

# BLWR23 Series - Brushless DC Motors



## FEATURES

- **NEMA Size 23 BLDC Motors**
- **Compact Size and Power Density**
- **Cost Effective Solution**
- **Long Life and Highly Reliable**
- **Can be Customized for**
  - **Maximum Speed**
  - **Winding Current**
  - **Shaft Options**
  - **Cables and Connectors**
- **CE Certified and RoHS Compliant**



## DESCRIPTION

The BLWR23 Series Brushless DC Motors come in a compact package with high power density. These motors are cost-effective solutions to many velocity control applications. They come in five different stack lengths to provide you with just the right torque for your application. A number of windings are available off-the-shelf and the motors can be customized to fit your machine requirements. The motors come 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.

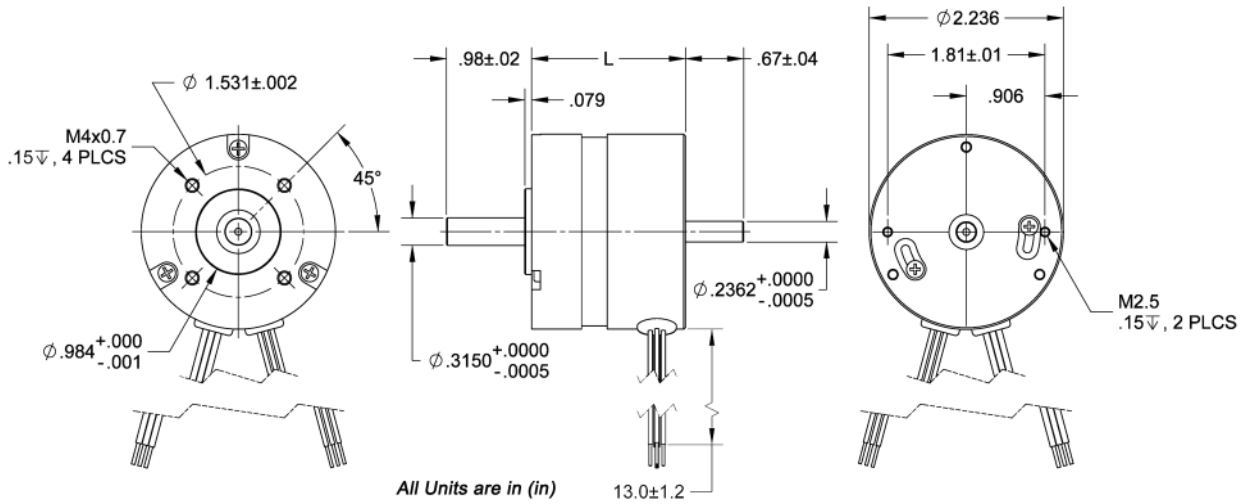
## SPECIFICATIONS

Model #	Frame Size	Rated Voltage (V)	Rated 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)	Back EMF Voltage (V/kRPM)	Rotor Inertia (oz-in-sec <sup>2</sup> )	Weight (lbs)	"L" Length (in)
BLWR231S-36V-4000	23	36	4000	25	25	3.5	4.1	10.0	7.5	5.5	0.00042	0.70	1.77
BLWR232S-36V-4000	23	36	4000	50	55	7.0	1.5	4.2	9.0	6.6	0.00106	1.10	2.16
BLWR233S-36V-4000	23	36	4000	95	100	15.0	0.7	2.2	9.0	6.6	0.00169	1.54	2.95
BLWR234S-36V-4000	23	36	4000	135	145	18.0	0.45	1.4	9.0	6.6	0.00245	2.10	3.74
BLWR235S-36V-4000	23	36	4000	180	185	22.5	0.35	1.0	9.0	6.6	0.00326	2.66	4.53
BLWR236S-36V-4000-03	23	36	4000	180	185	22.5	0.38	1.0	9.0	6.6	0.00326	2.66	4.74

Note: The 8th character "S" denotes a single shaft, use "D" for double shaft. Custom leadwires, cables, connectors, and windings are available upon request.

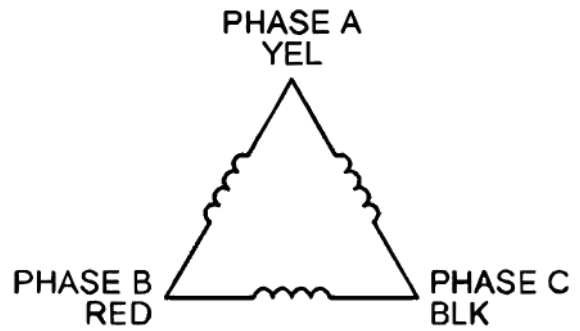
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DIMENSIONS



WIRING DIAGRAM

Wire Color	Description
Red	Hall Supply
Blue	Hall A
Green	Hall B
White	Hall C
Black	Hall Ground
Yellow	Phase A
Red	Phase B
Black	Phase C



SPECIFICATIONS

Winding Type:	Delta, 4 Poles	Max. Radial Force:	75N @ 20mm from the flange
Hall Effect Angle:	120 Degree Electrical Angle	Max. Axial Force:	10N
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:	100M Ohm, 500VDC