THOMSON
Linear Motion. Optimized.™

Electrak PPA-AC

115 and 230 Vac - load up to 1500 lbf

Performance Specifications

Parameter		PPA-AC
Maximum load, dynamic / static	[lbf]	
PPA ●● -18B65		500 / 3000
PPA ●● -58B65		1500 / 3000
Speed, at no load / at maximum load	[in/sec]	
PPA11-18B65		0.63 / 0.60
PPA22-18B65		0.55 / 0.50
PPA ●● -58B65		0.17 / 0.17
Available input voltages	[Vac]	
Single phase		115, 230
Input frequency	[Hz]	
1 × 115 Vac model		50/60
1 × 230 Vac model		50/60
Standard stroke lengths	[in]	4, 8, 12, 18, 24, 36
Operating temperature limits	[°F]	-15 – +150
Full load duty cycle @ 77 °F	[%]	30
End play, maximum	[in]	0.040
Restraining torque	[lbf-in]	
PPA ●● -18B65		100
PPA ●● -58B65		200
Lead cross section	[AWG]	18
Lead length	[in]	19.5
Protection class		IP22

Compatible Controls

Control model	See page
DPDT switch	46

Standard Features and Benefits

- Strong and versatile heavy duty actuator
- High duty cycle
- Highly efficient ball screw drive system
- Overload clutch for mid and end of stroke protection
- Stroke lengths up to 36 inch
- Motor with thermal switch
- Maintenance free
- Large range of options

General Specifications

Parameter	Electrak PPA-AC
Screw type	ball
Internally restrained	no
Manual override	no, optional
Dynamic braking	no
Holding brake	yes
End of stroke protection	overload clutch
Mid stroke protection	overload clutch
Motor protection	auto reset thermal switch
Motor connection	flying leads
Motor connector	no
Certificates	RoHS compliant
Options	• end of stroke limit switches • potentiometer • encoder • protective bellows • anti-coast brake * • electrical brake ** • manual override***

* External capacitor, which is supplied with the actuator, is required to run
  actuators with anti-coast brake option. See page 47 for capacitor dimensions.
** Only possible on 115 Vac models   *** Contact customer support

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Electrak PPA-AC

## 115 and 230 Vac - load up to 1500 lbf

S: stroke
A: retracted length
B: retracted length to trunnions

C: motor length
A1: housing dimensions for limit switch, encoder or potentiometer options

Stroke (S)	[inch]	4	8	12	18	24	36
Retracted length (A) without options	[inch]	13.7	17.7	21.7	29.7	35.7	47.7
Retracted length (A) with limit switch, encoder or potentiometer	[inch]	15.7	19.7	23.7	31.7	37.7	49.7
Retracted length (B)	[inch]	8.8	12.8	16.8	24.8	30.8	42.8
Motor length (C) without brake	[inch]	9.5	9.5	9.5	9.5	9.5	9.5
Motor length (C) with anti-coast brake	[inch]	7.5	7.5	7.5	7.5	7.5	7.5
Motor length (C) with electrical brake	[inch]	11.0	11.0	11.0	11.0	11.0	11.0
Weight	[lb]	13.2	14.8	16.5	19.1	21.6	27.0
Weight with electrical brake	[lb]	14.6	16.2	17.9	20.5	23.0	28.4
Add on weight for limit switch, encoder or potentiometer	[lb]	1.7	1.7	1.7	1.7	1.7	1.7

Performance Diagrams

Speed and Current vs. Load
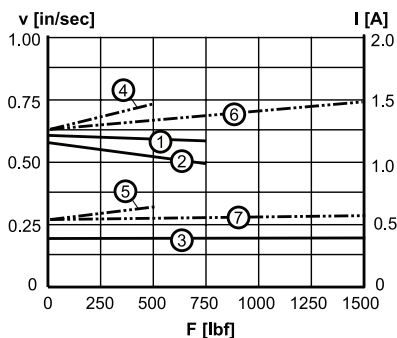
V: speed   I: current   F: load
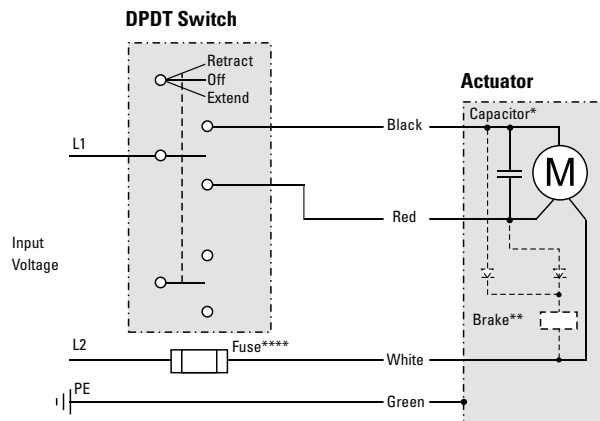
1: speed 500 lbf, 115 Vac
2: speed 500 lbf, 230 Vac
3: speed 1500 lbf
4: current 500 lbf, 115 Vac
5: current 500 lbf, 230 Vac
6: current 1500 lbf, 115 Vac
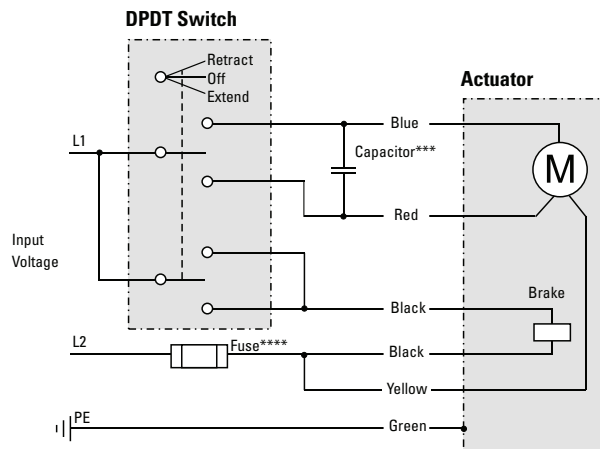7: current 1500 lbf, 230 Vac

