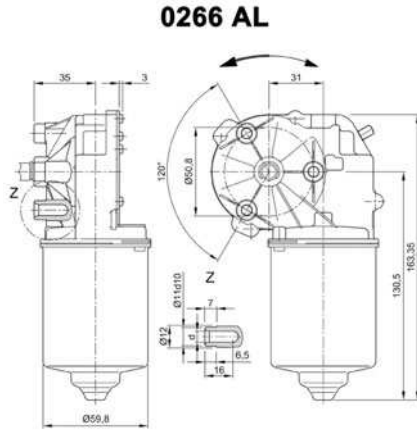
Performance data		
Rated voltage [V]	U_N	24
Nominal torque [Nm]	M_N	4.00
No-load speed [min^{-1}]	n_0	65.0
Nominal power [W]	P_N	25.0
Nominal current [A]	I_N	4.0
Nominal force [kN]	F_N	0.00
Duty cycle	s1	

Sensor data	
Pulses	69
Output channels	1

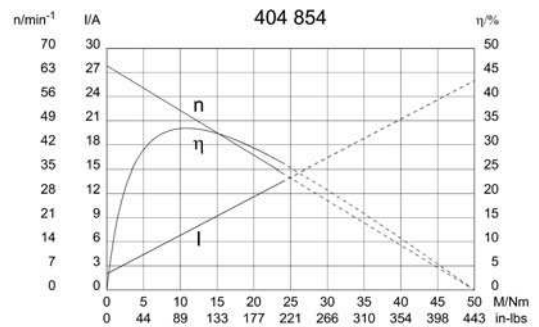
Other data	
Gear ratio	69/1
Gear wheel material	plastic
Suppression components	6 μH
Enclosure class	IP 30
Weight [kg]	1.250

Remarks: d=for selftapping screw M6 DIN ISO 965-2

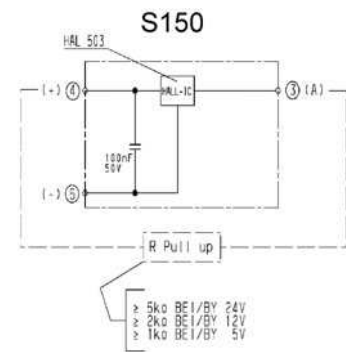
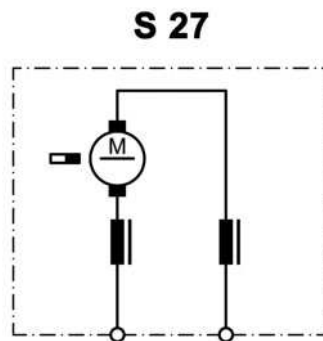
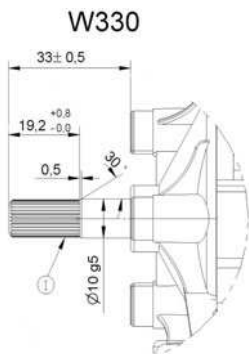
Characteristic curves



Motor picture



Output shaft drawing (W), Wiring diagrams (S) and Connector layout (K)



I serration (rolled): no of teeth 28, pitch circle dia 9 mm, tip circle dia 9.6 mm, root circle dia 8.26 mm space width angle 60° - go/no go gauge Frenco 33906 - www.frenco.de

Design Data	
Commutation	Brushed
Direction of rotation	Bi-directional
Bearing type	A: ball - B:sleeve

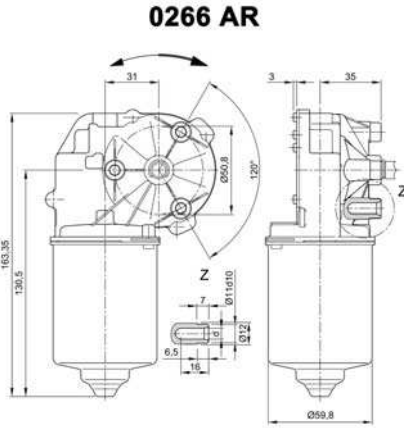
Performance data		
Rated voltage [V]	U_N	24
Nominal torque [Nm]	M_N	4.00
No-load speed [min^{-1}]	n_0	66.0
Nominal power [W]	P_N	25.4
Nominal current [A]	I_N	4.0
Nominal force [kN]	F_N	0.00
Duty cycle	s1	

Sensor data	
Pulses	0
Output channels	0

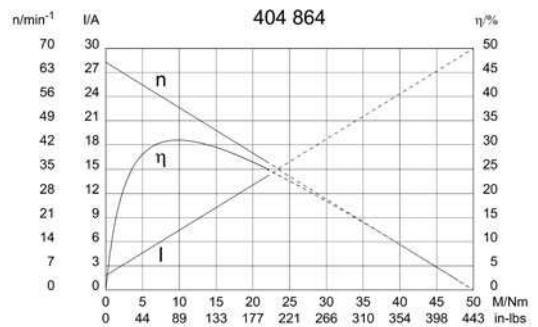
Other data	
Gear ratio	69/1
Gear wheel material	plastic
Suppression components	3,5 μ H, 1 μ F
Enclosure class	IP 30
Weight [kg]	1.210

Remarks: d = for thread-forming screw M6 DIN ISO 965-2

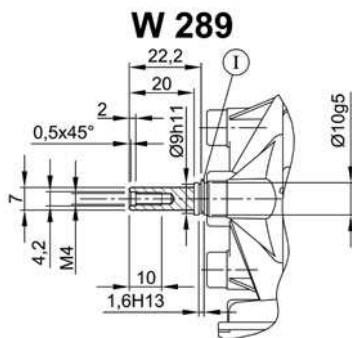
Characteristic curves



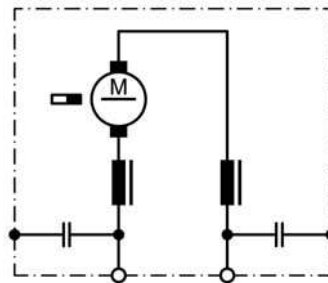
Motor picture



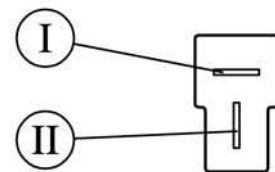
Output shaft drawing (W), Wiring diagrams (S) and Connector layout (K)



S 30



K 320



I Circlip

Flat plug (DIN 46244) 6,3x0,8 mating with receptacle housing part#180907, drwg# C-180907& Receptacles for tabs, conductor cross section 0,5-1,5 sqmm (20-18AWG) part# 925603-x, drwg# 925603 www.tycoelectronics.com

Design Data	
Commutation	Brushed
Direction of rotation	Bi-directional
Bearing type	A: Ball - B: Sleeve

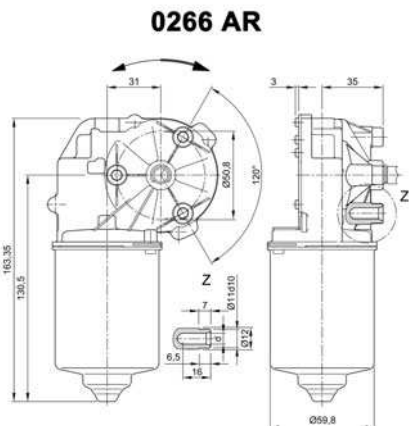
Performance data		
Rated voltage [V]	U_N	24
Nominal torque [Nm]	M_N	4.00
No-load speed [min^{-1}]	n_0	75.0
Nominal power [W]	P_N	28.9
Nominal current [A]	I_N	5.5
Nominal force [kN]	F_N	0.00
Duty cycle	s1	

Sensor data	
Pulses	69
Output channels	2

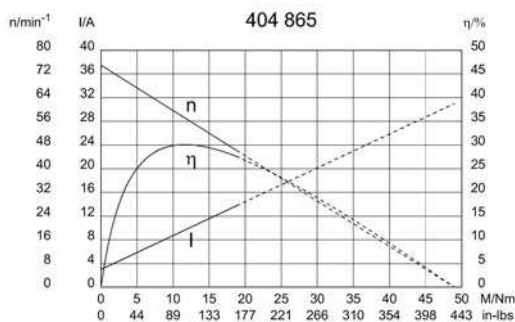
Other data	
Gear ratio	69/1
Gear wheel material	Plastic
Suppression components	6.0 μH , 1nF
Enclosure class	IP30
Weight [kg]	1.210

Remarks: d = for thread-forming screw M6 DIN ISO 965-2

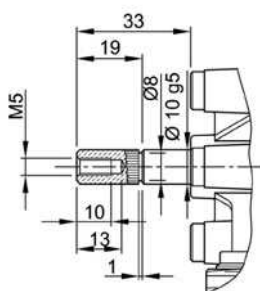
Characteristic curves



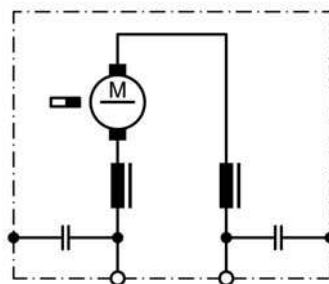
Motor picture



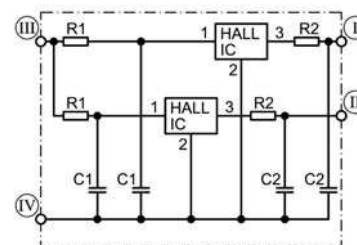
Output shaft drawing (W), Wiring diagrams (S) and Connector layout (K)



S 30



S 141



- I Hall-IC A1, terminal 3
- II Hall-IC A2, terminal 4
- III Hall-IC +, terminal 5
- IV Hall-IC -, terminal 6

Series DCK31

Motor type 404 866

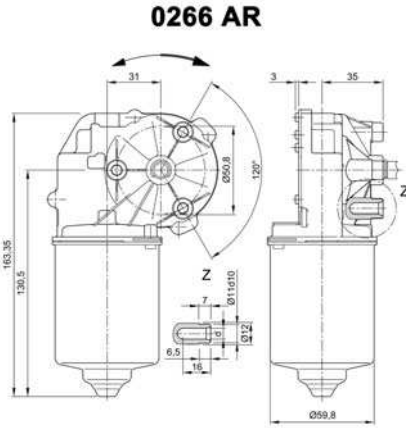
Design Data	
Commutation	Brushed
Direction of rotation	Bi-directional
Bearing type	A:ball - B:sleeve

Performance data		
Rated voltage [V]	U_N	24
Nominal torque [Nm]	M_N	4.00
No-load speed [min ⁻¹]	n_0	64.0
Nominal power [W]	P_N	24.4
Nominal current [A]	I_N	4.0
Nominal force [kN]	F_N	0.00
Duty cycle		s1

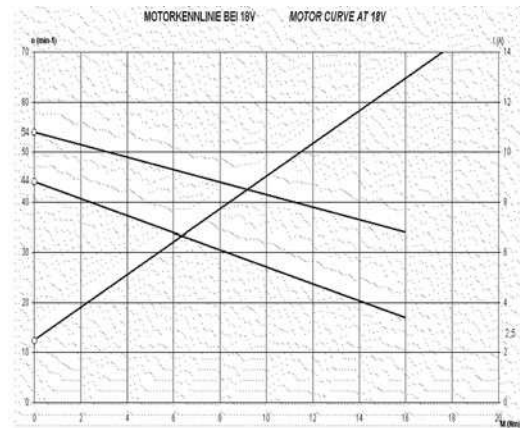
Sensor data	
Pulses	0
Output channels	0

Other data	
Gear ratio	69/1
Gear wheel material	plastic
Suppression components	6 μ H, 1nF
Enclosure class	IP 30
Weight [kg]	1.216

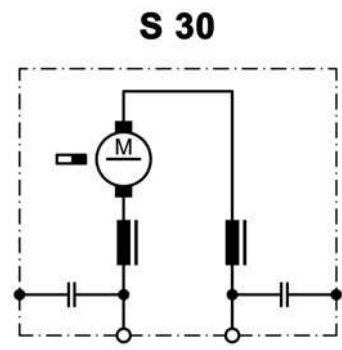
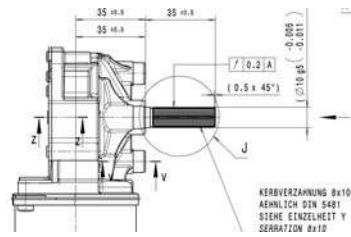
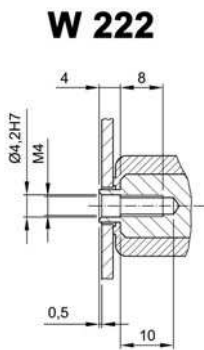
Remarks: d = for thread-forming screw M6 DIN ISO 965-2



Motor picture



Output shaft drawing (W), Wiring diagrams (S) and Connector layout (K)



! Only for connection of encoder

Design Data	
Commutation	Brushed
Direction of rotation	Bi-directional
Bearing type	A: ball - B:sleeve

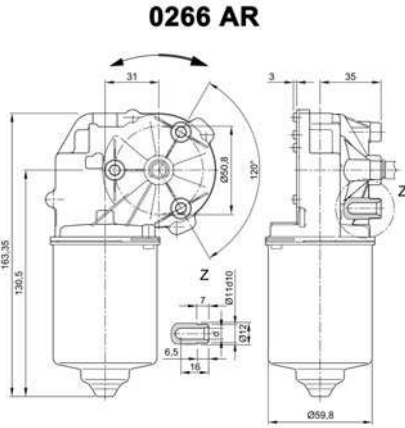
Performance data		
Rated voltage [V]	U_N	24
Nominal torque [Nm]	M_N	6.00
No-load speed [min^{-1}]	n_0	35.0
Nominal power [W]	P_N	19.2
Nominal current [A]	I_N	3.0
Nominal force [kN]	F_N	0.00
Duty cycle	s1	

Sensor data	
Pulses	0
Output channels	0

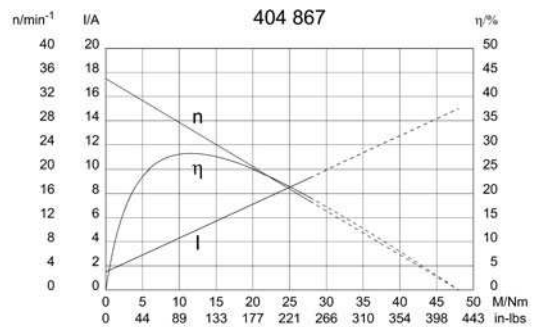
Other data	
Gear ratio	69/1
Gear wheel material	plastic
Suppression components	$6\mu\text{H}$, 1nF
Enclosure class	IP 30
Weight [kg]	1.210

Remarks: d = for thread-forming screw M6 DIN ISO 965-2

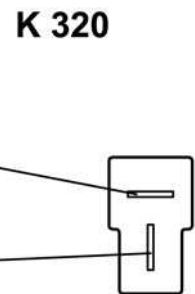
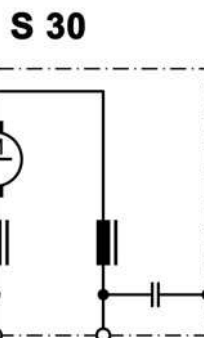
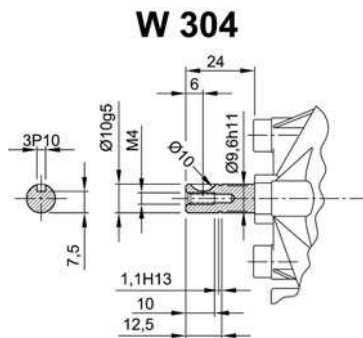
Characteristic curves



Motor picture



Output shaft drawing (W), Wiring diagrams (S) and Connector layout (K)



Flat plug (DIN 46244) 6,3x0,8 mating with receptacle housing part#180907, drwg# C-180907& Receptacles for tabs, conductor cross section 0,5-1,5 sqmm (20-18AWG) part# 925603-x, drwg# 925603 www.tycoelectronics.com

Design Data

Commutation	Brushed
Direction of rotation	Bi-directional
Bearing type	A:ball - B:sleeve

Performance data

Rated voltage [V]	U_N	24
Nominal torque [Nm]	M_N	4.00
No-load speed [min^{-1}]	n_0	21.0
Nominal power [W]	P_N	7.79
Nominal current [A]	I_N	2.0
Nominal force [kN]	F_N	0.00
Duty cycle		s1

Sensor data

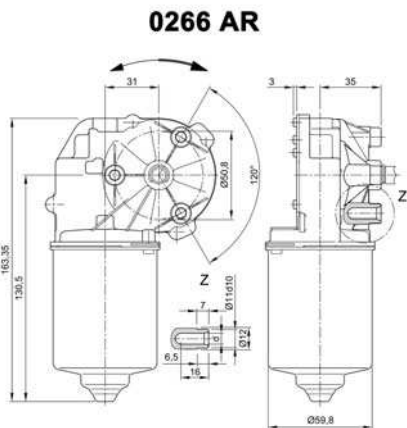
Pulses	0
Output channels	0

Other data

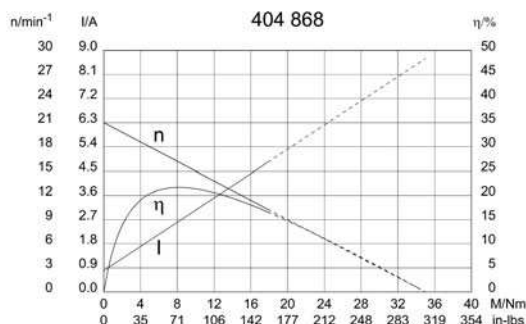
Gear ratio	69/1
Gear wheel material	plastic
Suppression components	3,5 μ H, 1 μ F
Enclosure class	IP 30
Weight [kg]	1.210

Remarks: d = for thread-forming screw M6 DIN ISO 965-2

Characteristic curves

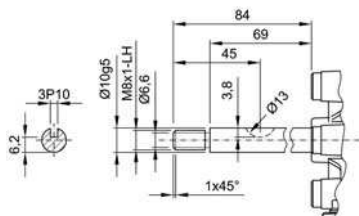


Motor picture

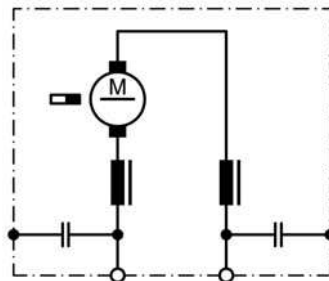


Output shaft drawing (W), Wiring diagrams (S) and Connector layout (K)

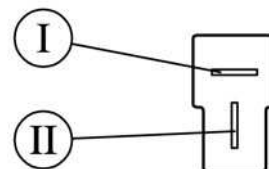
W 120



S 30



K 320



Flat plug (DIN 46244) 6,3x0,8 mating with receptacle housing part#180907, drwg# C-180907& Receptacles for tabs, conductor cross section 0,5-1,5 sqmm (20-18AWG) part# 925603-x, drwg# 925603 www.tycoelectronics.com

Design Data	
Commutation	Brushed
Direction of rotation	Bi-directional
Bearing type	A:Ball - B:Sleeve

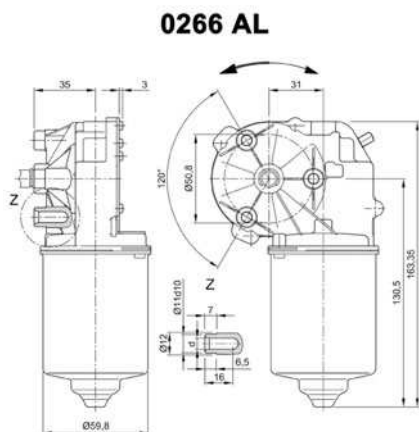
Performance data		
Rated voltage [V]	U_N	12
Nominal torque [Nm]	M_N	4.00
No-load speed [min^{-1}]	n_0	30.0
Nominal power [W]	P_N	10.8
Nominal current [A]	I_N	3.0
Nominal force [kN]	F_N	0.00
Duty cycle	s1	

Sensor data	
Pulses	0
Output channels	0

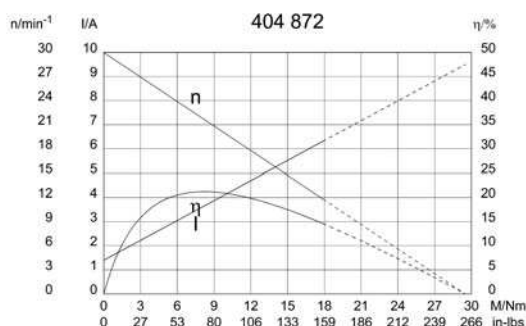
Other data	
Gear ratio	69/1
Gear wheel material	plastic
Suppression components	6 μ H
Enclosure class	IP 30
Weight [kg]	1.210

Remarks: d = for thread-forming screw M6 DIN ISO 965-2

Characteristic curves

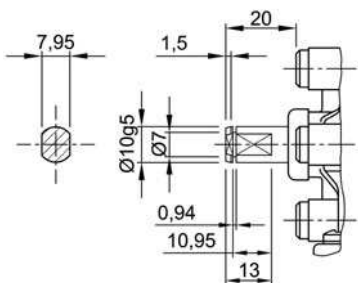


Motor picture

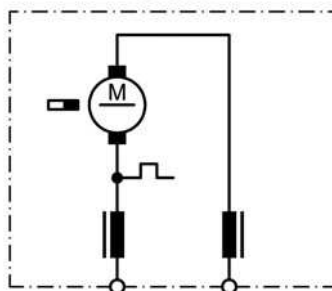


Output shaft drawing (W), Wiring diagrams (S) and Connector layout (K)

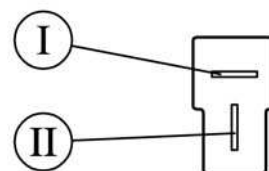
W 252



S 25



K 320



Flat plug (DIN 46244) 6,3x0,8 mating with receptacle housing part#180907, drwg# C-180907& Receptacles for tabs, conductor cross section 0,5-1,5 sqmm (20-18AWG) part# 925603-x, drwg# 925603 www.tycoelectronics.com

Design Data

Commutation	Brushed
Direction of rotation	Bi-directional
Bearing type	A:Ball - B:Sleeve

Performance data

Rated voltage [V]	U_N	24
Nominal torque [Nm]	M_N	2.00
No-load speed [min^{-1}]	n_0	160.0
Nominal power [W]	P_N	30.9
Nominal current [A]	I_N	4.0
Nominal force [kN]	F_N	0.00
Duty cycle		s1

Sensor data

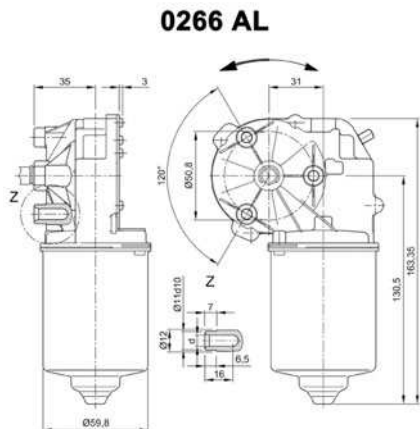
Pulses	1
Output channels	2

Other data

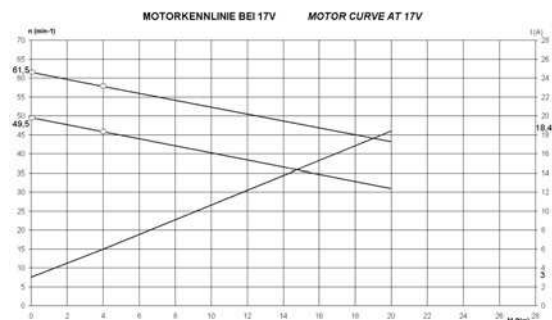
Gear ratio	53/2
Gear wheel material	plastic
Suppression components	$6\mu\text{H}, 1\text{nF}$
Enclosure class	IP 30
Weight [kg]	1.210

Remarks: d= for thread forming screw M6 DIN ISO 965-2

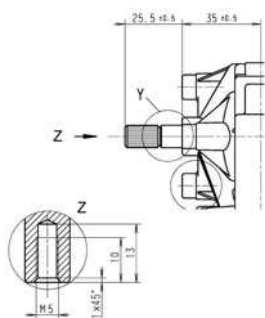
Characteristic curves



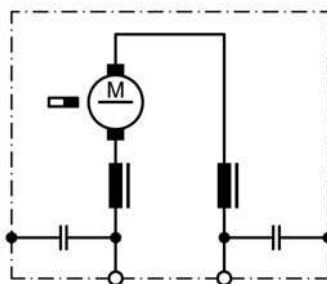
Motor picture



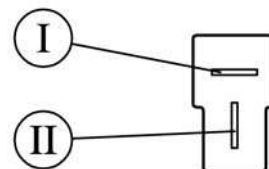
Output shaft drawing (W), Wiring diagrams (S) and Connector layout (K)



S 30



K 320



I serration (rolled): **No teeth 28, pitch circle dia 9 mm, tip circle dia 9.6 mm, root circle dia 8.26 mm space width angle 60° - go/no go gauge Frenco 33906 - www.frenco.de**

Flat plug (DIN 46244) 6,3x0,8 mating with receptacle housing part#180907, drwg# C-180907& Receptacles for tabs, conductor cross section 0,5-1,5 sqmm (20-18AWG) part# 925603-x, drwg# 925603 www.tycoelectronics.com

Design Data

Commutation	Brushed
Direction of rotation	Bi-directional
Bearing type	A: Ball - B:Sleeve

Performance data

Rated voltage [V]	U_N	24
Nominal torque [Nm]	M_N	3.00
No-load speed [min^{-1}]	n_0	14.0
Nominal power [W]	P_N	3.60
Nominal current [A]	I_N	1.0
Nominal force [kN]	F_N	0.00
Duty cycle		s1

Sensor data

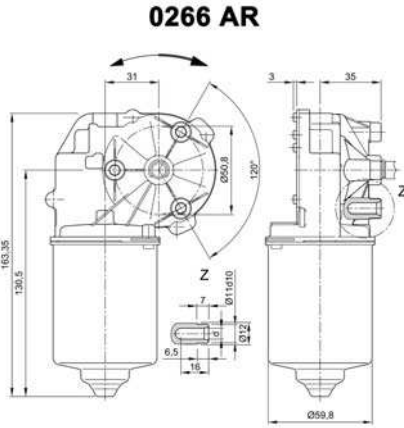
Pulses	234
Output channels	1

Other data

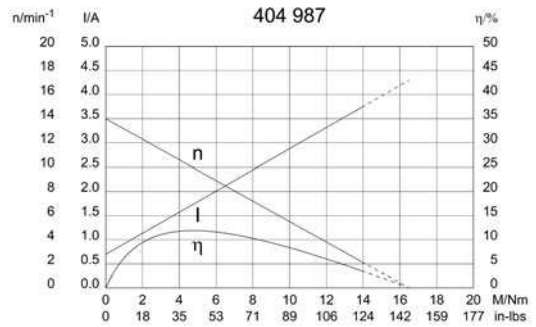
Gear ratio	78/1
Gear wheel material	bronze
Suppression components	$6\mu\text{H}$, 1nF
Enclosure class	IP 30
Weight [kg]	1.210

