Outdoor UPS with voltage regulation

**TSi Power**'s outdoor XUPS series is equipped with wide-temperature, pure lead, gel-cell 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

The XUPS is ideal for the protection of telecom DAS systems with multiple radio heads on the same pole.

### How the XUPS works

The outdoor XUPS series provides automatic voltage regulation with surge protection and noise filtering, as well as over voltage protection with a threshold of 136 V and under voltage protection with a threshold of 96 V. In the event of a brownout, over voltage, or loss of power, the XUPS will transfer to battery power quickly, enabling uninterrupted operation of computer, telecom, surveillance, signaling or other systems.

### 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.
- **The XUPS is compatible with high-quality generators.**
- **The XUPS can be pole-mounted with universal bracket for utmost mounting flexibility.**
- **The XUPS uses wide temperature, pure lead, gel batteries for maximum life expectancy.**
- **Rain tested to UL 50E standards.**
- **Operates in line mode with bad battery bank, which prevents unscheduled service calls.**
- **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 limited two-year warranty on electronics, parts and labor.**

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### Specifications Outdoor-XUPS-1500-7070

#### Input
- Nominal voltage: 115 V, 60 Hz
- Operating voltage: 96 - 136 V without transferring to inverter
- Current @96 V & max charging: 17.8 A
- Circuit breaker: 20 A two-pole magnetic circuit breaker
- Surge voltage withstand: ANSI/IEEE: 6 kV, 1.2 x 50 μs / 3kA, 8 x 20 μs: L-N: 450 V L-G: 300 V N-G: 300 V

#### Output
- Output power: 1400 W
- Voltage: 115 V ± 8%
- Circuit breaker: 15 A push-to-reset circuit breaker, 0.75 derated at 55° C
- Crest factor: 3 : 1
- Waveform and THD: Sine wave, < 3% THD with linear load
- Power efficiency: Line: 97%, Inverter: 92% under full load conditions
- Transfer time: Inverter to line / line to inverter: 0 to 8 milliseconds

#### Battery
- Type: 8GU1 MK Battery: MU-1SLDG, 8GU1
- Dimensions and weight: 7.71" / 196 mm long 5.18" / 132 mm wide 7.22" / 183 mm high; 23 lbs / 10.5 kg
- Ah @20 hr rate and bus voltage: 62 Ah, 48 V 31 Ah, 48 V
- Number of batteries: 8 4
- Battery circuit breaker: 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 four required 34 W two required
- Battery backup time vs. load: 1 hr at 1400 W 2.6 hrs at 700 W 22 min at 1400 W 1 hr at 700 W
- Recharge time: Temperature compensated charger, charge to 90% capacity after full discharge
- 18 hours 10 hours

#### Indicators and Alarms
- 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

#### Physical
- Dimensions: 13.5" (343 mm) wide x 28" (711 mm) high x 15.75" (400 mm) deep
- Aluminum cabinet: Outdoor type, powder coated, rain tested to UL 50E
- Input / output connections: 3 position terminal block provided for 3 x 12 AWG 1/2" holes for conduit connectors
- Weights lbs / kg: 98 lbs / 44.5 kg With 8 batteries: 282 lbs / 128 kg
- Mounting option: Bolting or banding to wood or steel pole via optional universal bracket. Bracket part number: ZC00497 (stainless steel pole mounting bands or through bolts not included)

#### Environmental
- 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

#### Safety
- Standards: Designed to conform to UL 60950-1 and UL 1778

#### Warranty
- Warranty: Two-year limited warranty, parts and labor. Manufacturer’s warranty on batteries.

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**Outdoor-XUPS-1500-7070 system architecture**

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