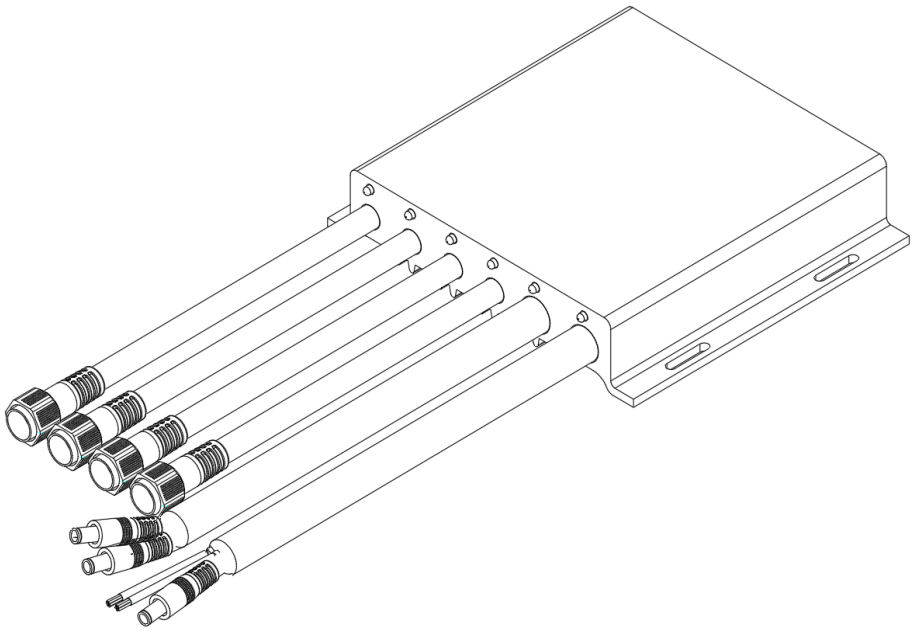


Solar power supply accessories

User manual

I. About this Manual

This Manual is applicable to Solar Products

The Manual includes instructions for using and managing the product. Pictures,charts, images and all other information hereinafter are for description and explanation only. The information contained in the Manual is subject to change without notice, due to firmware updates or other reasons. Please find the latest version in the company website.

Please use this user manual under the guidance of professionals.

II. Legal Disclaimer

TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, THE PRODUCT DESCRIBED, WITH ITS HARDWARE, SOFTWARE AND FIRMWARE, IS PROVIDED “AS IS”,WITH ALL FAULTS AND ERRORS, AND OUR COMPANY MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY, SATISFACTORY QUALITY, FITNESS FOR A PARTICULAR PURPOSE, AND NON-INFRINGEMENT OF THIRD PARTY. IN NO EVENT WILL OUR COMPANY, ITS DIRECTORS, OFFICERS, EMPLOYEES, OR AGENTS BE LIABLE TO YOU FOR ANY SPECIAL, CONSEQUENTIAL, INCIDENTAL, OR INDIRECT DAMAGES, INCLUDING, AMONG OTHERS, DAMAGES FOR LOSS OF BUSINESS PROFITS, BUSINESS INTERRUPTION, OR LOSS OF DATA OR DOCUMENTATION, IN CONNECTION WITH THE USE OF THIS PRODUCT, EVEN IF OUR COMPANY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.
REGARDING TO THE PRODUCT WITH INTERNET ACCESS, THE USE OF PRODUCT SHALL BE WHOLLY AT YOUR OWN RISKS. OUR COMPANY SHALL NOT TAKE ANY RESPONSIBILITES FOR ABNORMAL OPERATION, PRIVACY LEAKAGE OR OTHER DAMAGES RESULTING FROM CYBER ATTACK, HACKER ATTACK, VIRUS INSPECTION, OR OTHER INTERNET SECURITY RISKS; HOWEVER, OUR COMPANY WILL PROVIDE TIMELY TECHNICAL SUPPORT IF REQUIRED.

