

GRAVITAS IX12.5-115 GRAVITAS IX12.5-230

12.5kVA HOT-SWAP INVERTER SYSTEMS

DESCRIPTION

Unipower Telecom's Gravitas IX12.5-115 and IX12.5-230 are sine wave Telecom Inverter Systems which produce a maximum output of 12.5kVA at 115 or 230VAC, 50 or 60Hz. The system consists of a 5 rack-space-high (8.5 inches), 23-inch shelf which holds up to 5 hot-swap inverter modules with outputs connected in parallel. In a 4+1 redundant mode it produces 10kVA output. The inverter modules operate off a nominal 48VDC input (42-56VDC range), and each module produces 115VAC at 22A or 230VAC at 11A full load. The system can be operated with up to five modules. The output is a 50 or 60Hz, low-distortion sine wave. Each module is protected by its own input and output circuit breakers, is self-cooled by two fans, and has input, output and sync OK LEDs.

The AC output has six load circuit breakers on the front panel. The AC load and DC input connections are made to terminals at the rear of the system. The output is fully isolated from the battery input. There is also a signal connector with a failure alarm output and a sync output signal used for paralleling with another Gravitas Inverter System.

The Gravitas Inverter System has high surge capability, up to 300%, which enables it to start motor loads.

SAFETY CERTIFICATIONS

UL60950
CSA 22.2, No. 60950
EN60950

TWO-YEAR WARRANTY



GRAVITAS IX12.5

INVERTER MODULES

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

NOTE: Inverter module and shelf must be ordered separately.

INVERTER SYSTEM SHELVES

MODEL	SIZE	HEIGHT	CAPACITY	VOLTAGE
INVR5U-HS-B	23 Inches	5U (8.5 Inches)	5 Modules	115VAC
INVR5U-HS-B-H	23 Inches	5U (8.5 Inches)	5 Modules	230VAC

FEATURES

- ◆ Up to 12.5kVA Output
- ◆ 10kVA output 4+1 Redundant
- ◆ 115 VAC Out at 110A
- ◆ 230 VAC Out at 55A
- ◆ Low Distortion 50 or 60Hz Sine Wave
- ◆ 23" Shelf Holds Five Inverter Modules
- ◆ Hot-Swap Replacement in Shelf
- ◆ Five Mounting Positions High: 8.5"
- ◆ 42 to 56 VDC Input
- ◆ Circuit Breaker Input & Output Protection
- ◆ Fully Isolated from Battery Inputs
- ◆ 90% Typical Efficiency
- ◆ Up to 300% Surge Capability
- ◆ Powers Reactive Loads
- ◆ Parallel Capability
- ◆ N+1 Redundant Operation
- ◆ Overtemperature Protection
- ◆ Module Weight: 11.65 lbs. (5.3 kg.)

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SPECIFICATIONS, GRAVITAS IX12.5-115 & IX12.5-230

Typical at 48V Input, Full Load and 25°C Unless Otherwise Noted (115/230).

INPUT

Voltage Range	42-56 VDC
Input Current, Module, Full Load	<60A DC
Module, No Load	<1A DC
Input Current, System, Full Load	<300A DC
System, No Load	<5A DC
Input Protection, Each Module	100A Circuit Breaker
EMI Filter, Conducted, Each Module	FCC2078 pt.15J Curve A EN55022 Curve A
Voice Band Noise, 240 A-H Battery/ Module	<32dBrnC

OUTPUT

Voltage, Full Load	115/230VAC
Voltage, No Load	120/240VAC
Current, Max., Module	22/11A RMS
System	110/55A RMS
Frequency	50 or 60Hz, ±0.1%
Total Harmonic Distortion	<2%
Load Crest Factor	2.8 to 1
Output Protection, Each Module	25A Circuit Breaker
Surge Capability	Up to 300%
Reactive Loads	+90° to - 90° Phase
Efficiency	90%
Load Circuits	6

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

STATUS INDICATORS, EACH MODULE

Input OK	Green LED
Sync OK	Green LED
Output OK	Green LED
System Alarm Contacts	Inverter Fail Alarm

