

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

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	250 ~ 300 watts depending in input / output combination	
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.	55kHz ±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 (no 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	>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
RWY259	5V	150W
	12V	250 ~ 300W
	24V	
	36V	
	48V	
	72V	

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

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	108 x 70 x 191mm (P 59) W x H x L (includes terminal block & mounting flanges)
Weight	1.5kg