

**PA-09**

## **Data Sheet**



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# Specifications



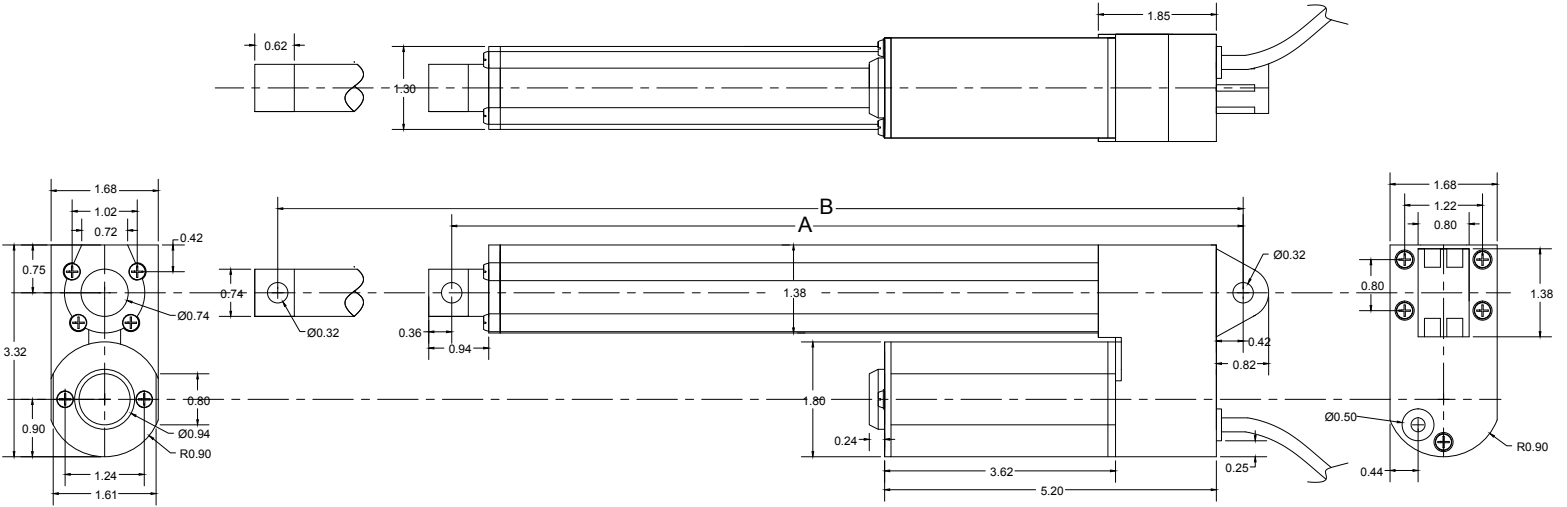
Load (LBS)		No Load Current (A)				Full Load Current (A)				Speed (inch/sec)	
Dynamic	Static	12VDC	24VDC	36VDC	48VDC	12VDC	24VDC	36VDC	48VDC	No Load	Full Load
250	250	1.5	0.6	0.5	0.3	5.5	3.0	2.0	1.5	0.59	0.43
330	330	1.5	0.6	0.4	0.3	5.5	3.0	2.0	1.5	0.39	0.28
450	450	1.2	0.5	0.4	0.3	5.5	3.5	2.5	1.5	0.24	0.20

<b>Stroke</b>	1" to 40"
<b>Limit Switch</b>	Internal - Non-Adjustable
<b>Feedback</b>	Customizable
<b>Screw Type</b>	ACME Screw
<b>Motor Type</b>	Brushed DC Motor
<b>Connector Type</b>	See Page 5
<b>Wire Length</b>	40" (customizable)
<b>Housing Material</b>	6062 Aluminum Alloy
<b>Rod Material</b>	Stainless Steel
<b>Gear Material</b>	Polyformaldehyde
<b>Color (Shaft)</b>	Silver
<b>Color (Motor End)</b>	Black or White
<b>Noise</b>	<45dB
<b>Duty Cycle</b>	25% (5 minutes on, 15 minutes off)
<b>Operational Temperature</b>	-25°C to 65°C (-13°F to 149°F)
<b>Protection Class</b>	IP66
<b>Feedback Options</b>	Hall Effect or Limit Switch Feedback (See Page 5)
<b>Certifications</b>	CE/RoHS/ISO-9001-2008
<b>Mounting Brackets</b>	See Page 7
<b>Mounting Ends</b>	See Page 6



