

Product Data Sheet



Standard Features:

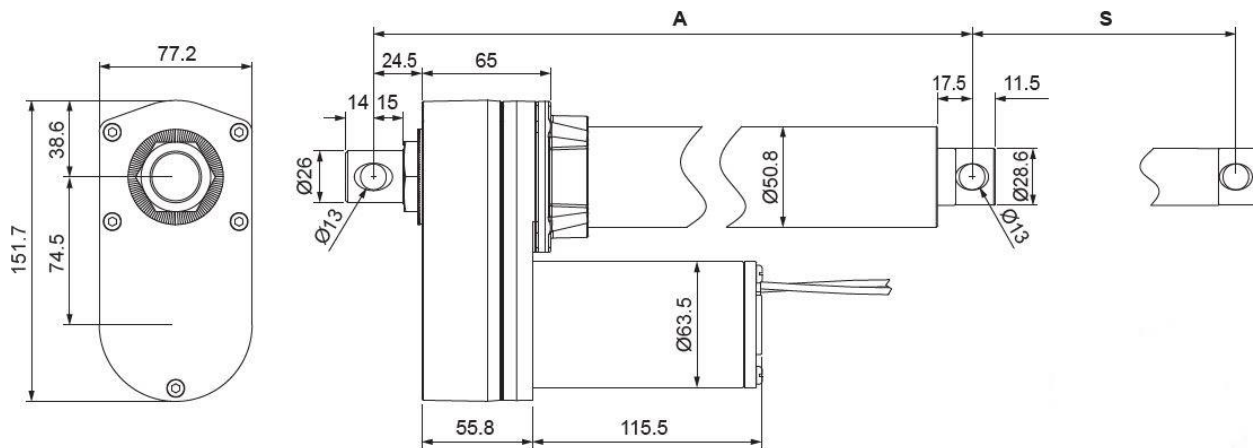
- Carbon steel frame and extension tube
 - Aluminum gearbox housing
- Stroke lengths: 4", 6", 8", 10", 12", 18", 24", [other stroke lengths available]
- Input voltage: 12VDC, 24VDC, (48VDC – special order)
- Standard gear ratio: 20:1 [other ratios available]
- Dynamic load range: 393 lbs. [1,750 Newtons] -to- 955 lbs. [4,250 Newtons]
- Maximum static load: 1,012 lbs. [4,500 Newtons]
- Maximum current draw (at full load): 11.2 -to- 15.7 Amps @ 12 VDC
- Maximum current draw (at full load): 5.5 -to- 9 Amps @ 24 VDC
- Maximum current draw (at full load): 3.1 -to- 5 Amps @ 48 VDC
- Speed at no load: 0.4 in/sec [9.6 mm/sec] -to- 1.8 in/sec [45 mm/sec]
- Speed at full load: 0.3 in/sec [8 mm/sec] -to- 1.6 in/sec [40.7 mm/sec]
- Overload clutch
- ACME screw drive
- Mounting hole diameter (both ends): 1/2" [13mm]
- Duty cycle: 25% or 2 min continuous operation in 8 min.
- Working temperature: -13F [-25C] to +149F [+65C]
- IP rating: IP65, (IP69K – special order)
- All GF16 actuators are custom ordered

Accessories:

- Mounting brackets
- Direction reversing switches
- Direction reversing relays
- Direction reversing wireless controllers

Dimensions

Standard (without Limit Switches or Potentiometer)

