

Quick Installation Guide (EN)



Ai-Hub

1 General Information

This quick installation guide does not replace the description in the user manual. The contents of this guide may be updated or revised due to product development. The information in this guide is subject to change without notice. The latest version of this document and the manual for installation, commissioning, configuration and decommissioning are to be found in PDF format at www.solplanet.net.

2 Safety

2.1 Intended use

The product is a highly integrated device dedicated for monitoring and managing the multi model composite system. It converges ports, converts protocols, collects and stores data, and centrally monitors and maintains devices in the multi model composite system.

The product is only suitable for indoor use.

The product can be used to data collection from various environment sensors, Smart Energy Meters, inverters, and other equipment.

The type of label must remain permanently attached to the product.

This document does not replace any regional, state, provincial, federal or national laws, regulations or standards that apply to the installation, electrical safety and use of the product.

2.2 Important safety instructions

Before installing, operating, and maintaining the equipment, read this document and observe all the safety instructions on the equipment and in this document.

DANGER

Damage to cable lines can cause personal injury!

- The walls may be covered with power cords or other lines (for example, gas or water).
- Make sure that no lines on the wall are damaged when drilling.

NOTICE

Damage to the product due to electrostatic discharge.

Internal components of the product can be irreparably damaged by electrostatic discharge.

- Ground yourself before touching any component.

2.3 Symbols on the label



WEEE designation

Do not dispose of the product together with the household waste but in accordance with the disposal regulations for electronic waste applicable at the installation site.



CE marking

The product complies with the requirements of the applicable EU directives.



Observe the documentation

Observe all documentation supplied with the product.

3 EU Declaration of Conformity

Within the scope of the EU directives

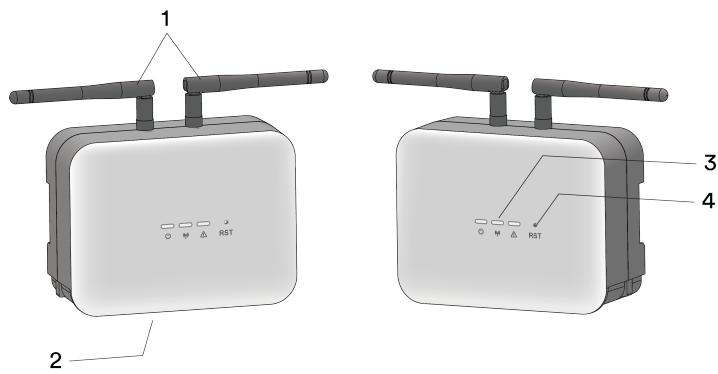
- Radio Equipment Directive 2014/53/EU (L 153/62-106. May 22. 2014) (RED)
- Restriction of the use of certain hazardous substances 2011/65/EU (L 174/88, June 8, 2011) and 2015/863/EU (L 137/10, March 31, 2015) (RoHS) AISWEI Technology Co., Ltd. confirms herewith that the product described in this manual are in compliance with the fundamental requirements and other relevant provisions of the above mentioned directives.



The entire EU Declaration of Conformity can be found at www.solplanet.net.

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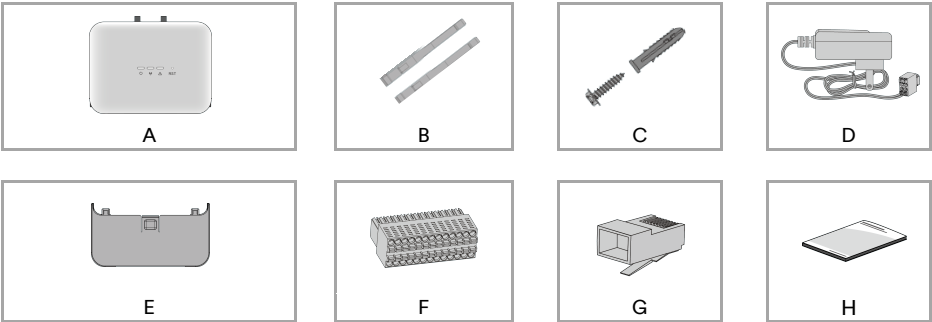
Overview



No.	Name	Description
1	Antenna connection area	Connect WLAN/Bluetooth antenna
2	Wiring area	Connect power supply, RS485, Ethernet and other ports
3	LED indicator	Indicates the present working state of the Ai-Hub
4	Reset button	Reboot the device

5

Scope of Delivery

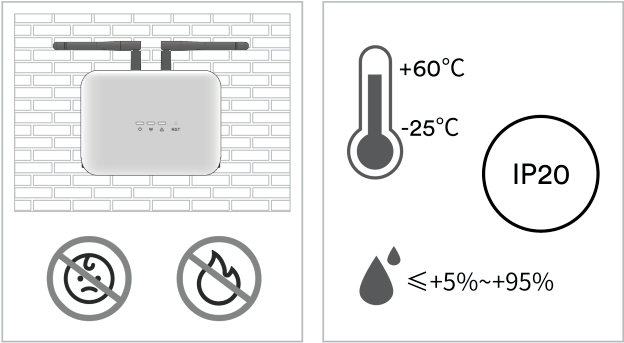


NO.	Name	Quantity
A	Ai-Hub	1
B	Antenna	2
C	Cross recessed pan head tapping screws	3

D	Power adapter with Terminal (4 pin)	1
E	Wiring cover	1
F	Terminal (26 pin)	1
G	RJ45	3
H	Quick installation guide	1

