Datasheet

Solar Powered PoE Injector

WI-PS402-UPS-I

Overview

Wi-Tek Solar Powered PoE Injector is designed for CCTV surveillance and wireless network. Based on its green energy, it can be charged by the inexhaustible and natural source of energy – solar power. It can conserve green energy economically and power the remote IP cameras and wireless AP, especially used for expansive applications such as dams, forests, deserts, national parks, and highways.

Features

Built-in MPPT (Maximum Power Point Tracking) Controller

The MPPT (Maximum Power Point Tracker) controller can detect the voltage of the solar panel in real-time, track the highest power, and convert the high voltage DC output of the solar panel to the low voltage required for effective charging so that the system can charge the battery at the maximum power. It is the brain of the photovoltaic system that coordinates with solar panels, batteries, and loads in the solar photovoltaic system.

Zero-carbon, Green, and Stable Power Supply

During the day, solar energy can power the communication system and charge the battery. At night, the battery uses the excess electricity generated by solar energy during the day to power the communication system, which builds a zero-carbon, green, and stable communication system without any external energy.

Easy, Intelligent Photovoltaic Power and Battery Status Monitoring

The dashboard in the Wi-Tek cloud makes it easy to monitor real-time solar power and battery status, receive battery capacity and charge status alarms, and track power generation, power consumption, and battery data.

Wi-Tek Cloud Management

The photovoltaic power, battery status, and data can be quickly configured, visual management, and remote access in the Wi-Tek Cloud through the Cloud IoT Controller, which is easy to operate and maintain.

Specifications

Products	WI-PS402-UPS-I
Hardware Version	V1
Hardware Features	
Interface	2*10/100/1000/2500Mbps PoE++ RJ45 port
Peripheral Interface	1*2-PIN 3.81mm RS-485 (Data A, B) terminal blocks 1*2-PIN 3.81mm 12V/24V DC output@30W max. terminal blocks 1*4-PIN 3.81mm terminal blocks: 1*2-PIN DI (Dry Contact, Passive open/closed circuit detection), 1*2-PIN DO (Relay, Load capability: 5A@12V DC for motor load, 10A@12V DC for resistive load), DI and DO are allowed to view status and settings in the Wi-Tek cloud. *Do not connect active devices to DI(Dry)! 1*3.5mm temperature sensor input jack plug
Power Input Port	8-PIN 5.08mm terminal blocks: 2*2-PIN Solar input in parallel 1*2-PIN DC Input 1*2-PIN Battery charging & discharging Max. wire diameter: 2.5mm^2/12AWG
LED Indicator	1*CPU, System indicator 1*VOT, Power output indicator 1*BIN, Battery charging status indicator 1*BOT, Battery discharging status indicator 1*SIN, Power input indicator 1*VIN, DC input indicator 1*12V/24V DC out status indicator 1*Relay status indicator 1*DI status indicator
DIP Switch	Front panel: 12V/24V DC Output Selection
	Side panel: Switch the power on and off. 12V/24V lead acid, 11.1V (Working voltage: 9~12.6V)/22.2V (Working voltage: 18~25.2V) lithium, 12.8V (Working voltage: 10~14.6V)/25.6V (Working voltage: 20~29.2V) LiFePO4 battery type selection.
Power Consumption	<5W (Without PoE and DC output)
Dimensions(W*D*H)	158*115*44mm
Weight	0.88kg
Package Dimensions	235*155*58mm
Package Weight	1.05kg
Installation	DIN-rail/Wall/Desktop mounted
Fan Quantity	Fan-less
Material	Metal shell
Color	Silver

Products	WI-PS402-UPS-I
Hardware Version	V1
PoE	
PoE Port	Port 1-2
PoE Standard	12V Battery System: Port 1: IEEE 802.3bt (Type 4), Port 2: IEEE 802.3af/at 24V Battery System: Port 1-2: IEEE 802.3bt (Type 4)
PoE Pin Assignment	1/2/4/5 (+), 3/6/7/8 (-)
PoE Port Power	12V Battery System: 90W max for port 1, 30W max for port 2 24V Battery System: 90W max for each port
PoE Power Budget	12V Battery System: 120W max for whole switch PoE power budget (Without DC output) 24V Battery System: 180W max for whole switch PoE power budget (Without DC output)
Reliability	
Surge Immunity	6kV
Operating Environment	-40°C to 75°C, 5%~90% (non-condensation)
Storage Environment	-40°C to 85°C, 5%~90% (non-condensation)
Other Features	
Cloud Management	The photovoltaic power, battery status, and data can be quickly configured, and visual management and remote access can be achieved in the Wi-Tek cloud through Cloud IoT Controller (Solar mode of the serial port).

