

Outdoor UPS

Pure sine wave

Ferroresonant voltage regulation

Transformer isolated

Outdoor UPS models

10000-4871

750 watts
120 vac

16000-4871

1200 watts
120 vac

21000-4871

1500 watts
120 vac

Outdoor UPS with Ferroresonant Constant Voltage Transformer, Extreme Wide Temperature Batteries and Failsafe Automatic Bypass

TSi Power's Outdoor Series UPS are constructed with a rugged, ferroresonant no-break design and a fully isolated sine wave output with neutral-to-ground bond. They are housed in a weather protected (NEMA 3R rated design) enclosure. This series offers the best surge protection available, with excellent noise filtering, long battery back-up time built-in automatic bypass.

Key -4871 benefits

This rugged industrial-strength ferroresonant design reduces the number of solid-state devices required for power conversion and is suitable for use in severe outdoor environments.

Outdoor UPS batteries are special wide temperature batteries which allow operation of the UPS system over an ambient temperature range of -40° to +55° C.

Built-in battery run-time is approximately 90 minutes under a typical 600 watts load.

How the -4871 works

The constant output isolation transformer provides 100% isolation from the input ac line. The regulated output protects switchmode power supplies from failure caused by unstable ac mains. The secondary neutral is bonded to ground, thus eliminating all surge voltages between neutral and ground. This type of surge protection is superior to all other technologies and is further enhanced with a built-in low-pass filter, which takes the edge off fast transients.

UPS status is monitored by LED indicators, LED bargraph displays and audible signals for ac status, inverter status, output voltage, load, and battery status. Alarm interface: Upon loss of power, the audible alarm will beep. Because the Outdoor Series is a continuous sinewave 'no-break' UPS system, power to equipment loads will be completely unaffected. As the battery level drops until only a few minutes of holdup time remains, the audible alarm will change, warning of impending shutdown.



Typical outdoor applications

These heavy-duty outdoor rated UPS are ideal for cell sites, critical 911 and telecom equipment, LED traffic signal systems, and other areas where reliability is a must, extended back-up might be necessary, or the power source is unpredictable.

Key -4871 features

- Cabinet can be pedestal (ground), pole, or wall mounted
- Full weather protection (NEMA 3R rated design)
- No-break, pure sine wave output
- Wide temperature batteries
- Best surge protection available
- Constant voltage regulation and ferroresonant isolation transformer
- Reduces harmonics from non-linear loads
- Built-in failsafe automatic bypass
- Comprehensive array of status bargraphs for voltage, load and battery levels
- 2 yr. warranty on electronic parts, mfr's warranty on batteries

Power with a
Precision Attitude™



TSi Power Corporation

Represented by
CareBase
Michael Gibson
Post Office Box 2987
Glenwood Springs, CO
81602-2987 USA
Phone +1 970 945 2770
800 430 2770 (USA.CAN)
michaelg@carebase.com
www.carebase.com
Copyright © 2006 TSi

Outdoor UPS



Outdoor NEMA 3R heavy-duty UPS with ferroresonant voltage regulating isolation transformer



TSi's ongoing product improvement process makes specifications subject to change. Other companies product names herein are for identification purposes only, and may be trademarks of their respective companies.

