



INV2500-HS SERIES HOT-SWAP TELECOM INVERTERS

DESCRIPTION

Unipower Telecom's INV2500-HS Series are 2500 volt-ampere, sine wave, hot-swap inverter modules which are available with a compatible, two-unit 19-inch shelf. The shelf is 2RU high (3.5 inches). The units operate off a 48VDC (42-56V range) input and produce either 115VAC output at 22A RMS or 230VAC at 11A RMS. Two units in the shelf produce 115VAC at 44A or 230VAC at 22A. The low distortion 50 or 60Hz sine wave is produced using MOSFET and IGBT power semiconductors with advanced, high-frequency, pulse-width modulation techniques which achieve 90% efficiency and 7.2VA per cubic inch power density.

The units can be paralleled for higher output power or for N+1 redundant applications. When operated in the shelf they are automatically paralleled. They are fully isolated from the telecom battery.

An input circuit breaker turns the inverter on and protects the battery from input faults. An output breaker connects the inverter to the load bus (after synchronization if the bus is live) and quickly disconnects the inverter in the event of an internal fault. The inverter has high surge capability (up to 300%) for starting loads such as motors, but the output breaker quickly trips if power attempts to flow back into a faulted inverter.

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

TWO-YEAR WARRANTY

SAFETY STANDARDS

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

www.unipowertelecom.com



TELECOM INVERTER MODULES

MODEL	INPUT	OUTPUT	FREQUENCY
INV2500-HS-60-E	42-56VDC	115VAC @ 22A	60Hz
INV2500-HS-50-E	42-56VDC	115VAC @ 22A	50Hz
INV2500H-HS-60-E	42-56VDC	230VAC @ 11A	60Hz
INV2500H-HS-50-E	42-56VDC	230VAC @ 11A	50Hz
INV2500-HS-60*	42-56VDC	115VAC @ 22A	60Hz
INV2500-HS-50*	42-56VDC	115VAC @ 22A	50Hz

NOTE: *These two models have the AC neutral output grounded to chassis. The other four models (-E) have floating AC neutral outputs.

INVERTER SHELVES

MODEL	OUTPUT VOLTAGE	SIZE	HEIGHT	MODULE CAPACITY	MAXIMUM OUTPUT
INVR2U-HS	115VAC	19-Inch	2RU	2	5kVA
INVR2U-HS-H	230VAC	19-Inch	2RU	2	5kVA

FEATURES

- ◆ Hot-Swap Replacement in Shelf
- ◆ Two Rack Spaces High: 3.5"
- ◆ 19- or 23-Inch Rack Mounting
- ◆ 2500 VA Module Output
- ◆ 5000 VA for Two Units in 19" Shelf
- ◆ 7.2 VA per Cubic Inch Density
- ◆ 115 VAC at 22 A or 230VAC at 11A
- ◆ Low Distortion 50 or 60Hz Sine Wave
- ◆ 42 to 56 VDC Input
- ◆ Fully Isolated from Battery Input
- ◆ 90% Typical Efficiency
- ◆ Up to 300% Surge Capability
- ◆ Circuit Breaker Input & Output Protection
- ◆ Powers Reactive Loads
- ◆ Form C Relay Alarm Contacts

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SPECIFICATIONS, INVERTER MODULES

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

INPUT

Voltage Range	42-56 VDC
Input Current, Full Load, 48VDC	<60A DC
Input Current, No Load, 48VDC	<1A DC
Input Protection	100A Circuit Breaker
EMI Filter, Conducted	FCC2078 pt.15J Curve A EN55022 Curve A
Voice Band Noise, 240 A-H Battery	<32dBnC

OUTPUT

Voltage, Full Load	115 or 230 VAC
Voltage, No Load	120 or 240 VAC
Current, Max., 115VAC	22A RMS
230VAC	11A RMS
Frequency	50 or 60Hz, $\pm 0.1\%$
Total Harmonic Distortion	<2%
Load Crest Factor	2.8 to 1
Output Protection	25A Circuit Breaker
Surge Capability	Up to 300%
Reactive Loads	+90° to -90° Phase
Efficiency	90%

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

OUTPUT FOR TWO INVERTERS IN A SHELF

OUTPUT VOLTS	OUTPUT KVA	OUTPUT AC AMPS
115VAC	5.0	44
230VAC	5.0	22

NOTES:

1. Standard 115VAC modules have neutral connected to ground. "E" Option has a floating neutral. Standard 230VAC modules have a floating neutral (-E).
2. The hot-swap shelf comes with a rear, clear plastic safety cover which adds 1.62 inches to its depth.
3. 23-inch rack mounting requires panel extenders.

DPAC2U PARALLELING PANEL

The outputs from up to four INVR2U inverter shelves can be easily paralleled together using the DPAC2U paralleling panel to provide a single bulk AC supply to the load. See separate datasheet.

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

STATUS INDICATORS

Input OK	Green LED
Sync OK	Green LED
Output OK	Green LED
Form C Relay Alarm Contacts	Inverter Fail Alarm

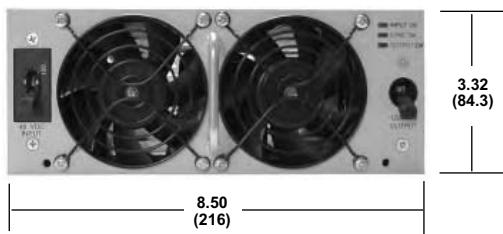
ENVIRONMENTAL

Operating Temp. Range	0°C to 70°C
Output Current Derating	2.5%/°C, 50°C to 70°C
Storage Temp. Range	-40°C to +85°C
Humidity	0% to 95%, Non-Condensing
Cooling	Internal Fans

PHYSICAL SPECIFICATIONS

Case Material, Module	Aluminum
Shelf	Steel
Dimensions, Inches (mm)	
Inverter Module	3.32 H x 8.50 W x 12.25 D (84.3 x 216 x 311)
Shelf	3.46 H x 18.32 W x 16.38 D (87.9 x 465 x 416)
Rack Mounting Width	19 or 23 Inches
Weight, Module	11.50 lbs. (5.22kg)

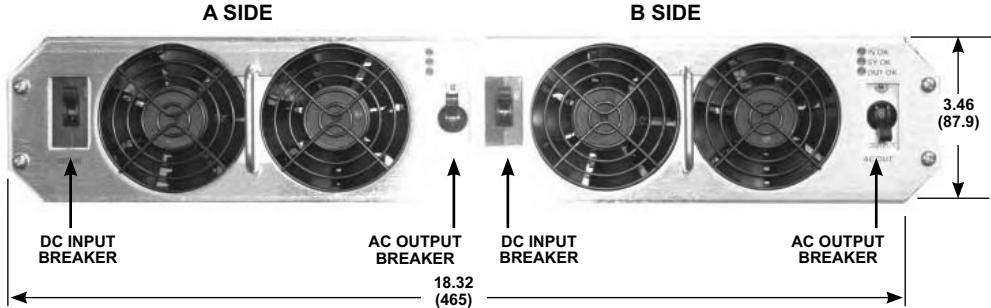
MODULE FRONT VIEW



MODULE BACK VIEW



SHELF FRONT VIEW



SHELF REAR VIEW

