



Outdoor UPS

Wide temperature batteries

IP44/NEMA-3R enclosure

Outdoor UPS
model

550

550 VA
360 watts
120 vac
1.2 hrs @ 360W
2.5 hrs @ 180W
3.5 hrs @ 100W
6 hours @ 50W
-20° to +60°C;
-40° to +60°C
with optional
battery heater

Outdoor extreme wide temperature uninterruptible power system

OutdoorUPS-550 is constructed with extreme wide/low temperature batteries and housed in a weather protected wall-mountable IP44 (NEMA-3R) enclosure. It provides very long battery runtimes, excellent surge protection and communications capability.

Key benefits

This rugged outdoor UPS design is ideal for protecting mission-critical outdoor equipment in -20° to +60°C (-4° to +140 °F) environments where ac power delivery is unreliable and long battery backup time is necessary.

An optional battery heater allows operation of the UPS system over a wider ambient temperature range of - 40° to +60°C (-40° to +140°F).

Battery run-times for the OutdoorUPS-550 are approximately 1.2 hours @ 360 watts load; 2.5 hours @ 180 watts load; 3.5 hours @ 100 watts load; and 6 hours @ 50 watts load.

How the OutdoorUPS-550 works

Upon brownout, or loss of power, the OutdoorUPS-550 unit will transfer to battery in less than 8ms, enabling uninterrupted operation of your mission-critical outdoor systems.

One LED provides visual assessment of UPS status. Front panel rocker switches control UPS functions. Audible alarms activate upon power outage and low-battery conditions.

Typical applications

These outdoor extreme wide temperature rated UPS are for protection of mission-critical outdoor communications, security systems, surveillance cameras/CCTV, and industrial control equipment against long duration ac power outages, and surges/spikes due to nearby lightning strikes, etc.



Note: shown with optional liquid-tight cable glands

Key features

- Cabinet can be pedestal (ground), pole, or wall mounted
- Full weather protection IP44 (NEMA 3R) metal cabinet
- Wide temperature batteries
- Conformal coated boards for moisture ingress protection
- Undervoltage protection
- Enhanced surge protection
- Two year warranty on electronics, parts and labor; manufacturer's warranty on batteries
- Status and alarm signals available through DB9 connector



TSi Power Corporation
1103 West Pierce Ave
Antigo, WI 54409 USA
800 874 3160 (USA only)
Phone +1 715 623 0636
Fax +1 715 623 2426
sales@tsipower.com
www.tsipower.com
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Outdoor UPS



Note: shown with optional liquid-tight cable glands

Outdoor UPS with dc output and wide temperature batteries

Specification	Outdoor UPS-550
Electrical	
Capacity in VA (watts)	550VA (360 watts)
UPS type	Single conversion outdoor UPS with less than 8 ms transfer time.
Input	
Nominal voltage	120 volts ac single phase
Operating voltage/amps	100–130 volts ac, (5 amperes maximum input current)
Ac input (hardwire)	Terminal block via 12mm(1/2") diameter holes.
Operating frequency	57 – 63Hz
Surge protection	Three stage protection via inductor, capacitor and MOV based assembly.
Output	
Nominal voltage and maximum amperage	120 vac, single phase, sine wave during normal operation. 3 amperes maximum.
Nominal frequency	57 – 63 Hz
Power efficiency	>98% for normal operation, 80% or higher during battery inverter operation.
Transfer time	Less than 8ms typical between ac and inverter, phase-locked to the ac mains voltage.
UPS inverter output	105–130V _{RMS} , 60Hz +/- 1%, pulse-width-modulated, modified square wave.
Transfer: ac to inverter	Brown-out threshold: 97+/-2V _{RMS}
Transfer: inverter to ac	The line voltage has to stabilize to between 100 and 130V _{RMS} for at least 2 seconds in order to transfer back to ac mains.
Batteries	Wide temperature sealed gel-cells -20° to +60°C (-4° to +140°F); -40° to +60°C (-40° to +140°F) with optional battery heater.
Battery capacity	24 vdc, 32Ah
Battery backup time	Approximately 1.2 hours @ 360 watts load; 2.5 hours @ 180 watts load; 3.5 hours @ 100 watts load; 6 hours @ 50 watts load.
Battery recharge time	48 hours to 90% capacity after full discharge, via 27 vdc, 1 A charger.
Battery protection	When battery is discharged below 21 volts, the system will shutdown automatically in order to protect the batteries from complete discharge. Upon return of normal power, the UPS will turn on automatically and begin recharging the batteries.
Indicators and alarm	LED indicator and audible signals for ac, inverter, and battery status.
Communications	DB-9 connector provides RS-232 compatible alarm signals.
Ac output (hardwire)	Terminal block via 12mm(1/2") diameter holes.
Physical	
Dimensions	406 mm W x 406 mm H x 254 mm D (16" wide x 16" high x 10" deep)
Weight	41 kg (90 lbs)
Cabinet	IP44 (NEMA-3R) fully weather protected painted light gray metal cabinet.
Mounting options	A wall mounting bracket is standard. Optional pole mounting kits and optional pad mounting brackets (see next pages) are also available, but are factory installed, so must be ordered at the same time as the unit.
Safety	
Overload protection	Internal fuses protect all ac and dc circuits.
Environmental	
Operating temperature, battery heater option	-20° to +60°C (-4° to +140°F) ambient air temperature. -40° to +60°C (-40° to +140°F) with optional battery heater.
Moisture protection	Conformal coating of electronic boards for moisture resistance to protect against high humidity environments.
Warranty	
Warranty	Two year limited warranty, parts & labor; manufacturer's battery warranty.



