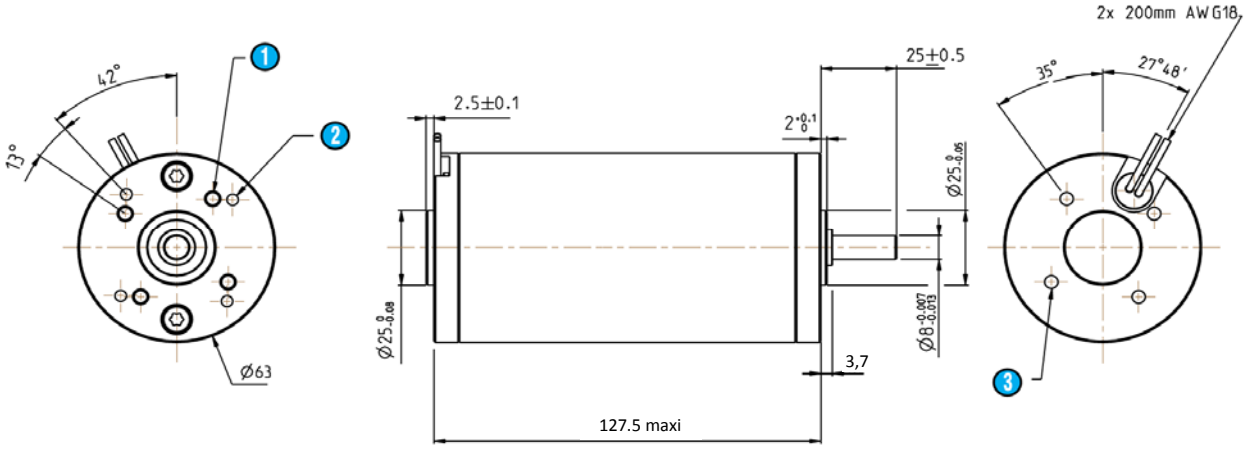
Dcmind Brush motor
Data sheet 89 890 003

Series
89 890





1. 4 x M5 at 90°, depth 10mm and 40 mm diameter
2. 4 x holes diam 3.65 at 90°, depth 8mm and 48 mm diameter
3. 4 x M5 at 90°, depth 7mm and 40 mm diameter

General characteristics

Motor characteristics at (1)	48 Vdc		
At no load - A			
Speed	rpm	3 780	+-10%
Current	A	0,16	
EMC (55022)	class	B	
Life (2)	h	20 000	
At max efficiency - B			
Speed	rpm	3 480	+-10%
Torque (4)	mNm	207	
Power output	W	75	
Current	A	1,87	
Efficiency	%	84	
EMC (55022)	class	B	
Life (2)	h	10 000	
At nominal load - C			
Speed	rpm	3 370	+-10%
Torque (4)	mNm	290	
Power output	W	102	
Current	A	2,53	
Efficiency	%	84	
EMC (55022)	class	B	
Life (2)	h	5 000	
Others			
Starting torque	mNm	2 680	
Starting current	A	22,2	
Max. output power	W	265	
Motor parameters (1)			
Allowed speed	rpm	10 000	max
Rated torque	mNm	290	
Electrical time constant	ms	1,5	
Mechanical time constant	ms	9	
Factor torque / speed	mNm/rpm	0,70732	
Dry friction	mNm	10	
Viscous friction	mNm/krpm	2,4	
Rotor inertia	gcm²	650	
Thermal Resistance	°/W	5	
Stator poles		2	
Collector blades		12	
Cogging torque	mNm	9	
Weight (g)	g	1 600	
Noise level	dBA	35	

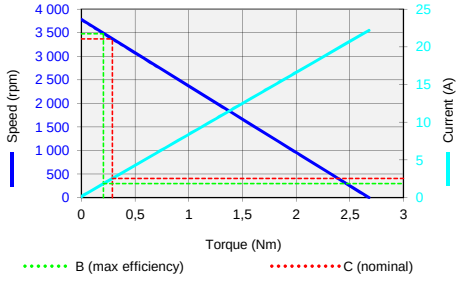
Winding parameters (1)			
Torque constant		mNm/A	122,4 +-10%
Constant electromotive force		Volts/(rad/s)	0,122 +-10%
		V / Krpm	12,81 +-10%
Resistance		Ohms	2,2 +-10%
Inductance		mH	3,3
Start voltage		Volts	0,6
Current demagnetization	(magnets at 150 ° C)	A	53

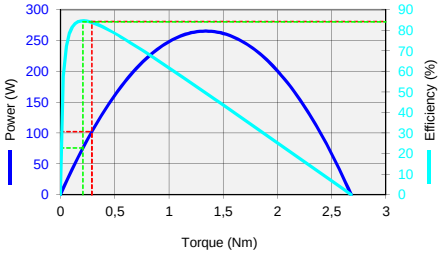
Generic parameters			
Motor for direct current supply			✓
Output shaft with ball bearings			✓
Max. Radial force	(20mm from front face)	N	150
Max. axial force(5)		N	100
Temperature range	CEI60068-2-1/2	°C	-30 / 70
Storage temperature		°C	-40 / 100
Dielectric	(1min 2mA 50Hz) CEI60335	Vdc	500
Motor insulation	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 transsient / burst test	CEI61000-4-4	level	3
Surge test	CEI61000-4-5	level	2
Without EMC filter			✓

Approvals			
Designed in accordance with UL			1004
ROHS	2002/95/CE		✓
EC			✓

Values without tolerences, 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	48		
		Output data			
		A	B	C	D
Speed	rpm	3 780	3 480	3 370	0
Torque (4)	mNm	0	207	290	2 680
Current	A	0,2	1,9	2,5	22,2
Power output	W	-	75	102	-
Efficiency	%	-	84	84	-

Specifications subject to change without notice. Updated february 29, 2012.

Crouzet Automatismes
2 rue du Docteur Abel BP59
26902 Valence CEDEX 9 France

Crouzet

www.crouzet.com

Series 89 890