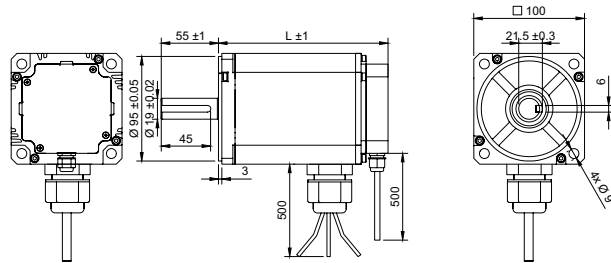


DRAWING (mm)



PHOTO



MODEL NO. DESIGNATION

B100 LENGTH - VOLTAGE - IP65

Example: B100161-48-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		B100161-48-IP65	B100173-48-IP65	C	OTHER BRUSHLESS DC MOTOR DATA		B100161-48-IP65	B100173-48-IP65	C
Nominal voltage	V	48	48		Number of pole pairs		10		
No load speed	rpm	4000	4000		Number of phases		3		
No load current	A	0.8	1		Weight	kg	3.7	4.7	
Nominal speed	rpm	3000	3000		Operating temperature	°C	-20 to 50		
Nominal torque	Nm	3.2	4.8		Storage temperature ⁷	°C	-20 to 85		
Nominal current	A	30	45		Winding type		Star connection		
Peak current	A	65	130		Motor insulation class		B		
Peak torque	Nm	7	14		IP rating		IP65		
Efficiency	%	69	69		Hall sensors and power harness length	mm	500		
Nominal power	W	1000	1500		Power harness		AWG10		
Terminal resistance ¹	Ω	0.04	0.06		Hall sensors harness		AWG22		
Terminal inductance ²	mH	0.33	0.23		Motor length	mm	161	173	
Insulation resistance ³	MΩ	100	100		Shaft length from flange	mm	55		
Dielectric strength ⁴	V	600	600		Shaft diameter	mm	19		
Back EMF	V/rpm	0.008	0.008		Service life	h	10000		
Torque constant	Nm/A	0.11	0.11		Manufacturing standard		ISO 9001:2015 ISO 14001 IATF 16949		
Rotor inertia	kgcm ²	1.3	1.8						
Bearing type		Ball bearing							
Axial play ⁵	mm	0.08							
Radial play ⁵	mm	0.02							
Max. dynamic axial load	N	200							
Max. radial load ⁶	N	490							

CABLE AND PIN CONFIGURATION

Wire	Definition	Color
U		Yellow
V	Power	Red
W		Black
H1	Hall	Blue
H2		Green
H3		White
Vcc		Red
GND		Black

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. 20 mm from flange.
7. In storage, relative humidity less than 85%.