# Dimensions

(Dimensions in inches)



## Hole to Hole

PA-09	Stroke	1	2	3	4	6	8	9	10	12	14	16	18	20	22	24	30	40
	A	5.50	6.50	7.50	8.50	10.50	12.50	13.50	14.50	17.75	19.75	21.75	23.75	25.75	27.75	30.50	36.50	48
B	6.50	8.50	10.50	12.50	16.50	20.50	22.50	24.50	29.75	33.75	37.75	41.75	45.75	49.75	54.50	66.50	88	

### For Stroke Length Less Than 12"

A = Stroke Length + 4.50"

B = Stroke Length x 2 + 4.50"

### For Stroke Length of 12" up to 24"

A = Stroke Length + 5.75"

B = Stroke Length x 2 + 5.75"

### For Stroke Length 24" up to 30"

A = Stroke Length + 6.50"

B = Stroke Length x 2 + 6.50"

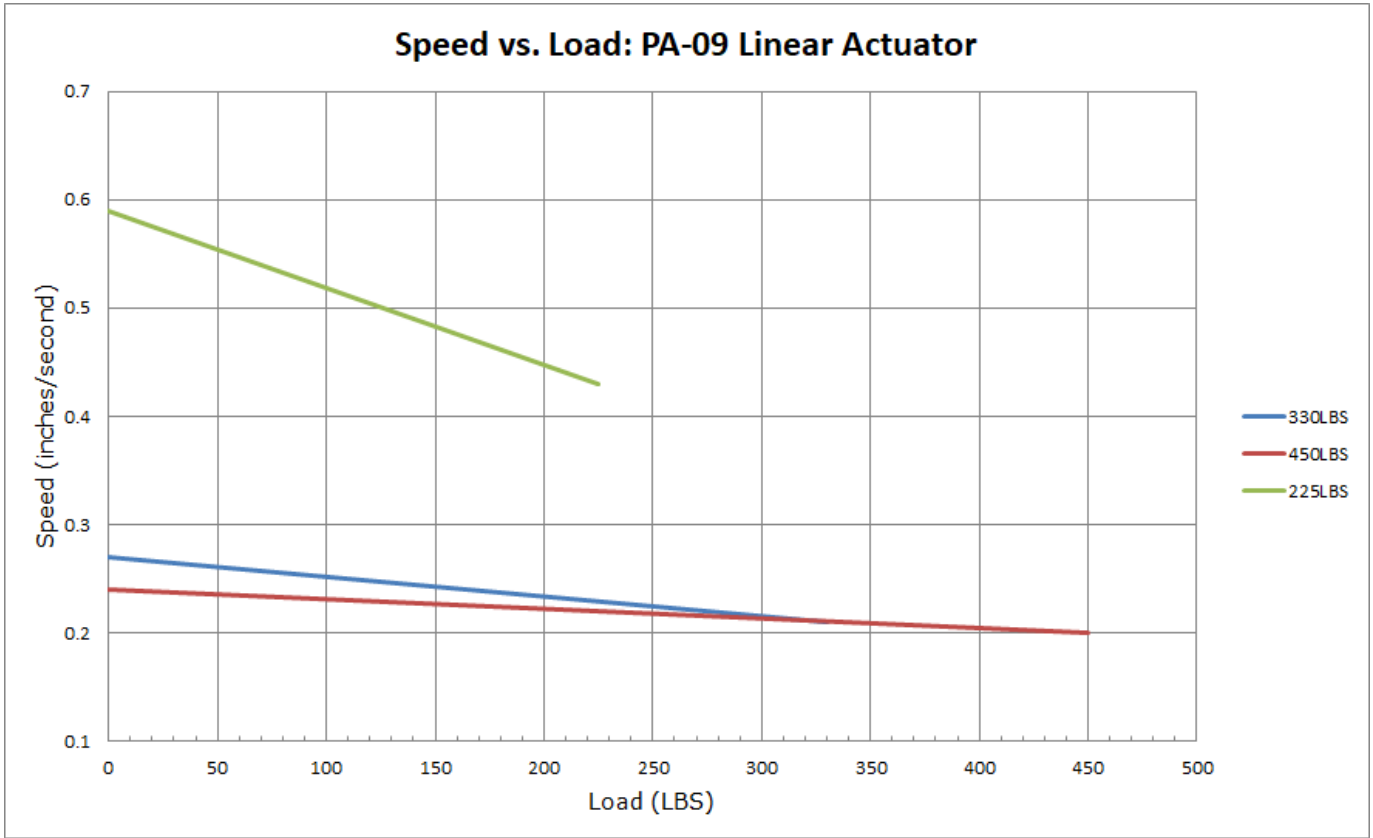
### For Stroke Length 30" to 40"

