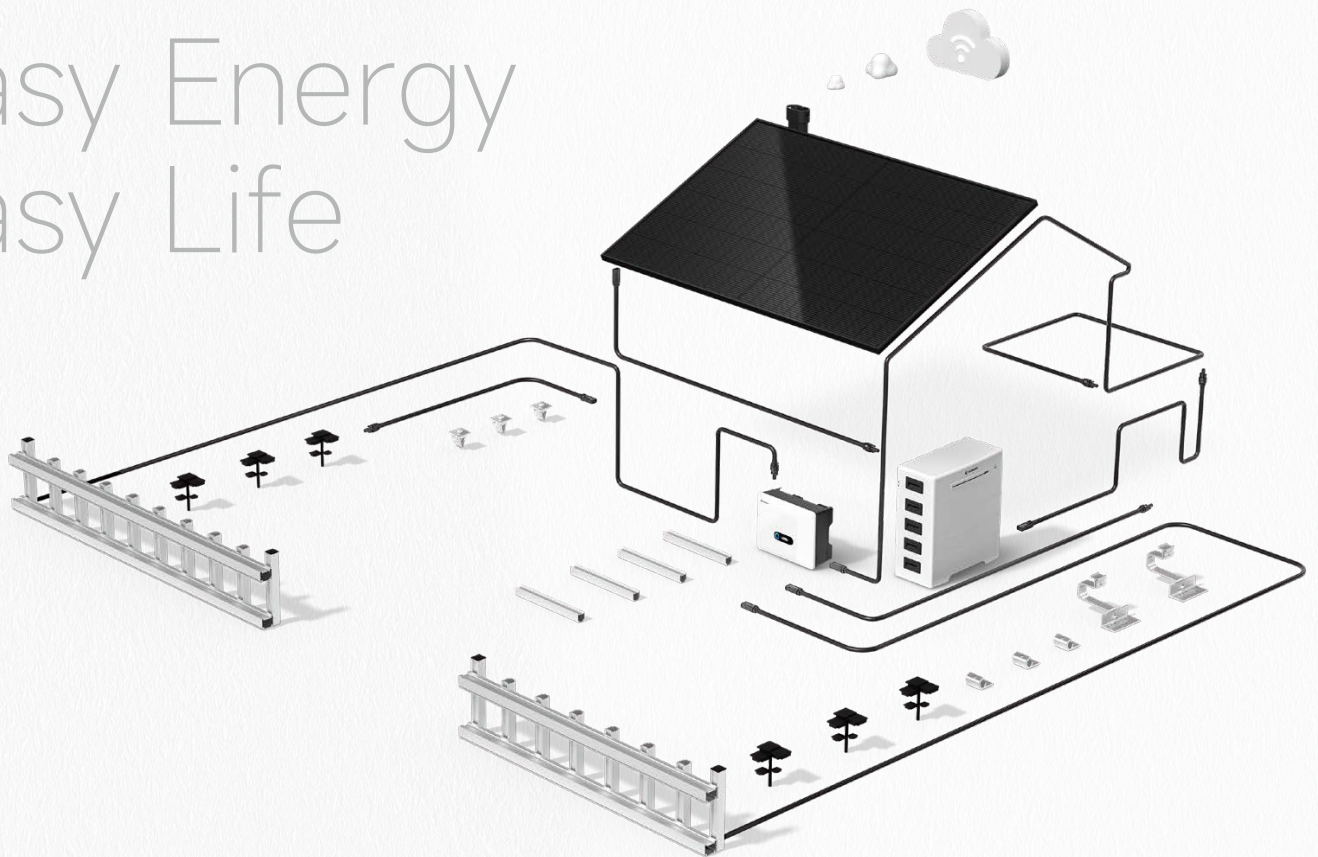


Easy Energy
Easy Life



 **Share-Home**

Quick Installation
Introduction



Thank You for Choosing iShare-Home Smart Solar System!

This installation manual contains important electrical and mechanical installation information that should be known before you install iShare-Home Smart Solar System. In addition, the manual contains some other security information that you must know. Copyright is owned by Slenergy Technology (A.H.) Co., Ltd. (hereinafter referred to as Slenergy) and no content of this document can be reproduced or disseminated in any form or manner without Slenergy's prior written consent.

This installation manual does not have the meaning of any warranty, either express or implied. There is no provision for the compensation scheme for the loss, equipment damage or other expenses directly caused or related to the installation, operation, use or maintenance of the system equipment. Slenergy is not liable for any patent infringement or third-party rights arising from the use of the system. Slenergy reserves the right to change the Product specification and this manual without prior notice.

Failure by the customer that not follow the requirements listed in this manual during the installation of the system equipment will result in the failure of the limited warranty of the product provided to the customer. At the same time, the Suggestions in this manual are to improve the safety of photovoltaic power generation system during the installation process, which has been tested and experienced. Please provide this manual to installers or owners of PV systems for reference and advise them of all safety, operation, maintenance requirements and recommendations.

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About This Manual

Purpose

This manual introduces the installation, electrical connection, debugging, use, maintenance and troubleshooting of Slenergy. Home photovoltaic power generation system. Before installation and operation, please read through this document to understand the security information and familiarize with the system functions and features.

Reader

The readers of this manual are:

- System installer
- System user

This manual is applicable to electrical installers with professional qualifications and end-users, who should have the following skills:

- 1 Training for installation and commissioning of the electrical system, as well as dealing with hazards.
- 2 Knowledge of the manual and other related documents.
- 3 Knowledge of the local regulations and directives.

Symbols

Definition of the symbols in this manual are as the following:



Indicates a hazard with a high level of risk which, if not avoided, will result in death or serious injury.



Indicates a hazard with a medium level of risk which, if not avoided, could result in death or serious injury.



Indicates a hazard with a low level of risk which, if not avoided, could result in minor or moderate injury.



Indicates a situation that, if not avoided, could result in equipment or property damage, data loss, equipment performance degradation.



Indicates additional information, emphasized contents or tips that may be helpful, e.g., to help you solve problems or save time.



This symbol allows the operator to pay attention to the protection of personal safety against electricity prohibited matters.



If fire, switch off the breaker on DC side and stay away from battery.



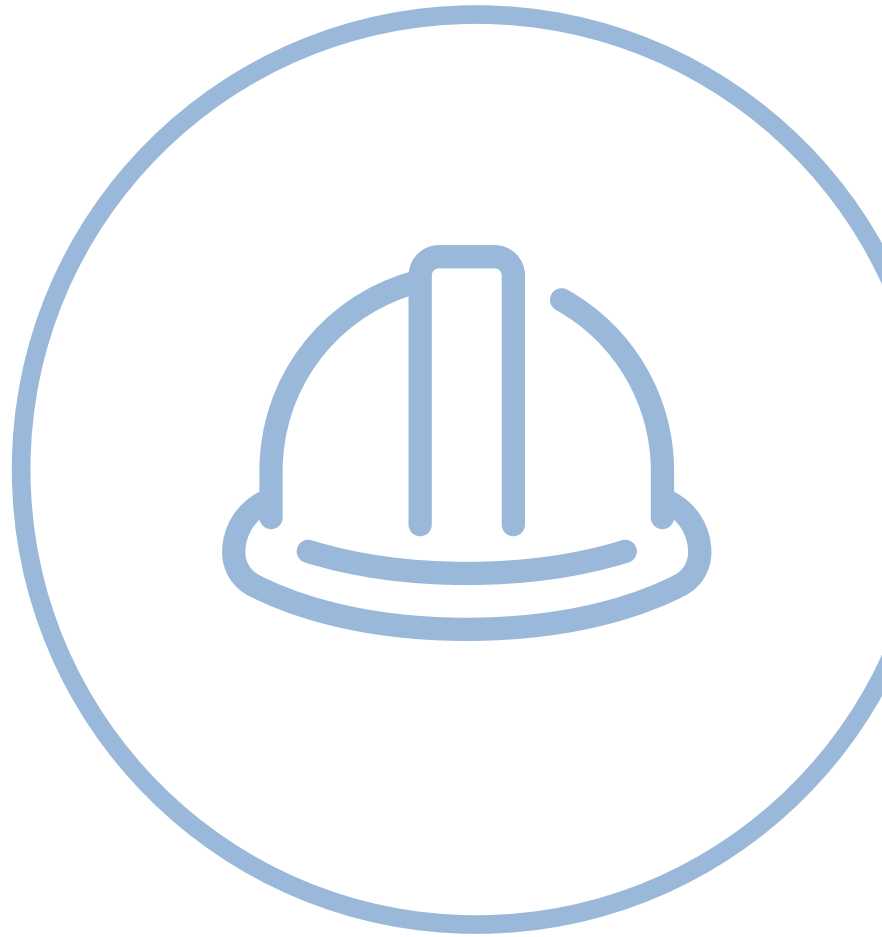
The battery cannot be disposed of with household waste.



