

MC1226 Series

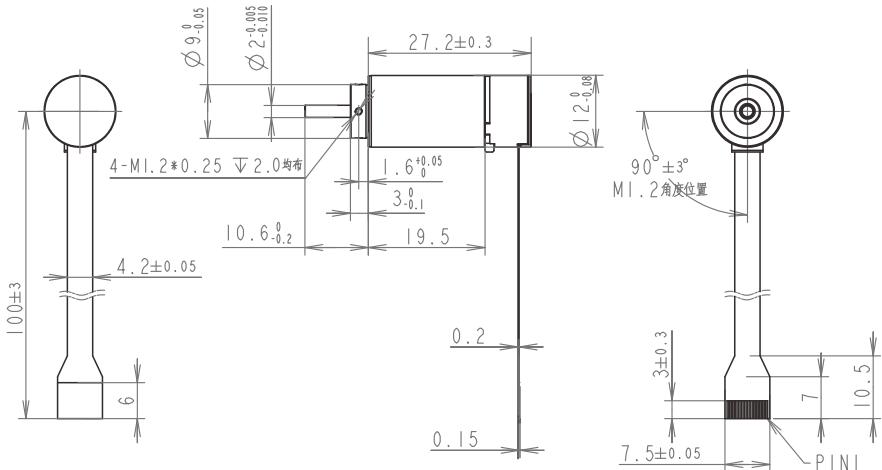
Φ12mm Brushless Coreless Motor

Key Features

- Two magnetic pole
- 20970rpm
- 2.38mNm
- 3.87mNm/A



Dimensional Drawing



Motor Data (Rated)

Rated voltage (V)	12
No-Load Speed (rpm)	28600
No-Load Current (A)	0.078
Rated speed (rpm)	20970
Rated torque (mNm)	2.38
Rated current (A)	0.69
Stall torque (mNm)	8.9
Stall current (A)	2.38
Max. efficiency (%)	67

Motor Constant (Rated)

Phase-to-Phase Resistance (Ω)	5.3
Phase-to-Phase inductance (mH)	0.042
Torque constant (mNm/A)	3.87
Speed constant (rpm/V)	2383
Speed/torque gradient (rpm/mNm)	3213
Mechanical time constant (ms)	4.5
Rotor inertia (gcm²)	0.138

Thermal Data

Thermal resistance housing-ambient (K/W)	38.6
Thermal resistance winding-housing (K/W)	7.5
Thermal time constant winding (s)	3.2
Thermal time constant motor (s)	210
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

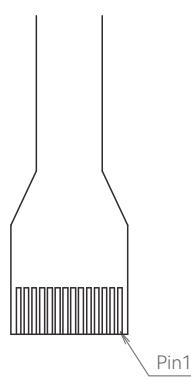
Note: Specifications can be customized per customer requirements.

Terminal Type

Molex 52745-1297

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Terminal Definition



- pin 1-2 Motor Winding 1
- pin 3-4 Motor Winding 2
- pin 5-6 Motor Winding 3
- pin 7 Vcc (3.3~5.0 VDC)
- pin 8 Grounding
- pin 9 A⁺
- pin 10 A⁻
- pin 11 B⁺
- pin 12 B⁻
- pin 13 Z⁺
- pin 14 Z⁻