

# DCK35

As 12-volt and 24-volt motor with Interference suppression and hall sensors



## Technical description

Motor housing	Sheet steel deep drawn & protected against corrosion
Magnetic field	Permanent magnet
Type of transmission	Worm gear transmission
Transmission housing	Zinc die casting
Gearwheel material	Plastic
Transmission lubrication	Grease, permanent lubrication
Mechanical interface	Drive shaft
Electrical interface	Plug
Sensor	Optional
Thermal protection	Optional
Interference suppression	Optional

## Applications

- Industry**
- Building technology, mechanical engineering
- Automobile**
- Sliding door adjustment, tailgate adjustment

- Information
- GMK · GML
- GMP
- GMAG
- GMP1
- GMPS
- GMPD
- GMPG
- SWMP
- DCK31
- DCK35**
- SW2L
- SWNV
- SWMG
- SW3K

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

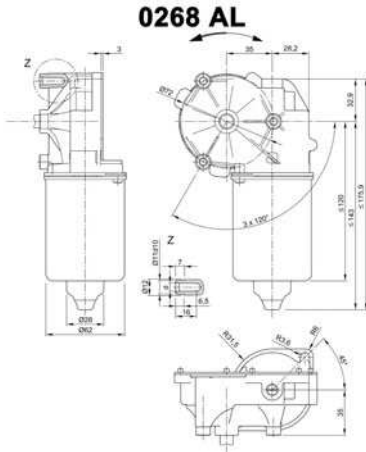
Performance data		
Rated voltage [V]	$U_N$	24
Nominal torque [Nm]	$M_N$	5.00
No-load speed [ $\text{min}^{-1}$ ]	$n_0$	62.0
Nominal power [W]	$P_N$	29.8
Nominal current [A]	$I_N$	5.5
Nominal force [kN]	$F_N$	0.00
Duty cycle		s1

Sensor data	
Pulses	63
Output channels	2

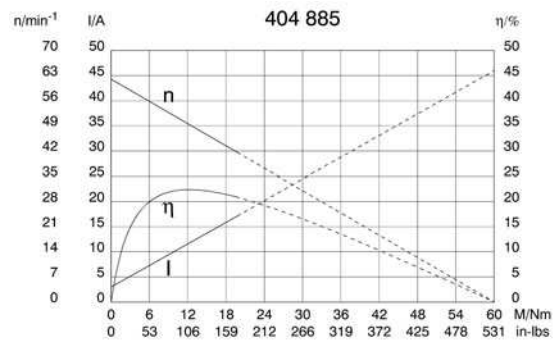
Other data	
Gear ratio	63/1
Gear wheel material	plastic
Suppression components	3,5 $\mu$ H
Enclosure class	IP 30
Weight [kg]	1.250

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

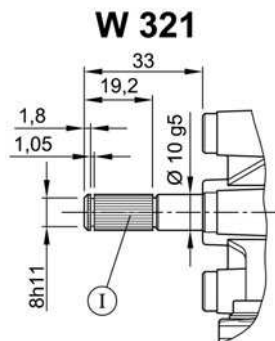
### Characteristic curves



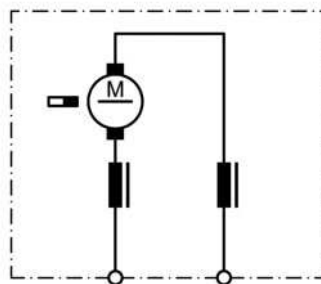
### Motor picture



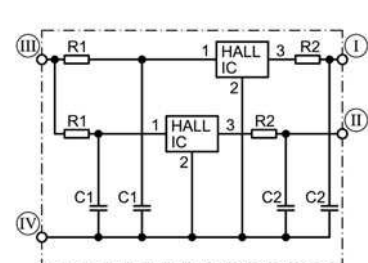
### Output shaft drawing (W), Wiring diagrams (S) and Connector layout (K)



### S 27



### S 141



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](http://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



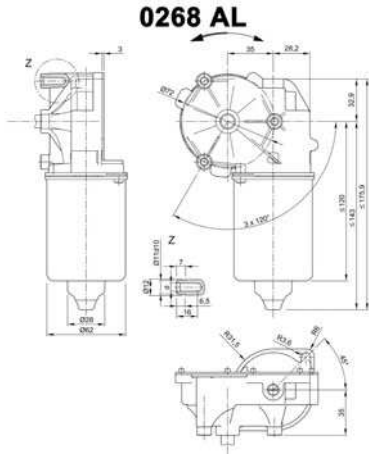
Design Data	
Commutation	Brushed
Direction of rotation	Bi-directional
Bearing type	A:Ball - B:Sleeve