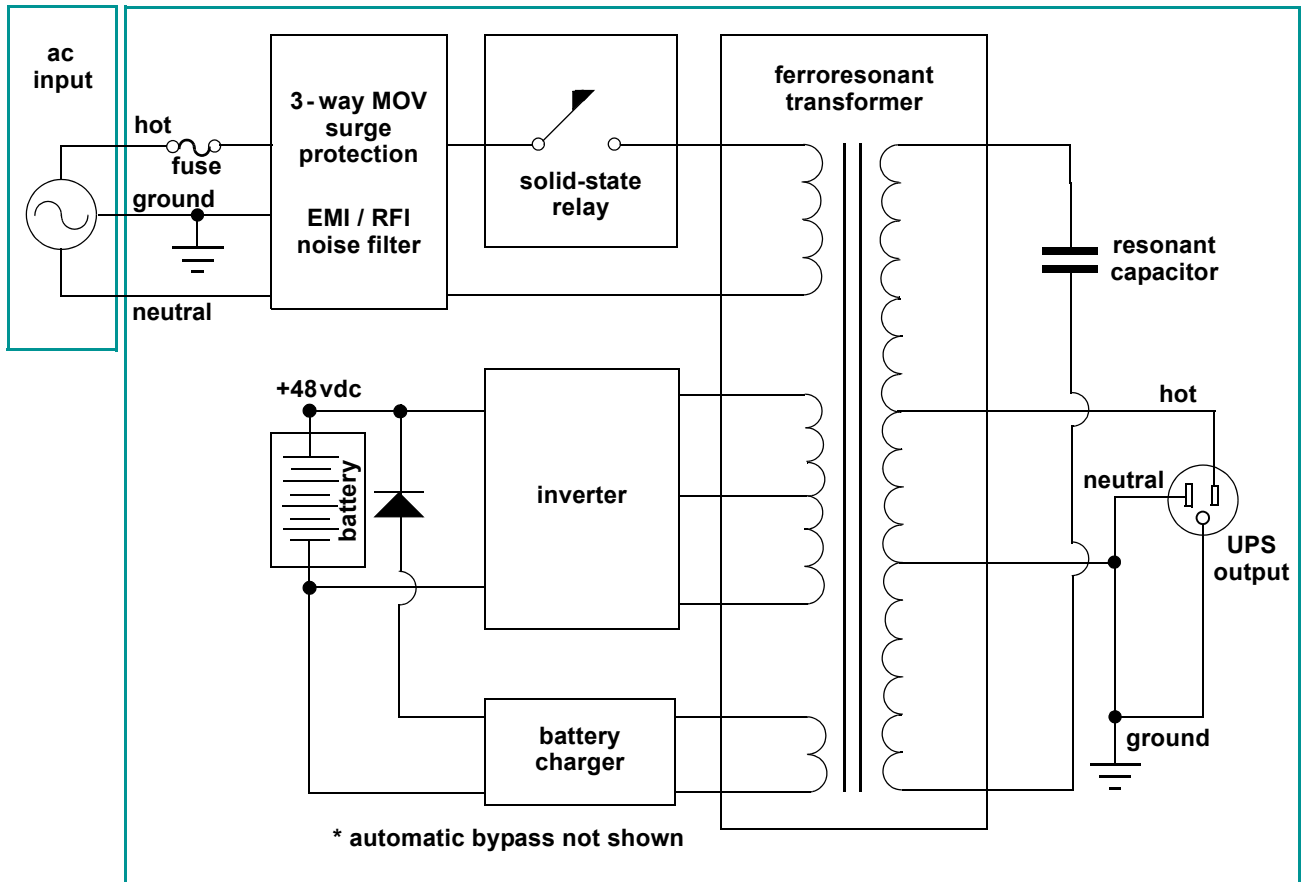


TSi Power Corporation
Represented by
CareBase
Michael Gibson
Post Office Box 2987
Glenwood Springs, CO
81602-2987 USA
Phone +1 970 945 2770
800 430 2770 (USA,CAN)
michaalg@carebase.com
www.carebase.com
Copyright © 2006 TSi