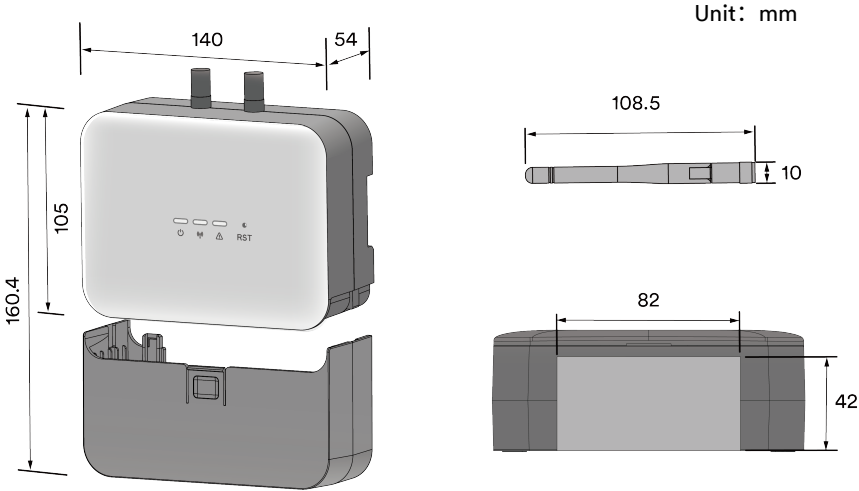
6

Mounting Environment



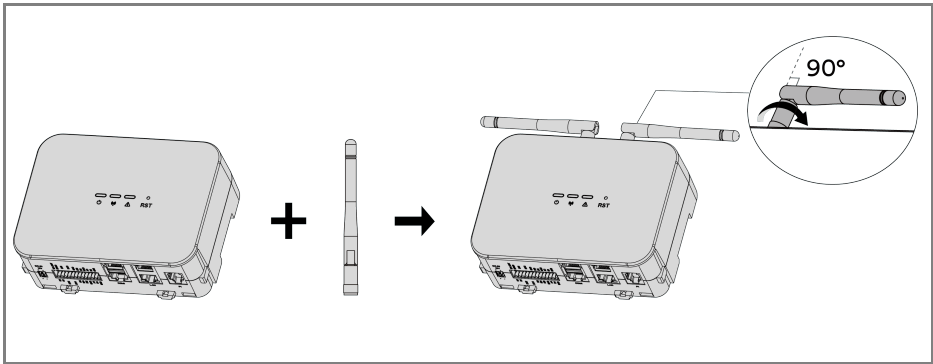
7

Dimensions

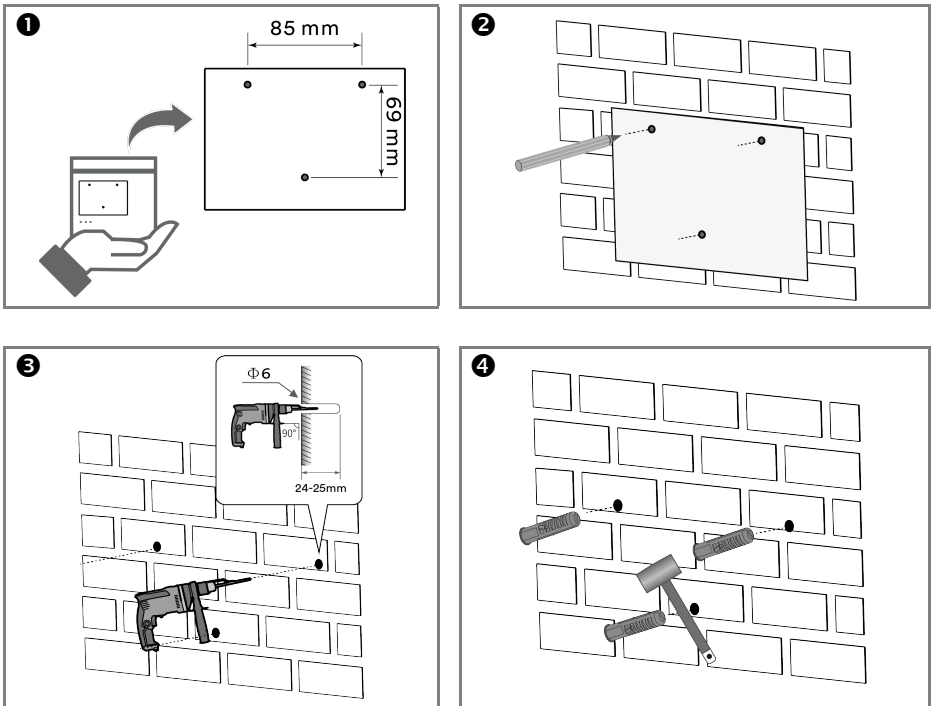


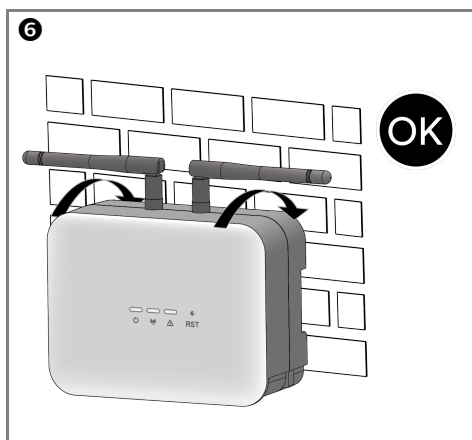
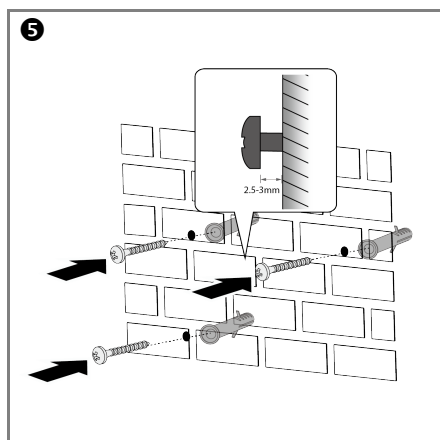
8 Mounting

8.1 Installing antenna

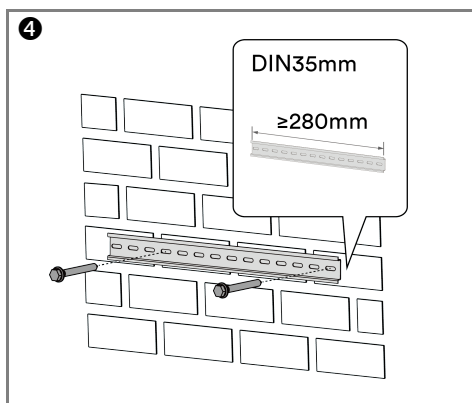
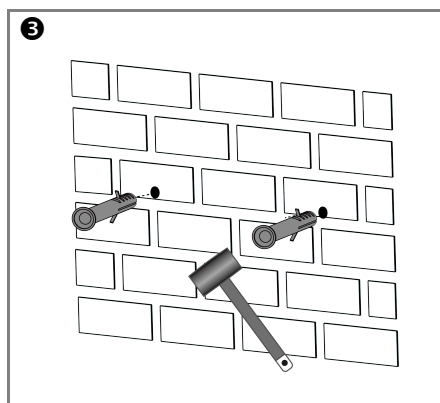
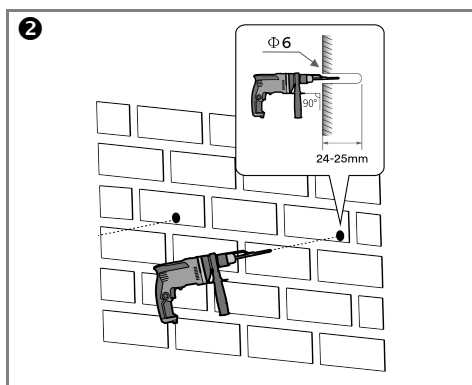
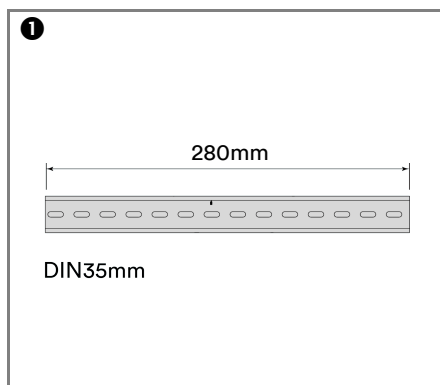


