

The **APES23** is a 56mm / NEMA 23 frame, hybrid stepper-based linear actuator.

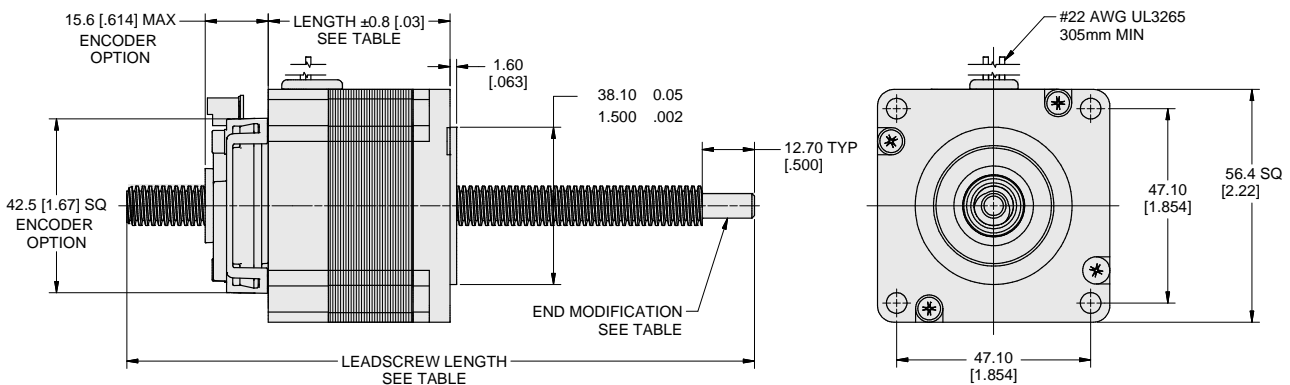
The APES23 is available in standard or custom designs as a linear actuator (non-captive), leadscrew motor (external linear), or guided linear actuator (captive). A variety of resolutions are offered, ranging from 0.0127 to 0.0635 mm per step, with an output force of up to 1779 N (400 lbs.) ElectroCraft's unique motor, shaft and insert designs offer industry-leading output force per frame size while providing superior precision, speed and efficiency.



### APES23 STEPPER LINEAR ACTUATOR

<b>Size</b>	NEMA 23
<b>Force</b>	267 N (60 lbs.) to 1779 N (400 lbs.)

Model Number	Length (in)	Length (mm)	Weight (g)	Rotor Inertia (g-cm <sup>2</sup> )
APES23-100A	1.75	44.5	500	150.4
APES23-166A	2.21	56	700	266.1
APES23-294A	3.08	78.2	1069	459



# APES23

## ElectroCraft AxialPower™ Enhanced

### STEPPER LINEAR ACTUATOR



### APES23 Model Number Example

Thread Description	Lead (in)	Lead (mm)	Travel/Step (in)	Travel/Step (mm)	Max Force APES23-100 (lbs)	Max Force APES23-100 (N)	Max Force APES23-166 (lbs)	Max Force APES23-166 (N)	Max Force APES23-294 (lbs)	Max Force APES23-294 (N)
<b>S</b> 3/8-10 (1S)	0.1000	2.540	0.0005000	0.012700	194	863	269	1197	400	1779
<b>W</b> 3/8-10 (2S)	0.2000	5.080	0.0010000	0.025400	129	574	170	756	256	1139
<b>R</b> 3/8-12 (6S)	0.5000	12.700	0.0025000	0.063500	60	267	84	374	125	556
<b>L</b> 8mm x 2mm (2S)	0.1575	4.000	0.0007874	0.020000	156	694	217	965	322	1432
<b>G</b> 8mm x 2mm (4S)	0.3150	8.000	0.0015748	0.040000	66	294	92	409	137	609

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APES 23 - 166 A 30 - 0 S B 0 0 - K

