

MLA-10 Industrial Linear Actuator

2026 Catalog



• Product Overview

MLA-10 Linear Actuators are a versatile, environmentally friendly motion control solution designed for a wide range of medical and industrial applications. The MLA-10 features an internal electrical limit switch, an IP67 protection rating, noise level of only ≤ 55 dB, and offers high speeds with a lower current.


Compatible with Control Boxes:

- MLA-BQ
- MLA-BN2

Suggested Applications:

- Adjustable Beds
- Medical Patient Lifts
- TV/Monitor Lifts
- Engineering Machinery

• General Specifications

Color	<input type="checkbox"/> Silver	<input checked="" type="checkbox"/> Black	<input type="checkbox"/> Custom			
Lead Screw	<input checked="" type="checkbox"/> Acme Screw	<input type="checkbox"/> Ball Screw				
Operation Mode	<input checked="" type="checkbox"/> Electrical	<input type="checkbox"/> Electrical + Manual				
Application	<input checked="" type="checkbox"/> Industrial	<input type="checkbox"/> Furniture	<input checked="" type="checkbox"/> Medical			
Operational Temp.	<input type="checkbox"/> 5°C to 40°C	<input type="checkbox"/> -10°C to 65°C	<input checked="" type="checkbox"/> -30°C to 70°C			
Stroke Range	<input checked="" type="checkbox"/> 50 to 400mm	<input type="checkbox"/> 300 to 1,000mm				
Dynamic Load	<input checked="" type="checkbox"/> $\leq 1,000$ N	<input checked="" type="checkbox"/> $\leq 2,000$ N	<input checked="" type="checkbox"/> $\leq 3,000$ N			
Duty Cycle	<input checked="" type="checkbox"/> 10%*	<input type="checkbox"/> 20%	<input type="checkbox"/> 25%	<input type="checkbox"/> $\leq 50\%$	<input type="checkbox"/> 100%	
Motor Type	<input type="checkbox"/> Brushed DC	<input type="checkbox"/> Stepper Motor	<input checked="" type="checkbox"/> Brushless	<input type="checkbox"/> Servo Motor		
Overload Protection	<input type="checkbox"/> None	<input type="checkbox"/> Clutch	<input checked="" type="checkbox"/> Electronic	<input type="checkbox"/> Thermistor		
Weather Protection	<input type="checkbox"/> IP20	<input type="checkbox"/> IP43	<input type="checkbox"/> IP54	<input type="checkbox"/> IP65	<input checked="" type="checkbox"/> IP67	
Position Feedback	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Endstop Signal	<input checked="" type="checkbox"/> Hall Sensor	<input type="checkbox"/> Potentiometer	<input type="checkbox"/> Encoder	<input type="checkbox"/> Reed Switches
Input Voltage	<input checked="" type="checkbox"/> 12VDC	<input checked="" type="checkbox"/> 24VDC	<input type="checkbox"/> 36VDC	<input type="checkbox"/> 48VDC	<input type="checkbox"/> 110VAC	<input type="checkbox"/> 220VAC
Weight	~1.413kg (varies with Stroke Length and Installation Dimensions)					

*10%, Max. 2 min. continuous work, 18 minutes off.

[Table 1]

Options for MLA-10

Available Other Models

• Technical Parameters

Code	Power Supply	Stroke Length	Spindle Pitch	Max. Dynamic Load (*See Note 2)	Max. Self-Locking Load	Speed +/-10% (mm/sec) (*See Note 1)		Current at Full Load
	(VDC)	(mm)	(mm)	(N)	(N)	Free Load	Full Load	(A)
A	12	50 ~ 400	4	2,000	1,500	7	4.5	≤ 6
B	24	50 ~ 250	4	3,000	3,000	7.4	4.8	≤ 5
C	24	50 ~ 400	7.5	2,000	1,500	13.2	8.3	≤ 5
D	24	50 ~ 400	10	1,000	600	18	11	≤ 4

