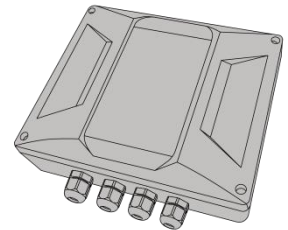


Uninterrupted Power Supply User Manual

Product Description

The plug-and-play uninterrupted power supply efficiently converts 100-240VAC to a stable 24VDC output. It can directly power 24VDC devices such as swing gate openers and other electrical appliances, charge batteries, and regulate solar charging current as a solar controller.

A built-in smart chip provides intelligent protection against overload, overcurrent, short circuit, overheating, overcharging, and overvoltage.



1 SPECIFICATIONS

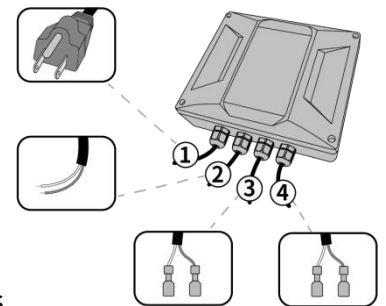
| | |
|---|--|
| AC Input: 100-240V~50/60Hz | Battery Input: 24VDC (2PCS 12VDC batteries connected in series) |
| Solar Input: 30~50VDC (Max. 80W) | Rated Output: 24VDC/220W |
| Rated Load Current: 9A | Dimensions: 205 x 193 x 63 mm (8.1 x 7.6 x 2.5") |
| Protection Class: IP65 | Working Temperature: -20°C ~ +50°C (0°F to 120°F) |

2 WIRING THE POWER SUPPLY

Terminal Overview

The power supply includes four terminals, each with a preinstalled cable:

- ① **AC IN** - 1.5m (5ft.) plug for connection to an AC power source
- ② **SOLAR** - 1m (3.3ft.) cable for solar panel input (battery charging)
- ③ **BAT** - 1m (3.3ft.) cable for external 24V battery connection
- ④ **LOAD** - 1m (3.3ft.) cable supplying 24VDC output to connected devices

