

Outdoor UPS

Outdoor UPS model

8145

96 watts input can be
115 or 230 vac output is
12 vdc
0.5 hour @ 96W
2 hours @ 24W
-40° to +70°C

8146

96 watts input can be
115 or 230 vac output is
12 vdc
1 hour @ 96W
4 hours @ 24W
-40° to +70°C

Dc output | lithium-ion wide temp. batteries | wide ac input voltage window

Outdoor dc output UPS with wide temperature lithium-ion batteries

The TSi Power Outdoor-UPS-8145/8146 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 IP66 (NEMA 4) enclosure. These offer a wide input voltage window (88–265 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 -40° to +70°C (-40° to +158°F).

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-8145 are approximately 0.5 hour at 96 watts load, and 2 hours at a 24 watts load. For the Outdoor-UPS-8146, approximately 1 hour at 96 watts load, and 4 hours with a 24 watts load.

Sealed water-tight enclosure enables coastal and ship deck installations and protects internal parts from all types of weather conditions.

How this 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 88–265 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.



Sample photo only, enclosure size may vary per custom application

Typical applications

These heavy duty outdoor UPS systems are designed to protect and provide battery backup for mission-critical outdoor communication, security, surveillance camera (CCTV) equipment, LED traffic light/roadway display systems and industrial remote terminal units (RTUs) in harsh environments.

Key Outdoor UPS features

- Wall mountable cabinet can be pole mounted with optional bracket
- Full weather outdoor protection IP66 (NEMA 4) metal cabinet
- Dc output with low ripple
- High performance lithium-ion extreme wide temperature batteries
- Heavy-duty three stage 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 lithium-ion batteries

Specification	OutdoorUPS-8145	OutdoorUPS-8146
Electrical		
Capacity in watts	96 watts	
UPS topology	Ac to dc rectifier, battery charger and lithium-ion batteries	
Input		
Nominal voltage	115 or 230 volts ac	
Operating voltage	88–265 vac without using batteries	
Input current	2 amperes maximum @ 88 vac, or 1 ampere maximum @ 230 vac	
Ac surge protection	Heavy-duty three stage surge protection.	
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	8 amperes maximum @ 12vdc	
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	4 hours @ 12 watts (1A) load, 2 hours @ 24 watts (2A) load, 0.5 hour @ 96 watts (8A) load.	8 hours @ 12 watts (1A) load, 4 hours @ 24 watts (2A) load, 1 hour @ 96 watts (8A) load.
Recharge time and battery charger	3 hours. 13.5 vdc, 2 amperes lithium-ion battery charger.	6 hours. 13.5 vdc, 2 amperes lithium-ion battery charger.
Battery protection	When battery voltage drops below 10 volts, system will shutdown automatically in order to protect batteries from complete discharge.	
Batteries	4.6 amperes hours, 12 vdc	9.2 amperes hours, 12 vdc
Ac connections	Wide temperature lithium-ion batteries, -40° to +70°C (-40° to +158°F), Lifetime expectancy: 10+ years at average 30°C (86°F) temperature.	
Dc connections	3 position terminal block provided for 3 x 1 mm ² (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.	
Physical		
Dimensions	305mm (12") wide x 406mm (16") high x 153mm (6") deep	
Weights	9kg (20 lbs)	11 kg (25 lbs)
Steel cabinet	Water-tight, sealed IP66 (NEMA 4) lockable metal cabinet, painted light gray, protects internal parts from weather conditions.	
Mounting options	Wall mountable via enclosure's included four wall mounting feet. Also, optional pole mountable brackets are available.	
'Hotel' space for OEM option	Approximately 305mm (12") wide x 76mm (3") high x 153mm (6") deep, (if more space is needed, unit can be built with a larger enclosure).	
Environmental		
Operating temperature	-40° to +70°C (-40° to +158°F) ambient air temperature.	
Warranty		
Warranty	2 year limited warranty parts & labor; manufacturer's battery warranty.	



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Sample photo only, enclosure size may vary per custom application

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optional bandable or boltable monopole mounting brackets



OutdoorUPS-8145/8146 at a glance

Heavy-duty outdoor UPS with dc output, wide ac input voltage window, and wide temperature lithium-ion batteries

- Wide ambient temperature range lithium-ion batteries: -40° to +70°C (-40° to +158°F)
- Low dc output ripple
- 12 vdc battery bus
- **0.5 hour @ 96 watts load, or 2 hours @ 24 watts load, or 4 hours @ 12 watts load with the OutdoorUPS-8145**
- **1 hour @ 96 watts load, or 4 hours @ 24 watts load, or 8 hours @ 12 watts load with the OutdoorUPS-8146**
- Nominal 12 volts dc (10–14 dc) output from 88–265 vac input without going to batteries
- Weather protected IP66/NEMA 4 painted metal cabinet
- Optional pole mounting brackets available. Must be specified and ordered at time of purchase order.
- Please call if more OEM 'hotel' space is necessary.

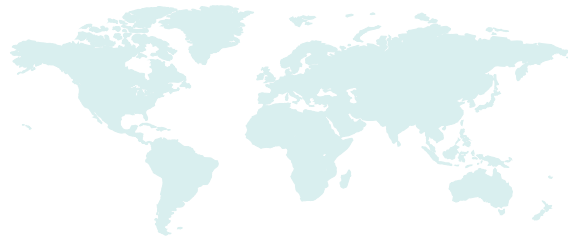


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ac input is via a 12 mm (1/2") diameter liquid-tight cable gland, and dc output is via a 12 mm (1/2") diameter liquid-tight cable gland

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