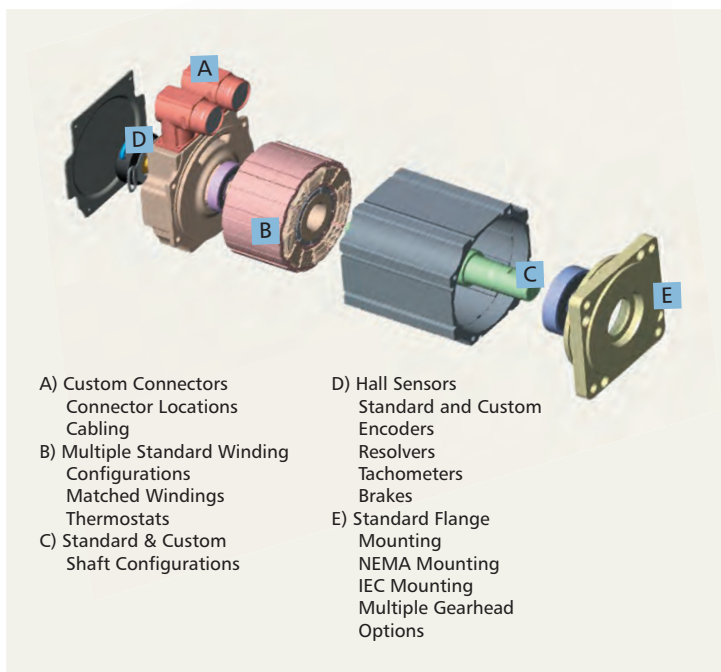


An expert source in providing custom engineered solutions for over 15 years to the packaging industry.

Food Processing, Pharmaceutical and other Packaging Equipment Manufacturers rely on Torque System's high torque density servomotors for precision motion control. Our MDM 5000 motor technology provides maximum power output in a compact, economical package. In fact, MDM 5000 motors offer 35+% more torque density than traditional technology. Our broad product selections include: Stainless Steel, Food Grade Washdown and other MDM 5000 platform technology



We engineered the MDM-5000 high-energy brushless servomotor with advanced design features to deliver the industry's highest available torque density in a compact and versatile platform. MDM-5000 servomotors are available in models that produce stall torque up to 35 to 40% higher than conventional designs. The high output is made possible by cut-core, segmented stator lamination technology contained in a high efficiency heat transfer capsule, high slot-fill windings, and a high flux neodymium magnet array.

Standard models are available in either NEMA or IEC mounting configurations with assemble to order availability as standard. Four sizes – 60mm, 85mm, 110mm and 140mm are available with a continuous stall torque range .5Nm (4.4 lb-in.) to 27.5Nm (243 lb - in.).

Torque Systems can quickly customize the MDM-5000 to fit the most challenging applications and requirements. A wide range of windings is available for fine-tuning to specific power supply specifications. We also offer a broad array of brake and gearbox options and custom termination, connectorization, and cabling configurations to facilitate your assembly requirements. Off-the-shelf feedback options include encoders available with multiple line counts, Hall sensors, and resolvers.

Features:

- Available for use in close proximity to food
- Standard Metric, NEMA and special mounting/shaft configurations
- Full IP 67 Compliance with seals
- External hardware is 300 series Stainless Steel, including casing and spring on shaft seal
- Complete conformance to UL/CUL and CE Standards across the entire product line
- Food Grade RTV at the joints
- Food Grade epoxy based paint, painted as complete motor
- Optional encoder line counts up to 5,000 ppr available for all configurations

Benefits

- Specialized machinery designs can install or retrofit servomotor with little or no restrictions
- Multiple configurations accommodate flexible design considerations
- Withstands low pressure washdown in food environments
- Non-corrosive external hardware standard feature required for many applications
- Required industry defined standards conformance in North America
- Typical food grade option is standard
- Conforms to food handling requirements
- Performance enhancement and feature convenience that allows ITT Torque Systems motors to be incorporated into a broader range of applications