A = Stroke Length + 8.00"

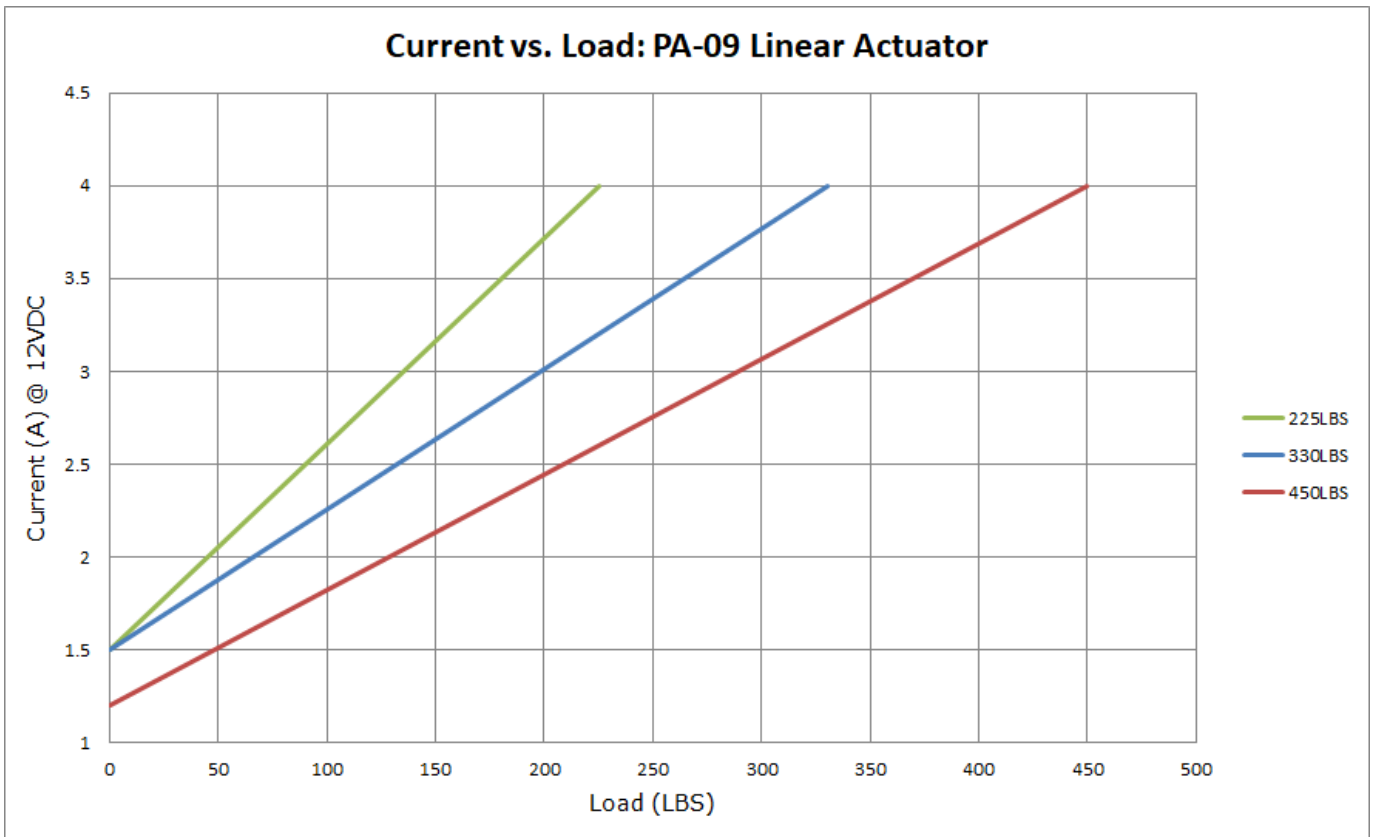
B = Stroke Length x 2 + 8.00"



