

Electrak 5

230 and 400 Vac - load up to 6800 N

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» Electric Wiring Diagram - see page 46



Standard Features and Benefits

- Robust, strong and reliable
- Stainless steel extension tube
- Acme or ball screw models
- Overload clutch for mid and end of stroke protection
- Heavy duty motor with thermal switch
- Anti-coast brake for repeatable positioning on all ball screw models. Optional on acme screw models.
- Maintenance free

General Specifications

Parameter	Electrak 5
Screw type	acme or ball
Internally restrained	no
Manual override	no, optional
Dynamic braking	no
Holding brake acme screw models ball screw models	no, self-locking yes
End of stroke protection	overload clutch
Mid stroke protection	overload clutch
Motor protection	auto reset thermal switch
Motor connection	cable
Motor connector	no
Certificates	UL, CSA, CE
Options	<ul style="list-style-type: none"> • potentiometer • manual override

Performance Specifications

Parameter	Electrak 5
Maximum load, dynamic / static [N]	
A •• -05A5 (acme screw)*	1100 / 11350
A •• -10A5 (acme screw)	2250 / 11350
A •• -20A5 (acme screw)	2250 / 11350
A •• -05B5 (ball screw)	2250 / 18000
A •• -10B5 (ball screw)	4500 / 18000
A •• -20B5 (ball screw)	4500 / 18000
A •• -21B5 (ball screw)	6800 / 18000
Speed, at no load / at maximum load [mm/s]	
A •• -05A5 (acme screw)*	48 / 38
A •• -10A5 (acme screw)	30 / 18
A •• -20A5 (acme screw)	15 / 12
A •• -05B5 (ball screw)	61 / 37
A •• -10B5 (ball screw)	30 / 19
A •• -20B5 (ball screw)	15 / 12
A •• -21B5 (ball screw)	15 / 11
Available input voltages [Vac]	
Single phase	230**
Three phase	400
Input frequency [Hz]	
1 × 230 Vac model	50/60
3 × 400 Vac model	50
Standard stroke lengths [inch]	4, 6, 8, 10, 12, 14, 16, 18, 20, 24
Operating temperature limits [°C]	-25 – +65
Full load duty cycle @ 25 °C [%]	25
Maximum on time [s]	45
End play, maximum [mm]	1,0
Restraining torque [Nm]	11,3
Lead cross section [mm ²]	1,5
Cable length [mm]	600
Protection class	IP45

* Not possible with 400 Vac input voltage.

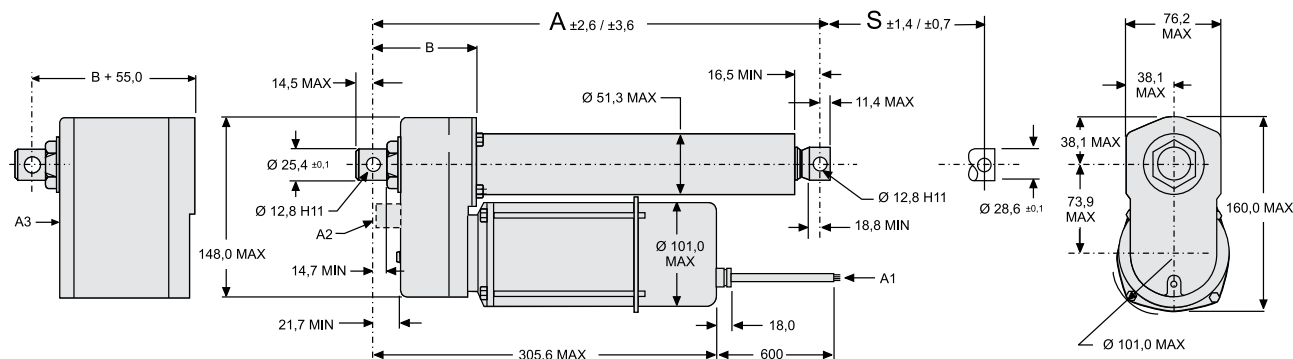
** 10 µF capacitor required to run the actuator, p/n 9200-448-003

