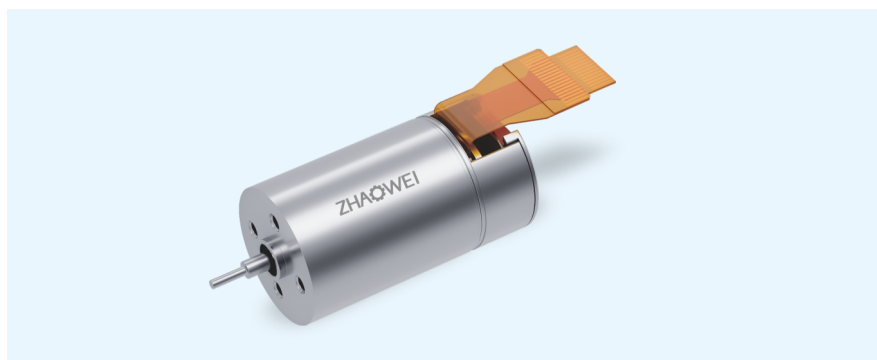


Φ16mm Brushless Coreless Motor

- Two magnetic pole
- 13000rpm
- 4.05mNm
- 7.2mNm/A



Rated voltage (V)	12	24
No-Load Speed (rpm)	17300	58000
No-Load Current (A)	0.14	0.22
Rated speed (rpm)	13000	46380
Rated torque (mNm)	4.05	8
Rated current (A)	0.79	2.28
Stall torque (mNm)	21.2	39.9
Stall current (A)	3.17	10.5
Max. efficiency (%)	63.4	73.3

Phase-to-Phase Resistance (Ω)	3.39	2.28
Phase-to-Phase inductance (mH)	0.089	0.013
Torque constant (mNm/A)	7.2	3.9
Speed constant (rpm/V)	1563	2439
Speed/torque gradient (rpm/mNm)	823	1452
Mechanical time constant (ms)	1.61	1.9
Rotor inertia (gcm ²)	0.209	0.13

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	

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

Terminal Type

SI-FPC0.5-19P-H1.0

SL-FPC0.5-20P-H1.0

Note: Specifications can be customized per customer requirements.

SL-FPC0.5-19P-H1.0	SL-FPC0.5-20P-H1.0
pin 1-4 Motor Winding 1	pin 1-4 Motor Winding 1 (Leave vacant when Hall sensor is installed)
pin 5-8 Motor Winding 2	pin 5-8 Motor Winding 2 (Leave vacant when Hall sensor is installed)
pin 9-12 Motor Winding 3	pin 9-12 Motor Winding 3 (Leave vacant when Hall sensor is installed)
pin 13 Vcc (3.3-5.5 VDC)	pin 13 Vcc (3.3-5.0 VDC)
pin 14 Grounding	pin 14 Grounding
pin 15 Hall sensor 1	pin 15 A-
pin 16 Hall sensor 2	pin 16 A+
pin 17 Hall sensor 3	pin 17 B-
pin 18 NTC	pin 18 B+
pin 19 None	pin 19 Z-
	pin 20 Z+