# Load vs Speed

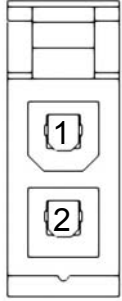


# Load vs Current





## 2-Pin Connector (Standard)



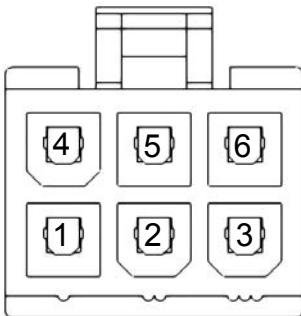
Motor	
1	2
+VDC	-VDC

Component	Part Name	Part Number	Mating Part Number
Housing	Molex Mini Fit Jr 2-Pin Receptacle	39-01-2025	39-01-2029 /39-01-2026

## 6-Pin Hall Effect Connector

\*For Stroke Length up to 40"

Front View



Motor		Hall Sensor			
4	5	2	3	1	6
M+	M-	GND	+5VDC	Signal 1	Signal 2

Component	Part Name	Part Number	Mating Part Number
Housing	Molex Mini Fit Jr 6-Pin Receptacle	39-01-2065	39-01-2069/ 39-01-2066

Output Signal Extending		Output Signal Retracting	
Hall Effect 1 Signal		Hall Effect 1 Signal	
Hall Effect 2 Signal		Hall Effect 2 Signal	

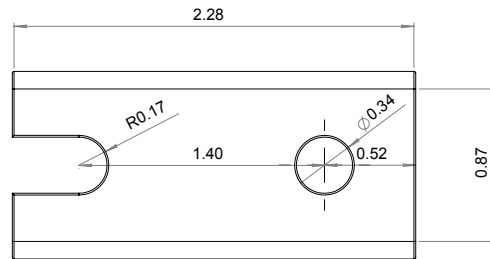
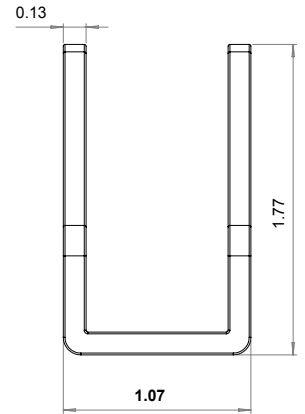
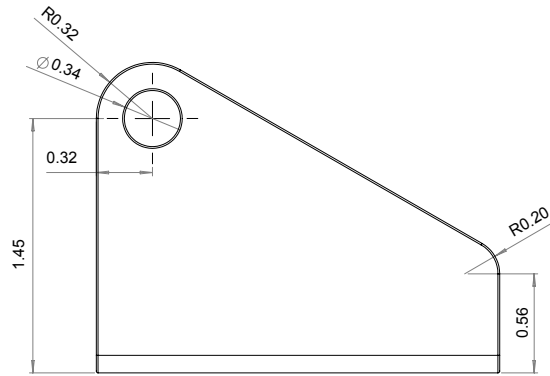
Force	Resolution (pulses/inch)
250	160
330	650
450	433