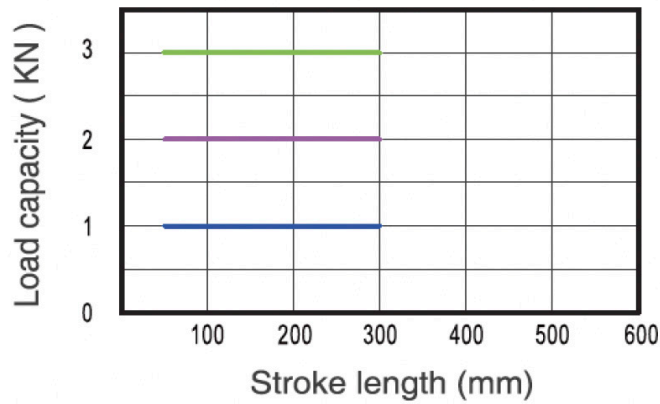
[Table 2]

*Notes:

1. Measurements are made with actuators in connection with stable power supplies and ambient temperature of 20°C.
2. Many factors affect the "Customizable Maximum Stroke," such as load, speed, and direction of force.
3. When actuators are running, control boxes have the potential to short-circuit the motor terminals (electrodes), giving actuators a higher self-locking load.
Above data is for typical use scenarios. Actual application scenarios should be considered. Please contact cs@machmo.com if your required parameters are not listed.

• Stroke Length vs. Load

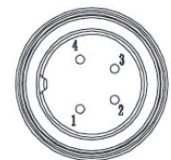
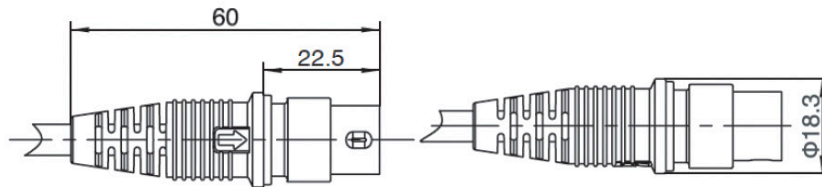
Relationship Between Stroke Length and Load



• Motor Wiring

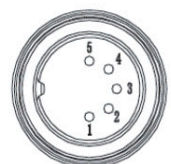
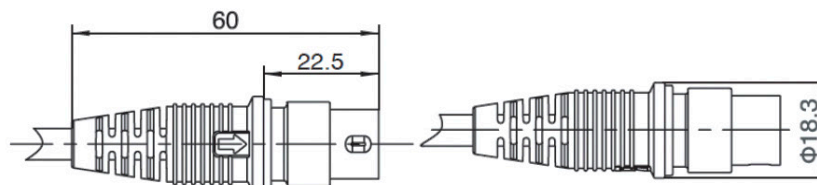
4-Pin Straight Plug (Standard)

Pin	Color	Function
1	NC	Not Connected
2	Brown	Power (+), Actuator Retracts
3	Blue	Power (-), Actuator Extends
4	NC	Not Connected
Outer Circle	NC	Not Connected



5-Pin DIN Plug (Actuators with Hall Sensor)

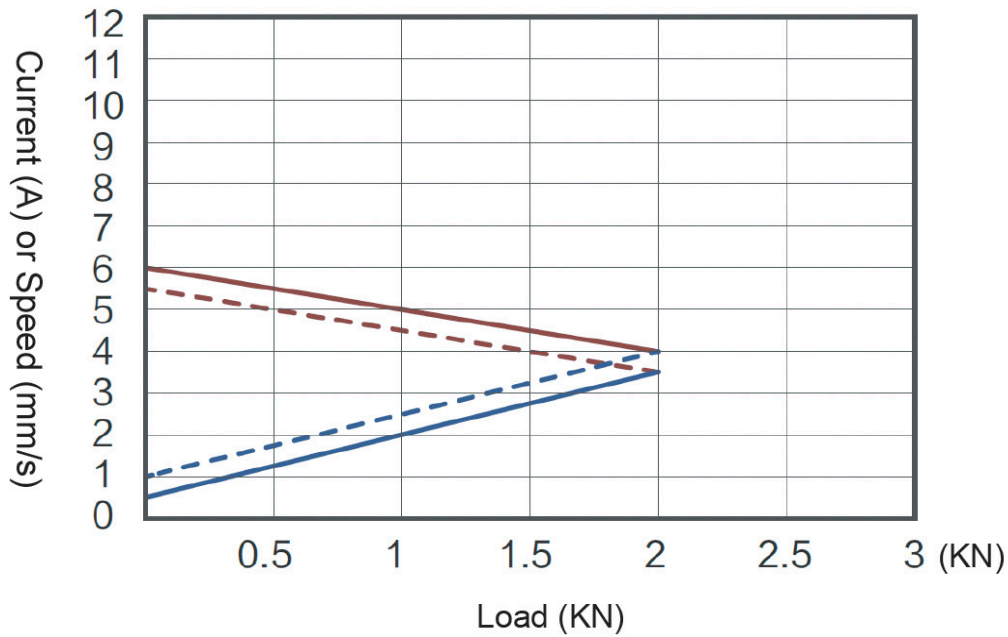
Pin	Color	Function
1	Red	5V
2	Brown	Power (+), Actuator Retracts
3	Black	GND
4	Blue	Power (-), Actuator Extends
5	Yellow	Hall Sensor Signal 1
Outer Circle	Orange	Hall Sensor Signal 2



