



Share-Home
Residential Smart Solar System

2023.07

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 and Slenergy Technology (HK) Limited. (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.

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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

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.

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.

Slenergy Technology (A.H.) Co., Ltd.

Website

www.slenergy.com

Address

NO. 120 Yongyang Road, Chuzhou
City, Anhui Province, China

Technical support email

service@slenergy.com



Company Profile

- Slenergy is a renewable energy company that develops, produces, and delivers the world's most complete and cost-effective photovoltaic solar energy solutions. Slenergy has created multiple PV systems designed for specific solar energy installations and applications, including residential , industrial, Micro/off-grid, ground PV kits.
- The use of iShare-Home designed of cost and time savings by offering users an all-in-one packaged product, thus eliminating the need for the customer to deal with multiple manufacturers and suppliers.
- Furthermore, our in-house engineering & product development team ensures that every PV system is fully compatible for turnkey installations, which are manufactured under Slenergy's quality standards in its assembly facility.

Vision

A World-Leading provider of sustainable smart energy solutions

CONTENT

01

Concept



02

Product Introduction



03

Installation



PART

Concept

Introduction of marketing
shortages and design concept



01

Distributors and Installers

- High labor cost
- Difficulties in dealing with different manufacturers
- Long design cycle
- Incompatibility between equipment
- Difficulties in fault identification and responsibility attribution
- Lack of system products

Customers

- Products not cost-effective
- No assurance in system compatibility and reliability
- Poor after-sales service
- Incompatibility between equipment
- Lack of smart energy solution

Difficult

Certificates

Our PV Solutions and complete range of products, On-grid, Off-grid, Hybrid, and Residential PV Kits include a wide variety of internal components and hardware that comply with global industry standards. We offer multiple certifications for all components in our product line that follow local standards and codes required for your specific regions or markets. This ensures safe installations and promotes optimal photovoltaic practices.



UN38.3



Warranty

Slenergy offers a complete line of warranties on all major products and components within our PV kits and solar energy solutions with optional extended warranties upon request.

2 Years	5 Years	10 Years	12/15 Years	25/30 Years
Cable set	Hybrid Inverter	Mounting Structure Li-ion Battery	PV Module Materials and workmanship warranty	PV Module linear power warranty

01

Standard

System Design

Standard BOM

Interface design

The connection between each equipment is designed with standard interface

Product Design

- Mounting Structure: Able to meet the load and installation requirement in most area of target market
- High compatibility
- Cable design standardization

02

Modular

Energy storage

Adopts the smallest modular unit of 2.56kWh, which can be flexibly configured according to customer needs.

Mounting structure

Design the mounting structure of two PV modules as the smallest unit, able to maximize the use of roof area.

Packing

Adopts system parts packing, delivers complete set

03

Simple

Wireless quick installation

Storage battery installed in stack

The connection between modules adopts male and female plug, no wiring is required

Plug and play

Plug-in interface without any tools

Electrical installation save 0.5h

04

Smart

Real-time monitoring, intelligent control

24-hour monitoring of the power station's operating status, and different operating modes can be selected according to the household's electricity consumption

Intelligent detection, safe operation

Able to automatically detect the installation of CT or meter to prevent abnormal operation of the inverter caused by incorrect installation of CT or meter

Remote upgrade, fault alarm

Support remote upgrade and equipment failure alarm function

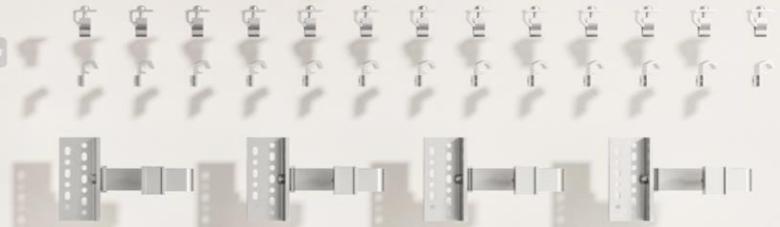
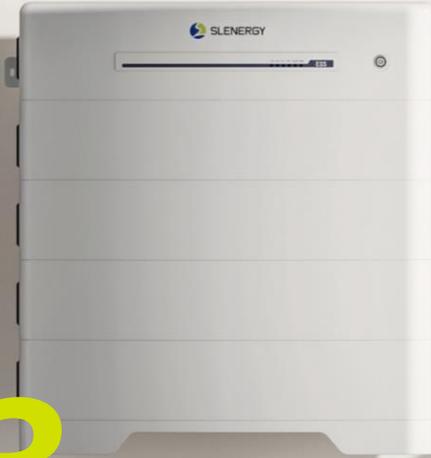
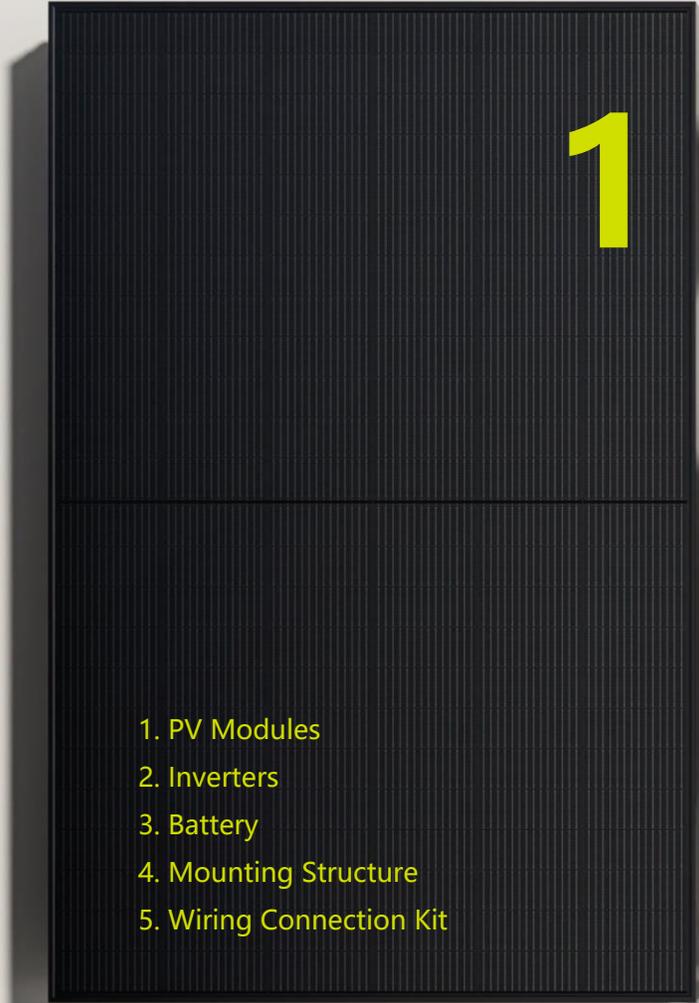
PART

Product Introduction

System introduction and equipment key features



02



- 1. PV Modules
- 2. Inverters
- 3. Battery
- 4. Mounting Structure
- 5. Wiring Connection Kit

We offer both Monocrystalline cell technology in all black glass back-sheets perfectly suitable for rooftop with ultra-high conversion efficiency of 20.7%. Non-destructive cutting method using laser heating profit cutting principle to avoid laser thermal ablation and mechanical splintering process that represent users an aesthetic Reduces interface recombination and enhances edge passivation Edge passivation: Special edge passivation technology, after cutting, the side of the battery is treated with a special field effect passivation material

1

PV Modules

Slenergy offers a range of variable power inverters in three phase AC. Code compliant to every market we offer inverters with 110% three-phase unbalanced output, supporting both grid-connected and off-grid applications, ultra-wide battery input voltage, flexible configuration of energy storage battery system
The horizontal design of the product and the configuration of the quick plug terminal make it easy to install and operate in operation.
Low noise design for greater security in home applications
Maximum power production is achieved by offering wider input voltages and operating temperature ranges.

