MAXIMUM DYNAMIC BRUSHLESS SERVO MOTORS

Offering higher productivity for electric motion control systems

At Moog, we understand the challenges that machine builders face when designing machines that demand higher performance and faster operation. Facilitating the design process to achieve greater efficiency in an industrial environment is critical. Moog works with our customers to provide expert motion control solutions that consistently deliver world-class performance, design flexibility and reliability.

Machine builders across industries have identified the need to achieve faster cycle times to increase productivity and machine throughput. Performance of traditional electric systems have been limited by high inertias. The Moog Maximum Dynamic (MD) Brushless Servo Motor Series has been developed to overcome these challenges.

The MD Series Servo Motor addresses the need for higher dynamics through increased angular acceleration which delivers higher performance. The electromagnetic design has exceptional overload capacity which results in an increase in the effective torque available to accelerate and decelerate the load. This functionality coupled with low rotor inertias enables higher dynamics and improved cycle times.

The comprehensive range of MD Series Servo Motors, combined with the ability to seamlessly integrate with existing applications helps reduce the need for redesign; thereby redefining the possibilities for greater performance, design flexibility and reliability.

This MD Servo Motor Series is an ideal choice for machine builders looking for "best-in-class" servo motors with low inertia and high dynamics. Moog Servo Drives can further optimize machine performance and ensure smooth integration.

ADVANTAGES

- Higher dynamics delivers higher performance
- Increases productivity
- Wide motor range for rapid machine design
- Seemless integration into existing infrastructure
- Customization for application specific requirements

KEY APPLICATION MARKETS

- Plastics machinery
- Die casting machinery
- Metal forming machinery and presses
- Food, pharmaceutical and packaging machinery
- Other general industrial machinery

SPECIFICATIONS

Feature	Benefits
Dynamics	• Faster operation, higher performance • Increased productivity • Improved product quality through accurate control
Range	• Consistent modular design and characteristics for the full range of servo motors • Facilitating rapid machine design process resulting from a wide range of readily available options
Flexibility	• Willingness to customize to meet application specific requirements • Seamless integration into existing infrastructure • Reduced need for system redesign

TECHNICAL DATA

	Units	Natural cooling	Liquid cooling
Maximum torque M_{max}	Nm (lbf in)	10 to 2,012 (88.5 to 17,807)	64.2 to 2,012 (568 to 17,807)
Continuous stall torque M_0	Nm (lbf in)	2.2 to 629 (19.5 to 5,567)	46 to 1,034 (407 to 9,152)
Rated torque M_N	Nm (lbf in)	1.5 to 575 (13.3 to 5,089)	45 to 1,003 (398 to 8,877)
Rated speed n_N	r/min	5,500 to 1,400	5,500 to 1,400
Rated power P_N	kW (hp)	0.85 to 34.6 (1.1 to 46)	9.35 to 60.4 (12.5 to 81)
Rotor inertia J	kg cm^2 (10^{-4} lbf in s^2)	0.78 to 1,985 (6.9 to 17,569)	10.8 to 1,985 (96 to 17,569)
Position transducer options		Resolver or encoder	

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

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

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www.moog.com/industrial

MD Series Servo Motor
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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.

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