• Performance

12VDC / 2,000N

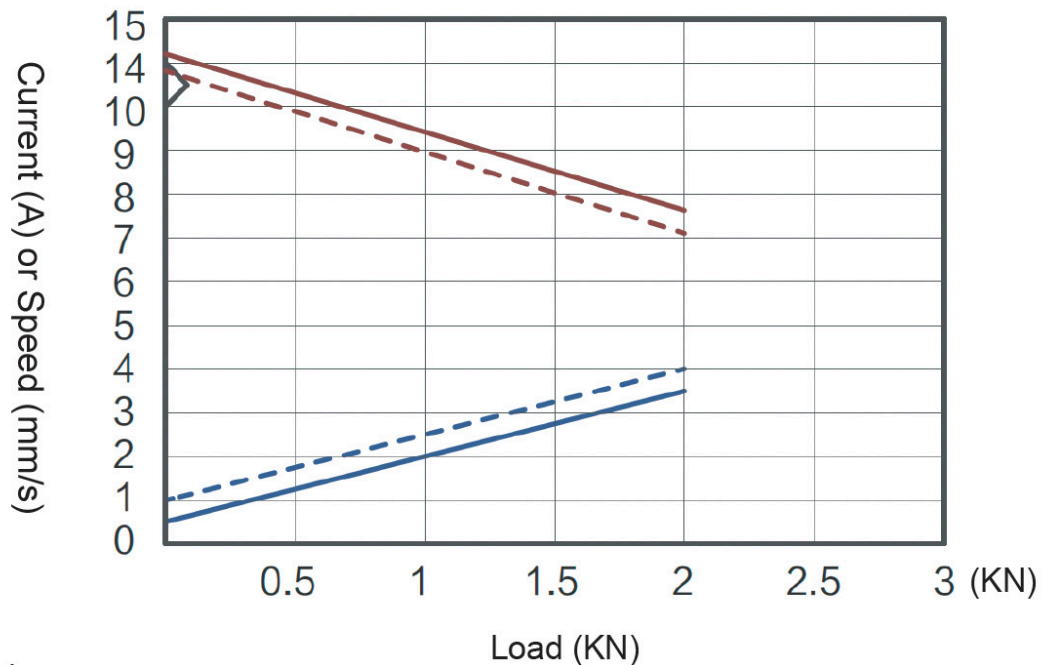
MLA-10C Current (A) or Speed VS Load - 12V



- Typical Speed ——— (Solid Red)
- Min. Speed - - - - - (Dashed Red)
- Typical Current ——— (Solid Blue)
- Max. Current - - - - - (Dashed Blue)

