
Transduction

TR-DCW100-12VDC

Rugged 48VDC DC/DC Converter

TR-DCW100-12VDC DC/DC Converter



Features

- ▶ Wide input 20 ~ 60VDC.
- ▶ Output 12V/8A.
- ▶ Input and output isolation.
- ▶ High efficiency 87% at full load.
- ▶ Inrush current limiting.
- ▶ Overload protection.
- ▶ Frequency 47KHz, ± 2 KHz.
- ▶ MTBF > 150,000 hours.
- ▶ Meet EN55022 Class A EMI.
- ▶ 5 year warranty.

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Rugged 48VDC DC/DC Converter

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Specification

Model

- ▶ TR-DCW100-12VDC

Input Voltage

- ▶ 20 ~ 60VDC

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
- ▶ 1500VDC input to output
- ▶ 500VDC output to chassis

Frequency

- ▶ Switchable, 47KHz \pm 2KHz

Output Voltage/Current

- ▶ 12V/8A

Line/Load Regulation

- ▶ \pm 1% combined from no load to full load

Dynamic Response

- ▶ Max 5% voltage deviation for 10% ~ 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)

Output Overload Protection

- ▶ Current limiting with short circuit protection (hiccup mode)

Output Overvoltage Protection

- ▶ Double regulator loop and transzorb clamp

Cooling

- ▶ Conduction to customer heatsink or chassis and natural convection

Efficiency

- ▶ 80% at full load

Operating Temperature

- ▶ 0 ~ 50°C

Temperature Drift

- ▶ 0.03% per °C over operating temperature range

MTBF

- ▶ MTBF > 150,000 hours

Standards

- ▶ EN 60950 and corresponding UL and CSA standards

EMI

- ▶ EN55022 Class A with wide margins

RoHS Compliant

- ▶ Fully compliant

Warranty

- ▶ 5 years