

Operating Instructions

Solar Island System 20 Wp with battery



These instructions relate **ONLY** to this product and contain important information for using the product for the first time. Please keep these instructions for later reference and should always accompany the product in the event of transference to a new user.

1. Introduction

Dear Customer, thank you for purchasing the solar pump kit.

With this solar pump kit you purchased a product manufactured according to the current state of technology.



This product fulfills all requirements of the valid European and national regulations. The conformity was proved. The relevant declarations and documentation are deposited with the manufacturer.

To maintain this state and guarantee a safe operation, you as the user will have to follow this operating manual!

2. Safety Instructions



- In case of damages caused by not following this operating manual, the warranty rights will expire! We exclude liability for any consequential damages!
- We exclude liability for property or personal damages caused by inappropriate handling or not following the safety instructions.
- In these cases any guarantee rights will expire.

Due to safety and admission reasons (CE) it is not allowed to arbitrarily reconstruct and/or change the product.

Therefore, please keep to the operating manual.

3. Intended Use, Installation and Connection

- The solar module is designed for the all-season outdoor installation and is intended for the generation of electric current by means of solar energy. It is particularly important that the solar module is installed free from shadow and facing south.
- The charge controller and the solar battery have to be assembled indoors.
- **When setting up the system, please pay attention to the correct polarity!**
- **Follow the markings of plus (+) and minus (-)!**
- In case you should feel overchallenged with the installation this solar system, please consult an authorized specialist!
- It is easy and fast to setup the system and the putting into operation is easy.
- Comprehensive operating instructions are enclosed with the individual components. Please carefully read all the instructions before starting with the installation.

4. Putting into Operation

1. Carefully take all parts out of the packaging.
2. At first, install the charge controller on a non-flammable surface indoors and within reach of the connection cables of the battery and the solar module.

Note: Please carefully read the instructions of the enclosed components before starting with the assembly and the operation of the solar system! They contain important information regarding the assembly and the operation of the solar system!

3. Now install the battery.
4. First, connect the connection cable for the battery with the battery connector of the charge controller. **Pay attention to the correct polarity!** After having tightened the screws, check the cable connector for its firm seating!
5. Now slide the cable lugs onto the terminals of the battery with correct polarity. The LED „BATT“ and possibly „LOAD“ on the charge controller will light up if the connection is correct. For detailed information, please see the instructions of the charge controller.

CAUTION: Danger of burning in case of a short circuit on the battery!

6. Now connect the 5 m connection cable of the solar module with the module connector of the charge controller. **Pay attention to the correct polarity!** After having tightened the screws, check the cable connector for its firm seating! (5 m extension cable connector-ready esotec Art.-No.: 101736, under www.esotec.de)
7. Lead the cable to the solar module on a safe path.
8. Now insert the plug with reverse polarity protection into the socket on the cable of the solar module. In case of correct polarity and sunshine, the LED „SUN“ on the charge controller will be illuminated.

Note: The plug is protected against reverse polarity. Do not apply force when connecting it with the socket!

9. Now set the desired mode on the charge controller. In normal operation, this will be „Mode 16“. Please carefully read all the instructions for use of the charge controller.

10. Now connect the connection cable of the triple socket with the USB-connection with the charge controller's output. **Pay attention to the correct polarity!** After having tightened the screws, check the cable connector for its firm seating!

Attention: Please pay attention to the fact that the triple plug with USB charging connector socket may only be load with a maximum of 2.5 A current. Fire hazard in case of a higher current load! The USB-connection may deliver a maximum of 500 mA current for the charging or similar!

It is possible to connect additional 12 VDC consumers (e.g. LED lamps) on the load output. Please note that this will lead to a reduction of the supply time of the devices.

The system is too small for the connection of an inverter and it may not be realized!

5. Technical Data

Solar module:

- Type: polycrystalline with 36 solar cells.
- Nominal capacity: 20 Wp
- Nominal voltage: 17.28 V
- Idle voltage: 20.88 V
- Nominal current: 1.157 A
- Short circuit current: 1.37 A
- Protection type: IP 65
- Temperature range: -30°C to +75°C
- Spare part no.: 121030

Accessories: (not included in the scope of delivery, www.esotec.de)

5 m extension cable for solar module Art.-No.: 101736

Charge controller:

- Max. charging and load current: 10 A
- Operating voltage: 12 or 24 VDC (automatic detection)
- Operating temperature range: -35°C to +55 °C
- Assembly: For indoor use
- Spare part no.: 121020

Battery:

- Type: 12 V- AGM
- Voltage: 12 V DC (d.c. voltage)
- Capacity: 8 Ah
- Spare part no.: 901034 (12 V/ 7Ah)

Triple socket with USB-connection

- Operating voltage: 12 VDC
- Max. total current: 2,5 A
- USB-connection: 5 V (max. 5.4 V), 500 mA
- Operating temperature range: 0°C to +60 °C
- Assembly: Only for indoor use!
- Spare part no.: 121026

Disposal:

Dear customer, please cooperate in avoiding waste. When you intend to dispose of the product in future, please consider that it contains valuable raw materials suited for recycling.

Therefore, do not dispose it of with domestic waste but bring it to a collection point for the recycling of waste electrical and electronic equipment. Thank you very much for your cooperation!



Manufacturer:

esotec GmbH - Gewerbegebiet Weberschlag 9 - D-92729 Weiherhammer
Tel.-Nr: +49 9605-92206-0 Fax.-Nr: +49 9605-92206-10
Manufacturer item no.: 120005
Internet: www.esotec.de WEEE-Nr: DE59284711

Copyright, esotec GmbH!