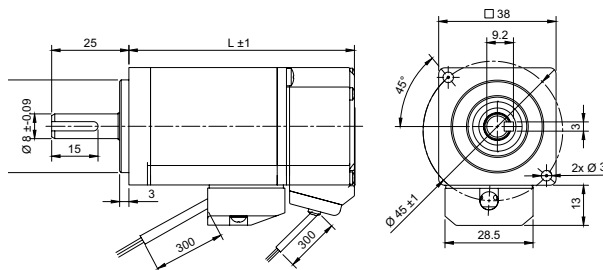


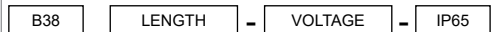
DRAWING (mm)



PHOTO



MODEL NO. DESIGNATION



Example: B3872-48-IP65

ACCESSORIES



C = customizations are offered on demand even for smaller quantities. Typical customizations are indicated with a green dot at column end. Please contact us for any customization request.

BRUSHLESS DC MOTOR DATA	B3872-48-IP65	B3889-48-IP65	C
Nominal voltage	V	48	48
No load speed	rpm	6800	6800
No load current	A	0.6	0.42
Nominal speed	rpm	3000	3000
Nominal torque	Nm	0.16	0.32
Nominal current	A	2.1	4.2
Peak current	A	6.3	13
Peak torque	Nm	0.48	0.96
Efficiency	%	50	50
Nominal power	W	50	100
Terminal resistance ¹	Ω	2.3	0.95
Terminal inductance ²	mH	1.5	0.7
Insulation resistance ³	MΩ	100	100
Dielectric strength ⁴	V	600	600
Back EMF	V/rpm	0.005	0.005
Torque constant	Nm/A	0.083	0.083
Rotor inertia	kgcm ²	0.024	0.04
Bearing type		Ball bearing	
Axial play ⁵	mm	0.08	
Radial play ⁵	mm	0.02	
Max. dynamic axial load	N	59	
Max. radial load ⁶	N	69	

NOTES

1. Measured at 20°C.
2. Measured at 1 kHz.
3. Measured at 500 V.
4. At a duration of 1 second.
5. Max. 4 N.
6. 13 mm from flange.
7. In storage, relative humidity less than 85%.

OTHER BRUSHLESS DC MOTOR DATA	B3872-48-IP65	B3889-48-IP65	C
Number of pole pairs		10	
Number of phases		3	
Weight	kg	0.4	0.45
Operating temperature	°C	-20 to 50	
Storage temperature ⁷	°C	-20 to 85	
Winding type		Star connection	
Motor insulation class		F	
IP rating		IP65	
Hall sensors and power harness length	mm	300	
Power harness		AWG20	
Hall sensors harness		AWG26	
Motor length	mm	72	89
Shaft length from flange	mm	25	
Shaft diameter	mm	8	
Service life	h	10000	
Manufacturing standard		ISO 9001:2015 ISO 14001 IATF 16949	

CABLE AND PIN CONFIGURATION

Wire	Definition	Color
U		Yellow
V	Power	Red
W		Black
HU		Blue
HV		Green
HW	Hall	White
Vcc		Red
GND		Black