

MC0623 Series

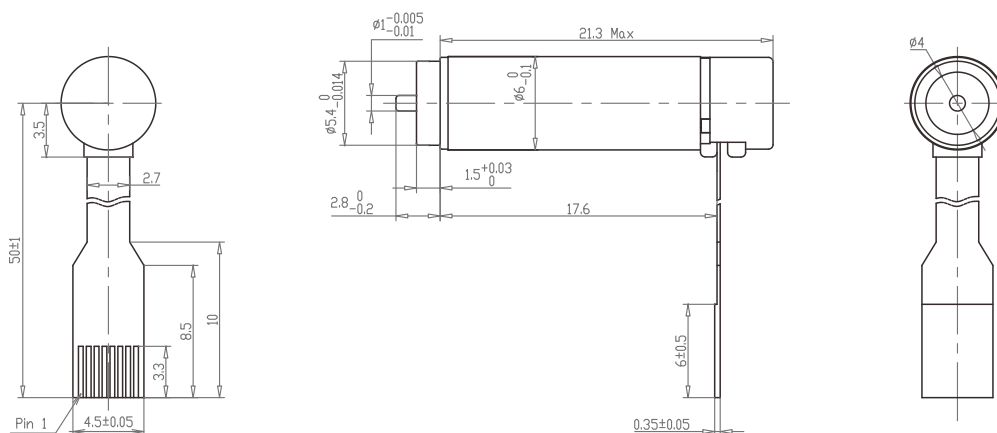
Φ6mm Brushless Coreless Motor

Key Features

- Two magnetic pole
- 46800rpm
- 0.425mNm
- 1.6Nm/A



Dimensional Drawing



Motor Data (Rated)

Rated voltage (V)	12
No-Load Speed (rpm)	63400
No-Load Current (A)	0.037
Rated speed (rpm)	46800
Rated torque (mNm)	0.425
Rated current (A)	0.308
Stall torque (mNm)	1.3
Stall current (A)	0.87
Max. efficiency (%)	53

Motor Constant (Rated)

Phase-to-Phase Resistance (Ω)	14.4
Phase-to-Phase inductance (mH)	0.06
Torque constant (mNm/A)	1.6
Speed constant (rpm/V)	5882
Speed/torque gradient (rpm/mNm)	51631
Mechanical time constant (ms)	3.76
Rotor inertia (gcm ²)	0.007

Thermal Data

Thermal resistance housing-ambient (K/W)	65.8
Thermal resistance winding-housing (K/W)	13.2
Thermal time constant winding (s)	1.34
Thermal time constant motor (s)	70.4
Ambient temperature (°C)	-20~+100
Max. winding temperature (°C)	125

Mechanical Data (Ball Bearing)

Max. allowable speed (rpm)	100 000
Max. axial play (mm)	< 0.15 N 0 > 0.15 N 0.06 (max)
Radial play	preloaded
Max. axial load dynamic(N)	0.1
Max. force for press fits (static) (N)	10
Max. radial load (2 mm from flange) (N)	2

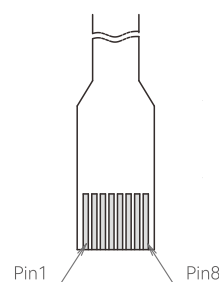
Note: Specifications can be customized per customer requirements.

Terminal Type

Molex 52745-0897 52207-0460
FCI SFV8R-2STBE1HLF SFW4R-2STGE1LF

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Terminal Definition



pin 1	Motor Winding 1
pin 2	Motor Winding 2
pin 3	Motor Winding 3
pin 4	VHall (3.3-5.5 VDC)
pin 5	Grounding
pin 6	Hall sensor 1
pin 7	Hall sensor 2
pin 8	Hall sensor 3