

SM138-2B

13.8VDC Power Supply Module

The SM138-2B is a revision of our popular SM138-2A power supply module. It is capable of supplying up to 2 Amps DC continuous with a suitably rated input transformer (plug pack).

The SM138-2B features a very similar footprint to the 2A version but has a larger heatsink to assist with heavier current draw and a **delayed AC fail SPDT relay output**. This relay will change state one and a half minutes (~1 min 30 secs) after removal of AC power from the input. For this function to work the power supply module must be fitted with a backup battery.

When used with a 16 to 18VAC 1.3 Amp plugpack the module will supply 1 Amp continuous with very little heat. For higher currents up to 2 Amps a transformer of 16-18VAC 3 Amps capability will be required. In 2 Amp configuration heat generated is still of an acceptable level but the power supply should be situated so as not to come in contact with items affected by heat.

The module features a battery charging circuit which will maintain a 12V Sealed Lead Acid (SLA) battery for backup purposes. This circuit will not charge a flat battery. Two (2) fuses are supplied. Use the 5 Amp fuse if a backup battery is in circuit. Use the 1.5 Amp with a 1.3 Amp input and no battery backup, or a 3 Amp (not supplied), with a 3 Amp AC input and no backup battery.

Two LED indicators show the presence of AC (RED) and DC (GREEN). The Green LED indicates that the output fuse is OK.

Installation

The module should be housed in a metal enclosure preferably. Four (4) x 6.4mm adhesive standoffs are supplied with the unit which allows simple mounting to a CLEAN, DRY surface. We recommend cleaning the mounting surface with Isopropyl alcohol prior to sticking the module to the surface.

Specifications

Input Voltage	16-22VAC @ 50 Hz
Maximum Current	2 Amp continuous
Output Voltage	13.8VDC +/- 0.3V
Load Regulation	+/- 0.15V
Output Ripple	< 18mVpp
Heatsink Temp @ 1.13A	~ 56 deg C, 13.75V
@ 2.22A	~ 80 deg C , 13.64V
Temperatures measured @ ambient 26 deg C	
Maximum Battery charge	<= 350mA
Dimensions	97L x 70W x 30H mm excluding standoffs

Designed & Manufactured in Australia by

Circuit Level Electronics (Aust) Pty Ltd
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All specifications and features are subject to change without notice
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