SURVEILLANCE LAWS VARY BY JURISDICTION. PLEASE CHECK ALL RELEVANT LAWS IN YOUR JURISDICTION BEFORE USING THIS PRODUCT IN ORDER TO ENSURE THATYOUR USE CONFORMS THE APPLICABLE LAW. OUR COMPANY SHALL NOT BE LIABLE IN THE EVENT THAT THIS PRODUCT IS USED WITH ILLEGITIMATE PURPOSES.
IN THE EVENT OF ANY CONFLICTS BETWEEN THIS MANUAL AND THE APPLICABLE LAW, THE LATER PREVAILS.

Regulatory Information

FCC Information

FCC compliance: This equipment has been tested and found to comply with the limits for a digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

FCC Conditions

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference.

2. This device must accept any interference received, including interference that may cause undesired operation.

III. EU Conformity Statement

This product and - if applicable - the supplied accessories too are marked with "CE" and comply therefore with the applicableharmonized European standards listed under the EMC Directive 2004/108/EC, the RoHS Directive 2011/65/EU.

2012/19/EU (WEEE directive): Products marked with this symbol cannot be disposed of as unsorted municipal waste in the European Union. For proper recycling, return this product to your local supplier upon the purchase of equivalent new equipment, or dispose of it at designated collection points. For more information see: www.recyclethis.info.

2006/66/EC (battery directive): This product contains a battery that cannot be disposed of as unsorted municipal waste in the European Union. See the product documentation for specific battery information. The battery is marked with this symbol, which may include lettering to indicate cadmium (Cd), lead (Pb), or mercury (Hg). Forproper recycling, return the battery to your supplier or to a designated collection point. For more information see: www.recyclethis.info.

[Precautions]

- Please do not use harsh chemicals or solvents to clean this product, dish soap and warm water applied with a soft sponge or cloth is the safest and simplest cleaning method.
- This product does not contain any parts for purposes other than what it was designed for. Do NOT disassemble or modify the lithium battery circuit, otherwise the warranty will be void. If there are quality or technical problems, please contact the dealer or return the product to **LT Security** for maintenance. This product is covered by a “Platinum” 3-Years (back to base) Warranty.
- The manufacturer reserves the right to continuously improve the product, and subject to change without notice.

[Product Introduction]

Features & Functions

This product is a solar intelligent power supply management module with multiple input characteristics specifically designed for professional use. This Solar system can be expanded to increase the power capacity to suit various application & power requirements. This independent Smart Solar System was designed to be deployed rapidly with ease of use, long operational life & reliability. It can provide stable power output for equipment (within the recommended Current consumption) without being connected to the mains. It is widely used for urban construction, road monitoring, rural properties, environmental governance, water source protection, forest fire prevention, etc.

- Multi independent solar power supply system control module, expandable to a maximum of 4 units to achieve balanced power source.
- DC 12V input voltage. Simple use DC12/24V outputs available to suit various applications and or monitoring devices.
- The input 9V~15V voltage can be combined to reach a maximum input current of 6A.
- Combined parallel input of solar power supply system do not interfere with each other and can operate without any recoil concerns.
- RS485 communication feature between the module and the solar power supply system, this allows users relevant information to display the voltage, current, residual power, and other information for each of the multiple power supply systems.
- (2x) Voltage outputs: (DC12V and DC24V) constant voltage (total output power not exceeding 40W) with RS485 communication.
- This controller is IP67 rated for outdoor use protected from the elements.
- **Input**: (4x) four-core waterproof cables, each includes (**+**) positive, (-) negative and RS485.
- **Output**: (2x) four-core with (2x) DC12V and (1x) four-core with (1x) DC24V and RS485.
- Onboard indicator LED offers real-time feedback for “input”, “output” and other relevant system information
- In case a single Panel fails, the controller will calibrate the power from the remaining panels in the system to maintain uninterrupted functionality.