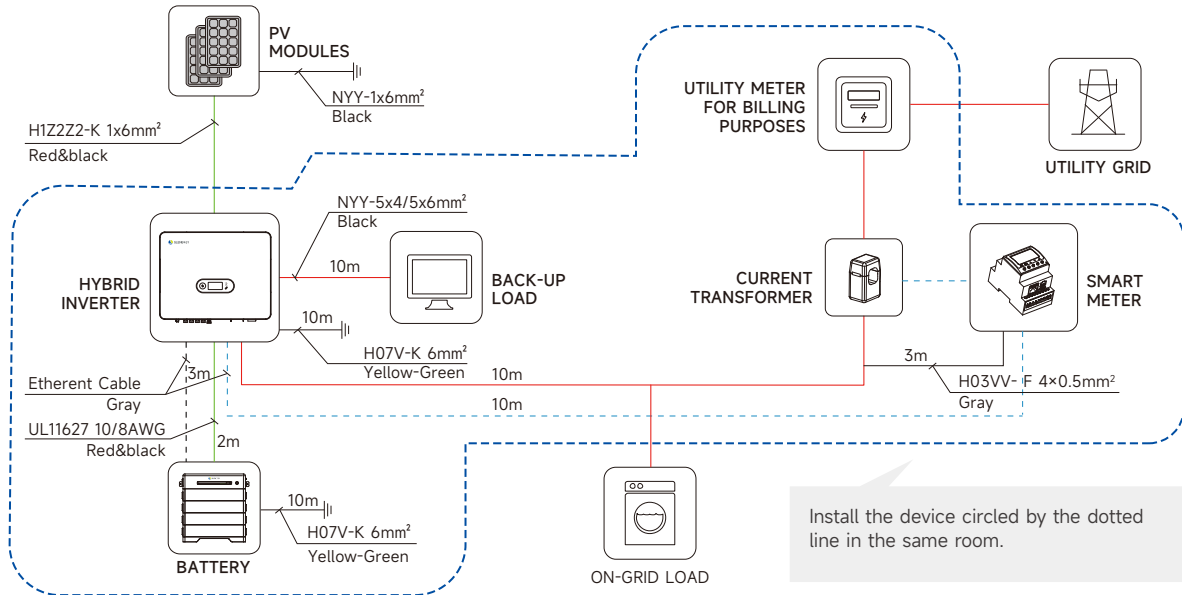
This symbol identifies the precautions or instructions that may pose a risk to the safety of the user or cause significant hardware damage if not properly operated.

1

Safety Guide



System Topology Diagram



iShare-Home Smart Solar Solution

Model	iShare-Home 4kW	iShare-Home 5kW	iShare-Home 6kW	iShare-Home 8kW	iShare-Home 10kW	iShare-Home 12kW	iShare-Home 15kW
System Capacity (kW _{AC})	4	5	6	8	10	12	15
No. PV Modules(pcs)/425W	10/12/14	16	18/20	22/24/26/28	30/32/34	36/38/40/42	44/46/48/50
DC Capacity	4.25kW/5.1kW /5.95kW	6.8kW	7.65/8.5kW	9.35kW/10.2kW /11.05kW/11.9kW	12.75kW/13.6kW /14.45kW	15.3kW/16.15kW /17kW/17.85kW	18.7kW/19.55kW /20.4kW/21.25kW
Effective Roof Area Approx.	20m ² ~30m ²	35m ² ~40m ²	36m ² ~44m ²	48m ² ~65m ²	65m ² ~85m ²	90m ² ~110m ²	115m ² ~135m ²
Inverter	SL-D4KTR-H25	SL-D5KTR-H25	SL-D6KTR-H25	SL-D8KTR-H25	SL-D10KTR-H25	SL-D12KTR-H25	SL-D15KTR-H40
Battery	SL-BH-3-7 ~ SL-BH-5-12 /SL-BH6-15	SL-BH-3-7 ~ SL-BH-7-17			SL-3-7 ~ SL-BH-8-20		
Cable Set	DC Cable:H1Z2Z2-K 1x6mm ² ; UL 11627 10AWG; UL 11627 8AWG						
	AC Cable: NYY-5x4mm ² /5x6mm ² ;						
	Grounding Cable: H07V-K 6mm ² ; NYY 1x6mm ²						
	Communication Cable: UTP CAT5e						
Mounting Structure Set	Meter Cable: H03VV- F 4x0.5mm ² and Connectors						
	Rail, hook kit, rail connector, mid-clamp, end-clamp, earthing lug and other accessories						
iBox	Optional						
Cloud & APP	1 set						
Power Generation Estimates	12~17kWh/day 4366~6110 kWh/year	App.19kWh/day App.6986 kWh/year	21~24kWh/day 7860~8734 kWh/year	29~32kWh/day 10590~11650 kWh/year	36~40kWh/day 13100~14847 kWh/year	43~50kWh/day 15720~18340 kWh/year	52~60kWh/day 18340~21833 kWh/year

Larger capacity systems can be configured according to demand.
The power generation is calculated based on Munich, Germany. The annual peak sunshine hours are 1253h. Each 1kWh generated reduce 0.997kg of CO₂.

Wiring Connection Prefabricated

No.	Name	Specification	From	To
1	PV DC Cable	H1Z2Z2-K 1×6mm ²	PV Modules	Inverter PV Connector
2	Inverter to Battery DC Cable	UL 11627 10AWG/8AWG	Inverter Battery Connector	Battery Output Connector
3	On Grid AC Cable	NYY 5×4mm ² /5×6mm ²	Inverter On-grid Output Terminal	Original Distribution Box
4	Backup AC Cable	NYY 5×4mm ² /5×6mm ²	Inverter Backup Output Terminal	Back-up Loads
5	Inverter & Battery PE	H07V-K 6mm ²	Inverter & Battery Grounding Hole	External Ground Bar
6	PV Roof Grounding	NYY-1×6mm ²	PV Supporting Bracket	External Ground Bar
7	Communication Cable	UTP CAT5e	Inverter Multi-com Connector (COM2)	Meter
	Communication Cable	UTP CAT5e	Inverter Multi-com Connector (COM2)	Battery
8	Meter Cable	H03VV-F 4×0.5mm ²	Meter Terminal (1,2,3,4)	Grid (L1, L2, L3, N)
No.	Name	Remark	Length(m)	Accessory bag
1	PV DC Cable	Cable terminals are made and installed on site	40-80m*2	MC4 Connector
2	Inverter to Battery DC Cable	Cable terminals are prefabricated and installed at the factory	2m*2	-
3	On Grid AC Cable	Inverter side terminal is prefabricated and installed at the factory	20m	-
4	Backup AC Cable	Inverter side terminal is prefabricated and installed at the factory	20m	-
5	Inverter & Battery PE	Inverter & Battery side terminals are prefabricated and installed at the factory	20m	-
6	PV Roof Grounding	Cable terminals are made and installed on site	40-60m	-
7	Communication Cable	Both side terminals are prefabricated and installed at the factory	10m	-
			3m	
8	Meter Cable	Meter side terminal is prefabricated and installed at the factory	3m	-

Mounting Structure

Technical Parameter			
Product Name	Solar Mounting System		EN1990 Basis of Structure Design
Building Type	Pitched Roof	Design Standard	EN1991-1-3 Actions on Structure-Snow loads
Tile Type	Concrete Tile, Clay Tile, Slate Tile		EN1991-1-4 Actions on Structure-Wind loads
Tilt Angle	15-60°	Main Material	AL6005-T6(Anodized)
Wind Load	0.8KN/m ²	Fastener	SUS304 & Zinc-Nickel Alloy Electroplated Steel
Snow Load	1.6KN/m ²	Small Components	AL6005-T6(Anodized)
Applicable Solar Module	Framed	Color	Silver and Black
Panel Layout	Portrait or Landscape	Certificate	TUV

	Rail 2.4m	Rail Splice	Tile Hook	Universal Clamp Kit	End Cap	Grounding Lug	Cable Clip	Earthing Clip
iShare-Home 4kW-DE	10~14	7~9	28~40	27~39	12	4	11-16	18~25
iShare-Home 5kW-DE	16	11	44	43	18	6	18	29
iShare-Home 6kW-DE	18~20	14	48~56	47~54	18	6~10	20~22	33~36
iShare-Home 8kW-DE	22~28	16~20	60~76	58~73	18~24	10	25~31	40~51
iShare-Home 10kW-DE	30~34	22~25	80~92	77~89	24~30	12	33~38	55~62
iShare-Home 12kW-DE	36~48	27~36	96~128	93~124	30~36	14~16	40~53	66~88
iShare-Home 15kW-DE	50~56	36~40	136~152	131~145	36~42	16~20	55~62	91~102

Note Before Installation

The Inverter series three-phase high voltage hybrid inverter applies to the three-phase power grid with a voltage of 230/400V and a frequency of 50/60Hz.



