

# RWY182 SERIES

Rail DC/ DC Converters Dual Output: 200 Watts



## Features

- ◆ Dual output 200 watts
- ◆ 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

<b>Input Voltage</b>	<b>24VDC</b> ( 14.4 ~ 34 ) <b>36VDC</b> ( 22 ~ 51 ) <b>48VDC</b> ( 29 ~ 67 ) <b>72VDC</b> ( 43 ~ 101 ) <b>96VDC</b> ( 58 ~ 135 ) <b>110VDC</b> ( 66 ~ 154 ) ◆ Other voltages on request
<b>Input Protection</b>	Reverse polarity protection. Inrush current limiting Lower voltage than specified will not damage unit
<b>Isolation</b>	Input - Output 3000vdc Input – Chassis 1500vdc Output – Chassis 1500vdc
<b>Efficiency</b>	Model dependent , typically 80-90%
<b>Output voltage</b>	See tables
<b>Output Power</b>	200 watts
<b>Voltage Adjust.</b>	Fixed output
<b>Immunity</b>	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
<b>EMI</b>	EN5022 Class B Conducted & Radiated
<b>Switching Freq.</b>	80kHz ±5kHz Push Pull 130kHz ±5kHz Forward
<b>Regulation</b>	±1% Line / Load combined
<b>Dynamic Response</b>	Max ±5% diviation for 10% - 50% load step wuth 1msec recovery
<b>Ripple &amp; Noise</b>	Typically 1% pk-pk or 0.2% RMS of output voltage ( 20MHZ BW )
<b>Overload Protection</b>	Rectanular current limiting, with hiccup type short-circuit protection
<b>Overvoltage Protection</b>	Second regulator loop, independent of main regular loop, for main output. Transorb for second output.
<b>Operating Temp.</b>	-40°C to +70°C cold plate temperature
<b>Cooling</b>	Conduction cooling via base plate to customer chassis or heatsink
<b>Environmental Protection</b>	Full encapsulation with thermally conductive silicon potting with UL94V-0 rated
<b>Shock &amp; Vibration</b>	IEC61373 Cat 1 A & B and Cat 2
<b>Humidity</b>	5-95% non-condensing, higher ration option
<b>MTBF</b>	>160,000 hrs

## Description

The **RWY182** series dc/dc converters are designed for use on Rail Rolling Stock and for many extremely harsh environments.

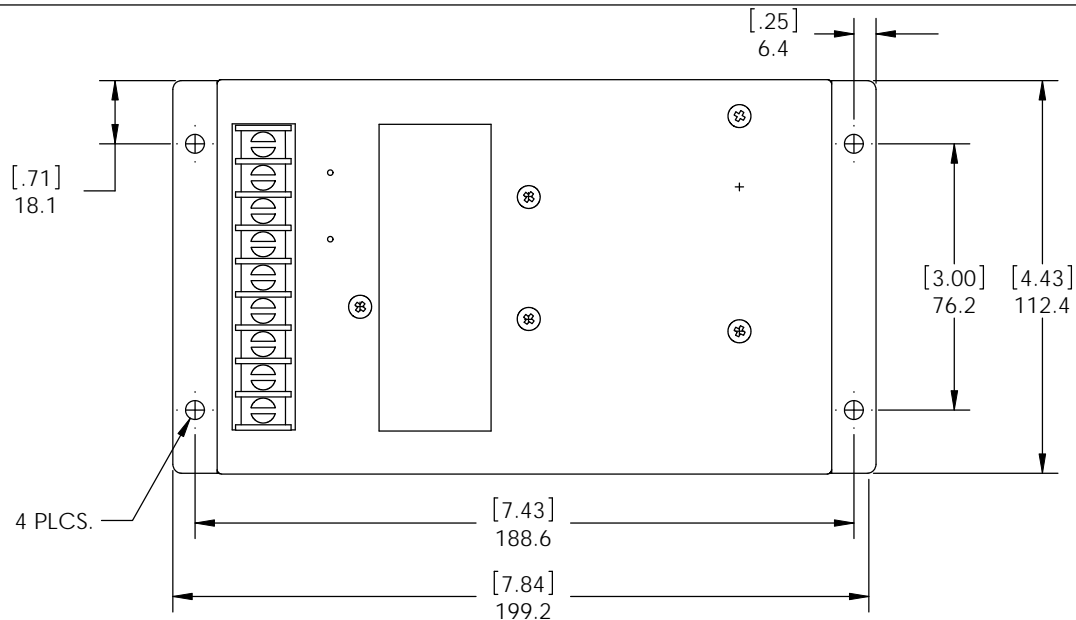
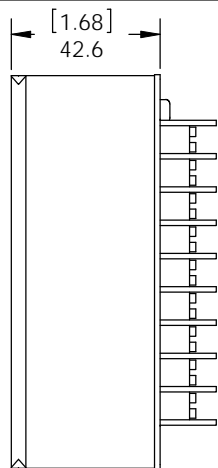
They are fully potted with a thermally conductive MIL-Spec silicon compound, meeting a high level of shock and vibration.