[Product Wiring]

Module dimensions and wiring are as follows:

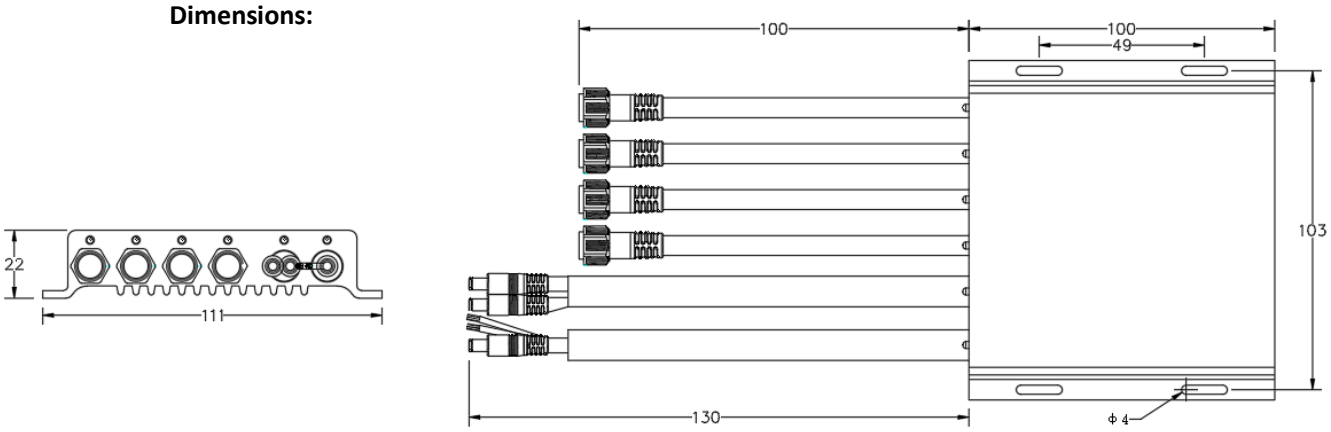
Outline dimension: 111 * 100 * 22 (mm)

Installation Dimensions: 104 * 54 (mm)

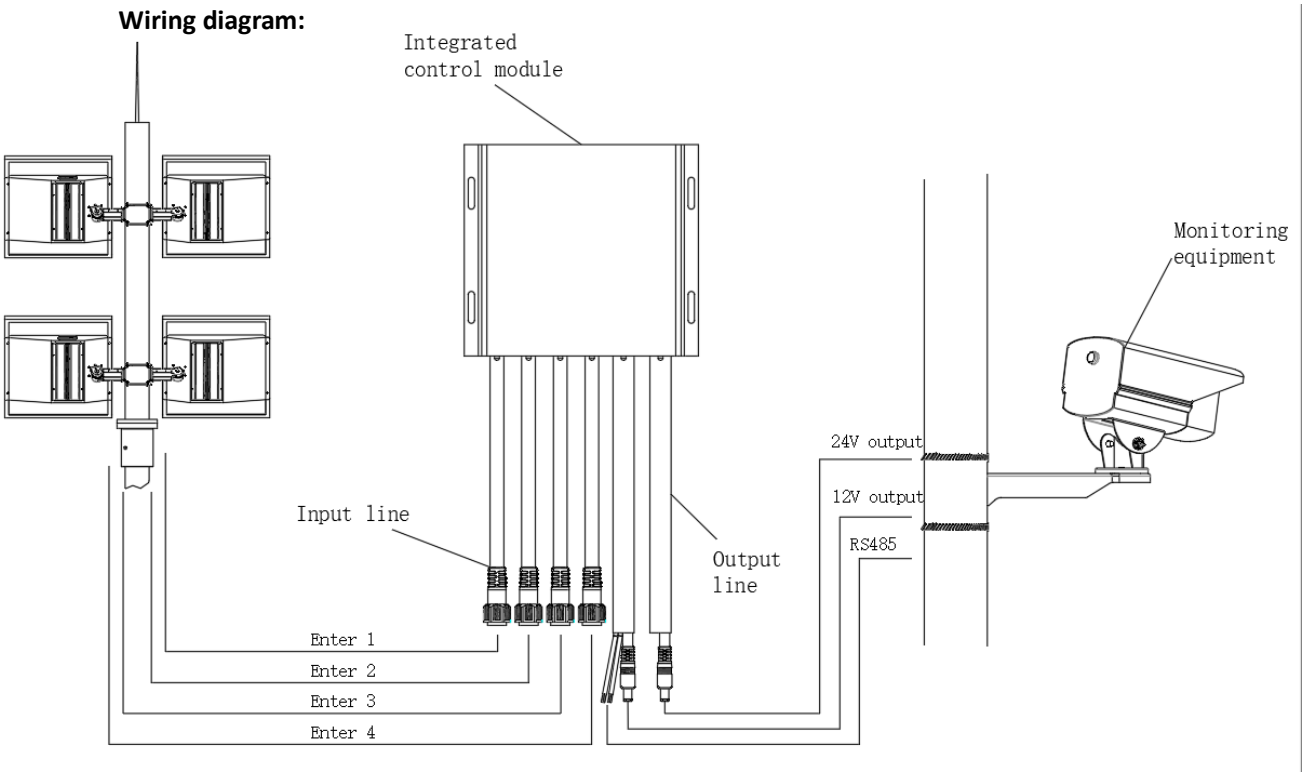
Installation aperture diameter: 4 (mm)