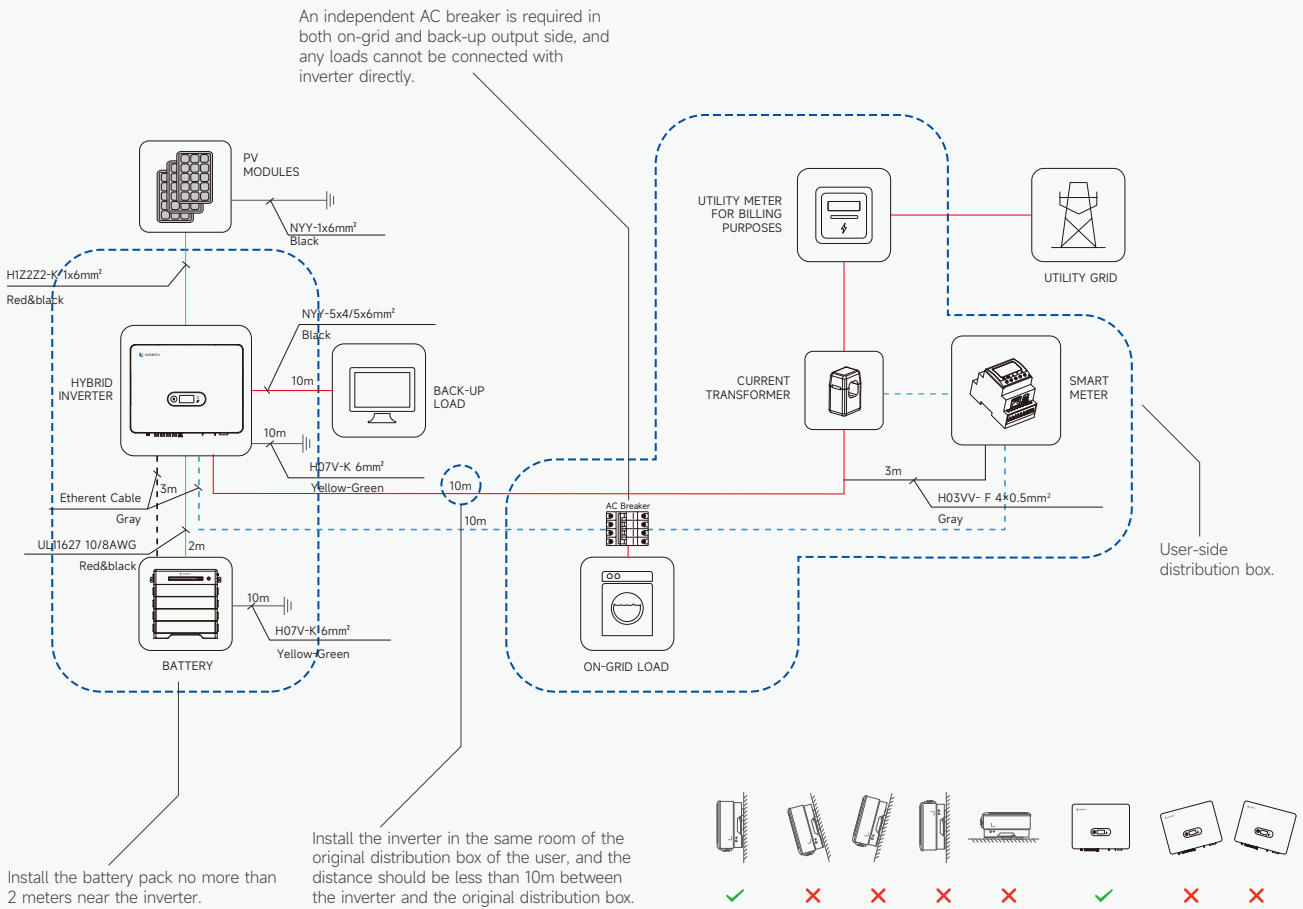
- Tailored Specifically for Pitched Roof buildings of Concrete Tile, Clay Tile or Slate Tile



- 1 PV modules number in one string for 4-6kW inverter: 4-26
- 2 PV modules number in one string for 8-12kW inverter: 8-26
- 3 Optimal number of PV modules in one string: 18-20



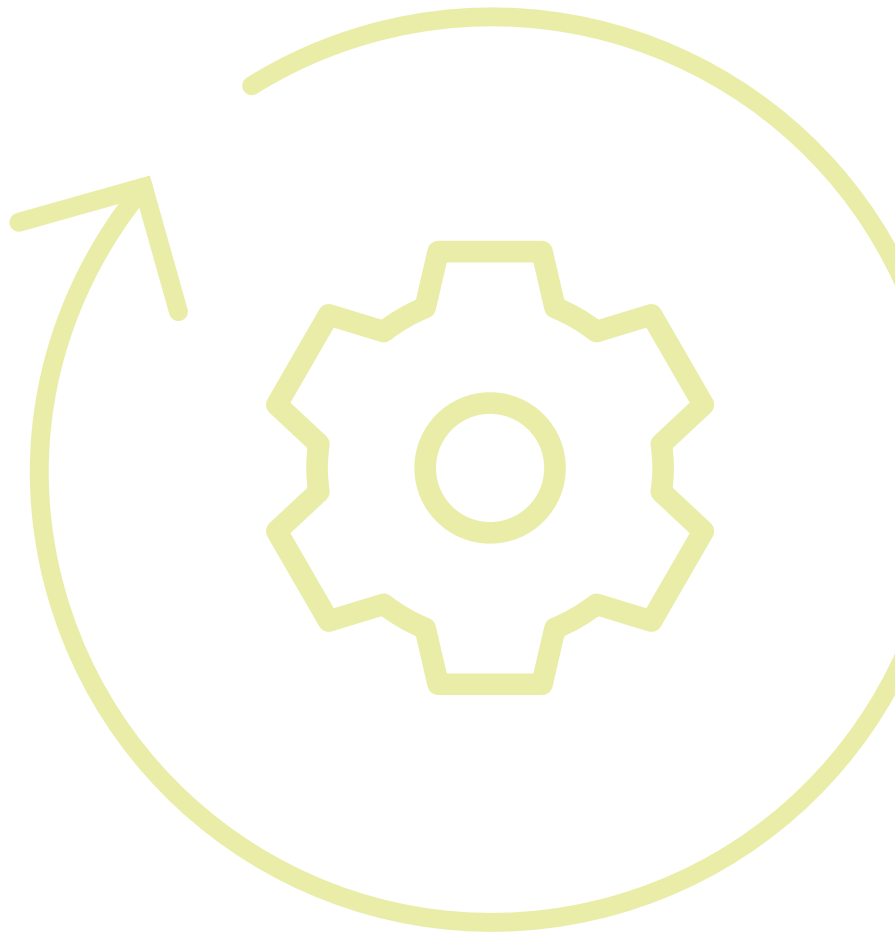
- Indoor wiring connection need to use cable tray



Install the inverter vertically. Never install the inverter horizontally, or at forward/backward tilted, or upside down.

