RSI1K-FT SERIES

DC / AC Sine Wave Inverters: 1000 VA

HELIOS POWER SOLUTIONS

Features

- Designed for Rail applications to EN 50155
- Sinusoidal output waveform
- 1000VA output power
- Fan cooled (**Optional Conduction cooled)**
- Frequency options 50Hz / 60Hz / 400Hz
- Wide range of input options: 24 ~ 125VDC
- Optional output fail alarm on some models
- Low profile 67mm
- Rugged design for harsh environments
- Full electronic protection
- Non standard input voltage options

General Specifications

Input Voltage	**24VDC,** (15-34) **36VDC** (22-51) **48VDC** (28-67) **72VDC** (43-101) **96VDC** (58-135) **125VDC** (66-154)
Input Protection	Inrush current limiting Internal safety fuse, Reverse Polarity Protection
Isolation	Input – Output: 3000vdc Input – Chassis: 1500vdc Output - Chassis: 200vdc
EMI	EN50121-3-2 Conducted & Radiated
Immunity	EN50155 (Surge) EN50121-3-2, EN61000-4-2 (ESD), EN61000-4-3 (RF) EN61000-4-4 (Fast Transients) EN61000-4-6 (Conducted Immunity) EN50155 (Voltage Variations)
Output voltage	115VAC / 230VAC options Output neutral connected to chassis internally. Isolated / Floating output option.
Output Waveform	Sinusoidal
Harmonic Distortion	Less than 5% at 100% load.
Output Freq.	50Hz, 60Hz, 400Hz options
Load Crest Factor	Maximum 3% at 90% load
Output Power	1000VA
Regulation	Load: ±2% from 10% to 100% load step. Line: ±1.0% over input range
Output Noise	High Frequency ripple is better than 500mVrms (20MHz BW)
Protection	Current limiting with s hort circuit protection Self re-setting thermostat for thermal protection
Output Over Voltage Protection	Output voltage is limited by internal supply voltage
Efficiency	Input voltage / model dependent typically 80% at 100% load
Operating Temp	-25°C to +50°C at rated load. Other options on request
Cooling	On-board fans
Shock & Vibration	Designed to meet IEC61373 Cat 1 A & B
Humidity	5-95% non-condensing
MTBF	>150,000 hrs at 45°C
LED Indicator	Optional
Connector	Terminal block, other options on request
Dimensions	483 x 68 x 356mm (F31) (7kg)

Description

The **RSI1000** is rugged DC/AC inverter is designed for a variety of Rail applications and designed to meet EN 50155.

It uses field proven, microproc essor controlled high frequency PWM technology to generate 1000VA output power with pure sine wave output voltage.

