※ Thank you for selecting the RS485-1M2S extension module. Please read this manual carefully before using the product.

※ Do not install this product in humid, salt spray, corrosion, greasy, flammable, explosive, dust accumulative, or other severe environments.

RS485-1M2S Extension Module

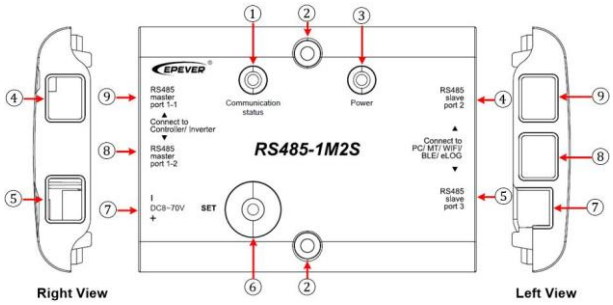
1 Overview

The RS485-1M2S is an optional accessory that can extend the RS485 communication port of the EPEVER solar controller, inverter, and inverter/charger. This modular adopting standard Modbus protocol helps users simultaneously monitor multiple devices' working status and program parameters.

Features:

- Data interaction between the solar controller, inverter, inverter/charger, and monitoring devices
- Standard Modbus communication protocol
- One key to set the communication baud rate 9600/115200
- LED indicating working status

2 Appearance



① **Communication status Indicator**

Green ON solid -- RS485-1M2S standby

Green flashing -- RS485-1M2S communicating

Red flashing -- RS485-1M2S baud rate setting

② **Mounting Hole 2 x Φ4.8mm**

③ **Power Indicator**

Green ON solid --Power supply normal

④ **RS485 slave port 2 (RJ45)**

⑤ **RS485 slave port 3 (RJ45)**

Port④and⑤are independent, which connect monitoring devices such as remote meter, WIFI module, Bluetooth module, or PC software etc.

⑥ **Set button**

Long press the **Set** button to set the communication baud rate, which must be consistent with the communication baud rate of the connected device.

9600 – Red communication status indicator flashes once

115200 – Red communication status indicator flashes twice

⑦ **Auxiliary port for external power (5.08-2P)**

DC power range: DC 8~70V

DC power source: Battery

Function: When the monitoring device's power consumption is high, an external battery shall be used to power the RS485-1M2S.

Detail scenarios are as follows (**Note: The eLog is only compatible with the controller**).

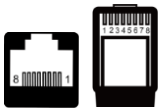
Scenario	Device (master port)	Device (slave port)	External power
1	Only controller, only inverter	MT75+WIFI, BlueTooth+WIFI, eLog+WIFI	Yes
2	Controller + inverter	MT75+WIFI, BlueTooth+WIFI, eLog+WIFI	No
3	Only controller, only inverter, controller + inverter	MT75, BlueTooth, eLog, WIFI	No

⑧ **RS485 master port 1-2 (RJ45)**

⑨ **RS485 master port 1-1 (RJ45)**

Port⑧and⑨are connected in parallel, which can extend the RS485 communication port after connecting the solar controller, inverter, or inverter/charger.

3 RJ45 Pin definition

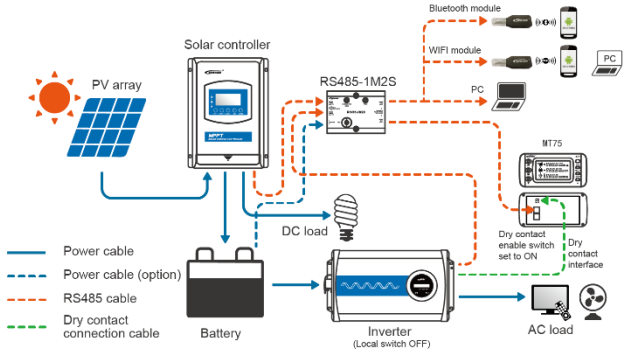
RJ45 

Pin No.	Definition
1/2	5VDC
3/4	RS485-B
5/6	RS485-A
7/8	GND

4 Accessories

Included Accessories	RS485 com. cable (length: 1.5m) Model: CC-RS485-RS485-150U	2 pcs
	5.08-2P terminal	1 pcs
Optional Accessories	USB to RS485 com. cable (length: 1.5m) Model: CC-USB-RS485-150U	1 pcs

5 Connection Diagram

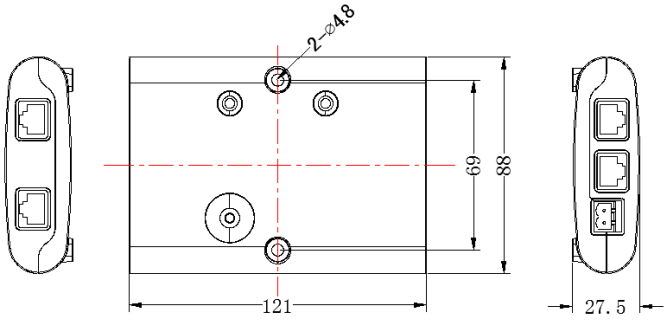


Note: When the monitoring module's power consumption is high, an external battery shall be used to power the RS485-1M2S. The WIFI and Bluetooth module can be connected to the RS485-1M2S directly (no need an additional communication cable).

6 Specifications

Model	RS485-1M2S
Compatible products	Solar controller, inverter, and inverter/charger
Power supply	5VDC (Power supply by the communication port of solar controller, inverter, or inverter/charger)
Auxiliary power supply	8~70VDC (Auxiliary power supply by the battery)
Power consumption	0.3W
Communication baud rate	115200 (Default) 9600
Work temperature	-30℃~+50℃
Storage temperature	-30℃~+80℃
Enclosure	IP30
Dimension (L x W x H)	121mm x 88mm x 27.5mm
Mounting size	69mm
Mounting hole size	Φ4.8mm
Net Weight	121.8g

7 Dimension



Any changes without prior notice! **Version number: V1.2**