2

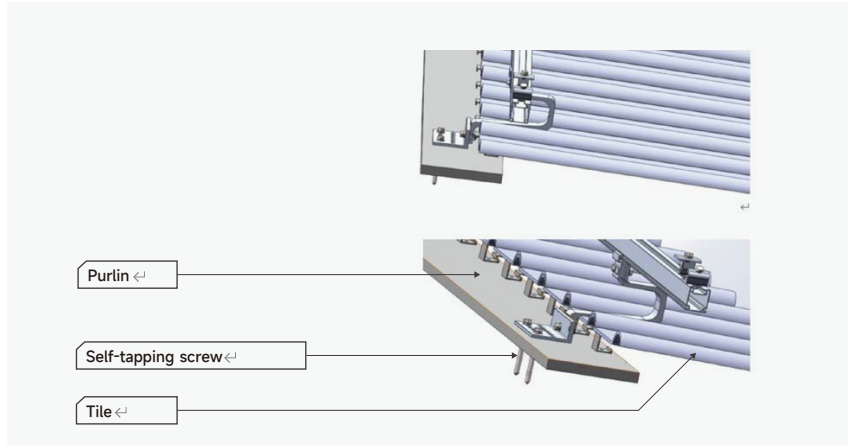
Installation Guide



PV & Mounting Structure Installation

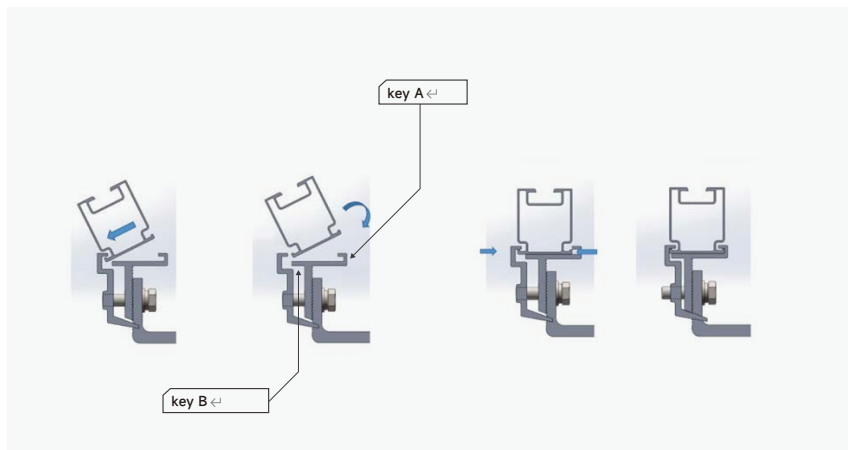
Tile Hook Installation

Calculate the hook span in Slenergy calculation tool based on snow zone, wind zone, altitude and other parameters. The actual installed hook span has to be not more than the calculated value in Slenergy calculation tool, otherwise the mounting structure might have risk of failure when it comes to extreme condition.



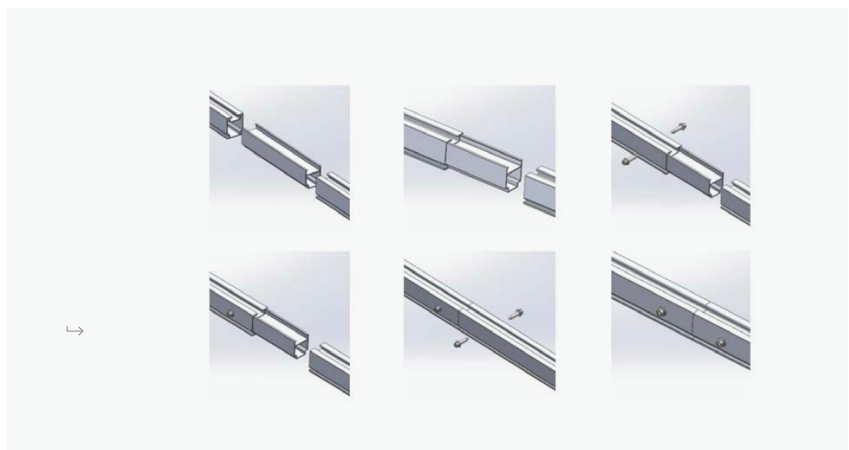
Installation of Rail

After fixing the hook, adjust the height of the rail, loosen the bolt on the upper end of the hook to separate the key A and key B for a certain distance, first align the protrusion of key B with the groove of the rail, and then rotate the rail until the concave on the other side is aligned with the protrusion of key A and locked. The length of rail shall be selected according to the corresponding drawings.



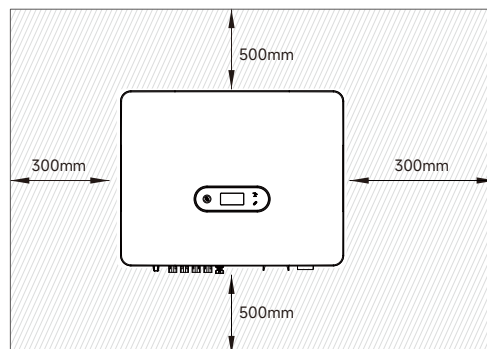
Installation of Rail Splice

In design of modules, the anodized corrosion resistant aluminum alloy frame is applied for rigidity support. The grounding device must be in full contact with inner side of the aluminum alloy and penetrate surface oxide film of the frame.

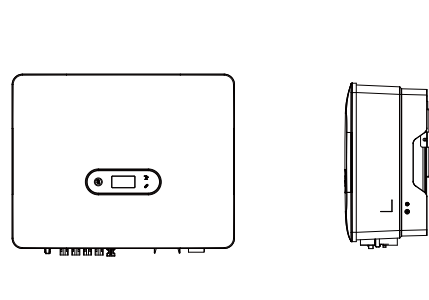


Inverter Installation

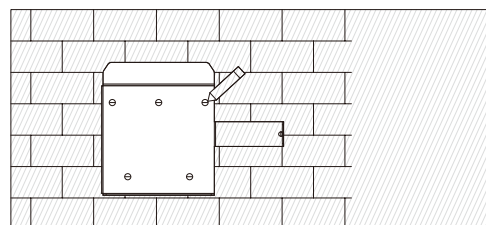
1 Installation Space



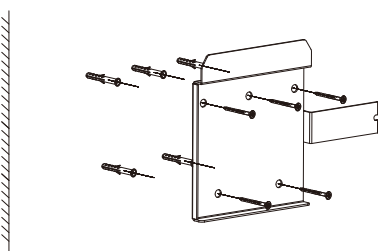
2 Installation Angle



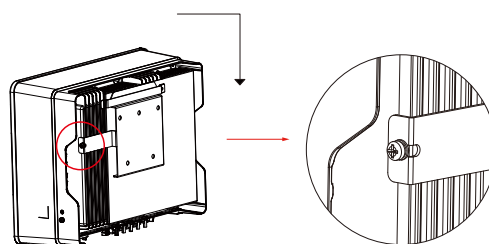
3 Mark the Position and Drill Holes



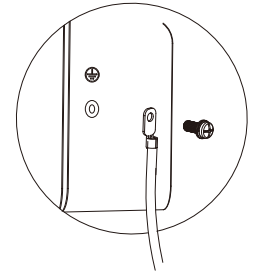
4 Fix Wall Bracket



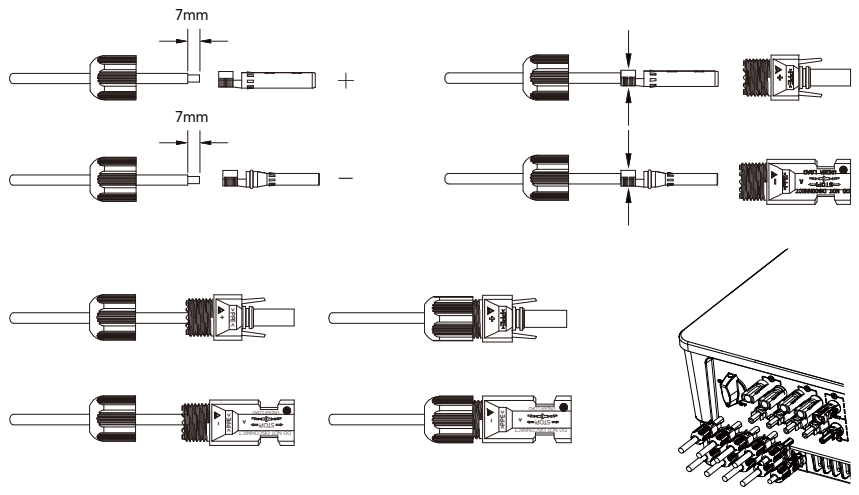
5 Mounting Inverter



6 Grounding Terminal Connection

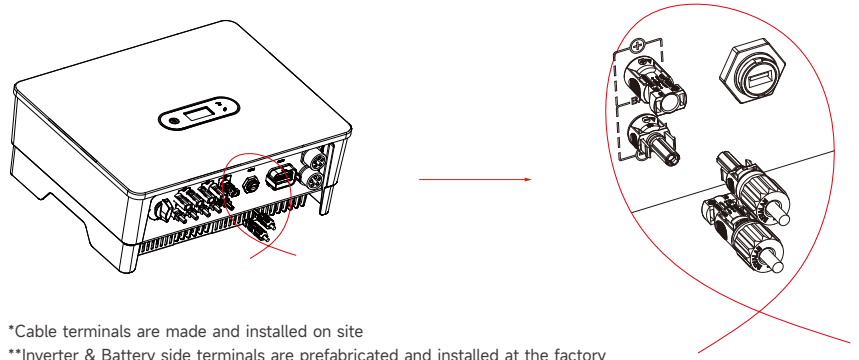


7 PV String Connection*



PV Max. Input voltage is 950V without battery, or 850V with battery, otherwise in inverter will be waiting.

