The BLWS23 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. The motors come in a standard 8-lead configuration. We can also customize the windings to perfectly match your voltage, current, and maximum operating speed. Special shaft modifications, cables and connectors are also available upon request.

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**SINGLE SHAFT DIMENSIONS**

4985 E. Landon Drive  Anaheim, CA 92807  
Tel. (714) 992-6990  Fax. (714) 992-0471  
www.anaheimautomation.com

**DUAL SHAFT DIMENSIONS**

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: 100MΩhm, 500VDC  

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<table>
<thead>
<tr>
<th>Wire Color</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Red</td>
<td>Hall Supply</td>
</tr>
<tr>
<td>Blue</td>
<td>Hall A</td>
</tr>
<tr>
<td>Green</td>
<td>Hall B</td>
</tr>
<tr>
<td>White</td>
<td>Hall C</td>
</tr>
<tr>
<td>Black</td>
<td>Hall Ground</td>
</tr>
<tr>
<td>Yellow</td>
<td>Phase A</td>
</tr>
<tr>
<td>Red</td>
<td>Phase B</td>
</tr>
<tr>
<td>Black</td>
<td>Phase C</td>
</tr>
</tbody>
</table>

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**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