

Size 17 Double Stack Captive Shaft

Size 17 Double Stack External Linear

Size 17 Double Stack Non-Captive Shaft

Haydon™ 43000 Series Size 17 Double Stack hybrid linear actuators offer greater performance.

The versatile designs deliver exceptional performance and new linear motion design opportunities.

Three designs are available, captive, non-captive and external linear versions. The 43000 Series is available in a wide variety of resolutions - from 0.000625-in (.0158 mm) per step to 0.005-in (.127 mm) per step. The motors can also be microstepped for even finer resolutions. The Size 17 Double Stack actuator delivers thrust of up to 75 lbs. (337 N).

HYBRID LINEAR ACTUATOR
STEPPER MOTORS

Salient Characteristics

Size 17: 43 mm (1.7-in) Double Stack Hybrid Linear Actuator (1.8° Step Angle)			
Part No.	Captive	43M4(X)-V	
	Non-captive	43L4(X)-V	
	External Lin.	E43M4(X)-V	
Wiring		Bipolar	
Winding voltage	2.33 VDC	5 VDC	12 VDC
Current/phase	2.6 A	1.3 A	550 mA
Resistance/phase	0.9 Ω	3.8 Ω	21.9 Ω
Inductance/phase	1.33 mH	8.21 mH	45.1 mH
Power consumption	10.4 W Total		
Insulation Class	Class B (Class F available)		
Weight	12.5 oz (352 g)		
Insulation resistance	20 MΩ		
Max. Load Limit	75 lbs (337 N)		

Linear Travel / Step Screw Ø.250" (6.35 mm)		Order Code I.D.
inches	mm	
.000625	.0158*	B
.00125	.0317*	C
.0025	.0635	Y
.00375	.0953	AG
.005	.127	Z

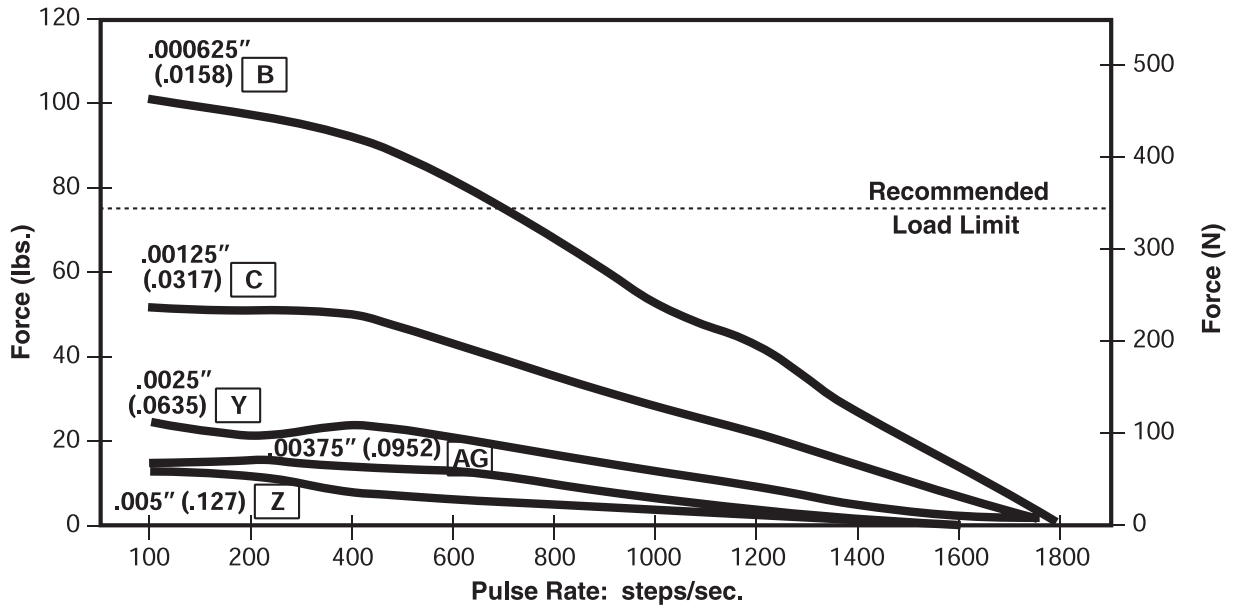
*Values truncated

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.

FORCE vs. PULSE RATE Bipolar • Chopper • 100% Duty Cycle

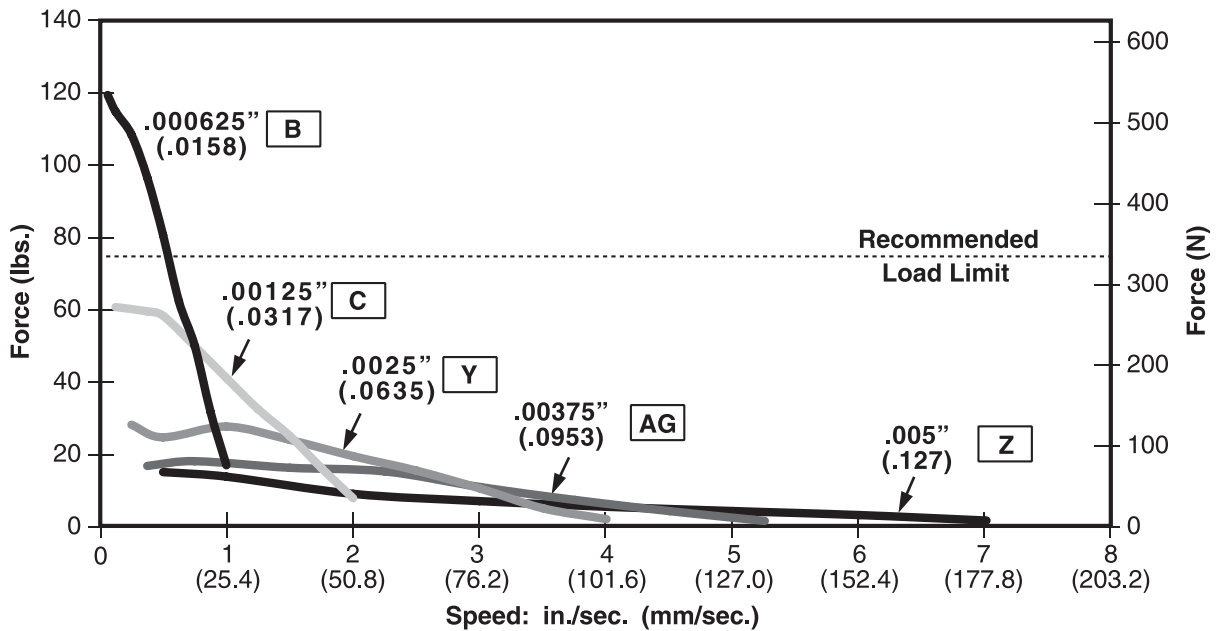
Ø .250 (6.35) Lead-screw



HYBRID LINEAR ACTUATOR
STEPPER MOTORS

FORCE vs. LINEAR VELOCITY Bipolar • Chopper • 100% Duty Cycle

Ø .250 (6.35) Lead-screw



NOTE: All chopper drive curves were created with a 5 volt motor and a 40 volt power supply.

Ramping can increase the performance of a motor either by increasing the top speed or getting a heavier load accelerated up to speed faster. Also, deceleration can be used to stop the motor without overshoot.

With L/R drives peak force and speeds are reduced, using a unipolar drive will yield a further 30% force reduction.