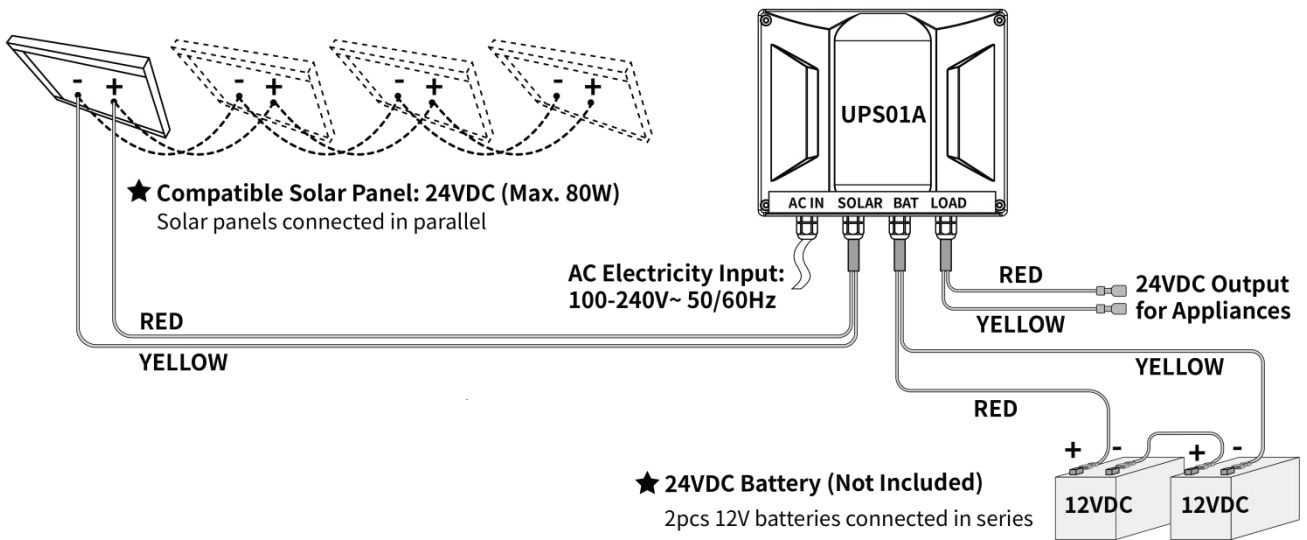


Wiring Process

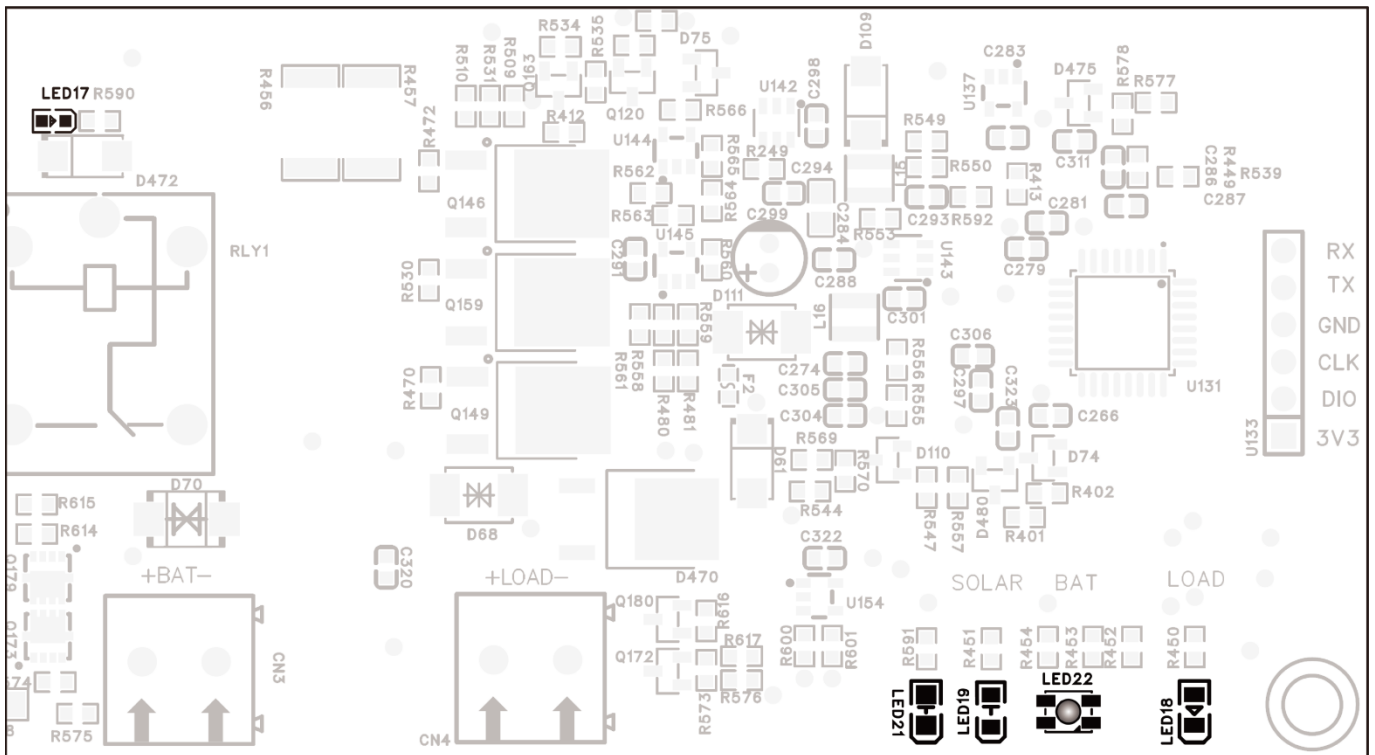
- ◆ Connect the LOAD output of the power supply to the electrical appliance. For TOPENS swing gate openers, connect the output cable to the power input cable of the control box.
- ◆ If using a battery as the main or backup power source, connect it to the BAT terminal.
- ◆ If using a solar panel to charge the battery, connect it to the SOLAR terminal.
- ◆ If AC power is required, plug the AC input cable into a standard AC outlet.

Notes:

- Ensure correct polarity during installation to prevent damage: the red wire is positive (+), and the yellow wire is negative (-).
- The UPS01A supports a wide range of 24VDC battery types, including Lead-Acid, GEL, AGM, and Flooded (Deep Cycle) batteries. Please note that it is not compatible with most lithium-ion batteries, except for LiFePO4 batteries with a built-in Battery Management System (BMS).
- The maximum supported solar panel power is 80W. Exceeding this limit may damage the power supply.



3 POWER SUPPLY CONTROL BOARD INDICATORS



| LED No. | Indicator Type | Indicator Status | Meaning |
|---------|------------------------|------------------|---|
| LED17 | AC Power Indicator | Off | AC power not connected |
| | | On | AC power is connected |
| LED21 | AC Charge Indicator | Off | AC power is not charging the battery |
| | | Flash | AC power is charging the battery |
| | | On | Fully charged |
| LED19 | Solar Charge Indicator | Off | Solar panel not connected or solar panel output voltage is lower than 30V |
| | | Flash | Solar panel is charging the battery |
| | | On | Fully charged |

| LED No. | Indicator Type | Indicator Status | Meaning |
|--|-------------------|---|---|
| LED22 | Battery Indicator | Steady Green | High battery |
| | | Steady Blue | Medium battery |
| | | Steady Red | During discharge, the indicator LED will turn red when the battery voltage falls below 22.8V |
| | | | During charging, the indicator LED will stay red until the battery voltage rises to 23.2V |
| | | Flashing Red | During discharge, the indicator LED will flash red when the battery voltage falls below 17.8V |
| During charging, the indicator LED will flash red when the battery voltage falls below 20.7V | | | |
| | Off | Battery not connected or battery faulty | |
| LED18 | Load Indicator | On | Output normal |
| | | Flash Fast | Over-load |
| | | Off | No output (short-circuit or over-discharge) |

Note: If the load exceeds the power supply's capacity for more than 1 second, the power supply will cut the output and the load indicator LED will flash rapidly 20 times (approximately 8 seconds) then off. The power supply will continue to detect the load current, once the load returns to a safe level, the output will be restored and the LED will light up normally. If a short circuit occurs at the output for more than 10 seconds, please re-power the power supply to ensure normal operation.

Feedback & Review

Your comments and suggestions are important to us
as they help us provide the best possible service.

Should you have any need to contact us, the info below will help you get in touch:



TOPENS Website

www.topens.com

Contact Us:

E-mail: support@topens.com

Kindly include your purchase channel, order #, gate information, issue description and your contact information. All your concerns will be replied within 24 hours.

Tel: +1 (888) 750 9899 (Toll Free USA & Canada)