Performance data		
Rated voltage [V]	$U_N$	24
Nominal torque [Nm]	$M_N$	6.00
No-load speed [ $\text{min}^{-1}$ ]	$n_0$	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

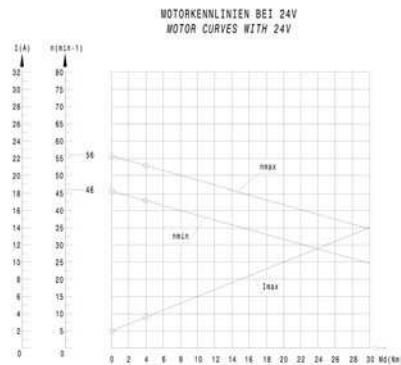
Sensor data	
Pulses	0
Output channels	0

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

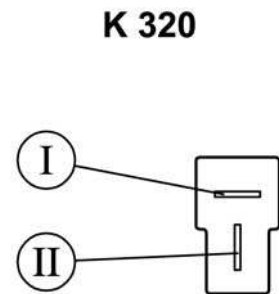
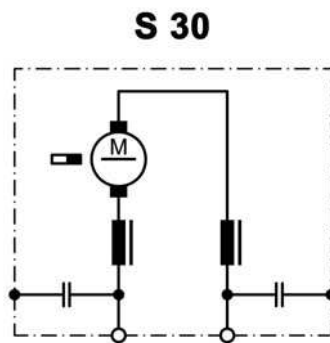
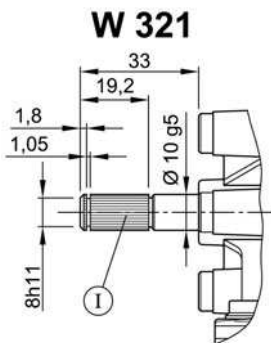
Remarks: d=for thread forming screws M6 DIN ISO 965-2



### 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](http://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](http://www.tycoelectronics.com)

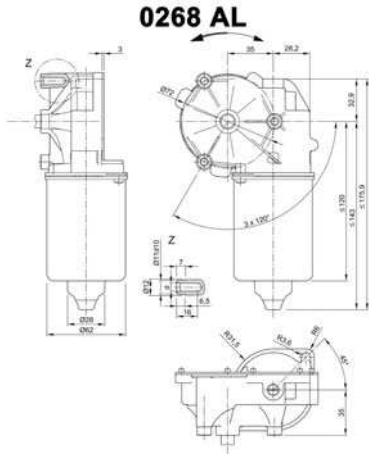
Design Data	
Commutation	Brushed
Direction of rotation	Bi-directional
Bearing type	A:Ball - B:Sleeve

Performance data		
Rated voltage [V]	$U_N$	24
Nominal torque [Nm]	$M_N$	5.00
No-load speed [ $\text{min}^{-1}$ ]	$n_0$	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