MPPT Specifications

Products	WI-PS402-UPS-I					
Software Version	V1.40 and later					
Battery Controller						
Battery Type	Lead acid		Lithium		LiFePO4	
Battery Nominal Voltage	12V	24V	11.1V	22.2V	12.8V	25.6V
Battery Working Voltage	–		9~12.6V	18~25.2V	10~14.6V	20~29.2V
Battery Capacity	<500Ah					
Charging Mode	MPPT					
Consumable Supplement	Support					
Consumable Detection Voltage	<12.6V	<24.8V	<12.2V	<24.4V	<14.2V	<28.8V
Max. Charging Voltage	14.7V	29.6V	12.6V	25.2V	14.6V	29.2V
Rated Charging Current	15A max.					
Float Voltage	13.7V	27.4V	–			
Float Current	50mA-1000mA		–			
Float Time	3hours		–			
Discharge Cut-off Voltage	10.2V	20.4V	9V	18V	10V	20V
Battery Unidentified Voltage	<8.5V	<16V	<8.5V	<16V	<8.5V	<17V
User-defined Battery	The user-defined battery is supported through a Cloud IoT Controller in the Wi-Tek cloud, setting the charge voltage, floating charge voltage, discharge cut-off voltage, and charge current.					
Power input						
Recommend Photovoltaic Peak Power Input (Pmax)	<440W	<880W	<380W	<720W	<440W	<880W
Recommend Photovoltaic Open Circuit Voltage (Voc)	<32V	<57V	<32V	<57V	<32V	<57V
Recommend Photovoltaic Max Power Voltage (Vmp)	18~26V	30~52V	18~26V	30~52V	18~26V	30~52V
Wide Voltage Charging	This function can be enabled through a Cloud IoT Controller on the Wi-Tek cloud. After this function is enabled, the solar panels with an operating voltage of 30 to 52V (>36V is recommended) can charge a 12V battery system more efficiently.					
DC Input	Recommend 18/24V DC@240W (without load power) input for 12V battery, 30/36/48V DC@480W (without load power) input for 24V battery (Ensure that the DC power input has overcurrent protection to protect the DC power supply)					
Protection						
Protection	Over-current protection, short-circuit protection, reverse connection protection, PoE overload protection, over-charging protection, over-discharging protection, delay start, switch over-temperature protection, battery over-temperature protection (with temperature sensor)					

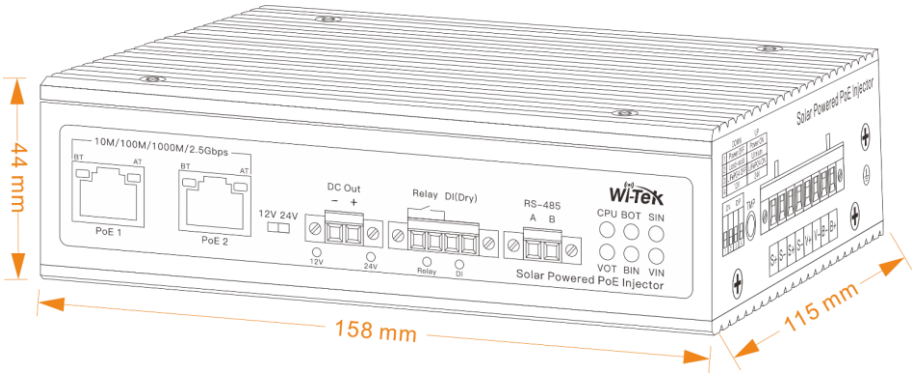
* The solar input cannot supply power to the switch independently without the battery connection.

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

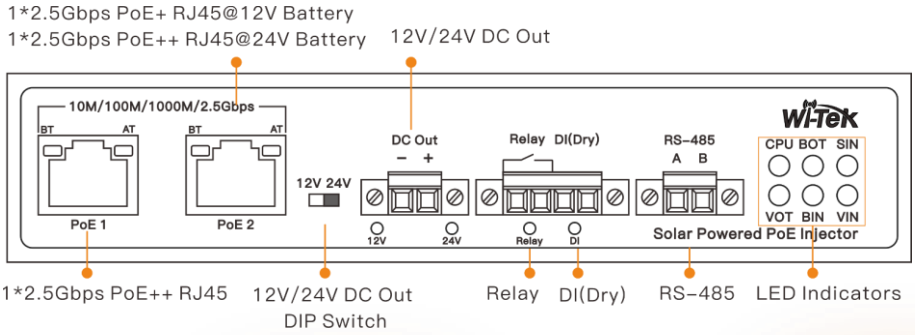
Appearances and Dimensions

WI-PS402-UPS-I

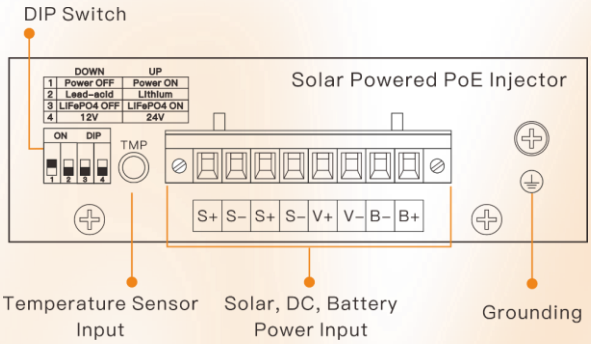
Dimensions



Front Panel



Side Panel



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Package Content

Welcome to order our products. After purchasing, you will receive:

Item	Quantity
Solar Powered PoE Injector	1 pcs
Screwdriver	1 pcs
Quick Installation Guide	1 pcs

Related Products

Item	Description
WI-IOT100	Cloud IoT Controller

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Address: Building 3, Units 1801-1807, 1812, Huaqiang Era Plaza, Tangwei Community, Fuhai Street, Bao'an District, Shenzhen City, Guangdong Province, China.
Website: www.wireless-tek.com
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Technical Support | Cloud Management | Company Website

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