

100W, Rugged, Triple Output, AC/DC Industrial Power Supply with Universal Input MIW 103-FT Series



- Rugged industrial quality
- Triple output
- Conduction/convection cooled
- Full electronic protection
- Field proven design

The MIW 103 Series rugged, triple output AC/DC industrial power supply uses field-proven technology to deliver 100W. It is a mature design with a track record in numerous applications. The main 5V output is galvanically isolated from the other two outputs which have a common return and are typically configured as $\pm 12V$. The +5V and -12V are fully regulated and the +12V is semi-regulated (tracking the 5V output). The standard output configuration is +5V/6A, +12V/3A and -12V/1A. Cooling is by conduction via baseplate to a heatsinking surface and by natural convection for the stand-alone version. The unit has full electronic protection. Low component count, large design headroom, and the use of components with established reliability result in a high MTBF. Additional ruggedizing and conformal coating are available for operation in extreme environments. The MIW 103 is manufactured at our plant under strict quality control. It is also available in a plug-in module.

SPECIFICATIONS

<p>Input Voltage 95V to 264Vac 47 - 420Hz DC-input also available. Please consult factory.</p> <p>Input Protection Inrush current limiting Varistor Internal safety fuse 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 EN 60950 and corresponding UL and CSA standards</p> <p>EMI EN55022 Class A as a minimum</p> <p>Switching Frequency 47 kHz \pm2kHz</p> <p>Hold Up Time Minimum 5ms at full load for 5% drop of output voltage at 120Vac and higher input</p>	<p>Output Voltage/Current +5V/6A, +12V/3A and -12V/1A, standard. Consult factory for other voltages</p> <p>Redundancy Diode None</p> <p>Line/Load Regulation \pm1% combined from no load to full load for the 5V and -12V outputs, \pm5% for the +12V output</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 Less 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 hiccup mode short-circuit protection on both outputs Thermal shutdown in case of insufficient cooling (self resetting)</p> <p>Output Overvoltage Protection Double regulator loop</p>	<p>Efficiency Output voltage dependent. Typically better than 80% at full load</p> <p>Operating Temperature Range 0 to 50°C for full specification installed on heat-sinking surface with good air flow Extended temperature ranges available</p> <p>Temperature Drift 0.03% per °C over operating temperature range</p> <p>Cooling Conduction via base plate and convection</p> <p>Environmental Protection Basic ruggedizing Full ruggedizing and conformal coating available as an option</p> <p>Shock/Vibration IEC 61373 Cat 1 A&B</p> <p>Humidity 5 – 95% non-condensing</p> <p>MTBF 150,000 hours @ 45 °C Demonstrated MTBF is significantly higher</p>	<p>Indicators None on standard version</p> <p>Control Input None</p> <p>Alarm Output None</p> <p>Packaging/Connections: <u>Open PCB version:</u> PCB size 3.5" x 5" Component height: 1.5" Connector: header pins with 0.156" spacing or barrier-type terminal block Weight: 0.2 kg (0.5 lb)</p> <p><u>Enclosed case version (F0W)</u> 102 x 51 x 153 mm (W x H x L) (4.0" x 2.0" x 6.0") including terminal block and flanges Connector: barrier-type terminal block Weight: 0.8 kg (1.8 lb)</p> <p>RoHS Compliance Fully compliant</p> <p>Warranty 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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