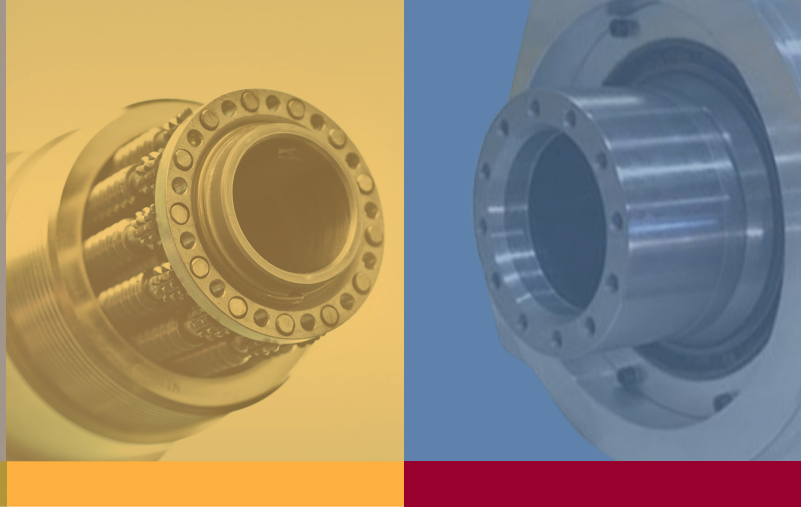


HDW275 SERVOMOTOR

Liquid Cooled with Special Hollow Shaft for Roller Screw Integration



Moog's **High Dynamic** family of synchronous servomotors stands out for its extremely high level of overloadability and high acceleration speed. Fully customizable, the **HD** motors are available with air, liquid and fan cooling in a wide range of sizes for all types of applications.

In particular, motors with liquid cooling guarantee an additional performance increase for continuous service applications. They allow greater productivity thanks to the increased number of cycles and their higher speed.

The HDW275 with hollow shaft, shown here, is a customized model, created for the clamp axis movement of an hybrid injection molding machine, to reduce its footprint, improve the efficiency and minimize the noise (thanks to a direct coupling with the screw no gearbox is needed).

The intrinsic characteristics of this permanent magnet synchronous motor, enhanced by a liquid-based cooling, result in an extraordinary power/mass ratio improving dramatically the efficiency of the machine.

Furthermore, the hollow shaft of this specially modified HDW275 servomotor, allows the perfect alignment of one of Moog's own Planetary Roller Screws (VRS75x20) with the line of movement, thus guaranteeing a smooth and seamless integration into the machine.

FEATURES AND BENEFITS

- Customizable with special shafts (hollow, geared, etc.) of various lengths and diameters
- Special windings to optimise the performance levels between motor and drive, reducing system costs
- Guaranteed high performance both continuous and peak
- Very high dynamics in all operational condition
- Seamless integration with Moog planetary roller screws

APPLICATION

- Plastic injection molding

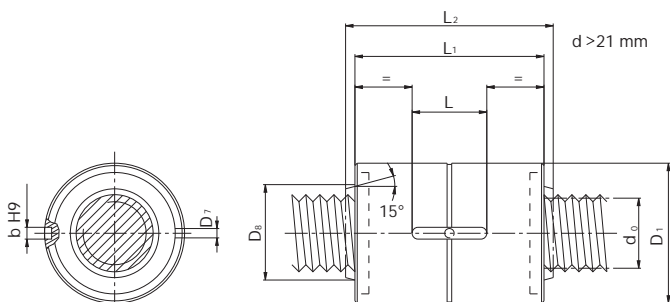
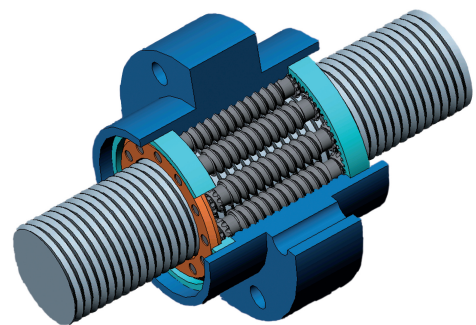


TECHNICAL DATA

Nominal torque, continuous service, locked rotor	Nm [lb.in]	831.0 [7355.0]
Nominal torque, continuous service, nominal speed	Nm [lb.in]	730.9 [6469.0]
Maximum torque	Nm [lb.in]	1712 [15152.5]
Nominal speed	rpm	800
Maximum speed	rpm	1019
Rated current, locked rotor	Arms	113.8
Peak current	Arms	300
Power yield in continuous service at nominal speed	kW [hp]	61.2 [82.10]
Torque constant	Nm/Arms [lb-in/Arms]	7.30 [64.6]
Voltage constant	Vrms/krpm	451.4
Thermal time constant	sec	2400
Resistance between the phases at 25°C	Ohm	0.13
Inductance between the phases	mH	3.4
Momentum of rotor inertia	kgcm ² [lb-in.sec ² x 10 ⁻⁴]	1600 [14161.2]
Weight (without brake)	kg [lb]	229 [504.9]
Hollow shaft diameter	mm	100
Liquid flow rate	l/min	10

VRS75x20 PLANETARY ROLLER SCREW

Screw diameter	75 mm
Screw pitch	20 mm
Loaded turns	5
Axial backlash	0.07 mm
Dynamic Force	572 kN
Static Force	1324 kN
Max acceleration	30 m/s ²
Max speed	25 m/min



For more information visit www.moog.com
or email us em-motioncontrol@moog.com

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HDW275 Servomotor and Screw
L-LFMS-E-221