

BLWR23 Series - Brushless DC Motors



FEATURES

- **57mm Round Body**
- **Compact Size and Power Density**
- **Cost Effective Replacement for Brush DC Motors**
- **Long Life and Highly Reliable**
- **Can be Customized for**
 - **Maximum Speed**
 - **Winding Current**
 - **Shaft Options**
 - **Cables and Connectors**
- **CE Certified and RoHS Compliant**



DESCRIPTION

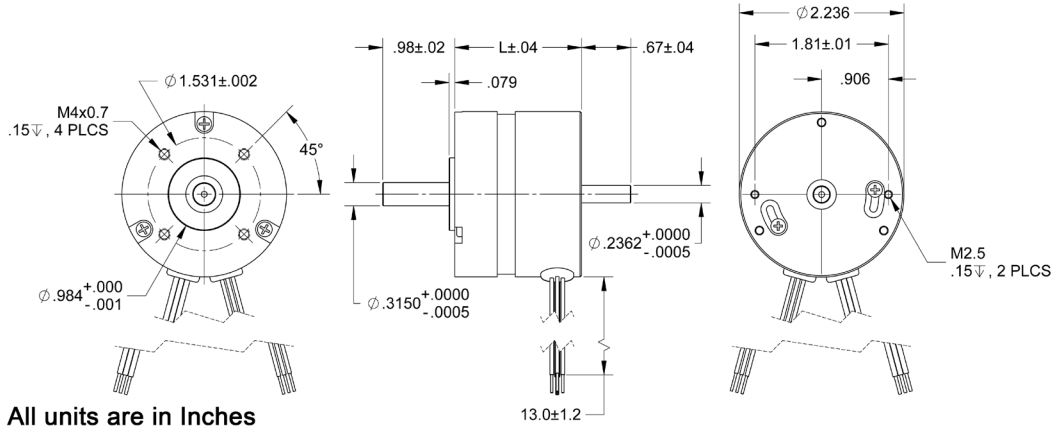
The BLWR23 Series Brushless DC Motors come in a compact package with high power density. These motors are cost-effective solutions to many velocity control applications. They come in five different stack lengths to provide you with just the right torque for your application. A number of windings are 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 #	Rated Voltage (V)	Rated Speed (RPM)	Rated Power (W)	Rated Torque (oz-in)	Peak Torque (oz-in)	Rated 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)
BLWR231S-36V-4000	36	4000	21	7.8	23.4	1.04	4.2	9.7	7.5	0.00042	0.84	1.72
BLWR232S-36V-4000	36	4000	46	15.6	46.7	1.75	1.5	4.5	8.92	0.00106	1.10	2.11
BLWR233S-36V-4000	36	4000	92	31.2	93.5	3.67	0.64	2.1	8.50	0.00169	1.65	2.90
BLWR234S-36V-4000	36	4000	134	45.3	135.9	5.25	0.45	1.65	8.64	0.00245	2.09	3.69
BLWR235S-36V-4000	36	4000	167	56.6	169.9	6.35	0.38	1.0	8.92	0.00326	2.66	4.47

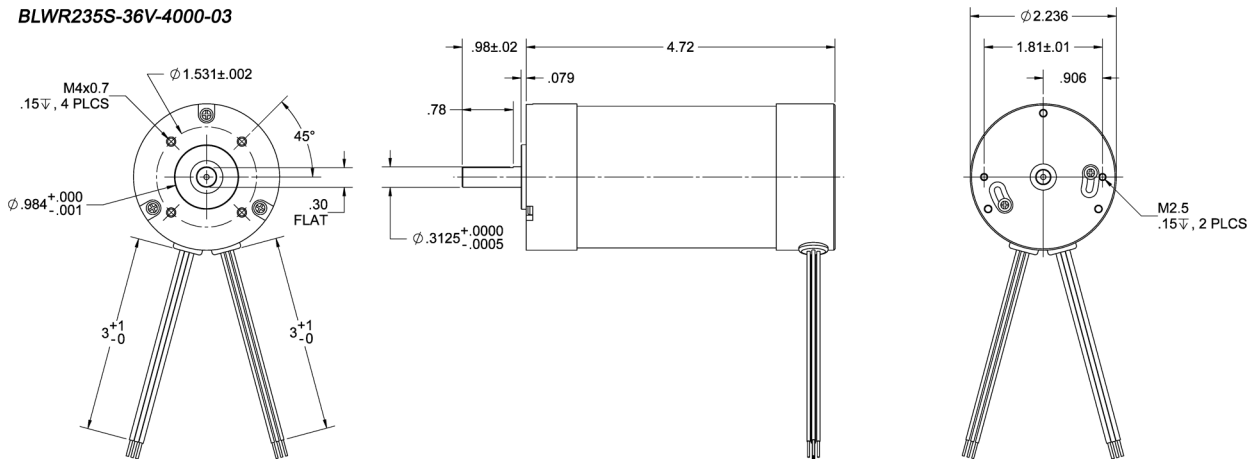
Note: The 8th character "S" denotes a single shaft, use "D" for double shaft. Custom leadwires, cables, connectors, and windings are available upon request.

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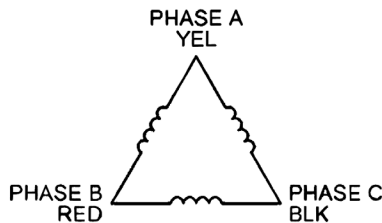
All units are in inches

BLWR235S-36V-4000-03



All units are in inches

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



Hall Sensor Specifications

Supply Voltage: 4.5VDC to 28VDC

Current, I_{off} : 10mA max

Current, I_{on} : 11.3mA max

Rated Sinking Current: 20mA

Saturation Voltage: 0.4VDC max @ 25°C

Output Leakage Current: 10 μ A

Output Switching Time @ 25°C

Rise, 10% to 90% 1.5 μ s

Fall, 90% to 10% 1.5 μ s

Output Type: Open Collector

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