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FOR USE IN EXPERIMENTAL AIRCRAFT ONLY.

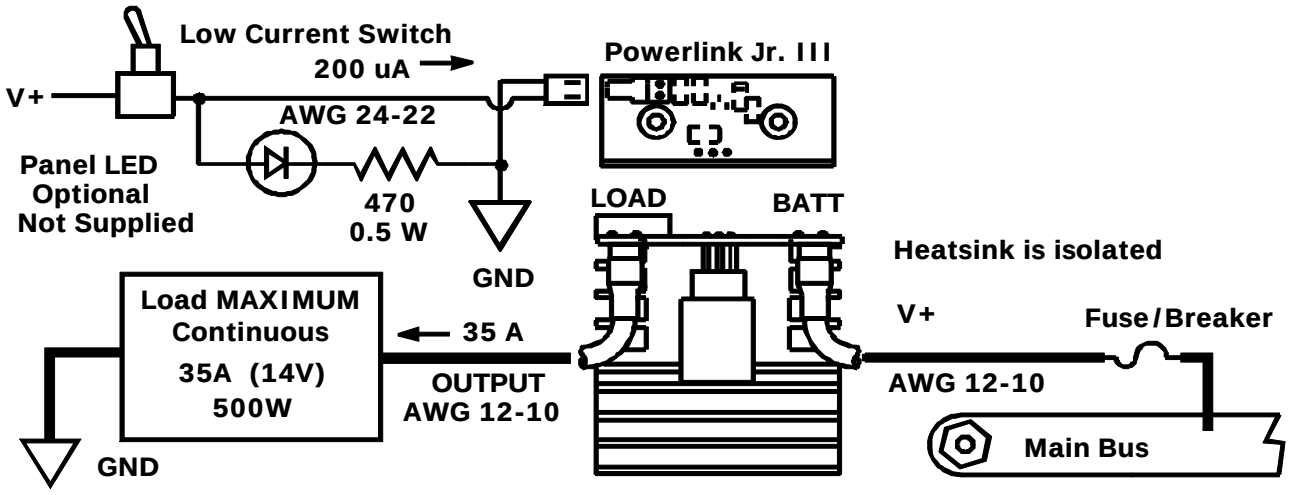
www.PerihelionDesign.com

# “PowerLink Jr. III” 35 Ampere Solid-State Relay

A solid-state contactor of advanced design and astonishing capabilities specially engineered for aircraft power applications.

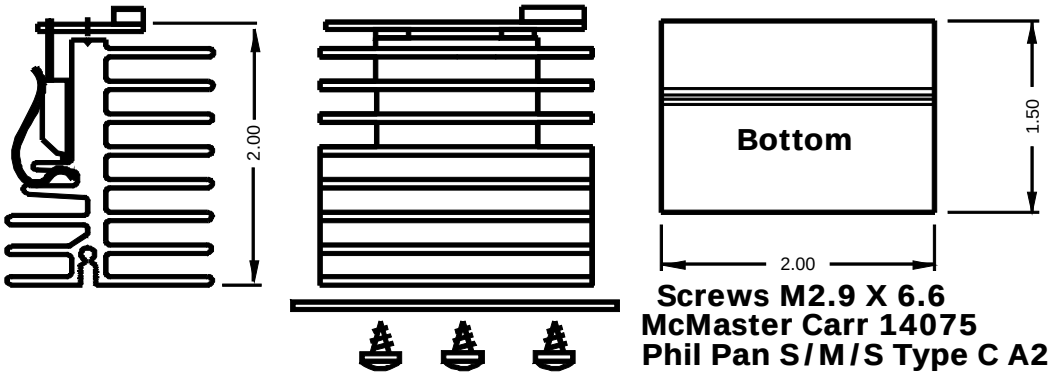
- Use as a general-purpose high-current relay.
- Turns on with any switch to positive.
- Lightweight, no RFI, no sparking, no arcing, no noise.
- Needs no spike suppression. Lower resistance than coil types or earlier solid-state designs.
- Hold current is only 200 microamps.
- No coils, no contacts, no relays!
- Over-current shutdown resets on power recycle.
- No G-force or vibration opening.
- ESD Protection, Inductive Load Protection
- 1000X as rugged as mechanical relays

**Basic Specifications:**
Dimensions: 1.50” X 2.00” X 2.30”
Weight: Less than 3.5 ounces
Connect: 0.250" Tabs, 2-pin Molex C-Grid
Input Voltage =8-18 VDC
Maximum Allowable Continuous Current=35A
Sea Level 80 ºC ambient; 20,000 ft. 33 ºC ambient
Allows surge for motor starting and lamp turn-on.



**Operating and Installation Instructions:**

The PowerLink Jr. III has been created to answer the need for a rugged but lightweight solid-state relay for experimental aviation use. It is based on the International Rectifier IRF2804 High-Side Power Mosfet. It offers advantages of extremely long life (there are essentially no components to age), no moving parts, relays, coils, contacts or 1930's technology. The PowerLink Jr. III can switch currents in any 8-18 VDC circuit.




General Operating Information and Notes: A low-power switch with gold contacts is recommended. An LED may be used in parallel (with a suitable resistor) with the control switch leads.

Installation: Preferred mounting is with vane openings vertical. Fasten with supplied screws. Attach electrical leads in proper orientation. High current terminals may be soldered to if you choose. Lugs can be bent 45 degrees. Test. Contact Perihelion Design if you need assistance.

- **Caution: This relay must be connected between the positive power source and ground-connected load only. The output tab must not be connected directly to ground!**
- **Caution: The control ground (—) lead MUST BE CONNECTED TO GROUND whenever + battery power is present on the input power lead.**
- **Notice: Check the temperature of the device (your finger will do fine). The device should not get so hot that you cannot touch it with your finger (50 degC). Usually the device runs only warm to the touch for most applications.**
- **Notice: Use only AMP, Burndy, Thomas & Betts, Molex, or other high-quality connectors suitable for the current and the application. Use of poor-quality imported and "auto-store" crimp terminals may cause the device to fail.**
- **Notice: Use outside the operating temperature and altitude limits requires derating maximum current.**
- **Attention: Unlike many coil-operated relays, the PowerLink Jr. III will operate down to a battery voltage of 8 volts when the battery voltage slumps on starting.**
- **Attention: A small residual voltage will appear on the output terminal when the device is turned OFF. This is normal in SSRs -- the current will be virtually zero.**