# MAXIMUM DYNAMIC BRUSHLESS SERVO MOTORS – STAINLESS STEEL COOLING

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 provides 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. The performance of traditional electric systems has been limited by high inertias. The Moog Maximum Dynamic (MD) Brushless Servo Motor Series has been developed to overcome these challenges.

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

Moog has expanded the MD Series Servo Motors range by introducing the new Stainless Steel (SS) cooling option for Liquid Cooled Motors. The stainless steel circuit for the liquid flow path is inherently resistant to the adverse effects of liquid contamination, thereby ensuring optimum motor performance, longer life and reduced maintenance.

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
- Lower operating costs
- Lower maintenance

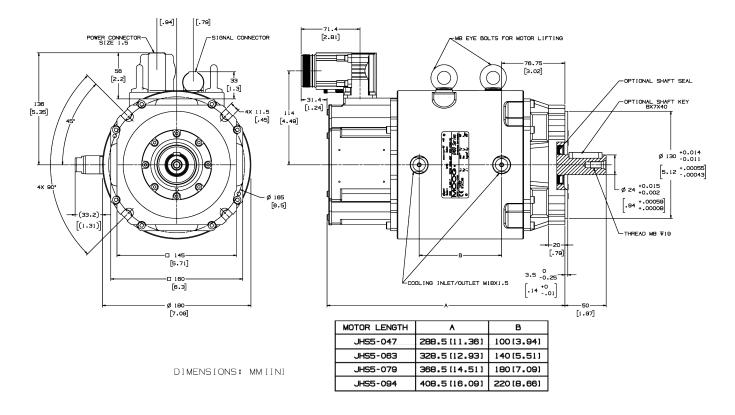
#### **KEY APPLICATION MARKETS**

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

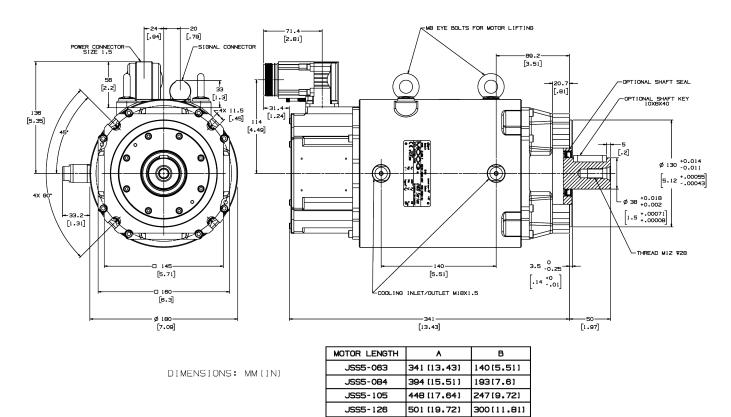




SIZE 5 : JHS5 WITH RESOLVER

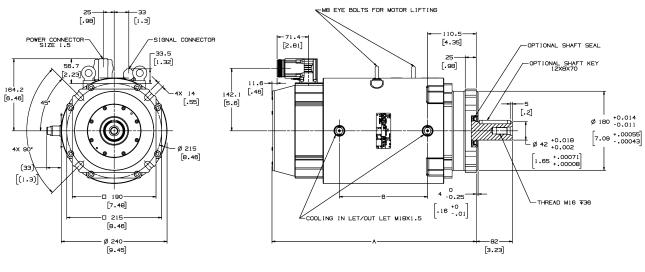


JSS5 WITH RESOLVER



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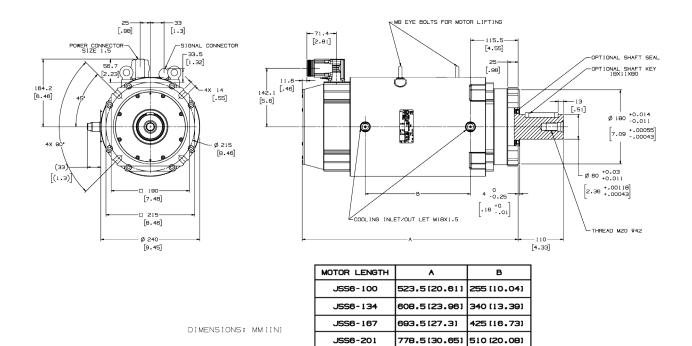
### SIZE 6 : JHS6 WITH RESOLVER