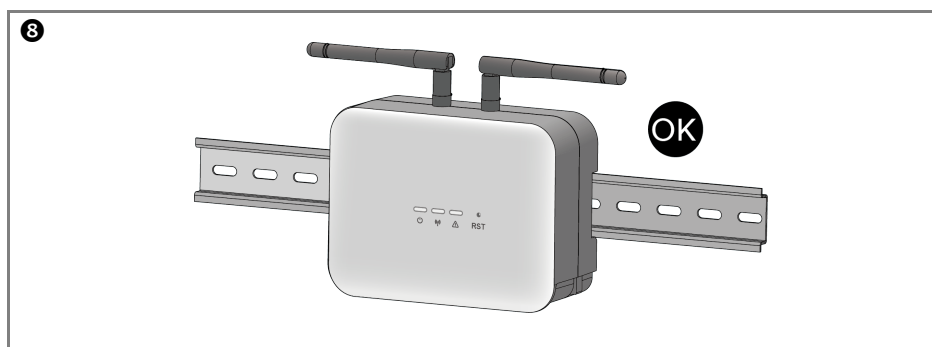
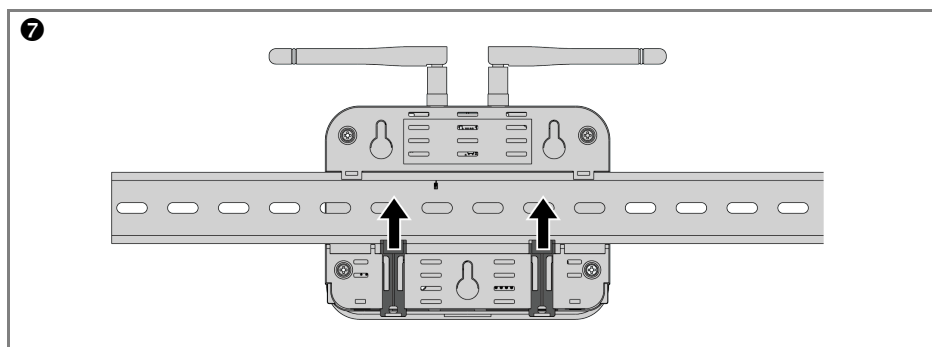
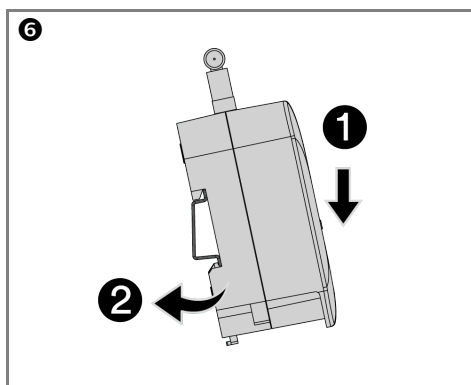
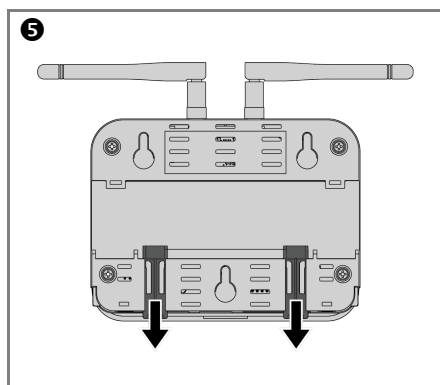
8.2 Wall-Mounted installation



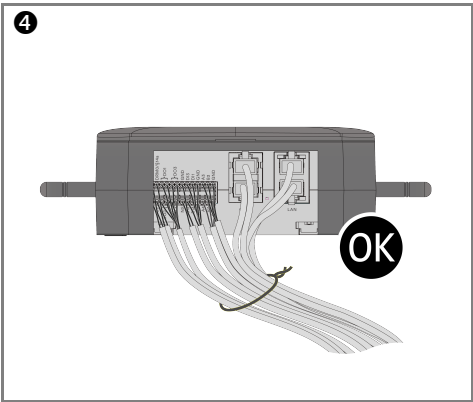
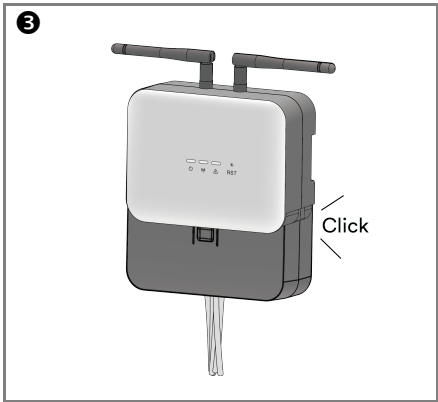
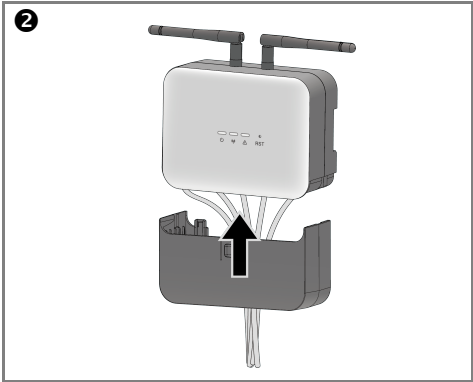
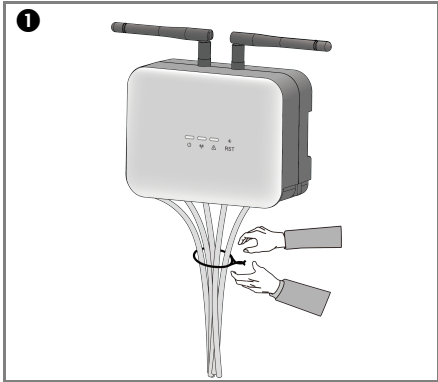