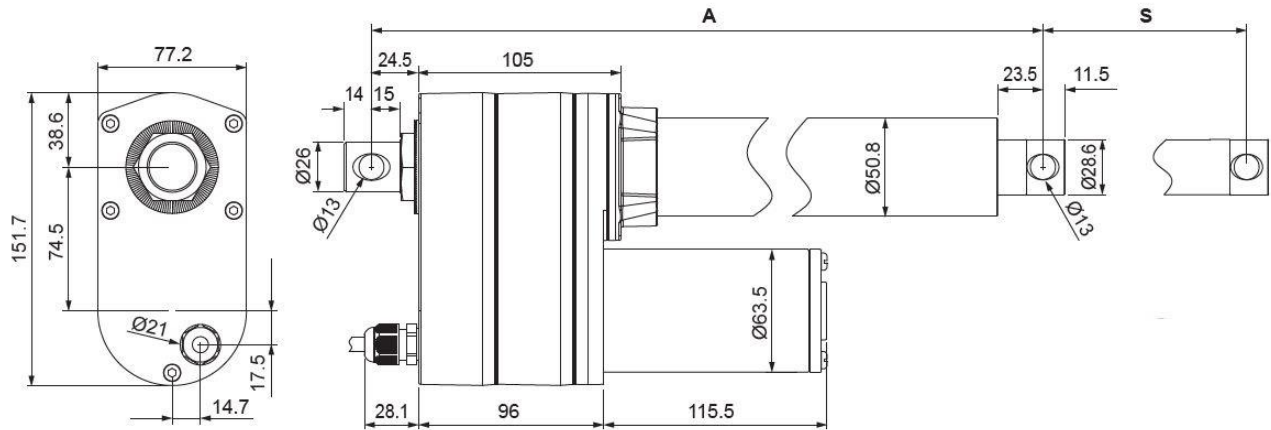


Nominal Stroke	4"		6"		8"		10"		12"		18"		24"	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
Actual Stroke (S)	4.0	102	6.0	153	8.0	203	10.0	254	12.0	305	18.0	457	24.0	610
Retracted Length (A)	10.3	262	12.3	313	14.3	364	16.3	414	18.3	465	26.3	668	32.3	821
Extended Length	14.3	364	18.4	466	22.3	567	26.3	668	30.3	770	44.3	1125	56.3	1431

Tolerance: $\pm 5\text{mm}$

Dimensions

With Potentiometer Only

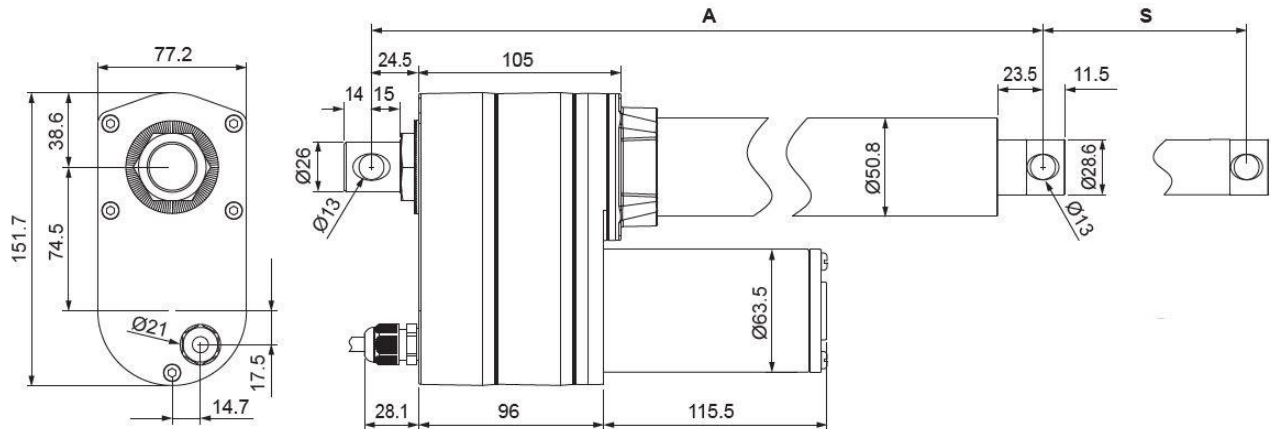


Nominal Stroke	4"		6"		8"		10"		12"		18"		24"	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
Actual Stroke (S)	4.0	102	6.0	153	8.0	203	10.0	254	12.0	305	18.0	457	24.0	610
Retracted Length (A)	11.9	302	13.9	353	15.9	404	17.9	454	19.9	505	27.9	708	33.9	861
Extended Length	15.9	404	19.9	506	23.9	607	27.9	708	31.9	810	45.9	1165	57.9	1471