Remarks: d = for thread-forming screw M6 DIN ISO 965-2

Characteristic curves

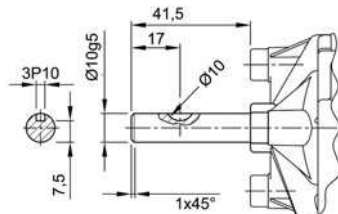


Motor picture

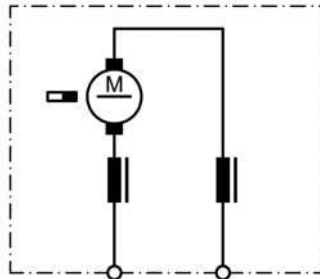


Output shaft drawing (W), Wiring diagrams (S) and Connector layout (K)

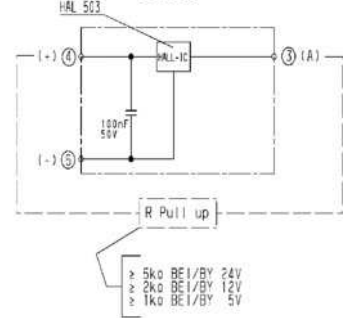
W 327



S 27

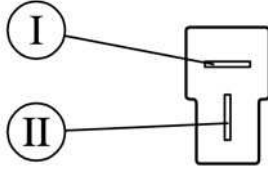


S150



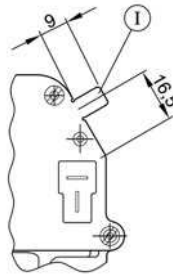
Output shaft drawing (W), Wiring diagrams (S) and Connector layout (K)

K 320



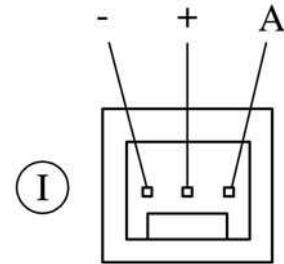
Flat plug (DIN 46244) 6,3x0,8 mating with receptacle housing part#180907, drwg# C-180907 & Receptacles for tabs, conductor cross section 0,5-1,5 sqmm (20-18AWG) part# 925603-x, drwg# 925603 www.tycoelectronics.com

K 321



I Ground connection
 Blade terminal 6.3 x 0.8 DIN 46 244

K 326



MAS-CON solder tail MLAS 100-3435 mating with end connector CE 100F-22-xx-x-x or CEP 100F-22-xx-x-x

Notes

Design Data	
Commutation	Brushed
Direction of rotation	Bi-directional
Bearing type	A: ball - B: sleeve

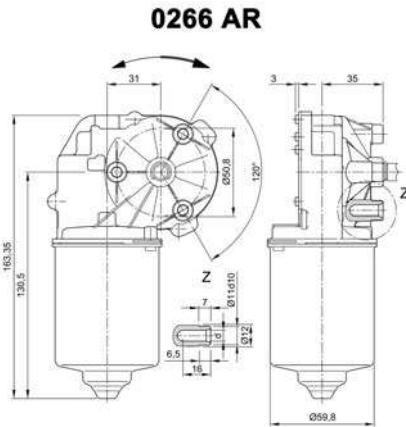
Performance data		
Rated voltage [V]	U_N	24
Nominal torque [Nm]	M_N	4.00
No-load speed [min^{-1}]	n_0	36.0
Nominal power [W]	P_N	12.9
Nominal current [A]	I_N	3.0
Nominal force [kN]	F_N	0.00
Duty cycle	s1	

Sensor data	
Pulses	207
Output channels	1

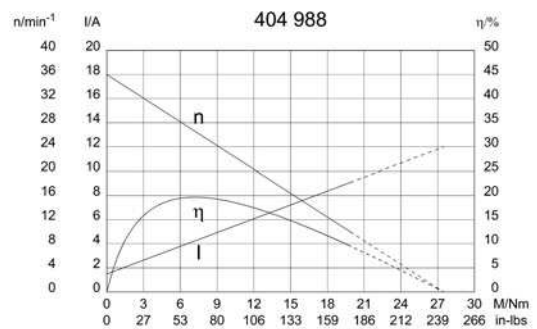
Other data	
Gear ratio	69/1
Gear wheel material	plastic
Suppression components	$6\mu\text{H}$, 1nF
Enclosure class	IP 30
Weight [kg]	1.210

Remarks: d = for thread-forming screw M6 DIN ISO 965-2

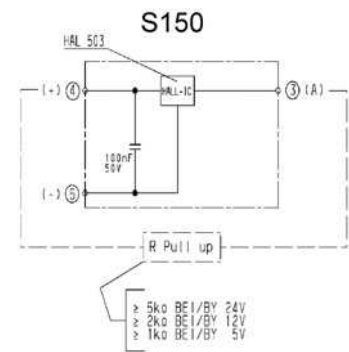
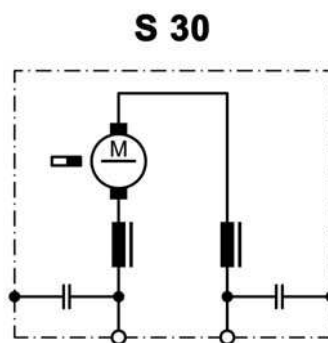
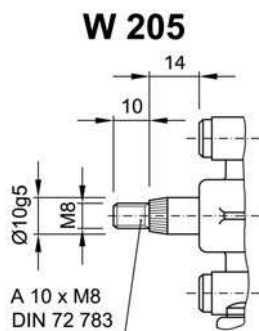
Characteristic curves



Motor picture

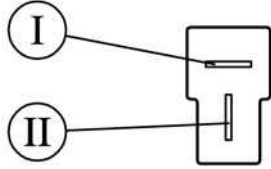


Output shaft drawing (W), Wiring diagrams (S) and Connector layout (K)



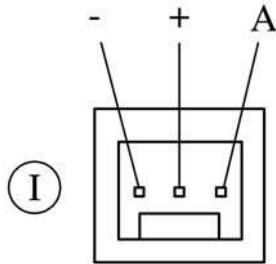
Output shaft drawing (W), Wiring diagrams (S) and Connector layout (K)

K 320



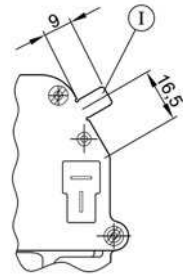
Flat plug (DIN 46244) 6,3x0,8 mating with receptacle housing part#180907, drwg# C-180907 & Receptacles for tabs, conductor cross section 0,5-1,5 sqmm (20-18AWG) part# 925603-x, drwg# 925603 www.tycoelectronics.com

K 326



MAS-CON solder tail MLAS 100-3435 mating with end connector CE 100F-22-xx-x-x or CEP 100F-22-xx-x-x

K 321



I Ground connection
 Blade terminal 6.3 x 0.8 DIN 46 244

Notes

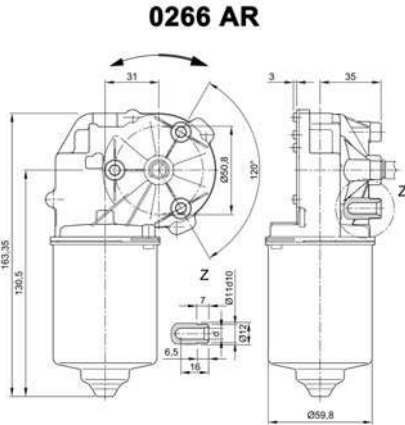
Design Data	
Commutation	Brushed
Direction of rotation	Bi-directional
Bearing type	A:Ball - B:Sleeve

Performance data		
Rated voltage [V]	U_N	24
Nominal torque [Nm]	M_N	3.00
No-load speed [min^{-1}]	n_0	195.0
Nominal power [W]	P_N	52.5
Nominal current [A]	I_N	5.0
Nominal force [kN]	F_N	0.00
Duty cycle	s1	

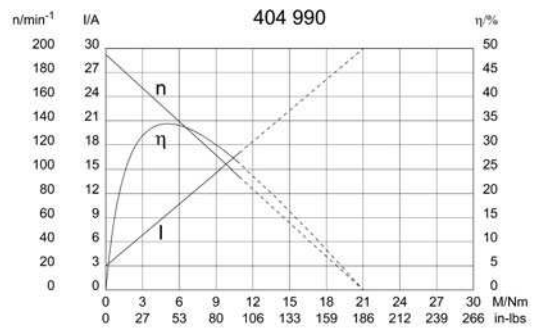
Sensor data	
Pulses	207
Output channels	1

Other data	
Gear ratio	53/2
Gear wheel material	plastic
Suppression components	6 μ H, 1nF
Enclosure class	IP 30
Weight [kg]	1.210

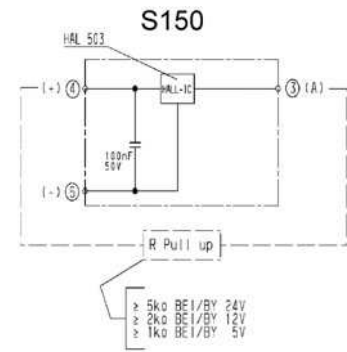
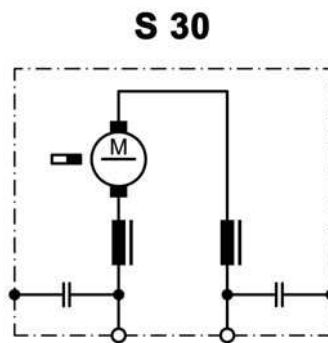
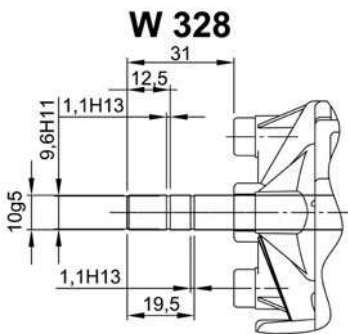
Remarks: d = for thread-forming screw M6 DIN ISO 965-2



Motor picture

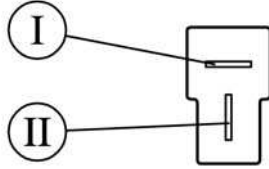


Output shaft drawing (W), Wiring diagrams (S) and Connector layout (K)



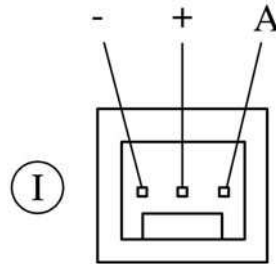
Output shaft drawing (W), Wiring diagrams (S) and Connector layout (K)

K 320



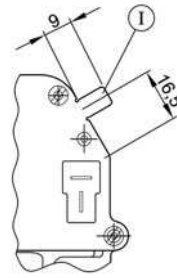
Flat plug (DIN 46244) 6,3x0,8 mating with receptacle housing part#180907, drwg# C-180907& Receptacles for tabs, conductor cross section 0,5-1,5 sqmm (20-18AWG) part# 925603-x, drwg# 925603 www.tycoelectronics.com

K 326



MAS-CON solder tail MLAS 100-3435 mating with end connector CE 100F-22-xx-x-x or CEP 100F-22-xx-x-x

K 321



I Ground connection
 Blade terminal 6.3 x 0.8 DIN 46 244

Notes

Design Data

Commutation	Brushed
Direction of rotation	Bi-directional
Bearing type	A:Ball- B:Sleeve

Performance data

Rated voltage [V]	U_N	24
Nominal torque [Nm]	M_N	1.00
No-load speed [min^{-1}]	n_0	270.0
Nominal power [W]	P_N	24.5
Nominal current [A]	I_N	3.0
Nominal force [kN]	F_N	0.00
Duty cycle		s1

Sensor data

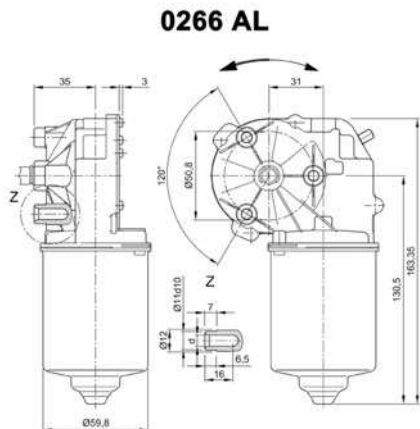
Pulses	10.25
Output channels	1

Other data

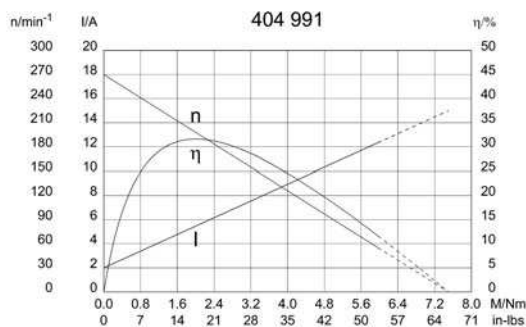
Gear ratio	41/4
Gear wheel material	plastic
Suppression components	$6\mu\text{H}$, 1nF
Enclosure class	IP 30
Weight [kg]	1.250

Remarks: d = for thread-forming screw M6 DIN ISO 965-2

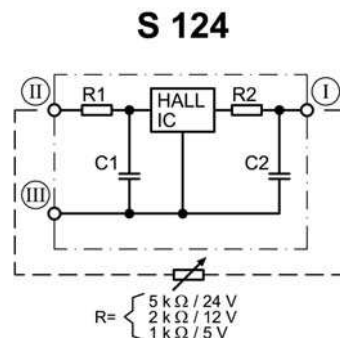
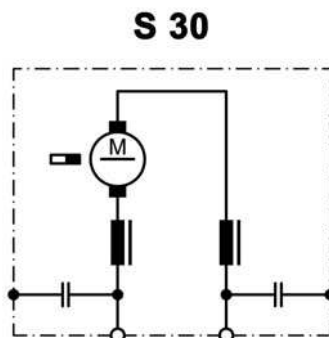
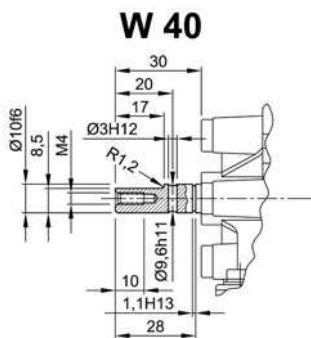
Characteristic curves



Motor picture



Output shaft drawing (W), Wiring diagrams (S) and Connector layout (K)



- I Terminal 3, A
- II Terminal 4, +
- III Terminal 5, -

Design Data	
Commutation	Brushed
Direction of rotation	Bi-directional
Bearing type	A:Ball - B:Sleeve

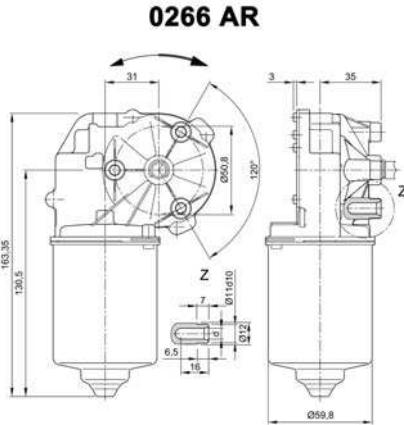
Performance data		
Rated voltage [V]	U_N	12
Nominal torque [Nm]	M_N	4.00
No-load speed [min^{-1}]	n_0	21.0
Nominal power [W]	P_N	7.79
Nominal current [A]	I_N	3.0
Nominal force [kN]	F_N	0.00
Duty cycle	s1	

Sensor data	
Pulses	0
Output channels	0

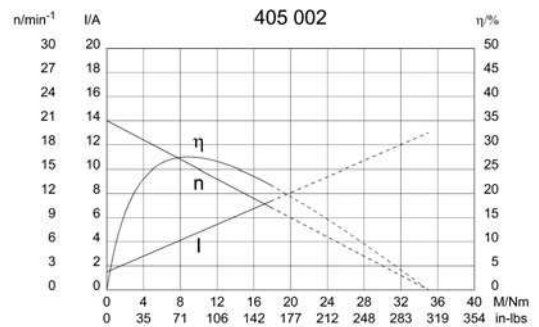
Other data	
Gear ratio	69/1
Gear wheel material	plastic
Suppression components	3,5 μ H, 1 μ F
Enclosure class	IP 30
Weight [kg]	1.210

Remarks: d = for thread-forming screw M6 DIN ISO 965-2

Characteristic curves

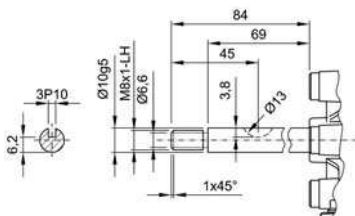


Motor picture

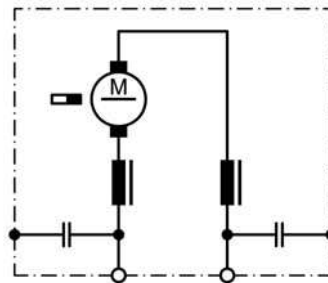


Output shaft drawing (W), Wiring diagrams (S) and Connector layout (K)

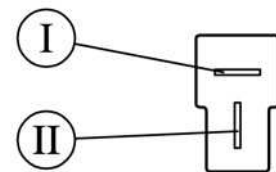
W 120



S 30



K 320



Flat plug (DIN 46244) 6,3x0,8 mating with receptacle housing part#180907, drwg# C-180907& Receptacles for tabs, conductor cross section 0,5-1,5 sqmm (20-18AWG) part# 925603-x, drwg# 925603 www.tycoelectronics.com

Design Data	
Commutation	Brushed
Direction of rotation	Bi-directional
Bearing type	A:Ball - B:Sleeve

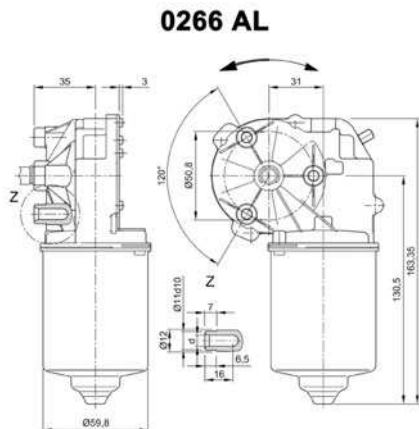
Performance data		
Rated voltage [V]	U_N	24
Nominal torque [Nm]	M_N	4.00
No-load speed [min^{-1}]	n_0	65.0
Nominal power [W]	P_N	25.0
Nominal current [A]	I_N	3.0
Nominal force [kN]	F_N	0.00
Duty cycle	s1	

Sensor data	
Pulses	69
Output channels	2

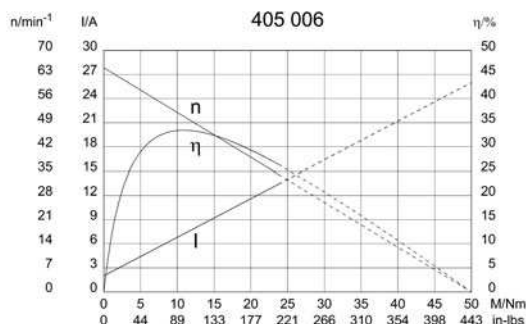
Other data	
Gear ratio	69/1
Gear wheel material	plastic
Suppression components	6 μ H
Enclosure class	IP 30
Weight [kg]	1.250

Remarks: d = for thread-forming screw M6 DIN ISO 965-2

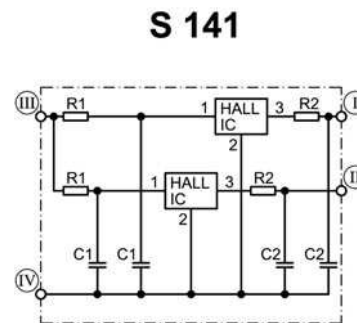
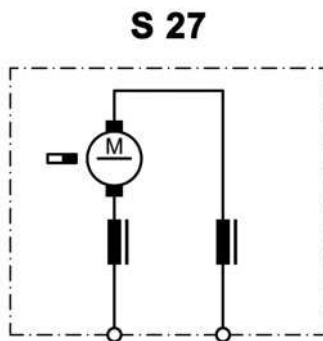
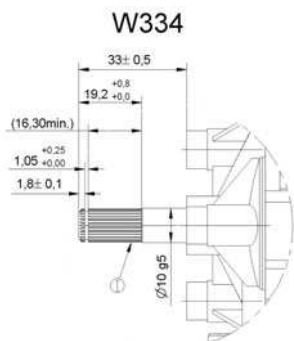
Characteristic curves



Motor picture



Output shaft drawing (W), Wiring diagrams (S) and Connector layout (K)

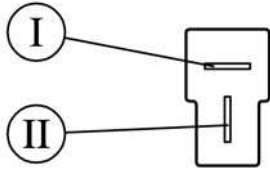


I serration (rolled): no of teeth 28, pitch circle dia 9 mm, tip circle dia 9.6 mm, root circle dia 8.26 mm space width angle 60° - go/no go gauge Frenco 33906 - www.frenco.de

I Hall-IC A1, terminal 3
 II Hall-IC A2, terminal 4
 III Hall-IC +, terminal 5
 IV Hall-IC -, terminal 6

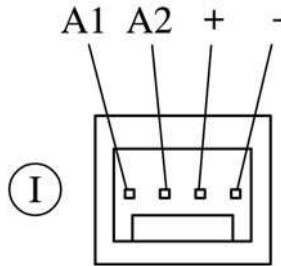
Output shaft drawing (W), Wiring diagrams (S) and Connector layout (K)

K 320



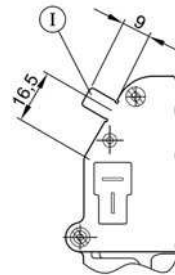
Flat plug (DIN 46244) 6,3x0,8 mating with receptacle housing part#180907, drwg# C-180907 & Receptacles for tabs, conductor cross section 0,5-1,5 sqmm (20-18AWG) part# 925603-x, drwg# 925603 www.tycoelectronics.com

K 324



MAS-CON Solder tail MLAS 100-3435 mating with end connector CE100F-22-xx-x-x or CEP100 F-22-xx-x-x www.itwpancon.com

K 312



Ground connection 6.3 x 0.8 DIN 46 244, d=0.9-0.1mm, mating with receptacle for tab, conductor cross section 0.5-1.5 sqmm/20-16 AWG, part# RSB8240.158 F 6.3-1.5 www.stocko.de

Notes

Design Data	
Commutation	Brushed
Direction of rotation	Bi-directional
Bearing type	A: Ball - B: Sleeve

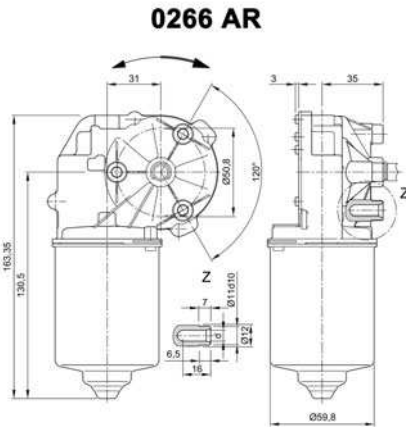
Performance data		
Rated voltage [V]	U_N	24
Nominal torque [Nm]	M_N	4.00
No-load speed [min^{-1}]	n_0	195.0
Nominal power [W]	P_N	59.9
Nominal current [A]	I_N	8.0
Nominal force [kN]	F_N	0.00
Duty cycle	s1	

Sensor data	
Pulses	26.5
Output channels	2

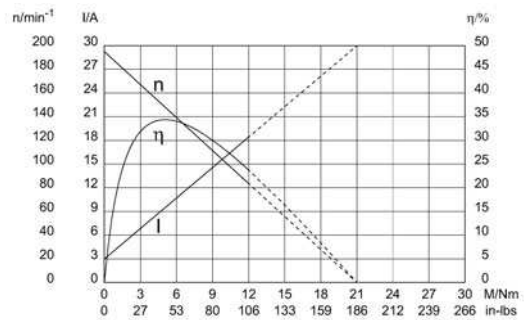
Other data	
Gear ratio	53/2
Gear wheel material	Plastic
Suppression components	6.0 μH , 1nF
Enclosure class	IP30
Weight [kg]	1.210

Remarks: d = for thread-forming screw M6 DIN ISO 965-2

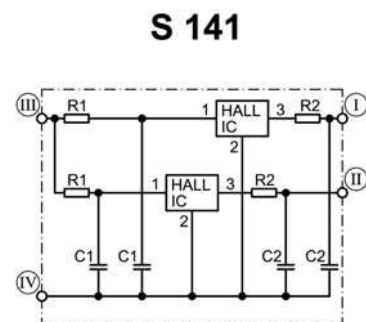
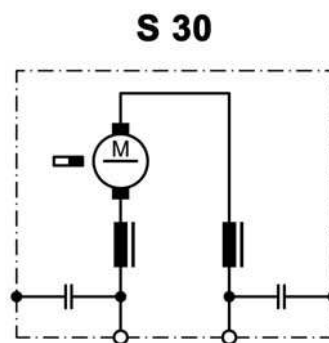
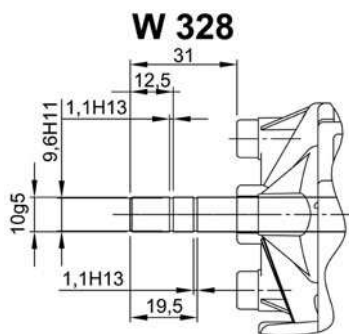
Characteristic curves



Motor picture



Output shaft drawing (W), Wiring diagrams (S) and Connector layout (K)



- I Hall-IC A1, terminal 3
- II Hall-IC A2, terminal 4
- III Hall-IC +, terminal 5
- IV Hall-IC -, terminal 6

Design Data	
Commutation	Brushed
Direction of rotation	Bi-directional
Bearing type	A:Ball - B:Sleeve

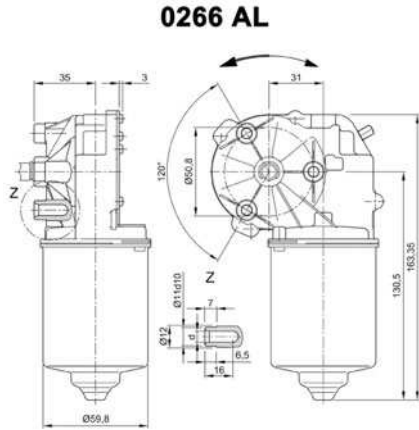
Performance data		
Rated voltage [V]	U_N	24
Nominal torque [Nm]	M_N	4.00
No-load speed [min^{-1}]	n_0	55.0
Nominal power [W]	P_N	21.5
Nominal current [A]	I_N	5.0
Nominal force [kN]	F_N	0.00
Duty cycle	s1	

Sensor data	
Pulses	78
Output channels	1

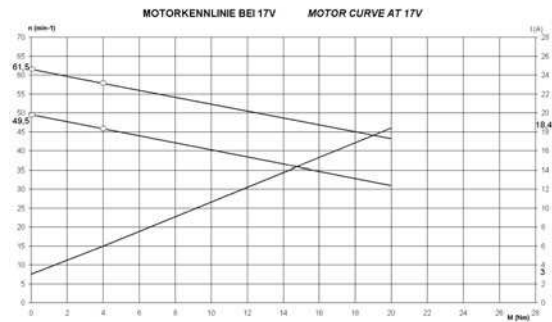
Other data	
Gear ratio	78/1
Gear wheel material	plastic
Suppression components	6 μ H, 1nF
Enclosure class	IP 30
Weight [kg]	1.210

