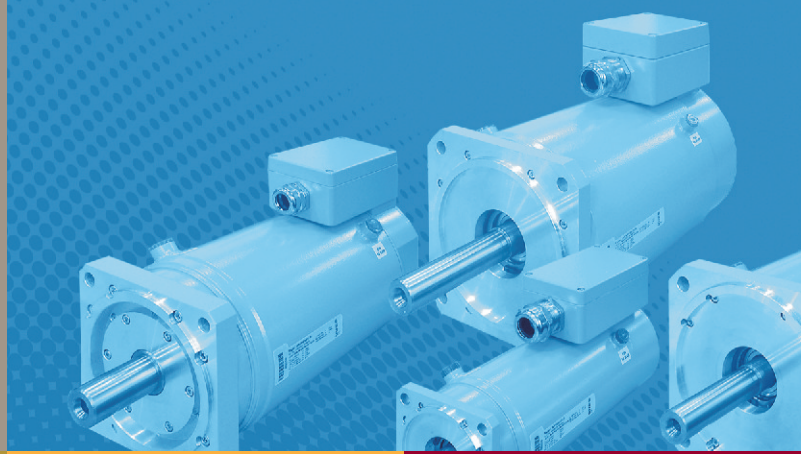


AFW SERVO MOTORS

Liquid-cooled servo motors
for highly dynamic servo applications



The Moog AFW series (12 poles) liquid-cooled servo motors are designed for highly dynamic servo applications requiring a wide speed range and variable load. These servo motors offer one of the largest power ranges in the industry, with standard models delivering continuous stall torque values from 21.9 to 277 Nm [193.7-2,449.8 lb-in]. Compared to their naturally-cooled counterpart (the AF series), the torque and output power of the AFW models are almost doubled, despite their sizes being almost the same. Another advantage of these liquid-cooled motors is their ability to operate at higher ambient temperatures.

The AFW servo motors feature modular designs that support a variety of options. In addition, Moog can provide fully customized solutions. We offer winding systems and special insulation options for different intermediate circuit voltages (12 V, 24 V, 48 V, 330 V, 560 V and 700 V DC) as well as for a wide range of different voltage constants (from about 1 to 500 V min. / 1,000). Additional rotor options include special lightweight rotors for reduced inertia. We can also customize active lengths and develop special mechanical designs for the flange, shaft end and bearings, for applications requiring higher radial and axial forces. Our motors can be engineered to meet even the toughest environmental requirements (higher temperature; hazardous or harsh environment), have increased IP ratings and be equipped with a variety of available encoder options to meet all our customer needs.

FEATURES

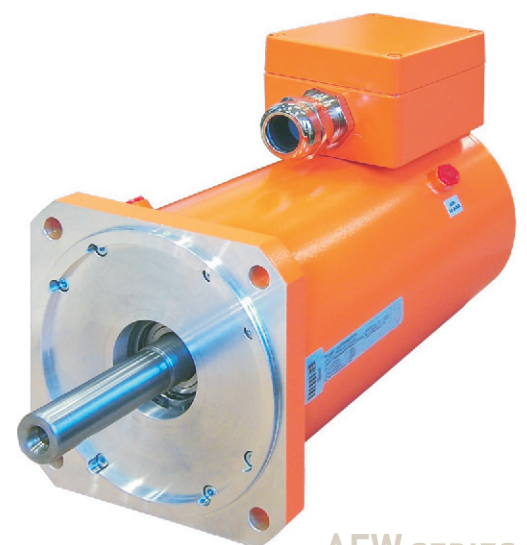
- High continuous torque
- Compact dimensions
- High efficiency
- High quality production
- High precision assembly
- Long life and high operational reliability

BENEFITS

- Highly customizable
- High power density
- Space-saving equipment dimensions
- Rugged structure
- Minimal maintenance needs
- Ability to operate at increased ambient temperatures
- Different winding options available

DIMENSIONS	MEASURING UNIT	AFW SERVO MOTORS
Continuous Stall Torque M^0	Nm [lb-in]	21.9-277 [193.7-2,449.8]
Peak Torque M_{max}	Nm [lb-in]	50-556 [442.2-4,917.4]
Rated Speed n_N	min^{-1} (rpm)	0-5,500
Rated Power P_N	kW [hp]	3.4-76.9 [4.559-103.1]
Rated Torque M_N	Nm [lb-in]	21.9-245 [193.7-2166.8]
Moment of Inertia J	$kg\ m^2$ [lb-in $sec^2 \times 10^{-4}$]	9.4-429 [83.18-3,796.1]
Position Transducer	Standard / Optional	Resolver / Encoder
Temperature Monitoring	N/A	PTC, PT1000, Thermoswitch
Brake	N/A	Optional
Rated Bus Voltage V DC	V	300/560 (or customizable)
Certificate / Marks	N/A	CE
Cooling	N/A	Water *

* The standard cooling agent for AFW servo motors is water. However, different types of coolants (e.g. oils, antifreeze mixtures, etc.) with varying temperature ranges are available upon request.



