

» Electrical

Actuators - Twin Powermaster



» Powermaster

» Product Summary

- Powerful 800N, 230v and 24v actuator
- Strong double link chain
- Choice of 380mm or 860mm (24v only) strokes
- Other strokes available subject to special order
- Supplied complete with pivot brackets
- Bottom hung fixing brackets available separately
- Supplied with 1.5m cable

» Standard Colours

Silver Anodised

*Classified in accordance with EN 60034 - (duty cycle)

**Only with suitable approved control devices, ensure total current consumption does not exceed that of the control system output.

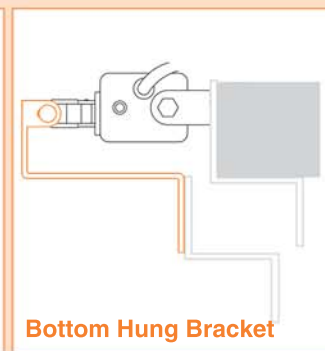
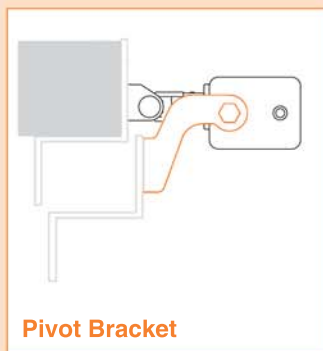
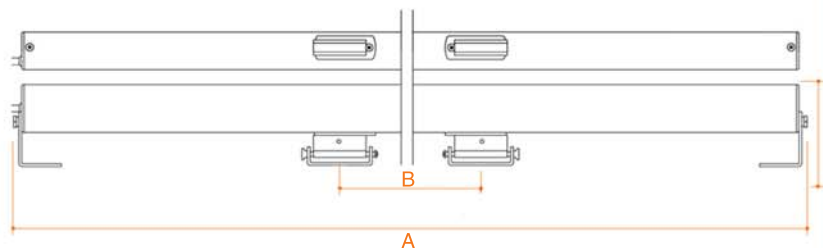
Control system must ensure a 1-2 second volt-free period is allowed for when changing direction

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» Additional Information

Dimensions

Stroke	380	860
230v		
Overall Length A	1433	
Offset B	733	
24v		
Overall Length A	1087	1522
Offset B	728	1205



» Technical Specification

Voltage	24V dc	230V ac
Stroke	380mm & 860mm	380mm
Thrust Force	600N	600N
Absorbed Current	2A	1A
Speed	18mm/s	18mm/s
Protection Class	IP32	IP32
Wiring	4 Core	4 Core
Colours Available	Silver anodised	Silver anodised
Limit Stop	Microswitch	Microswitch
Safety Stop	Electronic	Electronic

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OPERATION

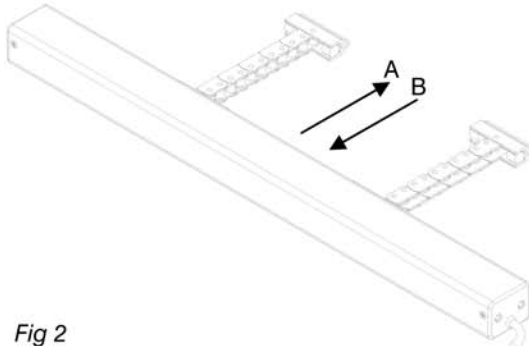


Fig 2

The power supply must not be left on for extended periods of time, see below for details. The supply for the actuators must switch from open to close by means of a simple change-over relay circuit, as this will not provide the 'off' times required by these actuators. The controlling circuit must ensure the supply is switched off during idle periods.

Notes on Duty Cycle

Electric chain actuators have a limited duty cycle that specifies how often and for how long they are operated in a given time period. This is to ensure that they are not overloaded which can result in overheating and excessive wear and tear. In extreme cases the actuators will burn out.

Duty cycles are typically quoted in accordance with EN60034.

This particular model is rated at S2 20% See below for further information:

Fig 3

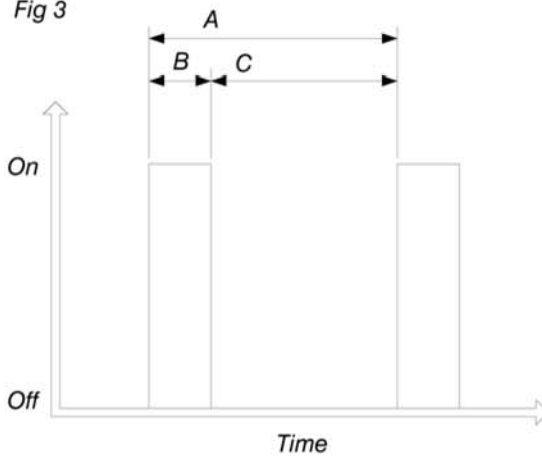


Fig 2 shows a duty cycle of S2 20%

Where;
 A = Cycle time
 B = Operating time
 C = Rest 'Off' period

During a stroke period of approximately 1 minute the actuator should have a rest or 'off' period of approximately 4 minutes before any further operations.

Operating from Building Management Systems

Where chain actuators are controlled from Building Management Systems (BMS) care is required to ensure excessive 'hunting' by the control system is prevented. This is often the case when the BMS system is set to modulate the opening of the actuators in an attempt

to control temperature too closely. This type of excessive control will invariably exceed the actuators duty cycle and shorten the life time of the actuators. This can be reduced by increasing the temperature set point 'dead bands' and applying a set time period between temperature samples.

BMS systems can utilise timed operations to achieve partial openings. Because some actuators may run at very slightly different speeds, many partial operations can result in the actuators being open varying amounts. It is advised that every 5 or so partial operations, a full close is implemented (close control for full time of actuator stroke plus a few seconds), this will ensure any 'drift' in actuator positions is kept to a minimum.

MAINTENANCE

Functional testing at regular intervals, if the actuators form part of a smoke ventilation system, refer to the maintenance guidelines for the system.

Actuators are supplied with a lubricated chain, this may require periodic inspection to ensure the chain remains sufficiently coated.

Inspection of fixings and actuator pivot bolts, tightening any loose parts. Ensure all pins and retaining clips are secured.