

# RISI300P Series DC/AC Pure-Sinewave Inverter



Pure sinewave



Conduction cooling (no fan)



High frequency technology



Light weight, compact size



Full electronic protection



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

### RISI300P Series Pure-Sinewave

#### Description

This rugged DC/AC inverter uses field proven, microprocessor controlled high frequency PWM technology to generate 300VA output power with pure sine wave output voltage.

New semiconductor technology and unique design topology simplifies the circuitry and enables a compact construction.

The input and output are filtered for low noise.

The inverter is entirely potted with a thermally conductive MIL-grade silicon rubber compound to ensure immunity to shock, vibration and humidity.

Cooling is via baseplate by conduction. The unit was designed for continuous operation at 70°C with installation on appropriate size of heatsinking surface.

Full electronic protection 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. The unit is suitable for transportation, mining, oilrigs, military and other harsh environments.

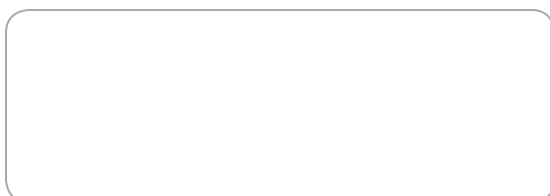
#### Features

- Complete encapsulation
- Compact construction
- Wide temperature range
- Input is filtered to EN 55022 Class A
- Sinusoidal wave shape
- Multiple input and output voltages available
- 300VA of output power
- Full electronic protection
- Field-proven design topology

# Specifications ( Specifications Subject to Change Without Notice)

<b>Input Voltage</b>	24VDC, 48VDC, 110VDC, 125VDC +/-15% are standard Other inputs available, please consult factory
<b>Input Protection</b>	Inrush current limiting Varistors Reverse polarity protection Internal safety fuse Lower voltage than specified input min. will not damage unit
<b>Isolation</b>	Compliant to input and output voltages according to the corresponding standards Floating output
<b>Standards</b>	Designed to meet C22.2 No. 107.1 - 01, UL 458 and EN60950-1
<b>EMI</b>	EN 55022 Class A with margins
<b>Output Voltage</b>	115Vac/2.6A continuous 60Hz or 400Hz; or 230Vac/1.3A continuous 50Hz Isolated floating output Consult factory for other output requirements
<b>Wave Form</b>	Sinusoidal
<b>Total Harmonic Distortion</b>	Less than 5% at full load
<b>Line / Load Regulation</b>	Maximum $\pm 2\%$ from no load to full load
<b>Load Crest Factor</b>	2 at 90% load
<b>Output Noise</b>	High frequency ripple is better than 500mVrms (20MHz BW)
<b>Output Overload Protection</b>	Current limiting with short circuit protection Thermal shutdown with automatic reset in case of insufficient cooling
<b>Output Overvoltage Protection</b>	Output voltage is limited by internal DC bus voltage
<b>Efficiency</b>	Input voltage dependent, Typically 80% at full load
<b>Operating Temperature Range</b>	-40 to +70°C cold-plate temperature for full specification
<b>Temperature Drift</b>	0.03% per °C over operating temperature range
<b>Cooling</b>	Conduction cooling via base plate to customer chassis or heat-sink
<b>Environmental Protection</b>	Full encapsulation with thermally conductive silicon potting compound with UL94V-0 flammability rating. Meets environmental criteria as requested in MIL-810 C, D
<b>Shock/Vibration</b>	IEC 61373 Cat 1 A&B
<b>Humidity</b>	5 - 95% non-condensing
<b>MTBF</b>	150,000 hours at 45°C, demonstrated MTBF is significantly higher
<b>Indicators</b>	None
<b>Control Input</b>	None Remote shutdown or enable as an option
<b>Alarm Output</b>	None Optional output fail alarm (Form C)
<b>Package / Dimensions</b>	P600: 155 x 72 x 269mm including terminal block and flanges Mounting holes are clear
<b>Weight</b>	3.4 Kg
<b>Connections</b>	12-pole barrier type terminal block with 3/8" spacing
<b>RoHS Compliance</b>	Fully compliant
<b>Warranty</b>	2 years

Available from:



## RIPEnergy®

The power conversion company

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