



Outdoor UPS model

8009

60 watts
input can be
115 or 230 vac
output is
12 vdc
1.3 hrs @ 60W
2.5 hrs @ 36W
-20° to +60°C;
-40° to +60°C
with optional
battery heater

8010

60 watts
input can be
115 or 230 vac
output is
12 vdc
5 hours @ 60W
8 hours @ 36W
-20° to +60°C;
-40° to +60°C
with optional
battery heater

Outdoor dc output UPS with wide temperature batteries

The TSi Power Outdoor-UPS-8009/8010 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 12 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 Outdoor-UPS-8009 are approximately 1.3 hours at 60 watts load, and 2.5 hours at a 36 watts load. For the Outdoor-UPS-8010, approximately 5 hours at 60 watts load, and 8 hours with a 36 watts load.

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 12 vdc (10–14 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.



Note: shown with optional liquid-tight cable glands

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, Manufacturer's warranty on batteries



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
Copyright © 2010 TSi

Outdoor UPS



Note: shown with optional liquid-tight cable glands

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

| Specification | Outdoor-UPS-8009 | Outdoor-UPS - 8010 |
|--|--|--|
| Electrical | | |
| Capacity in watts | 60 watts | |
| UPS topology | Ac-dc rectifier, battery charger and sealed gel-cell batteries | |
| Input | | |
| Nominal voltage | 115 or 230 volts ac | |
| Operating voltage | 88–264 vac without using batteries | |
| Input current | 1 A maximum @ 115 vac, or 0.5A maximum @ 230 vac | |
| Operating frequency | 50 or 60Hz (47–63Hz) | |
| Output | | |
| Nominal voltage | 12 volts dc | |
| Operating voltage | 10–14 volts dc (depending on battery charge status) | |
| Output current | 5 amperes maximum @ 12 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 | 1.3 hours @ 60 watts (5A) load, 2.5 hours @ 36 watts (2.5A) load. | 5 hours @ 60 watts (5A) load, 8 hours @ 36 watts (2.5A) load. |
| Recharge time | 4 hours to 90% capacity after full discharge. | 16 hours to 90% capacity after full discharge. |
| Batteries | 10 ampere hours, 12vdc | 30 ampere hours, 12vdc |
| | 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 ² (18AWG), L1, L2 and Ground connections via 12mm (1/2") diameter knockouts. | |
| Dc connections | 2 position terminal block provided for dc output wires connection via 12mm (1/2") diameter knockouts. | |
| Physical | | |
| Dimensions | 406mmW x 406mmH x 254mmD (16" wide x 16" high x 10" deep) | |
| Weights | 16kg (32 lbs) | 23kg (47 lbs) |
| Steel cabinet | Full weather IP44 (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. Also, optional pedestal (ground) brackets are available. | |
| 'Hotel' space for OEM option | Approximately 406mm (16") wide x 76mm (3") high x 254mm (10") deep, (if more space is needed, unit can be built with a larger enclosure). | |
| 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. | |
| Warranty | | |
| 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.



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
Copyright © 2010 TSi



Note: shown with optional liquid-tight cable glands

Outdoor
UPS



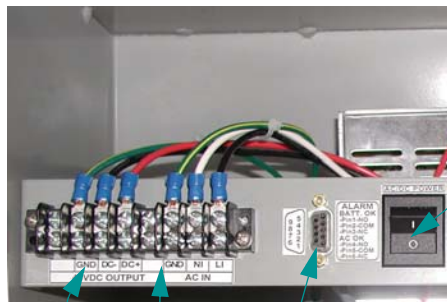
optional bandable or bolttable monopole mounting brackets



Outdoor-UPS-8009/8010 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
- 12 vdc battery bus
- **1.3 hours @ 60 watts load**, or
2.5 hours @ 36 watts load with
the Outdoor-UPS-8009
- **5 hours @ 60 watts load**, or
8 hours @ 36 watts load with
the Outdoor-UPS-8010
- Nominal 12 volts dc (10–14vdc) output from 88–264 vac input without going to batteries
- 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.
- Larger OEM 'hotel' space is available, please call if more space is necessary.



terminal block connectors

DB9 alarm signals

on/off switch
*note: panel placement may vary

ac inputs / outputs are via 12 mm (1/2") diameter knockouts, (shown are optional liquid-tight cable glands and an optional third hole for OEM use)

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



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
Copyright © 2010 TSi

This page intentionally left blank.