Tolerance: ±5mm

Dimensions

With Only Limit Switches or Limit Switches and Potentiometer



Nominal Stroke	4"		6"		8"		10"		12"		18"		24"	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
Actual Stroke (S)	4.0	102	6.0	153	8.0	203	10.0	254	12.0	305	18.0	457	24.0	610
Retracted Length (A)	14.1	359	16.1	410	18.1	460	20.1	511	24.1	613	30.1	765	36.1	918
Extended Length	18.2	461	22.2	563	26.1	663	30.1	765	36.1	918	48.1	1222	60.2	1528

Tolerance: ±7mm

Performance Data

12 volt

Gear Ratio	Max Load/Dynamic		Speed/No Load		Speed/Max Load	
	Lbs. [US]	Newtons	inches/sec	mm/sec	inches/sec	mm/sec
10:1	393	1750	1.6	40.0	1.2	29.7
20:1	674	3000	0.8	19.9	0.6	16.3
40:1	955	4250	0.4	10.0	0.3	8.0

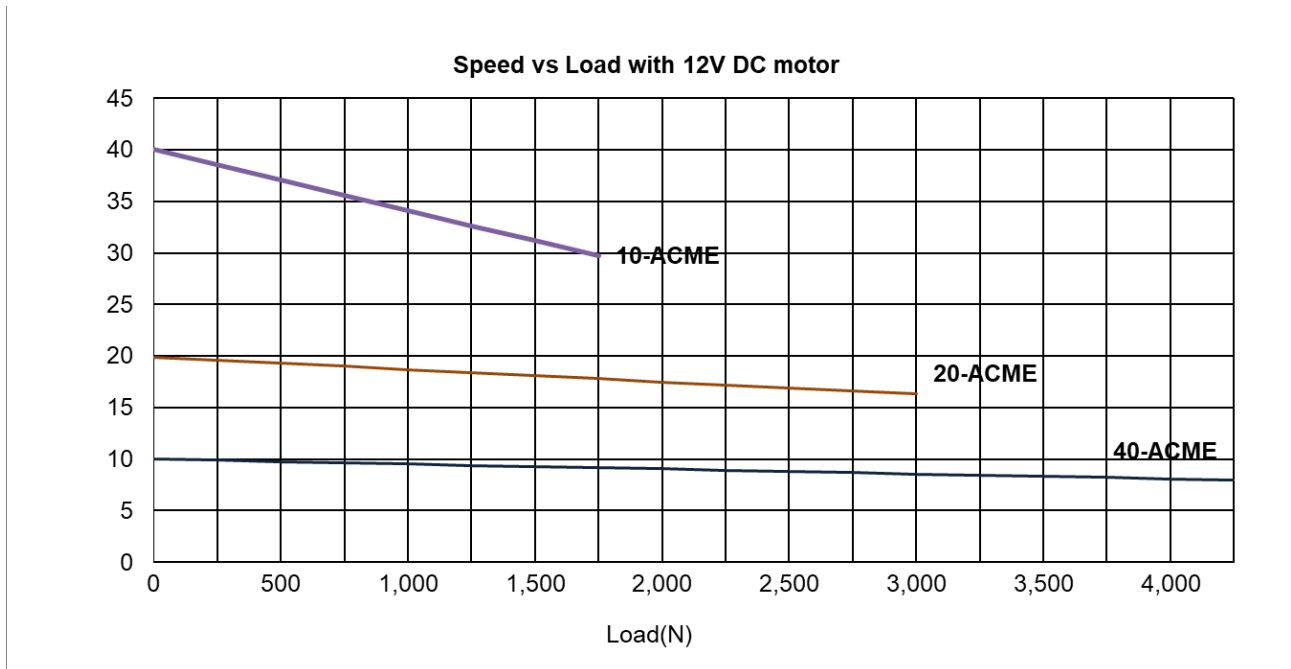
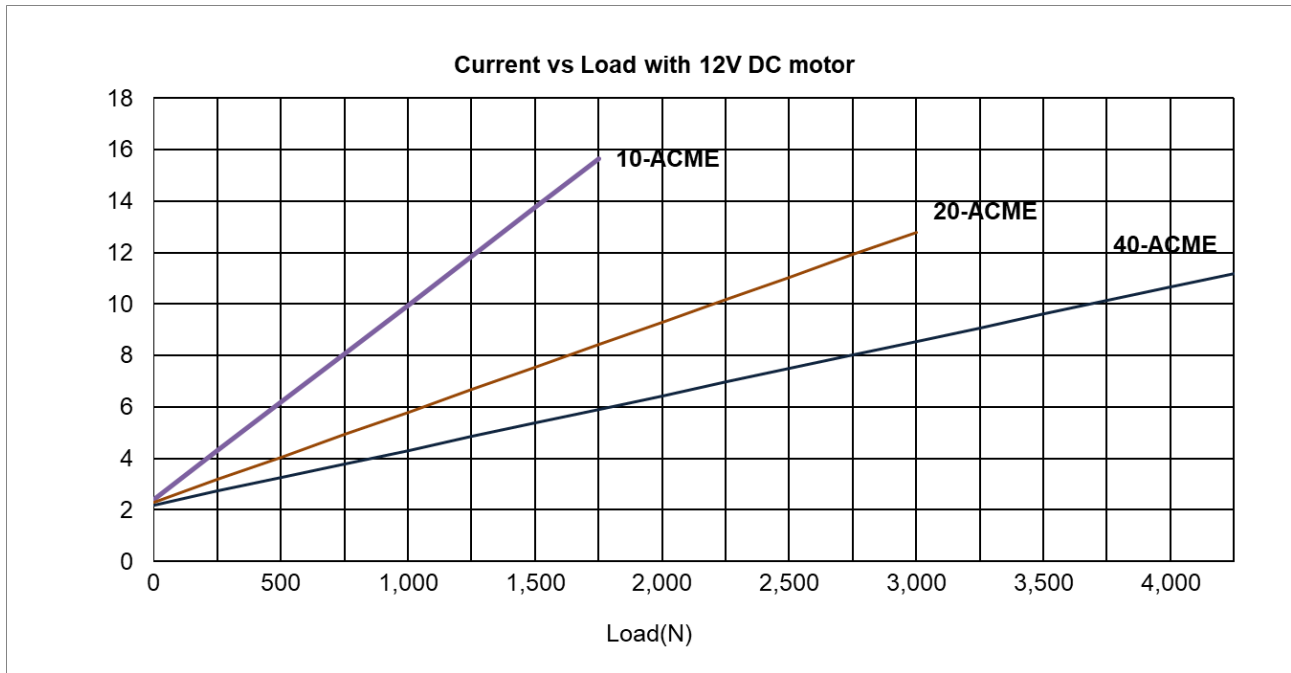
24 volt

