



Pure sine wave

Wide temperature batteries

Voltage regulation

Outdoor XUPs
model

600A-Mini

600 VA
480 watts
120 vac
0.6 hrs. @ 480W
-10° to +45 °C;
-40° to +45 °C
with optional
battery heater

Outdoor UPS with voltage regulation

The TSi Power Outdoor XUPs-600A-Mini is constructed with wide temperature batteries, is housed in a weather protected NEMA-3R 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.

Key Outdoor XUPs benefits

This rugged UPS design, with microprocessor-controlled 20 kHz sine wave inverter and 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 wide temperature batteries allow operation over an ambient temperature range of -10° to 45°C (14° to 113 °F); -40° to +45°C (-40° to +113°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.

0.6 hours battery backup time at 480 W 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 140 vac, and undervoltage protection with a threshold of 95 vac. 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.



Typical applications

This heavy duty outdoor UPS system is ideal for protection of WiMax/GSM/CDMA/satellite base stations, wireless communications/perimeter surveillance and industrial remote terminal units (RTUs).

Key Outdoor XUPs features

- Cabinet can be pedestal (ground), pole, or wall mounted
- Full weather outdoor protection 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, parts and labor; manufacturer's warranty on batteries



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Outdoor XUPs



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

| Specifications | Outdoor-XUPs - 600A-Mini |
|---------------------------------------|--|
| Electrical | |
| Capacity in VA (watts) | 600VA (480W maximum output) |
| UPS topology | High efficiency line-interactive with 20 kHz PWM sine wave inverter. |
| Input | |
| Nominal voltage | 120 vac, L1, N and Ground with circuit breaker |
| Input current maximum | 8.8 amperes @ 120 vac while charging at low line |
| Circuit breaker | 10 amperes |
| UPS operating voltage | 95–140 vac (within which UPS will not have to use batteries) |
| Frequency | 60 Hz +/- 5% |
| Hardwire connection | 14 AWG conductors |
| Output | |
| Power | 480 watts / 600 VA |
| Power factor | 0.7 (True non-displacement) |
| Current | 4.6 amperes |
| Nominal voltage | 115 volts ac |
| Voltage regulation | 115 volts ac +/- 8% upon changes in line or load |
| Crest ratio | 3:1 |
| Output waveform/THD | Pure sine wave / less than 3% THD with linear load |
| Power efficiency | 94% at full load when in ac line mode with fully charged batteries 93% at full load when in inverter mode |
| Power on/off switch | On/off rocker style power switch |
| Circuit breaker | 7 amperes, 0.75 derated @ 55°C |
| Transfer time | <4 milliseconds |
| Batteries | Two - 31 Ah, 12 vdc valve-regulated gel-cell, lead-acid, maintenance-free (sold separately) / 48 vdc bus voltage. Batteries rated for -60° to 60°C (-76° to 140°F) fully charged. Capacity: 31 Ah @ 20 hours rate per battery. Weight: 23 lbs (10.5 kg). Dim: 7.7"(196mm)long x 5.18"(132mm)wide x 7.22"(183mm)high. |
| Battery circuit breaker | 30 amperes |
| Battery heater (Opt.) | BH-3 battery heater pad, 34 watts. |
| Battery backup time and recharge time | 0.6 hours @ 480 watts load. 6 hours to 90% capacity after full discharge. |
| 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 |
| LED status indicators | Output OK: Green, solid. Inverter ON: Yellow, solid. Ac voltage regulation buck-boost: Green, solid. Replace battery: Red, solid. Dc input voltage level: Green, 1-5 LEDs, low to maximum. Output current level: Green, 1-5 LEDs, low to maximum. Overload: Red, solid. |

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.



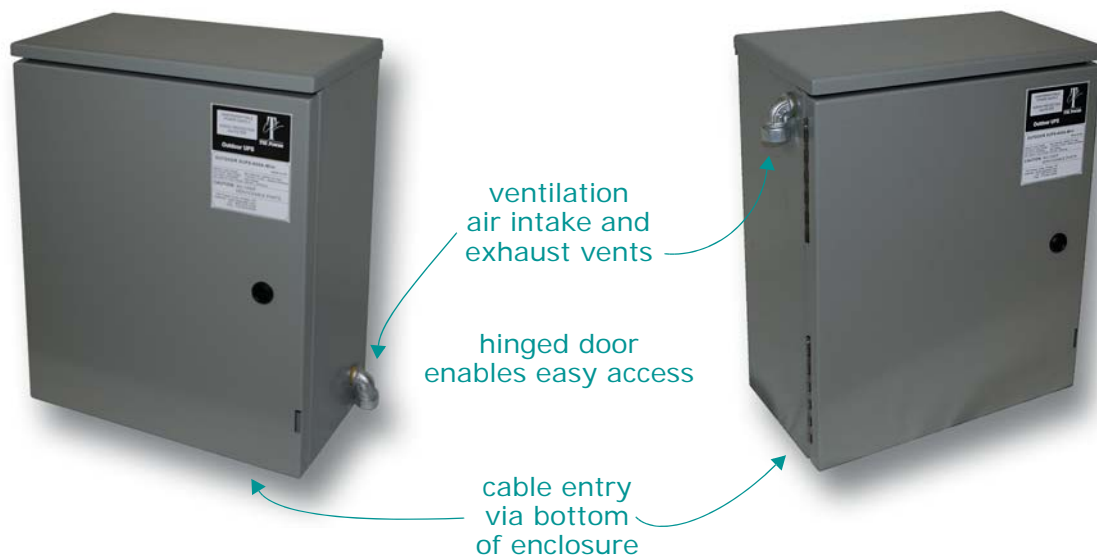
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Outdoor XUPs



