

MC0818 Series

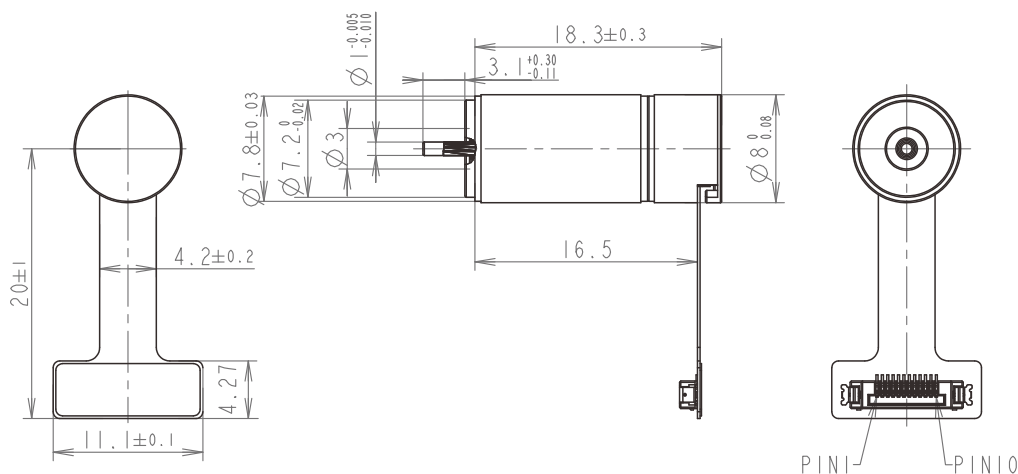
Φ8mm Brushless Coreless Motor

Key Features

- Two magnetic pole
- 60840rpm
- 0.25mNm
- 1.6mNm/A



Dimensional Drawing



Motor Data (Rated)

Rated voltage (V)	12
No-Load Speed (rpm)	68000
No-Load Current (A)	0.11
Rated speed (rpm)	60840
Rated torque (mNm)	0.25
Rated current (A)	0.27
Stall torque (mNm)	2.38
Stall current (A)	1.62
Max. efficiency (%)	54.8

Motor Constant (Rated)

Phase-to-Phase Resistance (Ω)	7.4
Phase-to-Phase inductance (mH)	0.095
Torque constant (mNm/A)	1.6
Speed constant (rpm/V)	6250
Speed/torque gradient (rpm/mNm)	28623
Mechanical time constant (ms)	3.14
Rotor inertia (gcm ²)	0.0175

Thermal Data

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

Mechanical Data (Ball Bearing)

Max. allowable speed (rpm)	40 000
Max. axial play (mm)	< 0.15 N 0 > 0.15 N 0.06 (max)
Radial play	preloaded
Max. axial load dynamic(N)	2
Max. force for press fits (static) (N)	10
Max. radial load (2 mm from flange) (N)	5

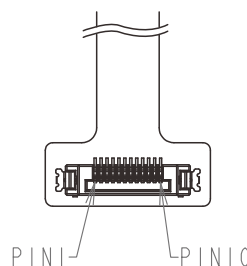
Note: Specifications can be customized per customer requirements.

Terminal Type

Adapter terminal FPC0.5-10P

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Terminal Definition



- pin 1 Motor Winding 3
- pin 2 Motor Winding 2
- pin 3 Motor Winding 1
- pin 4 Grounding
- pin 5 SPI-MISO
- pin 6 SPI-MOSI
- pin 7 SPI-CSN
- pin 8 SPI-SCK
- pin 9 VHall (3.3-5.5 VDC)
- pin 10 NTC