

# Outdoor UPS

Dc output

wide temperature batteries

wide ac input voltage window

## Outdoor UPS model

### 8085

250 watts  
input can be  
115 or 230 vac  
output is  
24 vdc  
2.5 hrs @ 250W  
5 hours @ 125W  
-20° to +60°C;  
-40° to +60°C  
with optional  
battery heater

### 8086

250 watts  
input can be  
115 or 230 vac  
output is  
24 vdc  
5 hours @ 250W  
10 hrs @ 125W  
-20° to +60°C;  
-40° to +60°C  
with optional  
battery heater

## Outdoor on-line UPS with dc output

The TSi Power OutdoorUPS-8085/8086 with dc output are for dc powered applications needing backup power in extreme weather conditions. They are constructed with wide temperature batteries and are housed in a weather protected IP44 (NEMA-3R) enclosure. These offer a wide input voltage window (88 – 264 vac) and low ripple 24 vdc output, with heavy duty surge protection and noise filtering.

### Key Outdoor UPS benefits

This rugged outdoor dc output UPS design is suitable for use in severe outdoor environments.

Outdoor UPS extreme/wide temperature batteries allow operation of the UPS system over an ambient temperature range of -20° to +60°C (-4° to +140°F); -40° to +60°C (-40° to +140°F) with optional battery heater.

The wide input voltage window enables dc output without having to drain or exercise the batteries, thereby ensuring long battery life.

Battery run-times for the OutdoorUPS-8085 are approximately 2.5 hours at 250 watts load, and 5 hours at a 125 watts load. For the OutdoorUPS-8086, approximately 5 hours at 250 watts load, and 10 hours with 125 watts.

### How the Outdoor UPS works

The outdoor UPS with dc output provides extended battery backup through a system which takes nominal 115 or 230 vac input (from 88 – 264 vac), converts it to dc, charges the batteries, and delivers a nominal 24 vdc (20 to 28 vdc) with a less than 200 millivolts peak to peak ripple. The heavy duty surge protection and noise filtering on the ac input helps protect the unit and load from transient surges on the line.

Because the unit is already delivering dc power, upon a deep brownout or loss of power, the Outdoor UPS with dc output has a zero transfer time to the reserve power in the batteries.

For OEMs, a small 'hotel' space is provided inside the unit for your equipment to reside.



### Typical applications

These heavy duty outdoor UPS systems are designed to power wireless communications, perimeter surveillance cameras (CCTV), security/gate control systems, LED traffic light/roadway display systems and industrial remote terminal units (RTUs).

### Key Outdoor UPS features

- Cabinet can be pedestal (ground), pole, or wall mounted
- Full weather outdoor protection IP44 (NEMA-3R) metal cabinet
- Dc output with low ripple
- Wide temperature batteries
- Heavy-duty surge protection and noise filtering
- Wide ac input voltage window lengthens battery life
- Two year warranty on electronics, parts and labor; manufacturer's warranty on batteries



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# Outdoor UPS



Outdoor dc output UPS with a wide ac input voltage window and extreme/wide temperature batteries

Specification	OutdoorUPS-8085	OutdoorUPS-8086
<b>Electrical</b>		
Capacity in watts	250 watts	
UPS topology	Ac to dc rectifier, battery charger and sealed gel-cell batteries	
<b>Input</b>		
Nominal voltage	115 or 230 volts ac	
Operating voltage	88–264 vac without using batteries	
Input current	5 amperes maximum @ 115 vac, or 2.5 amperes maximum @ 230 vac	
Operating frequency	50 or 60Hz (47 – 63Hz)	
<b>Output</b>		
Nominal voltage	24 volts dc	
Operating voltage	20–28 volts dc (depending on battery charge status)	
Output current	11 amperes maximum @ 24vdc	
Dc ripple voltage	Less than 200 millivolts peak to peak	
Power efficiency	84% (typical)	
Power on/off switch	On/off rocker style power switch	
Transfer time to backup	Zero transfer time	
Battery backup time	2.5 hours @ 250 watts load, 5 hours @ 125 watts load.	5 hours @ 250 watts (4A) load, 10 hours @ 125 watts (2A) load.
Recharge time	12 hours to 90% capacity after full discharge.	24 hours to 90% capacity after full discharge.
Batteries	32 ampere hours, 24 vdc 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.	
Ac connections	3 position terminal block provided for 3 x 1 mm <sup>2</sup> (18AWG), L1, L2 and Ground connections via 12mm (1/2") diameter liquid-tight cable glands.	
Dc connections	2 position terminal block provided for dc output wires connection via 12mm (1/2") diameter liquid-tight cable glands.	
<b>Physical</b>		
Dimensions	610mm W x 610mm H x 305mm D (24" wide x 24" high x 12" deep)	
Weights	45kg (100 lbs)	68kg (150 lbs)
Steel cabinet	Full weather IP44 (NEMA 3R) UL50 outdoor enclosure.	
Mounting options	Pole mountable to monopole via optional 'H' style bracket (mounting bands not included). Wall mountable via included mounting feet. Also, optional pedestal (ground) brackets are available.	
'Hotel' space for OEM option	Extra space is available at top of cabinet for your equipment if necessary. Please consult factory regarding your exact space needs.	
<b>Environmental</b>		
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.	
<b>Warranty</b>		
Warranty	2 year limited warranty, parts & labor; manufacturer's battery warranty.	

