



Dc output | Wide temperature batteries | Wide ac input voltage window

### Outdoor Dc UPS model

#### 8009B

100 watts  
input: 115 vac  
output: 24 vdc  
70 mins@100W  
2.5 hrs @ 50W  
-15° to +50°C;  
-40° to +50°C  
with optional  
battery heater

#### 8009D

150 watts  
input: 115 vac  
output: 24 vdc  
30 mins@150W  
1.4 hrs @ 75W  
-15° to +50°C;  
-40° to +50°C  
with optional  
battery heater

## Outdoor dc output UPS with wide temperature batteries

The TSi Power Outdoor-Dc-UPS-8009B/8009D with dc output are for dc powered applications needing backup power in extreme weather conditions. The 8009 incorporates wide temperature AGM batteries and is housed in a weather protected NEMA-3R enclosure. It provides a wide input voltage range (100–140 vac), heavy duty surge protection and noise filtering.

### Key Outdoor Dc UPS benefits

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

Outdoor Dc UPS extreme/wide temperature batteries allow operation of the UPS system over an ambient temperature range of -15° to +50°C (5° to +122°F); -40° to +50°C (-40° to +122°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 Outdoor-Dc-UPS-8009B are approximately 70 minutes at 100 watts load, and 2.5 hours at a 50 watts load. Backup time for the Outdoor-Dc-UPS-8009D, approximately 30 minutes at 150 watts load, and 1.4 hours with a 75 watts load.

### How the Outdoor Dc UPS works

The outdoor UPS with dc output provides extended battery backup through a system which takes nominal 115 vac input (from 100–140 vac), converts it to dc, charges the batteries, and delivers a nominal 24 vdc (20–28 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.



### Typical Dc UPS 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, Manufacturer's warranty on batteries



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# Outdoor UPS



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

Specification	Outdoor-Dc-UPSs-8009B	Outdoor-Dc-UPSs-8009D
<b>Electrical</b>		
Capacity in watts	100 watts	150 watts
UPS topology	Ac-dc rectifier, battery charger and sealed lead-acid batteries	
<b>Input</b>		
Nominal voltage	115 volts ac	
Operating voltage	100–140 vac without using batteries	
Input current	2.5 A maximum @ 115V	3 A maximum @ 115 vac
Operating frequency	60Hz (57–63Hz)	
<b>Output</b>		
Nominal voltage	24 volts dc	
Operating voltage	20–28 volts dc (depending on battery charge status)	
Output current	4.17 A maximum @ 24 vdc	6.25 A maximum @ 24 vdc
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	70 minutes @ 100 wattload, 2.5 hours @ 50 watts load.	30 mins @ 150 watts load, 1.4 hours @ 75 watts load.
Recharge time	4 hours to 90% capacity after full discharge.	4 hours to 90% capacity after full discharge.
Batteries	14 ampere hours, 24 vdc, 2 x 12 vdc, 7 Ah batteries connected in series, (24 vdc, 7 Ah) wide temperature sealed lead-acid battery -15° to +50°C (5° to +122°F); -40° to +50°C (-40° to +122°F) w/ 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 12 mm (1/2") diameter knockouts.	
Dc connections	2 position terminal block provided for dc output wires connection via 12 mm (1/2") diameter knockouts.	
<b>Physical</b>		
Dimensions	12.5" wide x 12" high x 6.47" deep (317.5mmW x 305mmH x 164.3mmD)	
Weight	28 lbs (12.7 kg)	30 lbs (13.6 kg)
Steel cabinet	Full weather NEMA-3R, UL50 outdoor padlockable enclosure.	
Mounting options	Pole mountable to monopole via optional 'H' style bracket (mounting bands not included). Wall mountable via enclosure's mounting holes.	
<b>Safety</b>		
cETLus Intertek mark	cETLus Intertek listed to: (ANSI/UL 60950-1 CAN/CSA C22.2: No. 60950-1-07 Clause; ANSI/UL 1778 CAN/CSA C22.2: No. 107.3-05 Clause; ANSI/UL 50E CAN/CSA C22.2: No. 94-2-07 Clause)	
<b>Environmental</b>		
Operating temperature, battery heater option	-15° to +50°C (5° to +122°F) ambient air temperature. -40° to +50°C (-40° to +122°F) with optional battery heater.	
<b>Warranty</b>		
Warranty	Two year limited warranty, parts and labor. Manufacturer's battery warranty.	

TSi's ongoing product improvement process makes specifications subject to change. Other companies product names herein are for identification purposes only, and may be trademarks of their respective companies.



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Outdoor  
UPS



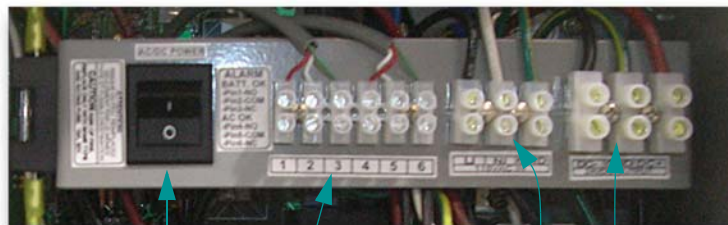
optional bandable or  
boltable monopole  
mounting brackets



## Outdoor-UPS-8009B/8009D 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 lead-acid batteries:  
-15° to +50°C (5° to +122°F); or  
-40° to +50°C (-40° to +122°F)  
with optional thermostat  
controlled battery heater
- **70 minutes @ 100 watts load**, or  
2.5 hours @ 50 watts load with  
**the Outdoor-Dc-UPS-8009B**
- **30 minutes @ 150 watts load**, or  
1.4 hours @ 75 watts load with  
**the Outdoor-Dc-UPS-8009D**
- Nominal 24 volts dc  
(20–28 vdc) output  
from 100–140 vac input  
without going to batteries
- 24 vdc battery bus
- Low dc output ripple
- Weather protected  
IP44 (NEMA-3R)  
painted metal cabinet
- Optional pole, wall or floor  
mounting brackets available.  
Must be specified/ordered at  
time of purchase order.



on/off  
switch

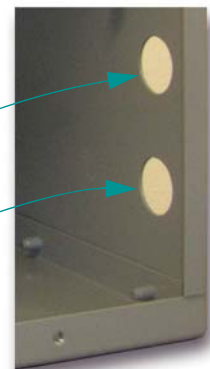
alarm  
signals

terminal block  
connectors

swivel out flange for attaching  
a seal or padlock once lid is  
closed



ac inputs / outputs are  
via 12 mm (1/2")  
diameter knockouts



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