

Outdoor XUPs

Ac + dc output

wide temperature batteries

voltage regulation

Outdoor XUPs model

1000-8024

230 vac output
400 watts
1.74 amps
48 vdc output
200 watts
4.2 amps
2 hours @ 600W
20° to +60°C;
-40° to +60°C
with optional
battery heater

Outdoor UPS with voltage regulation

The TSi Power Outdoor XUPs-1000-8024 is constructed with extreme/wide temperature batteries, and are housed in a weather protected IP44 (NEMA-3R) enclosure. These units offer both ac and dc outputs, line-interactive automatic voltage regulation, over/under-voltage protection, surge protection with heavy-duty noise filtering, communications capability and optional extended battery backup.

Key Outdoor XUPs benefits

This rugged UPS design, with microprocessor-controlled 20 kHz sine wave inverter, and optional conformal coated boards, reduces the number of solid-state devices required for power conversion and is suitable for use in severe outdoor environments.

Outdoor XUPs 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. Built-in automatic voltage regulation enables a wide input voltage window within which power is delivered without having to drain or exercise the batteries, thereby ensuring long battery life. A fan exhausts hot air to protect batteries and electronics.

Battery run-time for OutdoorXUPs-1000-8024 is 2 hours at 600 watts load (based on a total output of 400 watts of ac and 200 watts of dc).

How the Outdoor XUPs works

The Outdoor XUPs Series UPS provides automatic voltage regulation with surge protection and noise filtering, as well as overvoltage protection with a threshold of 280 vac, and under-voltage protection with a threshold of 190 vac. Upon a brownout, over-voltage, or loss of power, the XUPs will transfer to battery power in less than 4 milliseconds, enabling uninterrupted operation of computer, telecom, surveillance, signaling or other systems. +/-48 vdc output is also provided.

LEDs provide visual assessment of UPS status. By unlatching, the front door swings open; inside the cabinet is an array of LED status indicators and a power on/off control switch.



Typical applications

This heavy duty outdoor UPS system is ideal for protection of WiFi/GSM/CDMA/satellite base stations, wireless communications/perimeter surveillance and security/gate control systems, LED traffic light/roadway display systems and industrial remote terminal units (RTUs).

Key Outdoor XUPs features

- Cabinet can be pedestal (ground), pole, or wall mounted
- Full weather outdoor protection IP44 (NEMA-3R) metal cabinet
- Provides both ac sine wave and dc output
- Over/under-voltage protection
- Remote power on/off (optional)
- Wide temperature batteries
- Heavy-duty surge protection and noise filtering
- Automatic voltage regulation
- Status bargraphs array for voltage, load and battery levels
- Two year warranty on electronics, parts and labor; manufacturer's warranty on batteries



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Outdoor XUPs



Outdoor line-interactive UPS with automatic voltage regulation, wide temperature batteries, and both ac and dc output