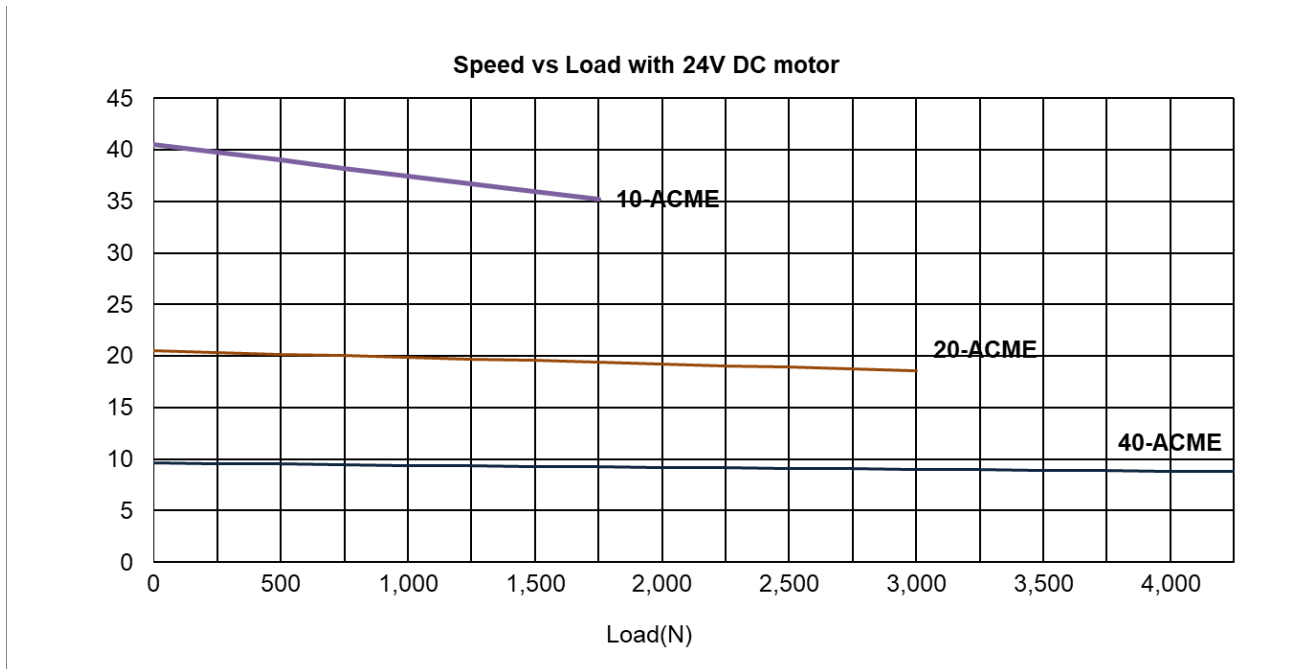
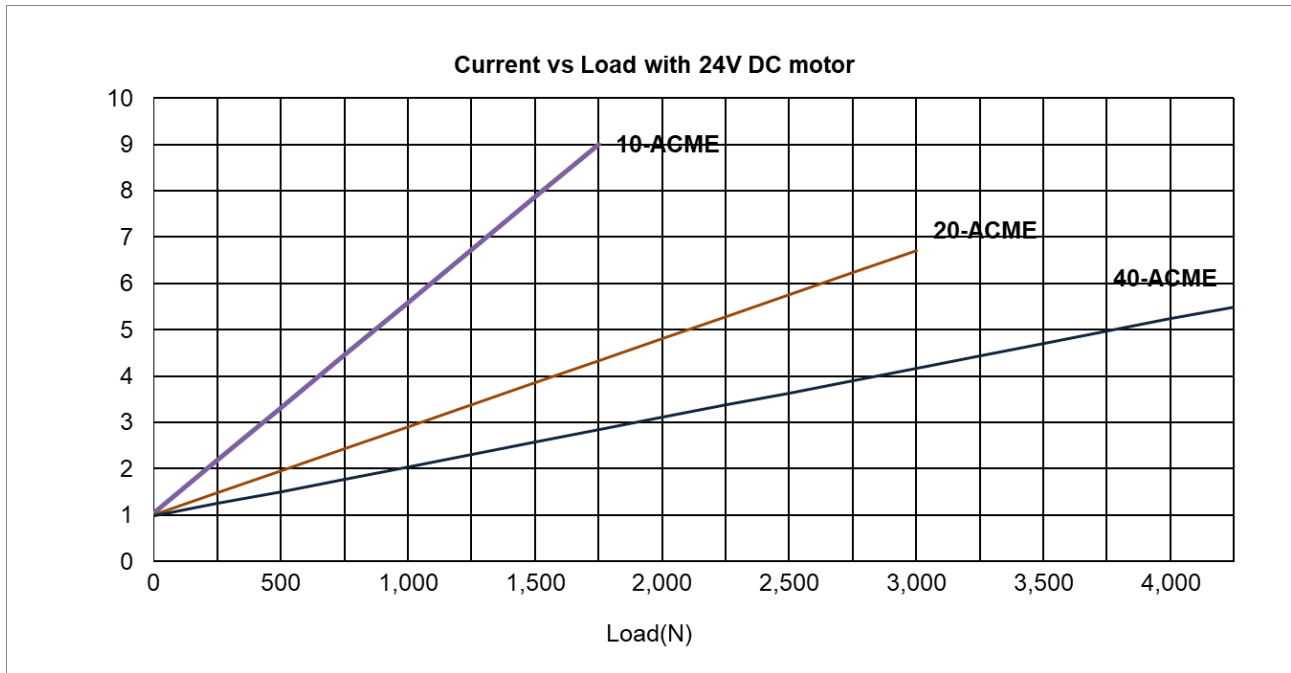
Gear Ratio	Max Load/Dynamic		Speed/No Load		Speed/Max Load	
	Lbs. [US]	Newtons	inches/sec	mm/sec	inches/sec	mm/sec
10:1	393	1750	1.6	40.5	1.4	35.2
20:1	674	3000	0.8	20.5	0.7	18.6
40:1	955	4250	0.4	9.6	0.4	8.8

