

# Outdoor XUPs

Pure Sine Wave

Wide Temperature Batteries

Voltage Regulation

## Outdoor XUPs Models

### 600A

600VA, 420W  
120vac  
1 hour @420W  
2.2 hrs @210W  
-20° to +60°C;  
-40° to +60°C  
with Optional  
Battery Heater

### 600B

600VA, 420W  
120vac  
2.2 hrs @420W  
4.6 hrs @210W  
-20° to +60°C;  
-40° to +60°C  
with Optional  
Battery Heater

## Outdoor UPS with Voltage Regulation

These TSi Power Outdoor Series UPS are constructed with extreme wide temperature batteries, and are housed in a weather protected IP44 (NEMA-3R) enclosure. This series offers 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 15kHz 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-times for the OutdoorXUPs-600A are approximately 1 hour at 420 watts load, and 2.2 hours with a 210 watts load; for the OutdoorXUPs-600B, approximately 2.2 hours at 420 watts load, and 4.6 hours at 210 watts load.

### 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 140vac, and undervoltage protection with a threshold of 95vac. Upon a brownout, overvoltage, 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.

Four 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), or Wall Mounted
- Full Weather Outdoor Protection IP44 (NEMA-3R) Metal Cabinet
- Pure Sine Wave Output
- Over/under-voltage Protection
- Remote Power On/Off (Optional)
- Wide Temperature Batteries
- Heavy-duty Surge Protection and Noise Filtering
- Automatic Voltage Regulation
- Comprehensive Array of Status Bargraphs for Voltage, Load and Battery Levels
- Two Year Warranty on Electronics  
One Year Warranty on Batteries



**TSi Power Corporation**  
1103 West Pierce Ave  
Antigo, WI 54409  
USA  
715.623.0636  
800.874.3160  
Fax 715.623.2426  
sales@tsipower.com  
www.tsipower.com

# Outdoor XUPs



Outdoor line-interactive UPS with automatic voltage regulation and extreme/wide temperature batteries

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**  
1103 West Pierce Ave  
Antigo, WI 54409  
USA  
715.623.0636  
800.874.3160  
Fax 715.623.2426  
sales@tsipower.com  
www.tsipower.com

Specification	OutdoorXUPs -600A	OutdoorXUPs -600B
<b>Electrical</b>		
Capacity in VA (Watts)	600 VA (420W)	
UPS topology	High efficiency line-interactive with 15kHz PWM sine wave inverter.	
<b>Input</b>		
Nominal voltage	120 volts ac	
Input current	5A maximum @ 120vac	
Operating voltage. Freq.	95 – 140 vac without using batteries. Frequency: 47 – 63Hz sinusoidal.	
<b>Output</b>		
Nominal voltage	120 volts ac	
Voltage regulation	115vac +/- 8% upon changes in line or load	
Crest ratio	3:1	
Output waveform	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	32 amp 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.	64 amp 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.
Battery backup time	1 hour @ 420 watts load. 2.2 hours @ 210 watts load.	2.2 hours @ 420 watts load. 4.6 hours @ 210 watts load.
Recharge time	8 hours to 90% capacity after full discharge.	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. 4 status LED's: inverter on indicator, AC present indicator, battery fault indicator, and overload indicator.	
Input/output connections	3 position terminal blocks provided for 3 x 1.3 square mm (16AWG) connections via 25.4mm (1") liquid-tight cable glands.	
<b>Physical</b>		
Dimensions	406mm (16") wide x 305mm (12") deep x 711mm (28") high	
Weights	45kg (100 lbs)	68kg (150 lbs)
Steel cabinet	Full weather IP44 (NEMA-3R) outdoor design, with four mounting feet.	
<b>Safety</b>		
Agency approvals	Designed to meet UL, cUL and IEC Safety Standards.	
<b>Environmental</b>		
Operating temperature, battery heater option and cooling method	-20° to +60°C (-4° to +140°F) ambient air temperature. -40° to +140°C (-40° to +140°F) with optional battery heater. Thermostat controlled exhaust fan.	
Moisture protection (optional)	Optional conformal coating of electronic boards is available for moisture resistance to protect against high humidity environments.	
<b>Warranty</b>		
Warranty	Two year limited warranty, parts and labor. One year battery warranty.	

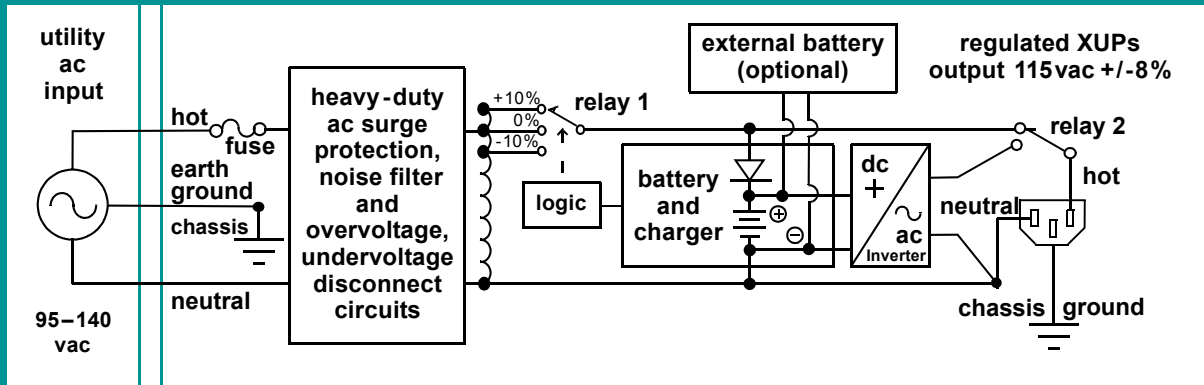


## Outdoor XUPs



Ac input and UPS output cable entry via two 25.4mm (1") liquid-tight cable glands

