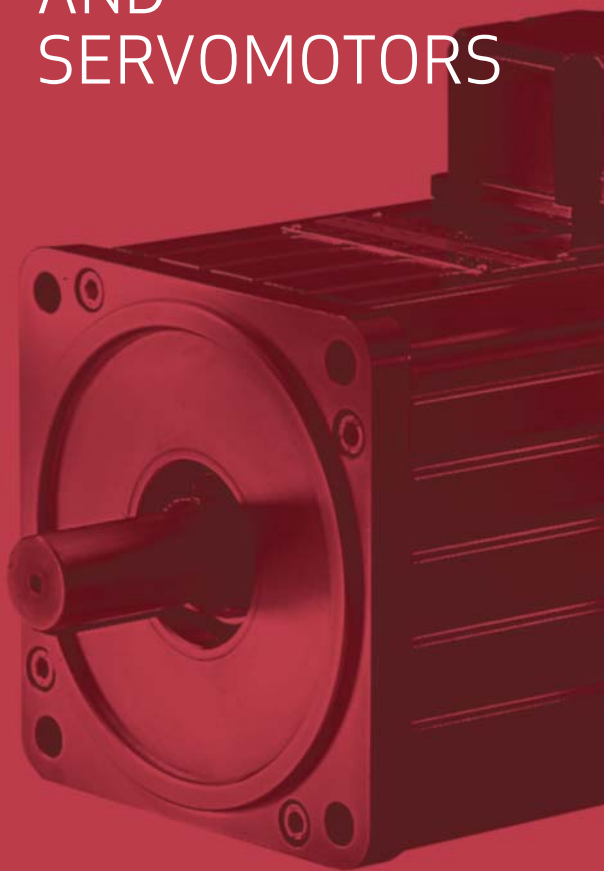


# SERVODRIVES AND SERVOMOTORS



PRODUCT OVERVIEW

**MOOG**

## MOOG PRODUCT RANGE

Moog is a world leader in providing high-performance motion control solutions for key industrial applications. Our teams of experts work collaboratively with customers to overcome technical challenges and move their ideas forward. Moog designs and manufactures products including servo valves, proportional valves, pumps, hydraulic manifold systems, servomotors and drives, motion controllers and electronics, and electromechanical actuators.

## MOOG SUPPORT

Moog support services are as flexible as our motion control solutions. Our international network of expert service technicians are on call for Moog Authentic Repair® services and support including troubleshooting, on-site installation, and ongoing maintenance. Whatever it takes to give you personal, expert support and help you get the most from your equipment investment.



Moog servodrives and servomotors offer high dynamics, unsurpassed reliability, and smooth operation at all speeds for applications that require a new level of machine performance.

Designed to meet the needs of performance-driven engineers across a variety of industries, Moog digital single- and multi-axis servodrives and brushless servomotors combine innovative technologies with functionality suited to next-generation machine design. Moog expertise and close collaboration with customers worldwide ensure solutions that meet today's toughest machine challenges.

All Moog servodrives and servomotors offer flexibility and simple installation and wiring. Motors and drives are engineered for optimal performance when used in tandem.

Key markets include plastics, test and simulation, metal forming, and power generation, among others.



## SERVOMOTORS

### ADVANTAGES INCLUDE:

- Highest dynamics, power density, and reliability
- Superior servo performance
- Broad product range and flexibility to customize
- Compact lightweight construction to simplify machine design
- Proprietary, low-cogging design for smooth low speed operation
- Designed and manufactured using rugged components and materials



#### FASTACT G

AC servomotor (synchronous)  
low moment of inertia, high dynamics, high power density



