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DRIVES

57000 SERIES SIZE 23 STEPPER MOTOR LINEAR ACTUATORS

ROTARY MOTORS

The Haydon™ Size 23 stepper motor linear actuator is available in captive, non-captive, and external linear options. It incorporates the same high performance and durable patent pending design as the size 17, however, it's designed for applications that require forces up to 200 pounds. The 57000 Series is available in a wide variety of resolutions — from 0.0003125" (.0079375 mm) per step to 0.002" (.0508 mm) per step. In addition to our standard configurations, HaydonKerk Motion Solutions can custom design this stepper motor linear actuator to meet your specific application requirements.

SEALED SWITCHES

Standard Lubrication Options - Grease, No Grease, TFE CoatingPITTMAN BRUSH AND
BRUSHLESS DC MOTORS[Part Number Selection Guide](#)

RESOURCES

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Captive

[» Technical Drawing](#)[Download 2D/3D Model](#)

Non-Captive

[» Technical Drawing](#)[Download 2D/3D Model](#)

External

[» Technical Drawing](#)[Download 2D/3D Model](#)

PART NUMBER CONSTRUCTION

Please Select

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RELATED COMPANIES



SERIES 57000 SIZE 23 SALIENT CHARACTERISTICS (Size 23: 57mm (2.3") Hybrid Linear Actuator 1.8 degree step angle)					
Part No.	Captive	57H4(X)-V		57H6(X)-V	
	Non-Captive	57F4(X)-V		57F6(X)-V	
	External Lin.	E57H4(X)-V		E57H6(X)-V	
Wiring		Bipolar		Unipolar**	
Operating voltage		3.25 VDC	5 VDC	12 VDC	5 VDC 12 VDC
Current/phase		2 A	1.3 A	0.54 A	1.3 A 0.54 A
Resistance/phase		1.63 Ω	3.85 Ω	22.2 Ω	3.85 Ω 22.2 Ω
Inductance/phase		3.5 mH	10.5 mH	58 mH	5.3 mH 23.6 mH
Power consumption		13 W			
Rotor inertia		166 gcm ²			
Temperature rise		135°F (75°C) Rise			
Weight		18 oz (511 g)			
Insulation resistance		20 M Ω			

**Unipolar drive gives approximately 30% less thrust than bipolar drive.

SALIENT CHARACTERISTICS - SERIES 57000 SIZE 23 HYBRID STEPPER MOTOR LINEAR ACTUATOR: (0.9° STEP ANGLE)

Linear Travel / Step Screw Ø .375" (9.53 mm)		Order Code I.D.
inches	mm	
0.0003125	0.0079*	A
0.0004167	0.0105*	S
0.0005	0.0127	3
0.0008333	0.0211*	T
0.001	0.0254	1
0.002	0.0508	2

*Values truncated

Standard motors are Class B rated for maximum temperature of 130°C.

Special drive considerations may be necessary when leaving shaft fully extended or fully retracted.

SERIES 57000 HYBRID LINEAR ACTUATOR (SIZE 23: 57mm (2.3") HYBRID LINEAR ACTUATOR 0.9 degree step angle)					
Part No.	Captive	57K4(X)-V		57K6(X)-V	
	Non-Captive	57J4(X)-V		57J6(X)-V	
	External Lin.	E57K4(X)-V		E57K6(X)-V	
Wiring		Bipolar		Unipolar**	
Operating voltage		3.25 VDC	5 VDC	12 VDC	5 VDC 12 VDC
Current/phase		2 A	1.3 A	0.54 A	1.3 A 0.54 A
Resistance/phase		1.63 Ω	3.85 Ω	22.2 Ω	3.85 Ω 22.2 Ω
Inductance/phase		4.2 mH	13 mH	68 mH	6 mH 27 mH
Power consumption		13 W			
Rotor inertia		166 gcm ²			
Temperature rise		135°F (75°C) Rise			
Weight		18 oz (511 g)			
Insulation resistance		20 M Ω			

Linear Travel / Step Screw Ø .375 (9.53 mm)		Order Code I.D.
inches	mm	
0.000125	0.0031"	7
0.00015625	0.003969	P
0.00020833	0.00529166	X
0.00025	0.00635	9
0.0004167	0.01058418	S
0.0005	0.0127	3
0.001	0.0254	1