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

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Specification	OutdoorXUPs-1000-8024
Electrical	
Capacity in VA (watts)	1000VA (600W)
UPS topology	High efficiency line-interactive with 20 kHz PWM sine wave inverter.
Input	
Nominal voltage	230 volts ac
Input current	6 amperes maximum @ 230 vac.
Operating voltage	190–280 vac without using batteries.
Operating frequency	47–63Hz
Output	
Nominal voltage, amps and watts	Ac: 230 volts, 1.74 amperes, 400 watts. Dc: +/-48 volts, 4.2 amperes, 200 watts.
Ac voltage regulation	230 vac +/-8% upon changes in line or load.
Crest ratio	3:1
Ac output wave form	Pure sine wave, less than 3% THD with linear load.
Power efficiency	97%, under full load conditions.
Power on/off switch	On/off rocker style power switch.
Transfer time	<4 milliseconds
Batteries	74 ampere hours, 24vdc 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.
Backup time	2 hours @ 600 watts load. (with total output of 400 watts at 230 vac, and 200 watts at 48 dc).
Recharge time	16 hours to 90% capacity after full discharge.
SNMP interface for UPS monitoring and automatic shutdown configuration (optional)	Using an external SNMP adapter, the RS-232 signals (from the DB-9 female connector) from the UPS can be converted to 10M/100M fast Ethernet signals (and RJ-45 connection) for external UPS monitoring/configuration capability using Telnet, web browsers, or NMS (most such external devices support TCP/IP, UDP, SNMP, Telnet, SNTP, PPP, HTTP & SMTP protocols).
Surge let-through voltages	Test pulse injection: Line-neutral: Line-ground: and Neutral-ground. Combination wave: L-N: 450V, L-G: 300V, N-G: 300V
Status indicators	5 LED load level indicator: 0 to 100% of rated load. 5 LED battery charge level indicator from 0 to 100% of rated charge. 3 LED indicators for: in boost, buck or normal mode. 3 LED indicators for: inverter on/off, battery fault, and overload.
Input/output connections	3 position terminal blocks provided for 3 x 1.5mm ² (16AWG) ac connections via 25 mm (1") liquid-tight cable glands. 2 position terminal blocks provided for 48vdc output connections.
Physical	
Dimensions	610mm(24") wide x 203mm(8") deep x 762mm(30") high
Weight	100kg(220 lbs)
Steel cabinet	Full weather IP44 (NEMA-3R) outdoor design.
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.
Environmental	
Operating temperature, battery heater option and cooling method	-20° to +60°C (-4° to +140°F) ambient air temperature. -40° to +60°C (-40° to +140°F) with optional battery heater. Thermostat controlled exhaust fan.
Moisture protection (optional)	Conformal coating of electronic boards is available for moisture resistance to protect against high humidity environments.
Warranty	
Warranty	Two year limited warranty, parts and labor. One year battery warranty.



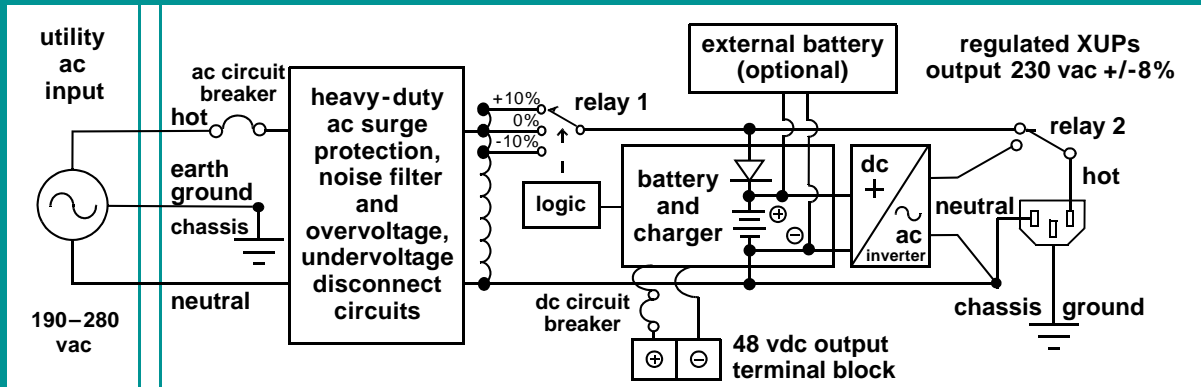
Outdoor XUPs



optional bandable or boltable monopole mounting brackets



OutdoorXUPs-1000-8024 system architecture



OutdoorXUPs-1000-8024 at a glance

Heavy-duty outdoor ac and dc output UPS with line-interactive automatic voltage regulation and extreme/wide temperature batteries

- 400 watts, 230vac +/-8% output from 190–280vac input without going to batteries
- 200 watts, +/-48vdc output
- **2 hours @ 600watts**, at a total of 400 watts at 230 vac and 200 watts at 48 vdc
- Wide ambient temperature range sealed 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
- Less than 4ms transfer time
- Weather protected IP44 (NEMA-3R) painted metal cabinet
- SNMP compatible (optional)
- 24 vdc battery bus
- Microprocessor-controlled 20 kHz PWM sine wave inverter
- Thermostat controlled fan is included
- Optional conformal coated boards for moisture protection