2

Inverters

SL-BH series is a high voltage battery using original battery active balance technology that offers multiple energy storage options through an expandable modular design (3-8 modules combined), which further simplifies installation and O&M with multiple smart function. The safest battery cell technology (LiFeO4) comes with a high charging rate, ensuring superior performance with remote diagnosis and real-time data monitoring system.

3

Battery

iShare-Home mounting systems designed by our specialists complying following standards: AS/NZS 1170, DIN 1055, International Building Code IBC2009; California Building Code CBC 2010; JIS C8955: 2017. iShare-Home uses only the highest quality materials (AL6005-T6(Anodized)) in its mounting systems.

4

Mounting Structure

One of the best parts of iShare-Home is our wiring connection are mostly factory prefabricated and pre-connected. Safety matched with functionality allows for easier plug and play installation while maintaining the all in one solution.

5

Wiring Connection Kit



PV Module

- Max. Efficiency **20.7 %**
- Module Power **405 W**
- All Black PV modules / low-profile and minimalist aesthetic
- IEC 61215, IEC 61730, IEC 62716, IEC 61701, IEC TS 62804-1, IEC 60068-2-68
- ISO 9001, ISO 14001, ISO 45001



2.00%

First year Power Degradation

0.5%

Year 2-25 Power Degradation

12-year

Warranty for materials and Processing

25-Year

Warranty for Extra Linear Power Output



PV Module

N Type TOPCON

- Max. Efficiency **21.8 %**
- Module Power **425 W**
- All Black PV modules / low-profile and minimalist aesthetic
- IEC 61215, IEC 61730, IEC 62716, IEC 61701, IEC TS 62804-1, IEC 60068-2-68
- ISO 9001, ISO 14001, ISO 45001



1.00%

First year Power Degradation

0.4%

Year 2-25 Power Degradation

15-year

Warranty for materials and Processing

30-Year

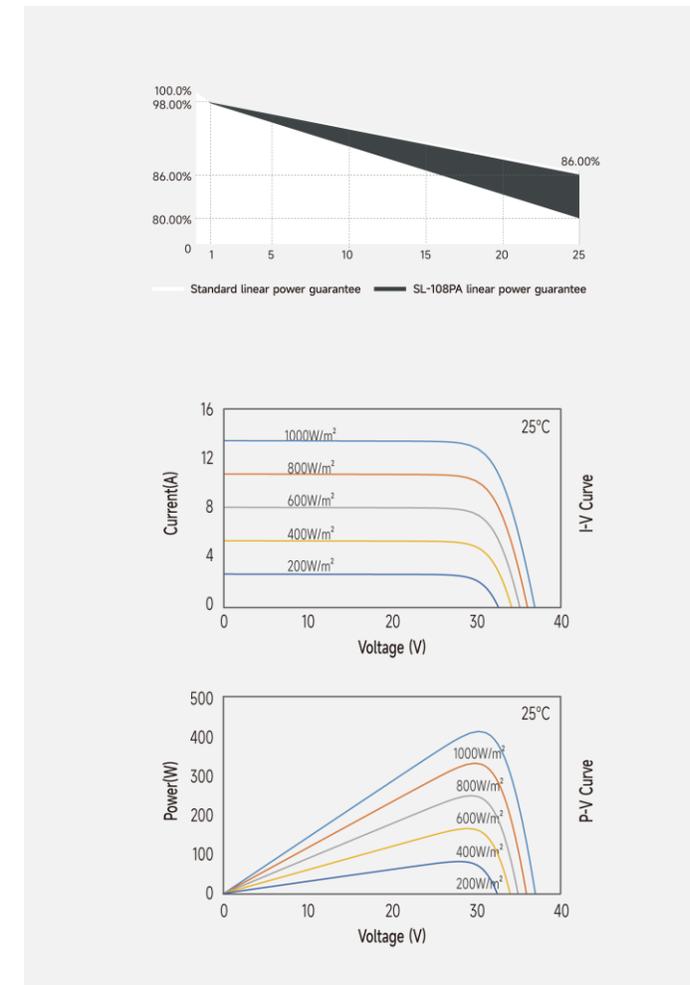
Warranty for Extra Linear Power Output



Electrical Parameters (STC *)		Mechanical Parameters	
Nominal Max. Power(Pmax/W)	405	Cell Type	P Type
Open Circuit Voltage(Voc/V)	37.38	Module Size	1722×1134×30mm
Short Circuit Current(Isc/A)	13.76	Glass Thickness	3.2mm
Operating Voltage(Vmp/V)	31.35	Module Weight	21.2kg
Operating Current(Imp/A)	12.92	Output Cable	4mm ² ,cable length 1200mm
Efficiency(%)	20.7	Connector	MC4 compatible
STC * : Irradiance = 1000 W/m ² , Cell Temperature = 25°C, AM = 1.5		Junction Box	IP68, 3 bypass diodes
Test condition is based on the front side		Frame	Anodized aluminium alloy (Black)
Electrical Parameters (NMOT *)		Operating Parameters	
Nominal Max. Power(Pmax/W)	298	Max. System Voltage	DC1500V
Open Circuit Voltage(Voc/V)	34.58	Power Tolerance	0 ~ +5 W
Short Circuit Current(Isc/A)	11.09	Operating Temperatue	-40°C ~ +85°C
Operating Voltage(Vmp/V)	28.79	Max. Fuse Rated Current	25A
Operating Current(Imp/A)	10.34	Front Static Load	Snow load 5400Pa, Wind load 2400Pa

Temperature Coefficients	
Short Circuit Current(Isc)	+0.048%/°C
Open Circuit Voltage(Voc)	-0.26%/°C
Nominal Max. Power(Pmax)	-0.340%/°C
NMOT	43±2°C

Packing Data		
Packing Type	20'GP	40'HQ
Piece/Pallet	36	36
Pallet/Container	6	26
Piece/Container	216	936

