Brushless Servomotor Product Guide

Guiding you towards the right solution.
More solutions from us equals more success for you.

At Torque Systems, we have always believed in giving you more choices. After all, your application is unique, so the Brushless Servomotor you choose for it should be unique, too. While the competition stacks their shelves with motors and hardware, we pack ours with engineered solutions. The truth is, our shelf contains just about any type of solution you could require, from simple integration components such as brakes, encoders and tachometers, to elaborate breakthrough designs.

In addition to our wide selection of clean operating, low maintenance brushless servomotors, we also provide you with a range of standard integration and custom engineered options to round out your solution.

Our typical standard integration options include:

A) Custom Connectors
   - Connector Locations
   - Housings
   - Cabling

B) Multiple Standard Winding Configurations
   - Matched Windings
   - Thermostats

C) Standard & Custom Shaft Configurations
D) Multiple Gearhead Options
E) Brakes
F) Hall Sensors
   - Standard and Custom Encoders
   - Resolvers
   - Tachometers

G) Standard Flange Mounting
   - NEMA Mounting
   - IEC Mounting

Multiple Standard Winding Configurations

Our typical custom engineered options include:

- Extended Ambient Temperature Ratings
- Custom Winding Configurations
- Special Electromagnetic Design Platforms
- Specialized Military Coatings
- Corrosion Resistant Materials
- Food Grade Materials
- Custom Bearings
- Witness Testing
- IP 65 and IP 67 Sealing

Being able to choose from an array of Brushless AC Servomotor solutions is only the beginning. You will also be guided through the entire selection process by members of our highly trained sales force. They will work closely with you so they can gain a thorough understanding of your particular application. This enables them to determine how to create the best solution for you. Once that judgment has been made, our application development engineers step in to ensure that at the end of the process you receive a reliable, high-quality working solution. All this is possible because Torque Systems will design a product to fit your application – rather than altering your application to fit our product.

To make the entire process as smooth as possible, we give you the opportunity to size motors and select many standard integration options using our convenient web site servomotor platform configuration feature. To begin the process, simply visit www.torquesystems.com.
**Brushless Servomotor Platforms**

**Key:**
- Continuous Duty
- Intermittent Duty

### Standard Design Features:
- High Energy Neodymium Magnets
- CE/UL Compliant
- Multiple Winding Availability
- Sealed Bearings
- Clean Operating, Low Maintenance Brushless Design

### Rigid Application Development Process:
- Application Review
- Motion Profile Analysis
- Magnetic FEA 3D Modeling & Computer Simulation
- Prototype Design
- Performance Verification

### BPS Direct Drive Sets

<table>
<thead>
<tr>
<th>Max. Performance</th>
<th>Rated Power</th>
<th>Cont. Stall Torque</th>
<th>Peak Torque</th>
<th>Rotor Inertia</th>
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<tr>
<td></td>
<td>Kw</td>
<td>oz-in</td>
<td>lb-in</td>
<td>kg(10^-3)m^2</td>
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<td>6.2</td>
<td>200</td>
<td>22.6</td>
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Custom motors available up to 7.5 in. (190 mm) diameter and 450 lb.- in. (41 NM)

*For a complete list of available platforms, please consult the BPS data sheet

### Performance Verification
- Prototype Design
- Magnetic FEA 3D Modeling & Computer Simulation
- Motion Profile Analysis
- Application Review
- Rigid Application Development Process:
  - Low electrical time constant for fast response
  - High pole count for smooth, low cogging operation

### Key Benefits:
- Easy integration into customer hardware
- No belts, gears or backlash
- Minimize size & weight, maximize rate & position accuracy

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**Simply put:** Torque Systems will design a product to fit your application – rather than altering your application to fit our product.
Nominal Motor Dimensions

Platforms 2200, 3300 & 4400

Platforms 2000, 3000 & 4000

Unique Solutions for Unique Customers.

Ask about our other motion controls solutions & capabilities:

DC Brush Servomotors
Expert application development engineering
Complete repair and refurbishing services

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