

DESCRIPTION

Unipower Telecom's INV1048 & INV1548 Series are 1000VA/800W and 1500VA/1200W, sine wave, hot-swap inverter modules which are available with a compatible, two-unit 19-inch shelf. The shelf is 1RU high (1.75 inches). Operating from a 48VDC (40.5-58V range) input these units produce either 115VAC or 230VAC nominal output. Two units in the shelf can provide either twice the capacity of a single unit or operate fully automatically in an N+1 model. Multiple shelves can be connected together in parallel to provide up to a maximum 24kVA output. The low distortion 50 or 60Hz sine wave is produced using an advanced DSP controlled Architecture which achieve better than 89% efficiency and 10.5VA per cubic inch power density.

Front panel LEDs indicate inverter status, and relay alarm contacts are available on the back. The units are self-cooled by internal variable speed fans.

The INV1048 & INV1548 Series inverters can be operated independently or integrated with a matching Controller and Static Transfer Switch as well as a Power Distribution and Maintenance By-Pass unit. When the Controller is employed a Remote Communications option provides connection to a PC via USB, RS232 or RS485 serial connections. SNMP alarm traps can also be provided over an Ethernet TPC/IP connection.

TWO-YEAR WARRANTY

SAFETY STANDARDS

UL60950-1
CSA22.2, No. 60950-1
EN60950-1



MODULES

MODEL	OUTPUT POWER	OUTPUT VOLTS	FREQUENCY
INV1048-60	1000VA @ 0.8PF	115VAC	60Hz
INV1048-50			50Hz
INV1048H-50	800W @ 1PF	230VAC	60Hz
INV1048H-60			50Hz
INV1548-60	1500VA @ 0.8PF	115VAC	60Hz
INV1548-50			50Hz
INV1548H-50	1200W @ 1PF	230VAC	60Hz
INV1548H-60			50Hz

Inverter Shelf Model Number: INVR1U2 (for all models)

FEATURES

- ◆ Hot-Swap Replacement in Shelf
- ◆ One Rack Spaces High: 1.75"
- ◆ 19-Inch or 23-Inch Rack Mounting
- ◆ 1000 or 1500 VA Module Output
- ◆ 2000 or 3000 VA for Two Units in 19" Shelf
- ◆ 10.5 VA per Cubic Inch Density
- ◆ 115 VAC or 230VAC
- ◆ Low Distortion 50 or 60Hz Sine Wave
- ◆ 40.5 to 58 VDC Input
- ◆ DSP Management & Control
- ◆ >89% Efficiency
- ◆ Smart Fan Speed Control
- ◆ Powers Reactive Loads

SPECIFICATIONS

Typical at 48V Input, Full Load and 25°C Unless Otherwise Noted..

INPUT

Voltage Range	40.5-58VDC
Undervoltage Warning Threshold	45VDC
Undervoltage Threshold	40VDC
Overvoltage Warning Threshold	58VDC
Overvoltage Threshold	60VDC
Input Current, 48VDC Input	
INV1048	19.0A
INV1548	28.4A
Input Protection	Fused Reverse Polarity Protection
Inrush Current	Less than 2x Rated I _{in} (IEC62040-3-1999)
Isolation	
Input to Output	Reinforced Pri-Sec, 4242VDC / 1 min.
Input to Ground	707VDC (Varistor & filter caps removed)
Psophometric Noise Voltage	<1mV ITU-T 0.41 (16.66-6000Hz)
Reflected Psophometrics Noise Current	<1% YD/T 777-2006
Reflected Relative Band Wide Current	<10% YD/T 777-2006 (0-2MHz)
Wide Band Noise	<20mVrms (25Hz-20kHz)
Peak to Peak Noise	<150mV up to 100MHz

OUTPUT

AC Waveform	Pure Sine Wave
Output Power	
INV1048	1000VA @ 0.8PF or 800W @ 1PF
INV1548	1500VA @ 0.8PF or 1200W @ 1PF
Power Factor or Load	-0.8 to +0.8
Rated Output Voltage	120VAC or 230VAC (see model table)
Output Voltage Variation	<±2%
Output Frequency	50Hz or 60Hz (see model table)
Frequency Variation	<±0.5%
Crest Factor	3:1 max.
THD of Voltage Waveform	
Linear Load	<3%
Non-Linear Load	<5%
Capacitive/Inductive Load	+0.8 to +0.8 PF
without exceeding permissible distortion for resistive load	
Efficiency	>89%
Overload Protection	Electronic Current Limit at Overload & Short Circuit
1.25 x Rated Current, Temperature Controlled	
1.50 x Rated Current for Periods <20 Seconds	
Dynamic Response	<±10%
Isolation, Output to Chassis	Basic Isolation (Pri-Gnd) 2121 VDC/1 min.