DIMENSIONS:	MM [] N]

MOTOR LENGTH	A	В		
JHS6-079	463.5[18.25]	200 [7.87]		
JHS6-105	530.5 (20.89)	267[10.51]		
JHS6-131	597.5 (23.52)	334 [13.15]		
JHS6-157	663.5 [26.12]	400 [15.75]		

JSS6 WITH RESOLVER



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## SPECIFICATIONS

Feature	Benefits							
Stainless Steel Conduit	<ul> <li>Treated or purified coolant liquid not required</li> <li>Increased motor life due to no corrosion problem</li> <li>Reduced initial setup and operating cost</li> </ul>							
Dynamics	<ul> <li>Faster operation, higher performance</li> <li>Increased productivity</li> <li>Improved product quality through accurate control</li> </ul>							
Range	<ul> <li>Consistent modular design and characteristics for the full range of servo motors</li> <li>Facilitating rapid machine design process resulting from a wide range of readily available options</li> </ul>							
Flexibility       • Willingness to customize to meet application specific requirements         • Seamless integration into existing infrastructure         • Reduced need for system redesign								

### **TECHNICAL DATA**

Motor type	e Stall torque		ll torque Maximum torque		Rated torque*		Rated speed *	Rated power*		Rotor inertia	
	Nm	lbf in	Nm	lbfin	Nm	lbf in	rpm	kW	hp	kg cm <sup>2</sup>	lbfins²x 10 <sup>-4</sup>
JHS5-047	46	407	64	566	45	395	2,000	9.4	12.5	10.8	95.6
JHS5-063	61	540	85	752	60	527	2,000	12.5	16.7	14.0	124
JHS5-079	75	664	107	947	73	648	2,000	15.3	20.6	17.1	151
JHS5-094	90	797	128	1,133	88	778	2,000	18.4	24.7	20.2	179
JSS5-063	59	522	136	1,204	56	497	2,700	15.9	21.3	29.1	258
JSS5-084	78	690	182	1,611	76	668	2,000	15.8	21.2	37.7	334
JSS5-105	98	867	227	2,009	95	839	1,600	15.9	21.3	46.4	410
JSS5-126	117	1,035	273	2,416	114	1,011	1,300	15.6	20.9	55.0	486
JHS6-079	114	1,009	275	2,434	104	920	1,700	18.4	24.7	84.2	745
JHS6-105	151	1,336	365	3,230	138	1,221	1,600	23.1	31.0	109	969
JHS6-131	188	1,664	456	4,036	171	1,513	1,500	26.9	36.1	135	1,193
JHS6-157	225	1,991	547	4,841	207	1,832	1,400	30.3	40.6	160	1,416
JSS6-100	134	1,186	614	5,434	114	1,009	2,100	25.1	33.7	260	2,302
JSS6-134	177	1,566	816	7,222	157	1,389	1,500	24.7	33.1	336	2,974
JSS6-167	219	1,938	1,021	9,036	199	1,761	1,200	25.0	33.5	411	3,641
JSS6-201	262	2,319	1,227		241	2,133	1,000	25.2	33.8	487	4,309

Notes:

1. \* Performance values are with cooling liquid inlet temperature of 104°  $\rm F$ 

2. \* Performance values are with cooling liquid flow rate of 5 ltrs/min for Size 5 and 8 ltrs/min for Size 6 motor.

3. Motor pole count: 8

4. DC Link voltage: 565 V

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

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MD Series Servo Motor - Stainless Steel Cooling Origami/PDF/Rev.-, Nov 2012, Id. CDL36801-en 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 MD Series Servo Motors for optimized system performance.