AFW SERIES

DIMENSIONAL DETAILS

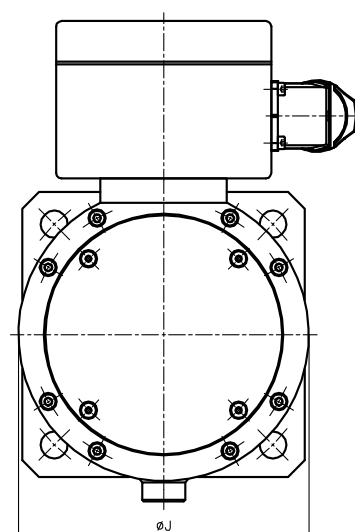
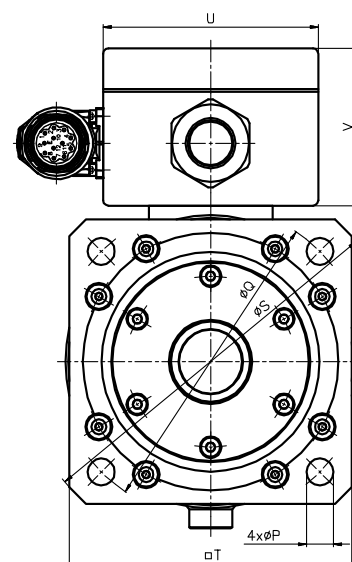
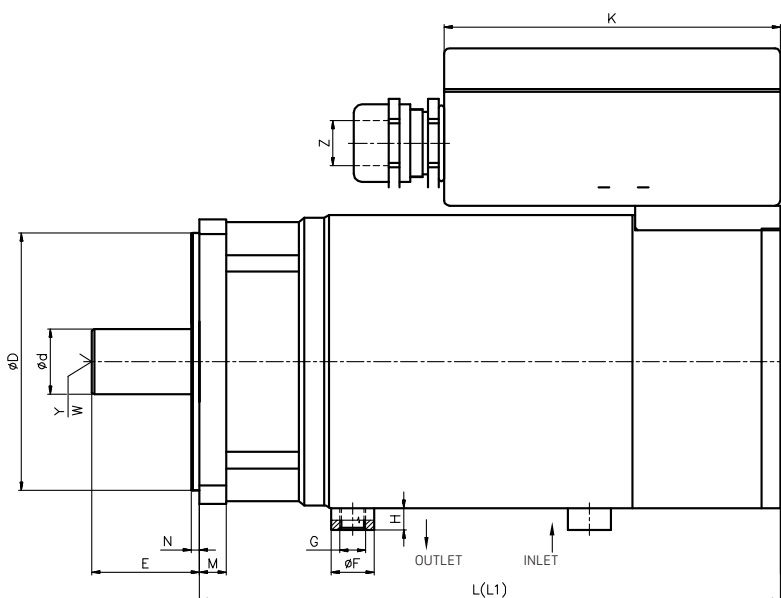
AFW SERIES

TYPE	d	D	E	F	G	H	J	K	L	L1	M	N	P	Q	S	□T	U	V	Z	W	Y
	mm																				
AFW505	24k6	95j6	40	16	G1/8"	8	108	125	216	258	10	3	10	115	140	105	80	58	9-16.5	19	DIN 332-DS M8
AFW507	24k6	95j6	40	16	G1/8"	8	108	125	266	308	10	3	10	115	140	105	80	58	9-16.5	19	DIN 332-DS M8
AFW509	24k6	95j6	40	16	G1/8"	8	108	125	316	358	10	3	10	115	140	105	80	58	9-16.5	19	DIN 332-DS M8
AFW635	28k6	130j6	50	16	G1/8"	8	150	125	232	282	19	3.5	11	165	188	140	80	58	9-16.5	22	DIN 332-DS M10
AFW637	28k6	130j6	50	16	G1/8"	8	150	125	282	332	19	3.5	11	165	188	140	80	58	9-16.5	22	DIN 332-DS M10
AFW639	28k6	130j6	50	16	G1/8"	8	150	125	332	382	19	3.5	11	165	188	140	80	58	9-16.5	22	DIN 332-DS M10
AFW805	38k6	180j6	60	20	G1/4"	13	180	120	249	303	22	4	14	215	250	190	122	90	19-28	22	DIN 332-DS M12
AFW807	38k6	180j6	60	20	G1/4"	13	180	120	299	353	22	4	14	215	250	190	122	90	19-28	22	DIN 332-DS M12
AFW809	38k6	180j6	60	20	G1/4"	13	180	120	349	403	22	4	14	215	250	190	122	90	19-28	22	DIN 332-DS M12
AFW1005	48k6	180j6	80	20	G1/4"	13	219	120	262	309	25	4	14	240	270	210	122	90	19-28	36	DIN 332-DS M16
AFW1007	48k6	180j6	80	20	G1/4"	13	219	120	312	359	25	4	14	240	270	210	122	90	19-28	36	DIN 332-DS M16
AFW1009	48k6	180j6	80	20	G1/4"	13	219	120	362	409	25	4	14	240	270	210	122	90	19-28	36	DIN 332-DS M16

L (without brake)

L1 (with brake)

W = thread depth



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AFW Servo Motors, Moog Brno, Czech Republic
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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