8 Power Cable of the Battery Connection**



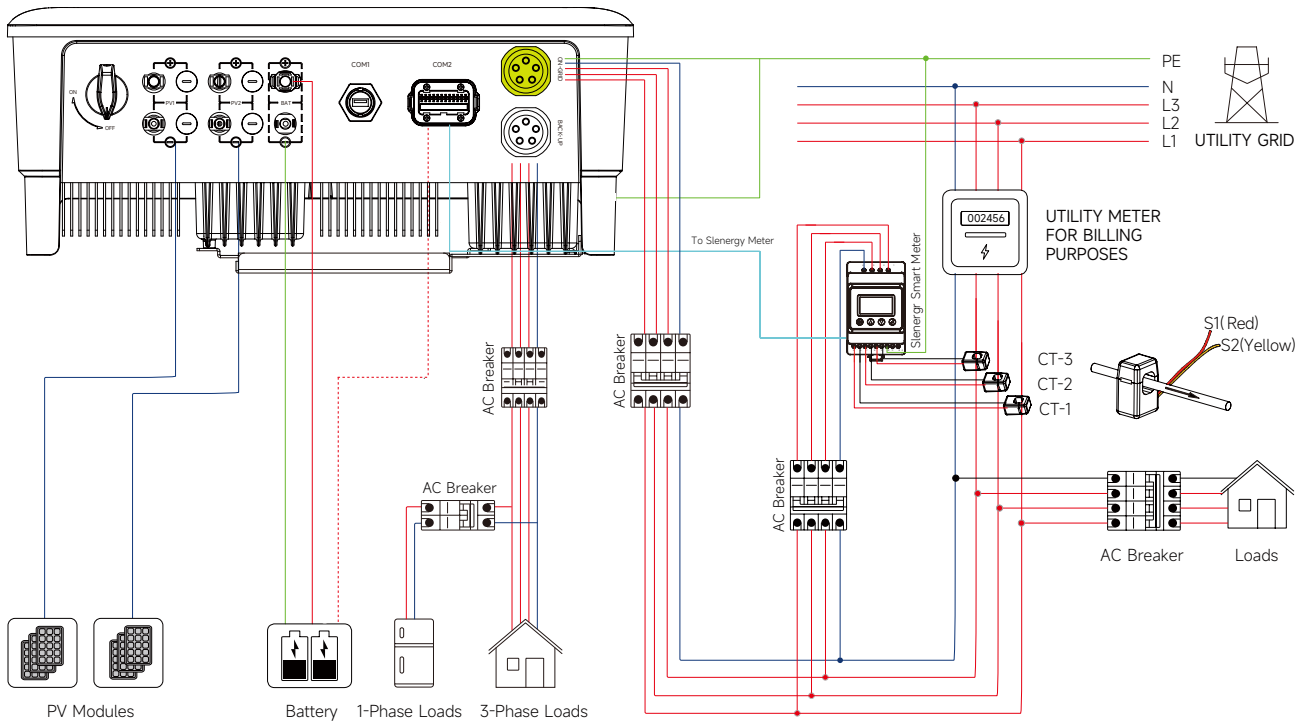
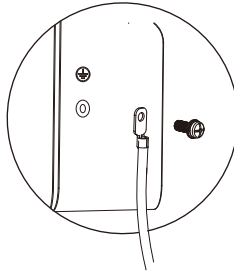
*Cable terminals are made and installed on site
 **Inverter & Battery side terminals are prefabricated and installed at the factory

Note: Install the inverter in the same room of the original distribution box of the user, and the distance should be less than 10m between the inverter and the original distribution box.

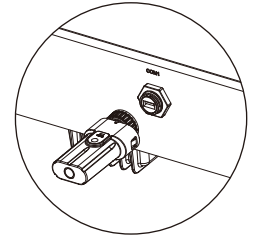
Inverter Electrical Connection

Ground Terminal Connection Steps:

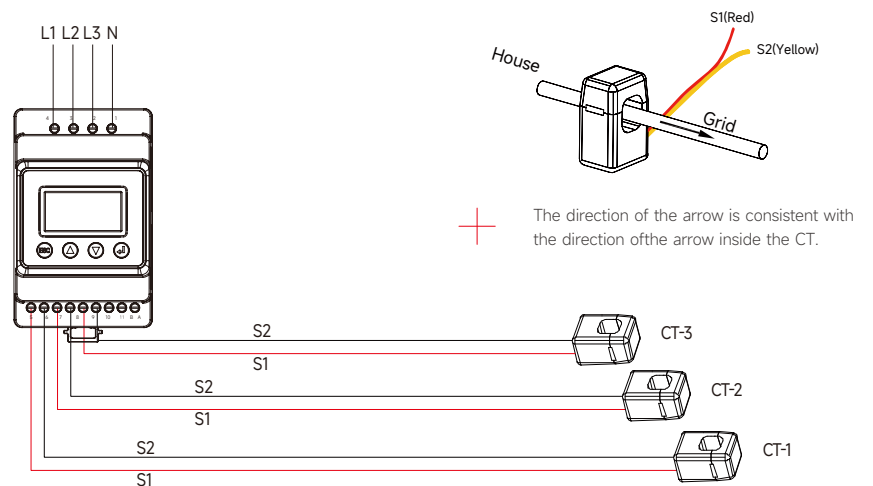
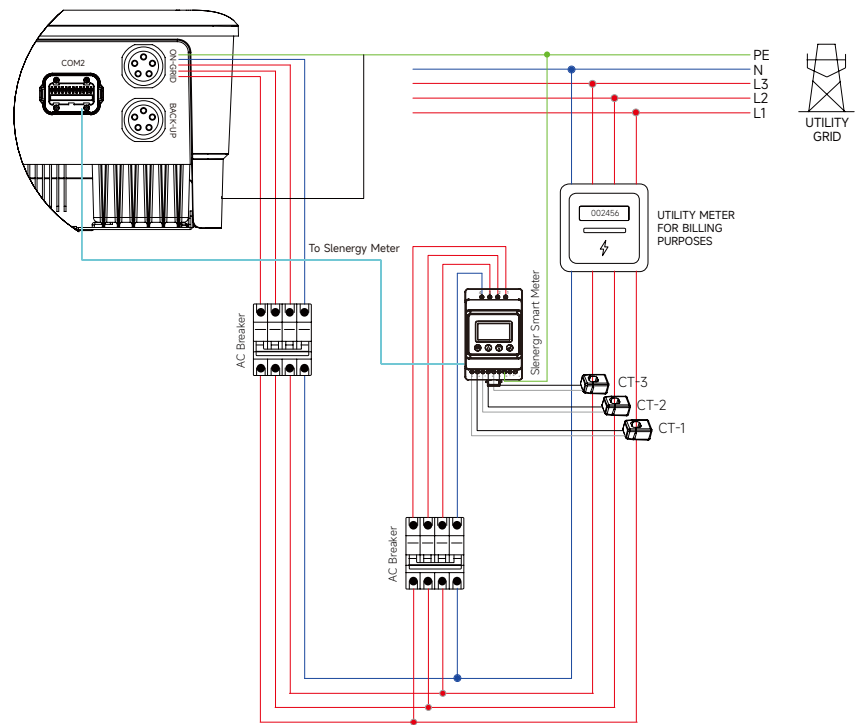
- 1 The external grounding terminal is located in on the lower right side of the inverter.
- 2 Fix the grounding terminal to the H07V-K 6mm² wire with a proper tool and lock the grounding terminal to the grounding hole in the lower right side of the inverter.



