



Pure SineWave

DC-AC Power Conversion

Transformer Isolated

Models

INv-750

~ 48VDC Input
~ 6.25 Amps
~ 120 VAC Out

INv-1000

~ 48VDC Input
~ 8.3 Amps
~ 120 VAC Out

INv-1500

~ 48VDC Input
~ 12.5 Amps
~ 120 VAC Out

48 Volts DC to 120 Volts AC Inverters

Pure Sinewave DC to AC Inverter

These TSi Power static, solid-state inverters feature a fully isolated sinewave output from a rugged ferroresonant transformer. They are designed for all applications requiring continuous pure sinewave power. They produce 120Volts AC from 48 Volts DC.

All units feature crystal-controlled frequency stability, wide operating temperature range, high power efficiency, highest quality output sinewave power and a rugged portable steel enclosure.

Typical Applications

Applications include all waveshape sensitive equipment such as communications systems and other critical, harmonic-sensitive equipment.

They are also ideal for use in DC power plants, where access to quality AC power is required for test equipment, tools and computer equipment not designed for 48VDC.

How The INv-750-1000-1500 Units Work

A rugged parallel FET transistor-based inverter power circuit, with a conservative thermal design, takes the DC input, and converts it through a ferroresonant isolation transformer into a pure sinewave. The circuit automatically adjusts the duty cycle of the output for all loads and inputs. A crystal control ensures a stable 60Hz +/-1% frequency.

A DC circuit breaker protects all DC circuits, and an overload shutdown feature protects the inverter from overload. When the input DC voltage drops below threshold (47VDC), a yellow "LOW INPUT DC" LED and an alarm signal turn on. When the input DC voltage drops below a pre-set level of 43VDC, the inverter will shut-down automatically to prevent excessive battery discharge.

10 LED's show the output load from 0 to 100% of rated power. 4 Status LED's show: DC power present; inverter output present; low DC input voltage; and over-temperature shutdown.

A DB9 connector in the rear of the inverter sends alarm signals for inverter output failure; low DC input voltage; and over-temperature.



Key Benefits

This rugged ferroresonant design, which reduces the number of solid-state devices required for power conversion, is ideal for use in severe environments where system reliability is a must.

All units are designed for rack mounting and kits are available for most racks. These units give your AC equipment excellent frequency stability from DC input with a wide operating temperature range & high power efficiency. The rugged portable steel enclosure makes it possible to use these units in the field where more fragile units are not possible.

Key Features Of The TSi Power INv-750-1000-1500 DC to AC Inverters

- 48 VDC Input
- Pure Sinewave Output
- Rated For Continuous Duty At 100% Load
- Transformer Isolated AC Output
- Automatic Current Limiting
- DC Circuit Breaker And Power On/Off Switch
- Reliable Design With Few Solid-State Components
- Compact Rack-Mountable Design
- High Efficiency 85% At Full Load
- Comprehensive Array of Status LED's & DB9 Communications Connector
- 2 Year Warranty



48VDC to 120VAC Inverter



Specification	INV-750	INV-1000	INV-1500
Electrical			
Capacity in VA (Watts)	750VA (750W)	1000VA (1000W)	1500VA (1500W)
Inverter Type	Parallel FET power circuit with ferroresonant output transformer.		
Input			
Nominal Voltage	48 Volts DC		
Operating Voltage	43~ 56 Volts DC		
Maximum Input Current	40 Amps	50 Amps	60 Amps
Output			
AC Output Voltage	120Volts +/- 5% AC		
Frequency Stability	60Hz +/- 1%		
Output WaveForm	Pure SineWave, 5% maximum THD.		
Power Efficiency	85% or higher during full load conditions 80% for half-load conditions		
Power On/Off Switch	On/Off rocker style power switch.		
Communications	Rear-mounted DB-9 alarm signal port sends: Inverter output failure alarm; low DC input voltage alarm; & over-temperature alarm.		
Indicators	4 status LED's indicating - DC power present; inverter output present; low DC input voltage; and over-temperature shutdown. 10 LED's show the output load from 0 to 100% of rated power.		
AC Output Receptacles	6 (NEMA 5-15R)		
Audible Noise	48dBA @ 1.5m	49dBA @ 1.5m	49dBA @ 1.5m
Physical			
Dimensions	17" (431.8mm)W x 6.5" (165.1mm)H x 18" (457.2mm)D		
Weight	50 lbs (22.7 kg)	65 lbs (29.5 kg)	65 lbs (29.5 kg)
Rack Mount Options	For 19" Rack: use Front Pair # MK-8019A use Rear Pair # MK-8019B For Telecom Center Mount Rack: use Center Pair # MK-8019F		
Safety			
Agency Approvals	Designed to meet UL, cUL and IEC Safety Standards.		
DC Breaker	DC circuit breaker protects all DC circuits.		
Over-Current Protection	Overload (and low DC input voltage) shutdown circuits.		
Environmental			
Ambient Temperature	-20 to +60°C, 90% Relative Humidity (non-condensing @ 25.5°C).		
Cooling Method	Forced air (fan cooled).		
Altitude	Up to 1500 meters (4,921 ft.) above sea level.		
Warranty			
Warranty	2 Year Limited Warranty, Parts and Labor.		

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