

100W, Encapsulated AC/DC Power Supply for Heavy Duty Applications PWI 100 Series



- Field-proven rugged design
- For harsh-environments
- Complete encapsulation
- Full electronic protection
- Universal input ranges

The PWI 100 Series fully encapsulated, single output AC/DC power supply uses field-proven topology to generate 100W output power. It is a mature design with a track-record in hundreds of applications including transportation, mining, oil rigs, military and other harsh environments. Conduction cooled via a base plate, it is rated for operation over a -40 to +70°C temperature range without derating. All major heat-generating components are installed on aluminum heat-sink blocks, which are thermally connected to the base plate. It is entirely potted with a thermally conductive MIL-spec. silicon rubber compound for resistance against shock, vibration, humidity, moisture, dust and insects. The use of components with many years of established reliability and generous headroom results in a high demonstrated MTBF. The PWI 100 is manufactured at our plant under strict quality control. Versions to meet the EN50155 railway standard as well as customized versions are available on request.

SPECIFICATIONS

<p>Input Voltage Universal input 95VAC - 264VAC, 47-420Hz 120 ...360VDC Consult factory for other voltages</p> <p>Input Protection Inrush current limiting Varistor Internal safety fuse Line to GND varistor upon request Lower voltage than the specified minimum input will not damage the unit</p> <p>Isolation 2250VDC input to chassis 4300VDC input to output; 8mm spacing 500VDC output to chassis</p> <p>Standards Designed to meet EN60950 and related standards. Versions for EN50155 available on request</p> <p>EMI EN55022 Class A as a minimum</p> <p>Switching Frequency 55 KHz +/-3KHz</p> <p>Hold-Up Time Minimum 5ms at full load for 5% drop of output voltage at 120V AC input.</p>	<p>Output Voltage/Current 12V/8A, 24V/4A, 48V/2A Consult factory for other voltages</p> <p>Redundancy Diode None</p> <p>Line/Load Regulation ± 1% combined from zero load to full load</p> <p>Dynamic Response Max 5% voltage deviation for 10% to 50% load step, with better than 1msec recovery time</p> <p>Output Ripple / Noise Better than 1% of output voltage peak to peak or 0.2% RMS of the output voltage. (20MHz BW)</p> <p>Output Overload Protection Rectangular current limiting with short-circuit protection (hiccup type)</p> <p>Output Over-voltage Protection Double regulator loop completely stable and independent of main regulator loop Transzorb on output</p>	<p>Efficiency Min. 80% at full load</p> <p>Operating Temperature Range -40 to +70°C cold-plate temperature for full specification</p> <p>Temperature Drift 0.03% per °C over operating temperature range.</p> <p>Cooling Conduction via base plate to customer heatsink or chassis</p> <p>Environmental Protection Full encapsulation</p> <p>Shock/Vibration Meets requirements of IEC 61373 Cat 1 A&B and Cat 2 as a minimum.</p> <p>MTBF 180,000 hours @ 45°C Demonstrated MTBF significantly higher</p>	<p>Indicators None</p> <p>Control Input None</p> <p>Alarm output None</p> <p>Package/Dimensions P99: 81 x 71 x 156 mm (3.2" x 2.8" x 6.2") including terminal blocks and flanges. Mounting holes are clear.</p> <p>Weight 0.95 kg (2 lb)</p> <p>Connections 6 pole barrier type terminal block, 3/8" spacing</p> <p>RoHS Compliance Fully compliant</p> <p>Warranty Two years subject to application within good engineering practice</p>
---	--	---	---

Enhancements to these general specifications and customizing can be accommodated upon request. Specifications subject to change.

Designer and manufacturer of quality converters, inverters, UPS systems, complete rack mount systems and DC-input fluorescent lamp inverters since 1982. Custom or standard. Absopulse is a BABT-approved Facility.



ABOPULSE ELECTRONICS LTD
110 Walgreen Road
Ottawa, Ontario. K0A 1L0. CANADA
Tel: (613) 836-3511 Fax: (613) 836-7488
E-mail: absopulse@absopulse.com
www.absopulse.com