

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



TECHNICAL DATA

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

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.



Moog Servo Drives are matched to the CD Series Servo Motors for optimized system performance.