



RISI500-F INDUSTRIAL SINEWAVE INVERTER

SERIES RISI500-F

This rugged DC/AC inverter uses field proven, microprocessor controlled high frequency PWM technology to generate 500VA output power with pure sine 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 use of high frequency conversion enables a compact construction, low weight and high efficiency.

The input and output are filtered for low noise.

Cooling is via baseplate to a heat-sinking surface and by natural convection.

Full electronic protection, generous design headroom and the exclusive use of components with established reliability also contribute to high MTBF.

The unit is manufactured at our plant under strict quality control.

APPLICATIONS

- Industrial Controls
- Mining
- Oil Rigs
- Steel Mills
- Marine & other rugged environments
- Automotive / RV
- Electric Utilities and Substations
- Base Station Power
- Telecom Power Plants
- Railway / Transportation
- Military Applications
- Manufacturing Location
- OEM Applications

FEATURES

- Sine wave output voltage
- Up to 125Vdc input voltage
- Field-proven rugged design
- Conduction / convection cooled, no fan
- Filtered input and output
- Full electronic protection
- Low profile
- Compact size
- 500VA of output power



Pure Sinewave



High frequency technology



Light weight, compact size



Full electronic protection



Conduction convection cooled



Optional Extended temperature range



Optional Output fail alarm (Form C)

SPECIFICATIONS

Input Voltage	24Vdc 36Vdc 48Vdc 125Vdc ± 15% are standard 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	1700Vdc input to chassis/output or corresponding to the voltage requirements
Output Voltage	230Vac @ 50Hz/2.17A rms continuous or 115Vac @ 60Hz or 400Hz/4.3A rms continuous Isolated floating output Consult factory for other output requirements
Output Wave Form	Sinusoidal
Total Harmonic Distortion	Less than 5% at full load
Load/Line Regulation	± 2% from no load to full load
Load Crest Factor	3.0 at 90% load
Output Ripple Noise	High frequency ripple is less than 500mVrms (20MHz BW)
Efficiency	Typically 80% at full load Dependent on input/output combination
Output Overload Protection	Current limiting with short circuit protection
Output Overvoltage Protection	Output voltage is limited by internal supply voltage

Standards	Designed to meet C22.2 No. 107.1 - 01, UL 458, EN 60950-1, EN 62368-1 and CE
EMI	EN 55032 Class A with margins
Operating Temperature	0 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 on request
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	Basic ruggedizing Full ruggedizing and conformal coating as option
Shock/Vibration	IEC 61373 Cat 1 A&B
Dimensions	F21: 254 x 66 x 361 mm (W x H x L) including terminal block and flanges Mounting holes are clear
Weight	4.2 Kg
Connections	Input/output: Compression-type terminals
MTBF	130,000 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

Terminal Block Pin-out