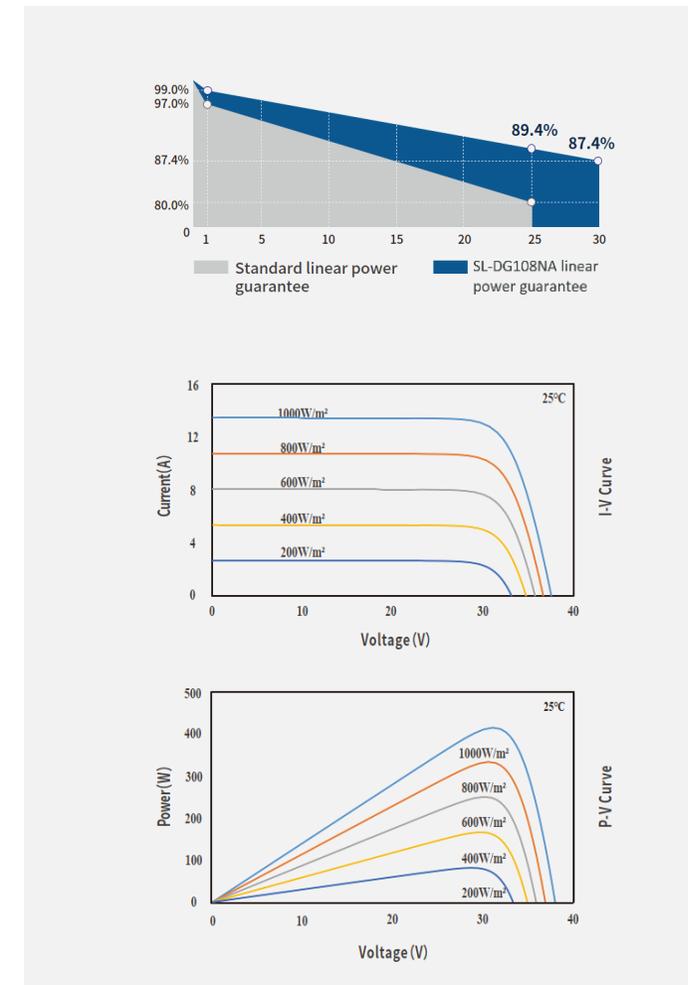


NMOT *: Irradiance = 800 W/m², Ambient Temperature = 20°C, AM = 1.5, Wind Speed = 1 m/s
Test condition is based on the front side

Electrical Parameters (STC *)		Mechanical Parameters	
Nominal Max. Power(Pmax/W)	425	Cell Type	N Type
Open Circuit Voltage(Voc/V)	38.54	Module Size	1722×1134×30mm
Short Circuit Current(Isc/A)	13.79	Glass Thickness	1.6mm
Operating Voltage(Vmp/V)	32.35	Module Weight	20.5kg
Operating Current(Imp/A)	13.14	Output Cable	4mm ² ,cable length 1200mm
Efficiency(%)	21.8	Connector	MC4 compatible
STC * : Irradiance = 1000 W/m ² , Cell Temperature = 25°C, AM = 1.5		Junction Box	IP68, 3 bypass diodes
Test condition is based on the front side		Frame	Anodized aluminium alloy (Black)
Electrical Parameters (NMOT *)		Operating Parameters	
Nominal Max. Power(Pmax/W)	319	Max. System Voltage	DC1500V
Open Circuit Voltage(Voc/V)	36.46	Power Tolerance	0 ~ +5 W
Short Circuit Current(Isc/A)	11.11	Operating Temperatue	-40°C ~ +85°C
Operating Voltage(Vmp/V)	30.28	Max. Fuse Rated Current	30A
Operating Current(Imp/A)	10.54	Front Static Load	Snow load 5400Pa, Wind load 2400Pa

Temperature Coefficients	
Short Circuit Current(Isc)	+0.045%/°C
Open Circuit Voltage(Voc)	-0.250%/°C
Nominal Max. Power(Pmax)	-0.300%/°C
NMOT	42±2°C

Packing Data		
Packing Type	20'GP	40'HQ
Piece/Pallet	36	36
Pallet/Container	6	26
Piece/Container	216	936



NMOT *: Irradiance = 800 W/m², Ambient Temperature = 20°C, AM = 1.5, Wind Speed = 1 m/s
Test condition is based on the front side

Inverter

- Max. Efficiency **98.2 %**
- Dual MPPT technology provides numerous layout and design options.
- Large MPPT voltage range
- Within **10ms** UPS-level switching
- Up to **110%** unbalanced load
- Up to **125%** AC output overloading
- Max. 200% back-up output overloading @60s
- Active power off protection and Arc-fault circuit interrupter
- Integrated DC disconnect and utility grade meters.
- IEC/EN 62109, IEC/EN 61000, EN50549-1, TOR Generator Type A, VDE-AR-N-4105

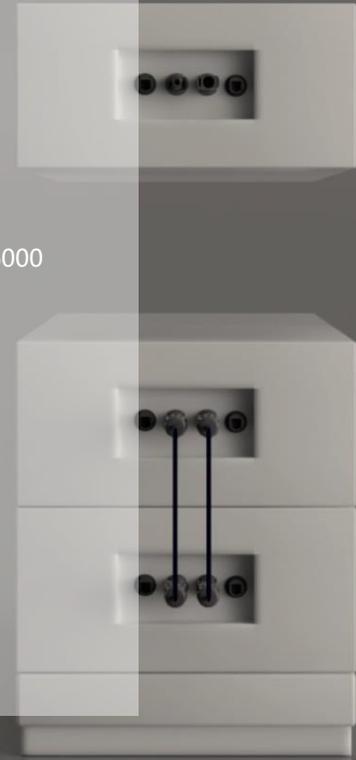


Technical Specification	SL-D4KTR-H25	SL-D5KTR-H25	SL-D6KTR-H25	SL-D8KTR-H25	SL-D10KTR-H25	SL-D12KTR-H25
Efficiency						
Max. efficiency	98.10%	98.10%	98.10%	98.20%	98.20%	98.20%
European Efficiency	97.30%	97.30%	97.30%	97.40%	97.40%	97.40%
Input						
Max. Input power [kWp]	6	7.5	9	12	15	18
Max. DC input Voltage*[V]				1,000		
MPPT voltage range**[V]	120~950					200~950
Max. input current per MPPT [A]				15		
Max. short-circuit current [A]				20		
Number of MPP trackers				2		
Max. number of inputs				2		
Output						
Battery Side						
Battery Type	Lithium Battery (with BMS)					
Battery Voltage Range [V]	135~750					
Max. charging/Discharging Current [A]	25/25					
Grid connection	Three-phase					
Rated output power [kW]	4	5	6	8	10	12
Rated Output Voltage [V]	220 Vac/ 380 Vac, 230 Vac/ 400 Vac 240/415V, 3L/N+PE					
Rated AC grid frequency [Hz]	50/60					
Adjustable power factor	0.8 leading ... 0.8 lagging					
Max. total harmonic distortion	≤3%					
Back-up Side						
UPS Switching Time [ms]	<10	<10	<10	<10	<10	<10
General Data						
Weight [kg]	26					
Dimension (W×D×H) [mm]	534×418×210					
Degree of protection	IP65					
Standard Compliance (more available upon request)						
Compliance	IEC/EN 62109, IEC/EN 61000, EN50549-1, TOR Generator Type A, VDE-AR-N-4105					



Energy Storage Battery

- Safer LiFePO₄ batteries
- Flexible Application Modular design with extensible capacity from 7.68-20.48kWh
- Reliable Performance Long working life with 6000 cycles @80% DOD
- Stacked structure with optimized installation mode
- Better temperature sensitivity increases cycle usage
- Excellent deep discharge recovery with fast recharge performance
- CE, UN38.3, MSDS, CB/EMC, IP



Remark: The products are continuously upgraded, subject to the final delivery.

