



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.















Optional Extended

Conduction temperature range

alarm (Form C)

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

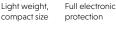
FEATURES

- 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 technoloav

compact size



convection cooled



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 | | | |
| eenner nip al | None | | | |
| Alarm output | | | | |
| | None | | | |

Terminal Block Pin-out

| GND - | - | + | | GND ÷ | ζz | ζ₹ |
|-----------|---|------------|--|----------|----|----|
| VDC INPUT | | VAC OUTPUT | | | | |

Version 01.12.20 Specifications Subject to Change Without Notice





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