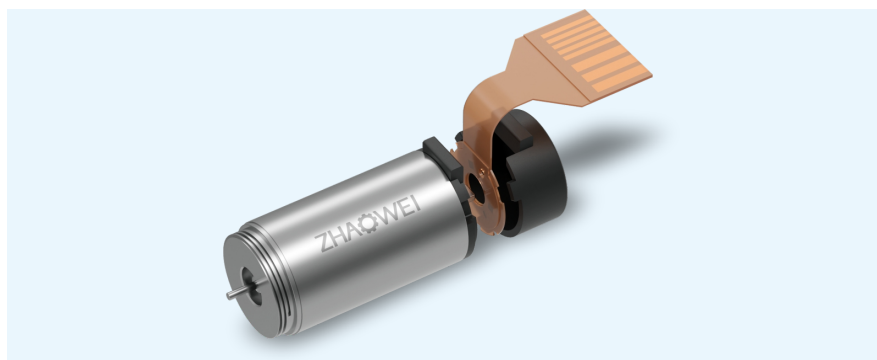


# MC1226-01

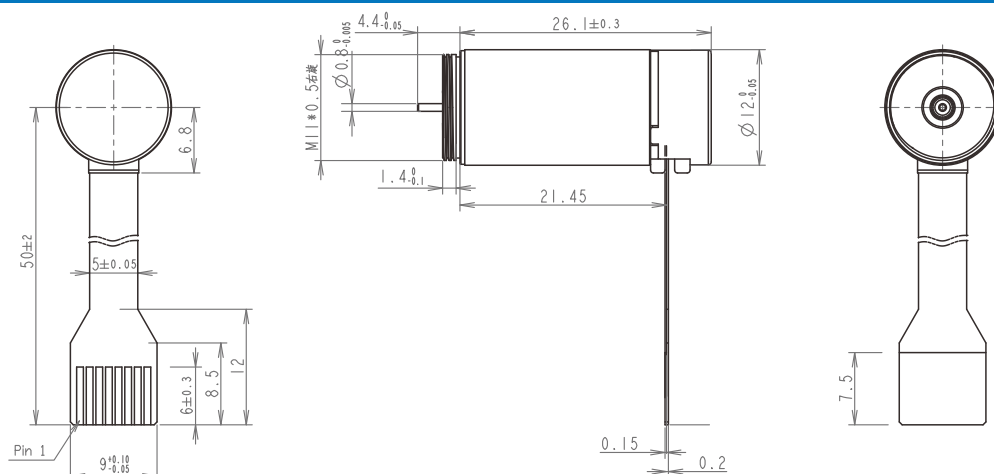
## Φ12mm Brushless Coreless Motor

### Key Features

- Two magnetic pole
- 9.9W
- 20970rpm
- 2.38mNm



### Dimensional Drawing



### Motor Data (Rated)

Rated voltage (V)	12
No-Load Speed (rpm)	28600 ± 10%
No-Load Current (A)	78 ± 50%
Rated speed (rpm)	20970 ± 10%
Rated torque (mNm)	2.38
Rated current(A)	0.69 ± 50%
Stall torque(mNm)	8.9 ± 7%
Stall current(A)	2.38 ± 20%
Max. efficiency(%)	67 ± 7%

### Motor Constant (Rated)

Phase-to-Phase Resistance (Ω)	5.3 ± 10%
Phase-to-Phase inductance (mH)	0.042 ± 10%
Torque constant (mNm/A)	3.87 ± 20%
Speed constant (rpm/V)	2383 ± 20%
Speed/torque gradient (rpm/mNm)	3213 ± 20%
Mechanical time constant (ms)	4.5 ± 20%
Rotor inertia (gcm <sup>2</sup> )	0.138 ± 20%

### 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

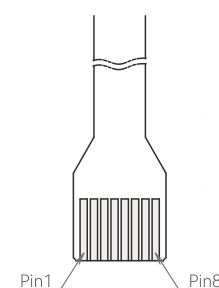
Note: Specifications can be customized per customer requirements.

### Terminal Type

Molex 52745-1297

Note: Specifications can be customized per customer requirements.

### Terminal Definition



pin 1	Motor Winding 1
pin 2	Motor Winding 2
pin 3	Motor Winding 3
pin 4	Grounding
pin 5	VHall (3.3-24 VDC)
pin 6	Hall sensor 1
pin 7	Hall sensor 2
pin 8	Hall sensor 3