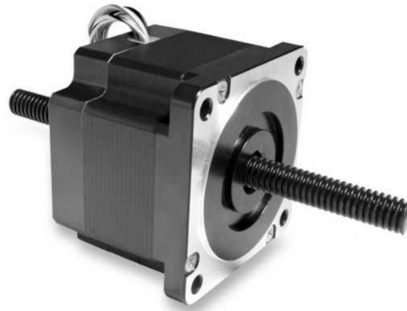


DuraPlus Linear Actuator

SIZE
L3
3.38"
SQ

High Torque



EADmotors high torque Size 34 stepping motors and the new *DuraPlus* system have been combined with shaft bearing enhancements in our L3 series actuator. The combination provides longer life with smoother and quieter operation than conventional designs.

The L3 actuator is a precision engineered device based on a high performance 1.8° stepping motor with an integrated rotating acme-threaded nut and a translating leadscrew. The nut is fabricated from Torlon for maximum thread life and, with high quality lubrication (vacuum compliant), couples with a leadscrew-hardening friction-reducing coating to provide long life, provide maximum efficiency, and minimize positioning deadband. The stainless steel leadscrew allows modifications to be made without introducing a corrosion tendency while maximizing positioning stiffness and performance uniformity over the full length of travel.

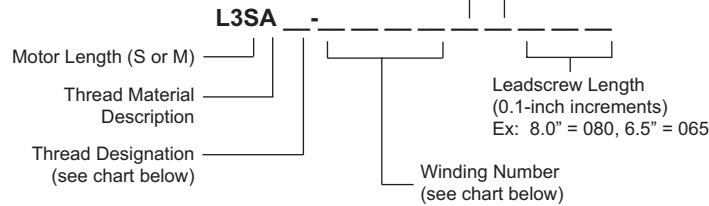
Options: Rotating leadscrew designs, anti-backlash nuts, anti-rotation features, Acetyl nuts, and alternate lubes are common enhancements.

Note: Design adjustments can carry penalties to load capacity and speed capacity. (Lubricant can be shipped separately.)

Encoder Option	
B	100 CPR
C	200 CPR
E	400 CPR
F	500 CPR
G	1000 CPR
H	2000 CPR
J	2048 CPR
T	1024 CPR
X	No Encoder

* Consult factory for encoder details.

Part Number Description



Standard Leadscrew End Features	
A	1/4-28UNF-2B
B	M6x1.0-6H
C	∅0.2502/∅.2499
D	∅0.2364/∅.2361
X	None

Electrical Ratings

Model Number	Number of Leads	Phase Voltage (VDC)	Phase Current (amps)	Phase Resistance (ohms)	Phase Inductance (mH)	Holding Torque (oz-in)	Rotor Inertia (oz-in-sec ²)	Weight (ounces)
L3SX-M200	4	5	2	2.5	21.9	396	0.04	65
L3SX-M300	4	3	3	1	8.67			
L3SX-M500	4	2	5	0.4	3.44			

Leadscrew Specifications

Letter Designation	Thread Description*	Thread Lead (in)	Travel per Step (in)	Minor Diameter	Back Drivable	Maximum Thrust (lbs)
Q	3/8-20ACME(1)	0.05	0.000250	.2994	no	1060
T	3/8-16ACME(1)	0.0625	0.000312	.2857	no	970
W	3/8-12ACME(1)	0.0633	0.000416	.2632	no	860
S	3/8-10ACME(1)	0.1	0.000500	.2353	yes	780
A	1/2-10ACME(1)	0.1	0.000500	.3574	no	670
L	3/8-12ACME(2)	0.1667	0.000834	.2632	yes	580
F	1/2-10ACME(2)	0.2	0.001000	.3576	yes	470

* Number of starts to the leadscrew: (1) = 1 start, (2) = 2 starts, etc.