Remarks: d= for thread forming screw M6 DIN ISO 965-2

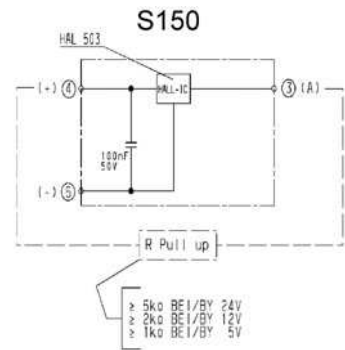
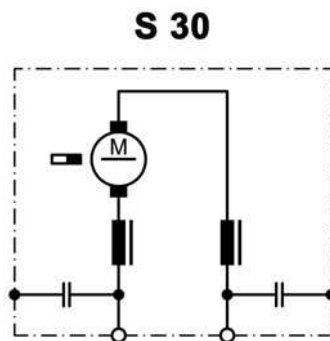
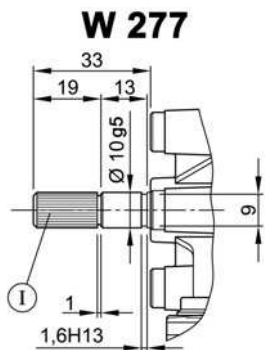
Characteristic curves



Motor picture



Output shaft drawing (W), Wiring diagrams (S) and Connector layout (K)



I serration (rolled)
 no of teeth 28, pitch circle dia 9 mm, tip circle dia 9.6 mm, root circle dia 8.26 mm space width angle 60°
 goes with go/no go gauge Frenco 33906
 www.frenco.de

Design Data	
Commutation	Brushed
Direction of rotation	Bi-directional
Bearing type	A:Ball - B:Sleeve

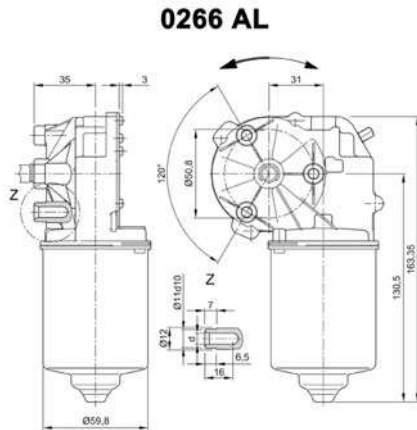
Performance data		
Rated voltage [V]	U_N	24
Nominal torque [Nm]	M_N	4.00
No-load speed [min^{-1}]	n_0	90.0
Nominal power [W]	P_N	35.9
Nominal current [A]	I_N	5.0
Nominal force [kN]	F_N	0.00
Duty cycle	s1	

Sensor data	
Pulses	69
Output channels	1

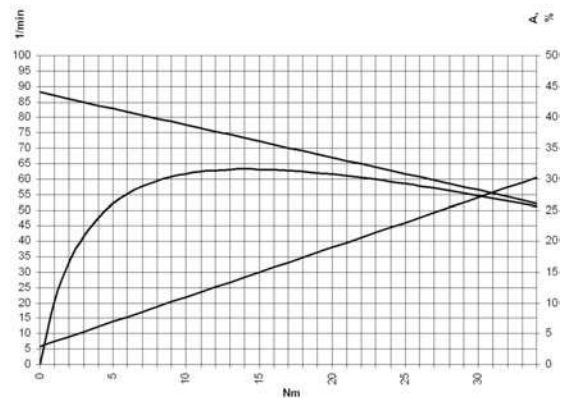
Other data	
Gear ratio	69/1
Gear wheel material	plastic
Suppression components	$6\mu\text{H}$, 1nF
Enclosure class	IP 30
Weight [kg]	1.210

Remarks: d=for thread forming screws M6 DIN-ISO 965-2

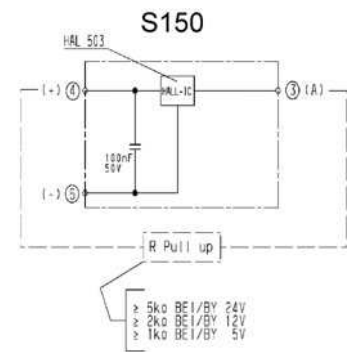
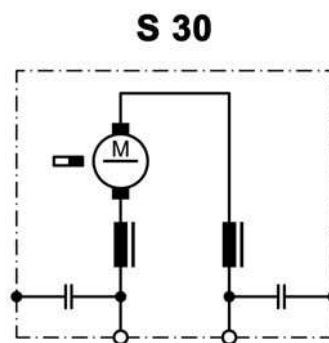
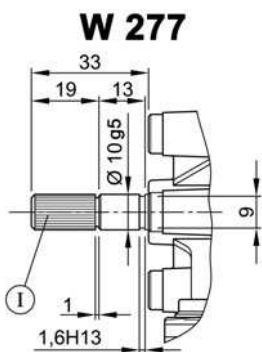
Characteristic curves



Motor picture



Output shaft drawing (W), Wiring diagrams (S) and Connector layout (K)



I serration (rolled)
 no of teeth 28, pitch circle dia 9 mm, tip circle dia 9.6 mm, root circle dia 8.26 mm space width angle 60°
 goes with go/no go gauge Frenco 33906
 www.frenco.de

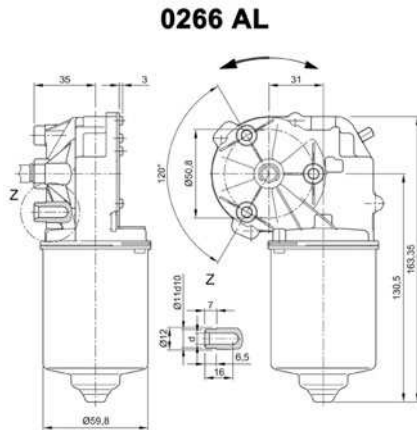
Design Data	
Commutation	Brushed
Direction of rotation	Bi-directional
Bearing type	A: Ball - B: Sleeve

Performance data		
Rated voltage [V]	U_N	24
Nominal torque [Nm]	M_N	2.00
No-load speed [min^{-1}]	n_0	120.0
Nominal power [W]	P_N	22.0
Nominal current [A]	I_N	4.0
Nominal force [kN]	F_N	0.00
Duty cycle		s1

Sensor data	
Pulses	79.5
Output channels	1

Other data	
Gear ratio	53/2
Gear wheel material	Plastic
Suppression components	6.0 μ H, 1nF
Enclosure class	IP30
Weight [kg]	1.210

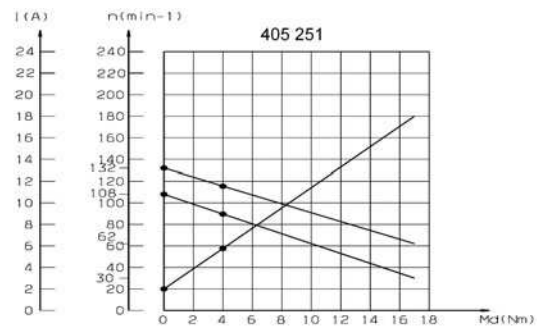
Remarks: d = for thread-forming screw M6 DIN ISO 965-2



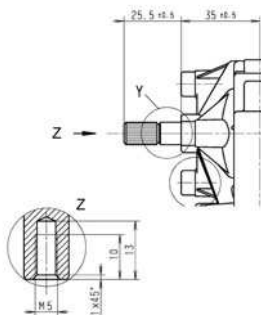
Motor picture



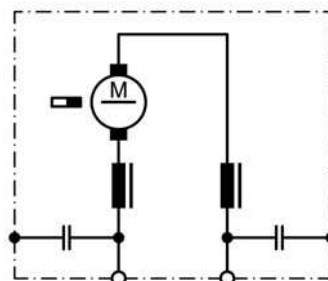
Characteristic curves



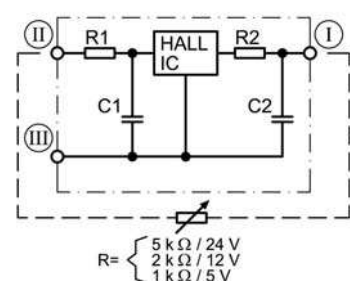
Output shaft drawing (W), Wiring diagrams (S) and Connector layout (K)



S 30



S 124



$R = \begin{cases} 5 \text{ k}\Omega / 24 \text{ V} \\ 2 \text{ k}\Omega / 12 \text{ V} \\ 1 \text{ k}\Omega / 5 \text{ V} \end{cases}$

I serration (rolled): **No teeth 28, pitch circle dia 9 mm, tip circle dia 9.6 mm, root circle dia 8.26 mm space width angle 60° - go/no go gauge** Frenco 33906 - www.frenco.de

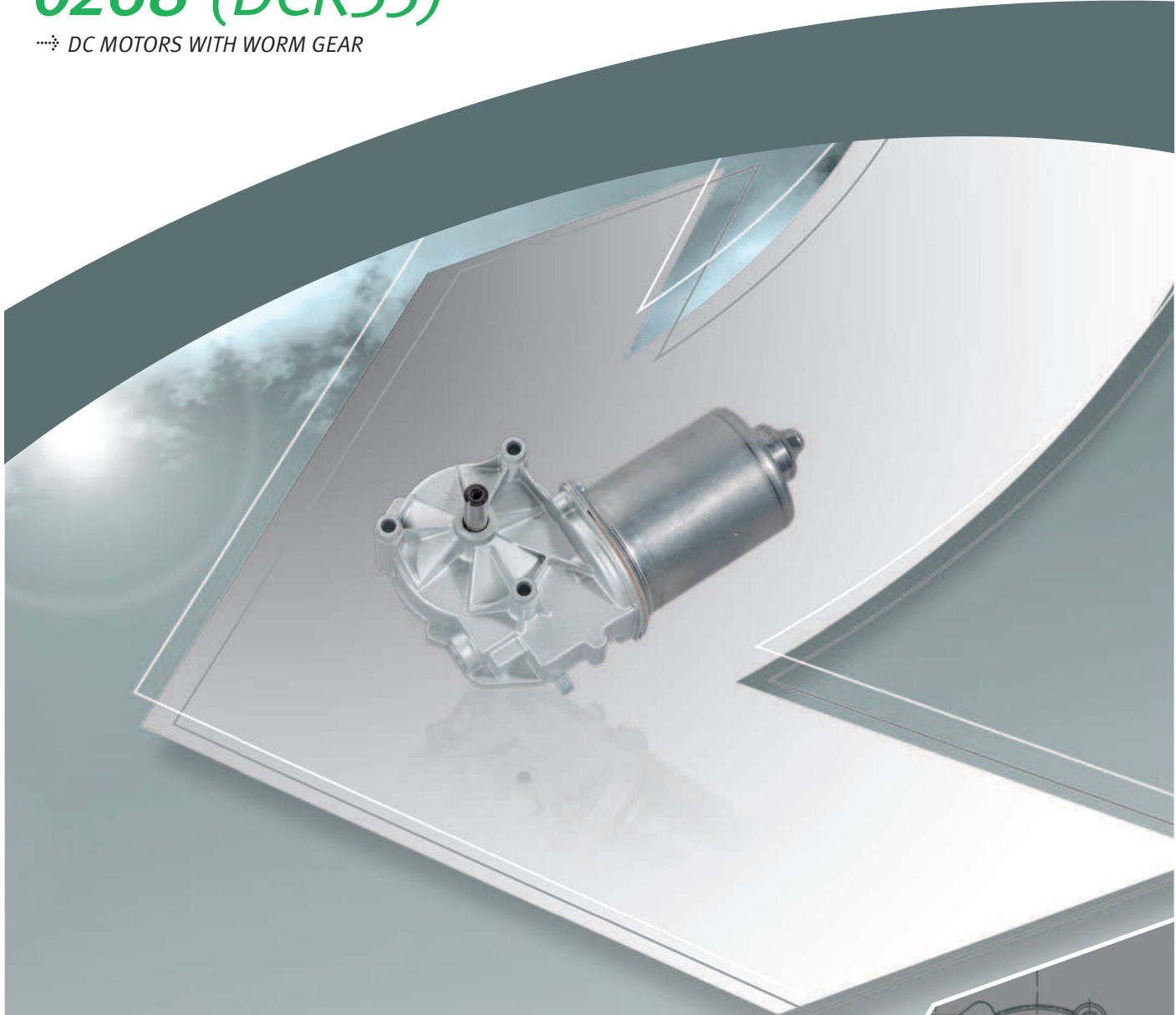
I Terminal 3, A
 II Terminal 4, +
 III Terminal 5, -



NIDEC MOTORS & ACTUATORS ❖❖❖ MOTOR SERIES

0268 (DCK35)

❖❖❖ DC MOTORS WITH WORM GEAR



❖❖❖ TECHNICAL DESCRIPTION

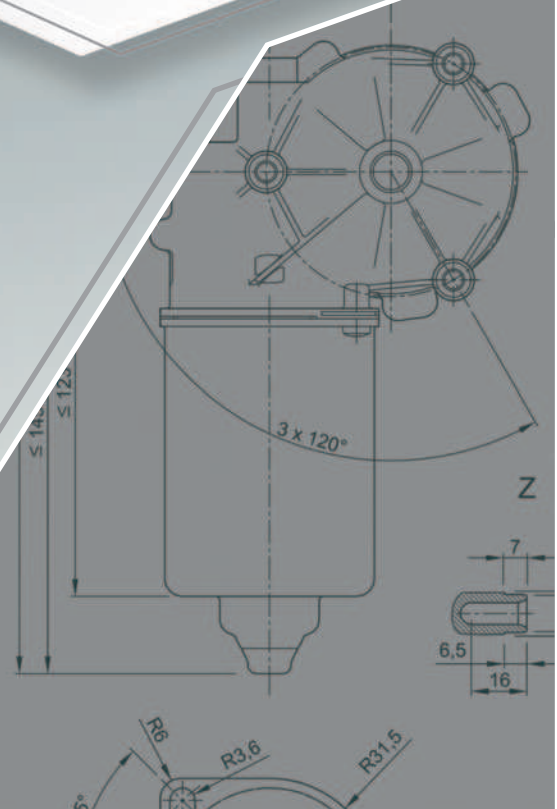
Motorhousing:	deep drawn & corrosion protected
Excitation field:	permanent magnet
Type of gear mesh:	worm gear
Gear housing:	zinc die cast
Gear wheel material:	plastic
Lubrication:	grease
Mechanical interface:	steel shaft
Electric interface:	connector
Sensor:	optional
Thermal protection:	optional
EMC suppression:	optional

❖❖❖ INDUSTRIAL APPLICATION

Home automation, machine construction

❖❖❖ AUTOMOTIVE APPLICATION

Trunk & tailgate opening & closing



Design Data	
Commutation	Brushed
Direction of rotation	Bi-directional
Bearing type	A:Ball - B:Sleeve

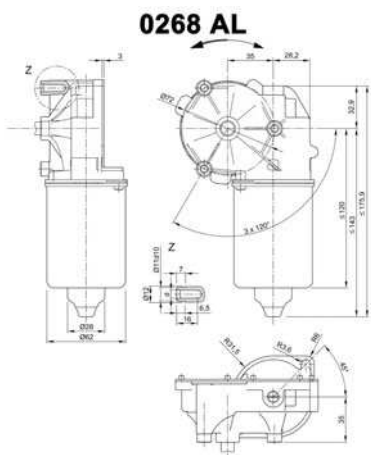
Performance data		
Rated voltage [V]	U_N	24
Nominal torque [Nm]	M_N	5.00
No-load speed [min^{-1}]	n_0	62.0
Nominal power [W]	P_N	29.8
Nominal current [A]	I_N	5.5
Nominal force [kN]	F_N	0.00
Duty cycle	s1	

Sensor data	
Pulses	63
Output channels	2

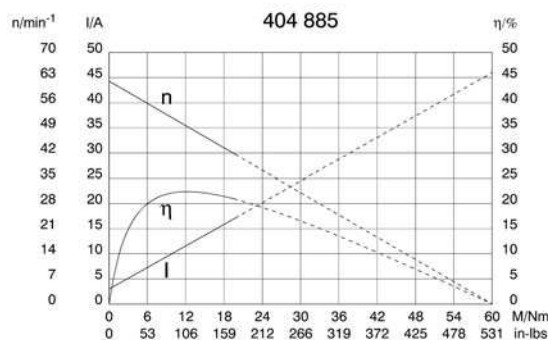
Other data	
Gear ratio	63/1
Gear wheel material	plastic
Suppression components	3,5 μ H
Enclosure class	IP 30
Weight [kg]	1.250

Remarks: d = for thread-forming screw M6 DIN ISO 965-2

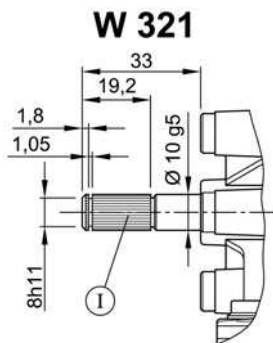
Characteristic curves



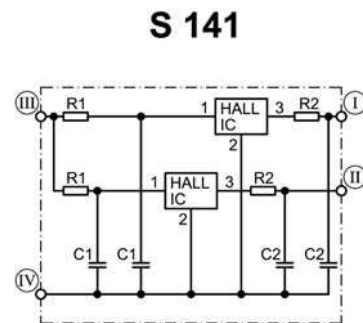
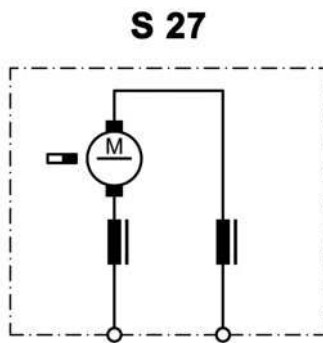
Motor picture



Output shaft drawing (W), Wiring diagrams (S) and Connector layout (K)



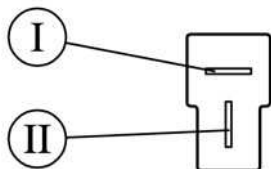
I serration (rolled): no of teeth 28, pitch circle dia 9 mm, tip circle dia 9.6 mm, root circle dia 8.26 mm space width angle 60°- go/no go gauge Frenco 33906 - www.frenco.de



I Hall-IC A1, terminal 3
 II Hall-IC A2, terminal 4
 III Hall-IC +, terminal 5
 IV Hall-IC -, terminal 6

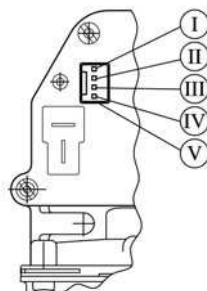
Output shaft drawing (W), Wiring diagrams (S) and Connector layout (K)

K 320



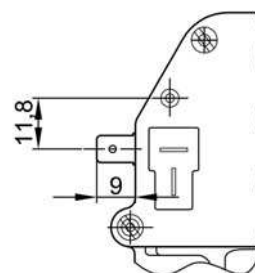
Flat plug (DIN 46244) 6,3x0,8 mating with receptacle housing part#180907, drwg# C-180907 & Receptacles for tabs, conductor cross section 0,5-1,5 sqmm (20-18AWG) part# 925603-x, drwg# 925603 www.tycoelectronics.com

K 319



- I Hall-IC A1, terminal 3
- II Hall-IC A2, terminal 4
- III Hall-IC +, terminal 5
- IV Hall-IC -, terminal 6
- V Mating connector: Panduit CE100 F22 - 04

K 314



- I Ground connection
- Blade terminal 6.3 x 0.8 DIN 46 244

Notes

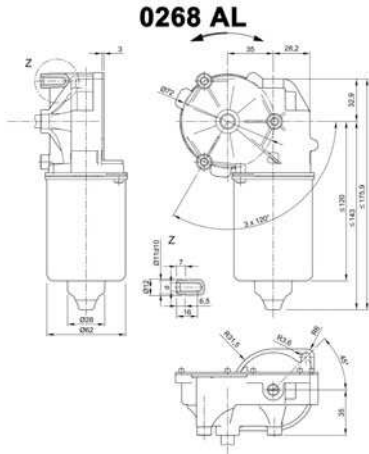
Design Data	
Commutation	Brushed
Direction of rotation	Bi-directional
Bearing type	A:Ball - B:Sleeve

Performance data		
Rated voltage [V]	U_N	24
Nominal torque [Nm]	M_N	6.00
No-load speed [min^{-1}]	n_0	50.0
Nominal power [W]	P_N	28.7
Nominal current [A]	I_N	4.0
Nominal force [kN]	F_N	0.00
Duty cycle	s1	

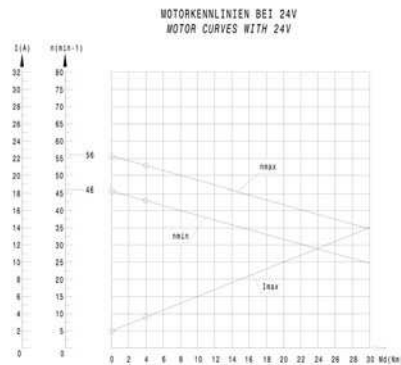
Sensor data	
Pulses	0
Output channels	0

Other data	
Gear ratio	63/1
Gear wheel material	plastic
Suppression components	3,5 μ H, 1nF
Enclosure class	IP 30
Weight [kg]	1.250

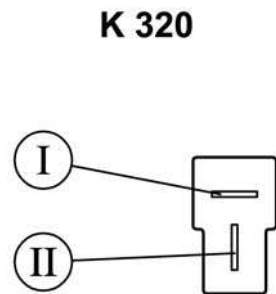
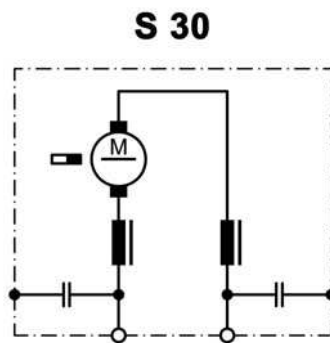
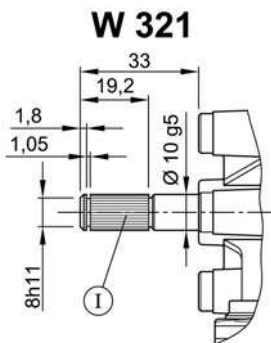
Remarks: d=for thread forming screws M6 DIN ISO 965-2



Motor picture



Output shaft drawing (W), Wiring diagrams (S) and Connector layout (K)



I serration (rolled): no of teeth 28, pitch circle dia 9 mm, tip circle dia 9.6 mm, root circle dia 8.26 mm space width angle 60°- go/no go gauge Frenco 33906 - www.frenco.de

Flat plug (DIN 46244) 6,3x0,8 mating with receptacle housing part#180907, drwg# C-180907& Receptacles for tabs, conductor cross section 0,5-1,5 sqmm (20-18AWG) part# 925603-x, drwg# 925603 www.tycoelectronics.com

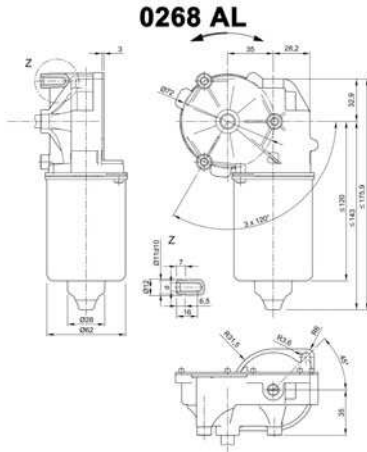
Design Data	
Commutation	Brushed
Direction of rotation	Bi-directional
Bearing type	A:Ball - B:Sleeve

Performance data		
Rated voltage [V]	U_N	24
Nominal torque [Nm]	M_N	5.00
No-load speed [min^{-1}]	n_0	70.0
Nominal power [W]	P_N	33.5
Nominal current [A]	I_N	4.0
Nominal force [kN]	F_N	0.00
Duty cycle		s1

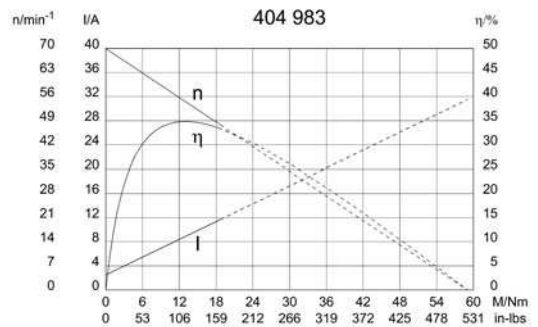
Sensor data	
Pulses	0
Output channels	0

Other data	
Gear ratio	55/1
Gear wheel material	plastic
Suppression components	3,5 μ H, 1nF
Enclosure class	IP 30
Weight [kg]	1.250

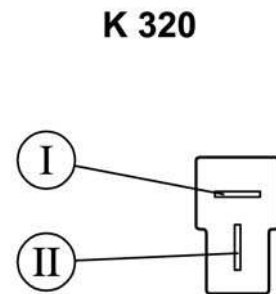
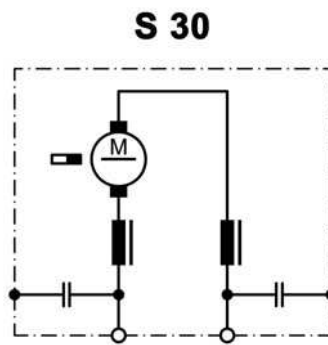
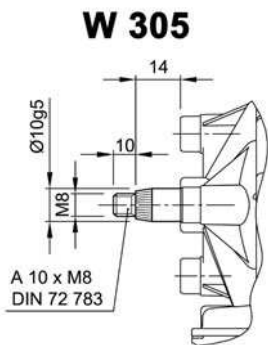
Remarks: d = for thread-forming screw M6 DIN ISO 965-2



Motor picture



Output shaft drawing (W), Wiring diagrams (S) and Connector layout (K)



Flat plug (DIN 46244) 6,3x0,8 mating with receptacle housing part#180907, drwg# C-180907& Receptacles for tabs, conductor cross section 0,5-1,5 sqmm (20-18AWG) part# 925603-x, drwg# 925603 www.tycoelectronics.com

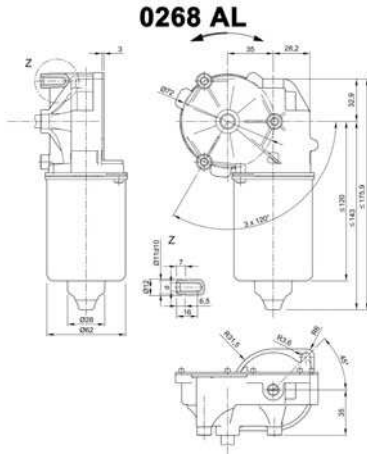
Design Data	
Commutation	Brushed
Direction of rotation	Bi-directional
Bearing type	A:Ball - B:Sleeve

Performance data		
Rated voltage [V]	U_N	24
Nominal torque [Nm]	M_N	6.00
No-load speed [min^{-1}]	n_0	60.0
Nominal power [W]	P_N	29.3
Nominal current [A]	I_N	7.0
Nominal force [kN]	F_N	0.00
Duty cycle	s1	

Sensor data	
Pulses	0
Output channels	0

Other data	
Gear ratio	63/1
Gear wheel material	plastic
Suppression components	3,5 μ H
Enclosure class	IP 30
Weight [kg]	1.376

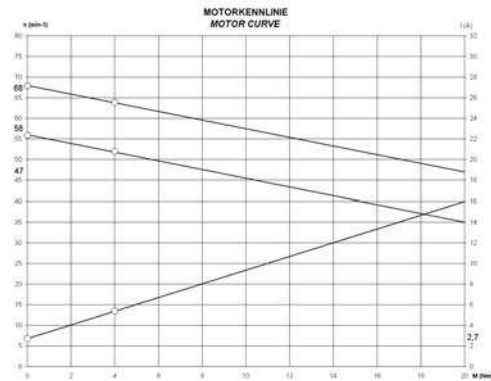
Remarks:



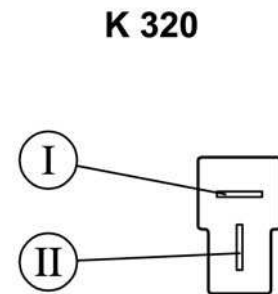
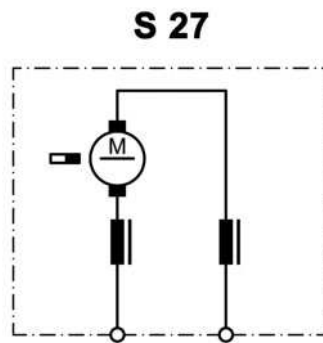
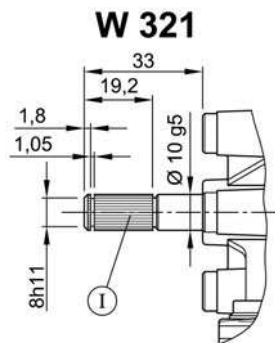
Motor picture



Characteristic curves



Output shaft drawing (W), Wiring diagrams (S) and Connector layout (K)

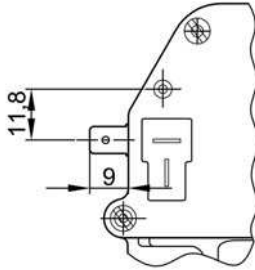


I serration (rolled): **no of teeth 28, pitch circle dia 9 mm, tip circle dia 9.6 mm, root circle dia 8.26 mm space width angle 60°- go/no go gauge Frenco 33906 - www.frenco.de**

Flat plug (DIN 46244) 6,3x0,8 mating with receptacle housing part#180907, drwg# C-180907& Receptacles for tabs, conductor cross section 0,5-1,5 sqmm (20-18AWG) part# 925603-x, drwg# 925603 www.tycoelectronics.com

Output shaft drawing (W), Wiring diagrams (S) and Connector layout (K)

K 314



I Ground connection
Blade terminal 6.3 x 0.8 DIN 46 244

Notes

Design Data	
Commutation	Brushed
Direction of rotation	Bi-directional
Bearing type	A: Ball - B: Sleeve

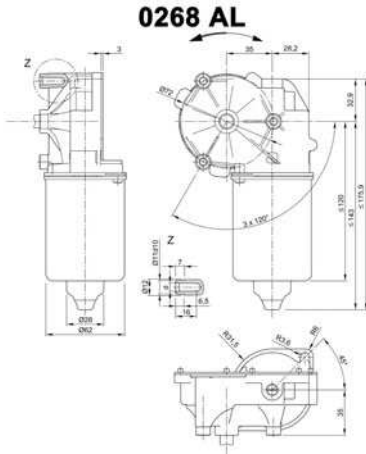
Performance data		
Rated voltage [V]	U_N	24
Nominal torque [Nm]	M_N	8.00
No-load speed [min^{-1}]	n_0	75.0
Nominal power [W]	P_N	37.7
Nominal current [A]	I_N	7.0
Nominal force [kN]	F_N	0.00
Duty cycle	s1	

Sensor data	
Pulses	63
Output channels	1

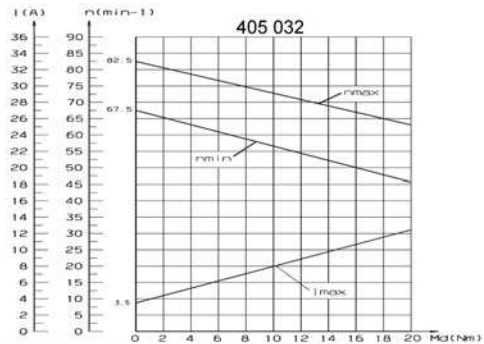
Other data	
Gear ratio	63/1
Gear wheel material	Plastic
Suppression components	3.5 μH
Enclosure class	IP30
Weight [kg]	1.250

Remarks: d = for thread-forming screw M6 DIN ISO 965-2

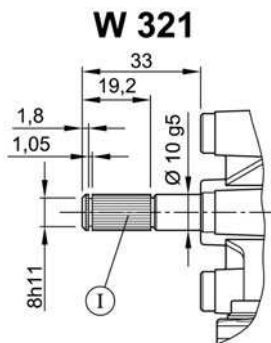
Characteristic curves



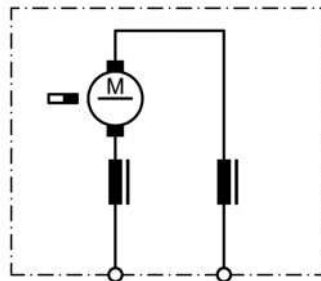
Motor picture



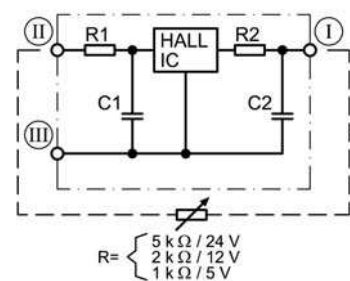
Output shaft drawing (W), Wiring diagrams (S) and Connector layout (K)



S 27



S 124

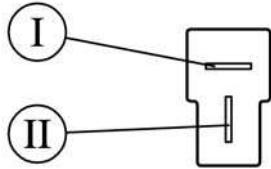


I serration (rolled): no of teeth 28, pitch circle dia 9 mm, tip circle dia 9.6 mm, root circle dia 8.26 mm space width angle 60°- go/no go gauge Frenco 33906 - www.frenco.de

I Terminal 3, A
 II Terminal 4, +
 III Terminal 5, -

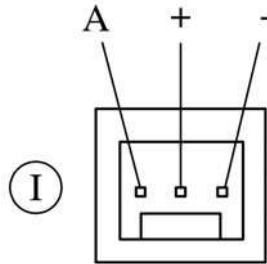
Output shaft drawing (W), Wiring diagrams (S) and Connector layout (K)

K 320



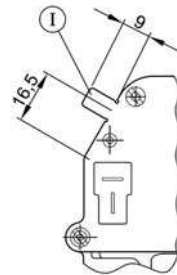
Flat plug (DIN 46244) 6,3x0,8 mating with receptacle housing part#180907, drwg# C-180907 & Receptacles for tabs, conductor cross section 0,5-1,5 sqmm (20-18AWG) part# 925603-x, drwg# 925603 www.tycoelectronics.com

K 325



MAS-CON Solder tail MLAS 100-3435 mating with end connector CE100F-22-xx-x-x or CEP100 F-22-xx-x-x www.itwpancon.com

K 312



Ground connection 6.3 x 0.8 DIN 46 244, d=0.9-0.1mm, mating with receptacle for tab, conductor cross section 0.5-1.5 sqmm/20-16 AWG, part# RSB8240.158 F 6.3-1.5 www.stocko.de

Notes

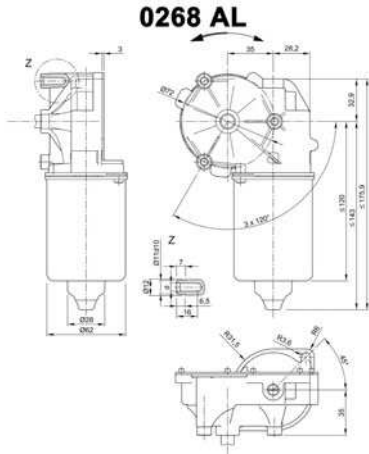
Design Data	
Commutation	Brushed
Direction of rotation	Bi-directional
Bearing type	A:Ball - B:Sleeve

Performance data		
Rated voltage [V]	U_N	24
Nominal torque [Nm]	M_N	8.00
No-load speed [min^{-1}]	n_0	53.0
Nominal power [W]	P_N	39.2
Nominal current [A]	I_N	6.0
Nominal force [kN]	F_N	0.00
Duty cycle	s1	

Sensor data	
Pulses	91
Output channels	1

Other data	
Gear ratio	91/1
Gear wheel material	plastic
Suppression components	3,5 μ H, 1nF
Enclosure class	IP 30
Weight [kg]	1.250

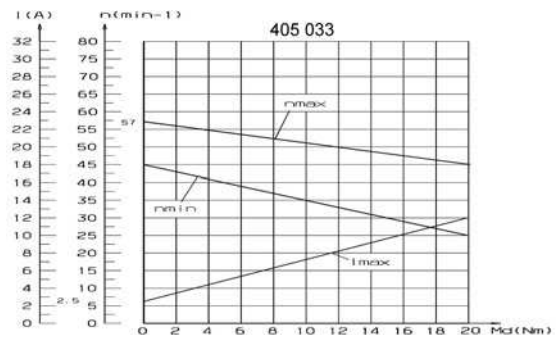
Remarks: d=for thread forming screws M6 DIN ISO 965-2



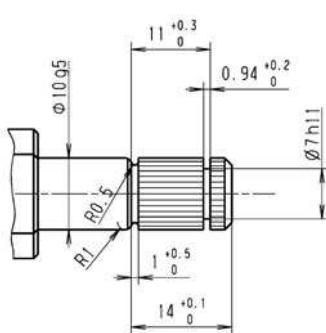
Motor picture



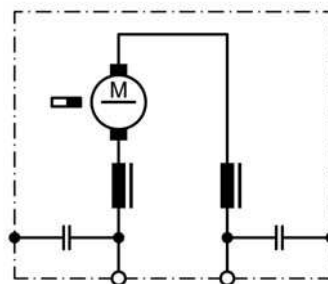
Characteristic curves



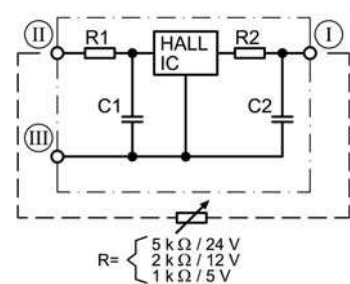
Output shaft drawing (W), Wiring diagrams (S) and Connector layout (K)



S 30



S 124



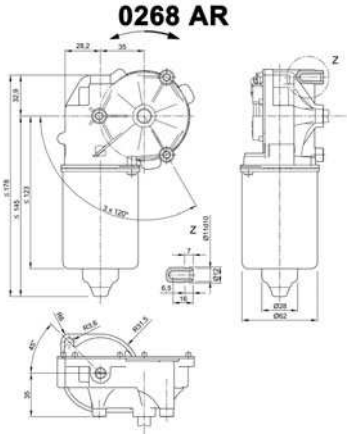
Splines: 8 x 10 (according to DIN 5481)
 Output shaft length = 28mm

I Terminal 3, A
 II Terminal 4, +
 III Terminal 5, -

$R = \begin{cases} 5 \text{ k}\Omega / 24 \text{ V} \\ 2 \text{ k}\Omega / 12 \text{ V} \\ 1 \text{ k}\Omega / 5 \text{ V} \end{cases}$

Design Data	
Commutation	Brushed
Direction of rotation	Bi-directional
Bearing type	A:Ball - B:Sleeve

Performance data		
Rated voltage [V]	U_N	24
Nominal torque [Nm]	M_N	6.00
No-load speed [min^{-1}]	n_0	60.0
Nominal power [W]	P_N	35.0
Nominal current [A]	I_N	6.0
Nominal force [kN]	F_N	0.00
Duty cycle	s1	



Sensor data	
Pulses	91
Output channels	1

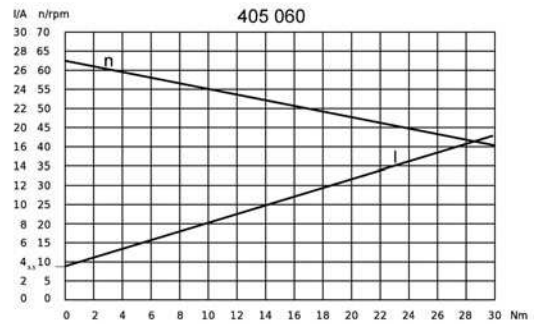
Other data	
Gear ratio	91/1
Gear wheel material	plastic
Suppression components	3,5 μ , 1nF
Enclosure class	IP 30
Weight [kg]	0.000

Remarks: d=for thread forming screw M6 DIN ISO 964-2

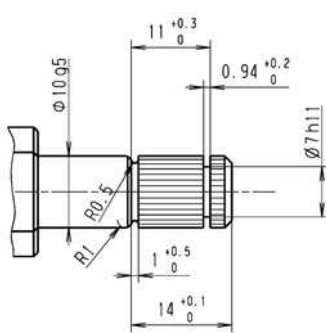
Motor picture



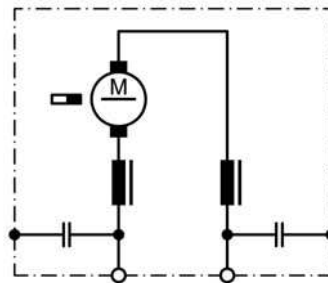
Characteristic curves



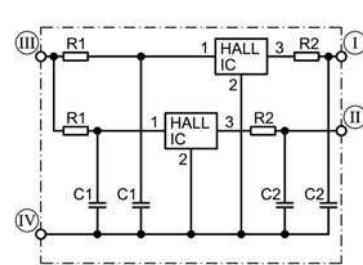
Output shaft drawing (W), Wiring diagrams (S) and Connector layout (K)



S 30



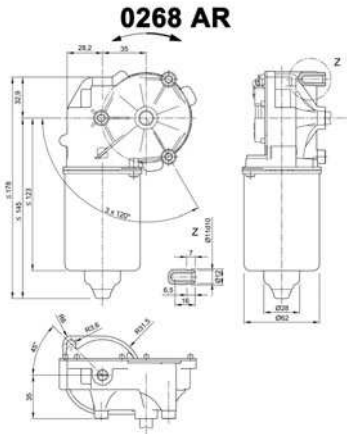
S 141



Splines: 8 x 10 (according to DIN 5481)
 Output shaft length = 28mm

- I Hall-IC A1, terminal 3
- II Hall-IC A2, terminal 4
- III Hall-IC +, terminal 5
- IV Hall-IC -, terminal 6

Design Data	
Commutation	Brushed
Direction of rotation	Bi-directional
Bearing type	A:Ball - B:Sleeve



Performance data		
Rated voltage [V]	U_N	24
Nominal torque [Nm]	M_N	3.00
No-load speed [min^{-1}]	n_0	240.0
Nominal power [W]	P_N	65.6
Nominal current [A]	I_N	8.0
Nominal force [kN]	F_N	0.00
Duty cycle	s1	

Sensor data	
Pulses	17.5
Output channels	2

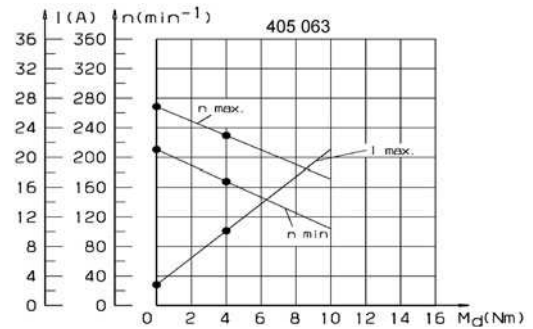
Other data	
Gear ratio	70/4
Gear wheel material	plastic
Suppression components	$6\mu\text{H}$, 1nF
Enclosure class	IP 30
Weight [kg]	1.366

Remarks: d=for thread forming screw M6 DIN ISO 965-2

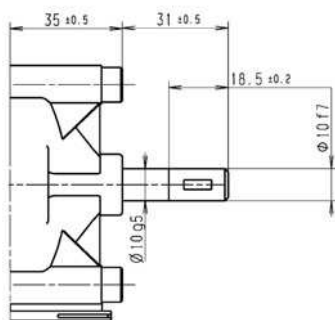
Motor picture



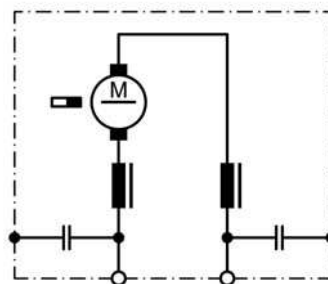
Characteristic curves



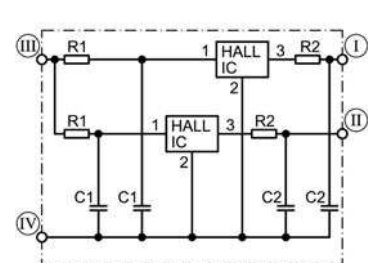
Output shaft drawing (W), Wiring diagrams (S) and Connector layout (K)



S 30



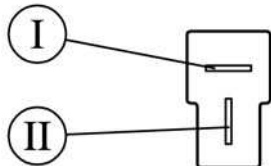
S 141



- I Hall-IC A1, terminal 3
- II Hall-IC A2, terminal 4
- III Hall-IC +, terminal 5
- IV Hall-IC -, terminal 6

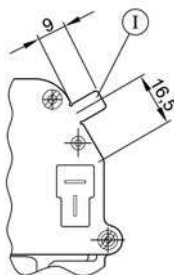
Output shaft drawing (W), Wiring diagrams (S) and Connector layout (K)

K 320

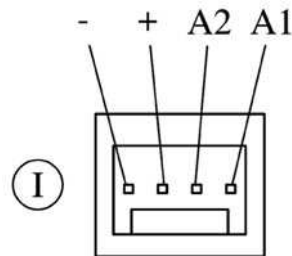


Flat plug (DIN 46244) 6,3x0,8 mating with receptacle housing part#180907, drwg# C-180907 & Receptacles for tabs, conductor cross section 0,5-1,5 sqmm (20-18AWG) part# 925603-x, drwg# 925603 www.tycoelectronics.com

K 321



I Ground connection
 Blade terminal 6.3 x 0.8 DIN 46 244



I Mating connector: Panduit CE100 F22-04

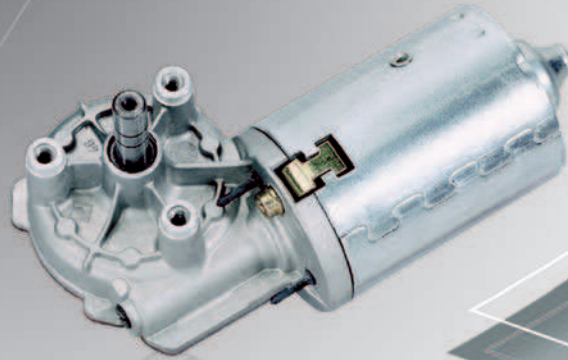
Notes



NIDEC MOTORS & ACTUATORS ❖❖❖ MOTOR SERIES

0270 (SWMK)

❖❖❖ DC MOTORS WITH WORM GEAR

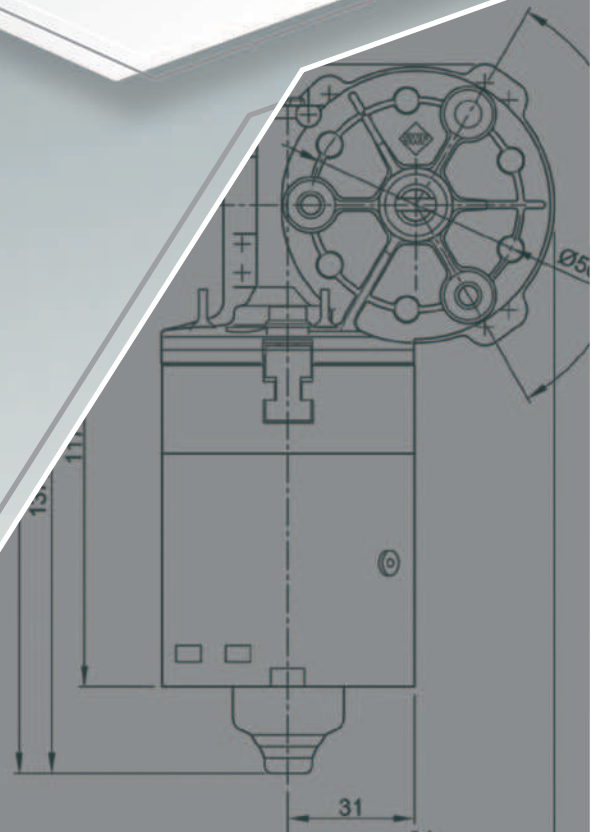


❖❖❖ TECHNICAL DESCRIPTION

Motorhousing:	rolled, corrosion protected
Excitation field:	permanent magnet
Type of gear mesh:	worm gear
Gear housing:	aluminium die cast
Gear wheel material:	plastic
Lubrication:	grease
Mechanical interface:	steel shaft
Electric interface:	connector or tinned leads
Sensor:	optional
Thermal protection:	optional
EMC suppression:	optional

❖❖❖ APPLICATION

Industry, Linear drives, General machinery,
 Vending machines, Agricultural technology,
 Office machines, Laboratory devices,
 Medical technology, Traffic & communications
 technology, Film/optics



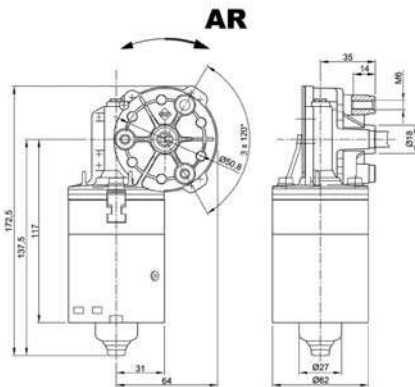
Design Data	
Commutation	Brushed
Direction of rotation	Bi-directional
Bearing type	

Performance data		
Rated voltage [V]	U_N	24
Nominal torque [Nm]	M_N	4.00
No-load speed [min^{-1}]	n_0	50.0
Nominal power [W]	P_N	17.7
Nominal current [A]	I_N	2.5
Nominal force [kN]	F_N	0.00
Duty cycle		s1

Sensor data	
Pulses	0
Output channels	0

Other data	
Gear ratio	55/1
Gear wheel material	Plastic
Suppression components	
Enclosure class	IP30
Weight [kg]	1.200

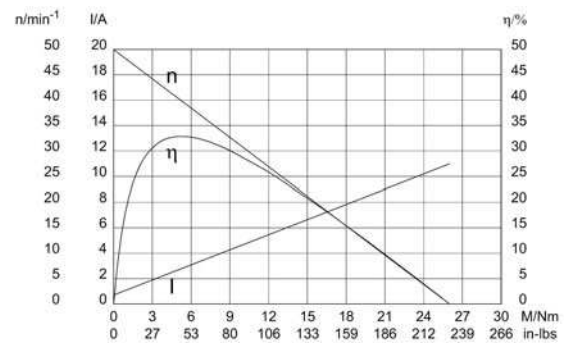
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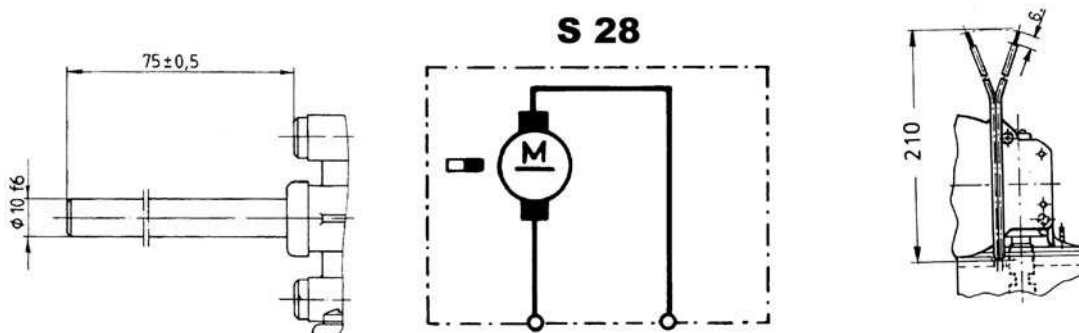
Motor picture



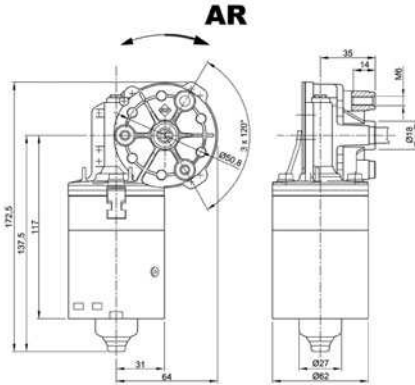
Characteristic curves



Output shaft drawing (W), Wiring diagrams (S) and Connector layout (K)



Design Data	
Commutation	Brushed
Direction of rotation	Bi-directional
Bearing type	



Performance data		
Rated voltage [V]	U_N	24
Nominal torque [Nm]	M_N	4.00
No-load speed [min^{-1}]	n_0	33.0
Nominal power [W]	P_N	11.7
Nominal current [A]	I_N	3.0
Nominal force [kN]	F_N	0.00
Duty cycle		s1

Sensor data	
Pulses	0
Output channels	0

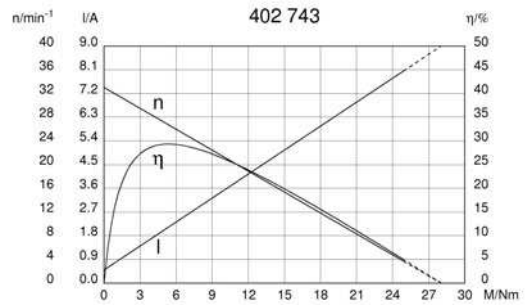
Other data	
Gear ratio	69/1
Gear wheel material	Plastic
Suppression components	4.7 μ H
Enclosure class	IP30
Weight [kg]	1.200

Remarks:

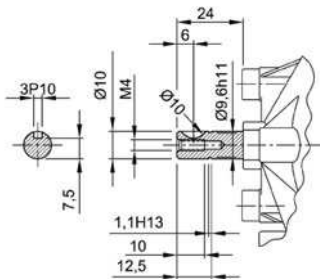
Motor picture



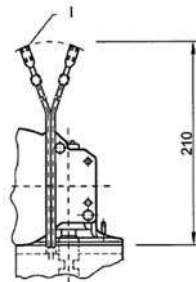
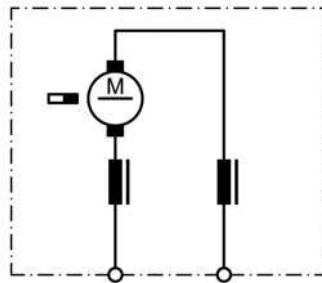
Characteristic curves



Output shaft drawing (W), Wiring diagrams (S) and Connector layout (K)



S 27



I: Spade connector 2.8 x 0.8 DIN 46 247

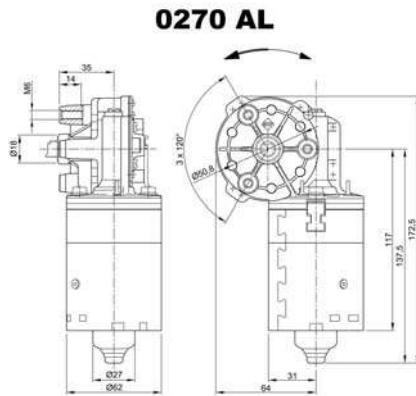
Design Data	
Commutation	Brushed
Direction of rotation	Bi-directional
Bearing type	

Performance data		
Rated voltage [V]	U_N	24
Nominal torque [Nm]	M_N	3.50
No-load speed [min^{-1}]	n_0	50.0
Nominal power [W]	P_N	15.9
Nominal current [A]	I_N	2.0
Nominal force [kN]	F_N	0.00
Duty cycle		s1