Monitoring Device Installation

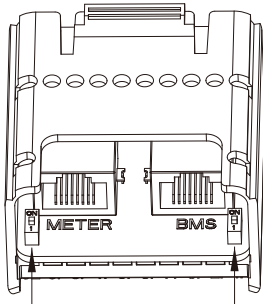


Meter and CT Connection

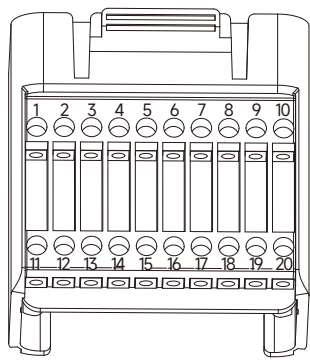


Meter Terminals Definition

No.	Definition	Function	Cable
5	L1-S1		
6	L1-S2		
7	L2-S1	To detect the CT current and direction	Slenergy CT cable
8	L2-S2		
9	L3-S1		
10	L3-S2		
1	L1		
2	L2	L1/L2/L3/N connect to grid to detect power grid voltage	H07V-K 6mm ²
3	L3		
4	N		
12	L	Power supplied from grid	
13	N		
RS485	RS485	Communicate with inverter	UTP CAT5e

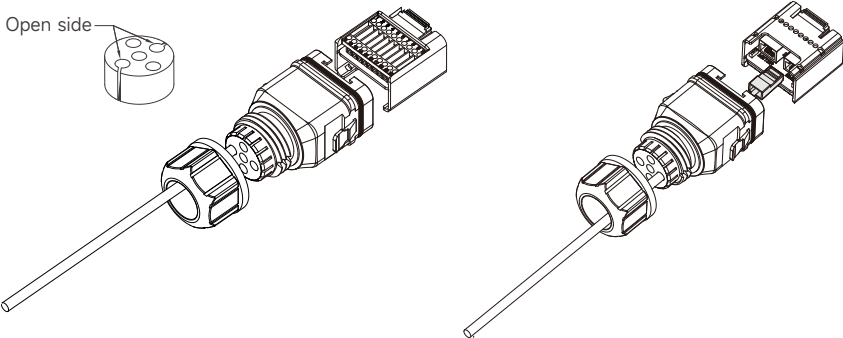


Terminating resistor for CAN(Parallel) Terminating resistor for RS485(EMS)



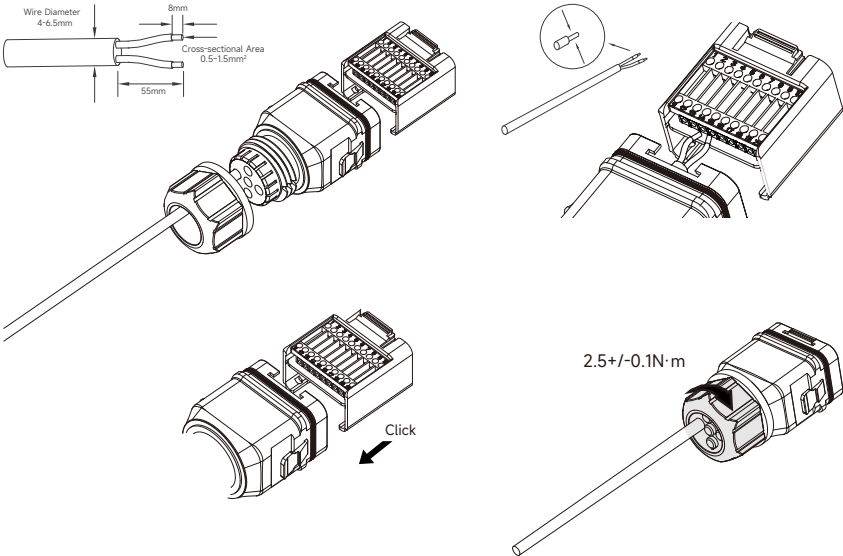
Pin	Definition	Function
RJ45-1	RS 485	Communicate with Meter
RJ45-2	CAN	Communicate with BMS
1	COM	Multifunction Relay
2	NO (Normally Open)	
3	/	Reserved
4	/	Reserved
5	DRM4/8	
6	DRM3/7	
7	DRM2/6	DRED for Australia and New Zealand
8	DRM1/5	
15	COM D/0	
16	REF D/0	
11	Fast stop +	Fast stop
12	Fast stop -	
13	485 B1	EMS
14	485 A1	
17	CANL_P	CAN for parallel connection of inverters
18	CANH_P	
19	/	Reserved
20	/	Reserved

Connect the Meter and BMS Communication Cables

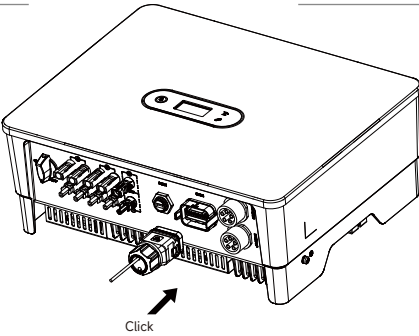


Connect Other Cables

Please be awarded that Meter side terminal is prefabricated and installed at the factory



Installing the COM Connector

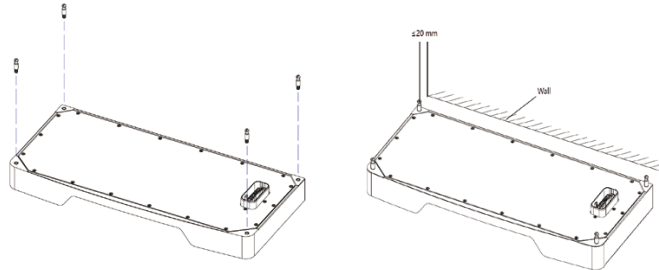


Battery Installation



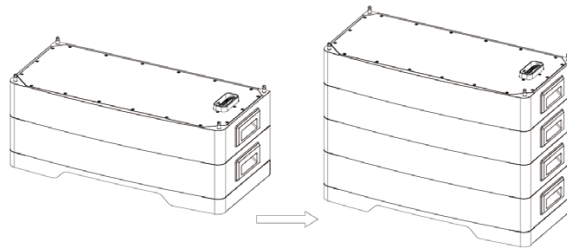
Installation of the Base

①



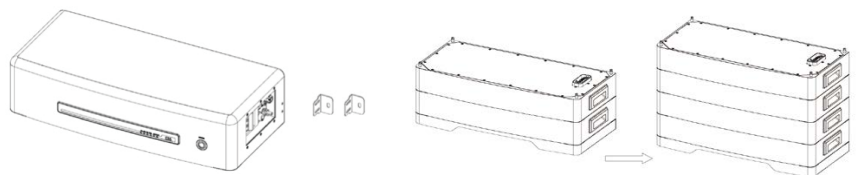
Installation of Slave Battery

②



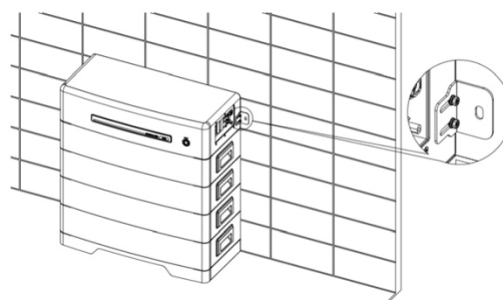
Install the Battery Control Box

③



Fix the Product

④

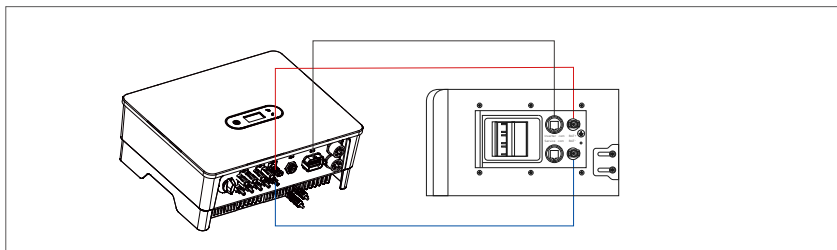


Battery Electrical Connection

1

Power Cable of Battery Connection

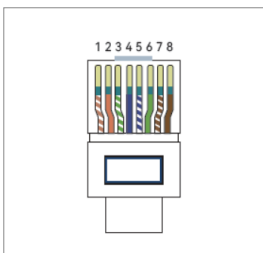
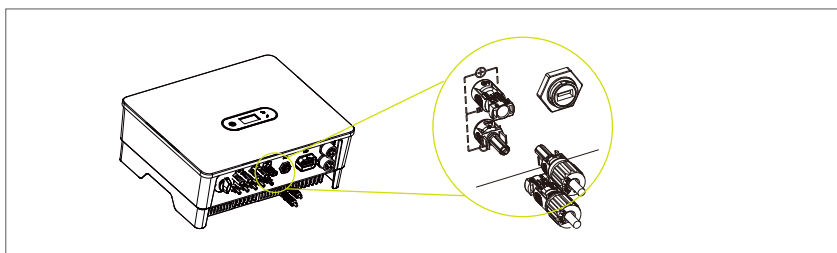
*Inverter & Battery side terminals are prefabricated and installed at the factory



