

AC-DC Battery Backed Power Supply



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PSV60 Series 50 Watt Open Frame Dual Output Battery Backed

Features

- Universal input range 90-264Vac
- 12V Battery Back-up (with external sealed lead acid battery)
- Integral Battery Charger
- Dual +5V & +12V Outputs
- AC Power FAil & Battery Low Signals
- Battery Under Voltage Lockout



Electrical Specification

INPUT

Input Voltage Range	90 - 264Vac
Frequency	47 - 63Hz
Input Current	1.5A max for 120Vac
Inrush Current	70A max. @ 230Vac, cold start
Earth Leakage Current	3.5mA max.
Input Fuse	T2A/250V

OUTPUT

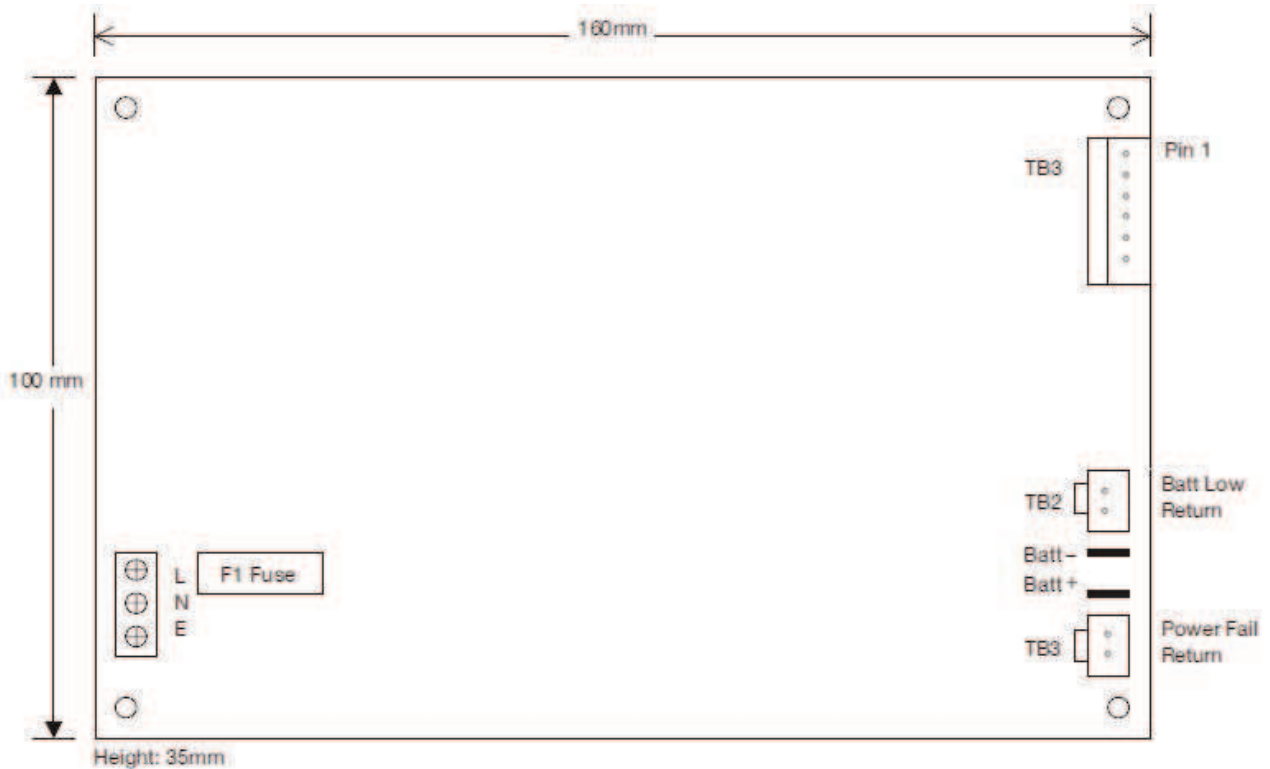
Output 1	+13.8V @ 1A for battery charging (suitable for charging up to 12Ahr 12V battery)
Output 2	+5V @ 4A
Output 3	+12V @ 1.2A (follows 13.8V charger voltage, therefore output will be 13.8V when AC is present and follows 12V battery voltage under battery back-up conditions)
Minimum Load	100mA on outputs 1 & 2
Ripple & Noise	1% Vout
Max. Output Power	50 Watts
Efficiency	70% minimum at max. load, 230Vac input
Turn On Delay	2 seconds max. @ 120Vac input
Hold Up Time	8mS minimum at max. load, 120Vac input
Transient Response	1mS for return to $\pm 10\%$ of nominal for 50% load change, 120Hz 50% duty cycle
Over Voltage Protection	16.0V @ full load for 13.8V output
Short Circuit Protection	Protection against short circuit with auto-recovery. Note: The output can be shorted permanently without damage, but the battery MUST be fused externally to prevent fire hazard.
Temperature Coefficient	0.2% per °C max. over entire operating temperature range
Battery Under Voltage Lockout	Disconnects load from battery at a preset voltage (approx. 10.5V) to prevent deep discharge of the battery.
AC Power Good Signal	Goes low with loss of AC input
Battery Low Signal	Goes high when battery voltage is low (approx. 11V)
Operating Temperature Range	0 to +50°C
Storage Temperature Range	-20 to +85°C
Safety	Meets EN60950 CB Report
EMC Requirement	Meets EN55022 'B'
Hi-pot Test	Primary to Secondary: 3kVac for 1 sec. 10mA Secondary to Ground: 500VDC for 1 sec. 10mA
Insulation Resistance	Input to Output: >7M Ω 500VDC

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Mechanical and Connection Details



Input Connector:

3 pin 5.08mm terminal block

Output Connector:

6 pin 3.96mm (0.156") Molex Header

Pin 1 & 2: +5V

Pin 3, 4 & 5: Return

Pin 6: +12V

Battery Connector:

2 x 6.3 x 0.8mm Fast On Blades

Signal Connectors (TB1 & TB2):

2.54mm (0.1") Molex Headers