

Outdoor XUPS

UPS Model

XUPS-2000NB

1400 W
62 Ah battery
22 min. backup

1400 W
124 Ah battery
57 min. backup

700 W
62 Ah battery
57 min backup

700 W
124 Ah battery
2 hr 43 min
backup

Pure sine wave

Wide temperature batteries

Voltage regulation

Rack Mountable Sinewave UPS

TSi Power's rack mountable XUPS-2000NB is designed for extended backup time at full load. DC power is supplied from an existing battery plant. It provides automatic voltage regulation, sinewave output and NO/NC contacts for remote monitoring.

Typical XUPS applications

AC powered cell sites and headend equipment where stable power with low harmonic distortion is required

How the XUPS works

The XUPS series provides automatic voltage regulation with a threshold of 136 V and undervoltage protection with a threshold of 96 V. In the event of a brownout, overvoltage or loss of power, the XUPS will transfer to battery power quickly, enabling uninterrupted operation of the critical load. Based on a 60 Hz transformer topology to reduce component count. A digital control system with a 16-bit digital signal controller switches and monitors an H-bridge with MOSFETs sized for 150% of load current. Current is monitored on both sides of the transformer to prevent



Front view showing right side



Rear view

saturation and to provide protection against overload. The control system permits operation of loads containing induction motors.

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.
- Conformal coated circuit boards to protect against moisture.
- Rack and wall mounting options provide for flexible mounting.
- High efficiency, runs quiet, cool.
- Eight 5-15 R outlets permits easy connection of multiple loads.
- Easy to repair because internal circuit board assemblies are connectorized.
- LED status indicators show voltage, load and battery levels.
- Includes a two-year limited warranty

Specification	XUPS-2000NB	
Input		
Nominal voltage	115 V, 60 Hz	
Operating voltage	96 - 136 V without transferring to inverter	
Current @96 V & max charging	17 A	
Output		
Output power	1400 W	
Voltage	115 V ± 8%	
Circuit breaker	15 A push-to-reset	
Crest factor	3 : 1	
Waveform and THD	Sine wave, < 5% 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	
Battery external		
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	40 A	
Temp. range fully charged	-4° to +140° F (-20° to +60° C)	
Battery backup time vs. load	124 Ah battery bus 700 W load: 4.3 hrs	62 Ah battery bus 700 W load: 4.3 hrs
*Depends on condition of battery	1400 W load: 1.4 hrs	1400 W load: 1.4 hrs
Recharge time	Temperature compensated charger, charge to 90% capacity after full discharge	
	20 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	16.9" (429 mm) wide x 4.5" (114 mm) high x 22" (559 mm) deep	
Enclosure	Powder coated steel with rubber feet	
Input / output connections	Cord with 15 A plug / Eight 5-15R outlets	
Weights lbs / kg	Without batteries: 60 lbs / 27.2 kg	
Rack mounting options	Front pair: 19" rack: # MK-8019A, 23" rack: #MK-8023A	Center pair: 19" rack: # MK-8019F, 23" rack: #MK-8023F
Environmental		
Operating temperature	14° to +104° F (-10° to +40° C) ambient air temperature	
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 on parts and labor. Manufacturer warranty on batteries.	

XUPS-2000NB and XBat-48 V-36 Ah system architecture