Battery	LX-BH-3-7	LX-BH-4-10	LX-BH-5-12	LX-BH-6-15	LX-BH-7-17	LX-BH-8-20
NO. of series battery	3	4	5	6	7	8
Rated power (kWh)	7.68	10.24	12.8	15.36	17.92	20.48
Usable energy (kWh)	6.9	9.2	11.52	13.8	16.13	18.4
Rated voltage (V)	153.6	204.8	256	307.2	358.4	409.6
Voltage range (V)	134.4~172.8	179.2~230.4	224~288	268.8~345.6	313.6~403.2	358.4~460.8
Nominal Capacity	50Ah					
Maximum Charge/Discharge Current	25A (Recommend) / 50A (Maximum)					
Cycle Times	6000 Cycle @80% DOD,residual capacity>60%					
Communication	RS485/RS232/CAN 2.0					
Working Temperature	0°C~55°C@Charging/ -20°C~55°C@Discharging					
Dimensions (W*D*H mm) / Weight (kg)	851*255*488	851*255*618	851*255*748	851*255*878	851*255*1008	851*255*1138
	104	136	168	200	232	264
Working Condition						
Installation	Indoor					
Working temperature	-10°C~50°C					
Protection degree	IP54					
Humidity	5%-95%					
Altitude	≤2000					
Cooling	Natural					
Certificate	CE,UN38.3, MSDS					



- Easy to fix rail and adjust leveling
- Easy to adjust hook height
- Hook height adjusting range 40-55mm

- High strength aluminum alloy
- Minimum modular design with two PV panels
- Better compatibility with roof



Mounting Structure

Product Name	Tile Hook	Design Standard	AS/NZS 1170, DIN 1055, JIS C8955: 2017
Installation Site	Pitched Roof		International Building Code IBC 2009,
Foundation	Tile, Flat Tile, Slate Tile, Asphalt Shingle Tile		California Building Code CBC 2010
Tilt Angle	15-60°	Hook 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 or Frameless	Color	Silver and black or Customized Color
Panel Layout	Portrait or Landscape	Certificate	TUV

Cable Set

- Wide application flexibility
- Superior durability and longevity
- Cost and time savings with connectors prefabricated

No.	Name	specification	From	To	Remark	Length(m)	Accessory bag
1	PV DC Cable	H1Z2Z2-K 1×6mm ²	PV Modules	Inverter PV connector	Cable terminals are made and installed on site	80 ~ 160	MC4 Connector
2	Inverter to Battery DC Cable	UL 11627 10AWG/8AWG	Inverter Battery connector	Battery output connector	Cable terminals are prefabricated and installed at the factory	4	-
3	On Grid AC Cable	NYY- 5×4mm ² /5×6mm ²	Inverter On-grid output terminal	Original distribution box	Inverter side terminal is prefabricated and installed at the factory	10	-
4	Backup AC Cable	NYY- 5×4mm ² /5×6mm ²	Inverter Backup output terminal	Back-up loads	Inverter side terminal is prefabricated and installed at the factory	10	-
5	Inverter & Battery PE	H07V-K 6mm ²	Inverter & Battery grounding hole	External ground Bar	Inverter & Battery side terminals are prefabricated and installed at the factory	20	-
6	PV Roof Grounding	NYY-1×6mm ²	PV supporting bracket	External ground Bar	Cable terminals are made and installed on site	40 ~ 60	-
7	Communication Cable	STP CAT5e	Inverter Multi-com Connector (COM2)	Meter	Both side terminals are prefabricated and installed at the factory	10	-
	Communication Cable	STP CAT5e	Inverter Multi-com Connector (COM2)	Battery	Both side terminals are prefabricated and installed at the factory	3	-
8	Meter Cable	H03VV- F 4×0.5mm ²	Meter terminal (1,2,3,4)	Grid (L1, L2, L3, N)	Meter side terminal is prefabricated and installed at the factory	3	-

PART

Installation Instruction

Quick Installation introduction



03

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.

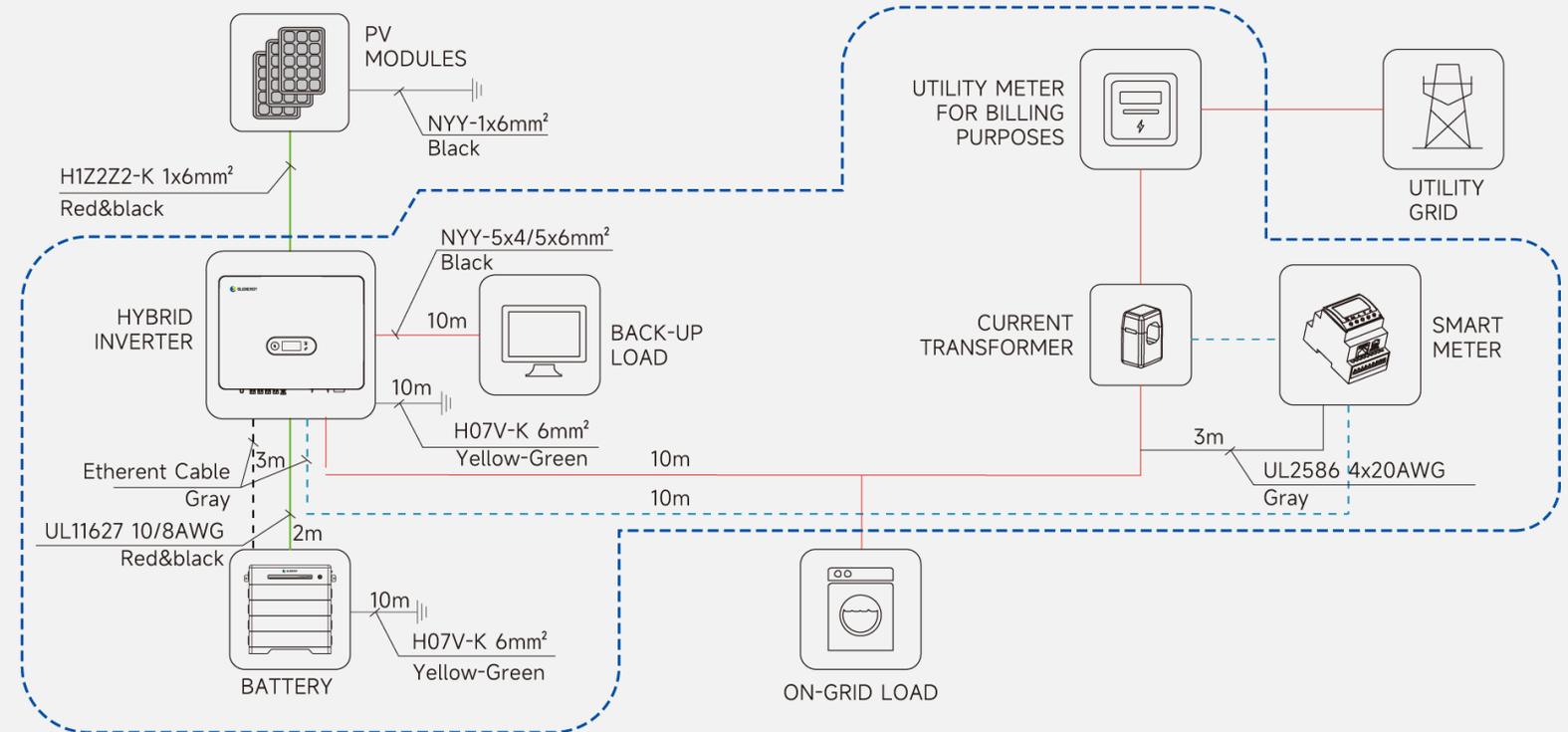


The battery cannot be disposed of with household waste.