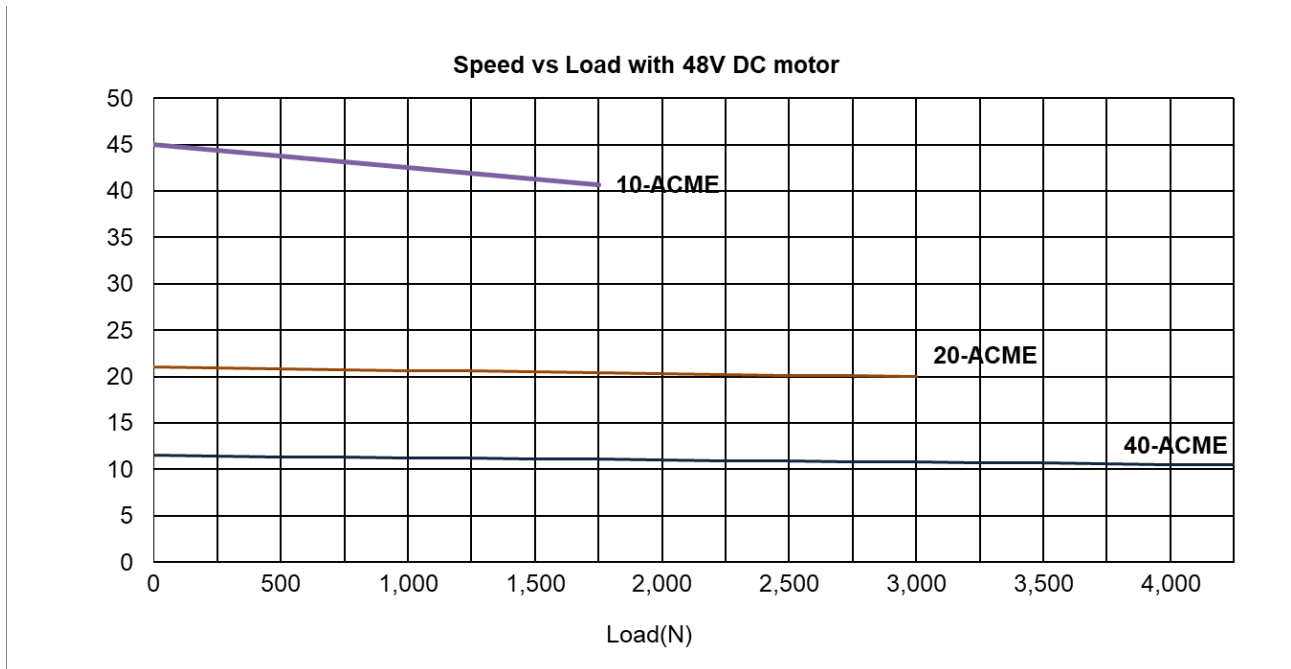
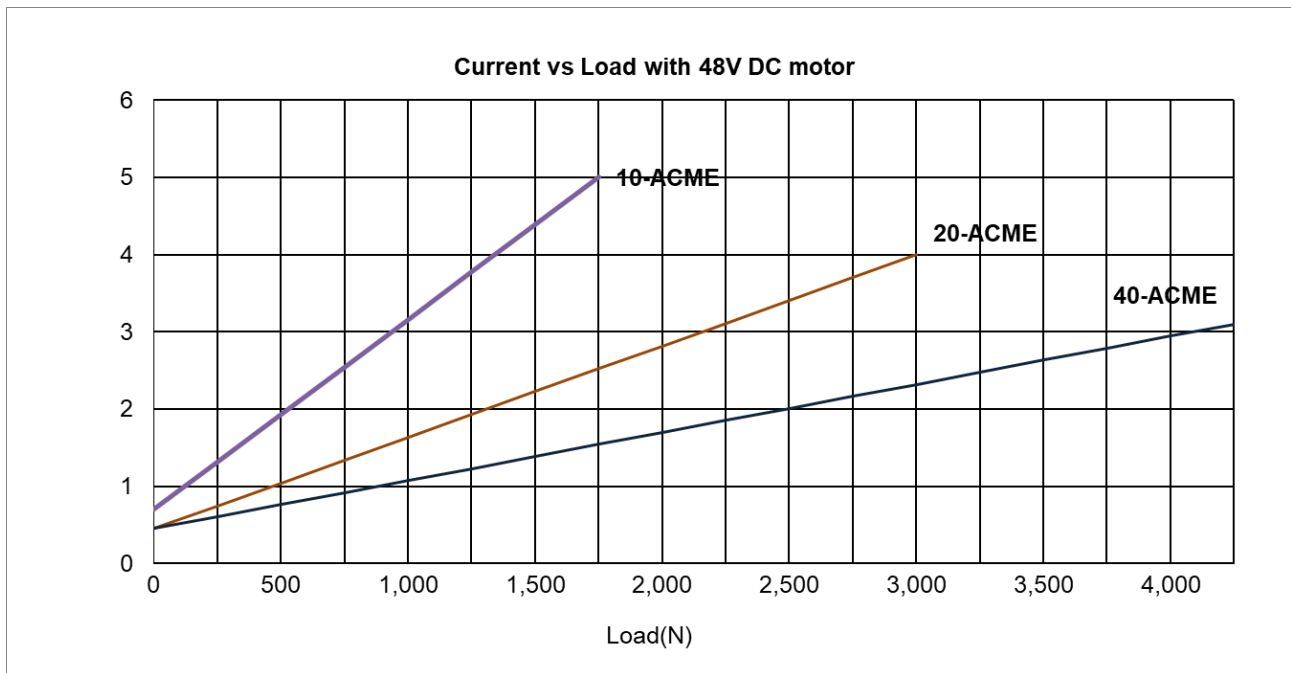
48 volt