2

Battery Grounding

Connect the grounding wire
BVR-1*6mm²



3

RJ45 Terminal Connection Sequence and Definition



No.	Color	Meter Side	Battery Side
1	Orange & White	/	RS485_A3
2	Orange	/	RS485_B3
3	Green & White	RS485_B2	/
4	Blue	/	CANH_B
5	Blue & White	/	CANL_B
6	Green	RS485_A2	/
7	Brown & White	RS485_B2	/
8	Brown	RS485_A2	/



4

Communication Interface and Definition



Item	Service COM	Inverter COM
1	RS485_A	-
2	RS485_B	-
3	-	-
4	-	AN_H
5	-	CAN_L
6	RS232_RX	-
7	RS232_TX	-
8	RS232_GND	-

3

Configuration Guide



Commissioning

APP Preparation

- 1 Install the Setup App and Monitoring App with latest version. Please refer to the product nameplate on side of enclosure to get the application.
- 2 Register an account on Monitoring APP. If you have got the account and password from the distributor/installer or Solinteg, skip this step.

Inspection Before Commissioning

Check the following items before starting the inverter:

- 1 All equipment has been reliably installed.
- 2 DC switch(es) and AC circuit breaker are in the "OFF" position.
- 3 The ground cable is properly and reliably connected.
- 4 The AC cable is properly and reliably connected.
- 5 The DC cable is properly and reliably connected.
- 6 The communication cable is properly and reliably connected.
- 7 The vacant terminals are sealed.
- 8 No foreign items, such as tools, are left on the top of the machine or in the junction box (if there is).
- 9 The AC circuit breaker is selected in accordance with the requirements of this manual and local standards.
- 10 All warning signs & labels are intact and legible.

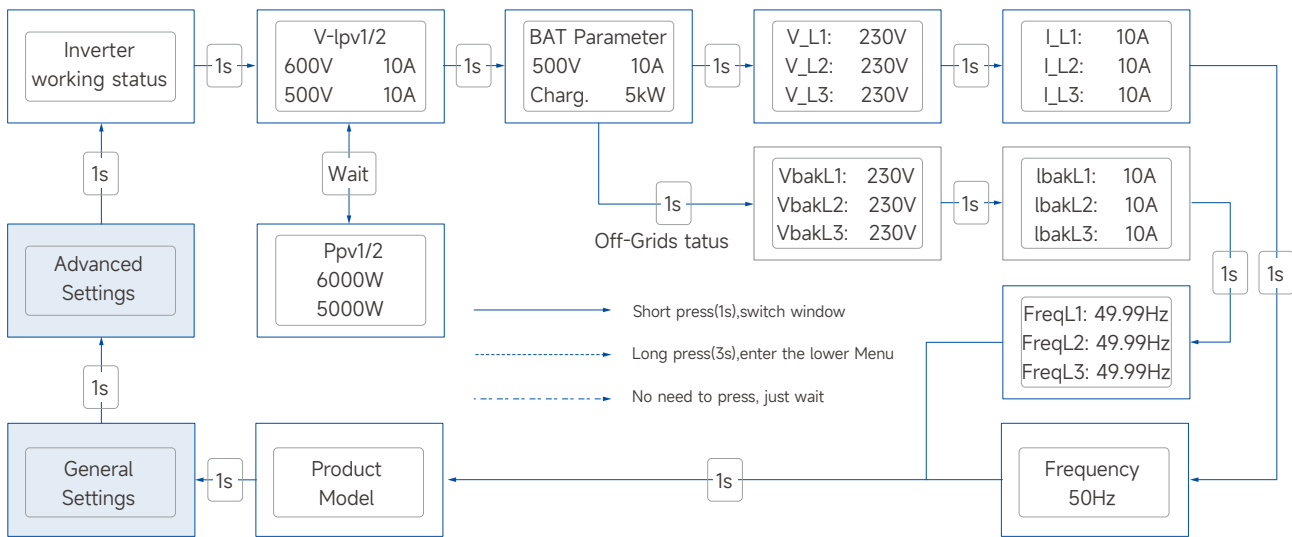


Commissioning Procedure

If all of the items mentioned above meet the requirements, proceed as follows to start up the inverter for the first time.

- 1 Turn on the AC breaker.
- 2 Turn on the lithium battery breaker. Power on the battery pack manually if a battery is equipped.
- 3 Turn the DC switch, the DC switch may be integrated in the inverter or installed by the customer.
- 4 If the irradiation and grid conditions meet requirements, the inverter will normally operate. The connection time for inverter to grid may take few minutes or even to more according to different country code chosen in the initial settings and the real site grid condition.
- 5 Observe the LED indicator to ensure that the inverter operates normally.

Abbreviation	Complete Name
V-lpv1/2	PV input voltage and current of each MPPT
Ppv1/2	PV input power of each MPPT
BAT Parameter	Battery Parameter
Charg.	Charge
Dischg.	Discharge
V_L1: / V_L2: / V_L3:	Three-phase AC voltage (On-Grid status)
VbakL1: / VbakL2: / VbakL3:	Three-phase AC voltage (Off-Grid status)
I_L1: / I_L2: / I_L3:	Inverter output current (On-Grid status)
IbakL1: / IbakL2: / IbakL3:	Inverter output current (Off-Grid status)
FreqL1: / FreqL2: / FreqL3:	Inverter output Frequency (Off-Grid status)
FW Updating	Firmware Updating



Inverter working status
 Waiting/Checking/On-Grid/Off-Grid/Fault Info/FW Updating

MHT-OLED-01-EN

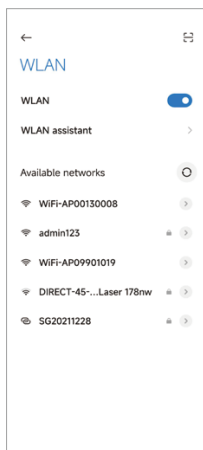
WiFi Module Configuration Guide

① → ② → ③

Prepare a laptop or Smartphone and turn on the WLAN connection.

Searching for the corresponding WLAN in the WLAN connection list "WIFI-AP*****" (*represents the last 8 numbers of the inverter SN), and tap connect.

Open the browser and enter 10.10.100.254.

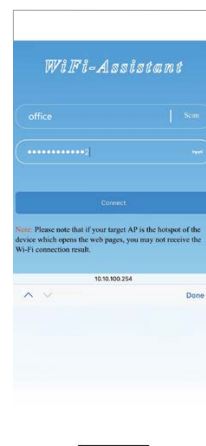


④ → ⑤ → ⑥

Tap "Scan", A list of WiFi network names pop up.

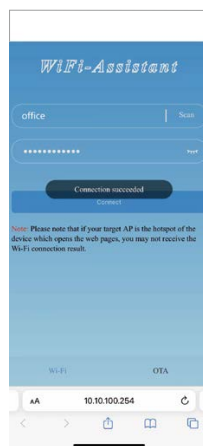
Click and select the corresponding router network you want to configure.

Input the password of wireless network, (note the case difference), Tap "Connect".



⑦

If connected successfully "Connection succeeded" will be displayed. After successful configure, the indicator status of WIFI module will be steady on.



