

**DESCRIPTION**

Unipower Telecom's INV5000-230 Series are 5000 volt-ampere sine wave inverters which come in a two rack space (3.5 inches) high shelf. The units operate off a 48VDC (42-56V range) input and produce a 230VAC output at 22 amperes. The low distortion 50 or 60Hz sine wave is produced using MOSFET and IGBT power semiconductors and advanced high-frequency, pulse-width modulation techniques which achieve 90% efficiency and 4.8VA per cubic inch power density.

**The units can be paralleled for higher output power or for N+1 redundant applications. They are fully isolated from the telecom battery.**

Input circuit breakers turn the inverter on and protect the battery from input faults. Output breakers connect the inverter to the load bus (after synchronization if the bus is live) and quickly disconnect 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 breakers quickly trip 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 unit is self-cooled by internal fans and comes with a clear plastic rear safety cover.

**SAFETY CERTIFICATIONS**

UL1950  
CSA 22.2, No. 950  
EN60950

**TWO-YEAR WARRANTY**

**INV5000-230**

**230VAC TELECOM INVERTERS**

| MODEL          | INPUT    | OUTPUT     | FREQ. |
|----------------|----------|------------|-------|
| INV5000-230/50 | 42-56VDC | 230VAC@22A | 50Hz  |
| INV5000-230/60 | 42-56VDC | 230VAC@22A | 60Hz  |

**FEATURES**

- ◆ Two Rack Spaces High: 3.5"
- ◆ 19- or 23-Inch Rack Mounting
- ◆ 5000 VA Output
- ◆ 4.8VA per Cubic Inch Density
- ◆ 230 VAC Output
- ◆ 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
- ◆ Parallel Capability
- ◆ N+1 Redundancy
- ◆ Overtemperature Protection
- ◆ Weight: 31.3 lbs. (14.2kg)
- ◆ Form C Relay Alarm Contacts

## SPECIFICATIONS, INV5000-230

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

### INPUT

|   |   |
|---|---|
| Voltage Range .....                     | 42-56 VDC                                 |
| Input Current, Full Load, 48VDC .....   | <120A DC                                  |
| Input Current, No Load, 48VDC .....     | <2A DC                                    |
| Input Protection .....                  | Two 100A Circuit Breakers                 |
| EMI Filter, Conducted .....             | FCC2078 pt.15J Curve A<br>EN55022 Curve A |
| Voice Band Noise, 480 A-H Battery ..... | <32dBmC                                   |

### OUTPUT

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

**SAFETY STANDARDS** ..... UL1950, CSA22.2 No.950, EN60950

### STATUS INDICATORS

|                                   |                     |
|-----------------------------------|---------------------|
| Input OK .....                    | Green LEDs          |
| Sync OK .....                     | Green LEDs          |
| Output OK .....                   | Green LEDs          |
| Form C Relay Alarm Contacts ..... | Inverter Fail Alarm |

### ENVIRONMENTAL

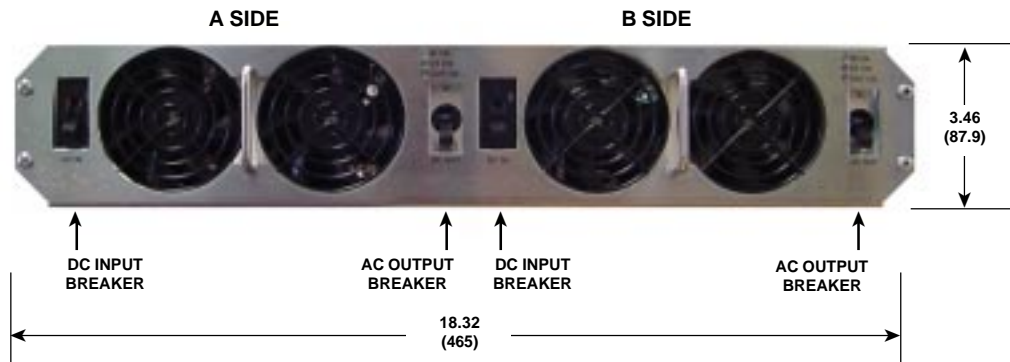
|                               |                           |
|-------------------------------|---------------------------|
| Operating Temp. Range .....   | 0°C to 70°C               |
| Output Current Derating ..... | 2.5%/°C, 50°C to 70°C     |
| Storage Temp. Range .....     | -40°C to +85°C    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

### PHYSICAL SPECIFICATIONS

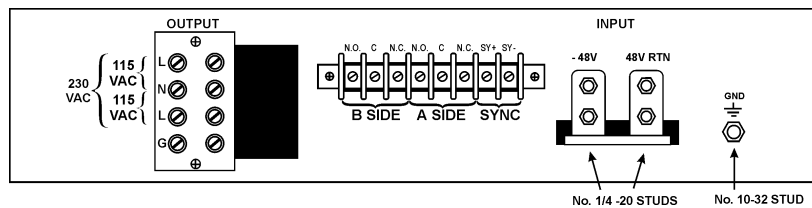
|                               |  |
|-------------------------------|--|
| Shelf Material .....          | Steel  |
| Dimensions, Inches (mm) ..... | 3.46 H x 18.32 W x 16.38 D<br>(87.9 x 465 x 416) |
| With Rear Cover .....         | 3.46H x 18.32W x 18.00 D<br>(87.9 x 465 x 457)   |
| Rack Mounting Width .....     | 19 or 23 Inches                                  |
| Weight .....                  | 31.3 lbs. (14.2kg)                               |

**NOTE:** 23-inch rack mounting requires panel extenders.

### INV5000-230 FRONT VIEW



### INV5000-230 BACK VIEW



**NOTE:** INV5000-230 comes with clear plastic rear safety cover.

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

10/08/03/INV5000-230-ds-vB