Gear Ratio	Max Load/Dynamic		Speed/No Load		Speed/Max Load	
	Lbs. [US]	Newtons	inches/sec	mm/sec	inches/sec	mm/sec
10:1	393	1750	1.8	45.0	1.6	40.7
20:1	674	3000	0.8	21.0	0.8	20.0
40:1	955	4250	0.5	11.5	0.4	10.5

Gear Ratio	Typical Current (A)					
	No Load			Full Load		
	12 VDC	24 VDC	48 VDC	12 VDC	24 VDC	48 VDC
10:1	2.4	1.1	0.7	15.7	9.0	5.0
20:1	2.3	1.0	0.45	12.8	6.7	4.0
40:1	2.2	0.98	0.45	11.2	5.5	3.1

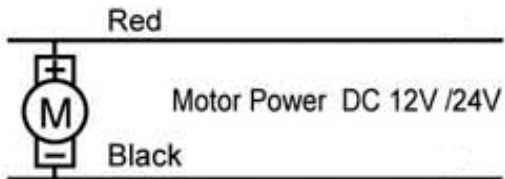






Electrical

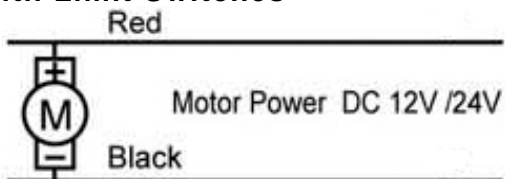
Standard



Gear Ratio: 10:1, 20:1
Red + // Black - : Extend
Red - // Black + : Retract

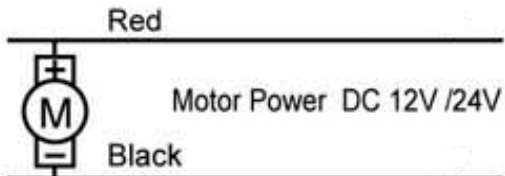
Gear Ratio: 40:1
Red + // Black - : Retract
Red - // Black + : Extend

With Limit Switches



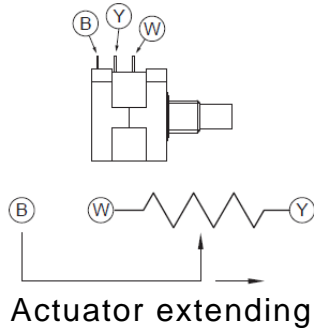
Gear Ratio: 10:1, 20:1, 40:1
Red + // Black - : Extend
Red - // Black + : Retract

With Potentiometer (or Limit Switches and Potentiometer)



Gear Ratio: 10:1, 20:1, 40:1
Red + // Black - : Extend
Red - // Black + : Retract

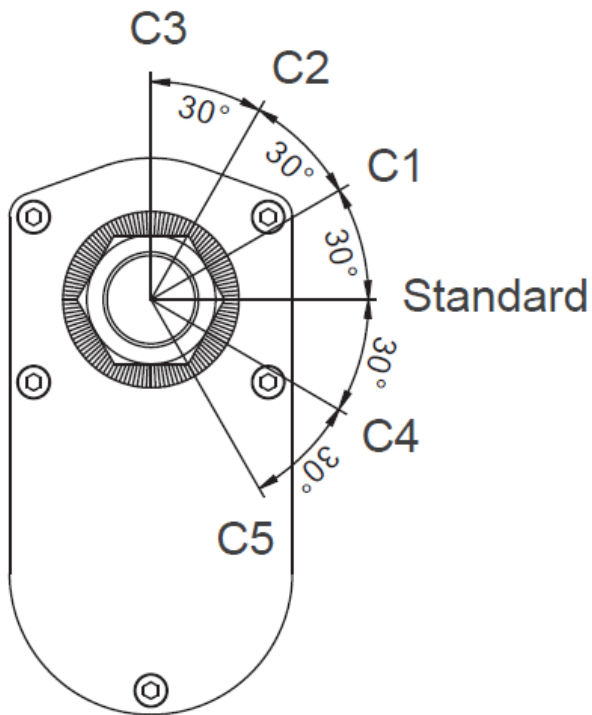
Potentiometer



When fully retracted, the potentiometer reading will be in or near the range of 0 - 600Ω (between the blue and the white wires).

When fully extended, the potentiometer reading will be in or near the range of 8K - 10KΩ (between the blue and the white wires).

Base Stud Mount Hole Orientation



Ordering Key

GF16 - - -

Input Voltage

- 12 : 12 VDC
- 24 : 24 VDC
- 48 : 48 VDC (available by special order)

Gear Ratio

- 10 : 10:1
 - 20 : 20:1
 - 40 : 40:1
- Not all gear ratios stocked

Stroke (nominal)

- 04 : 4" [102mm]
 - 06 : 6" [153mm]
 - 08 : 8" [203mm]
 - 10 : 10" [254mm]
 - 12 : 12" [305mm]
 - 18 : 18" [457mm]
 - 24 : 24" [610mm]
- Additional stroke lengths available

Options

- 0 : None
- 1 : Limit Switches
- 2 : Potentiometer
- 3 : Potentiometer and Limit Switches

IP Rating

- 65 : IP65
- 69 : IP69K (available by special order)

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