

# DCW150R SERIES

Rail DC/ DC Converters Single Output: 150 Watts



## General Specifications

Input Voltage	24VDC ( 14.4 ~ 34 ) 36VDC ( 22 ~ 51 ) 48VDC ( 29 ~ 67 ) 72VDC ( 43 ~ 101 ) 96VDC ( 58 ~ 135 ) 110VDC ( 66 ~ 154 ) • Other voltages on request
Input Protection	Reverse polarity protection. Inrush current limiting Lower voltage than specified will not damage unit
Isolation	Input - Output 3000vdc Input – Chassis 1500vdc Output – Chassis 1500vdc
Efficiency	Model dependent , typically 80-90%
Output voltage	See tables
Output Power	150 watts
Voltage Adjust.	Customer specified
Immunity	EN50155 & EN50121-3-2 EN61000-4-2 ESD EN61000-4-3 RF Immunity EN61000-4-4 Fast Transients EN50155 Surge & Voltage variations EN61000-4-6 Conducted Immunity
EMI	EN5022 Class B Conducted & Radiated
Switching Freq.	47kHz ±5kHz
Regulation	±1% Line / Load combined
Dynamic Response	Max ±5% deviation for 10% - 50% load step with 1msec recovery
Ripple & Noise	Typically 1% pk-pk or 0.2% RMS of output voltage ( 20MHZ BW )
Overload Protection	Current limiting, with hiccup type short-circuit protection
Overvoltage Protection	Double regulator loop &Tranzorb across output
Operating Temp.	-25°C to +70°C cold plate temperature
Cooling	Conduction cooling / Convection cooling
Environmental Protection	Ruggedizing and Conformal coating of PCB.
Shock & Vibration	IEC61373 Cat 1 A & B and Cat 2
Humidity	5-95% non-condensing, higher ration option
MTBF	>150,000 hrs

## Features

- Designed to rail standards EN50155 & EN50121
- Rugged design for on-board train applications
- Wide input voltage range
- Convection / Conduction cooled: No fans
- Fully isolated input – output 3000VDC
- Over voltage protection
- Overload and short circuit protection
- MTBF > 150,000hrs
- Specials input / output combinations on request.

## Description

The DCW150R series dc/dc converters are designed for use on Rail Rolling Stock and for many extremely harsh environments.

This rugged, industrial quality DC/DC converter uses a field proven topology to generate up to 150W continuous power, depending on the input/output configuration (i.e. efficiency).

It is a mature design with a track record in hundreds of applications. The series has large design headrooms and it is rated for operation over a -25 to +70oC temperature range.

It is cooled by conduction via baseplate to a heatsinking surface and by natural convection. These models are fully ruggedized and conformal coated for immunity to shock, vibration, humidity, moisture, dust and insects.

This chassis-mount design is optimized for low component count and high efficiency. The use of components with established reliability results in a high demonstrated MTBF.

Customized versions are also available.