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.

What's in the Box



iShare integrated System – 405W

System Configuration	4kW	5kW	6kW	8kW	10kW	12kW	15kW
PV Module	4kW~5kW	6kW~7kW	8kW~9kW	10kW~11kW	12kW~14kW	15kW~17kW	18kW~20kW
No. PV modules (pcs)	10/12/14	16/18	20/22	24/26/28	30 /32/34/36	38/40/42/44	46/48/50
Inverter	4kW*1set	5kW*1set	6kW*1set	8kW*1set	10kW*1set	12kW*1set	15kW*1set
Battery	7kWh-15kWh	7kWh-17kWh	7kWh-20kWh	7kWh-20kWh	7kWh-20kWh	7kWh-20kWh	7kWh-20kWh
Cable set	1 set	1 set	1 set	1 set	1 set	1 set	1 set
Mounting Structure set	1 set	1 set	1 set	1 set	1 set	1 set	1 set
Cloud & APP	1 set	1 set	1 set				

Wiring Connection prefabricated

No.	Name	specification	From	To	Remark	Length(m)	Accessory bag
1	PV DC Cable	H1Z2Z2-K 1×6mm ²	PV Modules	Inverter PV connector	Cable terminals are made and installed on site	80 ~ 160	MC4 Connector
2	Inverter to Battery DC Cable	UL 11627 10AWG/8AWG	Inverter Battery connector	Battery output connector	Cable terminals are prefabricated and installed at the factory	4	-
3	On Grid AC Cable	NYY- 5×4mm ² /5×6mm ²	Inverter On-grid output terminal	Original distribution box	Inverter side terminal is prefabricated and installed at the factory	10	-
4	Backup AC Cable	NYY- 5×4mm ² /5×6mm ²	Inverter Backup output terminal	Back-up loads	Inverter side terminal is prefabricated and installed at the factory	10	-
5	Inverter & Battery PE	H07V-K 6mm ²	Inverter & Battery grounding hole	External ground Bar	Inverter & Battery side terminals are prefabricated and installed at the factory	20	-
6	PV Roof Grounding	NYY-1×6mm ²	PV supporting bracket	External ground Bar	Cable terminals are made and installed on site	40 ~ 60	-
7	Communication Cable	STP CAT5e	Inverter Multi-com Connector (COM2)	Meter	Both side terminals are prefabricated and installed at the factory	10	-
	Communication Cable	STP CAT5e	Inverter Multi-com Connector (COM2)	Battery	Both side terminals are prefabricated and installed at the factory	3	-
8	Meter Cable	H03VV- F 4×0.5mm ²	Meter terminal (1,2,3,4)	Grid (L1, L2, L3, N)	Meter side terminal is prefabricated and installed at the factory	3	-

iShare integrated System – 425W

System Configuration	4kW	5kW	6kW	8kW	10kW	12kW	15kW
PV Module	4kW~5kW	6kW~7kW	8kW~9kW	10kW~11kW	12kW~14kW	15kW~17kW	18kW~20kW
No. PV modules (pcs)	10/12/14	16	18/20	22/24/26/28	30 /32/34	36/38/40/42	44/46/48/50
Inverter	4kW*1set	5kW*1set	6kW*1set	8kW*1set	10kW*1set	12kW*1set	15kW*1set
Battery	7kWh-15kWh	7kWh-17kWh	7kWh-20kWh	7kWh-20kWh	7kWh-20kWh	7kWh-20kWh	7kWh-20kWh
Cable set	1 set	1 set	1 set	1 set	1 set	1 set	1 set
Mounting Structure set	1 set	1 set	1 set	1 set	1 set	1 set	1 set
Cloud & APP	1 set	1 set	1 set	1 set	1 set	1 set	1 set

Wiring Connection prefabricated

No.	Name	specification	From	To	Remark	Length(m)	Accessory bag
1	PV DC Cable	H1Z2Z2-K 1×6mm ²	PV Modules	Inverter PV connector	Cable terminals are made and installed on site	80 ~ 160	MC4 Connector
2	Inverter to Battery DC Cable	UL 11627 10AWG/8AWG	Inverter Battery connector	Battery output connector	Cable terminals are prefabricated and installed at the factory	4	-
3	On Grid AC Cable	NYY- 5×4mm ² /5×6mm ²	Inverter On-grid output terminal	Original distribution box	Inverter side terminal is prefabricated and installed at the factory	10	-
4	Backup AC Cable	NYY- 5×4mm ² /5×6mm ²	Inverter Backup output terminal	Back-up loads	Inverter side terminal is prefabricated and installed at the factory	10	-
5	Inverter & Battery PE	H07V-K 6mm ²	Inverter & Battery grounding hole	External ground Bar	Inverter & Battery side terminals are prefabricated and installed at the factory	20	-
6	PV Roof Grounding	NYY-1×6mm ²	PV supporting bracket	External ground Bar	Cable terminals are made and installed on site	40 ~ 60	-
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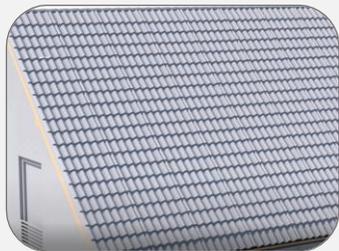
Mounting Structure

Technical Parameter			
Product Name	Solar Mounting System	Design Standard	EN1990 Basis of Structure Design
Building Type	Pitched Roof		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

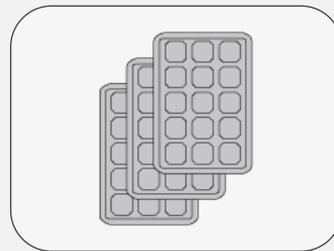
	Rail 2.4m	Rail Splice	Tile Hook	Universal Clamp Kit	End Cap	Grounding Lug	Cable clip	Earthing Clip
iShare-4kW	10~14	7~9	28~40	27~39	12	4	11~16	18~25
iShare-5kW	16~20	11~14	44~48	43~47	18	6	18~20	29~33
iShare-6kW	20~22	14~16	56~60	54~58	18	10	22~25	36~40
iShare-8kW	24~28	18~20	64~76	62~73	24	10	27~31	44~51
iShare-10kW	30~36	22~27	80~96	77~93	30	12~14	33~40	55~66
iShare-12kW	38~44	29~36	108~136	104~131	36	16	44~55	73~91
iShare-15kW	46~50	38~40	14~152	135~146	36~42	18~20	58~62	95~102

