Solar UPS V3

Solar Uninterruptible Power Supply

SLA, Li, PCB variant

Installation Manual

http://www.solar-ups.eu

You can find there a downloadable datasheets and guides.

Warranty	Stamp
Date:	
Distributor:	
Serial Number:	

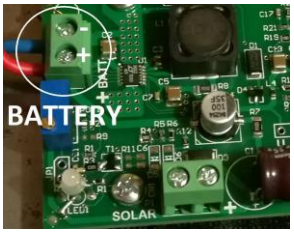
The warranty refers only to undamaged devices operated under the specified conditions of use!

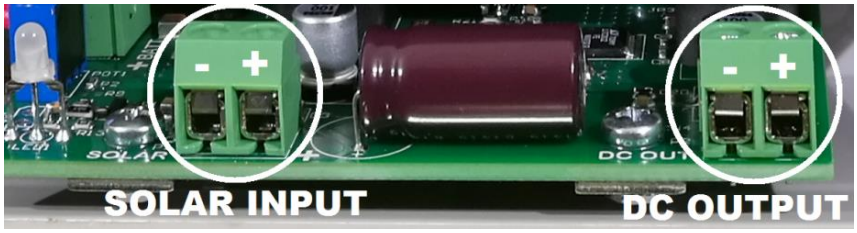
HW: V3R2

2017. december 20.

Connection the solar cell, battery, and the supply unit output

Connection all of the SolarUPS V3 versions is performed as the following figure. LED side of the CN1 connector is the negative connection (GND), and its side facing the centre of the panel is the positive connection (DC IN) of the solar cell. Max. permitted idle voltage of the solar cell is 34V! The max. current at this port is 1.2A. The CN4 connector is the DC supply unit output. Its side facing the centre of the panel is the negative polarity (GND), and the side from the corner of the panel is the positive polarity (DC OUT). Output voltage is 5V / 2.5A or 12V / 2A here, depending on the SolarUPS V3 type. LED side of the CN2 connector is the positive connection of the battery. Max 1.5 mm2 cable cross section can be wired at all connections.





First setting

The process of first setting of SolarUPS V3 devices:

- Unpacking, removal of the box cover in case of types SolarUPS V3 SLA and Li.
- In case of type SLA it must be checked the battery has displaced during delivery, and its fixing is appropriate. In case of displacement it must be checked that no damage to the PCB has occurred, and then it must be fixed permanently.
- Installation of device to the place of use (see mechanical guide on the next page).
- Connection of the solar cell and DC supply cables (through cable gland) as above.
- The JP2 jumper can activate the temperature protection if necessary (jumper closed).
- Connection of the battery: In case of type Li the red wire to CN2 LED side, in case of SLA connection of the battery plug to the battery.
- DC supply output must be checked (by the connected device or with a multimeter), and the cover has to be fixed, taking care to the position of the sealing.

Maintenance

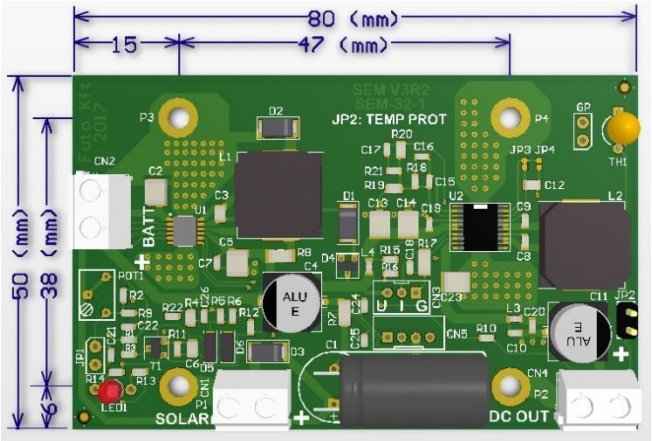
SolarUPS V3 PCB type does not need any maintenance. The battery in V3 SLA needs replacement sometimes, depending on the use. Anybody can do replacement, it is easy. Battery fixing ear is at the right side above the battery. After screwing out and pulling out of the battery plug, the old battery can be carefully removed. The new SLA battery can be placed after connecting the battery plug. They must be fixed! New battery can be purchased from the distributor. Type V3 Li does not need any maintenance; after lifetime of the batteries only full refurbishment - requested from the distributor - may be possible.

