

RISI1000-U Series DC/AC Pure-Sinewave Inverter



Pure sinewave



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

RISI1000-U Series Pure-Sinewave

Description

This rugged, modular DC/AC inverter system uses a field proven microprocessor controlled high frequency PWM technology to generate 1000VA output power with pure sine wave output voltage.

The inverter is built with two internal power modules. The DC/DC input stage boosts the DC voltage which feeds the DC/AC inverter to generate the required AC output. The input and output have a dual stage high performance filter which ensures low noise.

The high frequency conversion enables a compact construction, low weight and high efficiency. This compact version of the RISI1000-U measures 127 x 127 x 397 mm. The innovative mechanical construction significantly reduces the cost of production and price.

This inverter design is only available with terminal blocks for the input and output.

Cooling is by a high quality built-in fan, which draws air into the unit and the exhaust exits at the terminal side of the unit.

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

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

Features

- Input is filtered to EN 55022 Class A
- Very low input ripple current
- Compact size, light weight
- Rugged, industrial quality
- Sinusoidal wave shape
- Multiple input and output voltages available
- 1000VA of output power
- Full electronic protection
- Field-proven design topology

Specifications (Specifications Subject to Change Without Notice)

Input Voltage	48Vdc (42-56V) 110Vdc (90-130V) 125Vdc (106-145V) Please contact factory for other input requirements
Input Protection	Inrush current limiting Varistors 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 neutral is connected to the chassis internally Floating output as option
Standards	Designed to meet C22.2 No. 107.1 - 01, UL 458 and EN60950-1
EMI	EN 55022 Class A with margins
Output Voltage	115Vac /8.7Arms continuous at 60Hz or 400Hz; or 230Vac/ 4.3Arms continuous at 50Hz Output neutral is connected to the chassis internally Isolated floating output optional Other outputs available on request
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	2 at 90% load
Output Noise	High frequency ripple is less than 100mVrms (20MHz BW)
Output Overload Protection	Current limiting with short circuit protection Thermal shutdown with automatic recovery in case of insufficient cooling
Output Overvoltage Protection	140Vac (for 115Vac output) or 280Vac (for 230Vac output) by internal supply voltage limiting
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	High quality built-in fan draws air into the unit
Environmental Protection	Basic ruggedizing Full ruggedizing and conformal coating as option
Humidity	5 - 95% non-condensing
MTBF	Min. 95,000 hours at 45°C, demonstrated MTBF is significantly higher Fan excluded
Indicators	Green high intensity output ON LED on the internal DC bus visible through the perforation on the terminal side
Control Input	None Remote shutdown as option
Alarm Output	None Optional output fail alarm (Form C)
Package / Dimensions	U5515: 127 x 127 x 397 mm including terminals and fans Four M5 inserts on bottom surface for mounting, or mounting brackets
Weight	5.8 Kg
Connections	Input: 3-pole terminal block Output: 12-pole terminal block
RoHS Compliance	Fully compliant
Warranty	2 years

Available from:



RIPEnergy®

The power conversion company

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