Compatible Controls

Control model	See page
DPDT switch	48
DPDT switch box	49

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S: stroke, tolerance acme / ball screw

A: retracted length, tolerance acme / ball screw

A1: cable

A2: manual override input (optional)

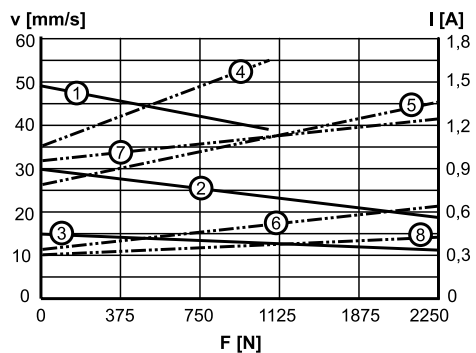
A3: housing dimensions for potentiometer option

Stroke (S)	[inch (mm)]	4 (101,6)	6 (152,4)	8 (203,2)	10 (254,0)	12 (304,8)	14 (355,6)	16 (406,4)	18 (457,2)	20 (508,0)	24 (609,6)
Retracted length, acme screw models (A)	[mm]	262,3	313,1	363,9	414,7	465,5	567,1	617,9	668,7	719,5	821,1
Retracted length, ball screw models (A)	[mm]	302,3	353,1	403,9	454,7	505,5	607,1	657,9	708,7	759,5	861,1
Add on length for potentiometer*	[mm]	55,0	55,0	55,0	55,0	55,0	55,0	55,0	55,0	55,0	55,0
Weight, acme screw models	[kg]	5,9	6,1	6,3	6,5	6,7	6,9	7,1	7,3	7,5	7,8
Weight, ball screw models	[kg]	6,5	6,7	6,9	7,1	7,3	7,5	7,7	7,9	8,1	8,4
Add on weight for potentiometer*	[kg]	1,3	1,3	1,3	1,3	1,3	1,3	1,3	1,3	1,3	1,3
Potentiometer resistance change*	[ohm/mm]	39	39	39	39	20	20	20	20	20	10

* Potentiometer is optional (NPO, BPO option)

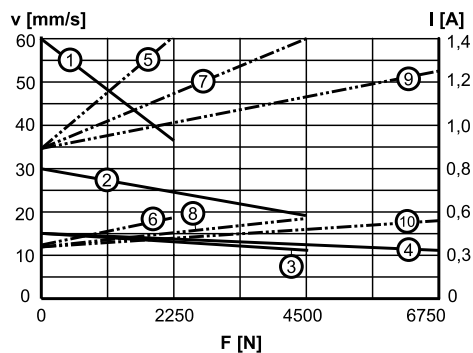
Performance Diagrams

Acme Screw Models
Speed and Current vs. Load



V: speed
I: current
F: load
1: speed A22 -05A5
2: speed A•• -10A5
3: speed A•• -20A5
4: current 230 Vac, A22-05A5
5: current 230 Vac, A22-10A5
6: current 400 Vac, A42-10A5
7: current 230 Vac, A22-20A5
8: current 400 Vac, A42-20A5

Ball Screw Models
Speed and Current vs. Load

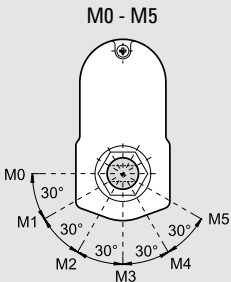
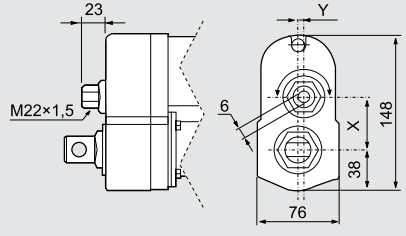