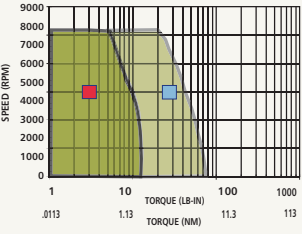

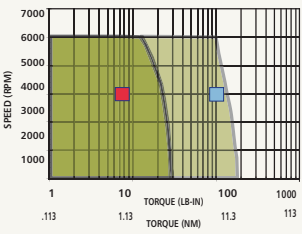

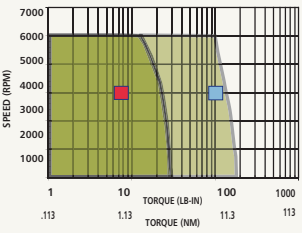

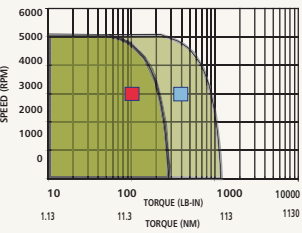
High Energy Brushless Servomotor Platforms

Key ■ Continuous Duty ■ Intermittent Duty

Standard Design Features:
 High Energy Neodymium Magnets
 CE/UL Compliant
 Multiple Winding Availability
 IP 67 Construction
 Clean Operating, Low Maintenance Brushless Design

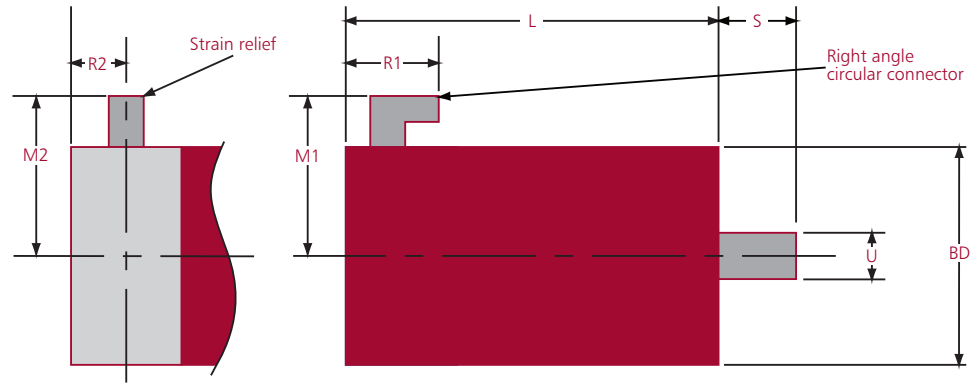
Rigid Application Development Process:

- Application Review
- Motion Profile Analysis
- Magnetic FEA 3D Modeling & Computer Simulation
- Prototype Design
- Performance Verification

Platform F060		Multiple Standard and Custom Windings Available							Platform T0604 Max. Performance	
	Platform Number	Rated Power W	Cont. Stall Torque lb-in	Cont. Stall Torque NM	Peak Torque lb-in	Peak Torque NM	Rotor Inertia**			
	F0601	247	4.4	0.50	22	2.50	0.000135	0.15255		
	F0602	410	7.7	0.87	39	4.40	0.00017	0.1921		
	F0603	478	10.5	1.18	52	5.90	0.00024	0.2712		
	F0604	504	12.4	1.40	62	7.00	0.00031	0.3503		
Platform F085		Multiple Standard and Custom Windings Available							Platform T0854 Max. Performance	
	Platform Number	Rated Power W	Cont. Stall Torque lb-in	Cont. Stall Torque NM	Peak Torque lb-in	Peak Torque NM	Rotor Inertia**			
	F0851	967	17.7	2.00	57	6.40	0.000825	0.93225		
	F0852	1536	31	3.50	103	11.60	0.00147	1.6611		
	F0853	1941	43.4	4.90	144	16.30	0.00182	2.0566		
	F0854	2059	53.1	6.00	180	20.40	0.0024	2.712		
Platform F110		Multiple Standard and Custom Windings Available							Platform T1104 Max. Performance	
	Platform Number	Rated Power W	Cont. Stall Torque lb-in	Cont. Stall Torque NM	Peak Torque lb-in	Peak Torque NM	Rotor Inertia**			
	F1101	1543	43.3	4.90	106	12.00	0.0021	2.373		
	F1102	2628	75.2	8.50	194	21.90	0.0038	4.294		
	F1103	3175	99.1	11.20	264	29.80	0.0059	6.667		
	F1104	3722	125	14.1	333	37.60	0.008	9.04		
Platform F140		Multiple Standard and Custom Windings Available							Platform T1405 Max. Performance	
	Platform Number	Rated Power W	Cont. Stall Torque lb-in	Cont. Stall Torque NM	Peak Torque lb-in	Peak Torque NM	Rotor Inertia**			
	F1402	5500	122.00	13.80	420	47.50	0.01169	13.2097		
	F1403	5780	164.00	18.50	529	71.00	0.01669	18.8597		
	F1404	6200	204.00	22.50	840	95.00	0.02175	24.5775		
	F1405	6930	243	27.5	1044	118	0.027	30.51		