Sensor data	
Pulses	0
Output channels	0

Other data	
Gear ratio	55/1
Gear wheel material	Plastic
Suppression components	4.7 μ H, 1nF
Enclosure class	IP30
Weight [kg]	1.200

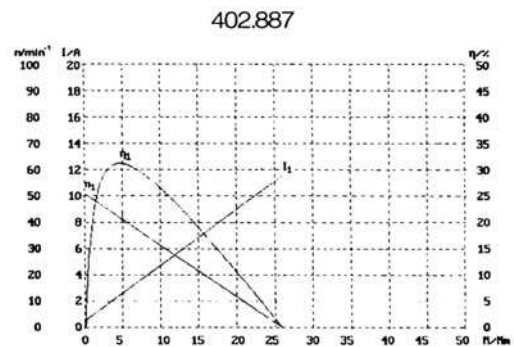
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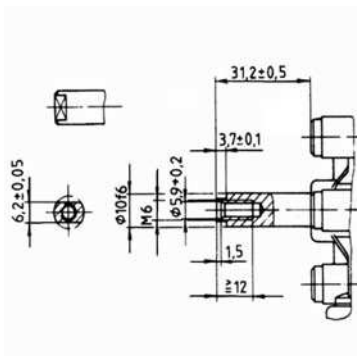
Motor picture



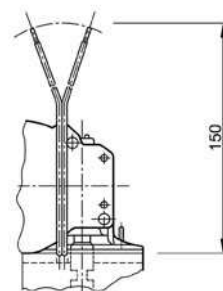
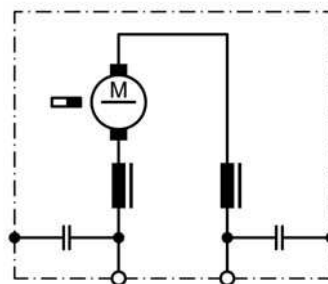
Characteristic curves



Output shaft drawing (W), Wiring diagrams (S) and Connector layout (K)



S 30



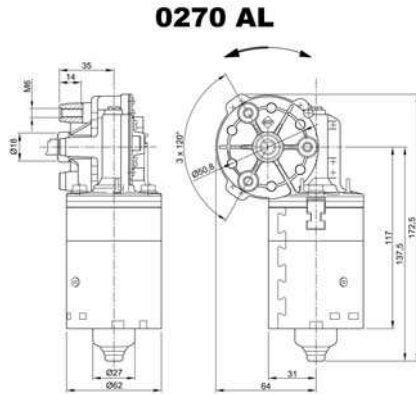
Design Data	
Commutation	Brushed
Direction of rotation	Bi-directional
Bearing type	

Performance data		
Rated voltage [V]	U_N	24
Nominal torque [Nm]	M_N	1.00
No-load speed [min^{-1}]	n_0	280.0
Nominal power [W]	P_N	24.9
Nominal current [A]	I_N	4.0
Nominal force [kN]	F_N	0.00
Duty cycle		s1

Sensor data	
Pulses	0
Output channels	0

Other data	
Gear ratio	41/4
Gear wheel material	Plastic
Suppression components	
Enclosure class	IP30
Weight [kg]	1.200

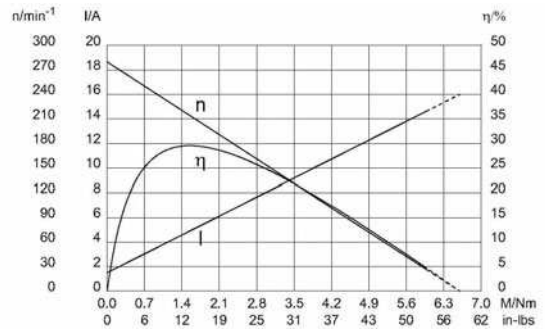
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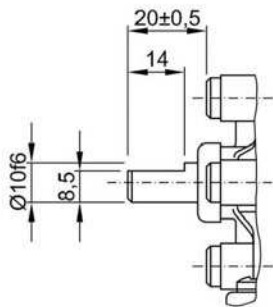
Motor picture



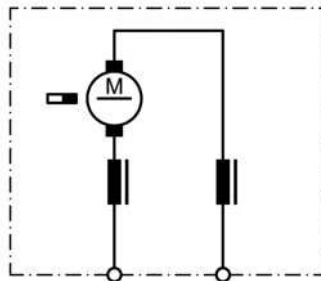
Characteristic curves



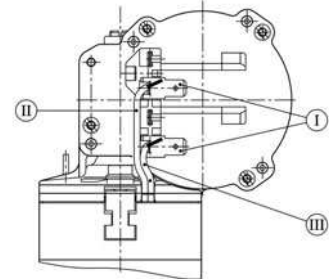
Output shaft drawing (W), Wiring diagrams (S) and Connector layout (K)



S 27



K 42



- I Blade terminal ends
6,3 x 0,8 DIN 46 244
- II green
- III red

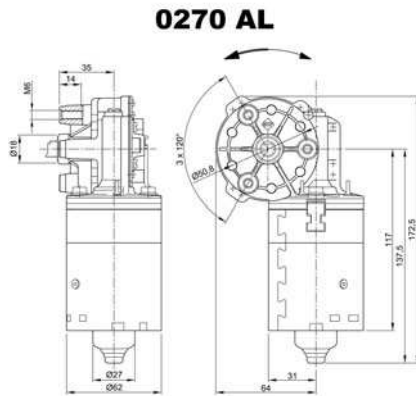
Design Data	
Commutation	Brushed
Direction of rotation	Bi-directional
Bearing type	A: Ball - B: Sleeve

Performance data		
Rated voltage [V]	U_N	36
Nominal torque [Nm]	M_N	2.00
No-load speed [min^{-1}]	n_0	100.0
Nominal power [W]	P_N	18.3
Nominal current [A]	I_N	3.0
Nominal force [kN]	F_N	0.00
Duty cycle	s1	

Sensor data	
Pulses	0
Output channels	0

Other data	
Gear ratio	53/2
Gear wheel material	Plastic
Suppression components	4.7 μ H, 1nF
Enclosure class	IP30
Weight [kg]	1.200

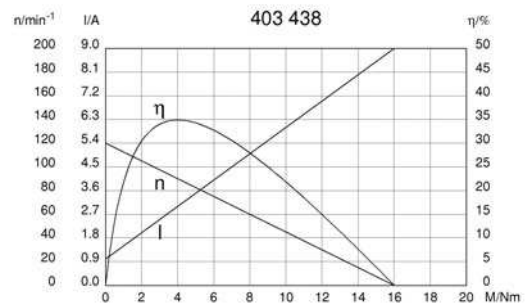
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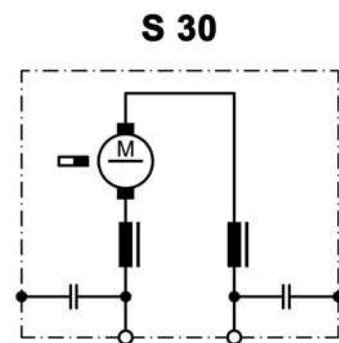
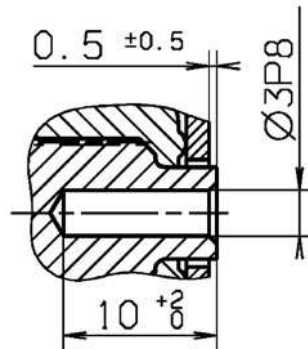
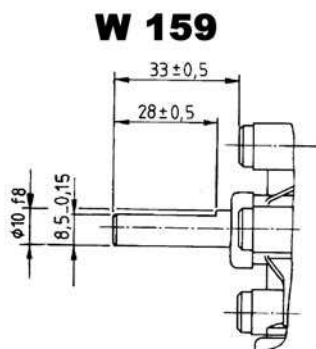
Motor picture



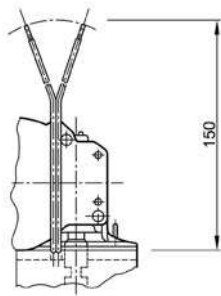
Characteristic curves



Output shaft drawing (W), Wiring diagrams (S) and Connector layout (K)



Output shaft drawing (W), Wiring diagrams (S) and Connector layout (K)



Notes

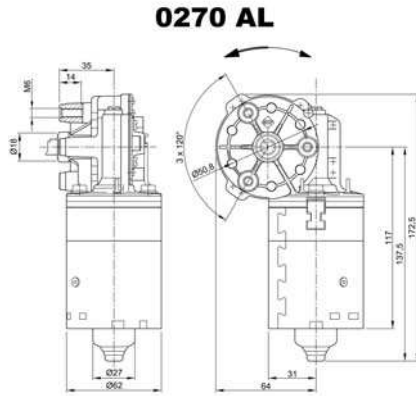
Design Data	
Commutation	Brushed
Direction of rotation	Bi-directional
Bearing type	

Performance data		
Rated voltage [V]	U_N	12
Nominal torque [Nm]	M_N	0.80
No-load speed [min^{-1}]	n_0	350.0
Nominal power [W]	P_N	27.0
Nominal current [A]	I_N	8.0
Nominal force [kN]	F_N	0.00
Duty cycle	s1	

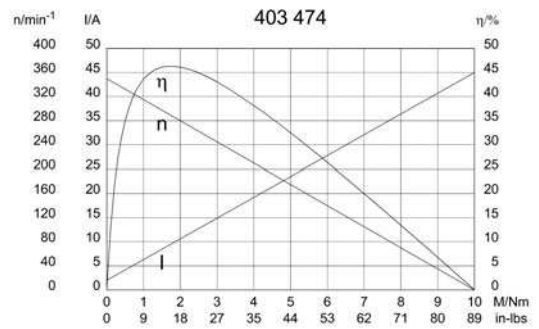
Sensor data	
Pulses	0
Output channels	0

Other data	
Gear ratio	41/4
Gear wheel material	plastic
Suppression components	""
Enclosure class	IP 30
Weight [kg]	1.200

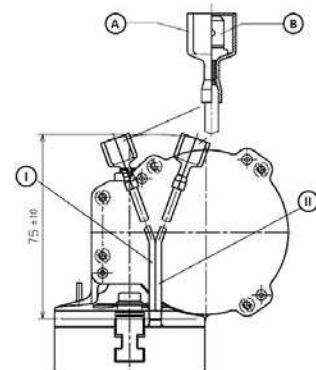
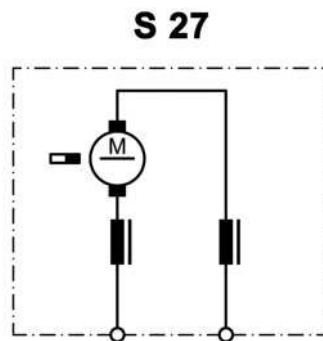
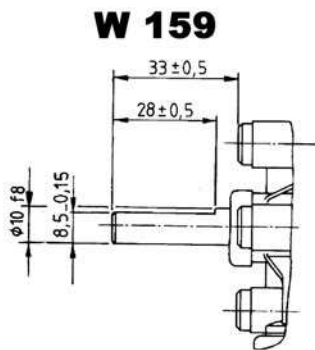
Remarks:



Motor picture



Output shaft drawing (W), Wiring diagrams (S) and Connector layout (K)



A: housing MST AMP No. 2-521055-2

B: spade terminals 6.3 x 0.8 DIN 46 244

I: red

II: green

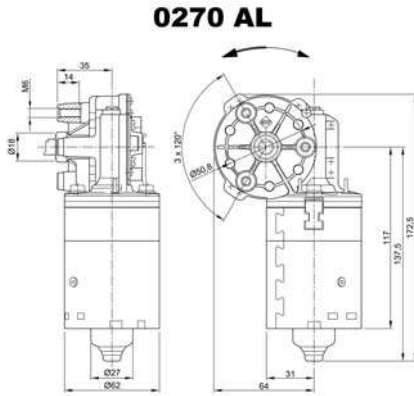
Design Data	
Commutation	Brushed
Direction of rotation	Bi-directional
Bearing type	

Performance data		
Rated voltage [V]	U_N	24
Nominal torque [Nm]	M_N	0.80
No-load speed [min^{-1}]	n_0	350.0
Nominal power [W]	P_N	27.0
Nominal current [A]	I_N	4.0
Nominal force [kN]	F_N	0.00
Duty cycle		s1

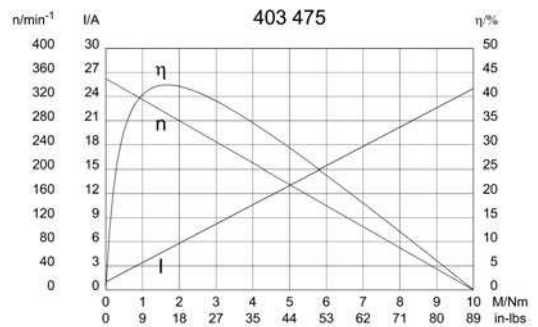
Sensor data	
Pulses	0
Output channels	0

Other data	
Gear ratio	41/4
Gear wheel material	plastic
Suppression components	1nF
Enclosure class	IP 30
Weight [kg]	1.200

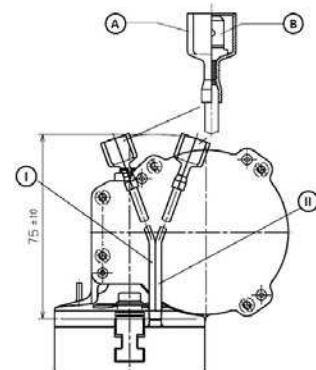
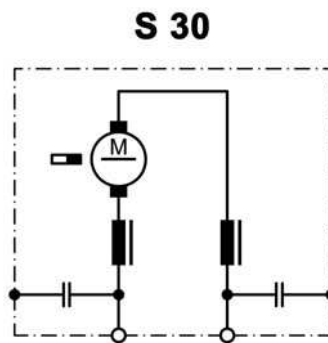
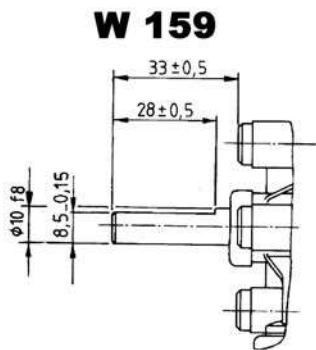
Remarks:



Motor picture



Output shaft drawing (W), Wiring diagrams (S) and Connector layout (K)



A: housing MST AMP No. 2-521055-2
 B: spade terminals 6.3 x 0.8 DIN 46 244
 I: red
 II: green

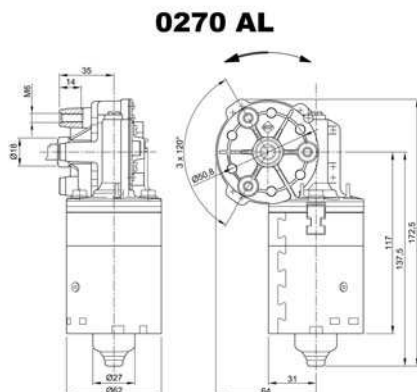
Design Data	
Commutation	Brushed
Direction of rotation	Bi-directional
Bearing type	

Performance data		
Rated voltage [V]	U_N	24
Nominal torque [Nm]	M_N	2.00
No-load speed [min^{-1}]	n_0	110.0
Nominal power [W]	P_N	20.8
Nominal current [A]	I_N	3.0
Nominal force [kN]	F_N	0.00
Duty cycle		s1

Sensor data	
Pulses	0
Output channels	0

Other data	
Gear ratio	53/2
Gear wheel material	Plastic
Suppression components	4.7 μH , 1nF
Enclosure class	IP30
Weight [kg]	1.200

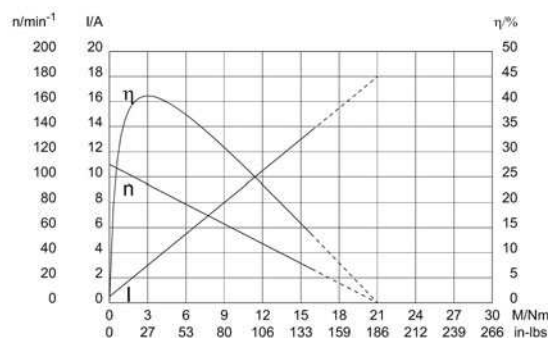
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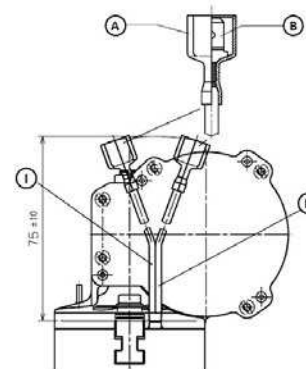
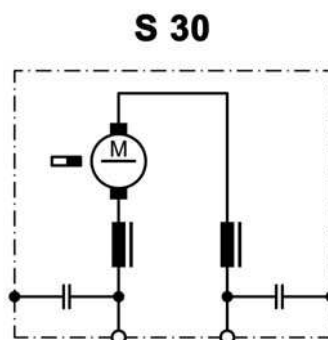
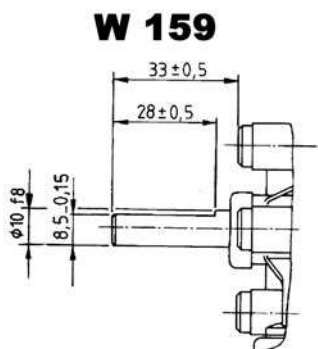
Motor picture



Characteristic curves



Output shaft drawing (W), Wiring diagrams (S) and Connector layout (K)



- A: housing MST AMP No. 2-521055-2
- B: spade terminals 6.3 x 0.8 DIN 46 244
- I: red
- II: green

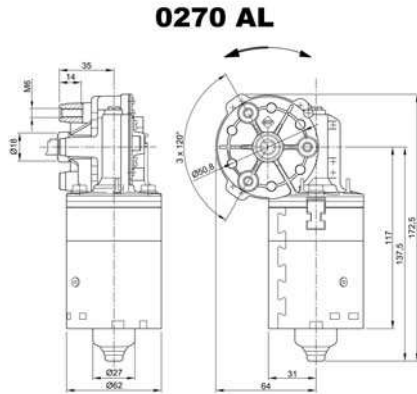
Design Data	
Commutation	Brushed
Direction of rotation	Bi-directional
Bearing type	

Performance data		
Rated voltage [V]	U_N	12
Nominal torque [Nm]	M_N	1.00
No-load speed [min^{-1}]	n_0	260.0
Nominal power [W]	P_N	23.0
Nominal current [A]	I_N	10.0
Nominal force [kN]	F_N	0.00
Duty cycle		s1

Sensor data	
Pulses	0
Output channels	0

Other data	
Gear ratio	41/4
Gear wheel material	Plastic
Suppression components	
Enclosure class	
Weight [kg]	1.200

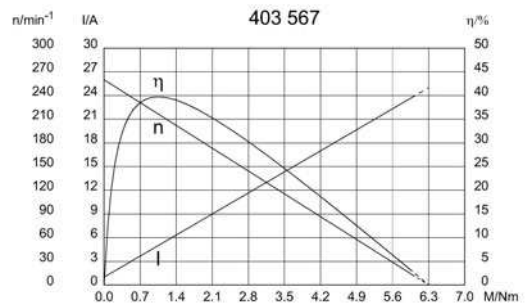
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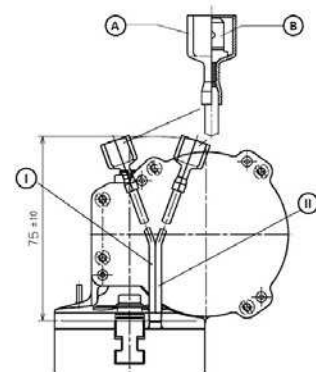
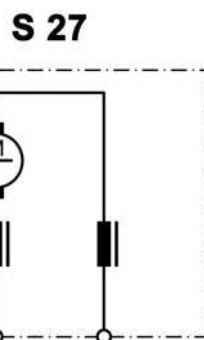
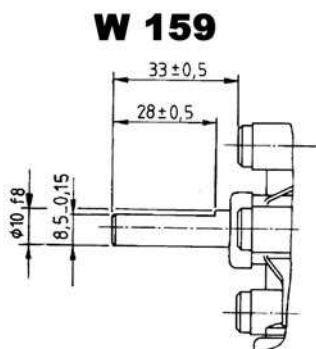
Motor picture



Characteristic curves



Output shaft drawing (W), Wiring diagrams (S) and Connector layout (K)



A: housing MST AMP No. 2-521055-2

B: spade terminals 6.3 x 0.8 DIN 46 244

I: red

II: green

Design Data

Commutation	Brushed
Direction of rotation	Bi-directional
Bearing type	

Performance data

Rated voltage [V]	U_N	24
Nominal torque [Nm]	M_N	2.50
No-load speed [min^{-1}]	n_0	21.0
Nominal power [W]	P_N	4.87
Nominal current [A]	I_N	1.0
Nominal force [kN]	F_N	0.00
Duty cycle		s1

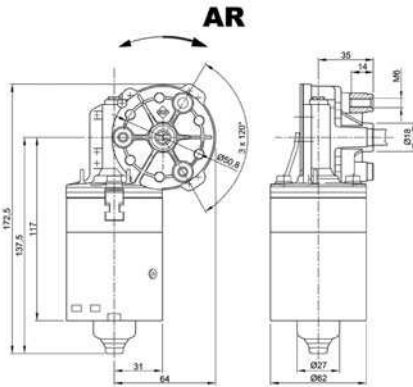
Sensor data

Pulses	0
Output channels	0

Other data

Gear ratio	69/1
Gear wheel material	Plastic
Suppression components	4.7 μ H, 1 μ F
Enclosure class	IP30
Weight [kg]	1.200

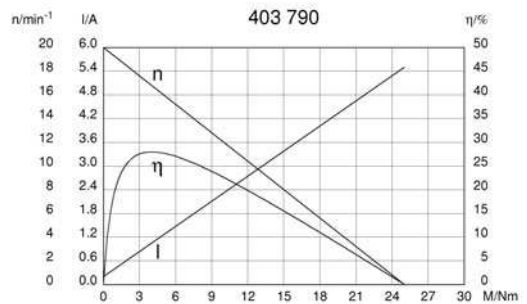
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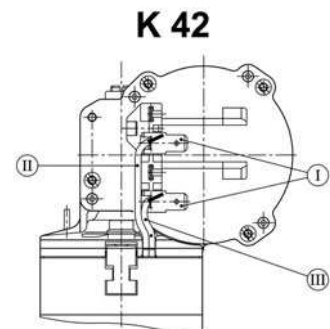
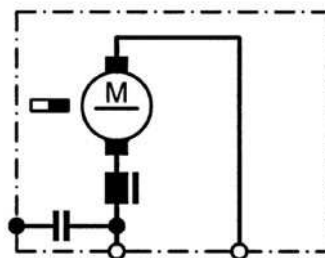
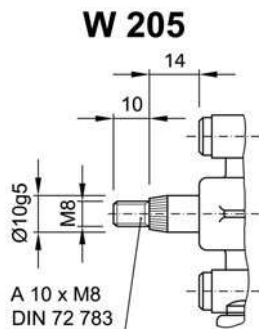
Motor picture



Characteristic curves



Output shaft drawing (W), Wiring diagrams (S) and Connector layout (K)



- I Blade terminal ends
6,3 x 0,8 DIN 46 244
- II green
- III red

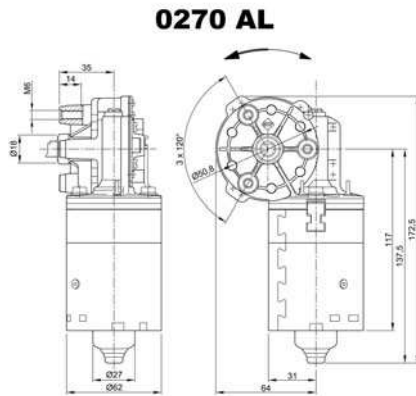
Design Data	
Commutation	Brushed
Direction of rotation	Bi-directional
Bearing type	

Performance data		
Rated voltage [V]	U_N	24
Nominal torque [Nm]	M_N	1.00
No-load speed [min^{-1}]	n_0	264.0
Nominal power [W]	P_N	23.2
Nominal current [A]	I_N	4.0
Nominal force [kN]	F_N	0.00
Duty cycle		s1

Sensor data	
Pulses	10.25
Output channels	1

Other data	
Gear ratio	41/4
Gear wheel material	Plastic
Suppression components	
Enclosure class	IP30
Weight [kg]	1.200

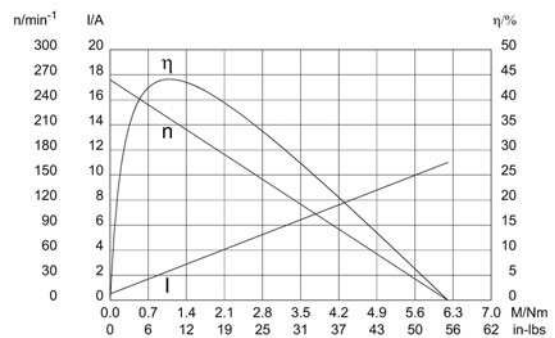
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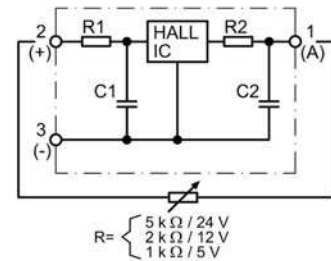
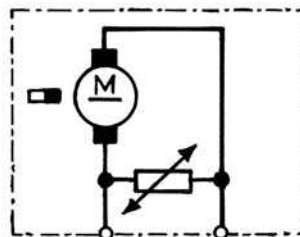
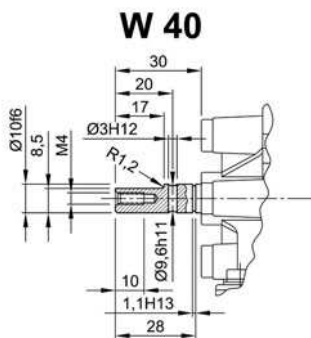
Motor picture



Characteristic curves



Output shaft drawing (W), Wiring diagrams (S) and Connector layout (K)