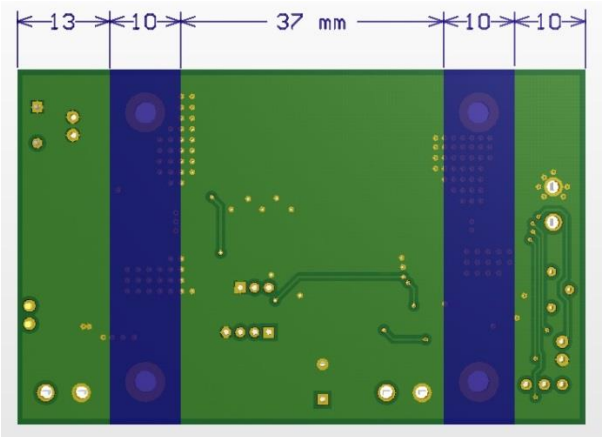
Temporary shutdown device

When SolarUPS V3 is temporarily withdrawn from everyday operation, the connected battery must be disconnected. In case the device is unable to charge the battery for more than 1 week, - because of withdrawal from operation, it is recommended, in case of a period longer than 1 month it is obligatory to disconnect the battery. The red cable must be disconnected from connection CN2 in case of type V3 Li, and it must be carefully insulated. In case of type V3 SLA the battery plug must be pulled out. In this case the batteries endure even for half a year without charging, however after half a year they must be charged by all means, because their operation cannot be guaranteed otherwise. Should movement of SolarUPS V3 SLA devices be required from the place of use, disconnection of the battery plug is necessary before dismounting.

Installation of version SolarUPS V3 PCB

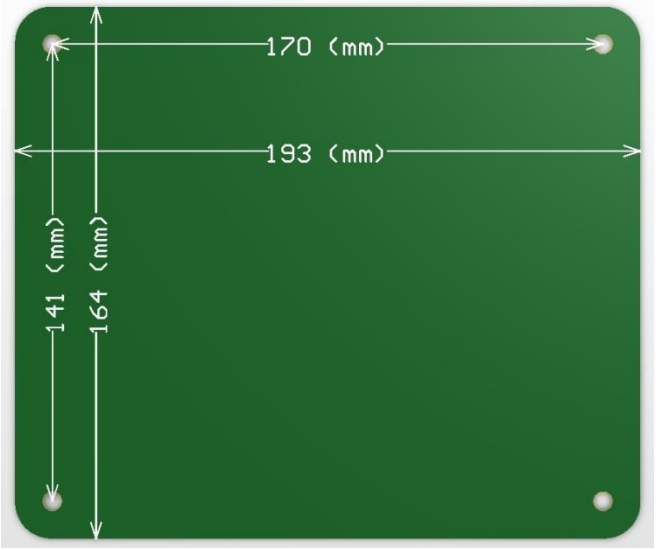
SolarUPS V3 PCB version is a PCB of 80x50mm, with 4 pcs of fixing holes (diameter 3.2 mm). They serve for installation to the place of use, with the M3 screws. The following figures show the dimensions of the PCB and the contact surfaces at the lower side. Metal contact is only possible at these contact surfaces of the lower side, for example mounting sheet, base plate; the spacer may contact the panel only here. Special care should be taken that metal contact would be nowhere else on the panel, neither at the connectors or the legs of the LED. Only SLA 7-12Ah battery can be connected to the CN2 connectors in case of type V3 PCB. The positive wire is at the LED side of this connector.

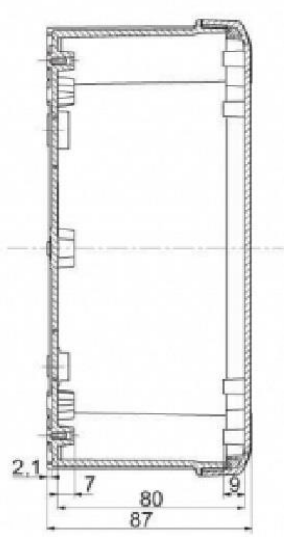




Installation of version SolarUPS V3 SLA

Version SolarUPS V3 SLA is a boxed device, sizes of 192x164x87 mm. It can be mounted to the place of use 4pcs of fixing screws (not included). The weight of the device is 3100 g. Dimensions of the device and the points of mounting holes are indicated on the below figures. The cables of the solar cell and of the DC supply unit connect to the device through cable glands, with cable diameter of 4-6 mm. Protection of the device casing is IP66.





Installation of version SolarUPS V3 Li

Version SolarUPS V3 Li is a boxed device, size of 160x80x85 mm. It can be mounted to the place of use 4pcs of fixing screws (not included). The weight of the device is 1100 g. Dimensions of the device and the points of mounting holes are indicated on the below figures. The cables of the solar cell and of the DC supply unit connect to the device through cable glands, with cable diameter of 4-6 mm. Protection of the device casing is IP65.