8.3 Rail installation





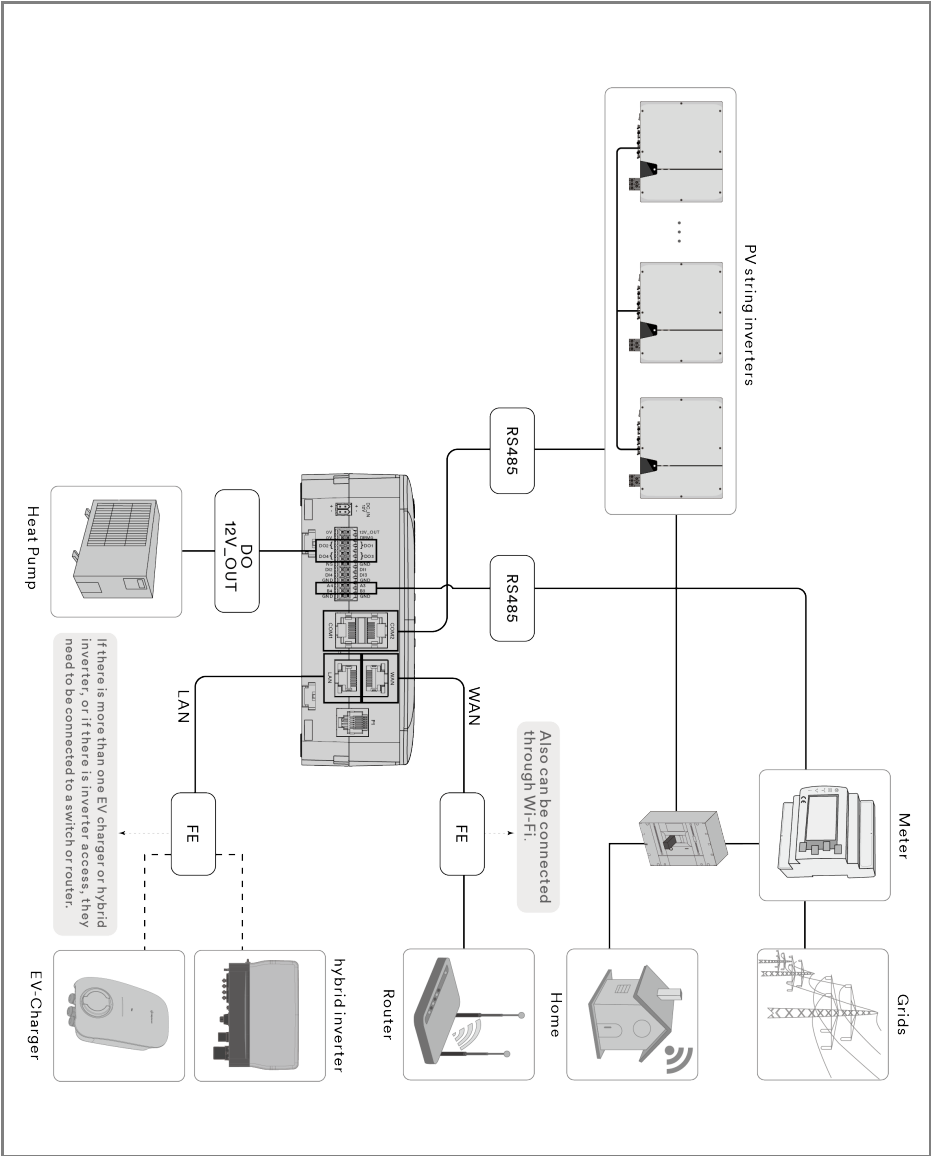
8.4 Wiring cover installation



*Suitable for indoor installation.

9 Electrical connection

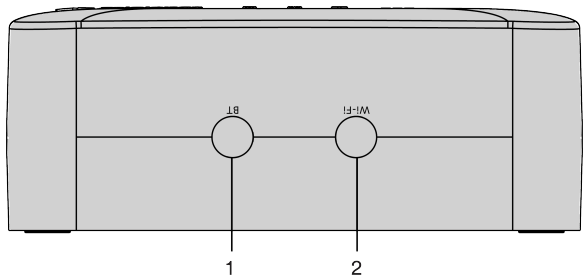
9.1 Prepare cables



* The dongle provided with the inverter(s) should not be installed when using the Ai-Hub.

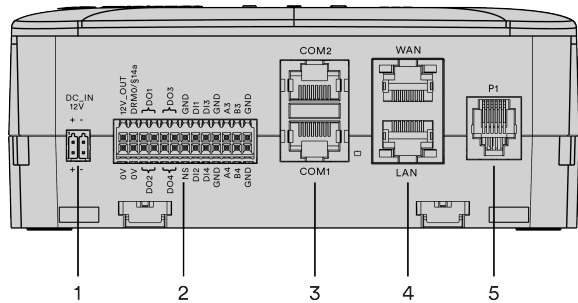
9.2 Overview of the connection area

• Top view



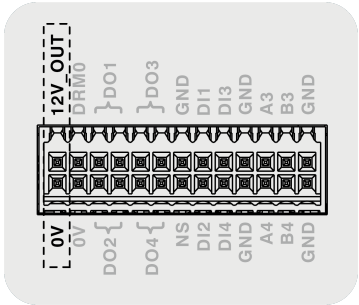
NO.	Name	Description
1	BT	Bluetooth antenna
2	Wi-Fi	External WLAN antenna

• Bottom view

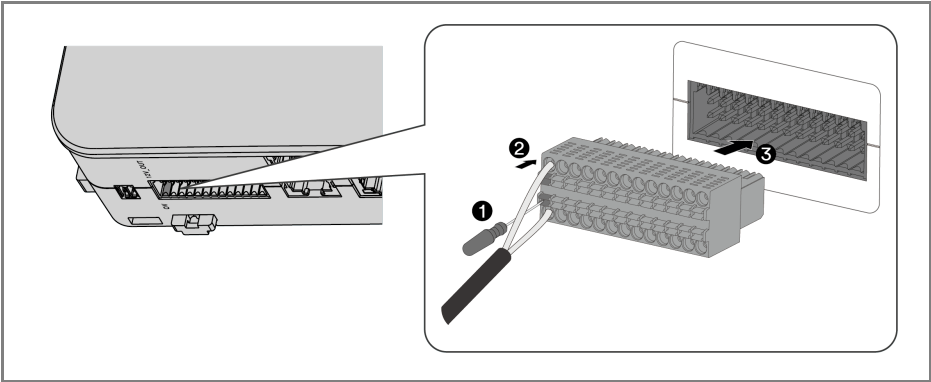
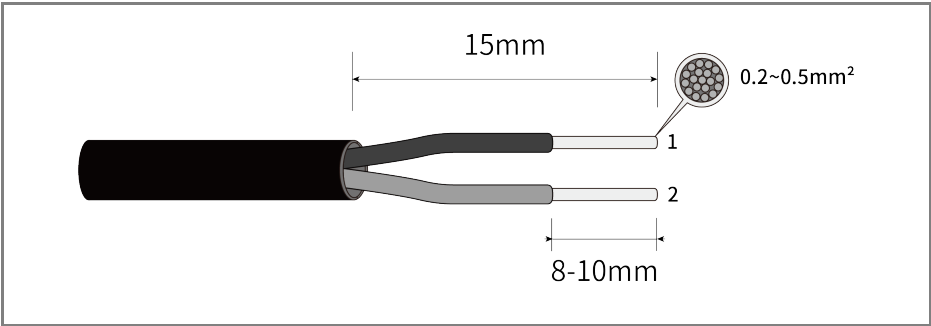