V: speed
I: current
F: load
1: speed A22-05B5, A42-05B5
2: speed A22-10B5, A42-10B5
3: speed A22-20B5, A42-20B5
4: speed A22-21B5, A42-21B5
5: current 230 Vac, A22-05B5
6: current 400 Vac, A42-05B5
7: current 230 Vac, A22-10B5, A22-20B5
8: current 400 Vac, A42-10B5, A42-20B5
9: current 230 Vac, A22-21B5
10: current 400 Vac, A42-21B5

Ordering Keys

Electrak AC-actuators

Electrak PPA-AC					
1	2	3	4	5	6
PPA22 -	18B65 -	06	SB	XX	C
1. Model and input voltage PPA11 - = Electrak PPA-AC, 1 × 115 Vac PPA22 - = Electrak PPA-AC, 1 × 230 Vac 2. Dynamic load capacity 18B65 - = 2220 N 58B65 - = 6670 N		3. Stroke 04 = 4 inch (101,6 mm) 08 = 8 inch (203,2 mm) 12 = 12 inch (304,8 mm) 18 = 18 inch (457,2 mm) 24 = 24 inch (609,6 mm) 36 = 36 inch (914,4 mm) 4. Brake option¹ N - no brake option SB = anti coast brake EB = electrical brake ²		5. Feedback option XX = no feedback option LS = end of stroke limit switches PO = potentiometer HS = encoder HL = encoder + end of stroke limit switches 6. Bellows option X = no bellows C = bellows ¹ See "Brake" in the Glossary section for more information. ² Only possible for 1 × 115 Vac models.	

Electrak 5																
1	2	3	4	5												
A22 -	20B5 -	04	M0	BPO												
1. Input voltage A22 - = 1 × 230 Vac A42 - = 3 × 400 Vac 2. Dynamic load capacity, screw type and maximum speed 05A5 = 1100 N, acme, 54 mm/s ¹ 10A5 = 2250 N, acme, 30 mm/s 20A5 = 2250 N, acme, 15 mm/s 05B5 = 2250 N, ball, 61 mm/s 10B5 = 4500 N, ball, 30 mm/s 20B5 = 4500 N, ball, 15 mm/s 21B5 = 6800 N, ball, 15 mm/s 3. Stroke 04 = 4 inch (101,6 mm) 06 = 6 inch (152,4 mm) 08 = 8 inch (203,2 mm) 10 = 10 inch (254,0 mm) 12 = 12 inch (304,8 mm) 14 = 14 inch (355,6 mm) 16 = 16 inch (406,4 mm) 18 = 18 inch (457,2 mm) 20 = 20 inch (508,0 mm) 24 = 24 inch (609,6 mm)		4. Rear adapter hole position² M0 = adaptor at 0° (standard position) M1 = adaptor at 30° M2 = adaptor at 60° M3 = adaptor at 90° M4 = adaptor at 120° M5 = adaptor at 150° 5. Options³ N = no option B = anti coast brake ³ NPO = potentiometer NHW = manual override ⁴ BPO = anti coast brake and potentiometer ³ BHW = anti coast brake and manual override ^{3/4} ¹ 05A5 not possible with 400 Vac input voltage. ² Definition of rear adapter hole positions.		³ Ball screw versions must always be ordered with an anti coast brake while acme versions can be ordered with or without an anti coast brake. ⁴ Dimensions for manual override option.												
																
				<table border="1"> <thead> <tr> <th>Model</th> <th>X</th> <th>Y</th> </tr> </thead> <tbody> <tr> <td>05A(B)5</td> <td>49,6</td> <td>0,0</td> </tr> <tr> <td>10A(B)5</td> <td>43,3</td> <td>5,2</td> </tr> <tr> <td>20(21)A(B)5</td> <td>38,9</td> <td>0,0</td> </tr> </tbody> </table>	Model	X	Y	05A(B)5	49,6	0,0	10A(B)5	43,3	5,2	20(21)A(B)5	38,9	0,0
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05A(B)5	49,6	0,0														
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20(21)A(B)5	38,9	0,0														