

# RWY259 SERIES

Rail DC/ DC Converters Single Output: 250 ~ 300 Watts



## Features

- Designed to rail standards EN50155 & EN50121
- 250 ~ 300 watts depending on input / output combination
- 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 > 150,000hrs
- 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>	250 ~ 300 watts depending in input / output combination
<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>	55kHz ±5kHz
<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 ( no hiccup type ) short-circuit protection
<b>Overvoltage Protection</b>	Second regulator loop, independent of main regular loop.
<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>	>150,000 hrs

## Description

The **RWY259** 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	Standard Outputs	Power W
<b>RWY259</b>	12V 24V 36V 48V 72V	250 ~ 300W

- Output power is dependent on input / output voltage combination.
- Final part numbers will be factory allocated to reflect customer input & output requirements.

<b>LED / Indicator</b>	Optional
<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>	108 x 70 x 191mm (P59) W x H x L ( includes terminal block & mounting flanges)
<b>Weight</b>	1.5kg