

MC1625 Series

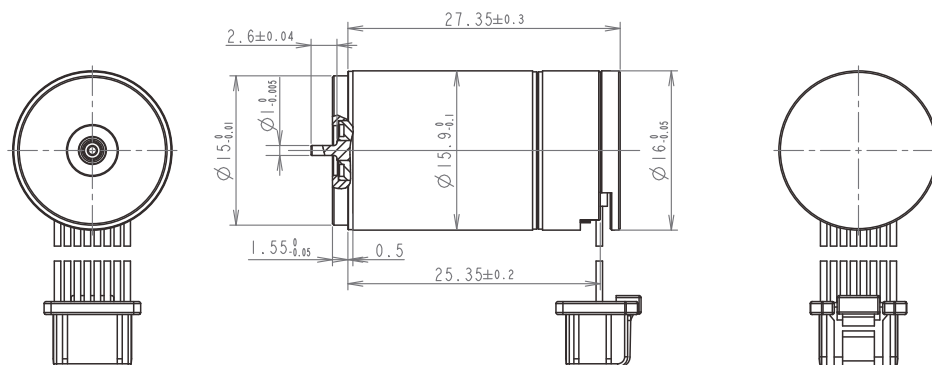
Φ16mm Brushless Coreless Motor

Key Features

- Four magnetic poles
- 14460rpm
- 4.05mNm
- 8.9mNm/A



Dimensional Drawing



Motor Data (Rated)

Rated voltage (V)	12
No-Load Speed (rpm)	16200
No-Load Current (A)	0.1
Rated speed (rpm)	14460
Rated torque (mNm)	4.05
Rated current (A)	0.73
Stall torque (mNm)	37.9
Stall current (A)	4.53
Max. efficiency (%)	75.9

Motor Constant (Rated)

Phase-to-Phase Resistance (Ω)	2.32
Phase-to-Phase inductance (mH)	0.078
Torque constant (mNm/A)	8.9
Speed constant (rpm/V)	1389
Speed/torque gradient (rpm/mNm)	427
Mechanical time constant (ms)	0.77
Rotor inertia (gcm ²)	0.203

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)	30 000
Max. axial play (mm)	< 2.5 N 0 4.7 N > 2.5 N 0.05 (max)
Radial play	preloaded
Max. axial load dynamic(N)	2.5
Max. force for press fits (static) (N)	4.7
Max. radial load (2 mm from flange) (N)	10

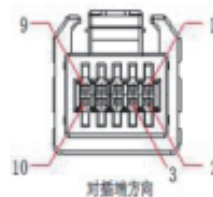
Note: Specifications can be customized per customer requirements.

Terminal Type

Molex 5054321001

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Terminal Definition



pin 1	UL10064 #28 Red Motor Winding 1
pin 2	UL10064 #28 Yellow Motor Winding 2
pin 3	UL10064 #28 Green Motor Winding 3
pin 4	UL10064 #28 Black Vcc (3.3-5.0 VDC)
pin 5	UL10064 #28 White Grounding
pin 6	None
pin 7	None
pin 8	UL10064 #28 Gray CISN
pin 9	UL10064 #28 Brown CILK
pin 10	UL10064 #28 Blue DIO