

# Brushless DC Motor

## 12 VDC Built-In Driver



### General Specifications

Winding Type	Star
Insulation Class	B
Ambient Temperature Range	-20°C ~ +50°C
Insulation Resistance	100 MΩ Min. 500 VDC
Dielectric Strength	500 VAC 1 minute

**Customized solutions on request.**

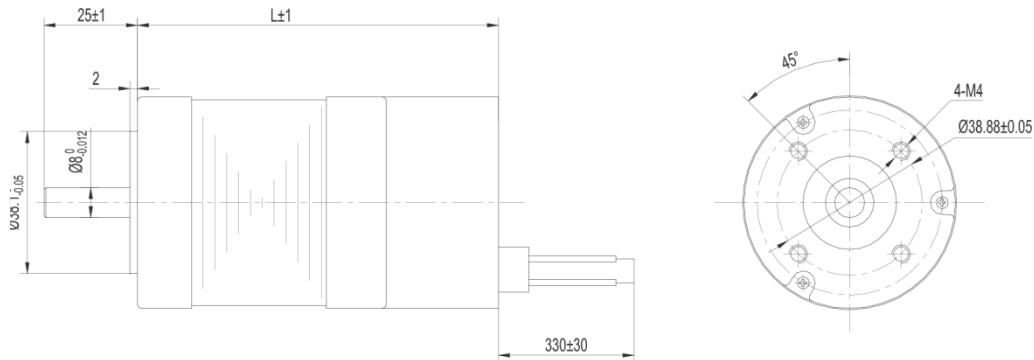


### Electrical Specifications

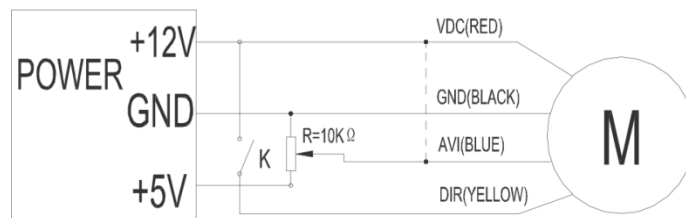
Model		57BID01-12	57BID02-12	57BID03-12	57BID04-12
Number of Poles		4	4	4	4
Number of Phases		3	3	3	3
Rated Voltage	VDC	12±10%	12±10%	12±10%	12±10%
Rated speed	RPM	3000	3000	3000	3000
Rated Torque	Nm	0.057	0.11	0.165	0.22
Rated Current	A	2.4	4.6	6	8.8
Output Power	W	15	34	52	69
Peak Torque	Nm	0.18	0.38	0.58	0.8
Peak Current	A	7.5	14	18	24
Torque constant	Nm/A	0.023	0.022	0.023	0.022
Back EMF	V/KRPM	2.4	2.3	2.4	2.3
Rotor inertia	gcm <sup>2</sup>	32	42	58	72
Body Length	mm	71	76	86	96
Mass	kg	0.45	0.6	0.75	0.9

Caution: Peak Torque is provided for the purpose of performance calculations only. Operating near, or at this condition can result in motor damage.

### Mechanical Dimensions



### Wiring diagram



### Specifications

Switching power supply output current shall be not less than the motor peak current; through AVI terminals can be governor does not need, it can short VDC and then motor running at rated speed; DIR terminals can be controlled the motor rotation direction, when switch off, the motor anti-clockwise rotation, when linking-up, the motor rotating clockwise.