

Outdoor UPS

Outdoor UPS

Wide temperature batteries

IP 44/NEMA-3R enclosure

Outdoor UPS model

400Conf1

400 VA
250 watts
120 vac
45 min @ 250W
1.7 hrs @ 125W
3.4 hrs @ 50W
-20° to +60°C;
-40° to +60°C
with optional
battery heater

400Conf2

400 VA
250 watts
120 vac
1.5 @ 250W
3.5 hrs @ 125W
7 hours @ 50W
-20° to +60°C;
-40° to +60°C
with optional
battery heater

Outdoor Uninterruptible Power System

These TSi Power Outdoor Series UPS are constructed with extreme wide/low temperature batteries, and are housed in a weather protected IP44 (NEMA-3R) enclosure. This series offers exterior battery backup with good surge protection and communications capability.

Key benefits

This rugged outdoor UPS design, is the ideal UPS for exterior computer or telecommunications equipment in extreme wide temperature -20° to +60°C (-4° to +140°F) environments where ac power delivery is unreliable and long battery backup times may be necessary. It is suitable where power outages are a regular occurrence, or in areas where utilities need to conduct rolling blackouts.

Outdoor UPS extreme/wide temperature batteries allow operation of the UPS system over an ambient temperature range of -20° to +60°C (-4° to +140°F); -40° to +60°C (-40° to +140°F) with optional battery heater.

Battery run-times for the OutdoorUPS-400Conf1 are approximately 45 minutes at 250 watts load, 1.7 hours at a 125 watts load; the OutdoorConf2, 1.5 hours at 250 watts, 3.5 hours at 125 watts.

How the OutdoorUPS-400 works

Upon brownout, or loss of power, the OutdoorUPS-400Conf unit will transfer to battery in <8ms, enabling uninterrupted operation of your telecom, surveillance systems, signaling or other outdoor systems.

One LED provides visual assessment of UPS status. Front panel rocker switches control UPS functions. Audible alarms activate upon power outage and low-battery conditions.

Typical applications

These outdoor extreme wide temperature rated UPS are ideal for surveillance cameras, cellular repeater sites, mission-critical 911 and telecommunications equipment, and other areas where reliability and/or extended battery backup time is required, or ac power is unpredictable.



Sample photo only, enclosure size may vary per custom application

Key features

- Cabinet can be pedestal (ground), pole, or wall mounted
- Full weather protection IP44 (NEMA 3R) metal cabinet
- Wide temperature batteries
- Conformal coated boards for moisture ingress protection
- Undervoltage protection
- Enhanced surge protection
- Two year warranty on electronics
One year warranty on batteries
- Status and alarm signals available through DB9 connector



