Dcmind Brush motor
Data sheet 89 830 003

General characteristics

Motor characteristics at (1) 48 Vdc
At no load - A
- Speed rpm 3 550 ± 10%
- Current A 0.14
- EMC (55022) class B
- Life (2) h 20 000

At max efficiency - B
- Speed rpm 3 200 ± 10%
- Torque (4) mN/m 131
- Power output W 44
- Current A 1.15
- Efficiency % 80
- EMC (55022) class B
- Life (2) h 10 000

At nominal load - C
- Speed rpm 3 050 ± 10%
- Torque (4) mN/m 180
- Power output W 57
- Current A 1.54
- Efficiency % 78
- EMC (55022) class B
- Life (2) h 6 000

Others
- Starting torque mN/m 1 230
- Starting current A 9.7
- Max. output power W 114

Motor parameters (1)
- Allowed speed rpm 10 000 max
- Rated torque mN/m 180
- Electrical time constant ms 1.4
- Mechanical time constant ms 11
- Factor torque / speed mN/m rpm 0.36
- Dry friction mN 7
- Viscous friction mN/m rpm 1.5
- Rotor inertia gcm² 380
- Thermal Resistance °C/W 6
- Stator poles 2
- Collector blades 12
-Cogging torque mN/m 9
- Weight (g) 1 200
- Noise level dBA 35

Winding parameters (1)
- Torque constant mNm/A 128.6 ± 10%
- Constant electromotive force Volts/rad/m 0.129 ± 10%
- Resistance Ohms 4.9 ± 10%
- Inductance mH 7
- Start voltage Volts
- Current demagnetization (magnets at 150 °C) A 30

Generic parameters
- Motor for direct current supply
- Output shaft with ball bearings
- Max. Radial force (20mm from front face) N
- Max. axial force(5) N
- Temperature range CE60068-2-1/2 °C
- Storage temperature °C
- Dielectric (1min 2mA 50Hz) CEI60335 Vdc
- Motor insulation CEI60085 class
- Enameled wire insulation class
- Salt spray CEI60068-2-58 severity 2
- Degree of protection CEI60529 IP
- 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
- ROHS 2002/95/CE ✔
- EC ✔

Values without tolerances, are average production values.
(1) Cold motor, 20 °C ambient temperature
(2) Continuous, one direction
(3) Continuous 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

Series 89 830

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

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