NO.	Name	Description
1	DC_IN 12V	Power supply socket, connect to 12V power adapter (Can support two power supplies)
2	Terminal Strip	Multi functional terminal block
3	COM1	1st RS485 , is used for pv string inverters
	COM2	2nd RS485, is used for hybrid inverters without integrated Ethernet
4	WAN	Ethernet to Router
	LAN	Ethernet, connect to EV charger/ inverter or switch
5	P1	Connection to the P1-port of the digital meter (BE/NL)

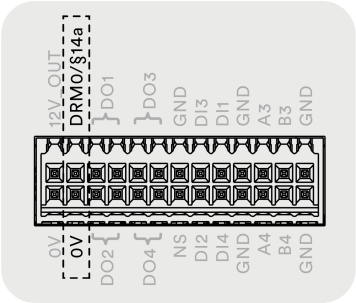
9.3 Power output



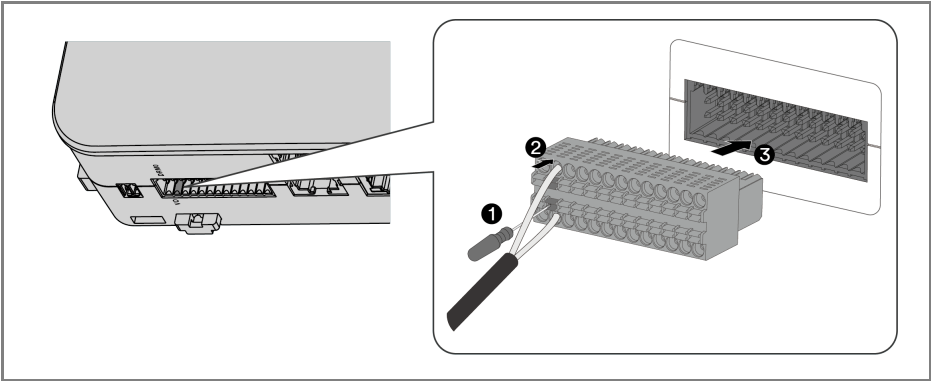
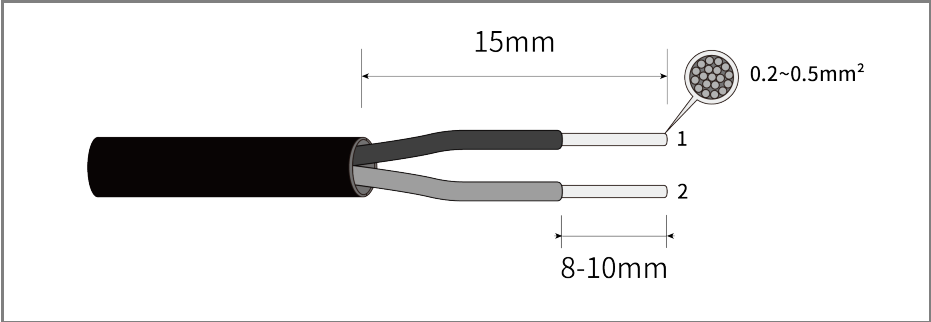
Name	Description
12V_OUT	12V output power, drive current 100mA
0V	GND



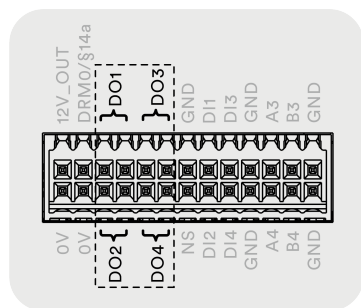
9.4 Connecting DRM0/§14a



Name	Description
DRM0	It's reused for DRM0 for Australia and EnWG §14a for Germany
0V	GND

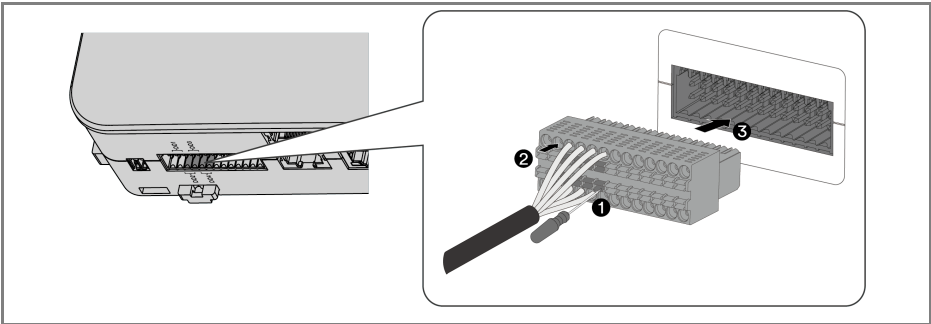
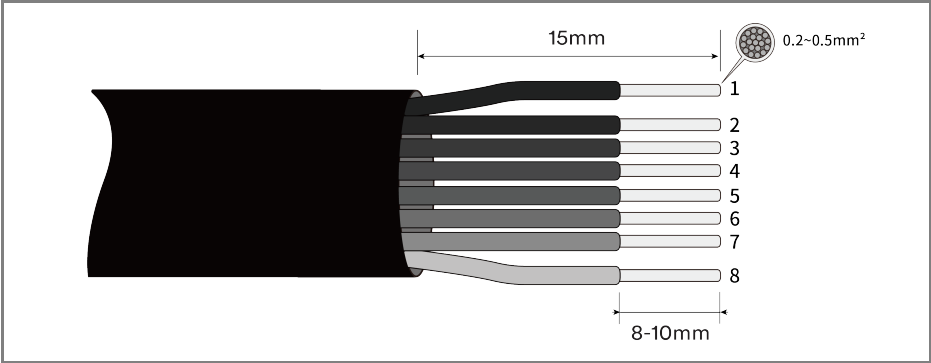