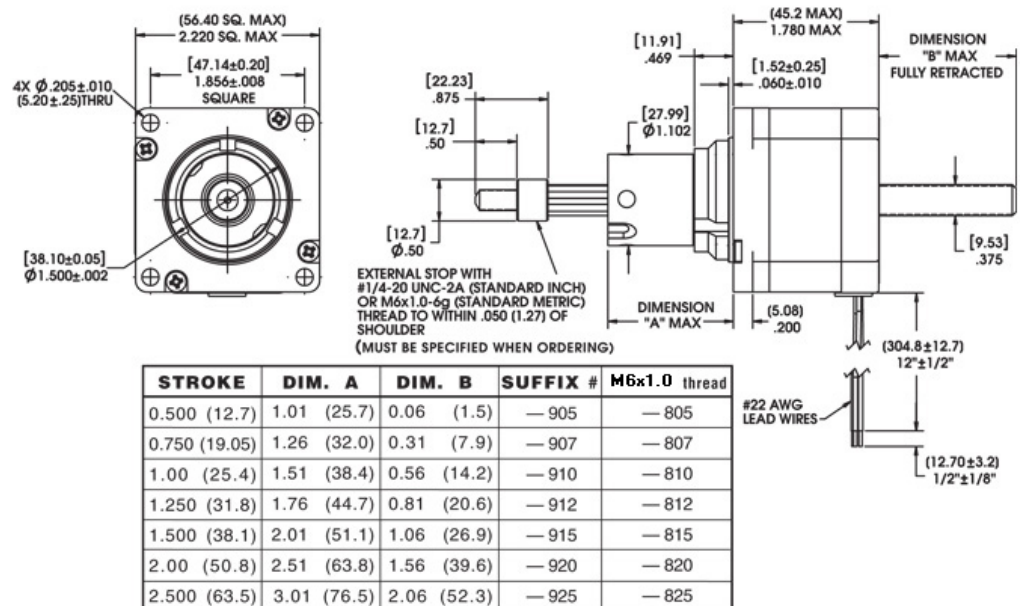
*Values truncated

Standard motors are Class B rated for maximum temperature of 130°C.

Special drive considerations may be necessary when leaving shaft fully extended or fully retracted.

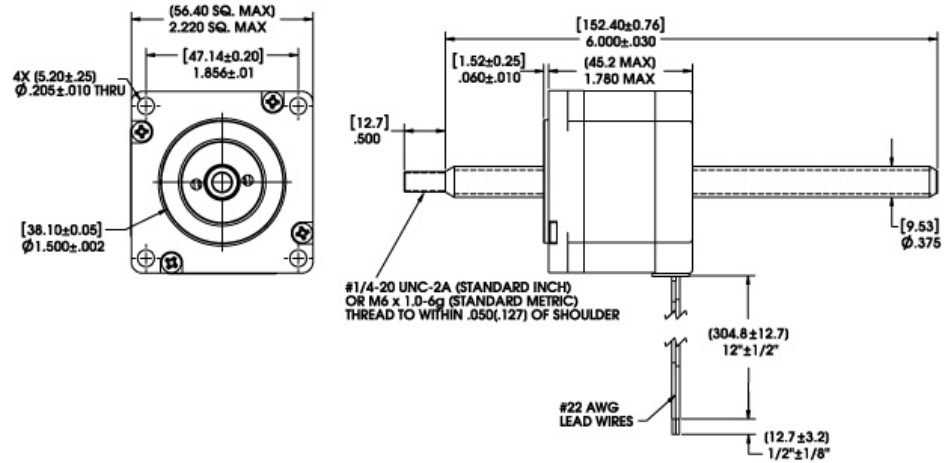
**Unipolar drive gives approximately 30% less thrust than bipolar drive.

DIMENSIONAL DRAWING - 57000 SERIES SIZE 23 CAPTIVE STEPPER MOTOR LINEAR ACTUATOR



DIMENSIONAL DRAWING - 57000 SERIES SIZE 23 NON-CAPTIVE STEPPER MOTOR LINEAR ACTUATOR

Size 23 Series 57000 Non-Captive Linear Actuator

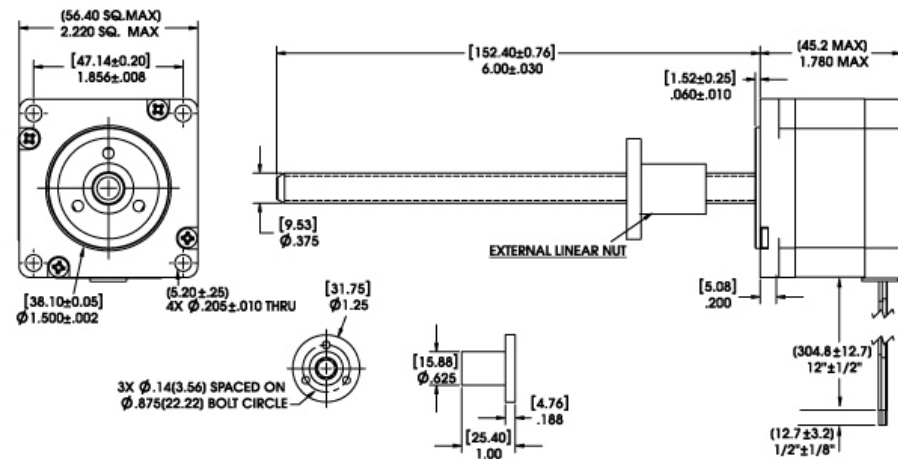


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STANDARD SCREW LENGTH AVAILABLE - Up To 18" (457mm)

