

# RWY250H SERIES

Rail DC/ DC Converters Single Output: 250 Watts



## Features

- ◆ Designed to rail standards EN50155 & EN50121
- ◆ Fully potted with thermally conductive MIL-Spec silicon rubber compound.
- ◆ 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 > 160,000hrs
- ◆ Specials input / output combinations on request.

## General Specifications

Input Voltage	24VDC (14.4 ~ 34) 48VDC (29 ~ 67) 96VDC (58 ~ 135)	36VDC (22 ~ 51) 72VDC (43 ~ 101) 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	250 watts	
Voltage Adjust.	Fixed output	
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.	80kHz ±5kHz	
Regulation	±1% Line / Load combined	
Dynamic Response	Max ±5% diviation for 10% - 50% load step wuth 1msec recovery	
Ripple & Noise	Typically 1% pk-pk or 0.2% RMS of output voltage ( 20MHZ BW )	
Overload Protection	Rectanular current limiting, with hiccup type short-circuit protection	
Overvoltage Protection	Second regulator loop, independent of main regular loop.	
Operating Temp.	-40°C to +70°C cold plate temperature	
Cooling	Conduction cooling via base plate to customer chassis or heatsink	
Environmental Protection	Full encapsulation with thermally conductive silicon potting with UL94V-0 rated	
Shock & Vibration	IEC61373 Cat 1 A & B and Cat 2	
Humidity	5-95% non-condensing, higher ration option	
MTBF	>160,000 hrs	

## Description

The RWY250H series dc/dc converters are designed for use on Rail Rolling Stock and for many extremely harsh environments.

They are fully potted with a thermally conductive MIL-Spec silicon compound, meeting a high level of shock and vibration.

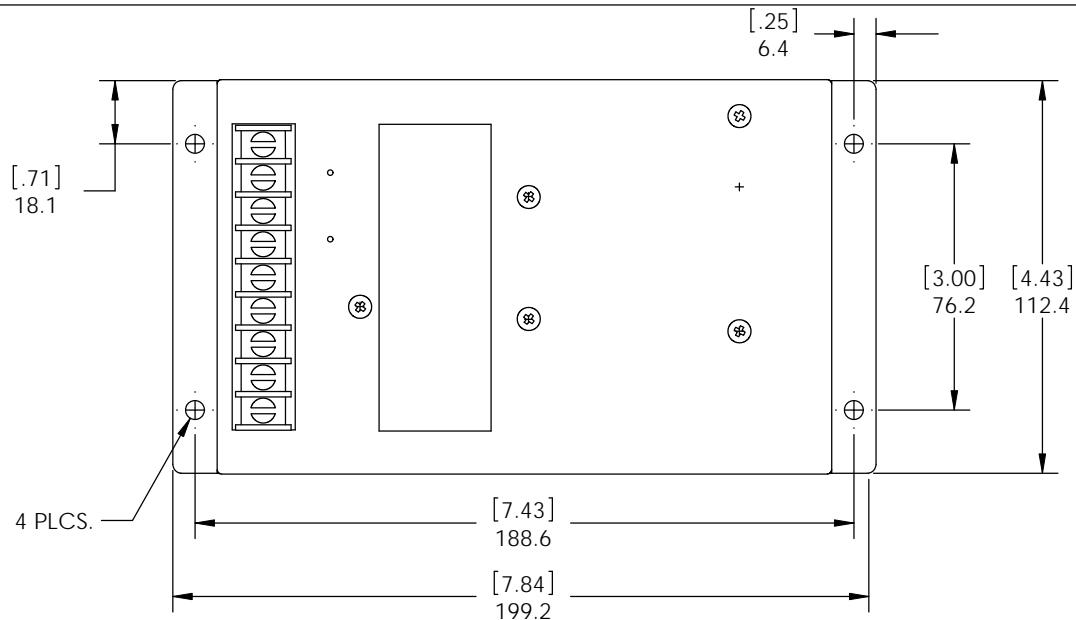
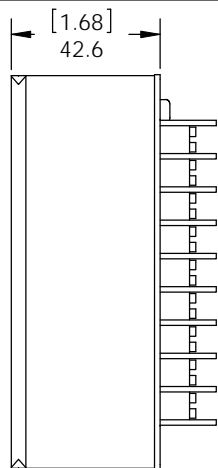
The table below illustrate the most common output voltages, but can also be manufactured to special input & output specifications with total flexibility to match customer requirements.