Weight: 420g

Dimensions:



Wiring diagram:

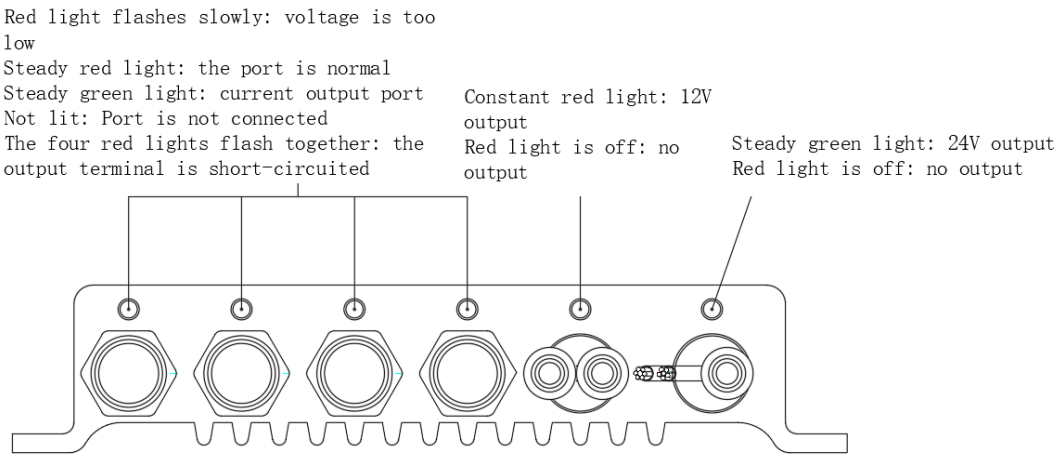


[Use recommendations]

- From the moment the module is connected, the module will automatically recognize the input port and begin functioning. The input indicator LED will activate “Green” which represents the operating port; If the “Red” indicator is lit this represents a low voltage status on that port.
- The module output indicator LED represents 12V output state whereas the “Green” LED represents 24V output state, both voltage outputs can be used simultaneously to a Max. 40 watts power output.
- Total current input rated @ Maximum 6A.
- 12V output current rated @ Maximum 4A.
- 24V output current rated @ Maximum 2A.
- The module will automatically recognize the battery voltage, ensure reliable connection is made on the input.
- The module runs warm during operation and is recommended to be installed in a ventilated area where possible.

[Status indication and parameter description]

Status indicator light diagram



Parameter description

Type	Description
System voltage	12vDC
Enter the number of ports	Can connected to Max. (4x) Solar Panel systems simultaneously,
Number of outputs	(2x) 12vDC, (1x) 24vDC
Input the voltage	9-15vDC
Output voltage	12vDC Output = (9-15vDC) - 24vDC Output = (24vDC)
maximum current input	6A
maximum current output	12vDC = 4A 24vDC = 2A 12vDC / 24vDC combined = 12v@4A / 24v@2A
485 Communications	Yes
Operating temperature	-35℃~+70℃
Protection level	IP67
Dimensions	111*100*22(mm)
Weight	Gross weight 5.5kg net weight 4.9KG