Ac input and UPS output cable entry via two 25 mm (1") liquid-tight cable glands



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Outdoor UPS



Outdoor UPS
with wide
temperature
batteries

Specification	OutdoorUPS-400Conf1	OutdoorUPS-400Conf2
Electrical		
Capacity in VA (watts)	400VA (250W)	
UPS type	Single conversion UPS with less than 8 ms transfer time.	
Input		
Nominal voltage	120 volts ac single phase	
Operating voltage	100 to 130 volts ac	
Ac input (hardwire)	Terminal block via through-wall watertight fittings	
Operating frequency	57 to 63Hz	
Output		
Nominal voltage	120 volts ac, single phase, sine wave during normal operation.	
Nominal frequency	57 to 63Hz	
Power efficiency	>98% for normal operation, 80% or higher during battery inverter operation.	
Transfer time	Less than 8ms typical between ac and inverter, phase-locked to the ac mains voltage.	
UPS inverter output	105 to 130V _{RMS} , 60Hz +/- 1%, pulse-width-modulated, modified square wave.	
Transfer: ac to inverter	Brown-out threshold: 97 +/- 2V _{RMS}	
Transfer: inverter to ac	The line voltage has to stabilize to between 100 and 130V _{RMS} for at least 2 seconds in order to transfer back to ac mains.	
Batteries	Wide temperature sealed gel-cells -20° to +60°C (-4° to +140°F); -40° to +60°C (-40° to +140°F) with optional battery heater.	
Battery backup time	30Ah, 12 volts 45 minutes @ 250 watts load. 1.7 hours @ 125 watts load. 3.4 hours @ 50 watts load.	60Ah, 12 volts 1.5 hours @ 250 watts load. 3.5 hours @ 125 watts load. 7 hours @ 50 watts load.
Battery recharge time	48 hours to 90% capacity after full discharge.	72 hours to 90% capacity after full discharge.
Indicators and alarm	LED indicator and audible signals for ac, inverter, and battery status.	
Communications	DB-9 connector provides RS-232 compatible alarm signals.	
Ac output (hardwire)	Terminal block via through-wall 25mm (1") cable glands (water-tight fittings).	
Physical		
Dimensions	406mm (16") high x 305mm (12") wide x 203mm (8") deep	
Weight	27 kg (60 lbs)	39 kg (85 lbs)
Cabinet	IP44 (NEMA-3R) fully weather protected metal cabinet.	
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.	
Safety		
Overload protection	Internal fuses protect all ac and dc circuits.	
Environmental		
Operating temperature, battery heater option	-20° to +60°C (-4° to +140°F) ambient air temperature. -40° to +60°C (-40° to +140°F) with optional battery heater.	
Moisture protection	Conformal coating of electronic boards for moisture resistance to protect against high humidity environments.	
Warranty		
Warranty	Two year limited warranty, parts and labor. One year battery warranty.	

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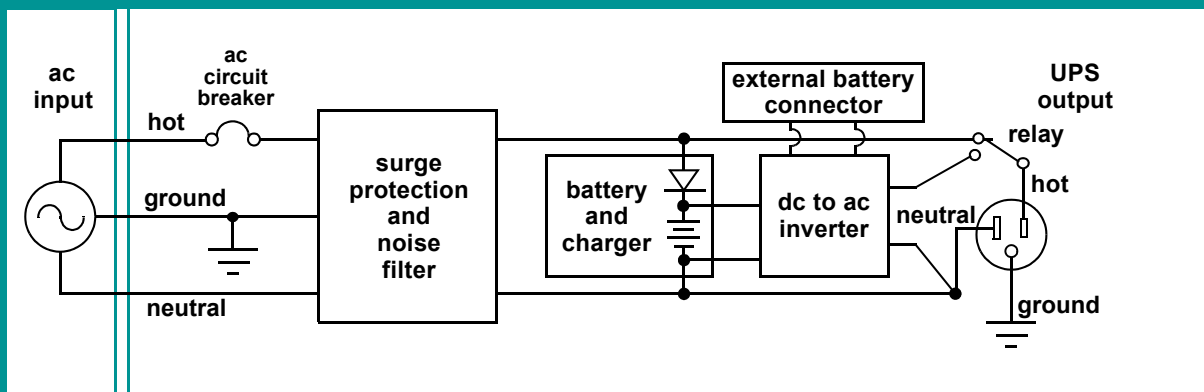


optional bandable or boltable monopole mounting brackets



Outdoor
UPS

OutdoorUPS-400Conf1/2 system architecture



OutdoorUPS-400Conf1/2 at a glance

Heavy-duty outdoor UPS with extreme wide-temperature batteries

- Wide ambient temperature range gel-cell batteries:
-20° to +60°C (-4° to +140°F); or
-40° to +60°C (-40° to +140°F)
with optional thermostat controlled battery heater
- 12 vdc battery bus
- **45 minutes @ 250 watts**, or
1.7 hours @ 125 watts with
the OutdoorUPS-400Conf1
- **1.1 hours @ 250 watts**, or
3.5 hours @ 125 watts with
the OutdoorUPS-400Conf2
- 120 vac
- 12 vdc battery bus
- Weather protected IP44 (NEMA-3R) painted metal cabinet
- SNMP compatible (optional)
- Less than 8ms transfer time
- Thermostat controlled fan is included