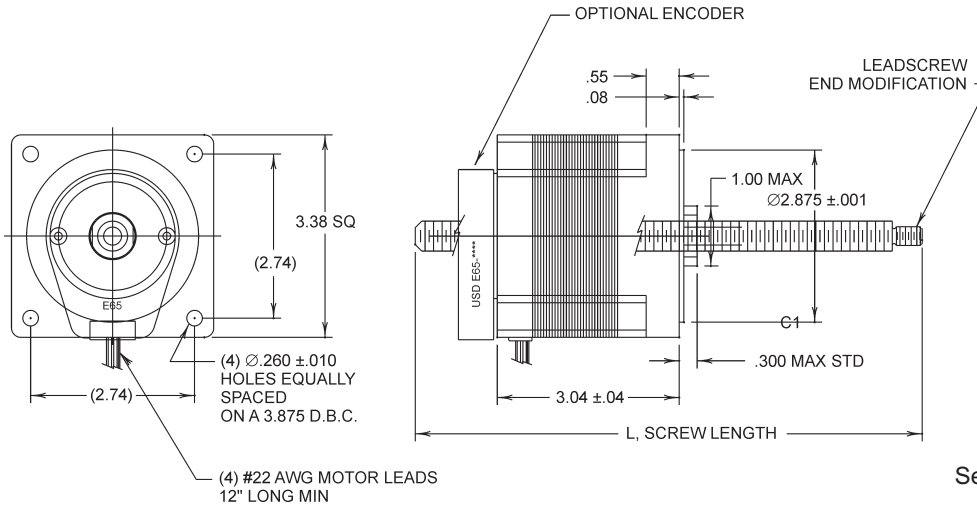
Solutions in motion



DuraPlus Linear Actuator

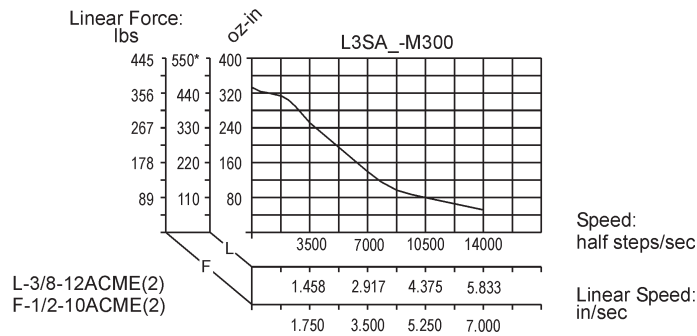
SIZE
L3
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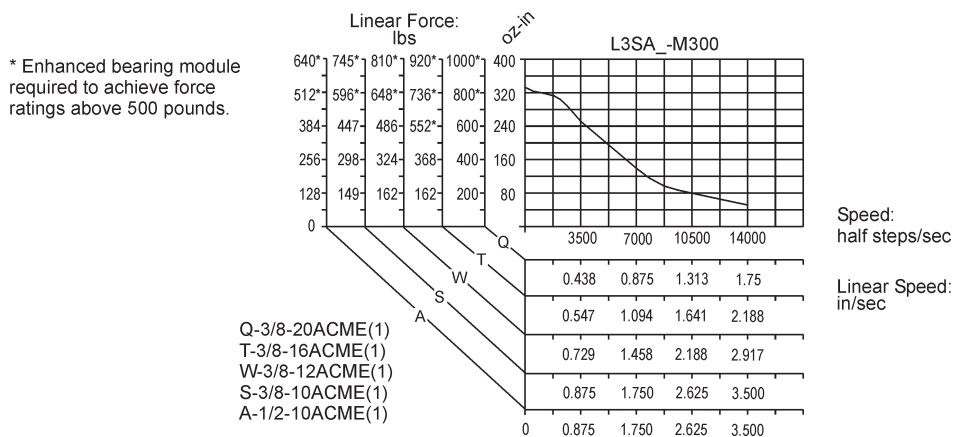
See page 38 for Connection Diagrams.

Typical Bipolar Performance (4 Lead Motor): 80 VDC Power Supply, 3 Amps/Phase - High Speed Thread Series



* Alignment, lubricant and lube quantity, cleanliness, leadscrew balance, and machine vibration can, individually or as a group, prevent high speed operation.

Typical Bipolar Performance: 80 VDC Power Supply, 3 Amps/Phase - High Force Thread Series



Solutions in motion