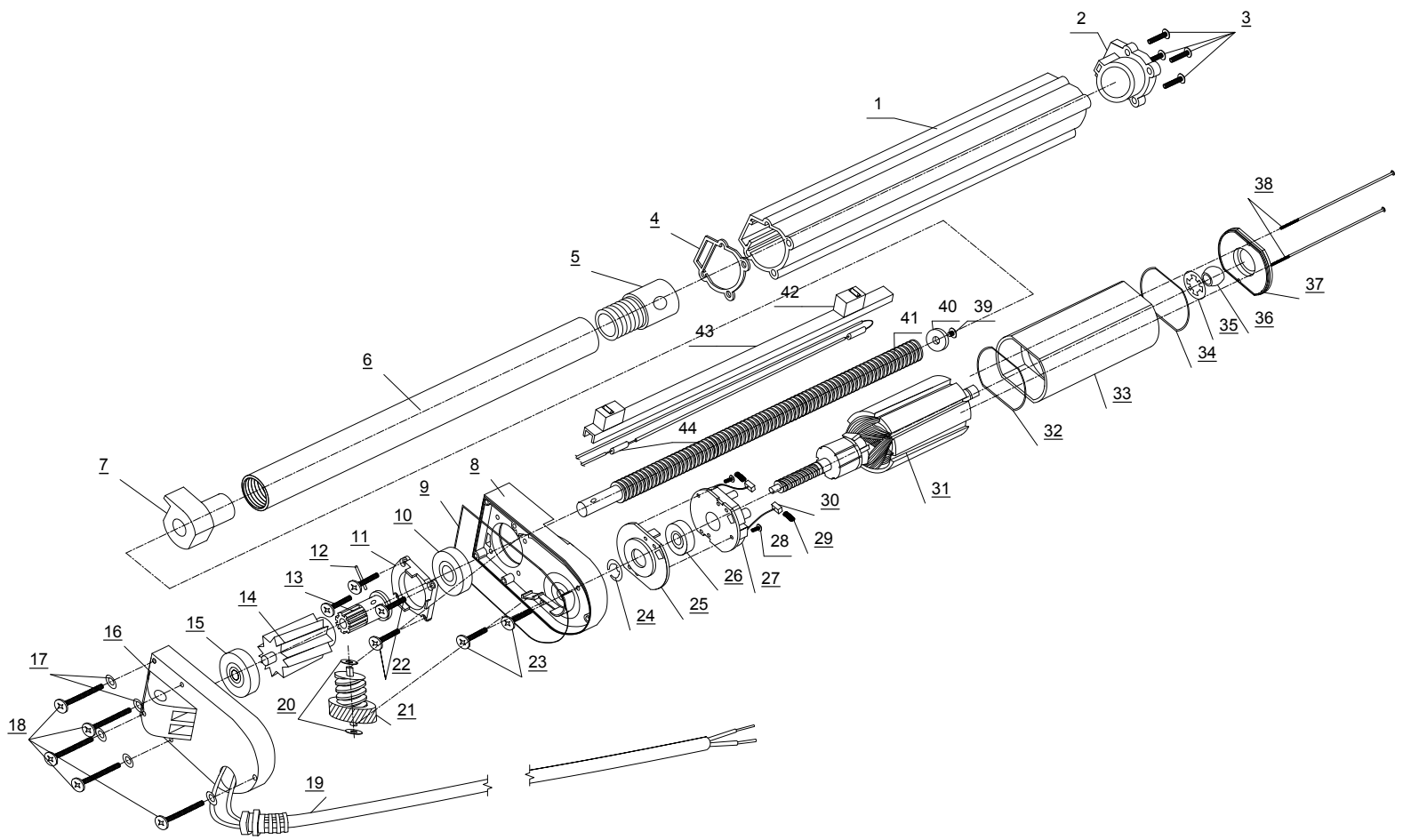
# Mounting Brackets

(Dimensions in inches)

## BRK-09



# Internal Components



# Internal Descriptions



Item	Description	Qty
1	Actuator Enclosure	1
2	Power Cable With Mounting	1
3	Power Cable Screw	2
4	Case Mounting Bracket	1
5	Mounting Bracket Screw	4
6	Mounting Bracket O-Ring	1
7	Motor Unit Screw Washer	2
8	Motor Unit Screw Spring Washer	2
9	Motor Unit Screw	2
10	Motor Case Gasket	1
11	Motor Base	1
12	Motor Lower Bearing	1
13	Brush Holder PCB	1
14	Capacitor	2
15	Inductor	2
16	Cable Lock	1
17	Cable Lock Screw	1
18	Electric Motor Brush	2
19	Brush Spring	2
20	Electric Motor Rotor	1
21	Electric Motor Enclosure With Stator	1
22	Top Bearing Holder	1
23	Top Bearing	1
24	Motor Top Enclosure	1
25	Motor Screw Washer	2

Item	Description	Qty
26	Motor Screw	2
27	Actuator Top Cap	1
28	Shaft Enclosure Side Screw	2
29	Shaft Enclosure Side Screw Nut	2
30	Shaft Enclosure Protector	1
31	Bottom Shaft Guide	1
32	Shaft	1
33	Shaft Mounting Top	1
34	Mounting Hole Guard	2
35	Wire	1
36	Diode	2
37	Limit Switch	2
38	Limit Switch Base	1
39	Drive Gear Wheel Pin	2
40	Shaft Drive Bottom Bearing	1
41	Drive Gear Wheel	1
42	Shaft Drive Bearing	1
43	Shaft Drive Small Spacer	1
44	Shaft Drive Spacer	1
45	Treaded Shaft Drive	1
46	Shaft Enclosure Screw	1
47	Shaft Enclosure	1
48	Shaft Enclosure Top Cap	1
49	Shaft Enclosure Top Cap Screw	1
50	Rotor Control Screw	1