

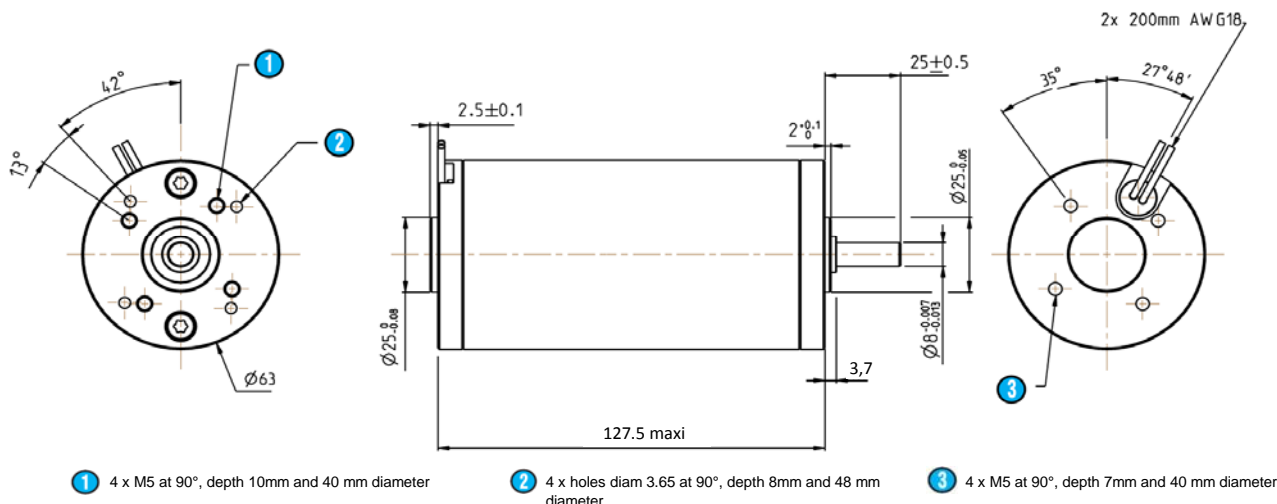
Dcminid Brush motor

Data sheet

89 890 011

Series

89 890



General characteristics

Motor characteristics at (1) 24 Vdc	
At no load - A	
Speed	rpm 4 000 +10%
Current	A 0,34
EMC (55022)	class B
Life (2)	h 20 000
At max efficiency - B	
Speed	rpm 3 660 +10%
Torque (4)	mNm 179
Power output	W 69
Current	A 3,5
Efficiency	% 82
EMC (55022)	class B
Life (2)	h 10 000
At nominal load - C	
Speed	rpm 3 430 +10%
Torque (4)	mNm 290
Power output	W 104
Current	A 5,4
Efficiency	% 80
EMC (55022)	class B
Life (2)	h 5 000
Others	
Starting torque	mNm 2 000
Starting current	A 35,3
Max. output power	W 209
Motor parameters (1)	
Allowed speed	rpm 10 000 max
Rated torque	mNm 290
Electrical time constant	ms 1,1
Mechanical time constant	ms 13
Factor torque / speed	mNm/rpm 0,50877
Dry friction	mNm 10
Viscous friction	mNm/krpm 2,4
Rotor inertia	gcm ² 650
Thermal Resistance	°C/W 4
Stator poles	2
Collector blades	12
Cogging torque	mNm 9
Weight (g)	1 600
Noise level	dBA 35

Winding parameters (1)	
Torque constant	mNm/A 57,3 +10%
Constant electromotive force	Volts/(rad/s) 0,057 +10%
	V / Krpm 6,00 +10%
Resistance	Ohms 0,7 +10%
Inductance	mH 0,73
Start voltage	Volts 0,6
Current demagnetization	(magnets at 150 ° C) A 120

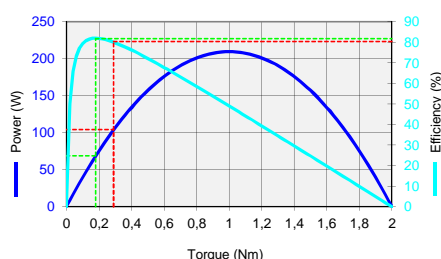
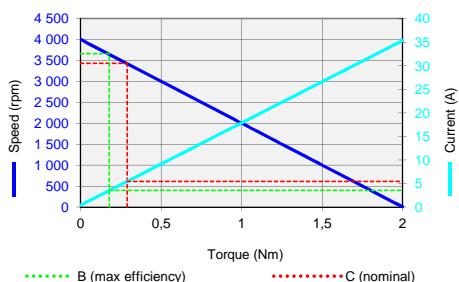
Generic parameters	
Motor for direct current supply	✓
Output shaft with ball bearings	✓
Max. Radial force (20mm from front face)	N 150
Max. axial force(5)	N 100
Temperature range	CEI60068-2-1/2 °C -30 / 70
Storage temperature	°C -40 / 100
Dielectric (1min 2mA 50Hz)	CEI60035 Vdc 500
Motor insulation	CEI60085 class E (120°C)
Enameled wire insulation	class F (155°C)
Salt spray	CEI60068-2-58 severity 2
Degree of protection	CEI60529 IP 65
EMC	
Electrostatic Discharge	CEI61000-4-2 level 3
Electrical fast transient / burst test	CEI61000-4-4 level 3
Surge test	CEI61000-4-5 level 2
Radiated emission	class B

Approvals	
Designed in accordance with UL	1004
ROHS	2002/95/CE
EC	✓
Designed for medical machines using the standard	EN60601-1

Values without tolerances, are average production values.

- (1) Cold motor, 20 ° C ambient temperature
- (2) Continuous cycle, one direction
- (3) Continuously rated torque, zero radial and axial loads
- (4) Max torque for continuous operation at 20 ° C, decrease this value for higher ambient temperature
- (5) Pinion or pulley fitting are done at the Crouzet factory, before final assembly.

Curves



Performance / Motor curves (1)	
Voltage supply	Vdc 24
Output data	
Speed	rpm 4 000 3 660 3 430 0
Torque (4)	mNm 0 179 290 2 000
Current	A 0,3 3,5 5,4 35,3
Power output	W - 69 104 -
Efficiency	% - 82 80 -