

# Outdoor XUPS

Pure sine wave

Wide temperature batteries

Voltage regulation

## Outdoor UPS with voltage regulation

### UPS Model

1500A-HV

5.5 A  
1050 W  
230 V  
1 hr backup

1500B-HV

5.5 A  
1050 W  
230 V  
1.8 hr backup

2200A-HV

8 A  
1540 W  
230 V  
30 min backup

2200B-HV

8 A  
1540 W  
230 V  
1 hr backup

The TSi Power's outdoor XUPS series is equipped with wide-temperature, pure lead, gel batteries and is housed in a weather-protected enclosure. It offers line-interactive automatic voltage regulation, over/under voltage protection, surge protection with heavy duty noise filtering, communications capability and optional extended battery backup.

### Typical XUPS applications

This outdoor UPS is ideal for the protection of telecom DAS systems/sewage control systems / perimeter surveillance and security/gate control systems, LED traffic light/ roadway display systems and industrial remote terminal units (RTUs).

### How the XUPS works

The outdoor XUPS series provides automatic voltage regulation with surge protection and noise filtering, as well as overvoltage protection with a threshold of 272 V and undervoltage protection with a threshold of 192 V. In the event of a brownout, overvoltage or loss of power, the XUPS will transfer to battery power quickly, enabling uninterrupted operation of computer, telecom, surveillance, signaling or other systems.



Front view showing right side with wall mounting ears and front door latch

### Features and Benefits

- Built-in automatic voltage regulation enables a wide-input voltage window to deliver power while preventing unnecessary battery drain.
- Precise output current limiting permits start of induction motors and other difficult loads.
- Compatible with high-quality generators.
- Cabinet can be pad-, pole- or wall-mounted for utmost mounting flexibility.
- Rain tested to NEMA 3R standards.
- The XUPS uses wide temperature, pure lead, gel batteries and internal cooling fan to extend battery life and protect electronic components.
- Operates in line mode with bad battery bank, which prevents unscheduled service calls.
- The XUPS is easy to repair because internal circuit board assemblies are connectorized.
- LED status indicators show voltage, load and battery levels.
- Heavy-duty surge protection and noise filtering protects load and UPS.
- Includes a two year warranty on electronics, parts and labor and the manufacturer's warranty on batteries.