Model	Output		Power W
	V	A	
RWY250H	12V ~ 110V	20A	250W

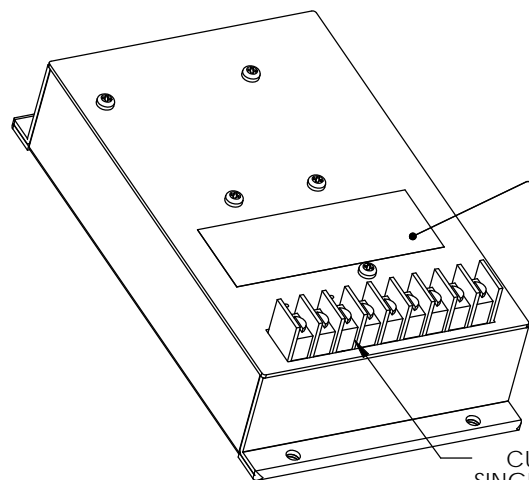
1. Any output voltage from 12 ~ 110V is possible, but maximum output current and power can't exceed 20A / 250W.
2. Maximum output power will depend on final customer selection of input / output voltage combination.
3. Final part no will be factory assigned :

- ◆ e.g. RWY250H-110/24PT- xxxxx

LED / Indicator	Optional on some models
Alarm output	Optional on some models
Connector	9 pole barrier-type terminal block with 3/8"spacing. ( optional cover )
Dimensions	113 x 60 x 200mm (P300H) W x H x L ( includes terminal block & mounting flanges)
Weight	1.8kg

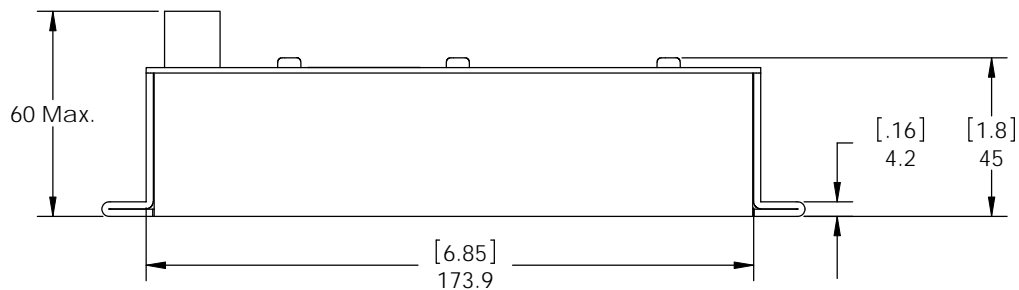


Ø5.4 MTG. HOLES 4 PLCS.



PRODUCT ID. & TERMINALS / LOGO LABEL

CURTIS 38000 SERIES 9 POLE SINGLE ROW BARRIER TYPE TERMINAL



CASE MATERIAL: ALUMINUM  
 FINISH: CLEAR IRIDITE AS PER MIL-C-554E CLASS 3  
 THE UNIT IS POTTED WITH SILICONE COMPOSITE POTTING COMPOUND

DIMENSIONS ARE IN MILLIMETERS  
 TOLERANCES ON  
 DECIMALS: XXX ± 0.2mm  
 XX ± 0.3mm  
 ANGLES: ± 2°  
 FRACTIONS: ± 0.4mm  
 UNLESS OTHERWISE STATED

Title:	OUTLINE DRAWING
Part of:	P300H'Bcj' &\$\$