

100W, Rugged, Industrial Quality DC-DC Converter with Wide Input Range DCW 100-F0 Series



- Rugged industrial quality
- Conduction/convection cooled
- Full electronic protection
- Field-proven design
- Wide input ranges

This rugged, industrial quality AC-DC power converter utilizes field-proven technology to generate the required output power. It is a mature design with a track record in numerous applications. Cooling is by conduction via baseplate. Additional cooling is achieved by natural convection through the cooling slots. All heat generating components are installed on aluminum heatsink blocks which are thermally connected to the base plate. This also provides exceptional mechanical ruggedness. 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

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| <p>Input Voltage Two standard input ranges are available: 20 - 60Vdc or 65 - 160Vdc Consult factory for other input voltages and ranges</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 1500VDC input to chassis, 1500VDC input to output, 500VDC output to chassis</p> <p>Standards Designed to meet EN 60950-1 and corresponding UL and CSA standards</p> <p>EMI EN55032 Class A with margins</p> <p>Switching Frequency 47kHz ±2kHz</p> | <p>Output Voltage/Current 12V/8A, 24V/4A, 48V/2A or 125V/0.8A are standard. Consult factory for other voltages</p> <p>Redundancy Diode Not installed</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 (20MHzBW)</p> <p>Output Overload Protection Current limiting with short circuit protection (hiccup)</p> <p>Output Overvoltage Protection Double regulator loop and transzorb clamp</p> | <p>Efficiency Output voltage dependent. Typically 80% at full load</p> <p>Operating Temperature Range 0°C to 50°C for full specification Wider temperature ranges available.</p> <p>Temperature Drift 0.03% per °C over operating temperature range</p> <p>Cooling Conduction via base plate to customer heatsink or chassis and/or natural convection</p> <p>Environmental Protection Basic ruggedizing Heavy ruggedizing and conformal coating as 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</p> <p>Control Input None</p> <p>Alarm Output None</p> <p>Package/Dimensions (W x H x L) F0: 88 x 48.3 x 160 mm 3.5 x 1.9 x 6.3") including terminal block and flanges. Mounting holes are clear</p> <p>Weight 0.55kg (1.2lbs)</p> <p>Connections 6-pole barrier-type terminal block or 90° header pins with 0.156" spacing Open PCB versions are also available with header pins with 0.156 spacing, or terminal block PCB size: 3"x 5"</p> <p>RoHS Compliance 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 are subject to change.

Designer and manufacturer of quality ac-dc power supplies and battery chargers, converters, inverters, dc-output 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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