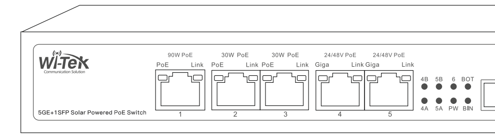
Quick Installation Guide

Solar Powered PoE Switch



WI-PS306GF-UPS Hardware version: V4
WI-PS306GF-UPS-15A Hardware version: V2

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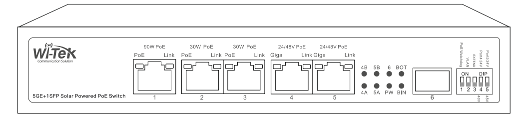
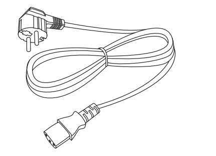
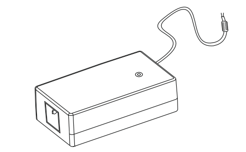
1. Packing Content



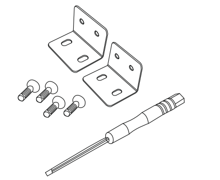
1 x Solar Powered PoE Switch



1 x Power Adapter
(Only for WI-PS306GF-UPS V4)



1 x 24V@5A Power Adapter
(Only for WI-PS306GF-UPS V4)



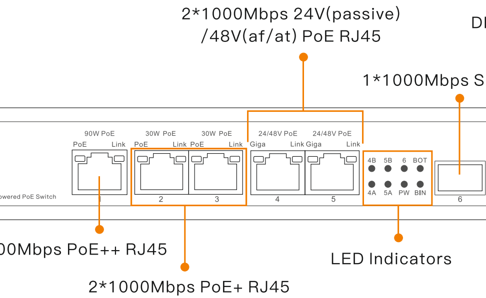
1 x Mounting Accessories
(L-shape bracket, Screw, Screwdriver)

1 x Quick Installation Guide

2. Appearance

WI-PS306GF-UPS-15A | WI-PS306GF-UPS

• Front Panel



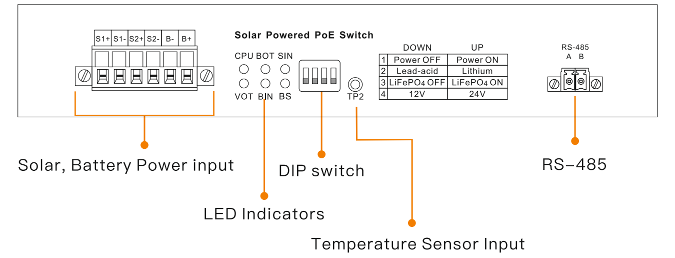
DIP Switch	Status	Description
Switch1: PoE Watchdog	Up	All PoE ports enable PoE watchdog function, which can detect and reboot the offline compliant PoE powered devices automatically.
	Down	Turn off PoE watchdog function
Switch2: VLAN	Up	All downlink ports are isolated from each other, but can communicate with uplink ports.
	Down	Turn off VLAN function and all the ports can communicate with each other.
Switch 3: EXTEND	Up	The data and PoE power's transmission distance of port 1~5 can be up to 250m.
	Down	The data and PoE power's transmission distance of port 1~5 can be up to 100m.
Switch4: Port 4 24V/48V PoE Mode	Up	The port 4 works in 24V passive PoE mode.
	Down	The port 4 works in IEEE 802.3af/at PoE mode.
Switch5: Port 5 24V/48V PoE Mode	Up	The port 5 works in 24V passive PoE mode.
	Down	The port 5 works in IEEE 802.3af/at PoE mode.

• LED indicator

LED Indicator	LED Name	Color	Status	Description
PoE	Port PoE indicator	Orange	Steady on	The port is providing power.
			Off	The port is not providing power.
Link	Port PoE indicator	Green	Steady on	A link has been established on the interface.
			Blinking	Data is being transmitted or received on the interface.
			Off	No link is established on the interface.
4A/5A	Port PoE indicator	Green	Steady on	The port 4/5 is providing power in IEEE 802.3af/at PoE mode.
4B/5B		Green	Steady on	The port 4/5 is providing power in 24V passive PoE mode.
6	SFP indicator	Green	Steady on	A link has been established on the SFP interface.
			On	No link is established on the SFP interface.
PW	Power indicator	Green	Steady on	The system power supply is normal.
			Blinking	The system power supply is normal and the PoE watchdog function is enable.
			Off	The system power supply is abnormal.
BOT	Battery discharging status indicator	Green	Steady on	The battery is discharging and battery capacity is >15%.
			Blinking	The battery capacity is <15%.
			Off	The battery is end of discharge or no discharge.
BIN	Battery charging status indicator	Green	Steady on	The battery is charging and battery capacity is <98%.
			Blinking	The battery is charging and battery capacity is ⩾98%.
			Off	The battery is full capacity or not charge.