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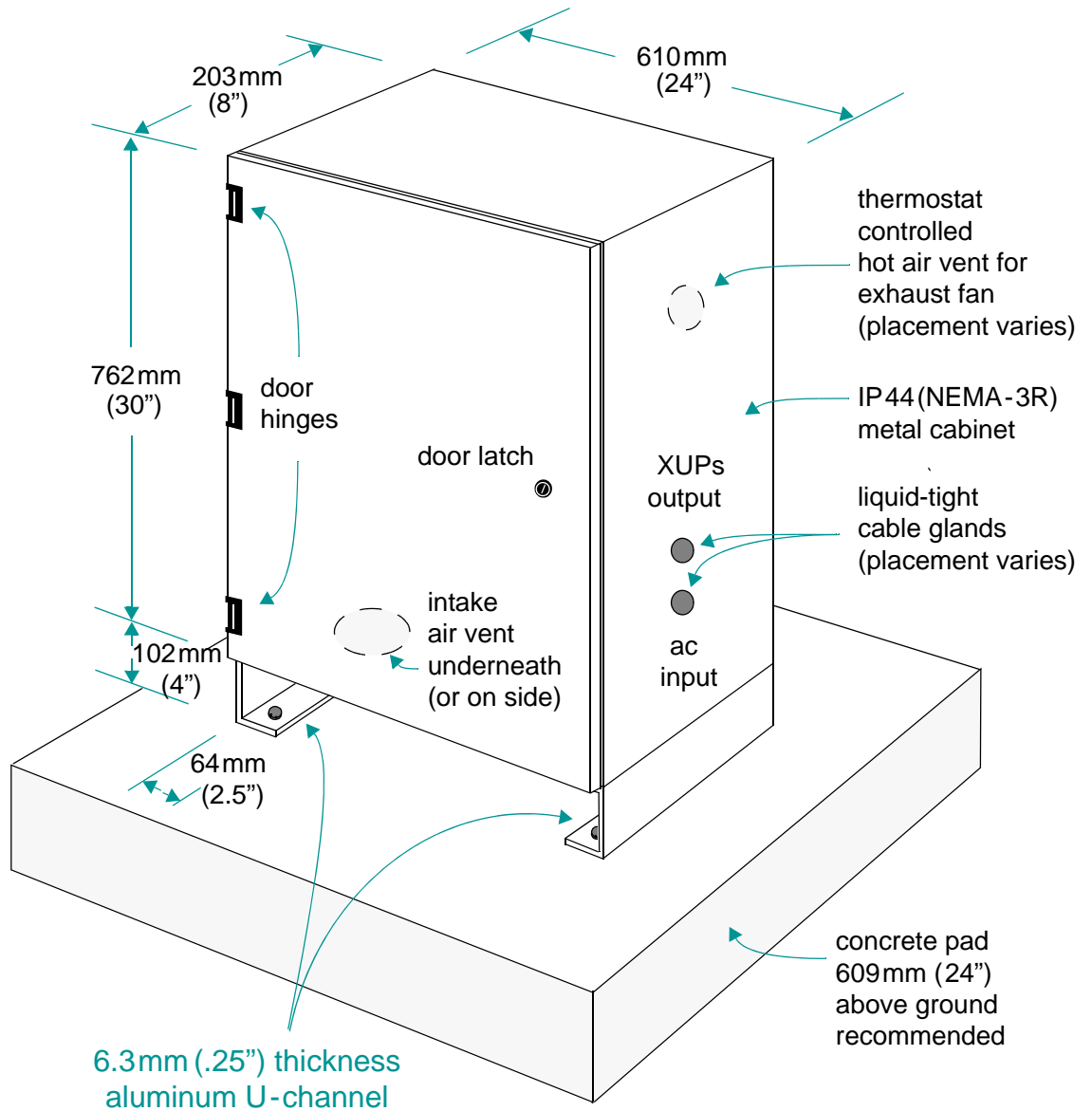
Outdoor XUPs



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 XUPs pad mounted



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