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.

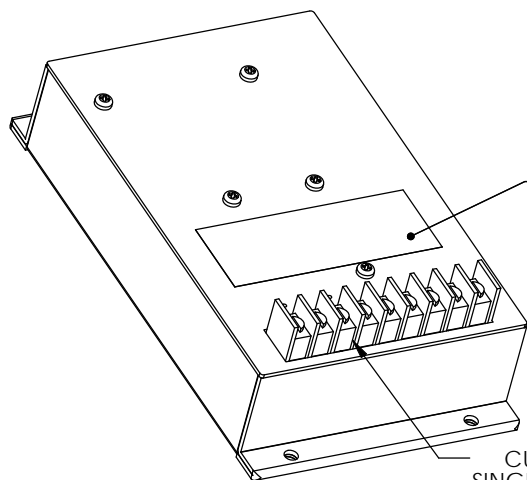
Model	Output		Power W
	V 1	V2	
<b>RWY182</b>	Any voltage 5 ~ 72V limited to 8A / 100W	Any voltage 5 ~ 72V limited to 8A / 100W	200W

1. V1 and V2 are single and isolated outputs and are fully floating.
  2. They can be connected in series for high voltage output if required.
  3. Maximum output power of combined V1 & V2 is limited to 200W.
  4. Final part no will be factory assigned to reflect customer spec's
- ◆ e.g. **RWY182-110/2424PT- xxxxx**

<b>LED / Indicator</b>	Optional on some models
<b>Alarm output</b>	Optional on some models
<b>Connector</b>	9 pole barrier-type terminal block with 3/8"spacing. ( optional cover )
<b>Dimensions</b>	113 x 60 x 200mm (P300H) W x H x L ( includes terminal block & mounting flanges)
<b>Weight</b>	1.5kg

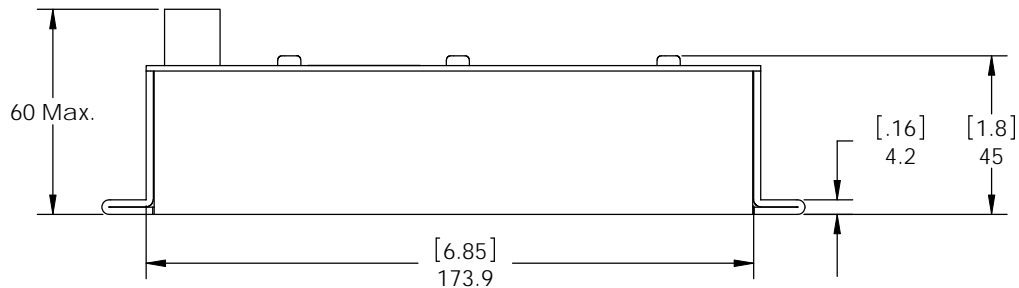


Ø5.4 MTG. HOLES 4 PLCS.



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' &\$\$