24VDC / 2,000N

MLA-10C Current (A) or Speed VS Load- 24V

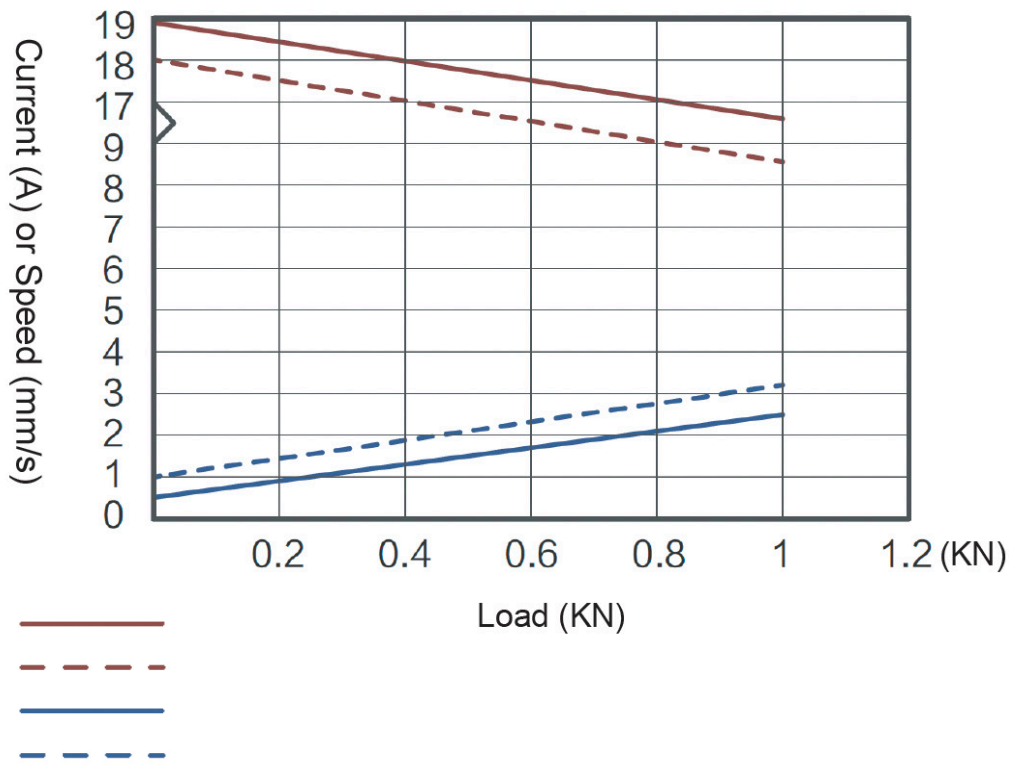


* Note: Measurements are made with Actuators in Connection with Stable Power Supplies and Ambient Temperature of 20°C.