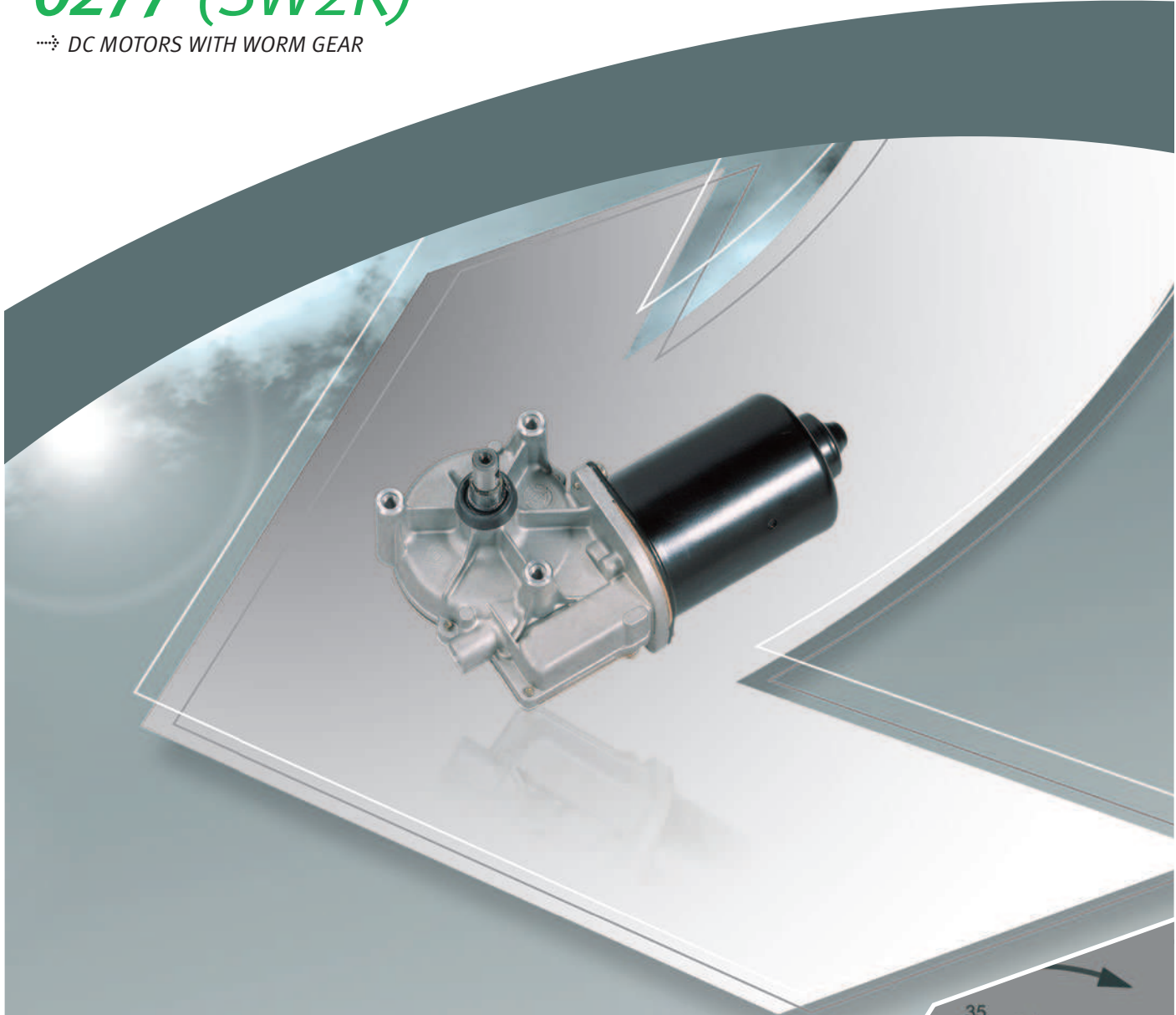




NIDEC MOTORS & ACTUATORS ❖❖❖ MOTOR SERIES

0277 (SW2K)

❖❖❖ DC MOTORS WITH WORM GEAR

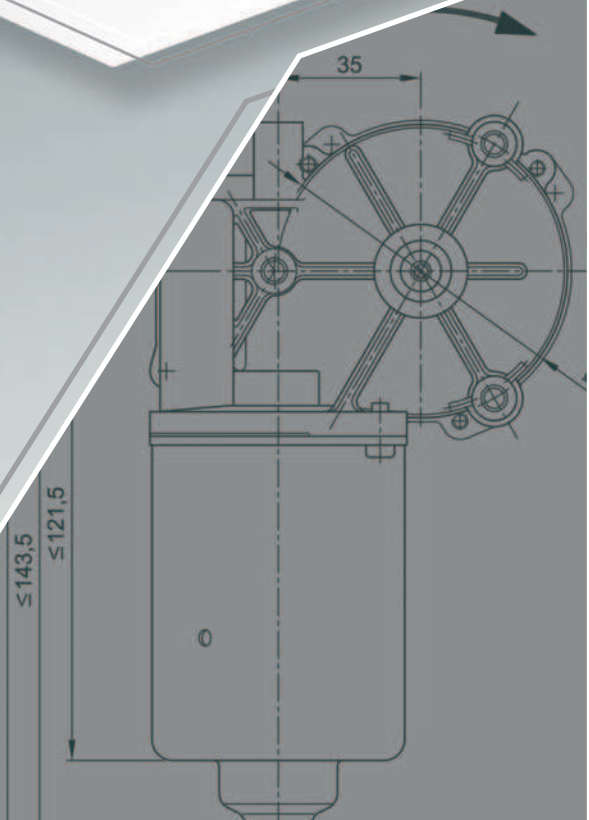


❖❖❖ TECHNICAL DESCRIPTION

Motorhousing:	deep drawn & corrosion protected
Excitation field:	permanent magnet
Type of gear mesh:	worm gear
Gear housing:	aluminium die cast
Gear wheel material:	plastic
Lubrication:	grease
Mechanical interface:	steel shaft
Electric interface:	connector or tinned leads
Sensor:	optional
Thermal protection:	optional
EMC suppression:	optional

❖❖❖ APPLICATION

Industry, Linear drives, General machinery,
Vending machines, Agricultural technology,
Office machines, Laboratory devices,
Medical technology, Traffic & communications
technology, Film/optics



Design Data	
Commutation	Brushed
Direction of rotation	Bi-directional
Bearing type	

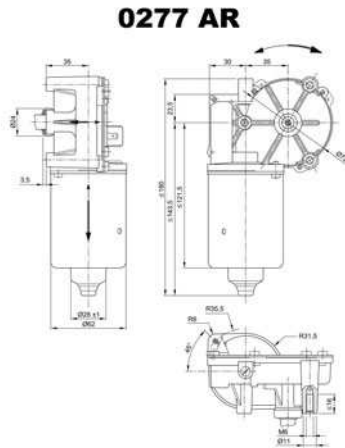
Performance data		
Rated voltage [V]	U_N	24
Nominal torque [Nm]	M_N	5.00
No-load speed [min^{-1}]	n_0	40.0
Nominal power [W]	P_N	16.8
Nominal current [A]	I_N	3.5
Nominal force [kN]	F_N	0.00
Duty cycle		s1

Sensor data	
Pulses	0
Output channels	0

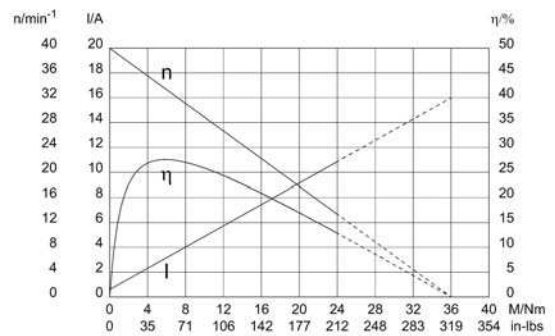
Other data	
Gear ratio	78/1
Gear wheel material	Plastic
Suppression components	4.7 μ H, 1nF
Enclosure class	IP40
Weight [kg]	1.200

Remarks: Ball bearing

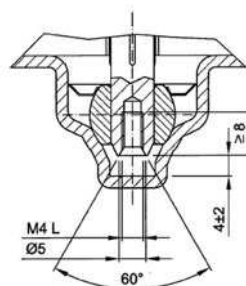
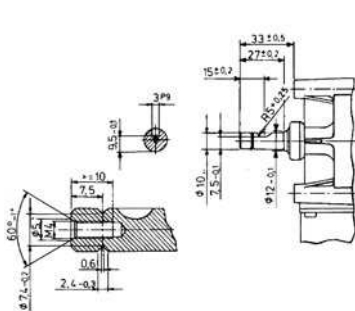
Characteristic curves



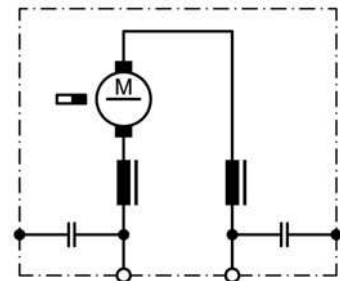
Motor picture



Output shaft drawing (W), Wiring diagrams (S) and Connector layout (K)



S 30



! Lefthand thread

Design Data	
Commutation	Brushed
Direction of rotation	Bi-directional
Bearing type	

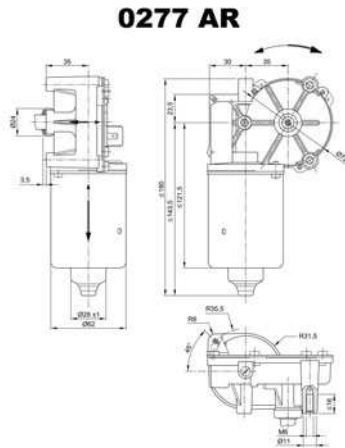
Performance data		
Rated voltage [V]	U_N	24
Nominal torque [Nm]	M_N	2.00
No-load speed [min^{-1}]	n_0	230.0
Nominal power [W]	P_N	44.2
Nominal current [A]	I_N	6.0
Nominal force [kN]	F_N	0.00
Duty cycle		s1

Sensor data	
Pulses	0
Output channels	0

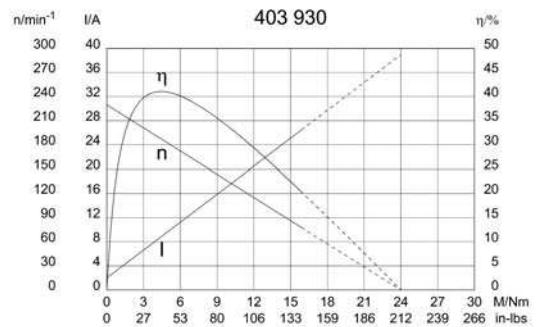
Other data	
Gear ratio	70/4
Gear wheel material	plastic
Suppression components	""
Enclosure class	IP 40
Weight [kg]	1.200

Remarks: Ball bearing

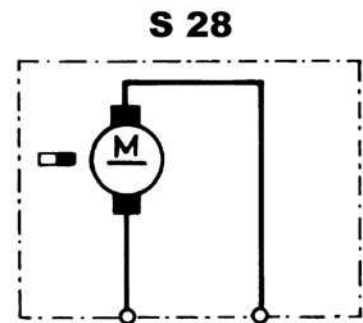
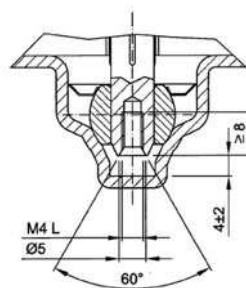
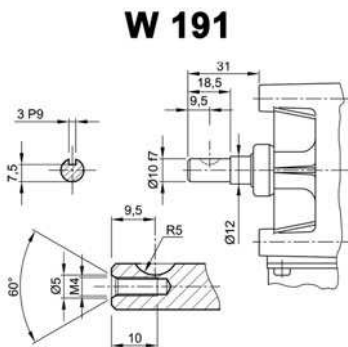
Characteristic curves



Motor picture



Output shaft drawing (W), Wiring diagrams (S) and Connector layout (K)



! Lefthand thread

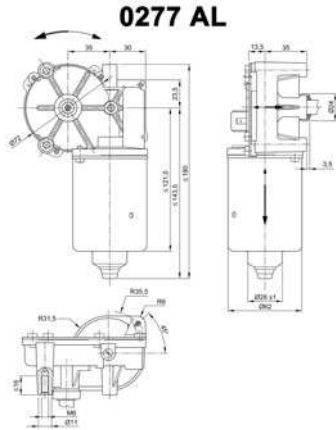
Design Data	
Commutation	Brushed
Direction of rotation	Bi-directional
Bearing type	

Performance data		
Rated voltage [V]	U_N	24
Nominal torque [Nm]	M_N	2.00
No-load speed [min^{-1}]	n_0	126.0
Nominal power [W]	P_N	23.0
Nominal current [A]	I_N	3.0
Nominal force [kN]	F_N	0.00
Duty cycle		s1

Sensor data	
Pulses	0
Output channels	0

Other data	
Gear ratio	70/4
Gear wheel material	plastic
Suppression components	4.7 μ H, 1nF
Enclosure class	IP 40
Weight [kg]	1.200

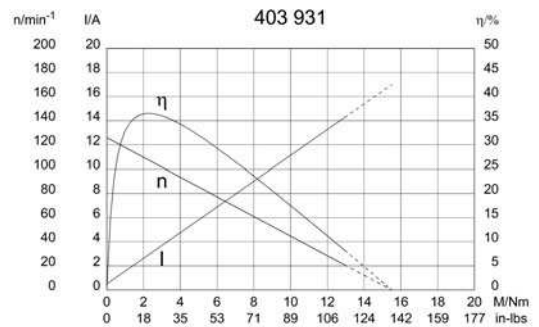
Remarks: Ball bearing



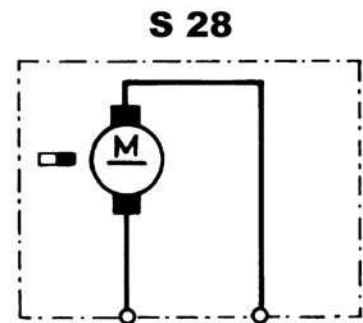
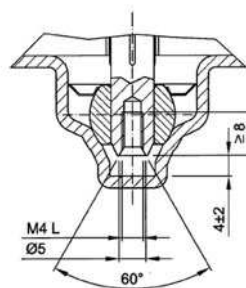
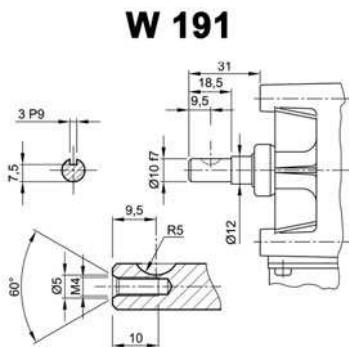
Motor picture



Characteristic curves



Output shaft drawing (W), Wiring diagrams (S) and Connector layout (K)



! Lefthand thread

Design Data	
Commutation	Brushed
Direction of rotation	Bi-directional
Bearing type	

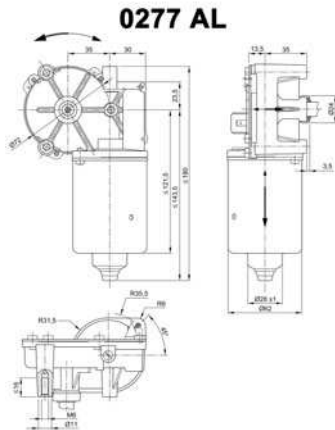
Performance data		
Rated voltage [V]	U_N	24
Nominal torque [Nm]	M_N	2.00
No-load speed [min^{-1}]	n_0	230.0
Nominal power [W]	P_N	44.2
Nominal current [A]	I_N	6.0
Nominal force [kN]	F_N	0.00
Duty cycle		s1

Sensor data	
Pulses	0
Output channels	0

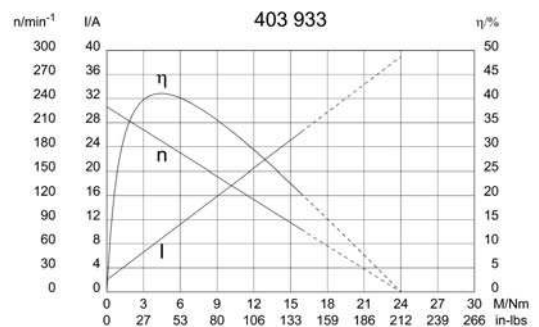
Other data	
Gear ratio	70/4
Gear wheel material	plastic
Suppression components	""
Enclosure class	IP 40
Weight [kg]	1.200

Remarks: Ball bearing

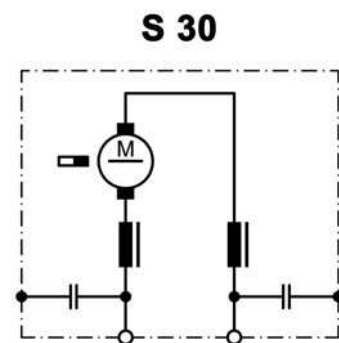
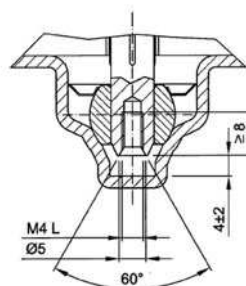
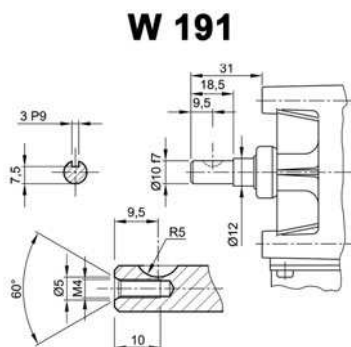
Characteristic curves



Motor picture



Output shaft drawing (W), Wiring diagrams (S) and Connector layout (K)



! Lefthand thread

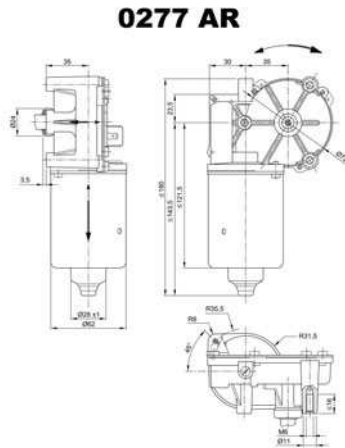
Design Data	
Commutation	Brushed
Direction of rotation	Bi-directional
Bearing type	

Performance data		
Rated voltage [V]	U_N	24
Nominal torque [Nm]	M_N	5.00
No-load speed [min^{-1}]	n_0	54.0
Nominal power [W]	P_N	26.3
Nominal current [A]	I_N	5.0
Nominal force [kN]	F_N	0.00
Duty cycle		s1

Sensor data	
Pulses	0
Output channels	0

Other data	
Gear ratio	78/1
Gear wheel material	plastic
Suppression components	$5\mu\text{H}$, 1nF
Enclosure class	IP 40
Weight [kg]	1.200

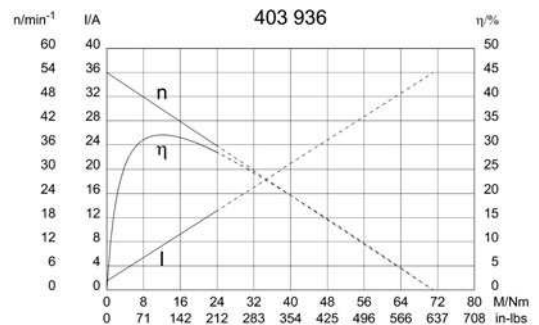
Remarks:



Motor picture

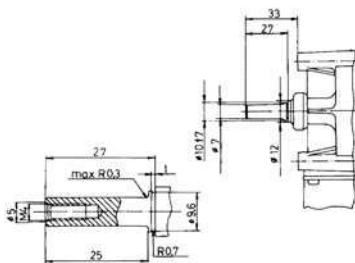


Characteristic curves

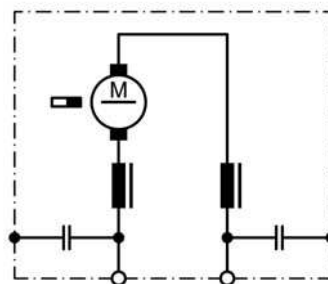


Output shaft drawing (W), Wiring diagrams (S) and Connector layout (K)

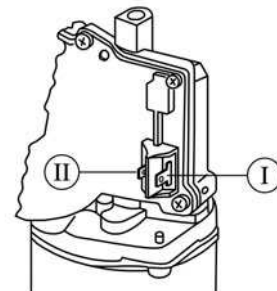
W 194



S 30



K 144



- I Blade terminal ends 6,3 x 0,8 DIN 46 244
- II Blade terminal ends 4,8 x 0,8 DIN 46 244

Design Data	
Commutation	Brushed
Direction of rotation	Bi-directional
Bearing type	A: Ball - B: Sleeve

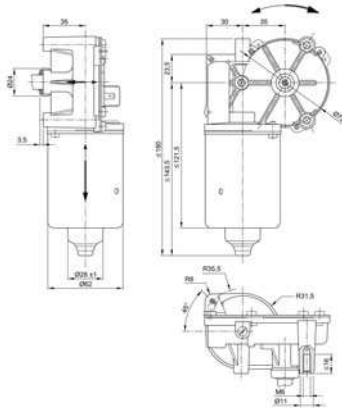
Performance data		
Rated voltage [V]	U_N	24
Nominal torque [Nm]	M_N	5.00
No-load speed [min^{-1}]	n_0	40.0
Nominal power [W]	P_N	16.8
Nominal current [A]	I_N	3.0
Nominal force [kN]	F_N	0.00
Duty cycle	s1	

Sensor data	
Pulses	0
Output channels	0

Other data	
Gear ratio	78/1
Gear wheel material	Plastic
Suppression components	
Enclosure class	IP40
Weight [kg]	1.200

Remarks:

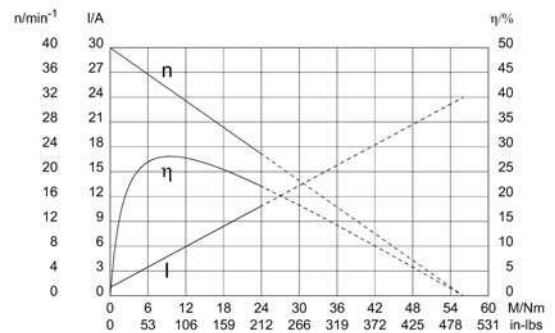
0277 AR



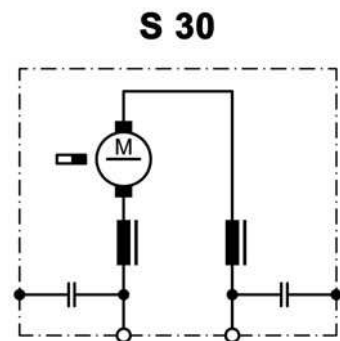
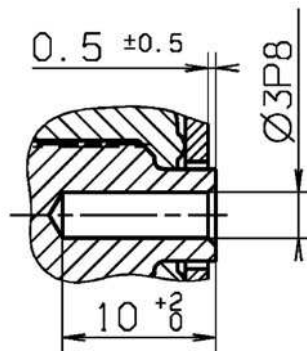
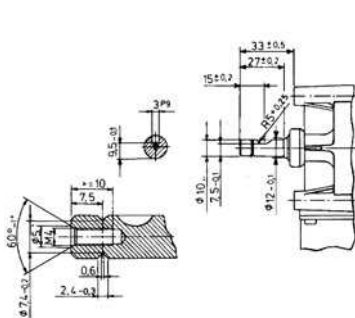
Motor picture



Characteristic curves



Output shaft drawing (W), Wiring diagrams (S) and Connector layout (K)



Design Data	
Commutation	Brushed
Direction of rotation	Bi-directional
Bearing type	

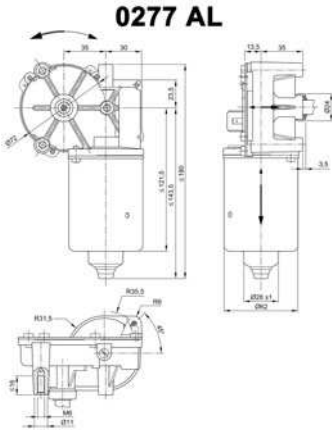
Performance data		
Rated voltage [V]	U_N	24
Nominal torque [Nm]	M_N	5.00
No-load speed [min^{-1}]	n_0	65.0
Nominal power [W]	P_N	27.2
Nominal current [A]	I_N	4.0
Nominal force [kN]	F_N	0.00
Duty cycle		s1

Sensor data	
Pulses	0
Output channels	0

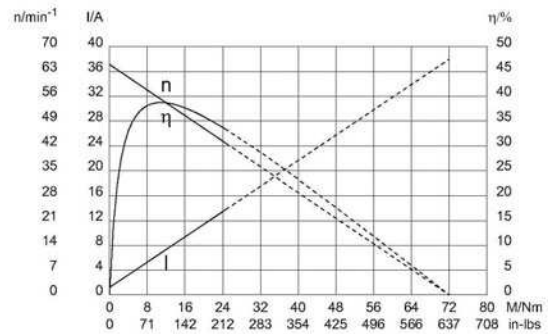
Other data	
Gear ratio	63/1
Gear wheel material	Plastic
Suppression components	4.7 μH , 1nF
Enclosure class	IP40
Weight [kg]	1.200

Remarks: Ball bearing

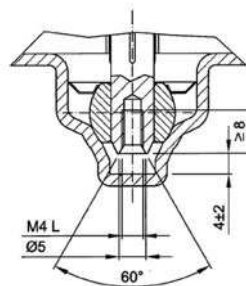
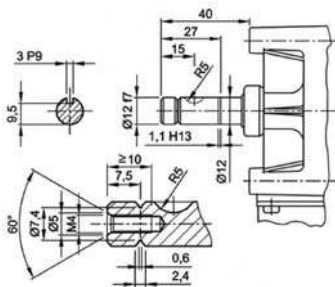
Characteristic curves



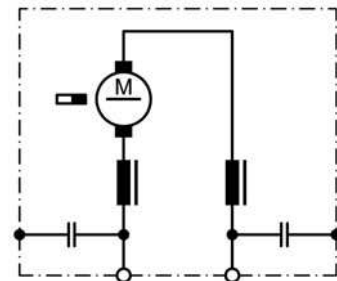
Motor picture



Output shaft drawing (W), Wiring diagrams (S) and Connector layout (K)



S 30



! Lefthand thread

Design Data	
Commutation	Brushed
Direction of rotation	Bi-directional
Bearing type	

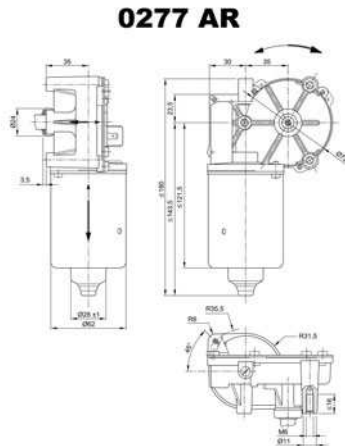
Performance data		
Rated voltage [V]	U_N	24
Nominal torque [Nm]	M_N	5.00
No-load speed [min^{-1}]	n_0	65.0
Nominal power [W]	P_N	27.2
Nominal current [A]	I_N	4.0
Nominal force [kN]	F_N	0.00
Duty cycle		s1

Sensor data	
Pulses	0
Output channels	0

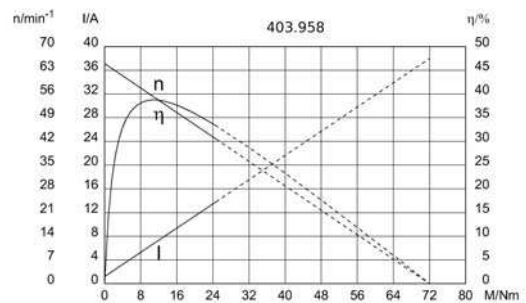
Other data	
Gear ratio	63/1
Gear wheel material	Plastic
Suppression components	4.7 μ H, 1nF
Enclosure class	IP40
Weight [kg]	1.200

Remarks: Ball bearing

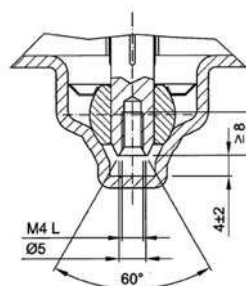
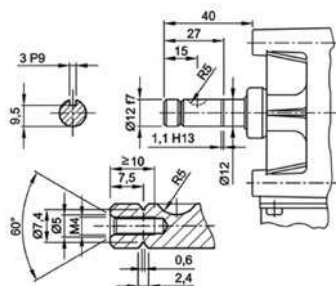
Characteristic curves