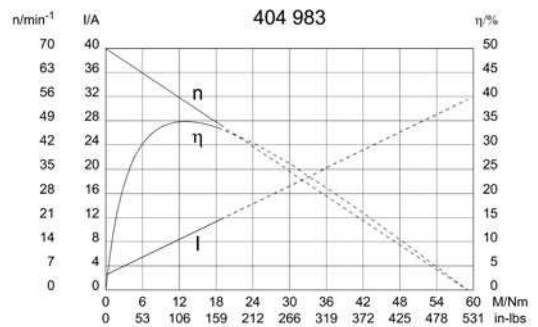
Sensor data	
Pulses	0
Output channels	0

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

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

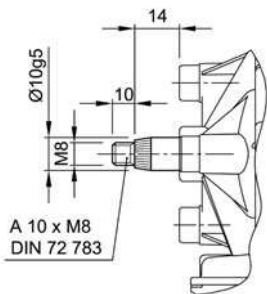


### Motor picture

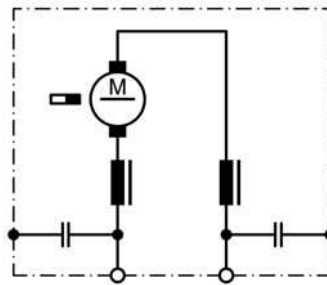


### Output shaft drawing (W), Wiring diagrams (S) and Connector layout (K)

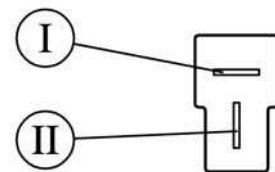
#### W 305



#### 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](http://www.tycoelectronics.com)

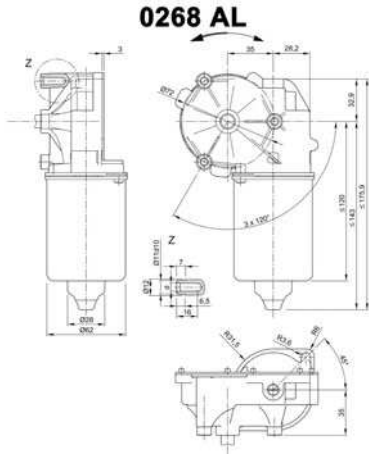
Design Data	
Commutation	Brushed
Direction of rotation	Bi-directional
Bearing type	A:Ball - B:Sleeve

Performance data		
Rated voltage [V]	$U_N$	24
Nominal torque [Nm]	$M_N$	6.00
No-load speed [ $\text{min}^{-1}$ ]	$n_0$	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

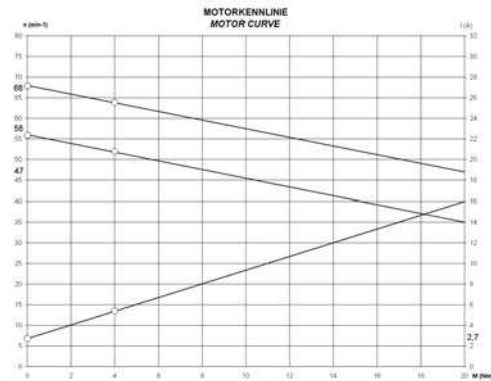
Sensor data	
Pulses	0
Output channels	0

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

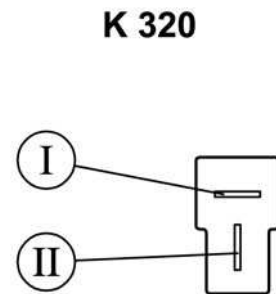
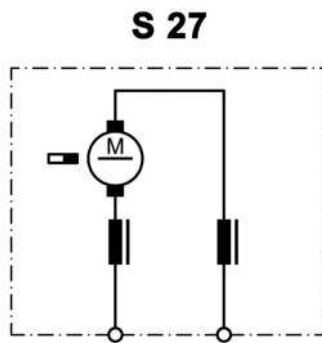
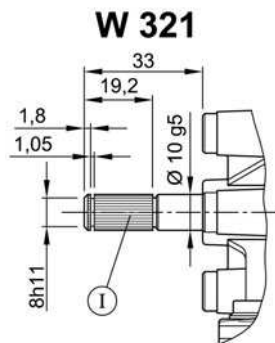
Remarks:



### 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](http://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](http://www.tycoelectronics.com)



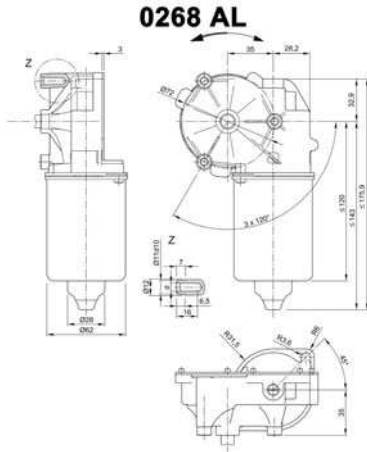
Design Data	
Commutation	Brushed
Direction of rotation	Bi-directional
Bearing type	A: Ball - B: Sleeve

Performance data		
Rated voltage [V]	$U_N$	24
Nominal torque [Nm]	$M_N$	8.00
No-load speed [ $\text{min}^{-1}$ ]	$n_0$	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 $\mu\text{H}$
Enclosure class	IP30
Weight [kg]	1.250

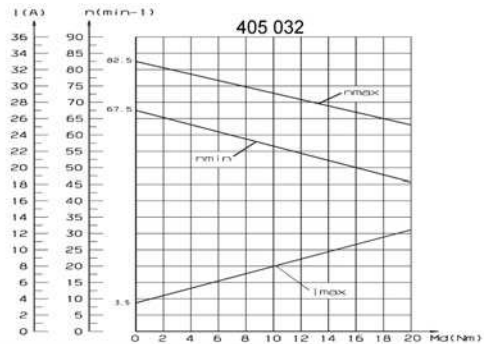
Remarks: d = for thread-forming screw M6 DIN ISO 965-2