Windings	Rated Voltage (VDC)	Rated Current (A)	Phase Resistance (Ohm)	Phase Inductance (mH)
<b>100A10</b>	5.9	1.0	5.9	19.2
<b>100A20</b>	3.0	2.0	1.5	4.8
<b>100A30</b>	2.1	3.0	0.7	2.1
<b>100A40</b>	1.5	4.0	0.37	1.0
<b>166A10</b>	7.8	1.0	7.8	37.0
<b>166A20</b>	3.8	2.0	1.9	9.2
<b>166A30</b>	2.8	3.0	0.9	4.1
<b>166A40</b>	1.9	4.0	0.48	2.3
<b>294A10</b>	10.6	1.0	10.6	57.0
<b>294A20</b>	5.4	2.0	2.7	14.2
<b>294A30</b>	3.6	3.0	1.2	6.4
<b>294A40</b>	2.6	4.0	0.66	3.5

Actuator Type	
<b>0</b>	Linear Actuator
<b>1</b>	Leadscrew Motor

Lead Termination	
<b>0</b>	Flying Leads
<b>1</b>	Leads w/Connector

Feedback	
<b>X</b>	No Encoder
<b>H</b>	400 Line Single Ended
<b>K</b>	1000 Line Single Ended

Leadscrew End Features	
<b>0</b>	No End Feature
<b>7</b>	1/4-28 UNF-2A x 12.7mm
<b>8</b>	M6 x 1.0 x 12.7mm
<b>9</b>	Ø.235/Ø.236 x 12.7mm

Screw Length	
<b>X</b>	No Leadscrew
<b>A</b>	76.2mm (3 inches)
<b>B</b>	152.4mm (6 inches)
<b>C</b>	304.8mm (12 inches)
<b>D</b>	457.2mm (18 inches)
<b>E</b>	609.6mm (24 inches)



