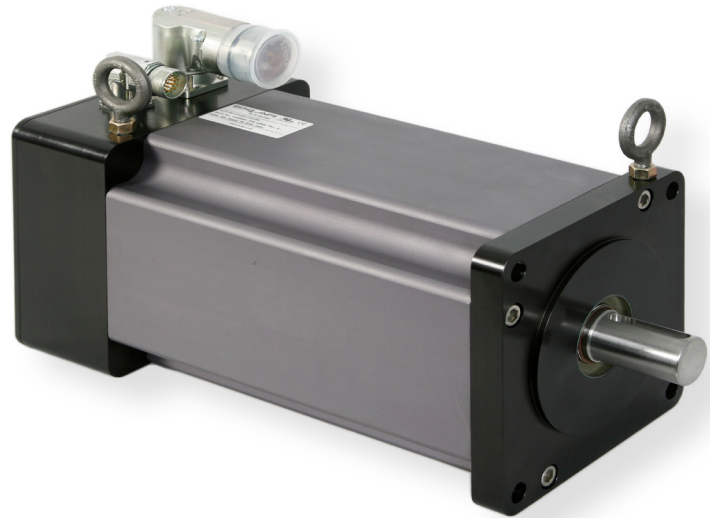


SLM180 Frame Size Extension

The SLM Series of brushless servo motors from Exlar has been expanded to include the 180mm frame size. Utilizing Exlar's T-LAM™ segmented stator technology, this motor delivers the highest torque in the smallest package available.

The broad selection of feedback configuration allows the SLM Series motor to be powered with nearly any servo amplifier manufactured.

Exlar Corporation has capabilities allowing custom motors to be built to meet your specific requirements such as custom shafts, mountings, stators, housing materials or connectorization. Exlar will work with you to engineer a solution tailored to your application.



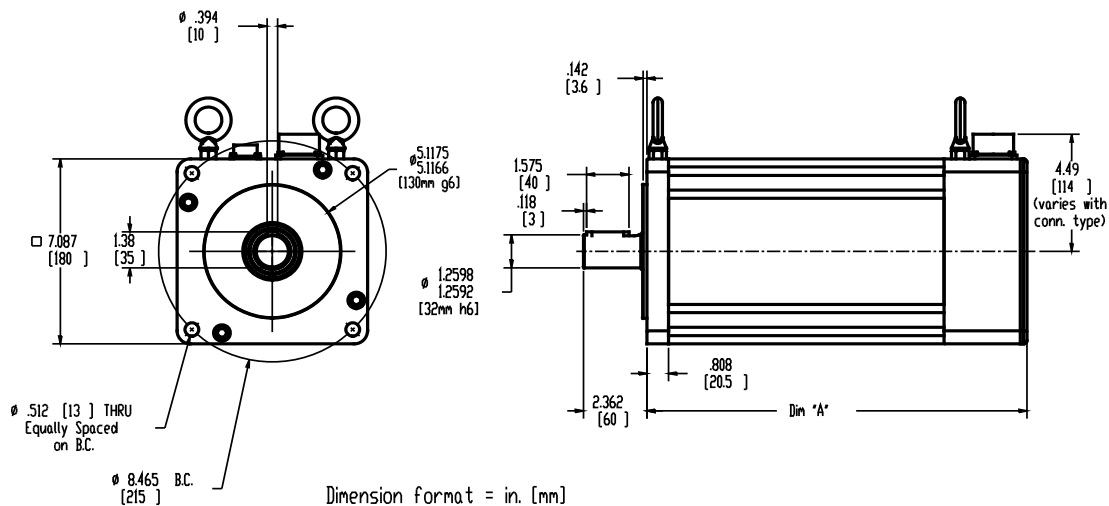
Features

- Speeds to 2400 rpm
- Torques to 612 lbf-in
- 8 pole brushless motors
- Compatible with nearly any manufacturers' servo amplifier
- Class 180H insulation

Applications

- Conveyor Drives
- Tensioning
- Simulation Robotics
- Machine Tools
- Web Feed
- Packaging
- Stage Positioning

SLM180 Dimensions



Dimension "A"

	1 Stack Stator	2 Stack Stator	3 Stack Stator	1 Stack Stator w/Brake	2 Stack Stator w/Brake	3 Stack Stator w/Brake
SLM180	12.25 [322]	14 [355]	15.75 [400]	14.25 [362]	16 [406]	17.75 [451]