LAN Module Configuration Guide

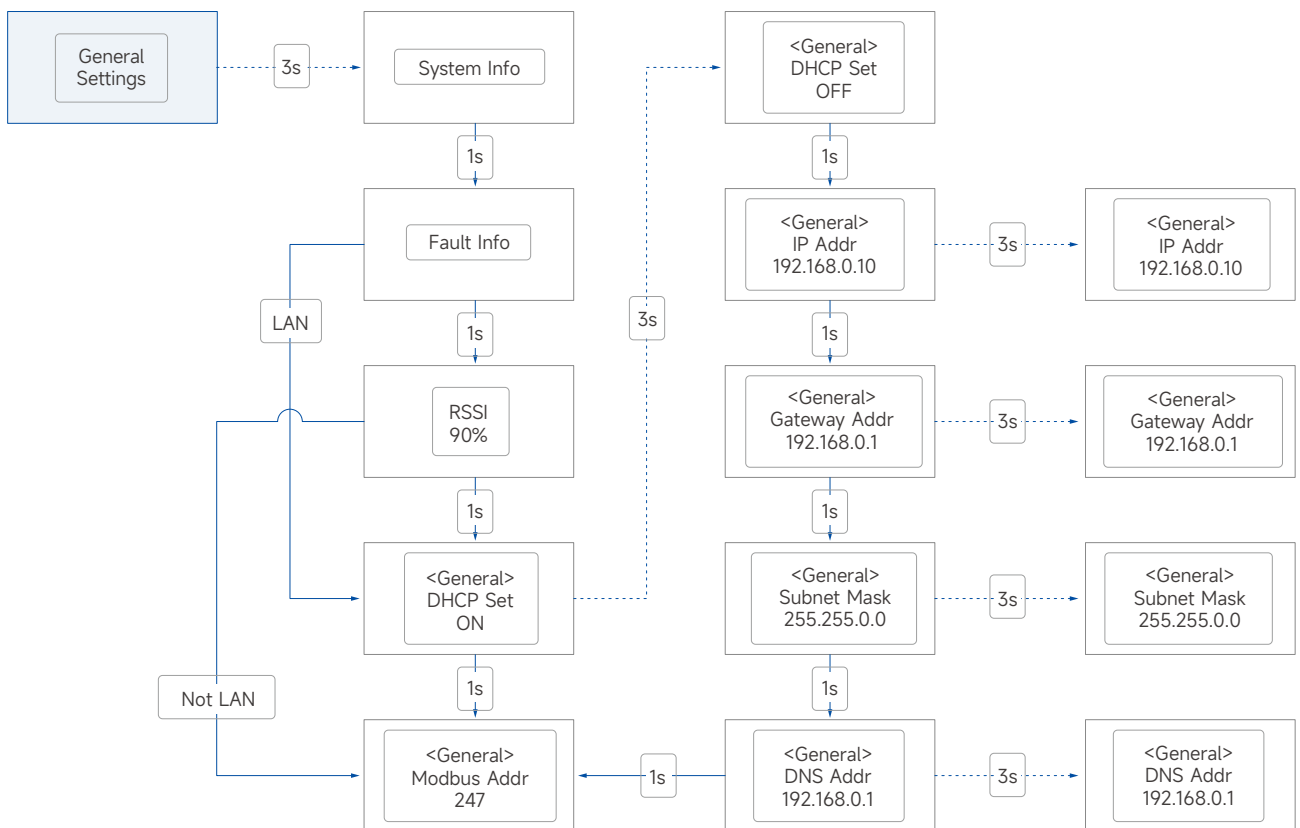
If DHCP is enabled on the router, the LAN module does not need to be configured. Otherwise, the LAN module will need to be configured on inverter screen.

- 1 Find the "General Settings" by short pressing the button on the inverter screen.

- 2 Enter the "General Settings" by long pressing the button on the inverter screen.

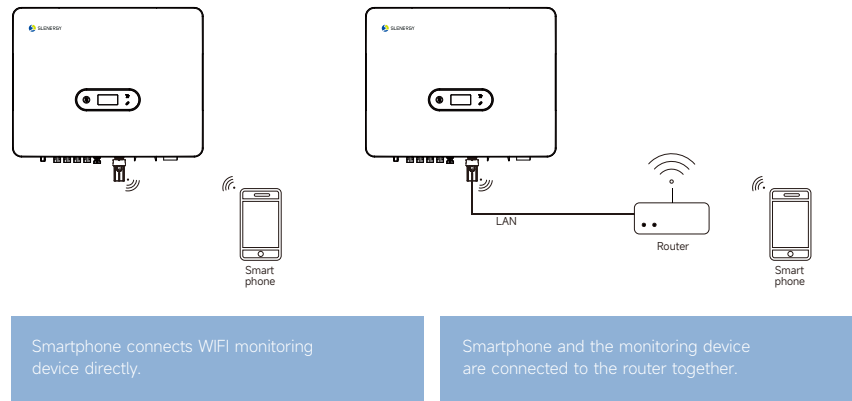
- 3 Find "DHCP set" by short pressing the button, then turn off DHCP function by short pressing and long pressing the button on the inverter screen.

- 4 Then set the "IP Address", "Gateway Address", "Subnet Mask" and "DNS Address". Short press to change the number, long press to confirm the number and jump to the next number.



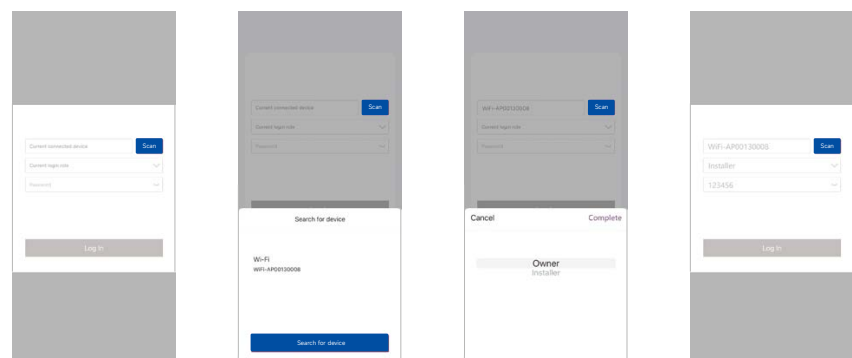
Local Configuration App

Local configuration App is designed for quick configuration of hybrid inverters, offering features such as safety code, battery brand and type, work modes, and off-grid application settings through WiFi direct connection, etc. There are two connection modes, WiFi direct connection and router connection.






Connection Steps

- 1-a. Refer to “WiFi module configuration guide step1~2” to connect the smartphone to the WiFi module. If it is connected, skip this step.
 - 1-b. Refer to “WiFi module configuration guide” or “LAN module configuration guide” to connect the WiFi/LAN module to the router. Then connect smartphone to the same router. If it is connected, skip this step.
-
- 2 Open “Setup APP”, Tap “Scan”, A list of inverter WiFi-AP names pop up.
 - 3 Click and select the inverter WiFi-AP which you want to connect.
 - 4 Select the login role.
 - 5 Input the password(123456), Tap “Login In”.
 - 6 If connected and logged in, the Setup APP main interface will be displayed.



Indicator & Monitoring Device

Indicator

Indicator	Status	Description	
 Power and Alarm Indicator	Off	No power.	
	Green	Quick flashing	Inverter entered self-test status.
		Slow flashing	Inverter entered waiting status.
	Orange	Breathe flashing	Inverter works normal.
		Breathe flashing	Low battery warning, the battery power is about to reach the SOC protection value.
Red	Always on	An alarm or fault is detected, view the fault info on the display.	
 Grid Indicator	Off	Grid lost.	
	Slow flashing	Inverter detected grid but not running in on-grid mode.	
	Always on	Inverter works in on-grid mode.	
 Communication Indicator	Green	Always on	The inverter communication is running normally.
	Green	Flashing	The inverter communicates with EMS or Master inverter through RS485 or CAN.
	Orange	Always on	The inverter isn't communicating with Solinteg smart meter.
	Red	Always on	The inverter isn't communicating with the BMS.

Monitoring Device

Indicator Status	Description
Off	Connection abnormal
Always On	Communicate with the server normally
Slow flashing	The monitoring device is not connected to the router or is not connected to the base station.
Quick flashing	The monitoring device is connected to the router or connected to the base station but not connected to the server.

Button	Description
Press 1 second	Reset device, the indicator goes off for 2 seconds, then flashes normally.
Press 5 second	Restore factory default settings, the indicator goes off for 2 seconds, then flashes once every 2 seconds, until the factory restore is completed.



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