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

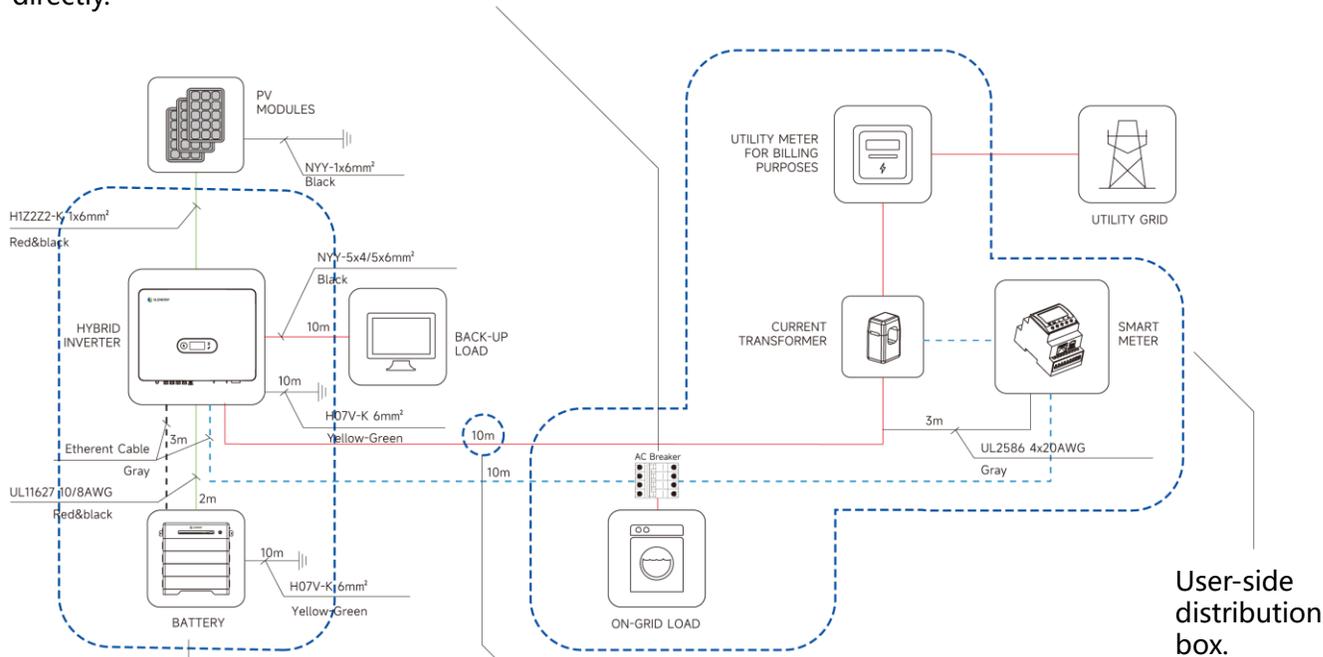


- PV modules number in one string for 4-6kW inverter: 4 – 26
- PV modules number in one string for 8kW-12kW inverter: 8– 26
- Optimal number of PV modules in one string : 18- 20



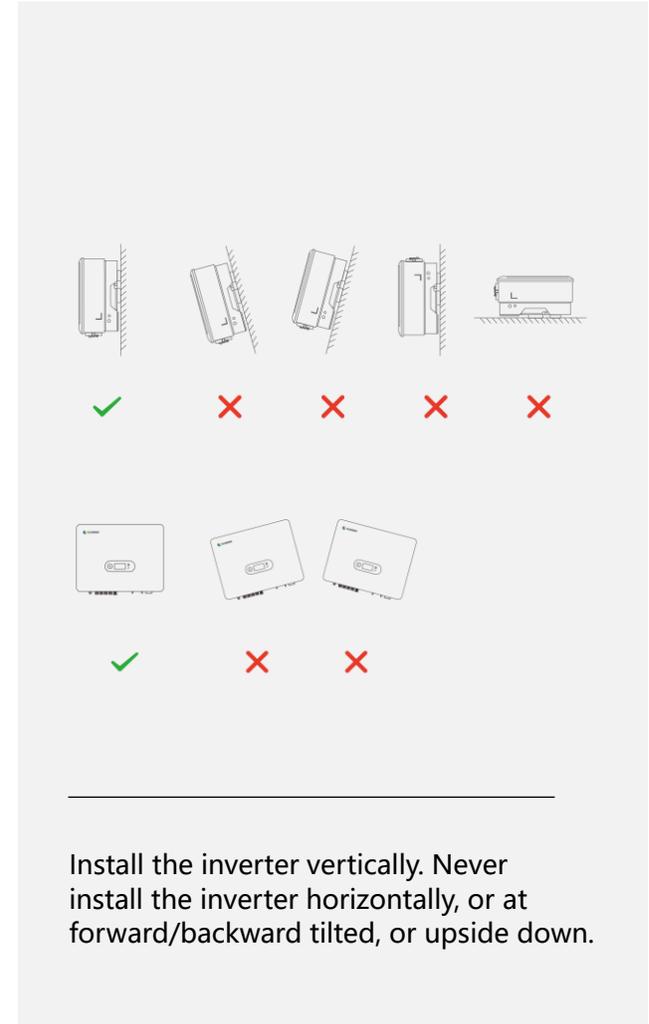
- Indoor wiring connection need to use cable tray.

An independent AC breaker is required in both on-grid and back-up output side, and any loads cannot be connected with inverter directly.



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.

Install the battery pack no more than 2 meters near the inverter



PV & Mounting structure 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.

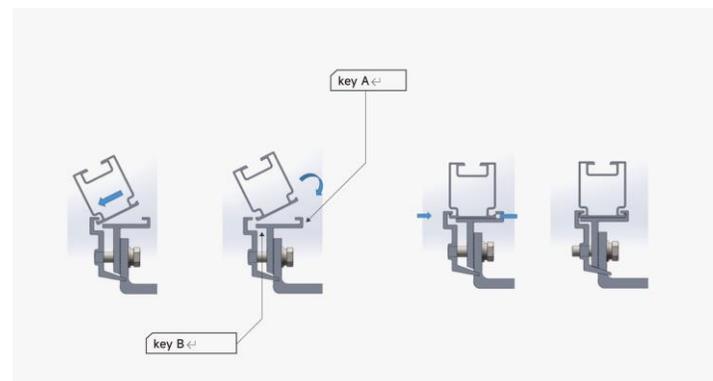
After fixing the hook, adjust the height of the rail, loosen the bolt on the upper end of the hook to separate the key A and key B for a certain distance, first align the protrusion of key B with the groove of the rail, and then rotate the rail until the concave on the other side is aligned with the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

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.

Tile hook installation



Installation of Rail



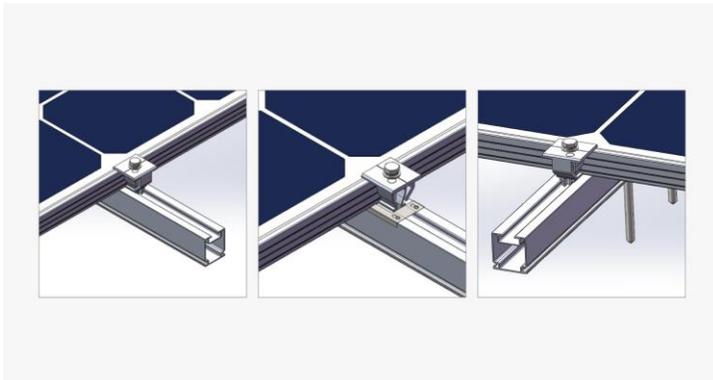
Installation of Rail Splice



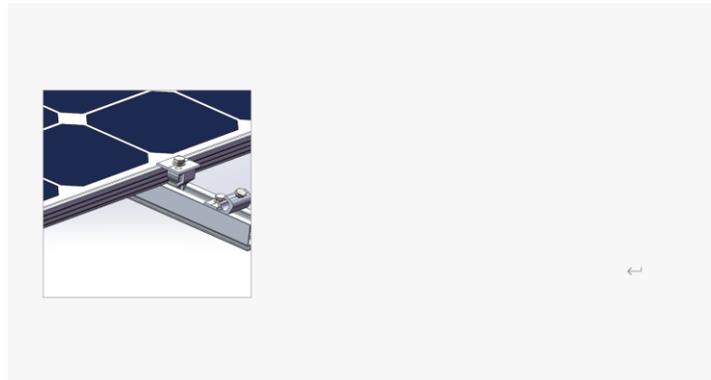
PV & Mounting structure installation

Place the PV module on the rail and adjust the position according to the drawing.
Then fix the end clamp into the rail channel, and tighten the bolts.