#### FASTACT T

AC servomotor (synchronous)  
large selection of models



#### FASTACT F

AC servomotor (synchronous)  
high continuous power with an integral fan



#### FASTACT W

AC servomotor (synchronous)  
very high power density with liquid cooling



#### EXPLOSION-PROOF

ATEX and CE certified

	Measuring unit	FASTACT G	FASTACT T	FASTACT F	FASTACT W	EXPLOSION-PROOF
Continuous stall torque $M_o$	Nm [lb-in]	0.15–77 [1.3–681]	4.4–392 [3.5–3469]	3.7–522 [32.7–4619]	4.7–710 [41.6–6283]	0.6–25 [5.3–221.3]
Peak torque $M_{max}$	Nm [lb-in]	0.5–240 [4.4–2124]	1.6–920 [14–8142]	10–920 [88.5–8142]	10–1420 [88.5–12567]	1.5–60 [13.3–531]
Rated speed $n_N$	min <sup>-1</sup> [rpm]	9000–2200	10000–1000	6000–1000	6000–600	8800–2200
Rated power $P_N$	kW [hp]	0.13–12 [0.2–16]	0.10–24.3 [0.13–32.6]	0.73–39.3 [0.98–52.6]	1.38–58.6 [1.85–78.5]	0.45–4.6 [0.6–6.2]
Rated torque $M_N$	Nm [lb-in]	0.14–48 [1.2–425]	0.25–232 [2.2–2053]	3.2–375 [28–3318]	3.2–580 [28–5133]	0.49–20 [4.3–177]
Moment of inertia J	kg cm <sup>2</sup> [lb-insec <sup>2</sup> x 10 <sup>-4</sup> ]	0.09–152 [0.8–1345]	0.17–1470 [1.5–13009]	2.65–1470 [23.4–13009]	2.5–1470 22.1–13009]	0.16–22 [1.4–194.7]
Position transducer	Standard	Resolver	Resolver	Resolver	Resolver	Resolver
	Optional	Encoder	Encoder	Encoder	Encoder	Encoder
Temperature monitoring		NTC or PTC	PTC	PTC	PTC	NTC and PTC
Brake		Optional	Optional	Optional	Optional	Optional
Rated bus voltage Vdc	V	325/565	325/565	325/565	565	325/565
Certificate/marks		CE, UL/cUL	CE, UL/cUL	CE, UL/cUL	CE, UL	CE / ATEX

## SERVODRIVES

### ADVANTAGES INCLUDE:

- High control-loop bandwidth
- Wide power range to suit multiple applications
- Flexibility to meet application-specific needs
- Superior motion control for higher performance
- Motion control programming across multiple standards
- Safety functionality



#### MODULAR MULTIAXIS PROGRAMMABLE MOTION CONTROL SERVODRIVE (MSD)

- Full digital servodrive with power supply
- Single- or multiaxis applications
- Matching motion controller available
- Multiple cooling options
- Support of multiple encoders including customer specific
- Multiple high-speed fieldbus interfaces with synchronization between the axes better than 0.1 μs
- Advanced anti-cogging and encoder error compensation for highest speed performance
- Safety functionality according to EN954-1 Cat 3
- Automatic setup and system commissioning functionality
- Support of permanent magnet synchronous motors, linear motors, torque motors, and asynchronous motors



#### DS2000

- Full digital servodrive with power supply
- Stand-alone, single axis

The products described herein are subject to change without notice. In case of doubt, please contact Moog.

	MSD	DS2000
Control function	Torque, velocity, position	Torque, velocity, position
PWM frequency	4, 8, 12, 16 KHz	10 kHz
Encoder simulation	Option	Yes
AC / DC rectifier	Integrated	Integrated
AC mains input voltage range	207–506 Vac	65–510 Vac
Internal regeneration resistor and power	Internal/external	Internal/external
Logic power supply	24 Vdc	24 Vdc
Output current nominal	4–170 Arms	3–100 Arms
Output current peak	8–255 Arms	6.4–212 Arms
Operating temperature*	-10–45 °C	0–40 °C
Motor overtemperature protection	Yes	Yes
Power stage over-temperature protection	Yes	Yes
Analog input	2 x +/-10 V programmable	Velocity demand and torque limit
Analog output	2 on CAN option	1 fixed (veloc.) 1 programmable
Digital input	8 programmable	3 opto-isolated
Digital output	3 programmable + 1 relais	1 opto-isolated
Communication	CAN, PROFIBUS, EtherCAT, SERCOS II, Ethernet, USB	RS232, 485, CAN
Certificate/marks	CE, UL pending	CE, cUL, ATEX pending

\* Consult catalog for derating at higher temperatures

Moog has offices around the world.  
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WHAT MOVES YOUR WORLD