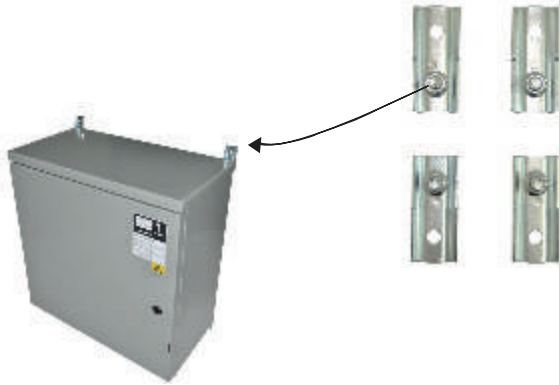
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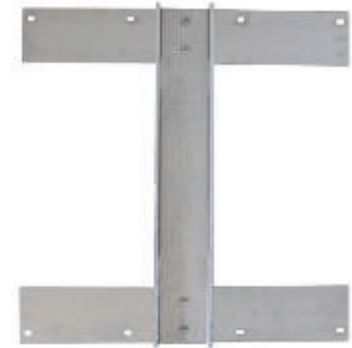
Specification	1500AHV	1500BHV	2200AHV	2200BHV
<b>Input</b>				
Nominal voltage	230 V			
Operating voltage	192 - 272 V without transferring to inverter			
Current @192V & max charging	5.5 A		8 A	
Frequency	47 - 63 Hz			
Circuit breaker	7 A push-to-reset circuit breaker		15 A push-to-reset circuit breaker	
Surge voltage test condition	ANSI/IEEE: 6 kV, 1.2 x 50 us/ 3kA, 8 x 20 us			
Surge voltage let-through	L-N: 450 V L-G: 300 V N-G: 300 V			
<b>Output</b>				
Output power	1050 W		1540 W	
Voltage	115 V ± 8%			
Crest factor	3 : 1			
Waveform and THD	Sine wave, < 3% THD with linear load			
Power efficiency	Line: 97%, Inverter: 92% under full load conditions			
Power on/off switch	On / off rocker style power switch			
Transfer time	0 to 8 milliseconds			
<b>Battery</b>				
Type:	8G22NF	8G24	8G22NF	8G24
Dimensions and weight	8G22NF: L: 8.99" W: 5.47" H: 9.24" 37 lbs 8G24: L: 10.9" W: 6.8" H: 9.88" 52.5 lbs			
Ah @20hr rate and bus voltage	51 Ah, 48 VDC	73.6 Ah, 48V DC	51 Ah, 48 VDC	73.6 Ah, 48 VDC
Number of batteries	4	4	4	4
Battery circuit breaker	40 A	60 A	40 A	60 A
Temp. range fully charged	-4° to +140° F (-20° to +60° C), -40° to +140° F (-40° to + 60° C) with optional battery heater			
Battery heater pad BH 5	34 W, one required	34 W, two required	34 W, one required	34 W, two required
Battery backup time vs. load *Depends on condition of battery	1 hr at 1050 W 2.8 hrs at 525 W	1.8 hrs at 1050 W 4.8 hrs at 525 W	30 min at 1540 W 1.4 hrs at 770 W	1 hr at 1540 W 2.8 hrs at 770 W
Recharge time	Temperature compensated charger, charge to 90% capacity after full discharge			
	12.6 hours	24 hours	12.6 hours	9.3 hours
<b>Indicators and alarms</b>				
Status indicators	5 LED load level indicators: 0 to 100% of rated load; 5 LED battery charge level indicators from 0 to 100% of rated load; 3 LED indicators for: in boost, buck or normal mode; 3 LED indicators for: inverter on / off, battery fault and overload.			
DB-9 port	1: Pins 6/7 2: Pins 8/9 1: Inverter on/off 2: Battery >44 V/<44 V			
<b>Physical</b>				
Dimensions	24" (610 mm) wide x 24" (610 mm) high x 16" (406 mm) deep			
Aluminum cabinet	Outdoor type, powder coated, rain tested to NEMA 3R UL 50			
Input / output connections	3 position terminal block provided for 3 x 12 AWG 1/2" holes for conduit connectors			
Weights lbs / kg	258 / 117	320 / 145	278 / 126	340 / 154
Mounting option	Bolting or banding to monopole via optional "H" style bracket (stainless steel mounting bands not included), pad (ground) with optional bottom mounted u-channel, or wall mountable via four wall mounting 'feet' which are included standard			
<b>Environmental</b>				
Operating temperature	14° to +113° F (-10° to +45° C) ambient air temperature			
Battery heater option	-40° to +113° F (-40° to +45° C) with optional battery heater			
Cooling method	Thermostat controlled exhaust fan			
Moisture protection	Conformal coating of electronic boards for moisture resistance			
<b>Safety</b>				
Standards	Designed to conform to EN 60950-1			
<b>Warranty</b>				
Warranty	Two-year limited warranty, parts and labor. Manufacturer warranty on batteries.			

# Mounting on wall or on pole

Photo shows mounting the cabinet to a wall using four "mounting feet" that are standard.



Rear view of "mounting feet" attached to cabinet.



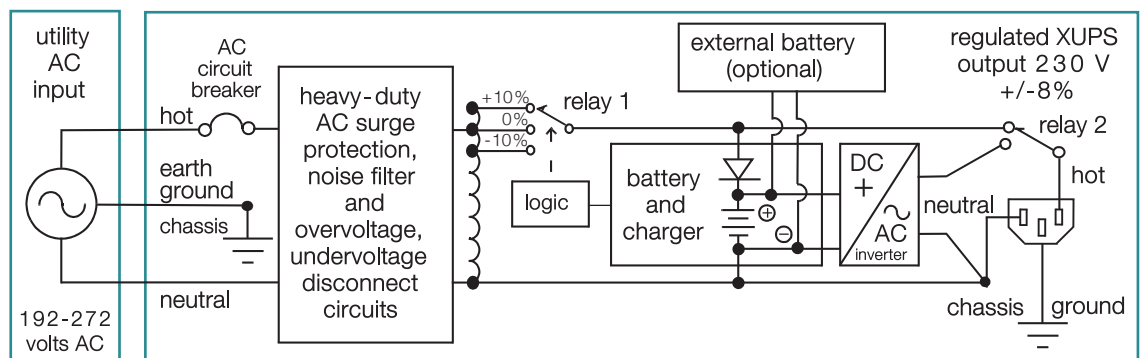
Optional pole-mount bracket can be used to mount cabinet to pole with bands.