Nominal Motor Dimensions



Platform	Frame Length mm (L -in.)	Frame square mm (BD -in.)	Shaft extension mm (BD -in.)	Shaft diameter mm (S -in.)	End Bell Connector width to motor end mm (R1 -in.)	End Bell Connector height to motor end mm (M1 -in.)	End Bell Connector width to motor end mm (R2 -in.)	End Bell strain relief height to motor end mm (M2 -in.)
F0601	112 (4.41)	58 (2.28)	19.5 (.77)	14 (0.55)	36.5 (1.44)	67 (2.7)	18 (0.7)	51 (2.0)
F0602	131 (5.16)	58 (2.28)	19.5 (.77)	14 (0.55)	36.5 (1.44)	67 (2.7)	18 (0.7)	51 (2.0)
F0603	150 (5.9)	58 (2.28)	19.5 (.77)	14 (0.55)	36.5 (1.44)	67 (2.7)	18 (0.7)	51 (2.0)
F0604	169 (6.65)	58 (2.28)	19.5 (.77)	14 (0.55)	36.5 (1.44)	67 (2.7)	18 (0.7)	51 (2.0)
F0851	130 (5.12)	85 (3.34)	25.4 (1.0)	19 (0.748)	46 (1.82)	82 (3.2)	18 (0.7)	63 (2.5)
F0852	159 (6.26)	85 (3.34)	25.4 (1.0)	19 (0.748)	46 (1.82)	82 (3.2)	18 (0.7)	63 (2.5)
F0853	188 (7.4)	85 (3.34)	25.4 (1.0)	19 (0.748)	46 (1.82)	82 (3.2)	18 (0.7)	63 (2.5)
F0854	217 (8.54)	85 (3.34)	25.4 (1.0)	19 (0.748)	46 (1.82)	82 (3.2)	18 (0.7)	63 (2.5)
F1101	142 (5.59)	110 (4.33)	35 (1.38)	24 (0.945)	48 (1.89)	94 (3.7)	20 (0.79)	75 (2.95)
F1102	173 (6.81)	110 (4.33)	35 (1.38)	24 (0.945)	48 (1.89)	94 (3.7)	20 (0.79)	75 (2.95)
F1103	204 (8.03)	110 (4.33)	35 (1.39)	24 (0.945)	48 (1.89)	94 (3.7)	20 (0.79)	75 (2.95)
F1104	235 (9.25)	110 (4.33)	35 (1.38)	24 (0.945)	48 (1.89)	94 (3.7)	20 (0.79)	75 (2.95)

Notes:

- Additions including brakes, resolvers, rear shaft extensions, and seals will increase overall length
- Shaft extension includes motor face pilot
- Connectors, connector housings, and mounting flanges may increase overall envelope dimensions
- Nema and IEC mounting standards available
- Motor dimensions subject to change



MDM N-Series



MDM H-Series



MDM S-Series
Stainless Steel



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