Surge Protection	EN61000-4-5
Telcordia GR-1089 Core ANSI C62.41-IEEE, STD 587-1980	

CONTROL/STATUS

Load Sharing	<5% of Rated Load
LED Indicators	
Inverter Status	Green OK, Red FAIL
Overload	Off OK, Yellow for Overload
Reverse Polarity	Off OK, Red for Reversed
Status/Alarm Information	
Inverter Failure	Relay, Dry Contact
On/Off Function	Remote Control
Remote Communications (requires controller)	Inverter Fail, Overload, LVD Alarm, Fail Alarm, Thermal Derating, Power Output, Input Voltage, Output Voltage, Output Current, Output Frequency, Low Input Voltage Shutoff, Inventory Data.
Communications	CANbus
Runtime Info.	Through Maintenance Feature in Controller

ENVIRONMENTAL

Operating Temp. Range	
Without Derating	-5°C to 50°C
With Derating	-20°C to 70°C
Storage Temp. Range	-40°C to +85°C
Humidity	0% to 95%, Non-Condensing
Cooling	Variable Speed Internal Fans (Field Replaceable)

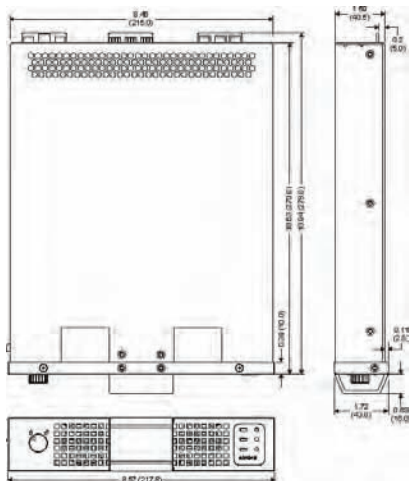
REGULATORY

Safety	UL60950-1, EN60950-1, IEC60950-1
EMC	EN300 386:2001 Class B
Acoustic Noise	55dB ETS300 753, Class 3.1

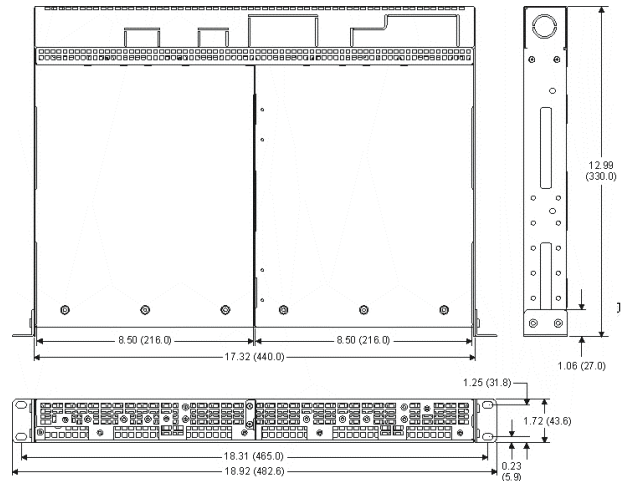
PHYSICAL SPECIFICATIONS

Case Material	Steel
Dimensions, Inches (mm)	
Module	1.59 H x 8.46 W x 10.6 D (40.4 x 214.9 x 269.2)
Front Panel	1.72 H (43.7)
Shelf	1.72 H x 17.3 W x 13.0 D (43.7 x 439.4 x 330.2)
Rack Mounting	19" or 23", 1U High

MODULE DIMENSIONS



SHELF DIMENSIONS



ALL DIMENSIONS IN INCHES (mm).
All specifications subject to change without notice.

inv1000-ds-revB-10-12-07