DIMENSIONAL DRAWING - 57000 SERIES SIZE 23 EXTERNAL STEPPER MOTOR LINEAR ACTUATOR

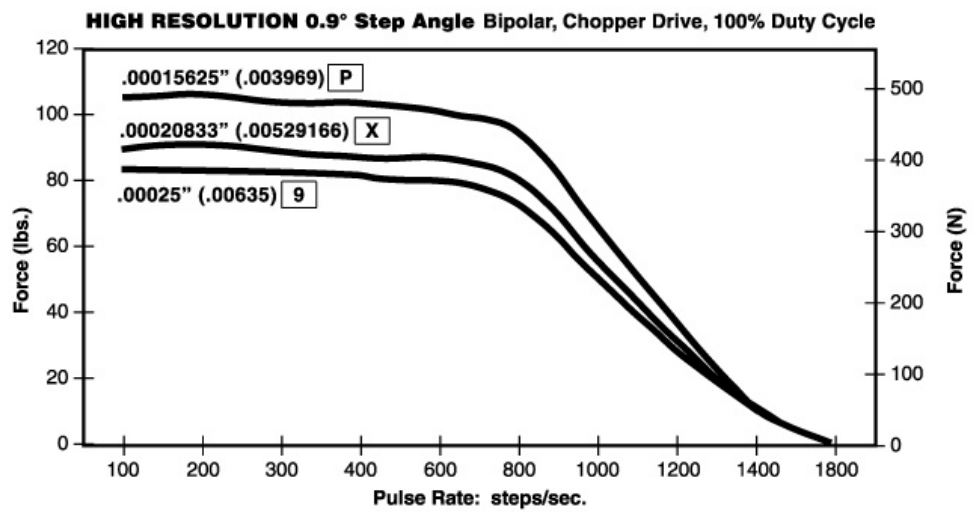
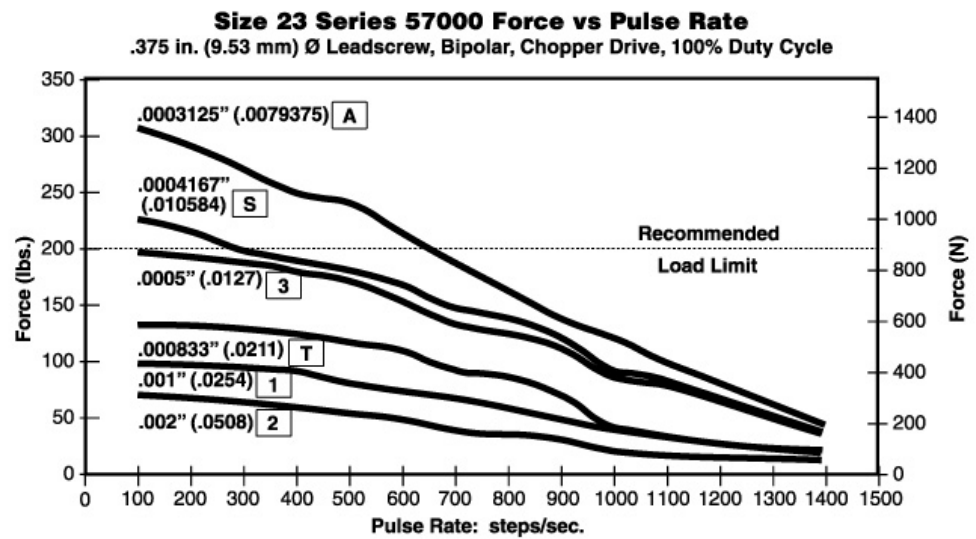
Size 23 Series 57000 External Linear Actuator



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STANDARD SCREW LENGTH AVAILABLE - Up To 12" (305mm)

PERFORMANCE CURVES - 57000 SERIES SIZE 23 STEPPER MOTOR LINEAR ACTUATOR - FORCE VS. PULSE RATE



PERFORMANCE CURVES - 57000 SERIES SIZE 23 LINEAR ACTUATOR - FORCE VS. LINEAR VELOCITY