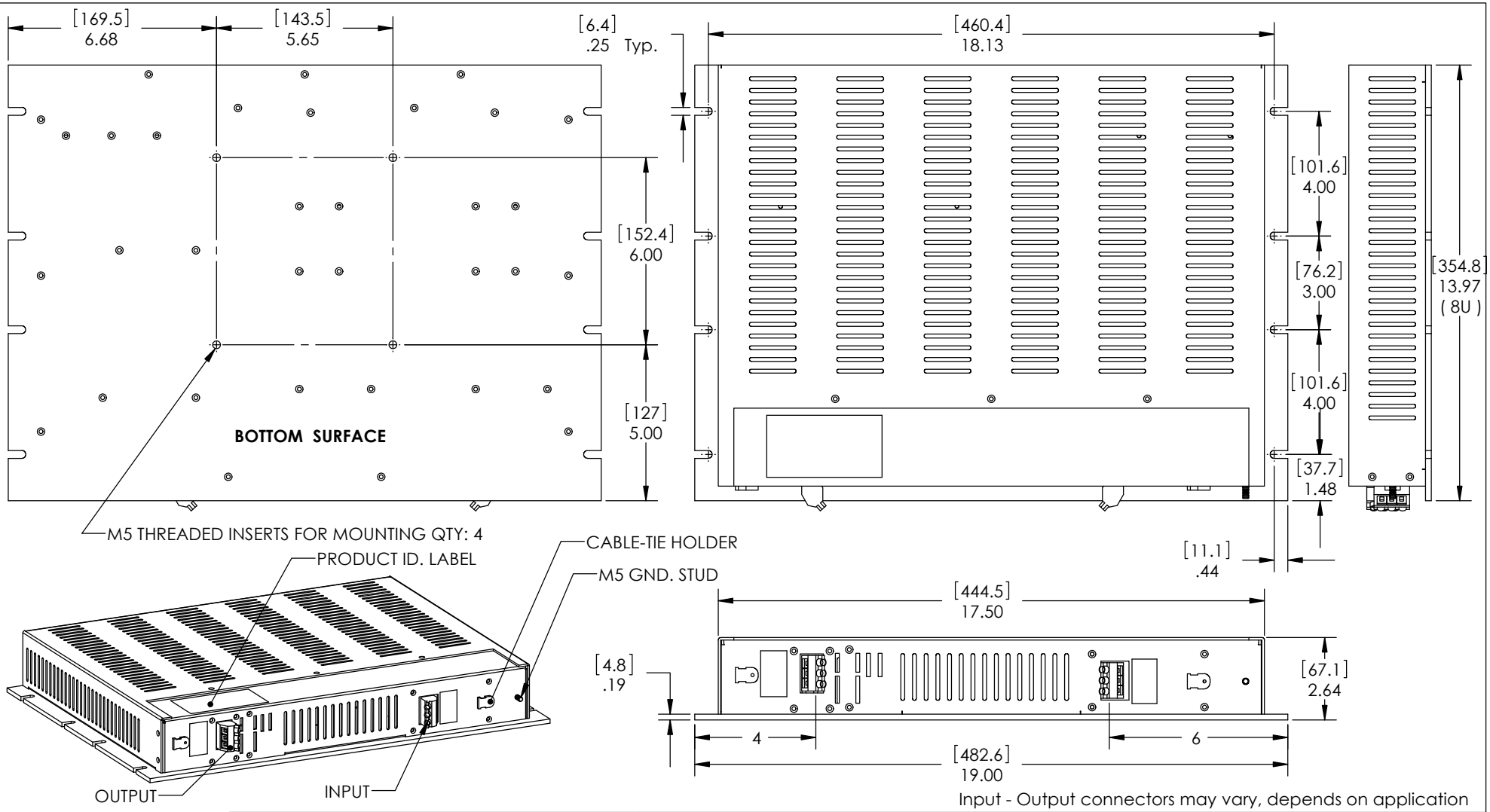
It is a mature design with a track record in numerous Rail & Industrial applications. The DC/ DC input stage boosts the input voltage to a higher DC voltage, which feeds the DC/AC inverter to generate the required AC output.
The use of high frequency c onversion enables a compact construction, low weight and high efficiency. The unit has full electronic protection. The input and output are filtered for low noise. Cooling is via baseplate to a heat sinking surface and by natural convection.

Options (may not be available on all combinations)	
Alarms	Output Fail Alarm: voltage free relay contacts
Remote Inhibit	Remote ON / OFF
Ruggedized	Conformal coating and Ruggedization for use in harsh environments.
Slow Start	Slow start up option for powering fans
Connector	A variety of terminals / connectors available to suit special customer requirements
Rack Mount	2U x 19in Rack Mount

Model No Example:
RSI1K-4E-FT (48VDC / 230VAC 50Hz)

RSI	Power	Input Vdc	Output	Factory Allocated
RSI	1K	**2** = 24V **3** = 36V **4** = 48V **7** = 72V **9** = 96V **5** = 125V	**A** = 115V/60Hz **E** = 230V/50Hz **M** = 115V/400Hz	

1. Standard input / Output combinations are illustrated.
2. Non standard combinations are available on request
3. Final Part no will be allocated at time of order to reflect customer specifications and options.



Input - Output connectors may vary, depends on application

CASE MATERIAL: ALUMINUM 5052-H32 FINISH: CLEAR IRIDATE AS PER MIL-C-5541 CLASS 3	DIMENSIONS ARE IN INCHES [mm] TOLERANCES ON DECIMALS: XXX ± 0.008" XX ± 0.012" ANGLES: ± 2° FRACTIONS: ± 1/64" UNLESS OTHERWISE STATED	HELIOS POWER SOLUTIONS	Title: OUTLINE DRAWING	
			Part of: F31 PACKAGE	Date: Aug.30, 2011
			www.heliosps.com	Drawing No: ODR 980 013-A1