SLM180 MECHANICAL/ELECTRICAL SPECIFICATIONS

MOTOR STATOR		1 Stack Motor			2 Stack Motor			3 Stack Motor	
RMS Sinusoidal Commutation Data		138	158	168	238	258	268	358	368
Continuous Motor Torque	lbf-in	254.7	249.9	252.6	424.8	423.0	427.5	595.6	611.6
	(N-m)	(28.78)	(28.23)	(28.53)	(47.99)	(47.80)	(48.30)	(67.29)	(69.10)
Peak Motor Torque	lbf-in	509.4	499.8	505.2	849.6	846.0	855	1191.2	1223.2
	(N-m)	(57.55)	(56.47)	(57.08)	(95.99)	(95.59)	(96.6)	(134.59)	(138.2)
Torque Constant @ 25°C (Kt)	lbf-in/A	12.6	21.8	25.2	12.6	21.8	25.2	21.4	25.2
	(N-m/A)	(1.42)	(2.46)	(2.84)	(1.42)	(2.46)	(2.84)	(2.42)	(2.84)
Continuous Current Rating (IG)	A	22.6	12.8	11.2	37.7	21.7	19.0	31.1	27.2
Peak Current Rating	A	45.2	25.6	22.4	75.5	43.4	38.0	62.2	54.3
Trapezoidal Commutation Data									
Continuous Motor Torque	lbf-in	242.7	238.6	241.2	405.7	404.0	408.3	568.7	584.0
	(N-m)	(27.42)	(26.96)	(27.25)	(45.83)	(45.64)	(46.13)	(64.26)	(65.98)
Peak Motor Torque	lbf-in	485.4	477.2	482.4	811.4	808.0	816.6	1137.4	1168.0
	(N-m)	(54.84)	(53.92)	(54.5)	(91.68)	(91.29)	(92.26)	(128.51)	(131.97)
Torque Constant @ 25°C (Kt)	lbf-in/A	9.8	17.0	19.6	9.8	17.0	19.6	16.7	19.6
	(N-m/A)	(1.11)	(1.92)	(2.22)	(1.11)	(1.92)	(2.22)	(1.88)	(2.22)
Continuous Current Rating (IG)	A	27.7	15.7	13.7	46.2	26.5	23.3	38.1	33.3
Peak Current Rating	A	55.3	31.4	27.5	92.4	53.1	46.5	76.2	66.5
Motor Stator Data									
Voltage Constant @ 25°C (Ke)	Vrms/Krpm	85.9	148.9	171.8	85.9	148.9	171.8	146.1	171.8
	Vkp/Krpm	121.5	210.6	243.0	121.5	210.6	243.0	206.6	243.0
Pole Configuration		8	8	8	8	8	8	8	
Resistance (L-L)	Ohms	0.3	1.0	1.3	0.13	0.41	0.5	0.23	0.3
Inductance (L-L)	mH	8.3	24.8	33.0	3.9	11.8	15.8	7.5	10.3
SLM Armature Inertia (+/-5%)	lb-in-sec ²	0.0427			0.0758			0.1089	
	(kg-cm ²)	(48.25)			(85.65)			(123.04)	
Brake Inertia	lb-in-sec ²	0.02815							
	(kg-cm ²)	(31.8)							
Brake Current @24 VDC +/- 10%	A	1.45							
Brake Holding Torque - Dry	lbf-in	708							
	(N-m)	(80)							
Brake Engage/Disengage Time	ms	53/97							
Mechanical Time Constant (tm)	ms	5.0	5.1	5.0	2.0	2.1	2.0	1.2	1.2
Electrical Time Constant (te)	ms	5.5	5.7	5.6	2.3	2.3	2.3	1.4	1.3
Damping Constant	lbf-in/krpm	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0
	(N-m/krpm)	(3.16)	(3.16)	(3.16)	(3.16)	(3.16)	(3.16)	(3.16)	(3.16)
Friction Torque	lbf-in	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
	(N-m)	(4.52)	(4.52)	(4.52)	(4.52)	(4.52)	(4.52)	(4.52)	(4.52)
Voltage Rating	Vrms	230	400	460	230	400	460	400	460
Speed @ Bus Voltage	RPM	2400							
Insulation Class		180H							
Insulation System Volt Rating	Vrms	460							
Environmental Rating		IP65							

For amplifiers using peak sinusoidal ratings, multiply RMS sinusoidal Kt by 0.707, and peak current by 1.414.

All temperature ratings ambient.



Exlar Corporation
 18400 West 77th Street
 Chanhassen, MN 55317
 www.exlar.com
 Phone: 855-620-6200
 Fax: 952-368-4877

PN 46823

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