9.5 Connecting Digital Signal Output Terminal



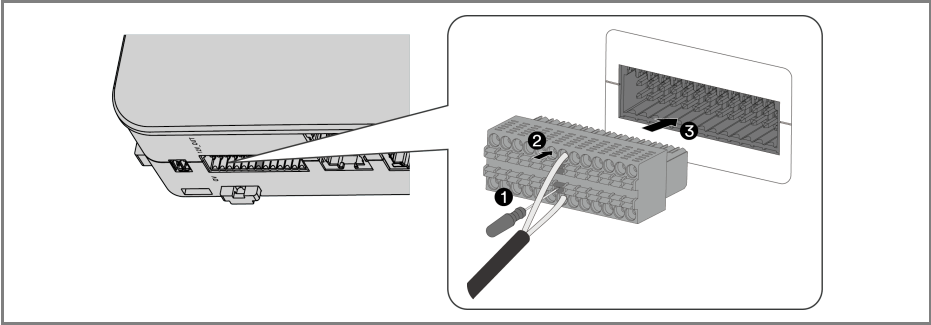
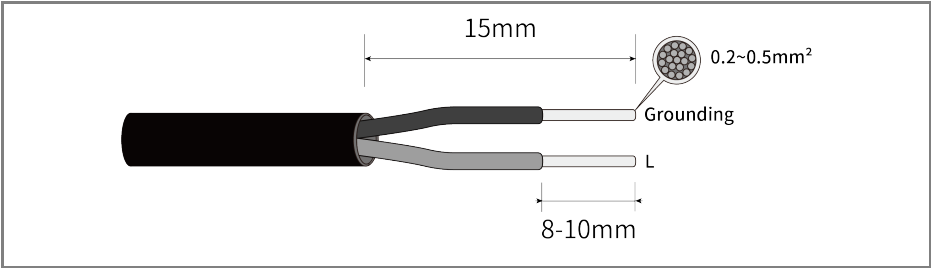
*Default Normal Open

Name	Description
DO1	1st output control switch, the contact capacity DC 12V/1A
DO2	2nd output control switch, the contact capacity DC 12V/1A
DO3	3rd output control switch, the contact capacity DC 12V/1A
DO4	4th output control switch, the contact capacity DC 12V/1A

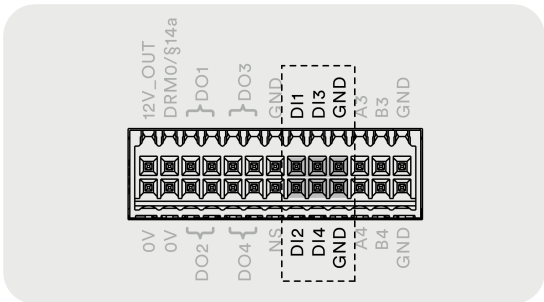


9.6 Connecting Quick Shutdown Protection

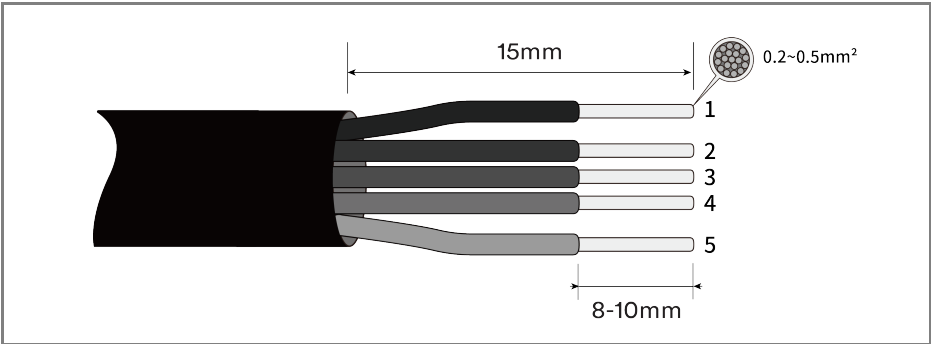
Name	Description
NS	Support 10V~24V voltage input
GND	GND

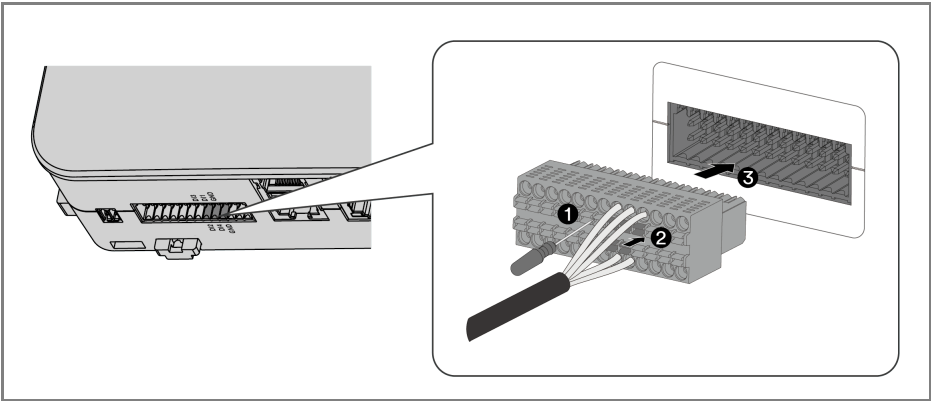


9.7 Connecting Digital Signal Input Terminal

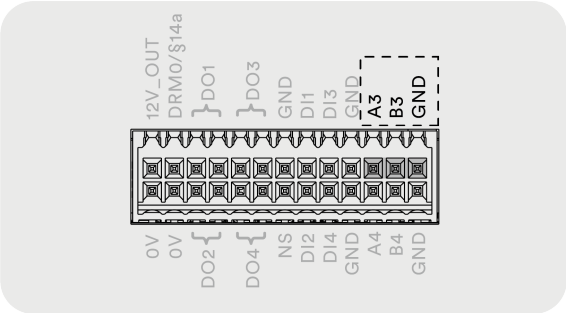


Name	Description
DI_1	Dry Contact Input Terminals for Ripple Control Receiver
DI_2	Dry Contact Input Terminals for Ripple Control Receiver
DI_3	Dry Contact Input Terminals for Ripple Control Receiver
DI_4	Dry Contact Input Terminals for Ripple Control Receiver
GND	Ground



