



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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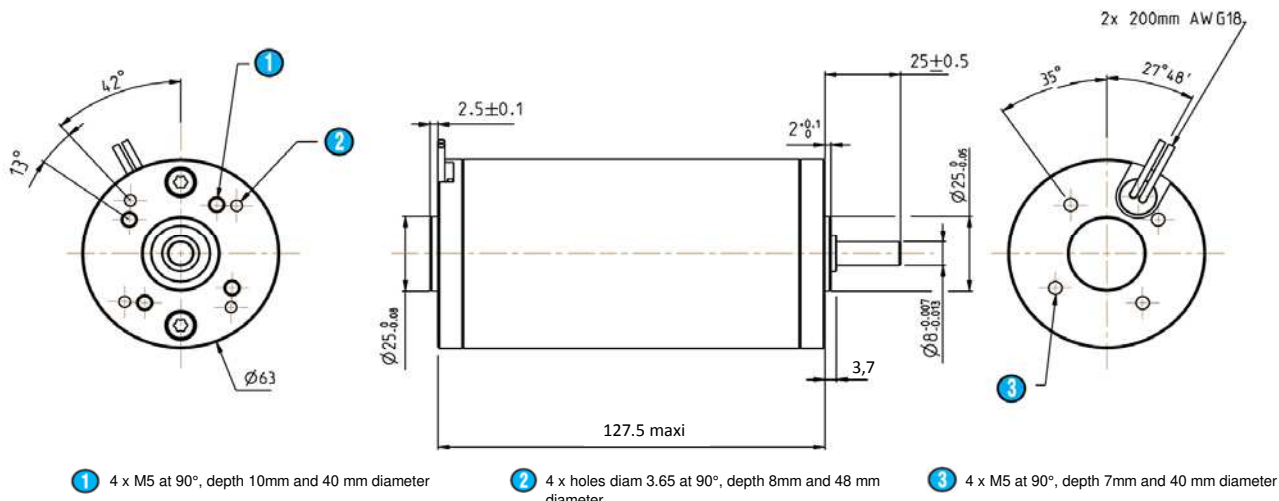
Dc mind Brush motor

Data sheet

89 890 004

Series

89 890



General characteristics

Motor characteristics at (1)		90 Vdc	
At no load - A			
Speed	rpm	3 700	+10%
Current	A	0,09	
EMC (55022)	class	B	
Life (2)	h	20 000	
At max efficiency - B			
Speed	rpm	3 410	+10%
Torque (4)	mNm	218	
Power output	W	78	
Current	A	1,03	
Efficiency	%	84	
EMC (55022)	class	B	
Life (2)	h	10 000	
At nominal load - C			
Speed	rpm	3 320	+10%
Torque (4)	mNm	290	
Power output	W	101	
Current	A	1,34	
Efficiency	%	84	
EMC (55022)	class	B	
Life (2)	h	5 000	
Others			
Starting torque	mNm	2 780	
Starting current	A	12,1	
Max. output power	W	269	
Motor parameters (1)			
Allowed speed	rpm	10 000	max
Rated torque	mNm	290	
Electrical time constant	ms	1,6	
Mechanical time constant	ms	9	
Factor torque / speed	mNm/rpm	0,76316	
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	232,0	+10%
Constant electromotive force	Volts/(rad/s)	0,232	+10%
	V / Krpm	24,29	+10%
Resistance	Ohms	7,4	+10%
Inductance	mH	12	
Start voltage	Volts	0,6	
Current demagnetization	(magnets at 150 ° C)	A	28

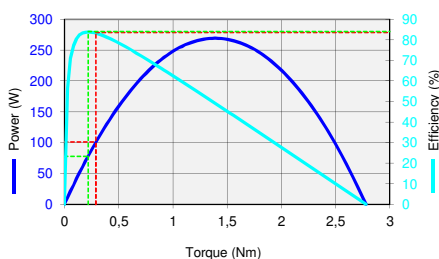
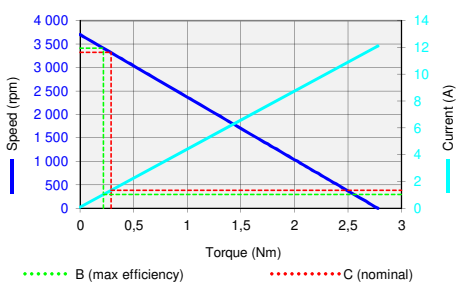
Generic parameters			
Motor for direct current supply			✓
Output shaft with ball bearings			✓
Max. Radial force (20mm from front face)	N	150	
Max. axial force(5)	N	100	
Temperature range	CEI60068-2-1/2	°C	-30 / 70
Storage temperature		°C	-40 / 100
Dielectric (1min 2mA 50Hz)	CEI60335	Vdc	500
Motor insulation	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			
		90			
		Output data			
		A	B	C	D
Speed	rpm	3 700	3 410	3 320	0
Torque (4)	mNm	0	218	290	2 780
Current	A	0,1	1,0	1,3	12,1
Power output	W	-	78	101	-
Efficiency	%	-	84	84	-

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