

50W - 100W, Rugged, Ultra-compact, Industrial DC/DC Converter MIM 105-FT Series



- Rugged industrial quality
- Single output
- Conduction/convection cooled
- Full electronic protection
- Field-proven design
- Cost optimized

The MIM 105 Series rugged, industrial quality DC/DC converter uses a field proven design to generate up to 100W output power, depending on input/output configuration. It is a mature product with a track record in numerous applications. This converter is a complete turn-key unit with input filter, hold-up capacitors and output filter. Cooling is via baseplate to a heatsinking surface and by natural convection. Low component count, large design headrooms, and the use of components with established reliability result in a high MTBF. It features 135kHz switching frequency. Additional ruggedizing and conformal coating are available for applications requiring higher immunity to shock, vibration and humidity. Customized, potted versions, are also available. This series is suitable for building complex, multi-output DC/DC systems with virtually no NRE cost. Multiple output versions with two, three or four outputs are also available. The MIM 105 is manufactured at our plant under strict quality control.

SPECIFICATIONS

<p>Input Voltage 12Vdc, 24Vdc or 48Vdc standard Consult factory for other voltages</p> <p>Input Protection Inrush current limiting Varistor Reverse polarity protection Internal safety fuse Lower voltage than the specified minimum input will not damage the unit.</p> <p>Isolation Depends on the required input/output configuration. At a minimum: 500VDC input to chassis, 500VDC input to output, 500VDC output to chassis</p> <p>Standards Designed to meet EN 60950 and corresponding UL and CSA standards</p> <p>EMI Each version meets the requirements of EN55022 Class A with margins</p> <p>Switching Frequency 135kHz +/- 5kHz</p>	<p>Output Voltage/Current 5Vdc/10A, 12Vdc/4A, 24Vdc/2A, 36Vdc/1.5A, 48Vdc/1A or 72Vdc/0.5A are standard Consult factory for other voltages</p> <p>Redundancy Diode None on this series</p> <p>Line/Load Regulation +/- 1% combined from no 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 Current limiting with short circuit protection (hiccup mode)</p> <p>Output Overvoltage Protection Double regulator loop and transorb clamp</p>	<p>Efficiency Output voltage dependent. Typically 80% at full load</p> <p>Operating Temperature Range 0 to +50°C. Higher rating depends on available conduction and convection.</p> <p>Temperature Drift 0.03% per °C over operating temperature range</p> <p>Cooling Conduction to customer heatsink or chassis and natural convection</p> <p>Environmental Protection Basic ruggedizing Conformal coating as option</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/Dimensions/Weight <u>FM Enclosed case:</u> 66 x 38 x 163 mm (2.6" x 1.5" x 6.4") including terminal block and flanges. Mounting holes are clear <u>Open frame:</u> PCB Size: 2" x 5.3" Component height: 1.125"</p> <p>Weight Approx: 0.4 kg (0.9 lb)</p> <p>Connections 5-pole barrier-type terminal block</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 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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