### OutdoorXUPs-600A/B System Architecture



### OutdoorXUPs-600A/B at a Glance

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

- 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
- 24vdc battery bus
- **1 hour @ 420 watts load**, or 2.2 hours @ 210 watts load with **the OutdoorXUPs-600A**
- **2.2 hours @ 420 watts load**, or 4.6 hours @ 210 watts load with **the OutdoorXUPs-600B**
- 115vac +/-8% output from 95–140vac input without going to batteries
- Weather protected IP44 (NEMA-3R) painted metal cabinet
- SNMP compatible (optional)
- Less than 4 ms transfer time
- Microprocessor-controlled 15kHz PWM sine wave inverter
- Thermostat controlled fan is included



**TSi Power Corporation**  
1103 West Pierce Ave  
Antigo, WI 54409  
USA  
715.623.0636  
800.874.3160  
Fax 715.623.2426  
sales@tsipower.com  
www.tsipower.com

# Outdoor XUPs



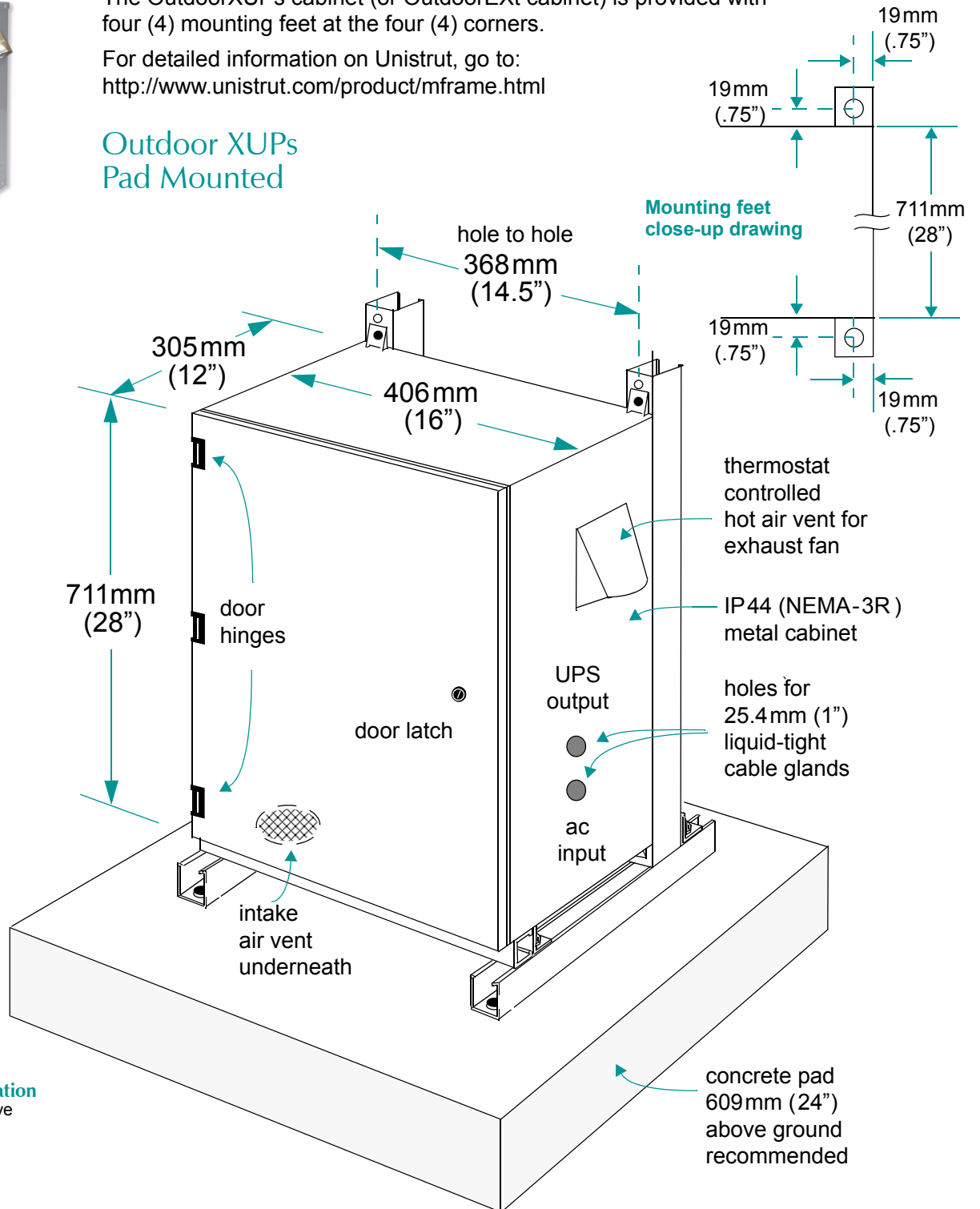
## Mounting on a Concrete Pad with Unistrut® (or Similar)

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

The OutdoorXUPs cabinet (or OutdoorEXt 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 XUPs Pad Mounted



**TSi Power Corporation**  
1103 West Pierce Ave  
Antigo, WI 54409  
USA  
715.623.0636  
800.874.3160  
Fax 715.623.2426  
sales@tsipower.com  
www.tsipower.com