ENVIRONMENTAL

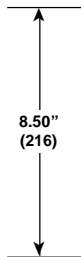
Operating Temp. Range	0°C to 70°C
Output Current Derating	2.5%/°C, 50°C to 70°C
Storage Temp. Range	-40°C to +85°C
Humidity	0% to 95%, Non-Condensing
Cooling	Internal Fans

PHYSICAL SPECIFICATIONS

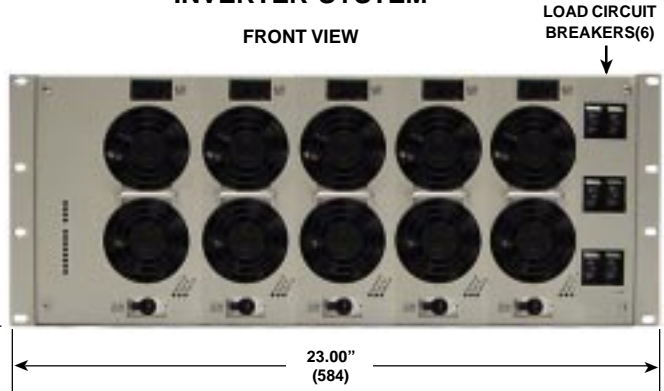
Case Material, Inverter Module	Aluminum
23" Shelf	Steel
Dimensions, Inches (mm)	
Module	3.32 H x 8.50 W x 12.00 D (84.3 x 216 x 305)
Shelf	8.50 H x 21.25 W x 16.00 D (87.9 x 465 x 316)
Rack Mounting Width	23 Inches
Weight, Module	11.65 lbs. (5.3kg)
Shelf	38.25 lbs. (17.35kg.)

OUTPUT FOR NUMBER OF INVERTERS (115/230)

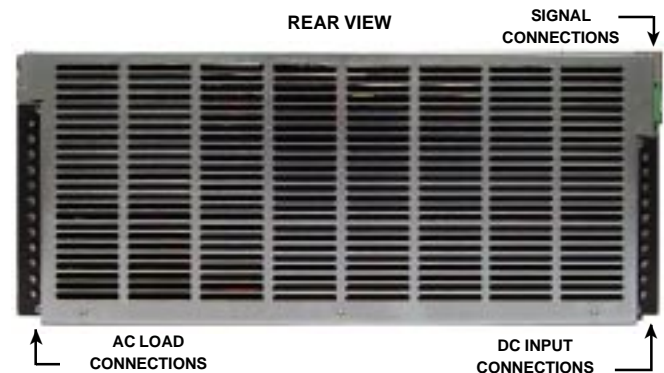
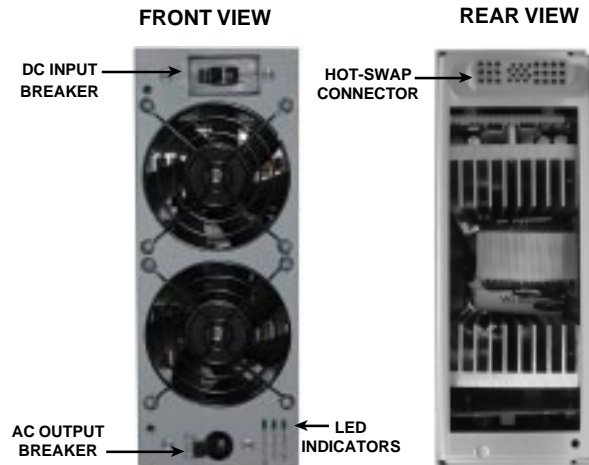
NON-REDUNDANT			REDUNDANT		
NO.OF INVERTERS	KVA RATING	OUTPUT AC AMPS	N+1 INVERTERS	KVA RATING	OUTPUT AC AMPS
1	2.5	22/11	-	-	-
2	5.0	44/22	1+1	2.5	22/11
3	7.5	66/33	2+1	5.0	44/22
4	10.0	88/44	3+1	7.5	66/33
5	12.5	110/55	4+1	10.0	88/44



INVERTER SYSTEM



INVERTER MODULE



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

SHELF ORDERING GUIDE

BREAKER CODES

INVR5U-HS-B-

INVR5U-HS-B-H-

Each of up to six AC circuit breakers must be designated by a code letter given below.

CODE	H	I	J	K	L	M
AMPS	5	10	15	20	25	30