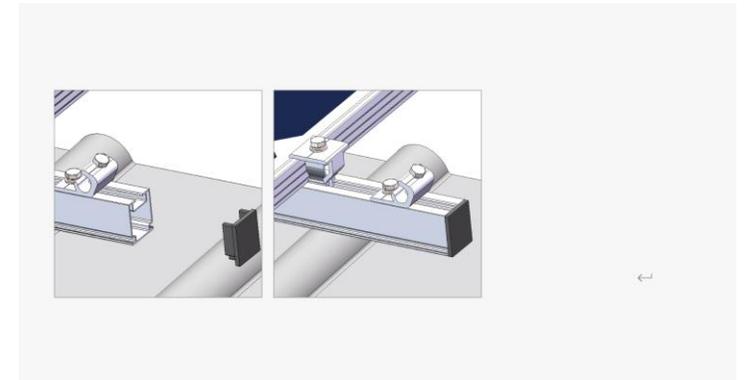
Installation of PV Modules



Installation of Grounding Lug



Installation of Rail Cap

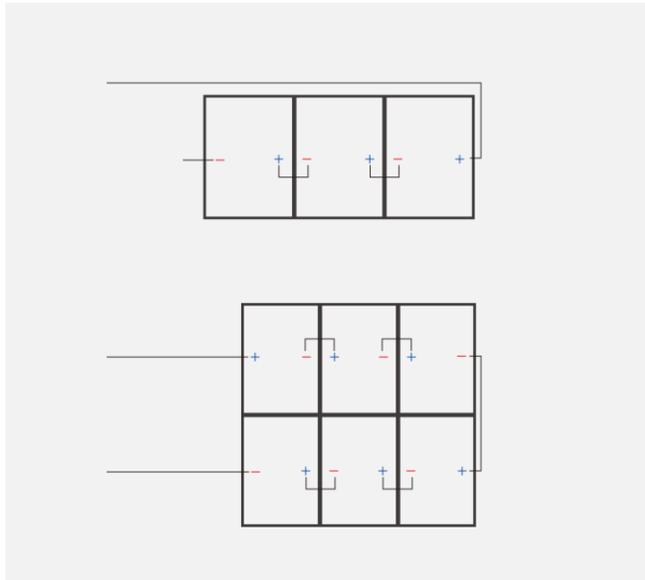


Electrical connections of PV modules

Vertical Installation

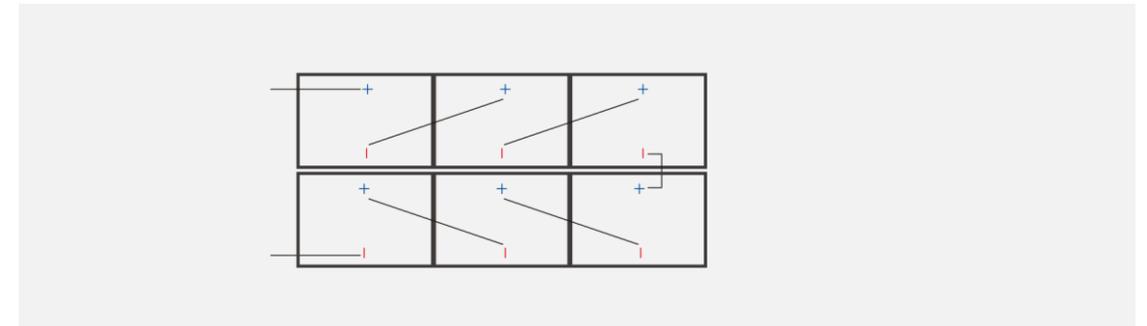
Standard Cable length

Note: An extension cord is required at the rotor head of the double row assembly and at the end of the single row.

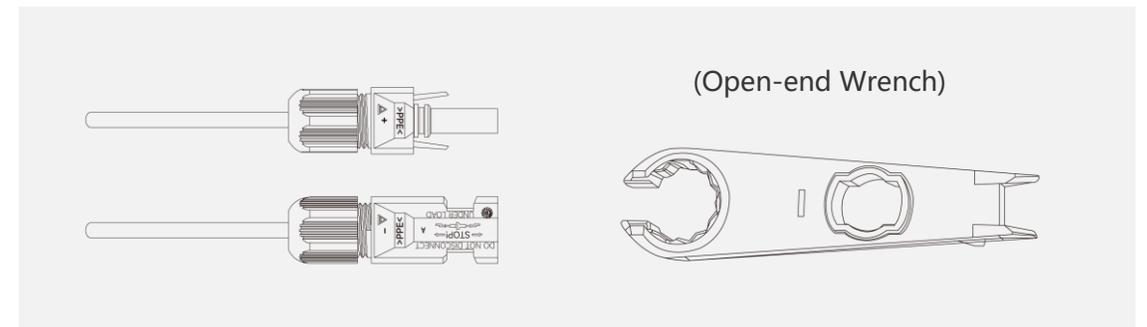


Horizontal Installation

It is not recommended to install PV modules horizontally. If it is necessary to install PV modules horizontally, an extension line should be added.