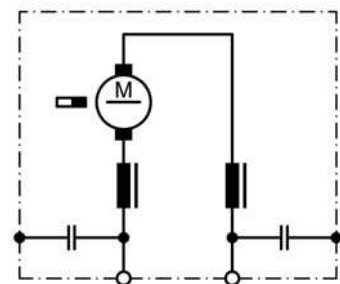
Motor picture



Output shaft drawing (W), Wiring diagrams (S) and Connector layout (K)



S 30



! Lefthand thread

Design Data	
Commutation	Brushed
Direction of rotation	Bi-directional
Bearing type	

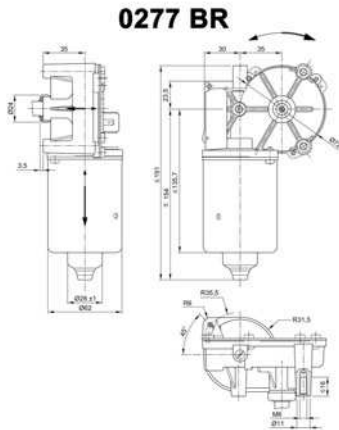
Performance data		
Rated voltage [V]	U_N	12
Nominal torque [Nm]	M_N	3.00
No-load speed [min^{-1}]	n_0	270.0
Nominal power [W]	P_N	68.9
Nominal current [A]	I_N	15.0
Nominal force [kN]	F_N	0.00
Duty cycle		s1

Sensor data	
Pulses	0
Output channels	0

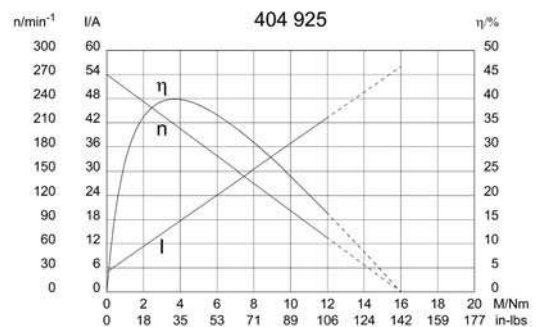
Other data	
Gear ratio	70/4
Gear wheel material	plastic
Suppression components	1.9 μ H, 1 μ F
Enclosure class	IP 40
Weight [kg]	1.200

Remarks: Ball bearing

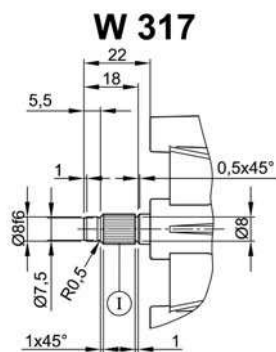
Characteristic curves



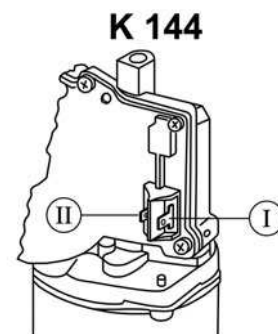
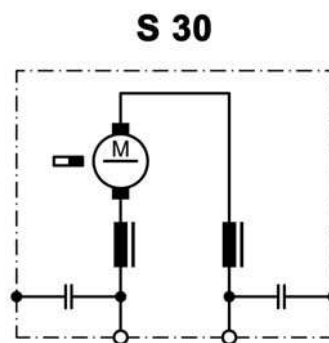
Motor picture



Output shaft drawing (W), Wiring diagrams (S) and Connector layout (K)



I Tapered splines 8 x 10 f
(similar DIN 5481)



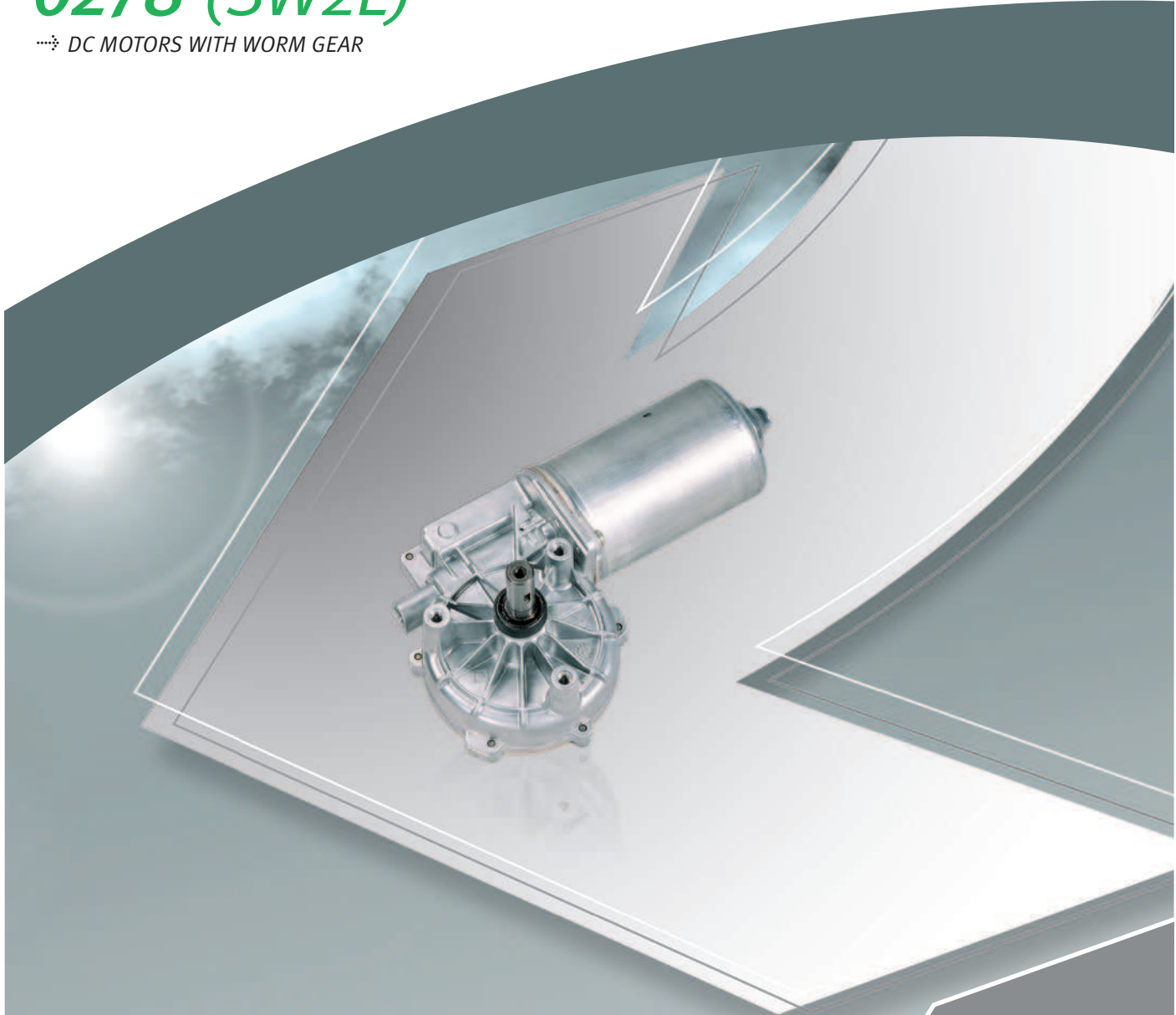
I Blade terminal ends 6,3 x 0,8 DIN 46 244
II Blade terminal ends 4,8 x 0,8 DIN 46 244



NIDEC MOTORS & ACTUATORS ❖❖❖ MOTOR SERIES

0278 (SW2L)

❖❖❖ DC MOTORS WITH WORM GEAR

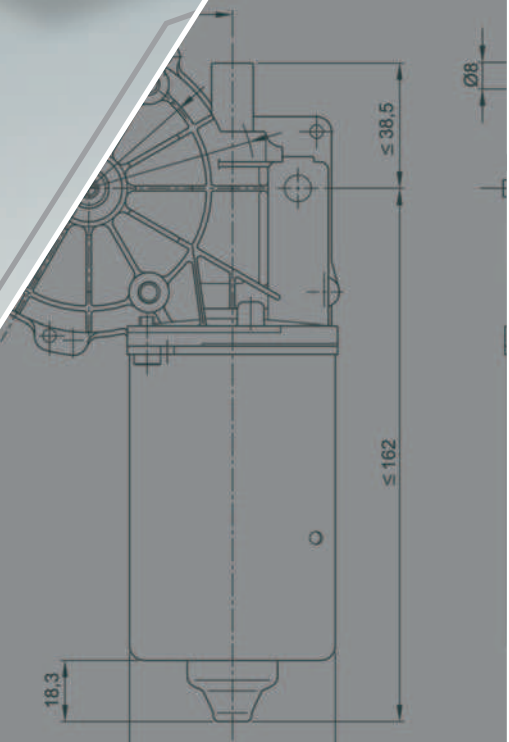


❖❖❖ TECHNICAL DESCRIPTION

Motorhousing:	deep drawn & corrosion protected
Excitation field:	permanent magnet
Type of gear mesh:	worm gear
Gear housing:	aluminium die cast
Gear wheel material:	plastic
Lubrication:	grease
Mechanical interface:	steel shaft
Electric interface:	connector
Sensor:	optional
Thermal protection:	optional
EMC suppression:	optional

❖❖❖ INDUSTRIAL APPLICATION

Gate Opener, Patient Hoist,
Machine construction



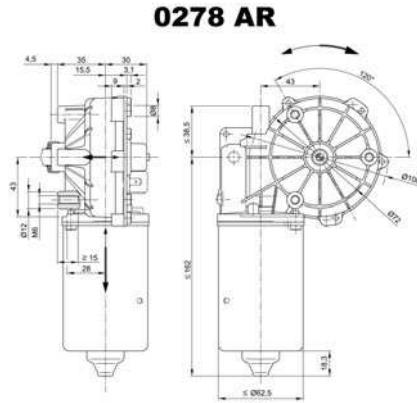
Design Data	
Commutation	Brushed
Direction of rotation	Bi-directional
Bearing type	A:Ball - B:Sleeve

Performance data		
Rated voltage [V]	U_N	24
Nominal torque [Nm]	M_N	6.00
No-load speed [min^{-1}]	n_0	48.0
Nominal power [W]	P_N	27.9
Nominal current [A]	I_N	6.0
Nominal force [kN]	F_N	0.00
Duty cycle		s1

Sensor data	
Pulses	0
Output channels	0

Other data	
Gear ratio	74/1
Gear wheel material	plastic
Suppression components	4,7 μ H, 1 μ F
Enclosure class	IP40
Weight [kg]	1.716

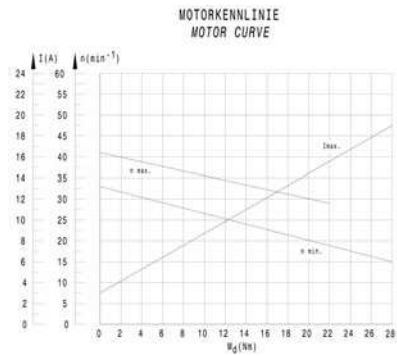
Remarks:



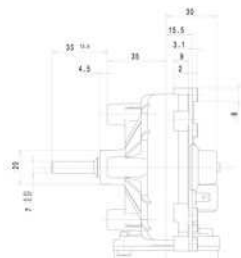
Motor picture



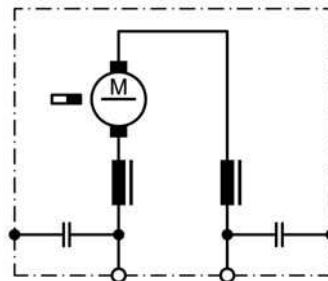
Characteristic curves



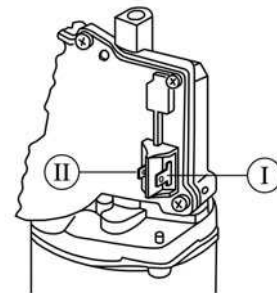
Output shaft drawing (W), Wiring diagrams (S) and Connector layout (K)



S 30



K 144



- I - Blade terminal ends 6,3 x 0,8 DIN 46 244
- II - Blade terminal ends 4,8 x 0,8 DIN 46 244

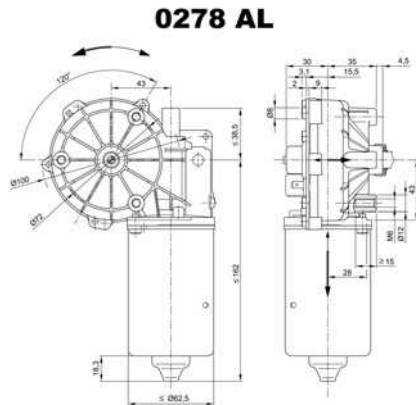
Design Data	
Commutation	Brushed
Direction of rotation	Bi-directional
Bearing type	A:Ball - B:Sleeve

Performance data		
Rated voltage [V]	U_N	24
Nominal torque [Nm]	M_N	4.00
No-load speed [min^{-1}]	n_0	190.0
Nominal power [W]	P_N	73.1
Nominal current [A]	I_N	7.0
Nominal force [kN]	F_N	0.00
Duty cycle	s1	

Sensor data	
Pulses	0
Output channels	0

Other data	
Gear ratio	103/4
Gear wheel material	plastic
Suppression components	4,7 μ H, 1nF
Enclosure class	IP 40
Weight [kg]	1.700

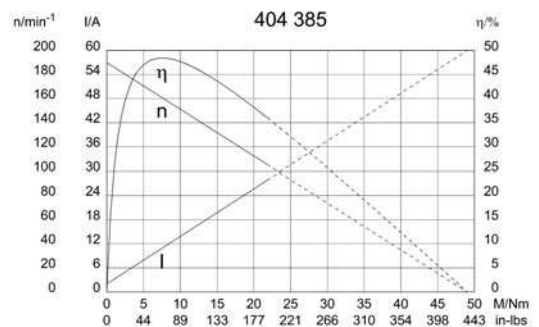
Remarks:



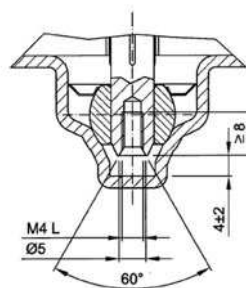
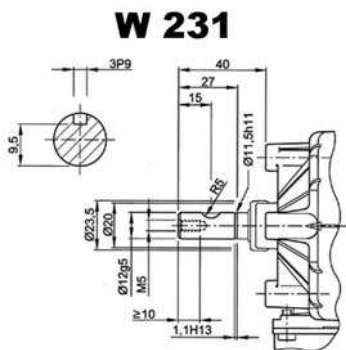
Motor picture



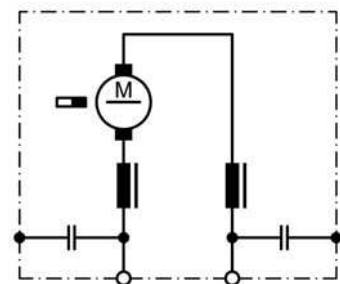
Characteristic curves



Output shaft drawing (W), Wiring diagrams (S) and Connector layout (K)



S 30



! Lefthand thread

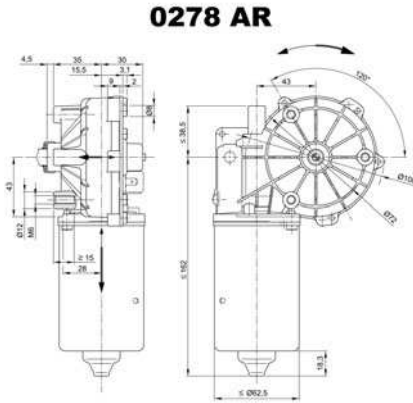
Design Data	
Commutation	Brushed
Direction of rotation	Bi-directional
Bearing type	A:Ball - B:Sleeve

Performance data		
Rated voltage [V]	U_N	24
Nominal torque [Nm]	M_N	4.00
No-load speed [min^{-1}]	n_0	190.0
Nominal power [W]	P_N	73.1
Nominal current [A]	I_N	7.0
Nominal force [kN]	F_N	0.00
Duty cycle		s1

Sensor data	
Pulses	0
Output channels	0

Other data	
Gear ratio	103/4
Gear wheel material	plastic
Suppression components	4,7 μ H, 1nF
Enclosure class	IP 40
Weight [kg]	1.700

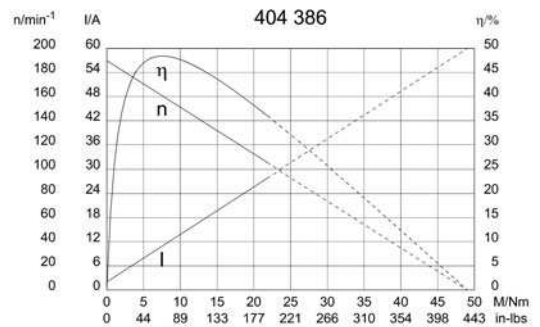
Remarks:



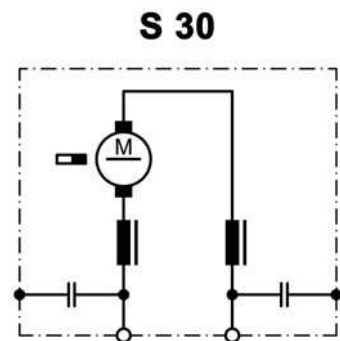
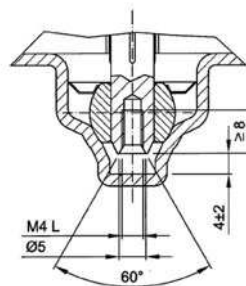
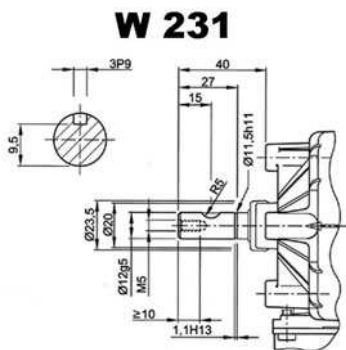
Motor picture



Characteristic curves



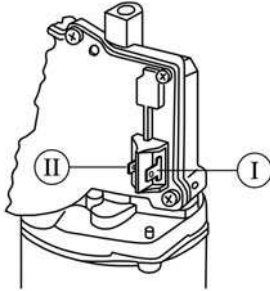
Output shaft drawing (W), Wiring diagrams (S) and Connector layout (K)



! Lefthand thread

Output shaft drawing (W), Wiring diagrams (S) and Connector layout (K)

K 144



- I Blade terminal ends 6,3 x 0,8 DIN 46 244
- II Blade terminal ends 4,8 x 0,8 DIN 46 244

Notes

Design Data	
Commutation	Brushed
Direction of rotation	Bi-directional
Bearing type	A:Ball - B:Sleeve

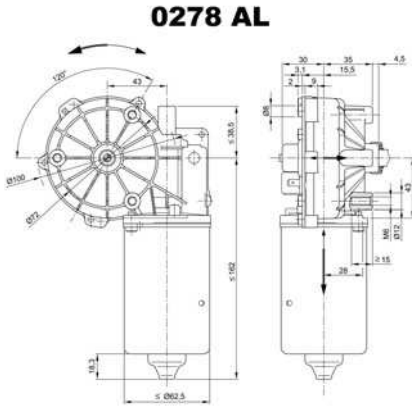
Performance data		
Rated voltage [V]	U_N	24
Nominal torque [Nm]	M_N	6.00
No-load speed [min^{-1}]	n_0	48.0
Nominal power [W]	P_N	21.9
Nominal current [A]	I_N	4.0
Nominal force [kN]	F_N	0.00
Duty cycle	s1	

Sensor data	
Pulses	74
Output channels	1

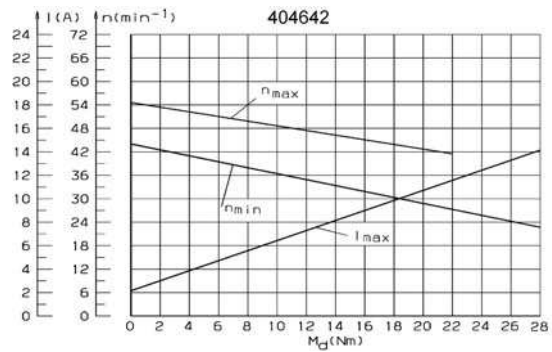
Other data	
Gear ratio	74/1
Gear wheel material	plastic
Suppression components	4,7 μ H, 1nF
Enclosure class	IP40
Weight [kg]	1.730

Remarks:

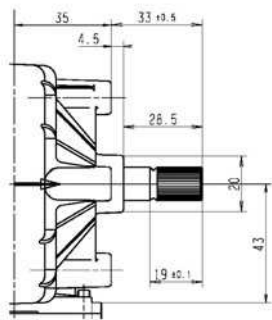
Motor picture



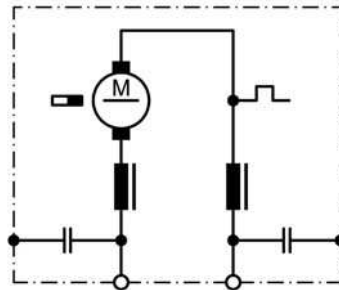
Characteristic curves



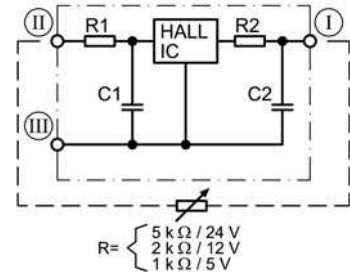
Output shaft drawing (W), Wiring diagrams (S) and Connector layout (K)



S 74



S 124

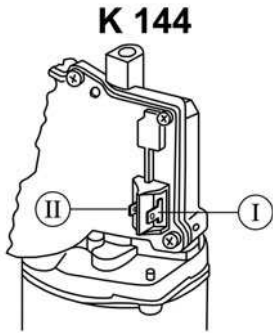


$$R = \begin{cases} 5 \text{ k}\Omega / 24 \text{ V} \\ 2 \text{ k}\Omega / 12 \text{ V} \\ 1 \text{ k}\Omega / 5 \text{ V} \end{cases}$$

Splines: 10 x 12f (according to DIN 5481)

- I Terminal 3, A
- II Terminal 4, +
- III Terminal 5, -

Output shaft drawing (W), Wiring diagrams (S) and Connector layout (K)



- I Blade terminal ends 6,3 x 0,8 DIN 46 244
- II Blade terminal ends 4,8 x 0,8 DIN 46 244

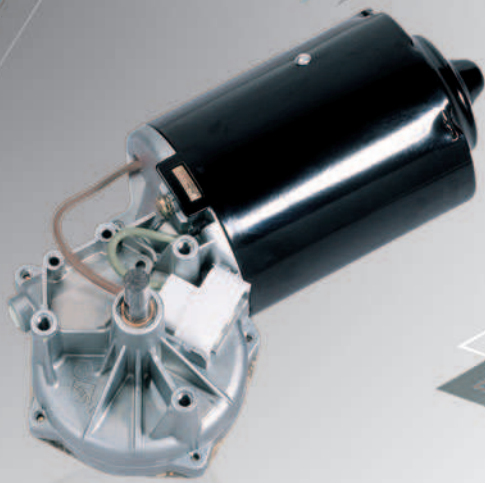
Notes



NIDEC MOTORS & ACTUATORS ❖❖❖ MOTOR SERIES

0291 (SWMV)

❖❖❖ DC MOTORS WITH WORM GEAR



❖❖❖ TECHNICAL DESCRIPTION

Motorhousing:	sheet metal, rolled & corrosion protected
Excitation field:	permanent magnet
Type of gear mesh:	worm gear
Gear housing:	zinc die cast
Gear wheel material:	plastic, resin bonded fabrics, steel
Lubrication:	grease
Mechanical interface:	steel shaft
Electric interface:	connector or leads
Sensor:	-
Thermal protection:	-
EMC suppression:	optional

❖❖❖ INDUSTRIAL APPLICATION

Machine construction



Design Data	
Commutation	Brushed
Direction of rotation	Bi-directional
Bearing type	A: Ball - B: Sleeve

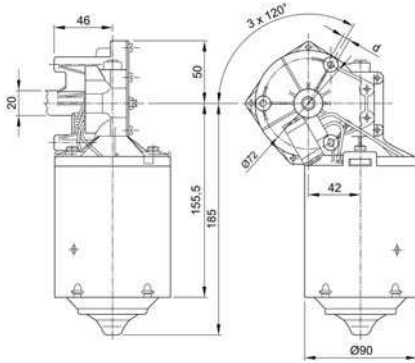
Performance data		
Rated voltage [V]	U_N	24
Nominal torque [Nm]	M_N	6.00
No-load speed [min^{-1}]	n_0	67.0
Nominal power [W]	P_N	38.5
Nominal current [A]	I_N	5.0
Nominal force [kN]	F_N	0.00
Duty cycle	s1	

Sensor data	
Pulses	0
Output channels	0

Other data	
Gear ratio	46/1
Gear wheel material	Bronze
Suppression components	
Enclosure class	IP20
Weight [kg]	2.900

Remarks:

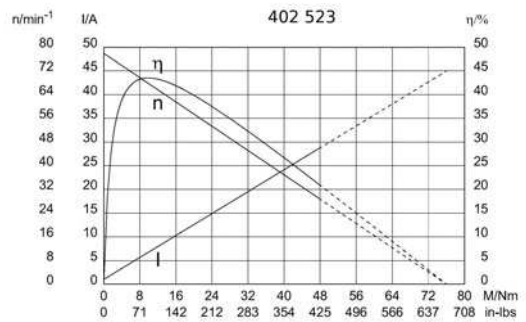
0291 AL



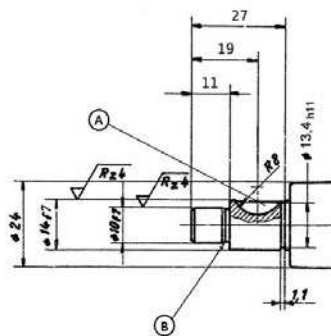
Motor picture



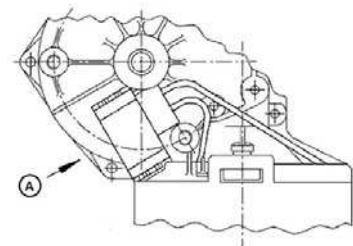
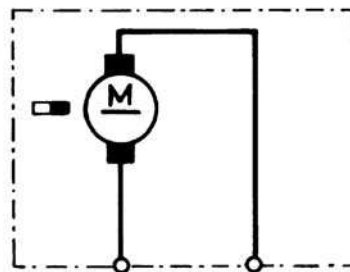
Characteristic curves



Output shaft drawing (W), Wiring diagrams (S) and Connector layout (K)



S 28



A: keyway 5 - P9 width tolerance
 B: undercut E 0.6 x 0.2 to DIN 509

A: spade ends 6.3 x 0.8 (according to DIN 46 244)

Design Data	
Commutation	Brushed
Direction of rotation	Bi-directional
Bearing type	A:Ball - B:Sleeve