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Fax +1 715 623 2426
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www.tsipower.com
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Note: shown with optional liquid-tight cable glands

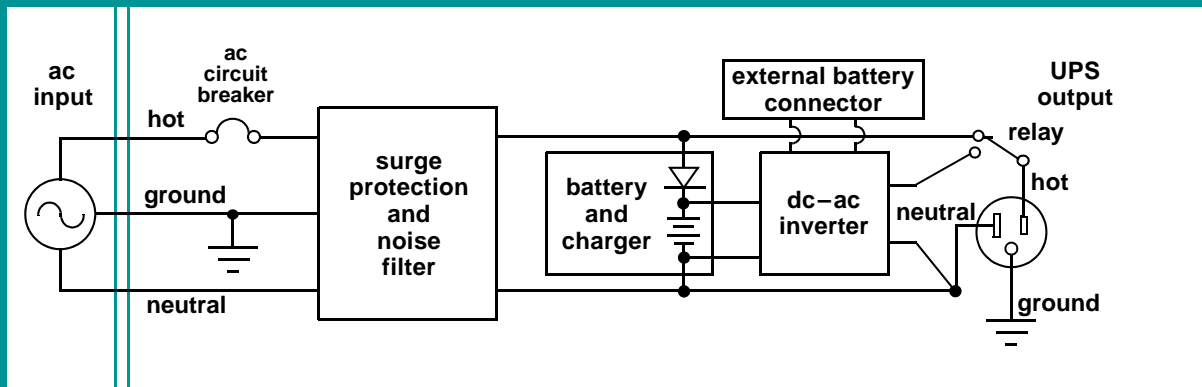
Outdoor
UPS



optional bandable or boltable monopole mounting brackets



OutdoorUPS-550 system architecture



OutdoorUPS-550 at a glance

Heavy-duty outdoor UPS with extreme wide-temperature batteries

- Wide ambient temperature range sealed gel-cell batteries: -20° to +60°C (-4° to +140°F); or -40° to +60°C (-40° to +140°F) with optional thermostat controlled battery heater
- 24 vdc battery bus
- Backup time, approximately **1.2 hours @ 360 watts**, or 2.5 hours @ 180 watts, or 3.5 hours @ 100 watts, or 6 hours @ 50 watts
- For longer runtimes, please call for extended options
- 120 vac, 60Hz input and output
- Weather protected IP44 (NEMA-3R) painted metal cabinet
- Less than 8ms transfer time
- Thermostat controlled fan is included
- Conformal coated boards for moisture ingress protection
- Larger cabinet options are available for customers requiring extra 'hotel' space inside the cabinet (for customer's own equipment)



