**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**

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.

<table>
<thead>
<tr>
<th>Model #</th>
<th>Rated Voltage (V)</th>
<th>Rated Speed (RPM)</th>
<th>Rated Power (W)</th>
<th>Rated Torque (oz-in)</th>
<th>Peak Torque (oz-in)</th>
<th>Rated Current (A)</th>
<th>Line to Line Inductance (mH)</th>
<th>Torque Constant (oz-in/°A)</th>
<th>Rotor Inertia (oz-in-sec²)</th>
<th>Weight (lbs)</th>
<th>&quot;L&quot; Length (in)</th>
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<tbody>
<tr>
<td>BLWR231S-36V-4000</td>
<td>36</td>
<td>4000</td>
<td>21</td>
<td>7.8</td>
<td>23.4</td>
<td>1.04</td>
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<td>4000</td>
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<td>4.5</td>
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<td>1.0</td>
<td>8.92</td>
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</table>

Note: The 8th character “S” denotes a single shaft, use “D” for double shaft. Custom leadwires, cables, connectors, and windings are available upon request.
DIMENSIONS
4985 E. Landon Drive  Anaheim, CA 92807  Tel. (714) 992-6990  Fax. (714) 992-0471  www.anaheimautomation.com

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

BLWR235S-38V-4000-03

All units are in inches

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

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: 10μA
Output Switching Time @ 25°C
Rise, 10% to 90%: 1.5μs
Fall, 90% to 10%: 1.5μs
Output Type: Open Collector