

BLWR09 - Brushless DC Motors



FEATURES

- **NEMA 09 Size (0.9" Diameter)**
- **3-Phase, 8 Pole Motor**
- **Ball Bearing Design**
- **Strong NFeB Magnets**
- **Long Life - 20,000 Hour Operation**
- **Cost Effective Replacement For Brush DC Motors**
- **Can be Customized for**
 - **Operating Voltage & Rated Speed**
 - **Cables and Connectors**
- **CE Certified and RoHS Compliant**



DESCRIPTION

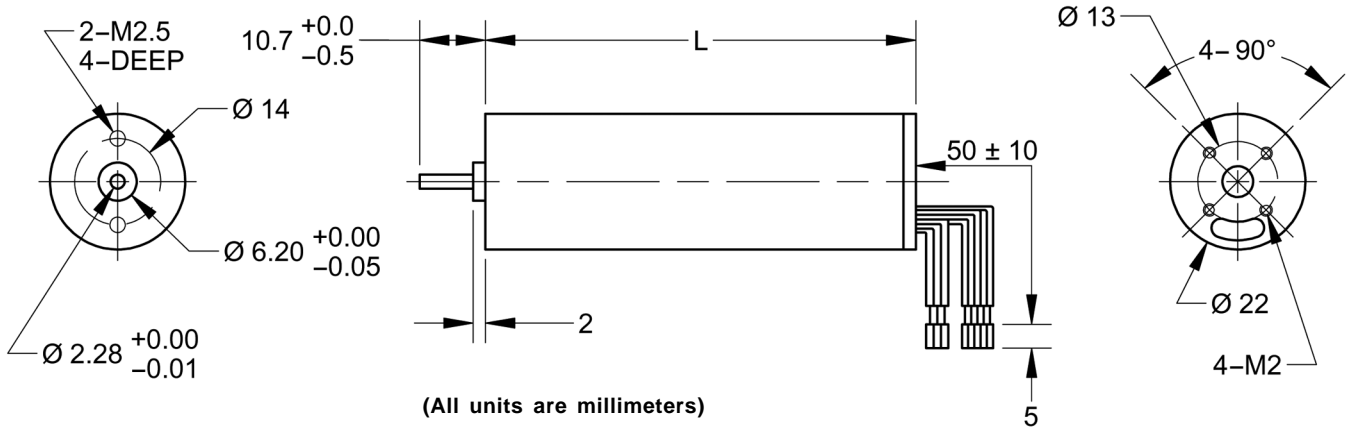
The BLWR09 Series Brushless DC Motors come in a compact package with high power density. These motors are cost effective solutions to many velocity control applications. The star wound motor comes in a standard 8-lead configuration. We can also customize the winding to perfectly match your voltage, current, and maximum operating speed. Special shaft modifications, cables and connectors are also available upon request.

SPECIFICATIONS

Model #	FRAME Size	Rated Voltage (V)	Max Speed (RPM)	Rated Power (W)	Peak Torque (oz-in)	Peak Current (A)	Line to Line Resistance (ohms)	Line to Line Inductance (mH)	Torque Constant (oz-in/A)	Rotor Inertia (oz-in-sec ²)	Weight (lbs)	"L" Length (in)
BLWR092S-12V-8000	09	12.0	15,000	4.2	2.83	2.2	0.15	0.7	1.25	9.3 x 10 ⁻⁶	0.20	1.77
BLWR092S-24V-4600	09	24.0	15,000	3.8	2.97	1.1	23.0	6.2	4.27	9.3 x 10 ⁻⁶	0.20	1.77
BLWR093S-24V-3500	09	24.0	15,000	8.0	8.50	1.7	11.6	4.3	5.03	18.7 x 10 ⁻⁶	0.26	2.76

Notes: Custom leadwires, cables, connectors, and windings are available upon request.

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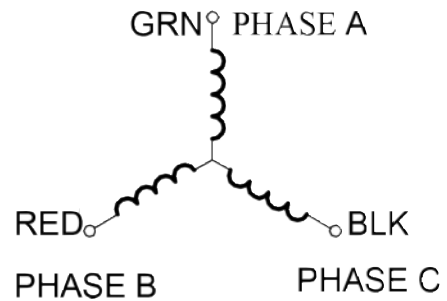
DIMENSIONS

WIRING INFORMATION

SPECIFICATIONS

Wire Color	Description
Green	Phase A
Red	Phase B
Black	Phase C

Wire Color	Description
Yellow	Vcc
Blue	Hall A
Orange	Hall B
Brown	Hall C
White	Ground



Winding Type:	Star, 8 Poles	Max. radial force:	10N @ 10mm from the flange
Hall effect angle:	120 degree electrical angle	Max. axial force:	2N
Shaft run out:	0.025mm	Insulation class:	Class B
Radial Play:	0.02mm@450g	Dielectric strength:	500VDC for one minute
End play:	0.08mm@450g	Insulation resistance:	100MOhm, 500VDC