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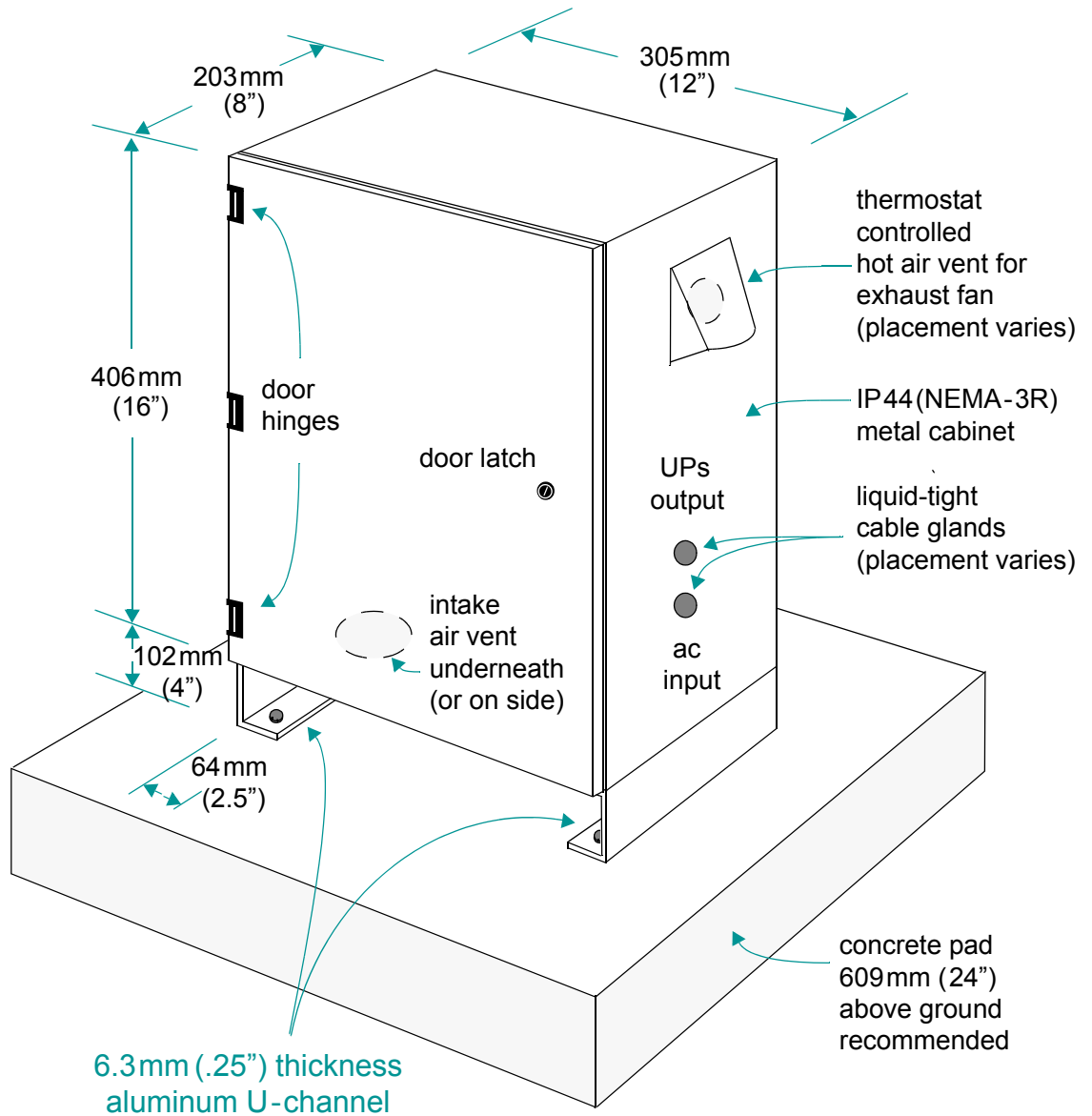
Outdoor UPs



Mounting on a concrete pad with U-channel

Following is a drawing of a recommended pedestal/concrete pad mounted installation using the TSi Power aluminum U-channel mounting brackets. When ordered with these, the units will come with them already bolted to the bottom of the cabinet. There are four pre-drilled bolt holes that will then allow bolting of the unit to a concrete pad or other mounting surface, such as a Quazite® pad or Unistrut®.

Outdoor UPs pad mounted



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