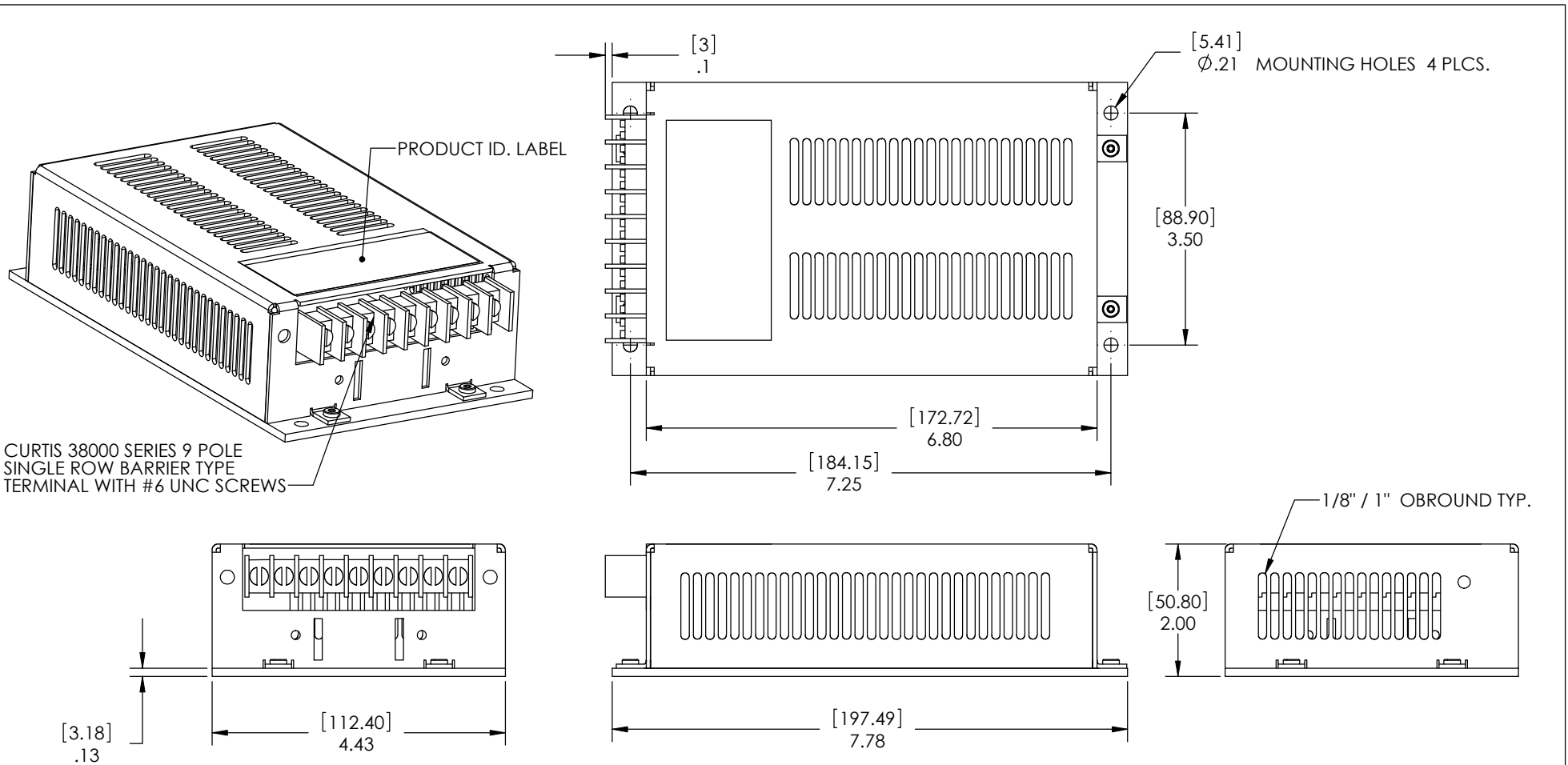
Model	Input Options V	Output Options		Power W
		V	A	
DCW150R	24V, 36V	12V	12A	150W
	48V, 72V	24V	6A	
	96V, 110V	48V	3A	
		110V	1.3A	

- Final part numbers will be factory allocated to reflect customer input & output requirements.
- Any output from 12-125V is possible.

LED / Indicator	Optional
Alarm output	Optional on some models
Connector	6 pole barrier-type terminal block with 3/8"spacing. ( optional cover )
Dimensions	112 x 51 x 201mm (F1 ) W x H x L ( includes terminal block & mounting flanges)
Weight	0.8kg

# DCW150R SERIES

Rail DC/ DC Converters Single Output: 1500 Watts



DIMENSIONS ARE IN INCHES (mm) TOLERANCES ON DECIMALS: XXX ± 0.008" XX ± 0.012" ANGLES: ± 2° FRACTIONS: ± 1/64" UNLESS OTHERWISE STATED	THIS DOCUMENT IS THE PROPERTY OF AMTEX ELECTRONICS LTD. ITS CONTENTS ARE PROPRIETARY AND MAY NEITHER BE COPIED, REPRODUCED NOR ITS CONTENTS DISCLOSED TO OTHERS WITHOUT PRIOR WRITTEN AGREEMENT FROM AMTEX ELECTRONICS LTD.	Title:	OUTLINE DRAWING
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