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## Outdoor UPS



optional bandable or  
bolttable monopole  
mounting brackets



### OutdoorUPS-8085/8086 at a glance

Heavy-duty outdoor on-line UPS with dc output, wide ac input voltage window, and 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
- Low dc output ripple
- 24 vdc battery bus
- **2.5 hours @ 250 watts load**, or  
5 hours @ 125 watts load with  
**the OutdoorUPS-8085**
- **5 hours @ 250 watts load**, or  
10 hours @ 125 watts load with  
**the OutdoorUPS-8086**
- Nominal 24 volts dc output  
(with range of 20 –28 vdc)  
from 88–264 vac input  
without going to batteries
- Weather protected  
IP44/NEMA-3R, UL50  
painted metal cabinet
- Optional pole, wall or floor  
mounting brackets available.  
Must be specified/ordered at  
time of purchase order.
- OEM 'hotel' space is available,  
please call to discuss your  
requirements.



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ac input is via a  
12 mm (1/2") diameter  
liquid-tight cable gland,  
and dc output is via a  
12 mm (1/2") diameter  
liquid-tight cable gland

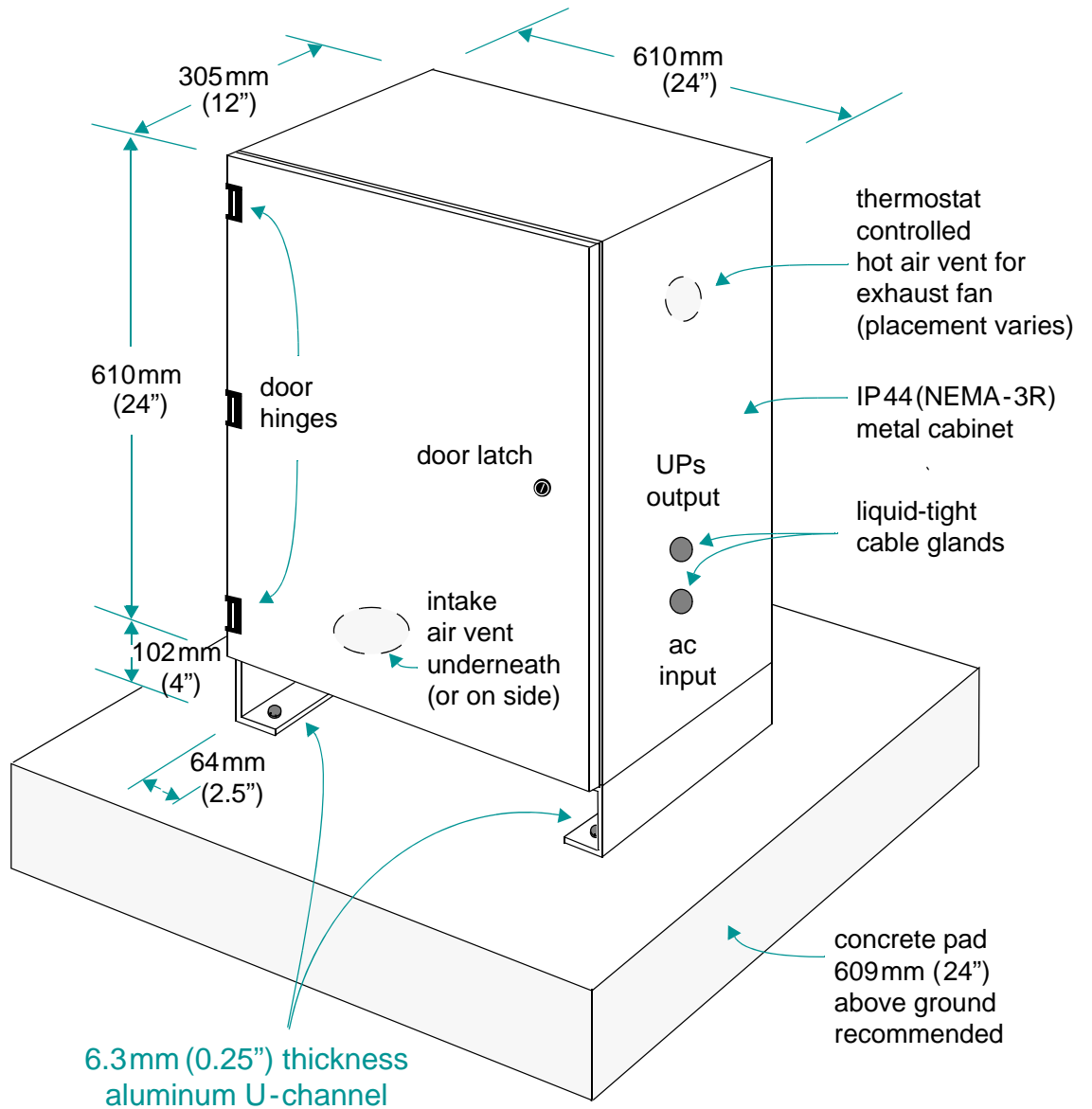
# Outdoor UPs



## 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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