

## 300W, Encapsulated AC/DC Power Supply with PFC-Input for Heavy Duty Applications PPF 300 Series

- Designed for very harsh environments
- High reliability
- Single output
- Full electronic protection
- Field-proven design
- Fully encapsulated
- Conduction cooling
- N+1 redundancy available



The PPF 300 Series rugged, AC/DC power supply with power factor corrected input delivers 300W output power. Designed for operation in harsh environments, the unit is fully encapsulated with a thermally conductive MIL-spec. silicon rubber compound for resistance against shock, vibration, humidity and moisture. Cooling is via base plate by conduction. The unit was designed for continuous operation at 70°C with installation on an appropriate sized heat-sinking surface. The exclusive use of components with many years of established reliability and generous headroom contributes to a demonstrated MTBF exceeding 180,000 hours at 45°C operating temperatures. The PPF 300 is manufactured at our plant under strict quality control. Customized versions are also available.

### SPECIFICATIONS

<p><b>Input Voltage</b> Universal 95 ... 264Vac 47 - 63Hz</p> <p><b>Input Protection</b> Inrush current limiting Varistor Internal safety fuse Lower voltage than the specified min. input will not damage the unit</p> <p><b>Power Factor</b> Min. 0.97 at full load for the entire input range. Meets EN61000-3-2</p> <p><b>Isolation</b> 2250VDC input to chassis 4300VDC input to output; 8mm spacing 500VDC output to chassis</p> <p><b>Standards</b> Designed to meet EN60950 and related national standards</p> <p><b>EMI</b> EN55022 Class A with large margins</p> <p><b>Switching Frequency</b> 50-150KHz Boost section (dependent on the load) 67 KHz +/-3KHz for the (half bridge) DC/DC section</p> <p><b>Hold-Up Time</b> Min. 10ms at any input for 5% drop in output voltage</p>	<p><b>Output Voltage/Current</b> 12Vdc/25A, 24Vdc/13A, 36Vdc/8.3A, 48Vdc/6.2A or 72Vdc/4.2A standard. Consult factory for other voltages.</p> <p><b>Redundancy Diode</b> Optional</p> <p><b>Line/Load Regulation</b> ± 1% combined from zero load to full load</p> <p><b>Dynamic Response</b> Max 5% voltage deviation for 10% to 50% load step, with better than 1msec recovery time</p> <p><b>Output Ripple / Noise</b> Better than 1% of output voltage peak to peak or 0.2% Vrms (20MHz BW)</p> <p><b>Output Overload Protection</b> Rectangular current limiting with short-circuit protection (no hiccup) Current limit typically set for 110% of nominal output current Thermal shutdown at 110°C in case of insufficient cooling (self resetting)</p> <p><b>Output Overvoltage Protection</b> Second regulator loop Typically set at 120% of nominal output voltage</p>	<p><b>Efficiency</b> Min. 80% at 300W</p> <p><b>Operating Temperature Range</b> -40 to 70°C cold plate temperature for full specification</p> <p><b>Temperature Drift</b> 0.03% per °C over operating temperature range.</p> <p><b>Cooling</b> Conduction via base plate.</p> <p><b>Environmental Protection</b> Fully encapsulated and potted enclosure</p> <p><b>Shock/Vibration</b> Designed to meet IEC 61373 Cat 1 A&amp;B and Cat 2 as a minimum</p> <p><b>MTBF</b> 180,000 hours @ 45°C Demonstrated MTBF exceeds 1,000,000 hours at typical operating temperatures</p>	<p><b>Indicators</b> None</p> <p><b>Control Input</b> None</p> <p><b>Alarm output</b> None on standard version</p> <p><b>Dimensions</b> P 400: 131 x 76 x 232 mm (5.2" x 3" x 9.1") including terminal block and flanges Mounting holes are clear</p> <p><b>Weight</b> 2.2 kg (4.85 lbs)</p> <p><b>Connections</b> 9 pole barrier type terminal block, 3/8" spacing</p> <p><b>RoHS Compliance</b> (Directive 2002/95/EC) Fully compliant</p> <p><b>Warranty</b> Two years subject to application within good engineering practice</p>
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**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.*



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