Electrical Wiring Diagrams

AC-actuators

Electrak PPA-AC

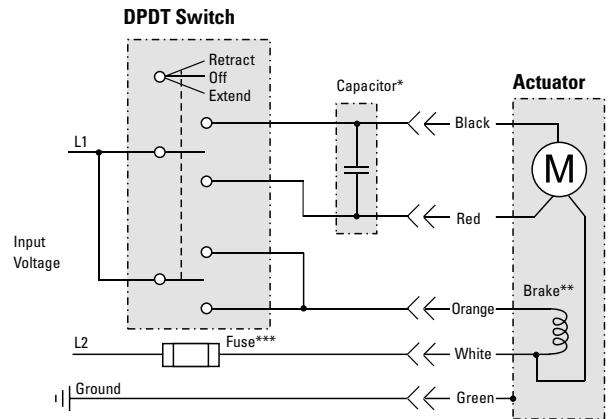**Without brake or with electrical brake (dotted wiring)**

DPDT Switch

Retract
Off
Extend

L1

Input
Voltage

Actuator

Black

Capacitor*

M

Red

Brake**

L2   Fuse****   White

PE   Green

With anti coast brake

DPDT Switch

Retract
Off
Extend

L1

Input
Voltage

Actuator

Blue

Capacitor***

M

Red

Black   Brake

L2   Fuse****   Black

Yellow

PE   Green

*   The actuator comes with prewired capacitor from factory.
**   Electrical brake only possible on 115 Vac models.
***   The capacitor is supplied with the actuator but needs to be fitted by the customer externally.
**** Supplied by customer.

For versions without brake or with electrical brake, connect the red lead to L1 and yellow to L2 to extend the actuator. Change L1 from red to black lead to retract the actuator. If the actuator is equipped with an electrical brake the internal wiring automatically lifts the brake when the motor is energized. For versions with anti coast brake, connect the red lead to L1 and yellow to L2 to extend the actuator. Change L1 from red to blue lead to retract the actuator. Release the anti-coast brake by connecting black leads to L1 and L2.

Electrak 5

DPDT Switch

Retract
Off
Extend

Capacitor*   **Actuator**

L1   Black

M

Red

Input
Voltage

Brake**

L2   Fuse***   Orange

White

Ground   Green

*   Capacitor required to run the actuator. 115 Vac = 35 µF, p/n 9200-448-002,
      230 Vac = 10 µF, p/n 9200-448-003.
**   Anti coast brake.
*** Supplied by customer.

Connect the red lead to L1 and white to L2 to extend the actuator. Change L1 from red to black lead to retract the actuator. Release the anti coast brake by connecting orange lead to L1.

Ordering Keys

Electrak AC-actuators

Electrak PPA-AC

1	2	3	4	5	6
PPA22 -	18B65 -	18	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 - = 500 lbf
58B65 - = 1500 lbf

3. Stroke
04 = 4 inch
08 = 8 inch
12 = 12 inch
18 = 18 inch
24 = 24 inch
36 = 36 inch

4. Brake option[1]
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[3]
HS = encoder
HL = encoder + end of stroke limit switches

6. Bellows option
X = no bellows
C = bellows[4]

[1]See "Brake" in the Glossary section on page 57 for more information.
[2]Only possible for 1 × 115 Vac models.
[3]Not available with limit switches.
[4]Only possible on 12 inch stroke or longer.

Electrak 5

1	2	3	4
A12 -	05B5 -	04	D

1. Model and input voltage
A12 - = Electrak 5, 1 × 115 Vac
A22 - = Electrak 5, 1 × 230 Vac

2. Dynamic load capacity
05B5 - = 500 lbf
10B5 - = 1000 lbf

3. Stroke
04 = 4 inch
08 = 8 inch
12 = 12 inch
18 = 18 inch
24 = 24 inch

4. Shipment version[1]
D = distributor version

[1]Leave position blank for OEM version.

Electrak 205

1	2	3	4
ALP22 -	10B5 -	04	

1. Model and input voltage
ALP12 - = Electrak 205, 1 × 115 Vac
ALP22 - = Electrak 205, 1 × 230 Vac

2. Dynamic load capacity
05B5 - = 500 lbf
10B5 - = 1000 lbf

3. Stroke
04 = 4 inch
08 = 8 inch
12 = 12 inch
18 = 18 inch
24 = 24 inch

4. Shipment version[1]
D = distributor version

[1]Leave position blank for OEM version.