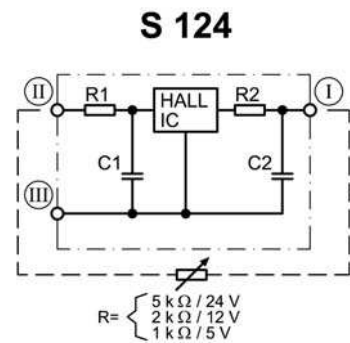
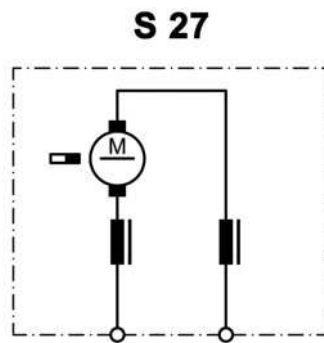
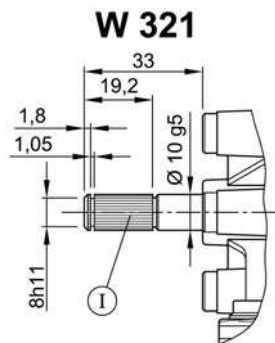
### Motor picture



### Characteristic curves



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



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 gauge Frenco 33906 - [www.frenco.de](http://www.frenco.de)

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



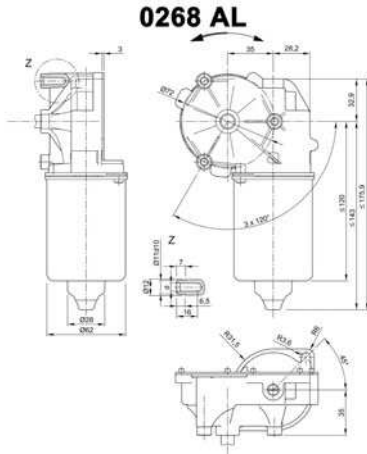
Design Data	
Commutation	Brushed
Direction of rotation	Bi-directional
Bearing type	A:Ball - B:Sleeve

Performance data		
Rated voltage [V]	$U_N$	24
Nominal torque [Nm]	$M_N$	8.00
No-load speed [ $\text{min}^{-1}$ ]	$n_0$	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 $\mu$ H, 1nF
Enclosure class	IP 30
Weight [kg]	1.250

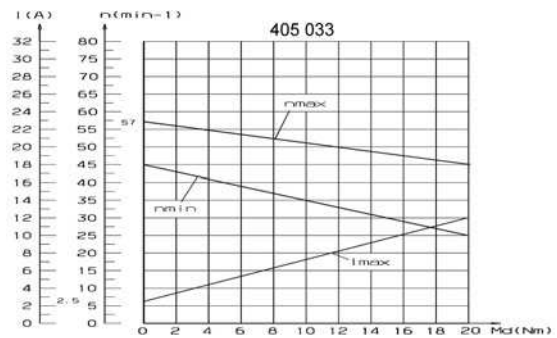
Remarks: d=for thread forming screws M6 DIN ISO 965-2



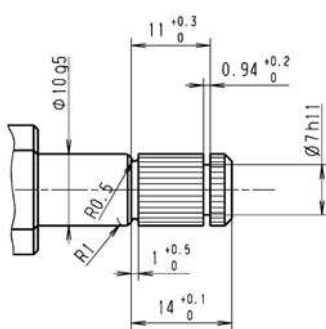
### Motor picture



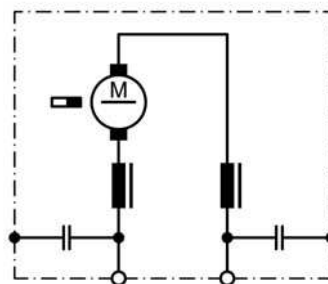
### Characteristic curves



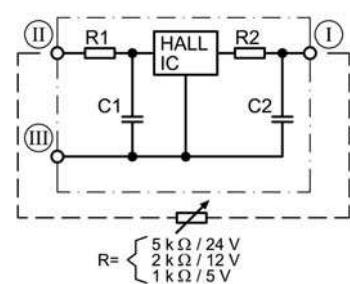
### Output shaft drawing (W), Wiring diagrams (S) and Connector layout (K)



