

RISI500-F Series DC/AC Pure-Sinewave Inverter



Pure sinewave



Convection cooling (no fan)



High frequency technology



Light weight, compact size



Full electronic protection



Optional extended temperature range



Optional output fail alarm (Form C)

Applications

- Marine / Automotive / RV
- Electric Utilities and Substations
- Telecom Power Plants
- Manufacturing Locations
- Steel Mills
- Military Applications (COTS)
- Industrial Controls
- OEM Applications
- Solar / Alternative Power Systems
- Fuel Cells

DC/AC Inverters

RISI500-F Series Pure-Sinewave

Description

This rugged industrial sinewave inverter uses field proven, microprocessor controlled high frequency PWM technology to generate 500VA output power. 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 use of 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 baseplate to a heatsinking surface and by natural convection.

The use of components with established reliability results in high MTBF. The unit is manufactured at our plant under strict quality control.

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Features

- Filtered input
- Very low input ripple current
- Conduction/convection cooling
- Compact size, light weight
- Sinusoidal wave shape
- Multiple input and output voltages available
- 500VA of output power
- Full electronic protection
- Field-proven design topology

Specifications (Specifications Subject to Change Without Notice)

Input Voltage	24VDC, 36VDC, 48VDC, 125VDC, 250VDC +/-15% are standard Other inputs available, please consult factory
Input Protection	Inrush current limiting Varistors Reverse polarity protection Internal safety fuse Lower voltage than specified input min. will not damage unit
Isolation	Compliant to input and output voltages according to the corresponding standards
Standards	Designed to meet C22.2 No. 107.1 - 01, UL 458 and EN60950
EMI	EN 55022 Class A as a minimum
Output Voltage	115VAC / 60Hz or 400Hz / 4.34A or 230VAC / 50Hz / 2.17A Output neutral is connected to the chassis internally. Isolated floating output optional (Consult factory for other output requirements)
Wave Form	Sinusoidal
Total Harmonic Distortion	Less than 5% at full load
Line / Load Regulation	Maximum $\pm 6\%$ from no load to full load. $\pm 2\%$ load regulation option is available
Load Crest Factor	Maximum 3.0 at 90% load
Output Noise	High frequency ripple is better than 500mVrms (20MHz BW)
Output Overload Protection	Current limiting with short circuit protection.
Output Overvoltage Protection	Output voltage is limited by internal supply voltage
Efficiency	Input voltage dependent, Typically 80% at full load
Operating Temperature Range	0°C to +50°C for full specification without derating derating linearly 2.5% per °C rise above +50°C to +70°C max. Extended temperature range available
Temperature Drift	0.05% per °C over operating temperature range
Cooling	Conduction to customer heatsink or chassis and natural convection
Environmental Protection	Basic ruggedizing Full ruggedizing and conformal coating as option
Shock/Vibration	IEC 61373 Cat 1 A&B
Humidity	5 - 95% non-condensing
MTBF	120,000 hours at 45°C, demonstrated MTBF is significantly higher
Indicators	None
Control Input	None, Remote shutdown as option
Alarm Output	None, Optional output fail alarm (Form C)
Package / Dimensions	F21: 254 x 66 x 361 mm including terminal block and flanges
Weight	4.2 Kg
Connections	Input/output: Compression-type terminals
RoHS Compliance	Fully compliant
Warranty	2 years