Specification	UPS-10000-4871	UPS-16000-4871	UPS-21000-4871
Electrical			
Capacity in VA (watts)	1000VA (750watts)	1600VA (1200watts)	2100VA (1500 watts)
Transformer type	Ferroresonant constant voltage output isolation transformer.		
Isolation	100% input/output isolation & output neutral-ground bonding qualifies the UPS output as a "separately derived ac power source" via NEC 250-5D.		
Input			
Nominal voltage	120 volts ac		
Operating voltage	90 to 140 volts ac without using batteries		
Nominal frequency	60Hz sinusoidal +/- 5%		
Ac input	Hardwire (14AWG) terminal block		
Output			
Nominal voltage	120 volts ac		
Voltage regulation	+/-3% upon changes in line or load		
Crest ratio	3 : 1		
Output wave form	Pure sine wave, less than 3% THD with linear load		
Power efficiency	90%, under full load conditions		
Power on/off switch	On/Off rocker style power switch		
Transfer time	Zero (continuous no-break)		
Batteries	Wide temperature -40° to +55° C, maintenance-free sealed gel-cells.		
Back-up time @ 50% load	2 hours	1.5 hours	1 hour
Recharge time	Recharge time: 48 hours to return to 90% capacity after full discharge.		
Automatic bypass	Built-in for continued operation even if UPS failure occurs.		
Noise filtering	Low-pass filter reduces noise over a wide frequency range.		
Surge protection	Built-in multi-stage, coordinated surge protection system.		
Surge test conditions	ANSI/IEEE C62.41-1991 test pulse. Category B3, Combination Wave, 6000 volts, 3000 amps.		
Surge let-through voltages	Test pulse injection: Line-neutral, Line-ground and Neutral-ground. Combination Wave: L-N: 35V, L-G: 35V, N-G: 0.5V		
Indicators	'10 LED' bar-graph indicators: output voltage, battery voltage, and show the output load from 0 to 100% of rated power. 4 status LED's indicating - ac power present; inverter status; output mode; ac load, and battery status.		
Ac output	3 separately fused (15A fuses) terminal blocks.		
Physical			
Dimensions	24" wide x 12" deep x 36" high (609mmW x 304mmD x 914mmH)		
Weight	73kgs(160 lbs)	77kgs(170 lbs)	82kgs(180 lbs)
Mounting options	Bolting or banding mountable to monopole via optional 'H' style bracket (steel mounting bands not included), pedestal (ground) or wall mountable. Four wall mounting 'feet' are included.		
Enclosure	Durable, all-steel NEMA 3R enclosure withstands transport in hostile environments and operation in severe outdoor applications.		
Safety			
Agency approvals	Designed to meet UL, cUL and IEC safety standards.		
FET inverter circuit	FET inverter circuit ensures efficiency and reliability.		
Environmental			
Operating temperature	-40° to +55°C. (-40° to +131°F)		
Moisture protection	Conformal coated boards are moisture resistant.		
Warranty			
Warranty	2 Year limited warranty, parts & labor. Manufacturer's battery warranty.		



Outdoor-UPS-10000/16000/21000-4871 system architecture



Heavy-duty outdoor NEMA 3R rated UPS with ferroresonant constant voltage regulating isolation transformer

- 'No-break' zero transfer time
- Ferroresonant constant voltage-regulating isolation transformer
- Weather protected NEMA 3R rated cabinet
- 48vdc battery bus
- Failsafe automatic bypass
- Wide temperature batteries -40° to +55° C ambient temperature range
- 1000VA / 750 watts rating
1600VA / 1200 watts rating
2100VA / 1500 watts rating
- Thermostat controlled battery heater is included
- Thermostat controlled fan is included



TSi Power Corporation
Represented by
CareBase
Michael Gibson
Post Office Box 2987
Glenwood Springs, CO
81602-2987 USA
Phone +1 970 945 2770
800 430 2770 (USA.CAN)
michaelg@carebase.com
www.carebase.com
Copyright © 2006 TSi

Outdoor UPS

Mounting on a concrete pad with Unistrut (or similar)