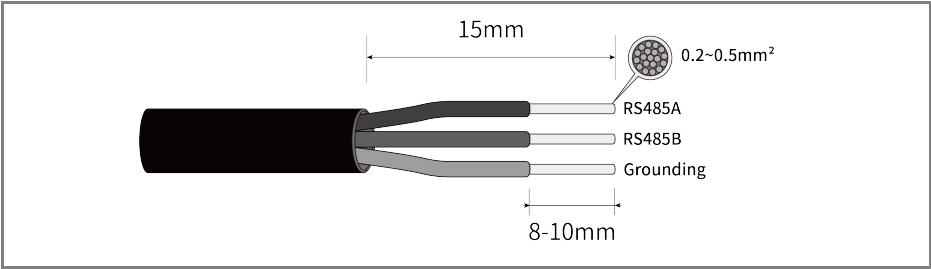


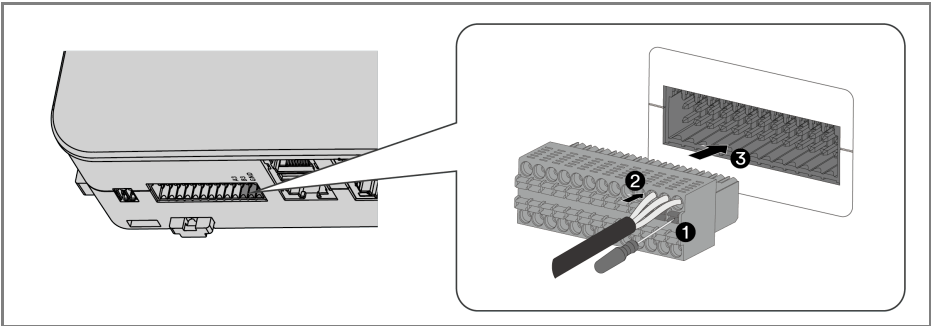
9.8 Connecting to Main Smart Meter



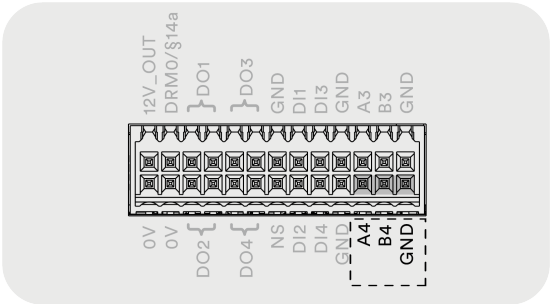
Name	Description
A3	3rd RS485-A
B3	3rd RS485-B
GND	GND

*COM3 is only used for main smart meter.



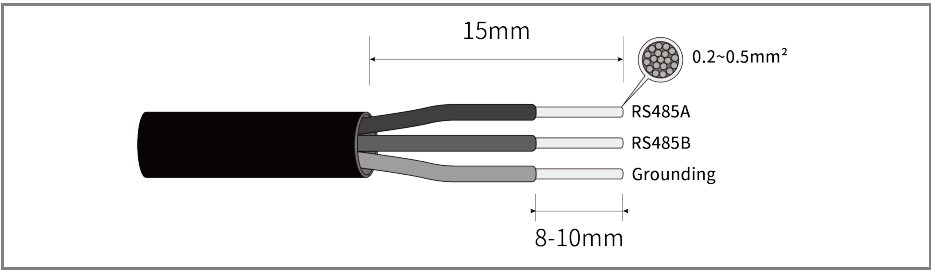


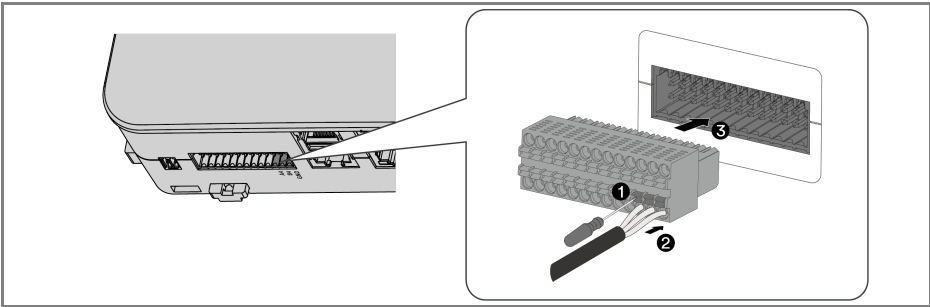
9.9 Connecting Sub Smart Meter



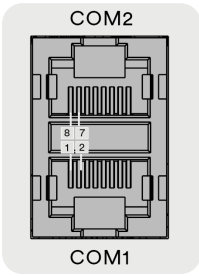
Name	Description
A4	4th RS485-A
B4	4th RS485-B
GND	GND

*It's only used for sub smart meter currently.





9.10 Connecting the Inverters



Name	Description
COM2	Support connecting to hybrid inverters without Ethernet
COM1	Support connecting to PV string inverters

* COM2 is only used for hybrid inverters without Ethernet.



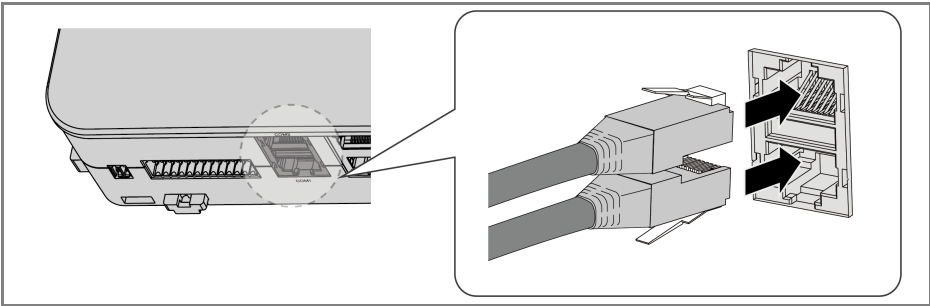
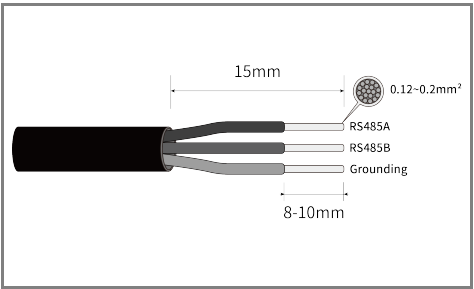
Diagram of an 8-pin D-sub connector. The pins are numbered 1 through 8 from right to left. Pin 1 is the top pin on the right, and Pin 8 is the bottom pin on the left.