WI-PS306GF-UPS-15A (Hardware version V2)

• Rear Panel



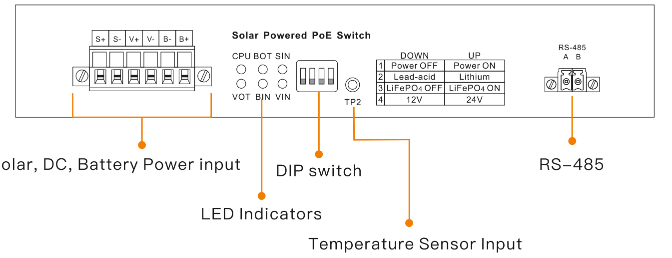
Power Input	Description
S1+, S1–	Solar power input.
S2+, S2–	Another solar panel in parallel with the solar panel of S1+&S1– socket to obtain greater current input.
B+, B–	Battery power input.

*Note: Solar and DC power can't be connected at the same time to avoid damage to the device.

DIP Switch	Status	Description	
Switch 1: Power	Up	Power on the device.	
	Down	Turn off the device.	
Switch 2, 3, 4: Battery type option			
Switch 2	**Switch 3**	**Switch 4**	**Battery type**
Down	Down	Down	12V lead acid battery
Down	Down	Up	24V lead acid battery
Up	Down	Down	11.1V (9V~12.6V) lithium battery
Up	Down	Up	22.2V (18V~25.2V) lithium battery
/	Up	Down	12.8V (10V~14.6V) LiFePO4 battery
/	Up	Up	25.6V (20V~29.2V) LiFePO4 battery

WI-PS306GF-UPS (Hardware version V4)

• Rear Panel



Power Input	Description
S+, S1–	Solar power input.
V+, V–	Recommend 18/24V DC@12V battery, 240W input max., 36/48V DC@24V battery, 480W input max.
B+, B–	Battery power input.

DIP Switch	Status	Description	
Switch 1: Power	Up	Power on the device.	
	Down	Turn off the device.	
Switch 2, 3, 4: Battery type option			
Switch 2	**Switch 3**	**Switch 4**	**Battery type**
Down	Down	Down	12V lead acid battery
Down	Down	Up	24V lead acid battery
Up	Down	Down	11.1V (9V~12.6V) lithium battery
Up	Down	Up	22.2V (18V~25.2V) lithium battery
/	Up	Down	12.8V (10V~14.6V) LiFePO4 battery
/	Up	Up	25.6V (20V~29.2V) LiFePO4 battery

• LED indicator

LED Indicator	LED Name	Color	Status	Description
CPU	System indicator	Green	Steady on	An error has occurred that affects the system.
			1/2s Blinking	The system is running properly.
			1/4s Blinking	Failed to identify the battery.
			Off	The system software is not running.
VOT	Power output indicator	Green	Steady on	The MPPT module is providing power properly.
			Off	The MPPT module is providing power abnormally.
BOT	Battery discharging status indicator	Green	Steady	The battery is discharging and battery capacity is >15%.
			Blinking	The battery capacity is <15%.
			Off	The battery is end of discharge or not discharge.
BIN	Battery charging status indicator	Green	Steady on	The battery is charging and battery capacity is <98%.
			Blinking	The battery is charging and battery capacity is ⩾98%.
			Off	The battery is full capacity or not charge.
SIN	Power input indicator	Green	Steady on	The solar power input is normal.
			1/2s Blinking	The solar power input is in delayed charging, the time is 10 minutes.
			1/4s Blinking	The solar power input is abnormal.
			Off	There is no solar power input.
BS (Only for WI-PS306 GF-UPS-15A V2)	Battery status indicator	Green	Steady on	The battery capacity is >95%.
			Blinking	The battery capacity is >75% and <95%.
			Off	The battery capacity is <75%.
VIN (Only for WI-PS306 GF-UPS V4)	DC input indicator	Green	Steady on	The DC power input is normal.
			Off	There is no DC power input.

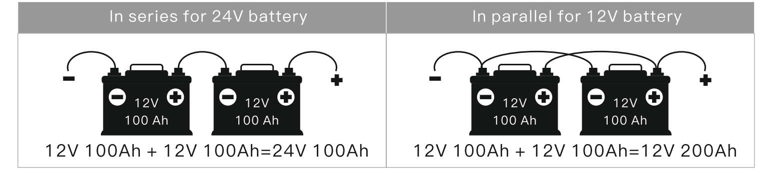
3.Hardware Installation

Step 1: How to get 12V or 24V battery?

Battery Type	Battery Nominal Voltage	Battery Working Voltage	Battery Max Charge Current
Lead-acid	12V	/	WI-PS306GF-UPS-15A V2:15A WI-PS306GF-UPS V4: 10A
	24V		
Lithium	11.1V	9~12.6V	
	22.2V	18~25.2V	
LiFePO4	12.8V	10~14.6V	
	25.6V	20~29.2V	

In series for 24V battery

In parallel for 12V battery

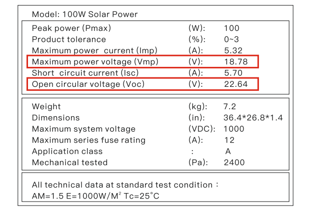


12V 100Ah + 12V 100Ah=24V 100Ah

12V 100Ah + 12V 100Ah=12V 200Ah

Step 2: How to select a suitable solar panel?