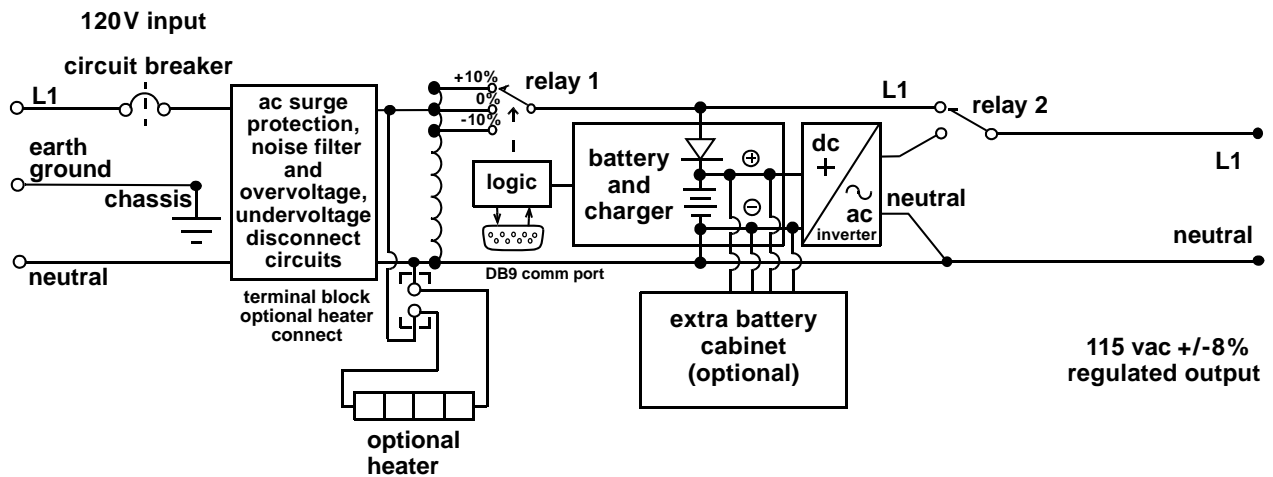
| Specifications | Outdoor-XUPs - 600A-Mini |
|-----------------------------------|--|
| Physical | |
| Dimensions | 16.5"(419mm) wide x 9.5"(241 mm) deep x 20.5" (521 mm) high. |
| Weight | Without batteries: 74 lbs (33.6 kg). With batteries: 120 lbs (54.4 kg). |
| Steel cabinet | Full weather NEMA-3R rated outdoor design. |
| Mounting configuration | Wall mount (standard) or pole-mount (with customer supplied bracket). |
| Environmental | |
| Operating and storage temperature | -10° to 45°C (14° to 113°F) ambient air temperature. -40° to +45°C (-40° to +113°F) with optional BH-3 battery heater. -60° to 60°C (-76° to 140°F) storage temperature. * Duration of storage will determine the need for supplemental charge, especially at elevated temperatures. ** Extended exposure to temperatures > 45°C may shorten battery life. |
| Humidity | Relative humidity 0-95% non-condensing. |
| Agency Compliance | |
| Standards | FCC part 15 Class A. NEMA-3R. Designed to cETLus - UL 60950-1, UL 1778 Fourth Edition and CSA C22.2 No. 107.3-05. |

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Outdoor-XUPs-600A-Mini system architecture



Outdoor-XUPs-600A-Mini at a glance

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

- Wide ambient temperature range sealed gel-cell batteries:
-10° to +45°C (14° to 113°F);
-40° to +45 °C (-40° to +113°F)
with optional BH-3 battery heater
- **0.6 hours @ 480 watts load**
- Microprocessor-controlled
20 kHz PWM sine wave inverter
- 115 vac +/-8% output
from 95–140 vac input
without going to batteries
- Weather protected NEMA-3R
painted metal cabinet
- Pure sine wave output
- Surge protection and
noise filtering