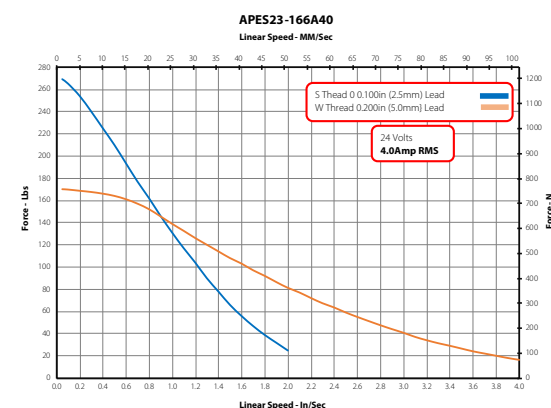
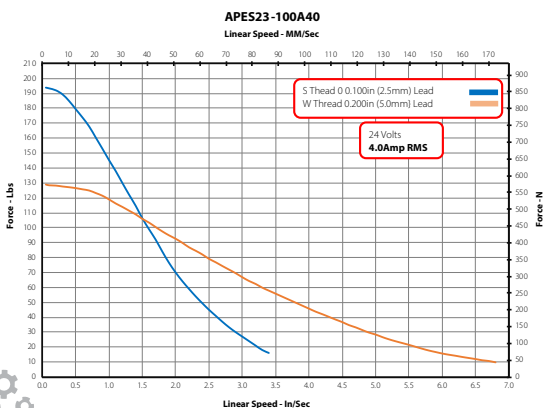
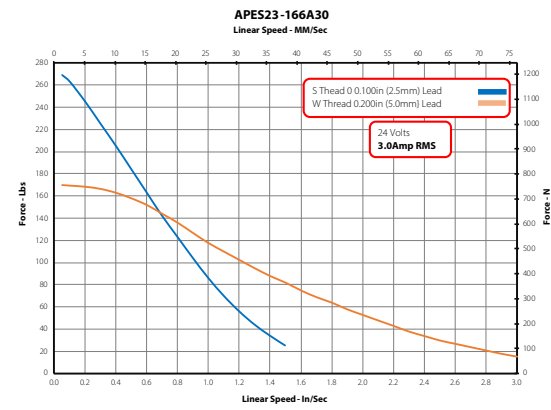
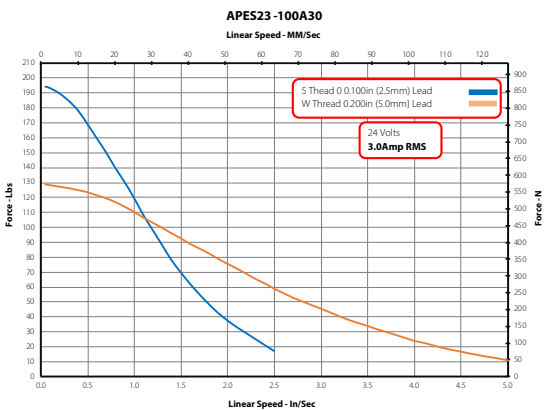
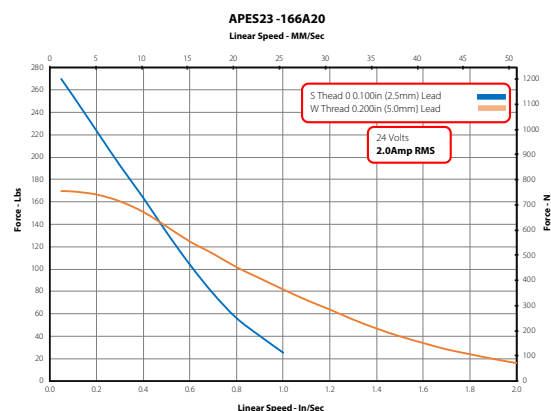
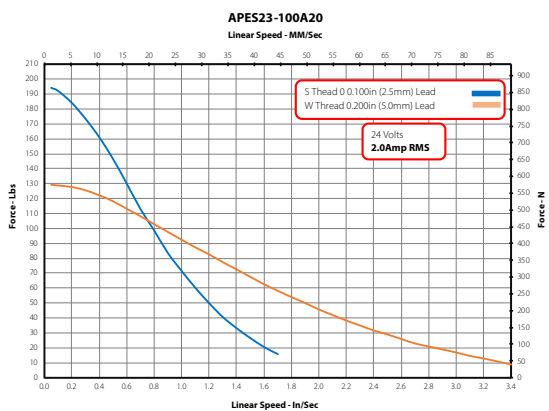
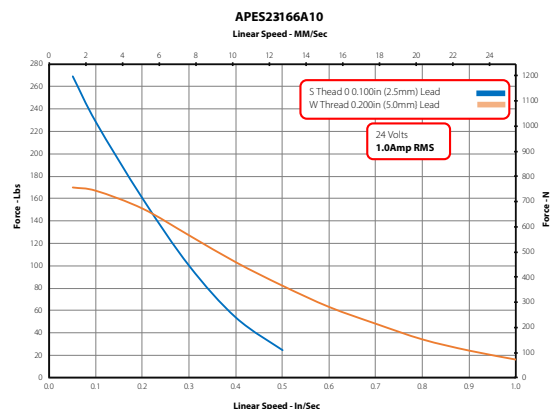
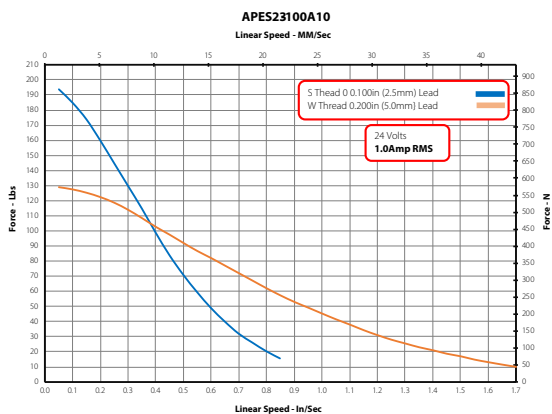
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# APES23 Performance Curves



APES23 Performance Curves Cont.