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

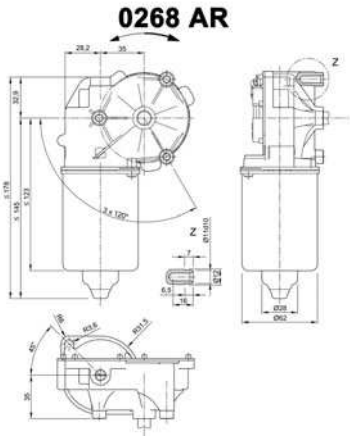
Performance data		
Rated voltage [V]	$U_N$	24
Nominal torque [Nm]	$M_N$	3.00
No-load speed [ $\text{min}^{-1}$ ]	$n_0$	240.0
Nominal power [W]	$P_N$	65.6
Nominal current [A]	$I_N$	8.0
Nominal force [kN]	$F_N$	0.00
Duty cycle	s1	

Sensor data	
Pulses	17.5
Output channels	2

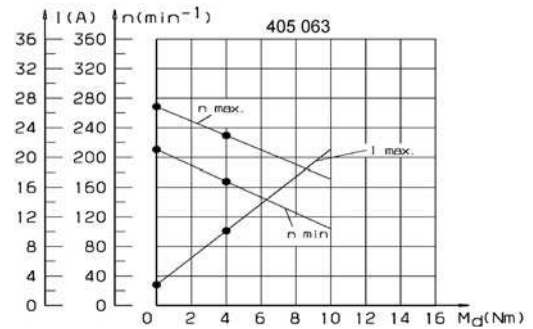
Other data	
Gear ratio	70/4
Gear wheel material	plastic
Suppression components	$6\mu\text{H}$ , $1\text{nF}$
Enclosure class	IP 30
Weight [kg]	1.366

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

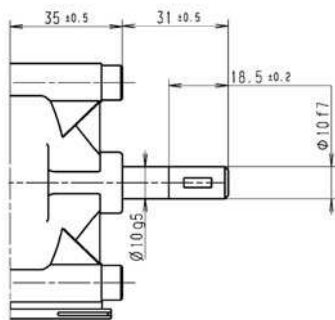
### Characteristic curves



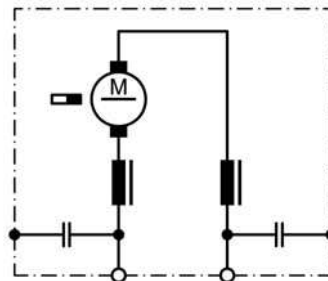
### Motor picture



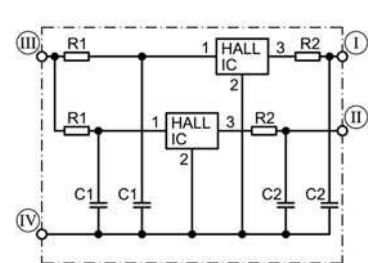
### Output shaft drawing (W), Wiring diagrams (S) and Connector layout (K)



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





# Global distributors

## Belgium

Eisses Import B.V.  
Admiraal Trompstraat 11  
3115 HK Schiedam  
Tel. +31 1 02 46 00 18  
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www.eissesbv.nl

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101 automation GmbH  
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sales@101automation.de  
www.101automation.de

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Jakob-Baummann-Straße 5  
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Fax +49 89 89 74 54 310  
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www.elektromotore.eu

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Tel. +49 74 20 93 99 0  
info@ott-antriebe.de  
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Fax +33 2 40 05 05 03  
accueil@comotech.fr  
www.comotech-industries.fr

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Fax +44 11 89 81 76 13  
info@ems-ltd.com  
www.ems-limited.co.uk

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Fax +91 80 41 16 30 47  
arun@strategiautomation.com  
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## Israel

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office@mechatronics.co.il  
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Fax +39 59 45 16 93  
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www.motech-italia.com

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Fax +81 7 59 58 36 48  
shinichi.takahashi@nidec-shimpo.co.jp  
www.nidec-shimpo.co.jp

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Tel. +1 90 54 05 03 10  
Fax +1 90 54 05 03 13  
georger@drivesystemsgroup.com  
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www.aratron.no

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Fax +34 96 45 50 712  
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## Turkey

S-MIKRON Elektronik A.S.  
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16120 Nilufer-BURSA  
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## USA

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www.powerelectric.com



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