COMPACT DYNAMIC BRUSHLESS SERVO MOTORS
Low inertia, compact length servo motors for highly dynamic applications

For over two decades, the name Moog has been associated with servo drives and brushless servo motors offering the highest dynamics, power density and reliability. These products are designed as a system to deliver superior servo performance. Moog offers a broad range of standard designs as well as solutions tailored to meet your unique application requirements. Moog Brushless Servo Motors and Servo Drives are found on a variety of high performance applications.

Moog Compact Dynamic Brushless Servo Motors (CD Series) are electronically commutated synchronous AC motors with permanent magnet field excitation. CD Series Servo Motors are designed for highly dynamic servo applications where positioning times of 30 ms or less are often the norm. The series offers one of the industry’s widest power ranges with standard models available at continuous stall torque ratings from 0.16 to 74.3 Nm (1.4 to 657 lbf in). Moog’s application engineers are experts in helping to create the exact design for your unique needs.

All Moog Servo Motors are manufactured in-house and the use of tight machining tolerances, precision balancing and thorough production testing guarantee a long service life.

ADVANTAGES
- Superior motor dynamics improves cycle time
- Compact, lightweight construction simplifies machine design
- Proprietary, low-cogging design delivers smooth low speed operation
- Rugged, minimum maintenance
- Explosion proof versions available for sizes 3, 5 and 6

APPLICATIONS
- Metal forming and presses
- Plastics
- Robotics

WHAT MOVES YOUR WORLD
**Technical Data**

<table>
<thead>
<tr>
<th>Type code</th>
<th>Maximum torque</th>
<th>Continuous stall torque</th>
<th>Rotor inertia</th>
<th>Rated speed</th>
<th>Square flange</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Nm (lbf in)</td>
<td>Nm (lbf in)</td>
<td>kg cm² (10⁻⁴ lbf in s²)</td>
<td>r/min</td>
<td>mm (in)</td>
</tr>
<tr>
<td>G-1</td>
<td>0.5 to 1.51 (4.40 to 13.4)</td>
<td>0.16 to 0.35 (1.40 to 3.10)</td>
<td>0.027 to 0.072 (0.24 to 0.64)</td>
<td>9,000 to 6,000</td>
<td>40 (1.6)</td>
</tr>
<tr>
<td>G-2</td>
<td>0.83 to 6.64 (7.31 to 58.6)</td>
<td>0.24 to 2.02 (2.10 to 17.9)</td>
<td>0.09 to 0.44 (0.80 to 3.86)</td>
<td>9,000 to 5,000</td>
<td>55 (2.2)</td>
</tr>
<tr>
<td>G-3</td>
<td>1.72 to 13.3 (15.3 to 118)</td>
<td>0.55 to 3.94 (4.90 to 34.9)</td>
<td>0.16 to 0.97 (1.40 to 8.60)</td>
<td>11,000 to 3,400</td>
<td>70 (2.8)</td>
</tr>
<tr>
<td>G-4</td>
<td>3.38 to 41.4 (29.9 to 363)</td>
<td>1.25 to 11.3 (11.1 to 100)</td>
<td>1.05 to 7.05 (9.30 to 62.5)</td>
<td>8,000 to 2,600</td>
<td>100 (3.9)</td>
</tr>
<tr>
<td>G-5</td>
<td>13.3 to 94.6 (117 to 837)</td>
<td>5.80 to 35.2 (51.3 to 311)</td>
<td>4.71 to 27.2 (41.7 to 241)</td>
<td>5,000 to 1,800</td>
<td>140 (5.5)</td>
</tr>
<tr>
<td>G-6</td>
<td>40.3 to 240 (356 to 2,124)</td>
<td>14.0 to 74.3 (124 to 657)</td>
<td>27.8 to 157 (246 to 1,389)</td>
<td>4,000 to 2,000</td>
<td>190 (7.5)</td>
</tr>
</tbody>
</table>

1) Rated speed can be easily adjusted by changing the stator windings. Please refer to your local Moog application engineer for information.

**Options**

Moog CD Series Servo Motors are available with a variety of standard and customized options to address the unique requirements of your application.

### Flexible Design Options
- Cooling
  - Natural Convection Cooling
  - Fan Cooling
- Integral Holding Brake
- Connectors
- Thermal Sensor
- Shaft Options

For example:

- Fan Cooling

### Customizable Options
- Motor Windings
- Frameless Options
- Custom Shafts and Flanges
- Custom Connectors
- Custom Feedback Options
- Custom Coatings

For example:

- Custom Shaft

Moog has offices around the world. For more information or the office nearest you, contact us online.

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This technical data is based on current available information and is subject to change at any time. Specifications for specific systems or applications may vary.