Pin 1 Pin 8

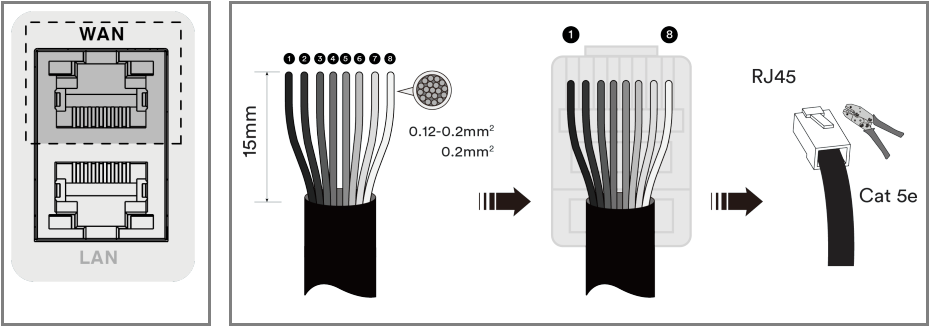


Diagram of a 9-pin D-sub connector. The pins are numbered 1 through 9 from top to bottom. Pin 1 is the top pin, and Pin 9 is the bottom pin.

COM1		COM2	
Pin	Description	Pin	Description
1	RS485-A	1	-
2	RS485-B	2	-
3	GND	3	GND
4	-	4	-
5	-	5	-
6	-	6	-
7	-	7	RS485-A
8	-	8	RS485-B

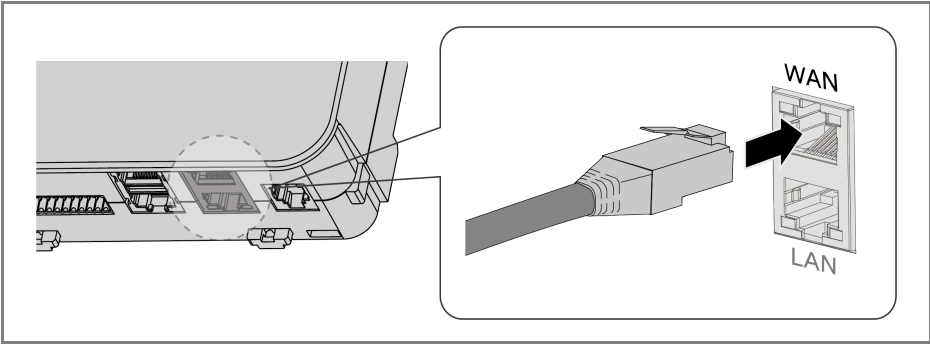


9.11 Connecting the Home Router

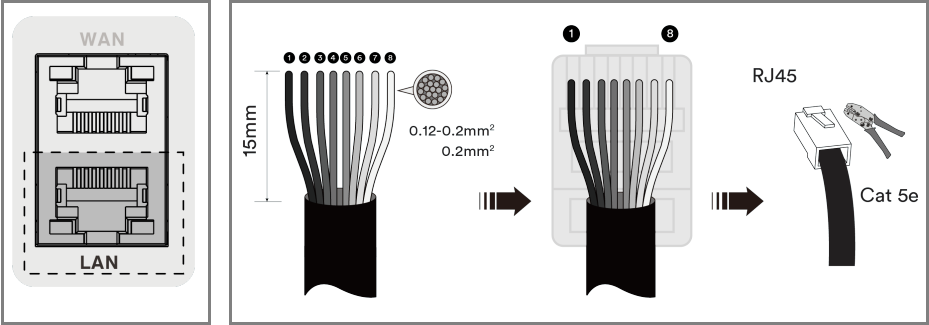


Standard	1	2	3	4	5	6	7	8
T568A	White/ Green	Green	White/ Orange	Blue	White/ Blue	Orange	White/ Brown	Brown
T568B	White/ Orange	Orange	White/ Green	Blue	White/ Blue	Green	White/ Brown	Brown

*Both line sequences are supported

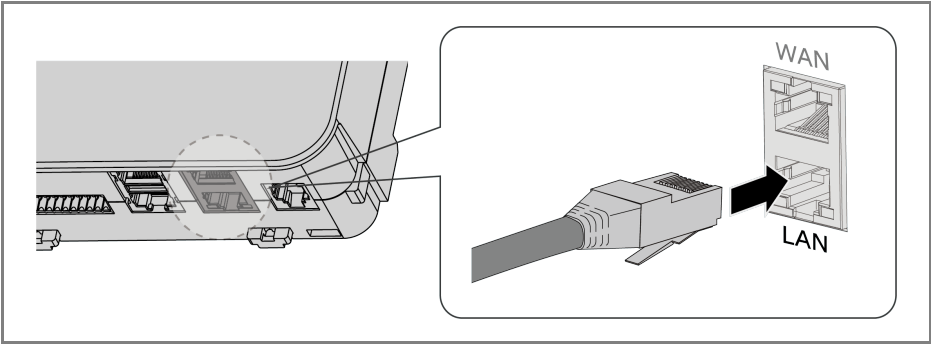


9.12 Connecting Ethernet Devices



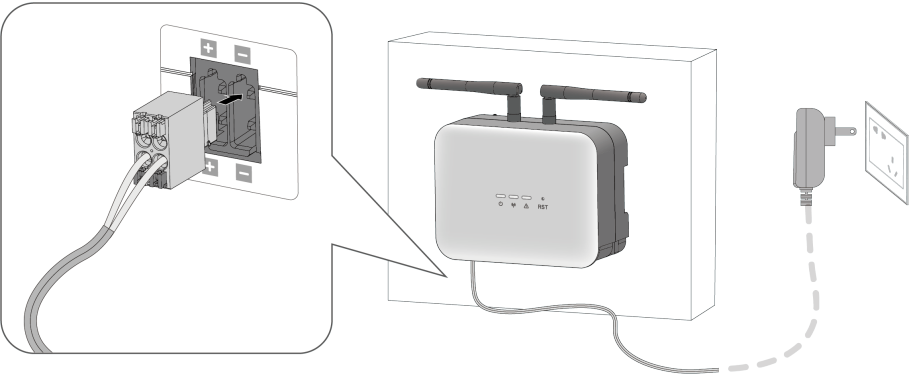
Standard	1	2	3	4	5	6	7	8
T568A	White/ Green	Green	White/ Orange	Blue	White/ Blue	Orange	White/ Brown	Brown
T568B	White/ Orange	Orange	White/ Green	Blue	White/ Blue	Green	White/ Brown	Brown

*Both line sequences are supported



9.13 Connecting Power

DC_IN 12V + -  + -	Name	Description
	+	12V DC, power input DC 12V/1A
-	GND	



10 App Download

Download and install the Solplanet app by scanning the QR code below.
For details, please refer to the APP user manual.



Android



iOS

11 Contact

Please contact our Service Department if you have any technical questions about our products.

The following information is needed to provide necessary assistance:

- Product serial number
- Fault code
- Installation location
- Warranty card

EMEA

Service email: service.EMEA@solplanet.net

APAC

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<https://solplanet.net/contact-us>

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Scan QR code:



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