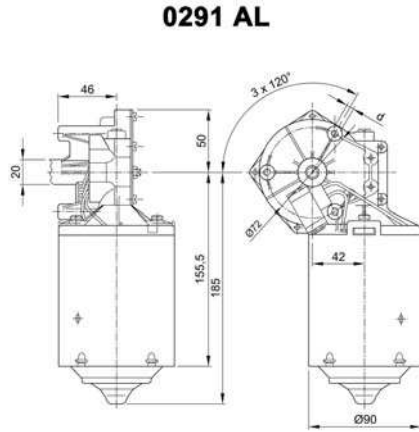
Performance data		
Rated voltage [V]	U_N	24
Nominal torque [Nm]	M_N	8.00
No-load speed [min^{-1}]	n_0	78.0
Nominal power [W]	P_N	58.5
Nominal current [A]	I_N	6.0
Nominal force [kN]	F_N	0.00
Duty cycle		s1

Sensor data	
Pulses	0
Output channels	0

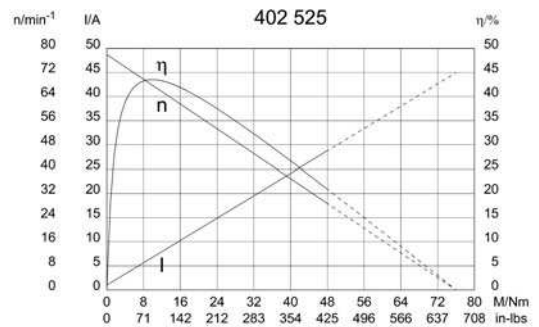
Other data	
Gear ratio	46/1
Gear wheel material	Resinbonded fabric
Suppression components	
Enclosure class	IP 20
Weight [kg]	2.900

Remarks: d = M6x16mm

Characteristic curves

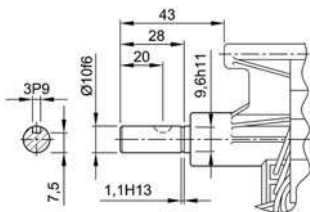


Motor picture

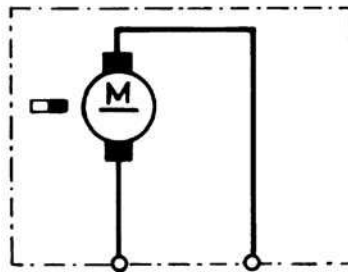


Output shaft drawing (W), Wiring diagrams (S) and Connector layout (K)

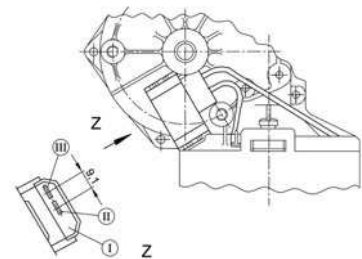
W 278



S 28



K 243



Flat plug 6,8x0,8 DIN 46244 mating with receptacle for tabs and connector housing 163 006-1, drwg C163006, www.tycoelectronics.com

Design Data	
Commutation	Brushed
Direction of rotation	Bi-directional
Bearing type	A:Ball - B:Sleeve

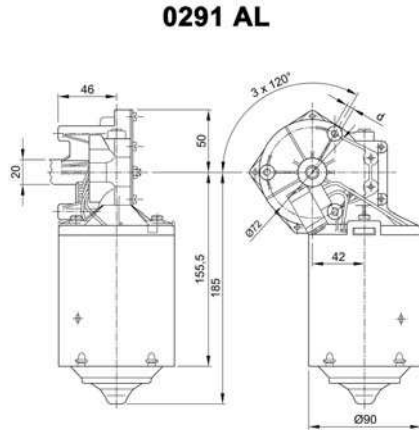
Performance data		
Rated voltage [V]	U_N	12
Nominal torque [Nm]	M_N	6.00
No-load speed [min^{-1}]	n_0	52.0
Nominal power [W]	P_N	29.7
Nominal current [A]	I_N	6.0
Nominal force [kN]	F_N	0.00
Duty cycle		s1

Sensor data	
Pulses	0
Output channels	0

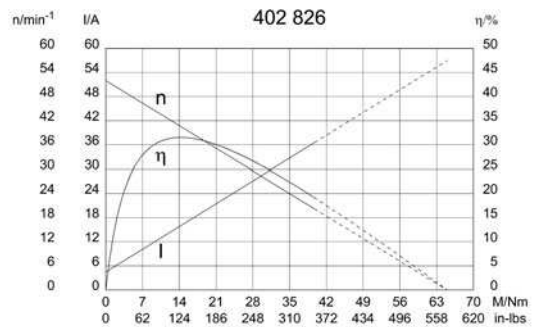
Other data	
Gear ratio	59/1
Gear wheel material	Resinbonded fabric
Suppression components	
Enclosure class	IP 20
Weight [kg]	2.900

Remarks: d = M6x16mm

Characteristic curves

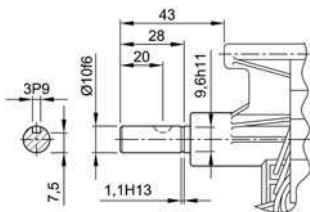


Motor picture

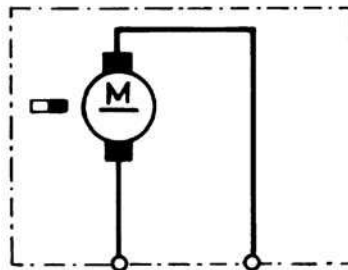


Output shaft drawing (W), Wiring diagrams (S) and Connector layout (K)

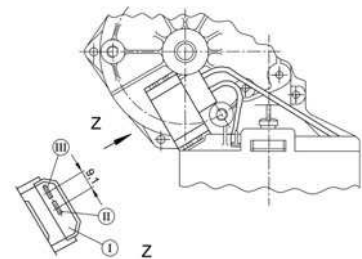
W 278



S 28



K 243



Flat plug 6,8x0,8 DIN 46244 mating with receptacle for tabs and connector housing 163 006-1, drwg C163006, www.tycoelectronics.com

Design Data	
Commutation	Brushed
Direction of rotation	Bi-directional
Bearing type	A: Ball - B: Sleeve

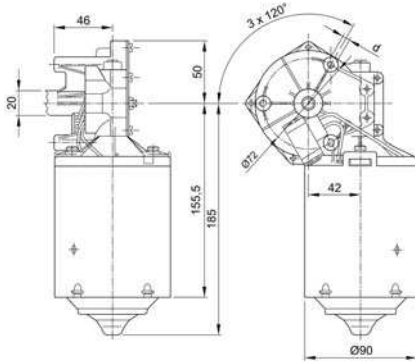
Performance data		
Rated voltage [V]	U_N	24
Nominal torque [Nm]	M_N	8.00
No-load speed [min^{-1}]	n_0	47.0
Nominal power [W]	P_N	34.9
Nominal current [A]	I_N	11.0
Nominal force [kN]	F_N	0.00
Duty cycle	s1	

Sensor data	
Pulses	0
Output channels	0

Other data	
Gear ratio	59/1
Gear wheel material	Bronze
Suppression components	5.0 μ H
Enclosure class	IP20
Weight [kg]	2.900

Remarks:

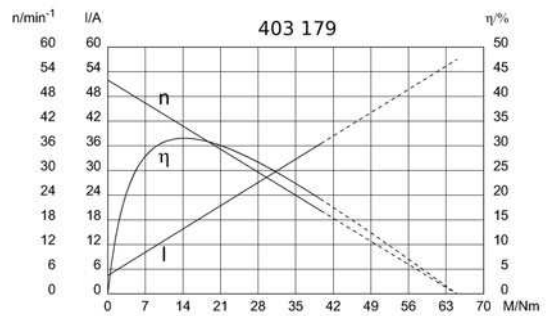
0291 AL



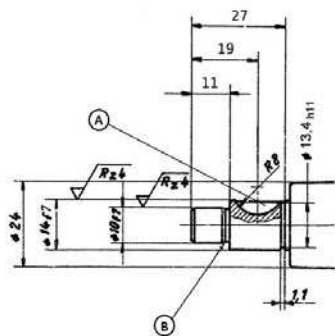
Motor picture



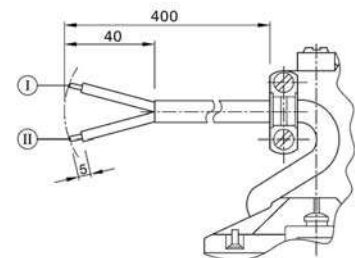
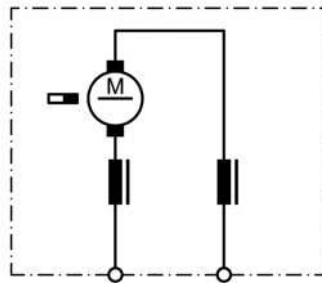
Characteristic curves



Output shaft drawing (W), Wiring diagrams (S) and Connector layout (K)



S 27



A: keyway 5 - P9 width tolerance
 B: undercut E 0.6 x 0.2 to DIN 509

I: red
 II: green

Design Data	
Commutation	Brushed
Direction of rotation	Bi-directional
Bearing type	A:Ball - B:Sleeve

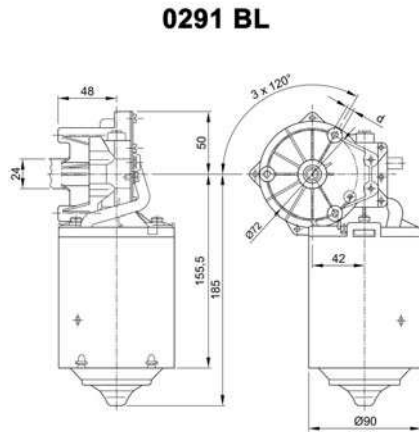
Performance data		
Rated voltage [V]	U_N	24
Nominal torque [Nm]	M_N	3.00
No-load speed [min^{-1}]	n_0	220.0
Nominal power [W]	P_N	65.7
Nominal current [A]	I_N	8.0
Nominal force [kN]	F_N	0.00
Duty cycle		s1

Sensor data	
Pulses	0
Output channels	0

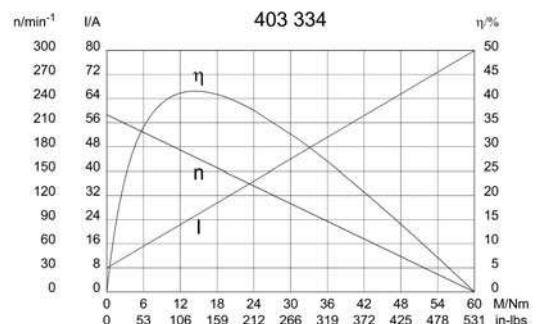
Other data	
Gear ratio	44/2
Gear wheel material	plastic
Suppression components	6,5 μ H, 1nF
Enclosure class	IP 20
Weight [kg]	2.900

Remarks: d = M8 x 16 mm

Characteristic curves

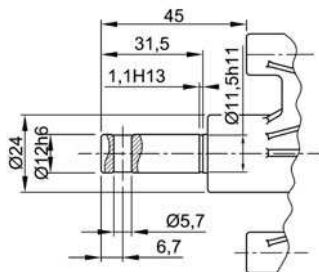


Motor picture

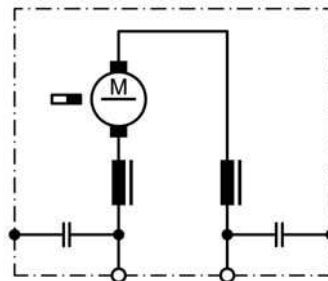


Output shaft drawing (W), Wiring diagrams (S) and Connector layout (K)

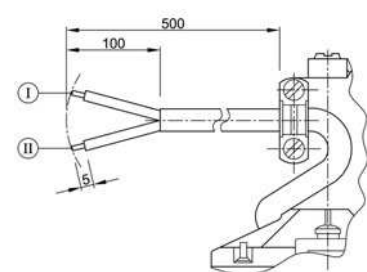
W 070



S 30



K 274



I red
 II green

Design Data	
Commutation	Brushed
Direction of rotation	Bi-directional
Bearing type	A:Ball - B:Sleeve

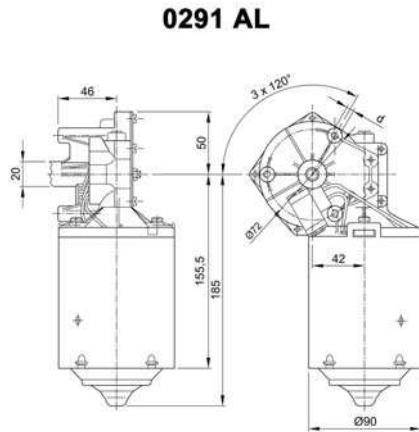
Performance data		
Rated voltage [V]	U_N	24
Nominal torque [Nm]	M_N	5.00
No-load speed [min^{-1}]	n_0	52.0
Nominal power [W]	P_N	25.7
Nominal current [A]	I_N	5.0
Nominal force [kN]	F_N	0.00
Duty cycle		s1

Sensor data	
Pulses	0
Output channels	0

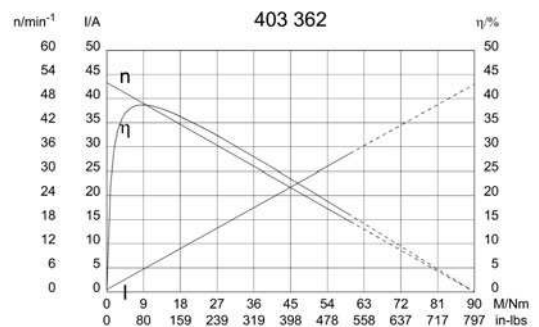
Other data	
Gear ratio	59/1
Gear wheel material	Resinbonded fabric
Suppression components	
Enclosure class	IP 20
Weight [kg]	2.900

Remarks: d = M8 x 23mm

Characteristic curves

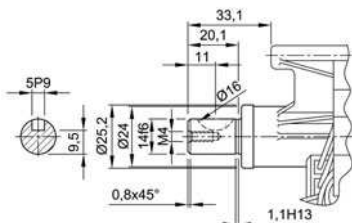


Motor picture

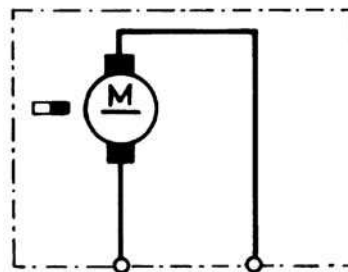


Output shaft drawing (W), Wiring diagrams (S) and Connector layout (K)

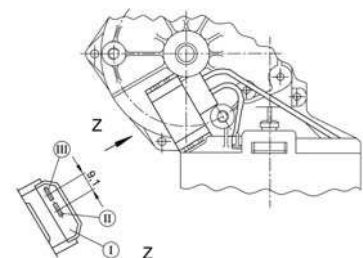
W 126



S 28



K 243



Flat plug 6,8x0,8 DIN 46244 mating with receptacle for tabs and connector housing 163 006-1, drwg C163006, www.tycoelectronics.com

Design Data	
Commutation	Brushed
Direction of rotation	Bi-directional
Bearing type	A:Ball - B:Sleeve

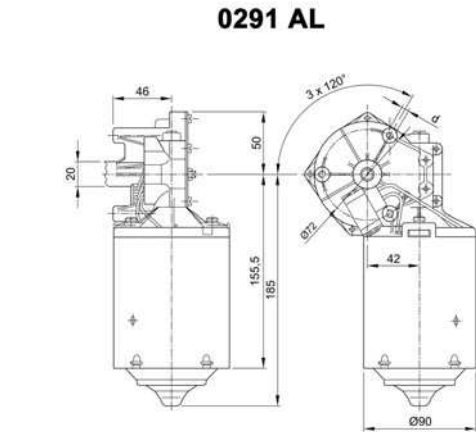
Performance data		
Rated voltage [V]	U_N	24
Nominal torque [Nm]	M_N	8.00
No-load speed [min^{-1}]	n_0	48.0
Nominal power [W]	P_N	36.0
Nominal current [A]	I_N	7.0
Nominal force [kN]	F_N	0.00
Duty cycle	s1	

Sensor data	
Pulses	0
Output channels	0

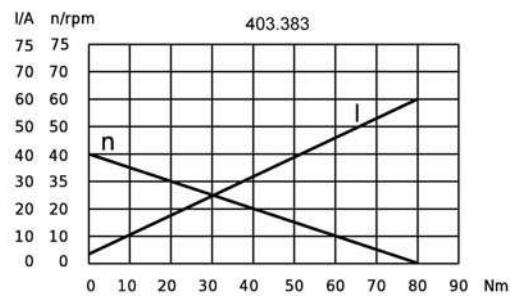
Other data	
Gear ratio	46/1
Gear wheel material	bronze
Suppression components	
Enclosure class	IP20
Weight [kg]	2.900

Remarks: d=M8x23

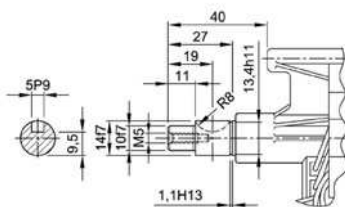
Characteristic curves



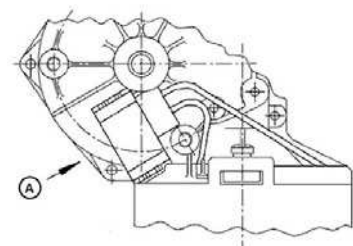
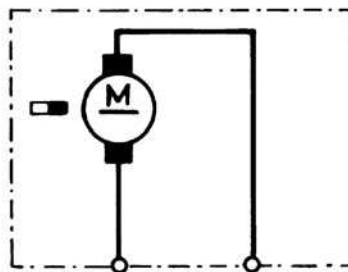
Motor picture



Output shaft drawing (W), Wiring diagrams (S) and Connector layout (K)



S 28



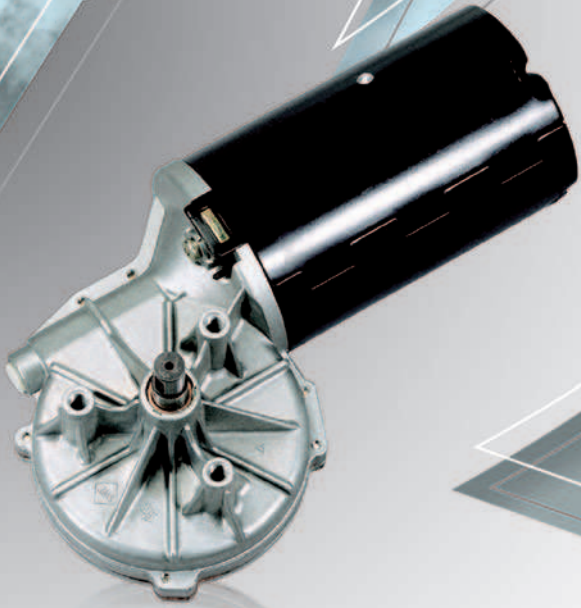
A: spade ends 6.3 x 0.8 (according to DIN 46 244)



NIDEC MOTORS & ACTUATORS ❖❖❖ MOTOR SERIES

0292 (SWMG)

❖❖❖ DC MOTORS WITH WORM GEAR



❖❖❖ TECHNICAL DESCRIPTION

Motorhousing:	sheet metal, rolled & corrosion protected
Excitation field:	permanent magnet
Type of gear mesh:	worm gear
Gear housing:	zinc die cast
Gear wheel material:	plastic, resin bonded fabrics, steel
Lubrication:	grease
Mechanical interface:	steel shaft
Electric interface:	leads with connector
Sensor:	optional
Thermal protection:	optional
EMC suppression:	optional

❖❖❖ INDUSTRIAL APPLICATION

Machine construction



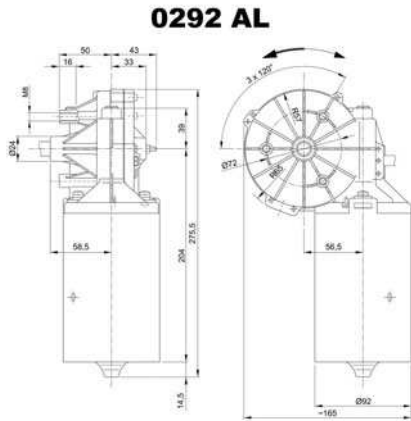
Design Data	
Commutation	Brushed
Direction of rotation	Bi-directional
Bearing type	A:Ball - B:Ball

Performance data		
Rated voltage [V]	U_N	24
Nominal torque [Nm]	M_N	20.0
No-load speed [min^{-1}]	n_0	27.0
Nominal power [W]	P_N	44.0
Nominal current [A]	I_N	6.0
Nominal force [kN]	F_N	0.00
Duty cycle		s1

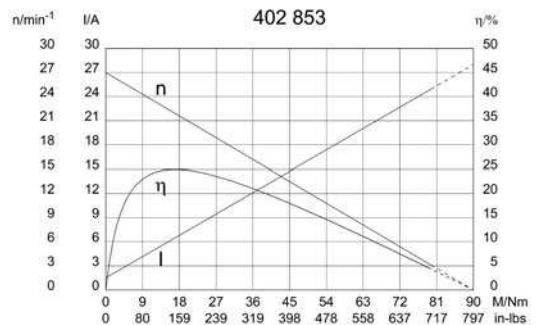
Sensor data	
Pulses	0
Output channels	0

Other data	
Gear ratio	50/1
Gear wheel material	plastic
Suppression components	
Enclosure class	IP 20
Weight [kg]	4.200

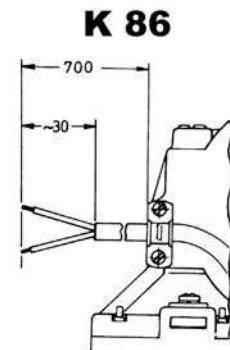
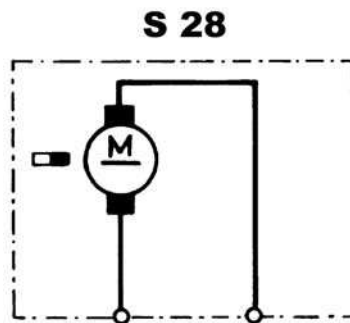
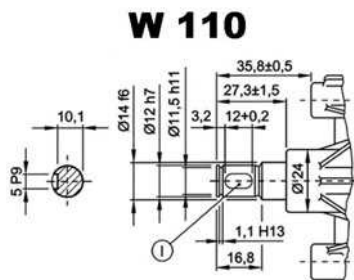
Remarks:



Motor picture



Output shaft drawing (W), Wiring diagrams (S) and Connector layout (K)



I Groove for feather key A 5x3x12 DIN 6885

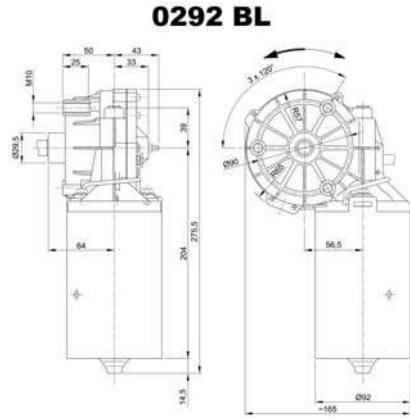
Design Data	
Commutation	Brushed
Direction of rotation	Bi-directional
Bearing type	A:Ball - B:Sleeve

Performance data		
Rated voltage [V]	U_N	24
Nominal torque [Nm]	M_N	10.0
No-load speed [min^{-1}]	n_0	165.0
Nominal power [W]	P_N	156
Nominal current [A]	I_N	5.0
Nominal force [kN]	F_N	0.00
Duty cycle		s1

Sensor data	
Pulses	0
Output channels	0

Other data	
Gear ratio	43/3
Gear wheel material	plastic
Suppression components	
Enclosure class	IP 20
Weight [kg]	4.200

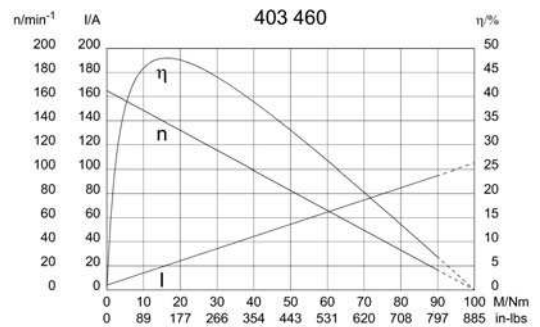
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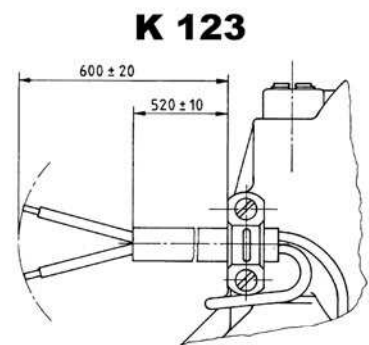
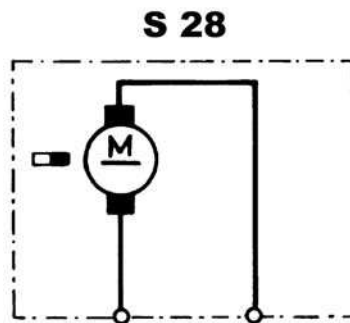
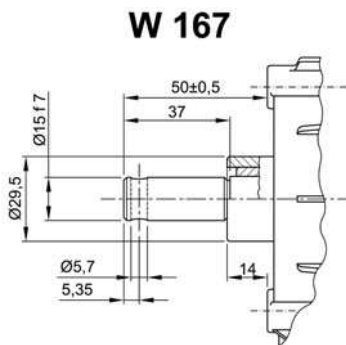
Motor picture



Characteristic curves



Output shaft drawing (W), Wiring diagrams (S) and Connector layout (K)



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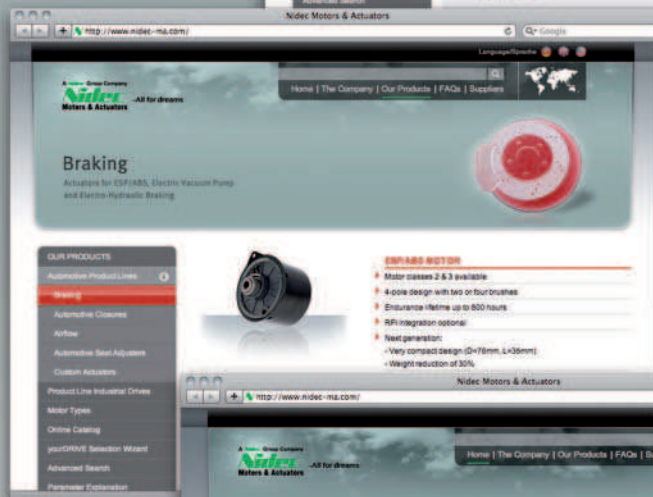
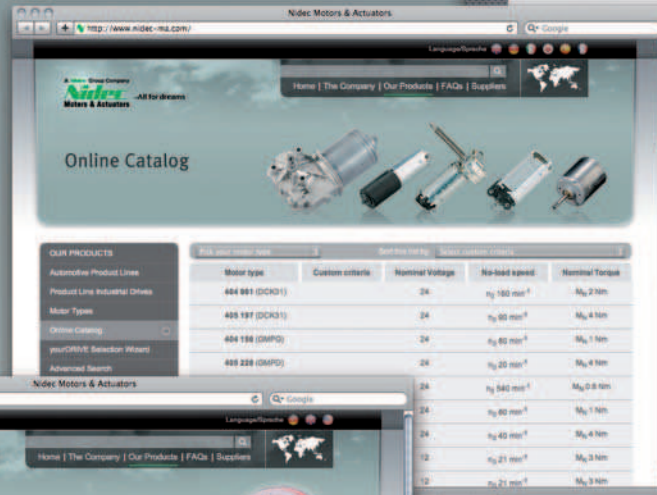
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