## Outdoor XUPS-1500A/B-HV - 2200A/B-HV system architecture



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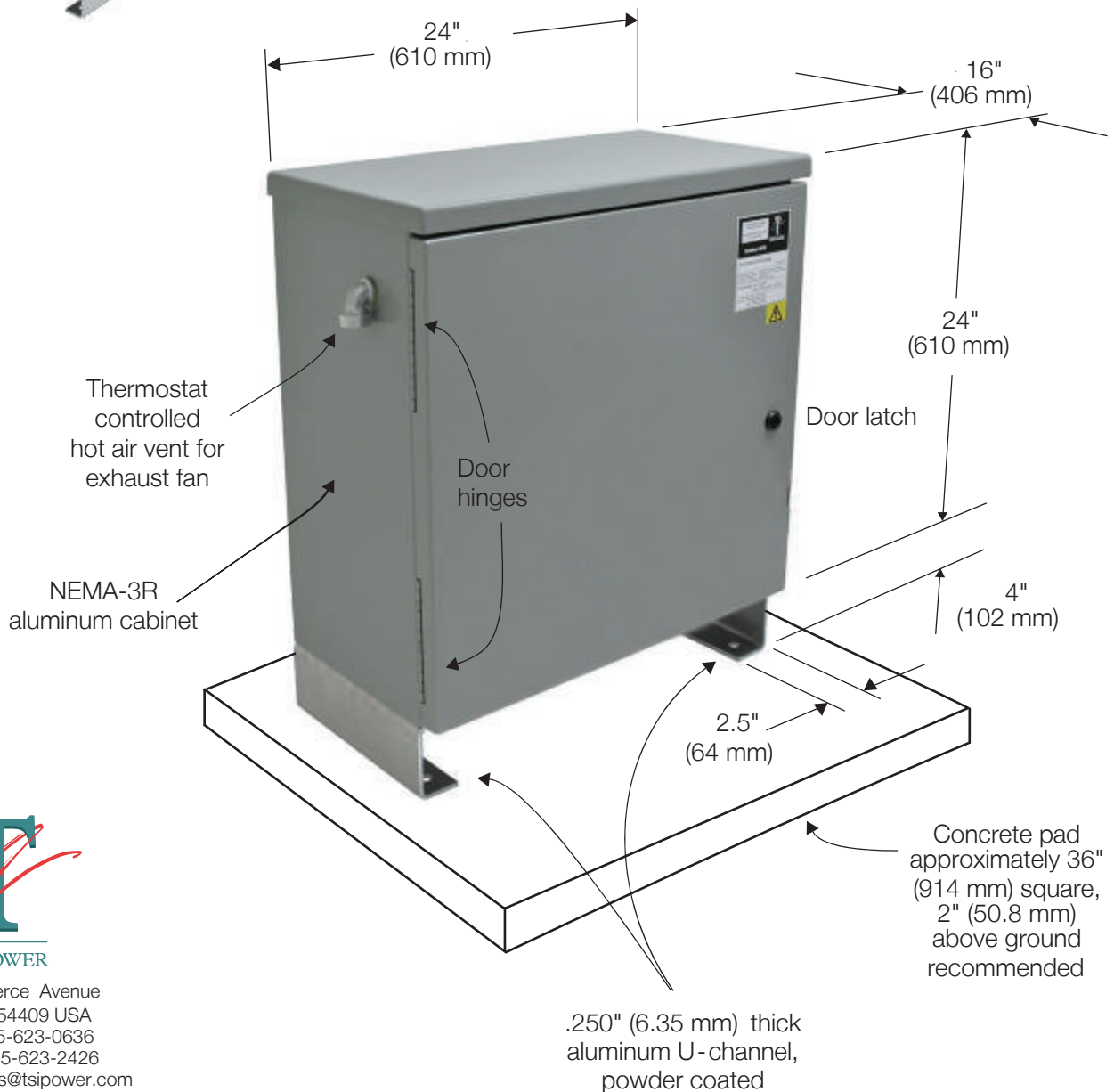
## Mounting on a concrete pad

Photo below shows a concrete pad mounted installation using the TSi Power painted aluminum U-channel mounting brackets. When ordered with these brackets, the U-channels will come attached. Four pre-punched bolt holes will then allow bolting of the unit to a concrete pad or other mounting surface, such as a Quazite® pad per local practices.



1/2" holes for conduit connectors  
AC cable entry and exit

Cooling air intake in bottom of cabinet



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