

MC1958 Series

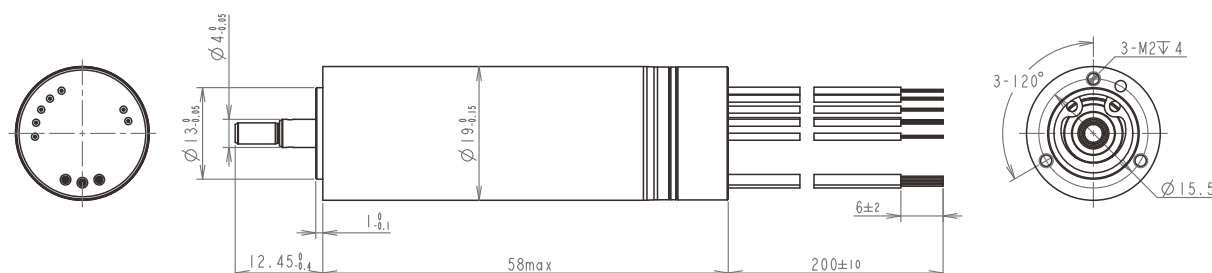
Φ19mm Brushless Coreless Motor

Key Features

- Two magnetic pole
- 54400rpm
- 23.9mNm
- 6.3mNm/A



Dimensional Drawing



Motor Data (Rated)

Rated voltage (V)	36
No-Load Speed (rpm)	54400
No-Load Current (A)	0.405
Rated speed (rpm)	51500
Rated torque (mNm)	23.9
Rated current (A)	4.21
Stall torque (mNm)	447
Stall current (A)	71.6
Max. efficiency (%)	86%

Motor Constant (Rated)

Phase-to-Phase Resistance (Ω)	0.473
Phase-to-Phase inductance (mH)	0.054
Torque constant (mNm/A)	6.3
Speed constant (rpm/V)	1515
Speed/torque gradient (rpm/mNm)	121.7
Mechanical time constant (ms)	10.13
Rotor inertia (gcm ²)	9.32

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~+125
Max. winding temperature (°C)	125

Mechanical Data (Ball Bearing)

Max. allowable speed (rpm)	80 000
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

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Terminal Definition

VCC Orange	Line1 Motor Winding 1 AWG20# Red
GND Blue	Line2 Motor Winding 2 AWG20# Black
H u Yellow	Line3 Motor Winding 3 AWG20# White
H v Brown	Line4 NTC AWG26# Purple
H w Gray	Line5 NTC AWG26# Purple
W White	Line6 Vcc(4.5...24V) AWG26# Orange
V Black	Line7 GND AWG26# Blue
U Red	Line8 Hall sensor 1 AWG26# Yellow
	Line9 Hall sensor 2 AWG26# Brown
	Line10 Hall sensor 3 AWG26# Gray