

200W, Rugged, Industrial Quality DC-DC Converter with Wide Input Range DCW 200-F2 Series

- Rugged industrial quality
- Conduction/convection cooled
- Full electronic protection
- Field-proven design in a wide range of applications
- Wide input ranges



This rugged, industrial quality DC-DC converter uses 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 DCW 200 is manufactured at our plant under strict quality control.

SPECIFICATIONS

Input Voltage

110Vdc or 125Vdc nominal
88-150Vdc operating range
Consult factory for other input voltages and ranges

Input Protection

Inrush current limiting
Varistor
Reverse polarity protection
Internal safety fuse
Lower voltage than the specified minimum input will not damage the unit.

Isolation

1500Vdc input to chassis
3000Vdc input to output
700Vdc output to chassis

Standards

Designed to meet EN60950-1 and related standards

EMI

EN55022 Class A with margins

Switching Frequency

47kHz ± 2kHz

Output Voltage

24V, 48V or 125Vdc
200W continuous
Consult factory for other voltages

Redundancy diode

Not installed
Available as an option

Line/Load Regulation

±1% combined from no load to full load

Dynamic Response

Max 5% voltage deviation for 10% to 50% load step, with better than 1msec recovery time

Output Ripple/Noise

Better than 1% of output voltage peak to peak or 0.2% RMS of the output voltage (20MHz BW)

Overload Protection

Current limiting with short circuit protection (hiccup type)
Thermal shut-down with automatic recovery in case of insufficient cooling.

Output Overvoltage Protection

Double regulator loop
Transzorb across the output

Efficiency

Output voltage dependent
Typically 85% at full load

Operating Temperature

0°C to 50°C for full specification
Wider temperature ranges available

Temperature Drift

0.03% per °C over operating temperature range

Cooling

Conduction to customer heat-sink or chassis and natural convection

Environmental Protection

Basic ruggedizing
Conformal coating
Heavy ruggedizing available as option

Shock/Vibration

IEC 61373 Cat 1 A&B

Humidity

5 - 95% non-condensing

MTBF

160,000 hours @ 45°C
Demonstrated MTBF is significantly higher

Indicators

Green "Power ON" LED, visible through the cooling slots

Control Input

None

Alarm Outputs

None
Form C alarm as option

Package/Dimensions (W x H x L)

F2: 114 x 58 x 256 mm (4.5"x 2.3" x 10.1") including terminal block and flanges.
Mounting holes are clear

Weight

1.2 kg (2.6 lb) approx

Connections

9-pole barrier type terminal block with 3/8" spacing for input/output

RoHS

Compliant

Warranty

Two years subject to application within good engineering practice

Terminal Block Pin Out

DC OUTPUT					DC INPUT			
NOT USED	NOT USED	NOT USED	-	+	NOT USED	⊥	-	+
1	2	3	4	5	6	7	8	9



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