

# 100W, Universal Input, 12Vdc Output AC-DC Power Supply

## Rugged Industrial Quality

### MIW 100-U/12-FOPD-HF (ND)



- Rugged industrial quality
- Convection cooled via heatsink fins
- DIN-rail mount
- Full electronic protection
- Field proven design

This universal input range, flyback AC-DC power supply on a 3" x 5" PCB is a custom version of our field-proven MIW 100-F0 power supply. The current limit is adjusted accurately to 100W output power, to meet Class II safety requirements. Heat-sink fins on the side of the unit ensure proper cooling at +60°C ambient temperature. A 90° faston connector is installed on the front panel for extra safety grounding. The DIN rail mechanism is a heavy-duty UTA 89 bracket. Conformal coating provides protection against humidity and airborne contaminants. Full electronic protection, low component count, large design headroom and the exclusive use of components with established reliability contribute to a high MTBF. The unit is manufactured at our plant under strict quality control.

#### SPECIFICATIONS

<p><b>Input Voltage</b> 95V to 264Vac ±15% 47 - 63Hz Input current 2Arms max.</p> <p><b>Input Protection</b> Inrush current limiting Varistor Internal safety fuse Lower voltage than the specified minimum input will not damage the unit</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 EN62368-1 and corresponding UL and CSA standards.</p> <p><b>EMI</b> EN55032 Class A with margins</p> <p><b>Switching Frequency</b> 47kHz ±2kHz</p> <p><b>Hold Up Time</b> Minimum 5ms at full load for 5% drop of output voltage at &gt; 120Vac input</p>	<p><b>Output Voltages</b> 12Vdc +0.4V / -0.0V   8.4A max The output is floating, either terminal can be grounded</p> <p><b>Redundancy Diode</b> None</p> <p><b>Line/Load Regulation</b> ±2% 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 30mVrms or 100mVpp (@ 20MHz BW)</p> <p><b>Output Overload Protection</b> Rectangular current limiting with hiccup type short-circuit protection Current Limit: 8-8.5A ± 0.1A</p> <p><b>Output Overvoltage Protection</b> Second regulator loop, completely stable and independent of main regulator loop OVP setting: 16V ± 1V</p>	<p><b>Efficiency</b> Min. 85% at full load</p> <p><b>Operating Temperature Range</b> 0°C to +60°C for full specification with proper airflow</p> <p><b>Temperature Drift</b> 0.03% per °C over operating temperature range</p> <p><b>Cooling</b> Natural convection</p> <p><b>Environmental Protection</b> Basic ruggedizing Conformal coating</p> <p><b>Shock/Vibration</b> IEC 61373 Cat 1 A&amp;B</p> <p><b>Humidity</b> 5 – 95% non-condensing</p> <p><b>MTBF</b> 100,000 hours @ 45°C Demonstrated MTBF is significantly higher</p>	<p><b>Indicators</b> Green power ON LED on face plate of the unit</p> <p><b>Control Input</b> None</p> <p><b>Alarm Output</b> None</p> <p><b>Package/Dimensions (W x H x L)</b> FOPD-HF: 90 x 68 x 141 mm 3.5" x 2.7" x 5.5" Includes heatsink fins, excludes Phoenix mating connectors. Mounting holes are clear</p> <p><b>Weight</b> 0.8kg. (2.0 lb.)</p> <p><b>Connections</b> Phoenix connectors Input: GMSTB 2.5/3-ST-7.62 Output: GMSTB 2.5/4-ST-7.62</p> <p><b>RoHS Compliance</b> Compliant</p> <p><b>Warranty</b> Two years subject to application within good engineering practice</p>
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ABSOPULSE power supplies are designed and built to customer requirements. The specifications on this data sheet are generic guidelines only and are subject to change.

OEM of industrial and railway quality DC-DC converters, AC-DC power supplies and battery chargers, DC-AC sine-wave inverters, phase and frequency converters, DC-output UPS systems and complete power systems in 19" and 23" racks since 1982. Custom or standard. ABSOPULSE is a BABT-approved Facility.



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