

Flexible

UPS

Wide temperature battery | Flexibility of adding extra battery cabinets

UPS model
400Wtb
 400 VA
 250 watts
 120 volts
 8 min @ 250W
 20 min @ 125W

Wide Temperature Battery UPS with the Flexibility of Adding Extra Battery Cabinets

TSi Power's Flexible Series wide temperature battery UPS is an excellent choice for those applications that require battery backup with good surge protection, a wide temperature battery for usage in more extreme environments, and the flexibility of being able to add additional battery cabinets for extended run-time.

Typical applications

UPS-400Wtb is the ideal UPS for computer or telecommunications equipment in extreme wide temperature -20° to +60°C (-4° to +140°F) environments where ac power delivery is unreliable and long battery backup times may be necessary.

The UPS-400Wtb is suitable where power outages are a regular occurrence, or in areas where utilities need to conduct rolling blackouts.

Key benefits

The UPS-400Wtb protects connected equipment from: power supply failure, erroring, system lockups and re-boots. It contributes to enhanced systems operation, greater reliability, improved repeatability, and extended operating life.

Typical back-up time fully loaded is 8 minutes, but 20 minutes can be obtained when the unit is loaded to 50% of its capacity. Thus, an application requiring 200VA can be provided with 20 minutes of hold-up.

The capability of adding extra EXt-400Wtb external battery packs also makes this a very cost-effective choice for enabling nearly unlimited holdup times.

Custom Settings: DIP switches in the rear panel allow the user to set brownout sensitivity, inverter operating frequency, or alarm mode, for complete flexibility and control of the UPS.



Key features

- Wide temperature battery -20° to +60°C (-4° to +140°F)
- Add-on battery cabinet flexibility
- User-selectable 50/60Hz frequency
- Electronics ~ Two year warranty
 Batteries ~ One year warranty

How the UPS-400Wtb works

The UPS-400Wtb continually provides surge protection with a capacitive element, and coordinated MOV surge protection.

Upon loss of power, the audible alarm beeps about once a second, as the battery inverter kicks in within 8ms, which means equipment will continue to operate without interruption.

When the battery level drops until only a few minutes of holdup time remain, the alarm will beep, and the LED will flash more rapidly, alerting of impending shutdown.

A DB-9 female connector provides communications capability with monitoring software which can safely save open files and automatically shutdown your systems.



TSi Power Corporation
 Represented by
 CareBase
 Michael Gibson
 Post Office Box 2987
 Glenwood Springs, CO
 81602-2987 USA
 Phone +1 970 945 2770
 800 430 2770 (USA.CAN)
 michaelg@carebase.com
 www.carebase.com
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UPs-400Wtb with wide temperature battery and add-on battery cabinet flexibility



Rear view

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Represented by
CareBase
Michael Gibson
Post Office Box 2987
Glenwood Springs, CO
81602-2987 USA
Phone +1 970 945 2770
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michaelg@carebase.com
www.carebase.com
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Specification	UPs-400Wtb
Electrical	
Capacity in VA (watts)	400VA (250 watts)
UPS type	Single conversion standby with 4 to 8ms transfer time.
Input	
Nominal voltage	120 volts ac, single phase.
Operating voltage	95 to 135 volts ac. 47 to 63Hz, sinusoidal.
Ac input cord	6 foot cord with 5-15P plug
Output	
Nominal voltage	120 volts ac, single phase, sine wave during normal operation.
Nominal frequency	50/60Hz +/-3% (user-selectable)
Power efficiency	98% or higher during ac operation, 80% or higher during battery inverter operation.
Transfer time	4 to 8ms typical between ac and inverter.
UPS inverter output	105 to 130V _{RMS} , 50/60Hz +/- 1%, pulse-width-modulated, modified square wave.
Battery backup time (for more time see below)	8 minutes @ full load (250 watts) 20 minutes @ half load (125 watts)
Recharge time	8 hours to return to 90% capacity after full discharge.
Optional # EXT-400Wtb Extra battery pack for longer back-up time w/Anderson SB50 conn.	A matching extra battery cabinet with separate charger, supplying an additional 40 minutes @ full load, 90 minutes @ half load. With a weight of 15.9kg (35 lbs), and same size as the UPs-400Wtb. EXT-400Wtb's battery recharge time is 12 hours to 90% capacity.
Surge protection	MOV spike/surge suppression.
Surge test conditions	ANSI/IEEE C62.41-1991 test pulse, Category A3, Ring wave, 6000V, 200A.
Indicators and alarms	LED indicators and audible signals for ac, inverter, and battery status.
Communications interface	DB-9 female connector provides communications capability with optional monitoring and automatic shutdown software.
Ac output receptacles	Two NEMA 5-15R
Physical	
Dimensions	125mm (5") wide x 178mm (7") high x 394mm (16") deep
Weight	10.7 kg (23.5 lbs)
Safety	
Safety standards	Designed to meet UL and cUL 1778 standards
Safety and reliability	External fuse protects all ac circuits. Internal fuses protect all dc circuits. Durable, all-steel chassis withstands transport in hostile environments and operation in any indoor application.
Environmental	
Ambient temperature	-20° to +60°C (-4° to +140°F). 90% relative humidity, non-condensing at 25°C.
Warranty	
Warranty	Two year limited warranty, parts and labor. One year battery warranty.

UPs-400Wtb system architecture

