

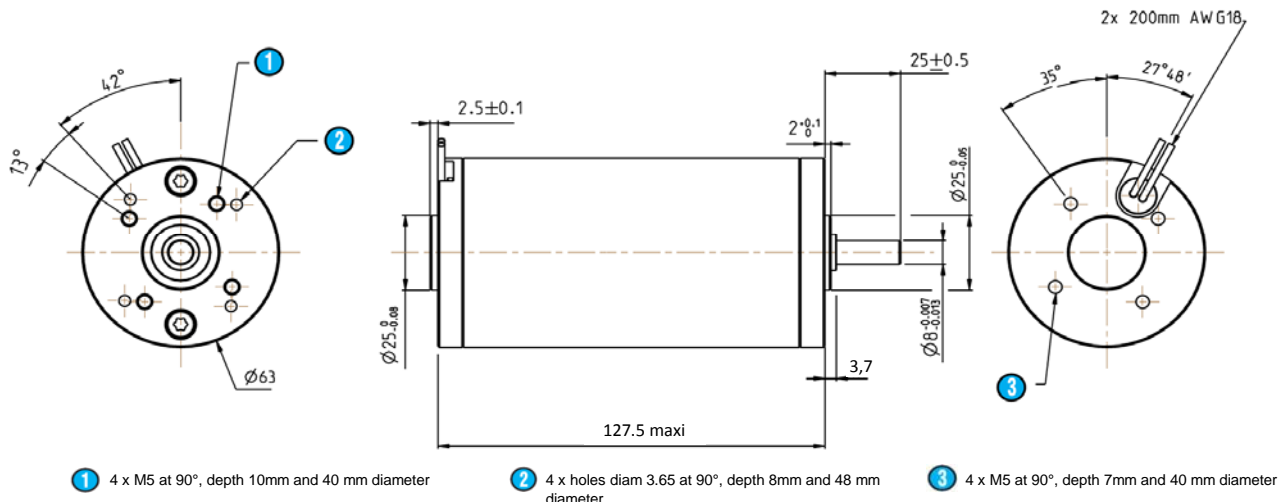
Dc mind Brush motor

Data sheet

89 890 003

Series

89 890



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	gcm ²	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%
	Volts/(rad/s)	0,122	+/-10%
Constant electromotive force	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 transient / 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 tolerances, are average production values.

(1) Cold motor, 20 ° C ambient temperature

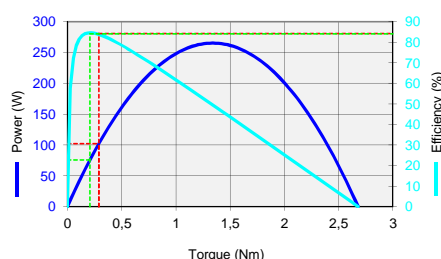
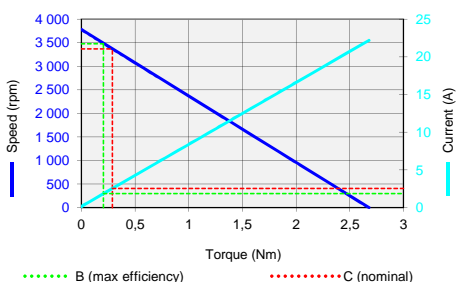
(2) Continuous cycle, one direction

(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			
		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.