• Performance

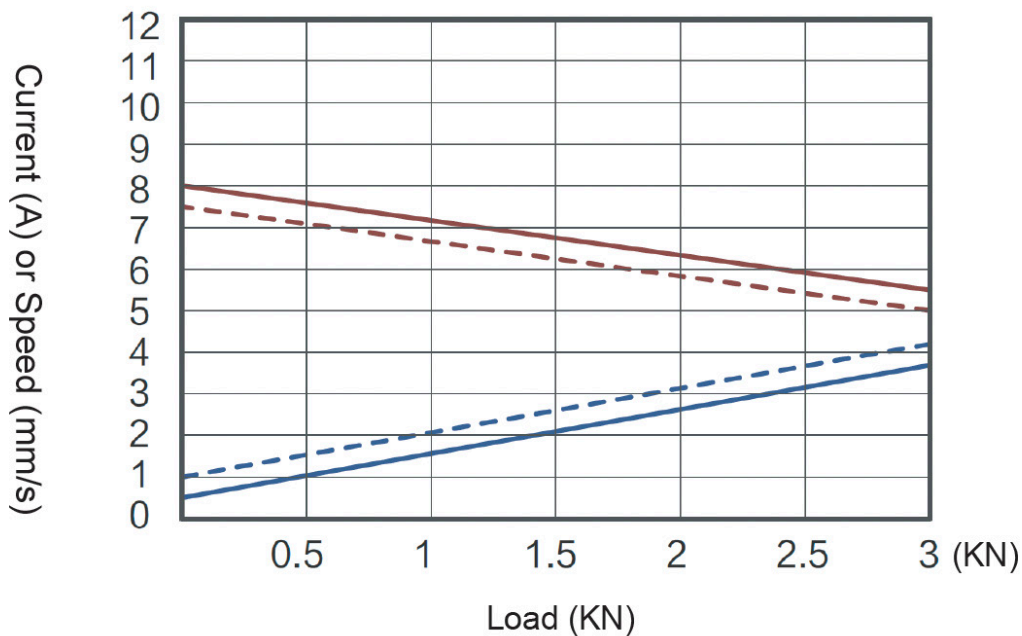
24VDC / 1,000N

MLA-10C Current (A) or Speed VS Load - 24V



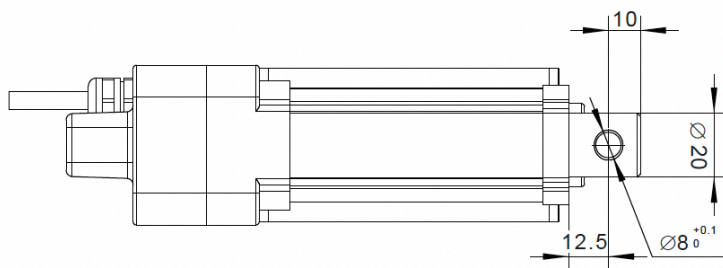
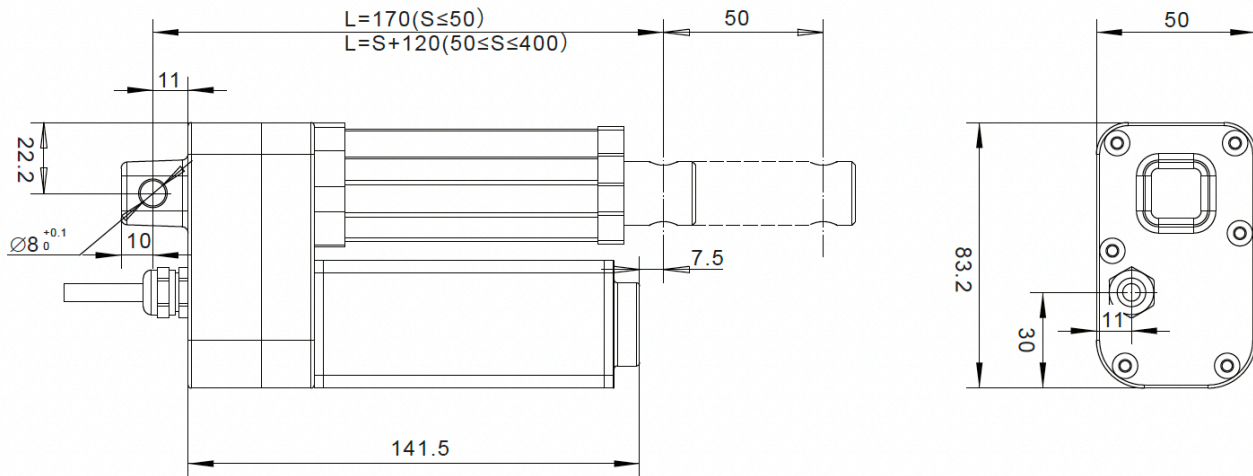
24VDC / 3,000N

MLA-10C Current (A) or Speed VS Load- 24V



* Note: Measurements are made with Actuators in Connection with Stable Power Supplies and Ambient Temperature of 20°C.

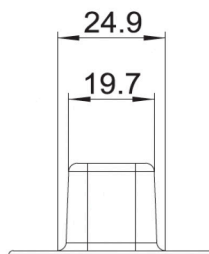
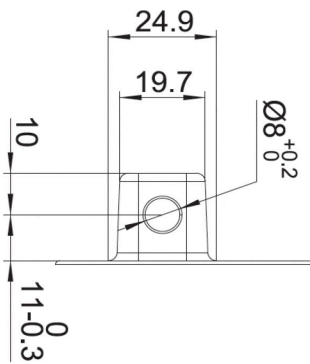
• **Product Dimensions**
With Standard Top Clevis



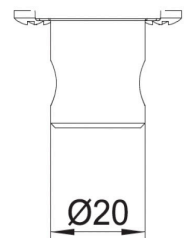
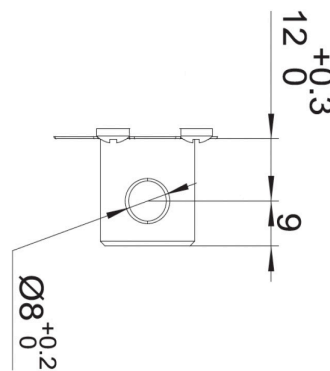
Unit: mm

End Clevis 37

Top Clevis 37



Unit: mm



Unit: mm

Installation Dimensions

L = Length S = Stroke (Dimensions in mm)	L = 170 (S ≤ 50)
	L = S + 120 (50 ≤ S ≤ 400)