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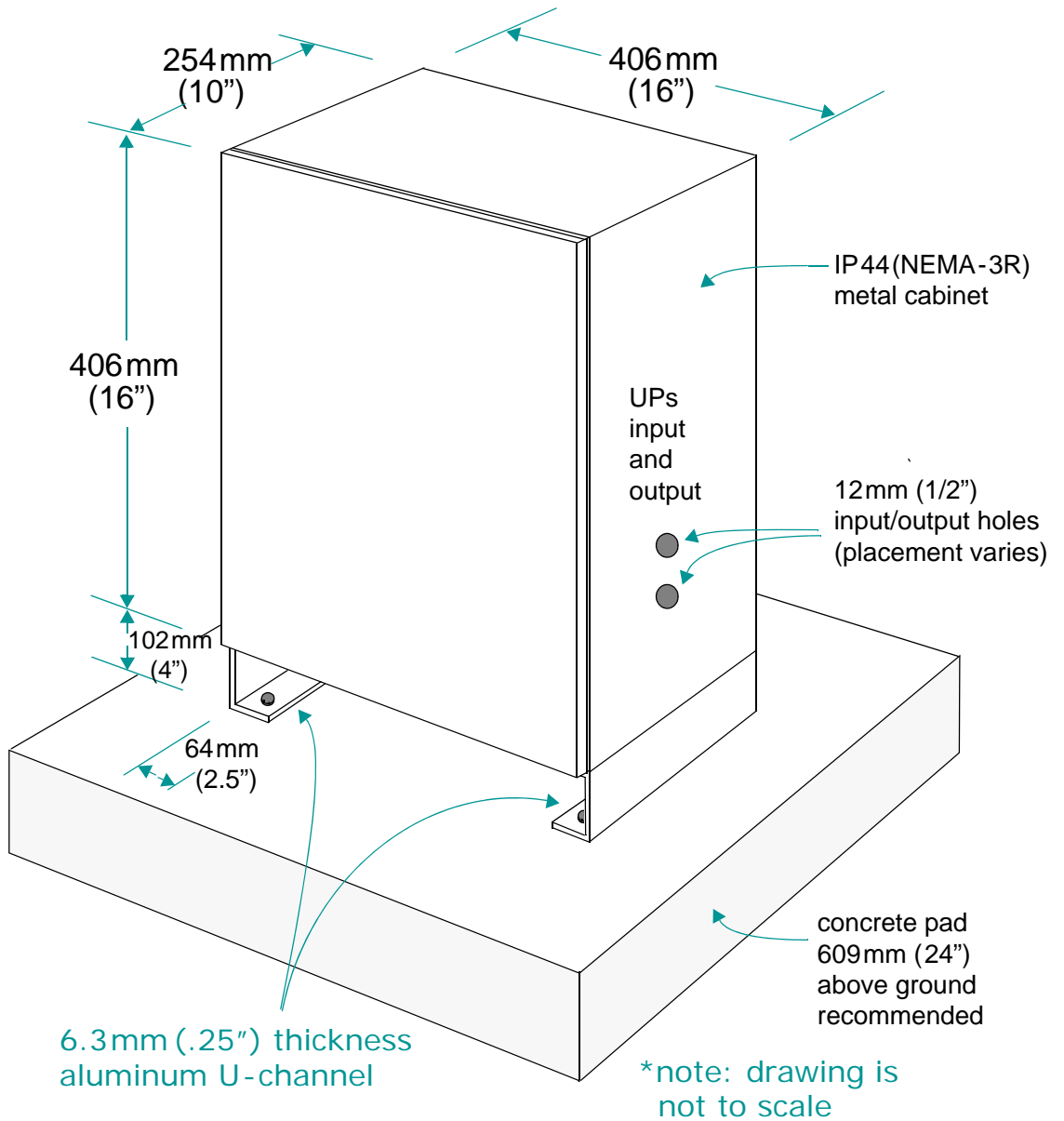


Note: shown with optional liquid-tight cable glands

Mounting on a concrete pad with U-channel

Following is a drawing of a recommended pedestal/concrete pad mounted installation using the TSi Power aluminum U-channel mounting brackets. When ordered with these, the units will come with them already bolted to the bottom of the cabinet. There are four pre-drilled bolt holes that will then allow bolting of the unit to a concrete pad or other mounting surface, such as a Quazite® pad or Unistrut®.

Outdoor UPS pad mounted



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