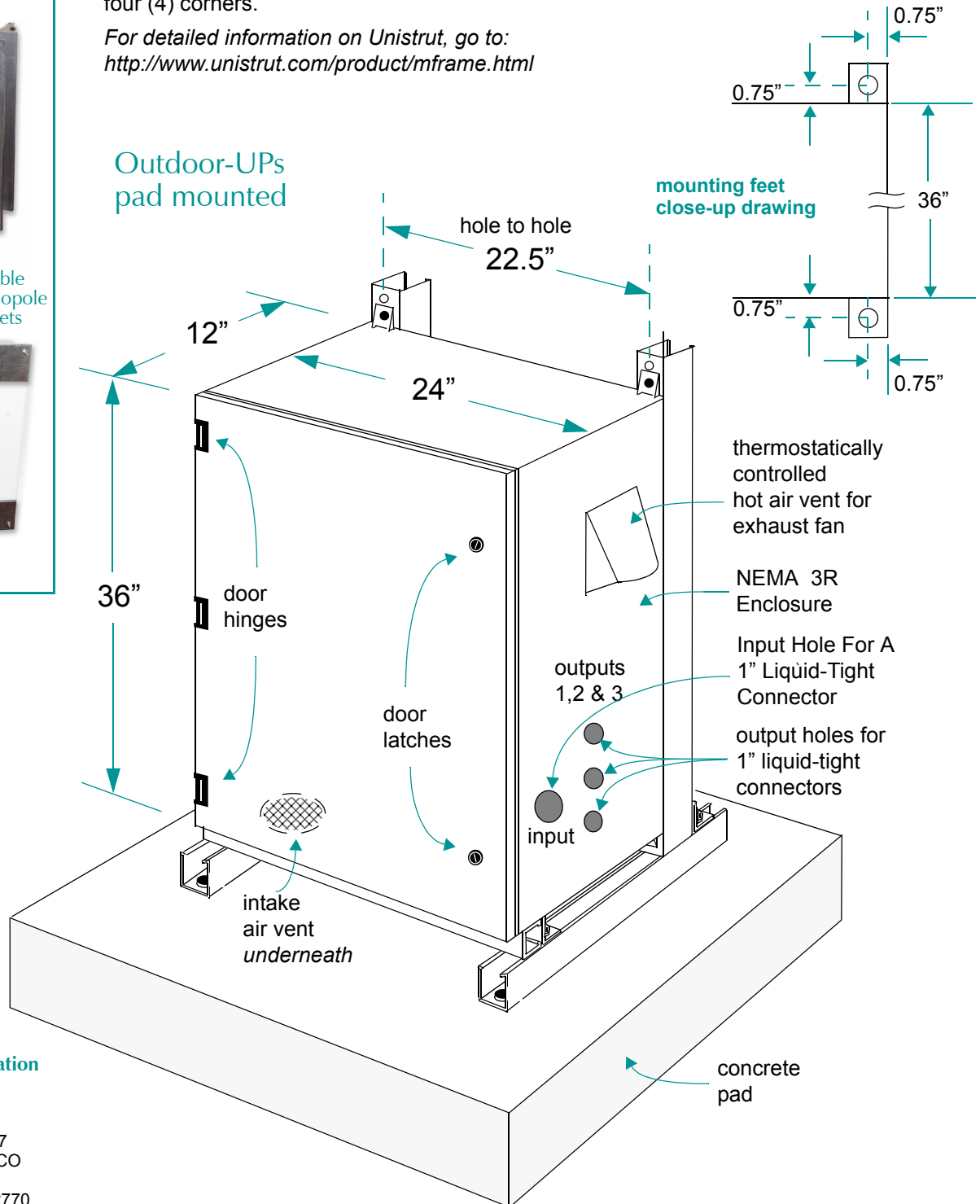
Following is a drawing of a recommended pedestal/concrete pad mounted installation of an Outdoor-UPS Series unit bolted to vertical Unistrut members, which are bolted to horizontal Unistrut members that are bolted to a concrete pad.

The Outdoor-UPS cabinet is provided with four (4) mounting feet at the four (4) corners.

For detailed information on Unistrut, go to:
<http://www.unistrut.com/product/mframe.html>



Outdoor-UPS pad mounted



TSi Power Corporation
Represented by
CareBase
Michael Gibson
Post Office Box 2987
Glenwood Springs, CO
81602-2987 USA
Phone +1 970 945 2770
800 430 2770 (USA.CAN)
michaelg@carebase.com
www.carebase.com
Copyright © 2006 TSi