IVSrail200 DC/AC Pure-Sinewave Inverter

Benefits

- Ultra-Quiet
- Power sensitive electronics without interference
- Rugged & Reliable
- Ensure years of safe and trouble free operation

Applications

- Railway / Transportation
- Mining
- Oil Rigs
- Military Applications
- Marine / Automotive / RV
- Electric Utilities and Substations
- Telecom Power Plants
- Manufacturing Locations
- Steel Mills
- Industrial Controls
- OEM Applications

DC/AC Inverters

IVSrail200 Series Pure-Sinewave

Description

This rugged DC/AC inverter uses field proven, microprocessor controlled high frequency PWM technology to generate the required output power with pure sign wave output voltage.
It is a mature design with a track record in numerous applications.
The DC/DC input stage boosts the input voltage to a higher DC voltage, which feeds the DC/AC inverter to generate the required AC output.
The high frequency conversion enables a compact construction, low weight and high efficiency.
The unit has full electronic protection. The input and output are filtered for low noise.
Cooling is via base plate to a cold plate surface and by additional natural convection. The use of components with established reliability results in high MTBF.
The unit meets the requirements of EN 50155 for electronic equipment used on railway rolling stock.
It is manufactured at our plant under strict quality control. Customized versions are available.

Features

- Very low input ripple current
- Compact size, light weight
- Sinusoidal wave shape
- 200VA of output power
- Full electronic protection
- Field-proven design topology
- Conduction/convection cooled - no fan

Specifications *(Specifications Subject to Change Without Notice)*

Input Voltage	24Vdc (17 – 34V), 36Vdc (25 – 51V), 48Vdc (33 – 67V) 72Vdc (50 – 101V), 96Vdc (67 – 135V), 110Vdc (77 – 154V) Consult factory for other inputs
Input Protection	Inrush current limiting Varistor Reverse polarity protection Internal safety fuse Lower voltage than the specified minimum input will not damage the unit
Isolation	1500VDC Input to chassis 3000VDC Input to output
Standards	Designed to meet C22.2 No. 107.1 - 01, UL 458, EN60950 and EN50155
Output Voltage	230Vac @ 50Hz/0.86A rms continuous or 115Vac @60Hz or 400Hz/1.7A rms continuous Isolated floating output Consult factory for other output requirements
Wave Form	Sinusoidal
Total Harmonic Distortion	Less than 5% at full load
Efficiency	Typically 80% at full load Dependent on input/output combination
Line Regulation	Maximum ± 0.5%
Load Regulation	Maximum ± 2% from no load to full load
Output Overload Protection	Current limiting with short circuit protection Thermal shutdown with automatic recovery in case of insufficient cooling
Output Overvoltage Protection	280Vac (for 230Vac output) or 140Vac (for 115Vac output) by internal supply voltage limiting
EMI	EN55022 Class B and EN50121-3-2 conducted and radiated
Immunity	Meets criteria of EN50155 and EN50121-3-2 including EN 61000-4-2 (ESD) EN61000-4-3 (RF Immunity) EN61000-4-4 (Fast transients) EN50155 (Surge) EN61000-4-6 (Conducted Imm.) EN50155 (Voltage Variations)
Load Crest Factor	Maximum 3.0 at 90% load
Output Ripple Noise	High frequency ripple is less than 500mVrms (20MHz BW)
Operating Temperature Range	-25 to +50°C cold-plate temperature range for full specification
Humidity	5 - 95% non-condensing
Temperature Drift	0.05% per °C over operating temperature range
Cooling	Conduction to customer heat sink or chassis and natural convection
Environmental Protection	Ruggedizing, Conformal coating
Shock/Vibration	IEC 61373 Cat 1 A & B
Dimensions	F3: 132 x 62 x 300 mm (H x W x L) including terminal block and flanges Mounting holes are clear
Connections	Barrier type terminal block with 3/8” spacing
Weight	1.6 Kg
MTBF	150,000 hours at 45°C Demonstrated MTBF is significantly higher
Indicators	None
Control Input	None
Alarm output	None Optional output Fail Alarm (Form C)
RoHS Compliance	Fully compliant
Warranty	2 years

Available from:

RIPEnergy®

The power conversion company

RIPEnergy AG
Wägitalstrasse 24
CH-8854 Siebnen
Switzerland

Ph +41-(0)43-818 53 85
Fax +41-(0)43-818 53 87
www.ripenergy.ch

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