

MC2643 Series

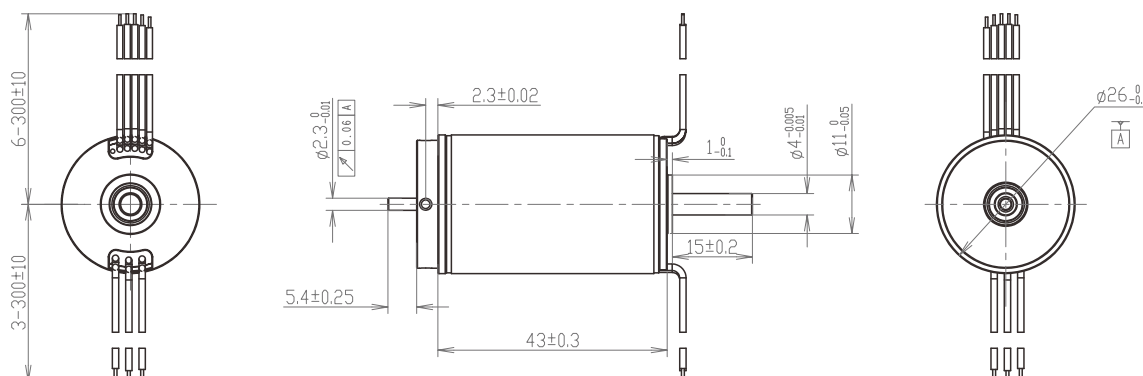
Φ26mm High-temperature Motor
Brushless Coreless Motor

Key Features

- Four magnetic poles
- 7200rpm
- 4.6mNm
- 60mNm/A



Dimensional Drawing



Motor Data (Rated)

Rated voltage (V)	48
No-Load Speed (rpm)	7500
No-Load Current (A)	0.05
Rated speed (rpm)	7200
Rated torque (mNm)	4.6
Rated current (A)	0.13
Stall torque (mNm)	156
Stall current (A)	2.65
Max. efficiency (%)	75%

Motor Constant (Rated)

Phase-to-Phase Resistance (Ω)	18.1
Phase-to-Phase inductance (mH)	0.05
Torque constant (mNm/A)	60
Speed constant (rpm/V)	159
Speed/torque gradient (rpm/mNm)	48.11
Mechanical time constant (ms)	3.35
Rotor inertia (gcm ²)	11.1

Thermal Data

Thermal resistance housing-ambient (K/W)	
Thermal resistance winding-housing (K/W)	
Thermal time constant winding (s)	
Thermal time constant motor (s)	
Ambient temperature (°C)	-20~+175
Max. winding temperature (°C)	200

Mechanical Data (Ball Bearing)

Max. allowable speed (rpm)	25 000
Max. axial play (mm)	< 3 N 0 12 N > 3 N 0.1 (max)
Radial play	preloaded
Max. axial load dynamic(N)	3.2
Max. force for press fits (static) (N)	29
Max. radial load (2 mm from flange) (N)	15

Note: Specifications can be customized per customer requirements.

Terminal Type

CJT A1257HRE-5P
CJT C6201HFB-2*2P
CJT C6201HFB-2X5P

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Terminal Definition

Motor Winding	Line1 Motor Winding1 AWG22# Red
	Line2 Motor Winding 2 AWG22# Yellow
	Line3 Motor Winding3 AWG22# Blue
	Line1 Vcc(4.5...24V) AWG26# Black
	Line2 GND AWG26# White
	Line3 Hall sensor 1 AWG26# Green
	Line4 Hall sensor 2 AWG26# Yellow
	Line5 Hall sensor 3 AWG26# Brown
Hall sensor	Line6 NTC AWG26# Grey