

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

DCW 100-F0



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

This rugged, industrial quality DC-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

Input Voltage Two standard input ranges options are available: 20 - 60Vdc or 65 - 160Vdc Consult factory for other input voltages and ranges	Output Voltage/Current 12V/8A, 24V/4A, 48V/2A or 125V/0.8A Output is floating; either terminal can be grounded Consult factory for other voltages	Efficiency Output voltage dependent. Typically 80% at full load	Indicators None
Input Protection Inrush current limiting Varistor Reverse polarity protection Internal safety fuse Lower voltage than the specified minimum input will not damage the unit.	Redundancy Diode Not installed	Operating Temperature Range 0°C to 50°C baseplate temperature for full specification Wider temperature ranges available.	Control Input None
Isolation 1500VDC input to chassis, 1500VDC input to output, 500VDC output to chassis	Line/Load Regulation ±1% combined from no load to full load	Temperature Drift 0.03% per °C over operating temperature range	Alarm Output None
Standards Designed to meet EN62368-1 corresponding UL and CSA standards	Dynamic Response Max 5% voltage deviation for 10% to 50% load step, with better than 1msec recovery time	Cooling Conduction via base plate to customer heatsink or chassis and/or natural convection	Package/Dimensions (W x H x L) F0: 88 x 48 x 155 mm 3.47" x 1.9" x 6.1" Includes baseplate, excludes terminals Mounting holes are clear
EMI EN55032 Class A with margins	Output Ripple / Noise Better than 1% of output voltage peak to peak or 0.2% RMS of the output voltage (20MHzBW)	Environmental Protection Basic ruggedizing Conformal coating	Weight 0.55kg (1.2lbs)
Switching Frequency 47kHz ±2kHz	Output Overload Protection Current limiting with short circuit protection (hiccup)	Shock/Vibration IEC 61373 Cat 1 A&B	Connections 6-pole barrier-type terminal block with 3/8" spacing Open PCB versions are also available with header pins with 0.156 spacing, or terminal block PCB size: 3"x 5"
	Output Overvoltage Protection Double regulator loop and transzorb clamp	Humidity 5-95% non-condensing	RoHS Compliance Compliant
		MTBF 150,000 hours @ 45 °C Demonstrated MTBF is significantly higher	Warranty Two years subject to application within good engineering practice

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.



ABSOPULSE ELECTRONICS LTD

110 Walgreen Road, Ottawa, Ontario. K0A 1L0. CANADA

Tel: +1-613-836-3511 | Fax: +1-613-836-7488

<https://absopulse.com/contact> | <https://www.absopulse.com>