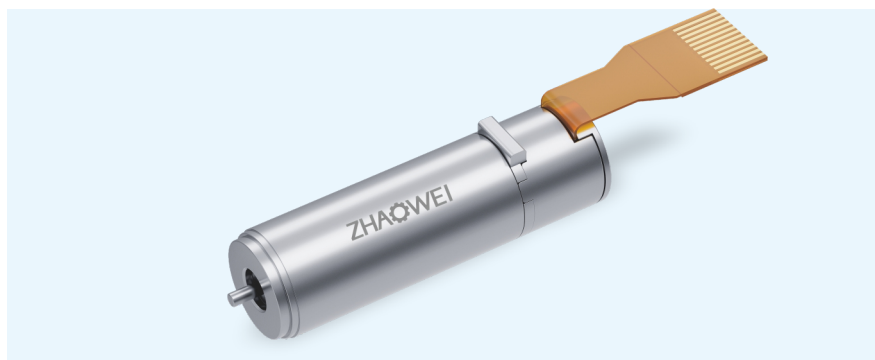


MC0824 Series

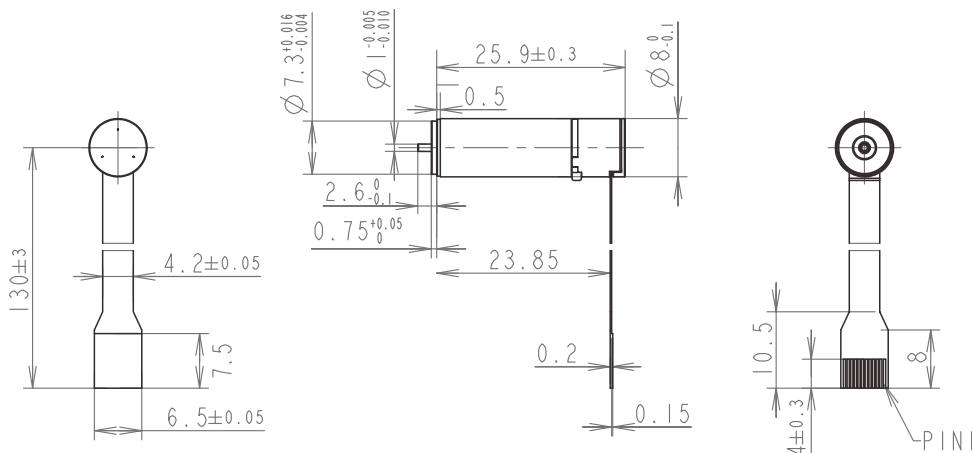
Φ8mm Brushless Coreless Motor

Key Features

- Two magnetic pole
- 25500rpm
- 0.85mNm
- 2.22mNm/A



Dimensional Drawing



Motor Data (Rated)

Rated voltage (V)	12
No-Load Speed (rpm)	38500
No-Load Current (A)	0.07
Rated speed (rpm)	25500
Rated torque (mNm)	0.85
Rated current (A)	0.5
Stall torque (mNm)	3.5
Stall current (A)	1.65
Max. efficiency (%)	67

Motor Constant (Rated)

Phase-to-Phase Resistance (Ω)	8.4
Phase-to-Phase inductance (mH)	0.05
Torque constant (mNm/A)	2.22
Speed constant (rpm/V)	3155
Speed/torque gradient (rpm/mNm)	11000
Mechanical time constant (ms)	2.87
Rotor inertia (gcm ²)	0.024

Thermal Data

Thermal resistance housing-ambient (K/W)	56.6
Thermal resistance winding-housing (K/W)	11.5
Thermal time constant winding (s)	3.7
Thermal time constant motor (s)	120
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

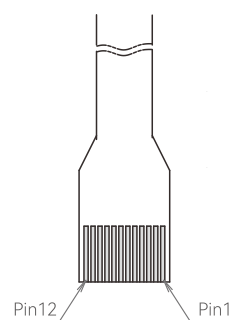
Note: Specifications can be customized per customer requirements.

Terminal Type

Molex 52745-1297

Note: Specifications can be customized per customer requirements.

Terminal Definition



pin 1	Motor Winding 3
pin 2	Motor Winding 2
pin 3	Motor Winding 1
pin 4	Grounding
pin 5	VHall (3.3-5.5 VDC)
pin 6	Hall sensor 3
pin 7	Hall sensor 2
pin 8	Hall sensor 1
pin 9	None
pin 10	None
pin 11	None
pin 12	None