WI-PS306GF-UPS-15A/ WI-PS306GF-UPS		
12V Solar Panel	Maximum Power voltage(Vmp)	18-26V
	Open circuit voltage(Voc)	<32V
24V Solar Panel	Maximum Power voltage(Vmp)	30-52V
	Open circuit voltage(Voc)	<57V



Model: 100W Solar Power

Peak power (Pmax)	(W):	100
Product tolerance	(%):	0~3
Maximum power current (Imp)	(A):	5.32
Maximum power voltage (Vmp)	(V):	18.78
Short circuit current (Isc)	(A):	5.70
Open circular voltage (Voc)	(V):	22.64
Weight	(kg):	7.2
Dimensions	(in):	36.4*26.8*1.4
Maximum system voltage	(VDC):	1000
Maximum series fuse rating	(A):	12
Application class	:	A
Mechanical tested	(Pa):	2400

All technical data at standard test condition:
AM=1.5 E=1000W/M² Tc=25°C

Step 3: Calculate battery capacity and solar panel power

Recommended tools for reference:
UPS Wizard in Wi-Tek Cloud APP
Photovoltaic performance in **PVGIS** provided by the European Commission

Example: There is **20W load** in the solar system
If the system should continue working **1night and 2 days in the cloudy & raining days**, and **discharge capacity is 80%**(means remain 20% capacity after 2 days), the battery capacity is about

20W * (0.6+2) days * 24hours * 1.2(system loss coefficient) / 80% (remain 20% capacity) =1,872 Wh = 24V@78Ah battery

If the battery should be **charge full from empty in 3 sunny days**, the solar panel is about

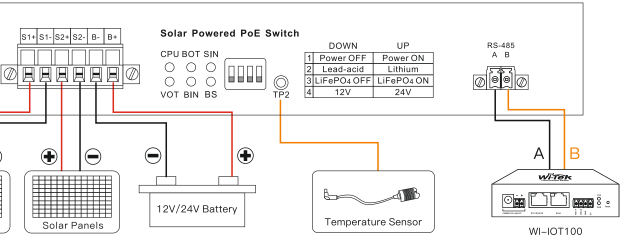
**20W * 24hours * 2.5days + 1872 Wh / [(3 days * 2.8(solar panel efficient in days) * 95%(conversion efficiency) *95%(system loss)]
= 405W = 38V@10.7A solar panels**

Note: the Charging days need to be planned according to local weather. There is much different at system loss coefficient due to battery type, temperature, quality, cycles and so on, and there is much different at solar panel efficiency due to weather, latitude, month, temperature, install slope and azimuth, system loss, cleanliness, quality, degree of aging and so on.

Get some reference, you can visit recommend tools or contact with us for enhanced support.

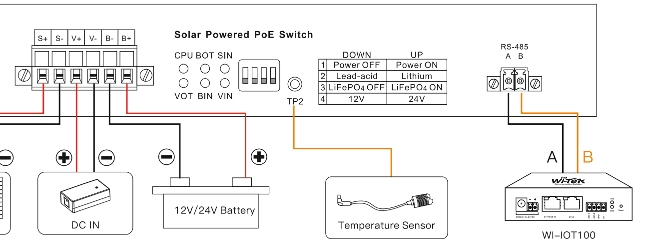
Step 4

A: Power off the WI-PS306GF-UPS-15A V2, connect the solar panel, battery and temperature sensor(not included).



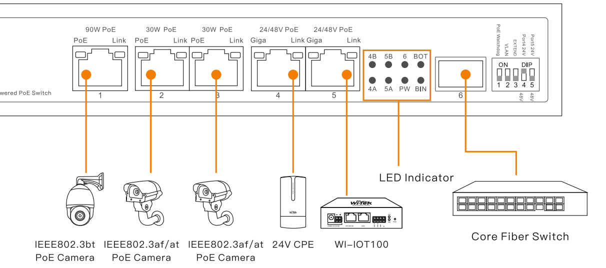
Power Priority: Solar Panel> Battery.

B: Power off the WI-PS306GF-UPS V4, connect the solar panel, battery and temperature sensor(not included).



Power Priority: The input priority is determined based on the voltage, and the input with the highest voltage is preferred for the power supply.

Step 5: Connect the 24V passive or 802.3af/at PoE Powered Devices.



Warranty Card

Username	
Address	
Telephone No.	
Purchase Shop	
Purchase Address	
Product Model No.	
Purchase Time	
Serial No.	
Dealer Signature	

- If the product defects within the warranty period, we will provide professional maintenance service.
- Proof of purchase and a complete product serial number are required to receive any services guaranteed as part of the limited warranty.
- Any other defects that are not caused by workmanship or product quality, such as natural disasters, water damage, extreme thermal or environmental conditions, sticker damaged, warranty card loss will disqualify the product from limited warranty.

Technical Support
Company Website
Cloud Management

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