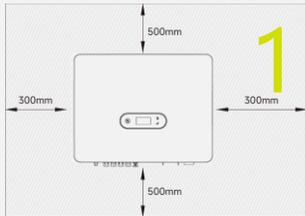


Assembling the PV Connector

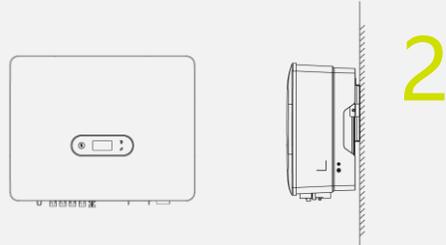


Inverter Installation

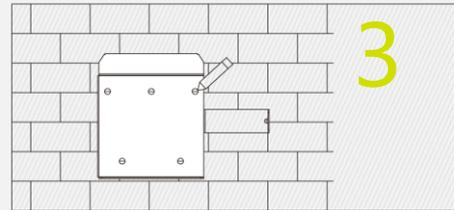
Installation space



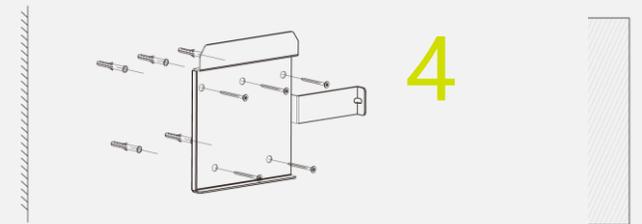
Installation Angle



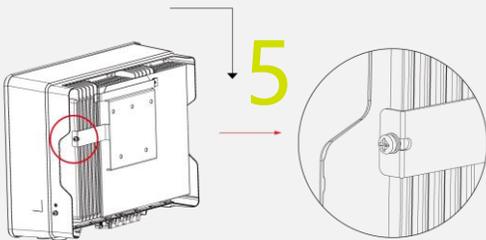
Mark the Position and Drill Holes



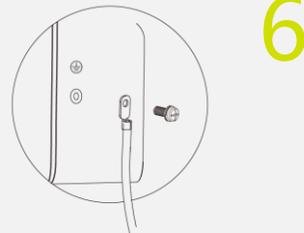
Fix Wall Bracket



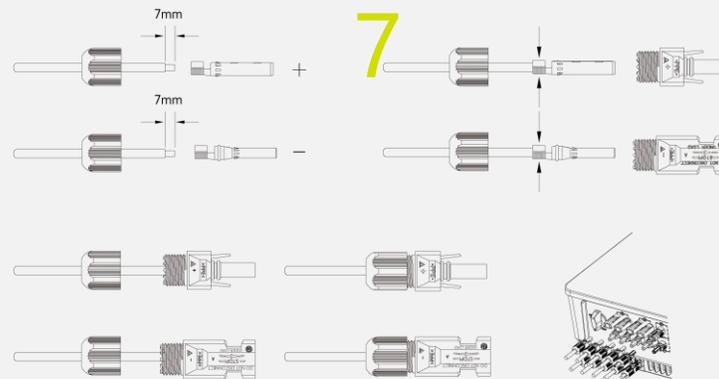
Mounting Inverter



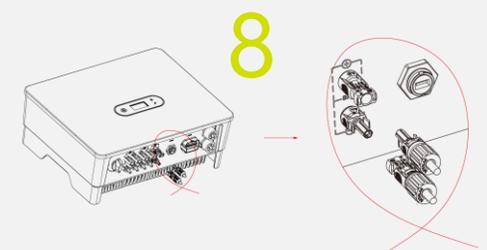
Grounding Terminal Connection



PV String Connection*



Power Cable of the Battery Connection**



* Cable terminals are made and installed on site

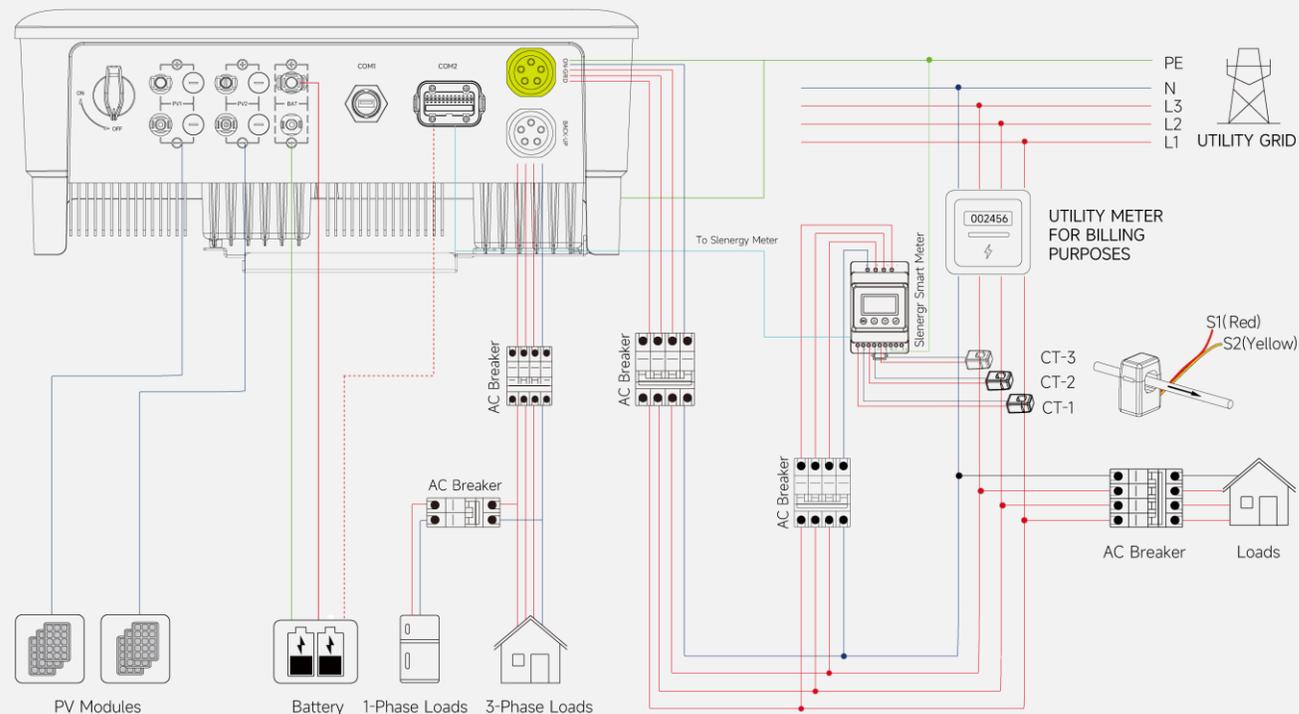
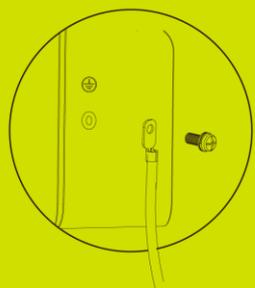
**Inverter & Battery side terminals are prefabricated and installed at the factory

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.

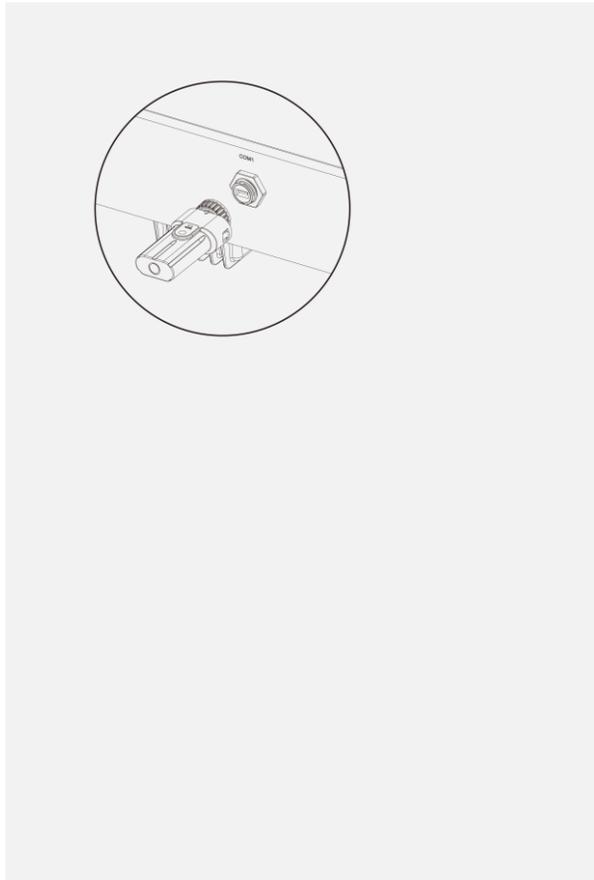
Ground terminal connection steps

- ① The external grounding terminal is located in on the lower right side of the inverter.
- ② Fix the grounding terminal to the PE 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.

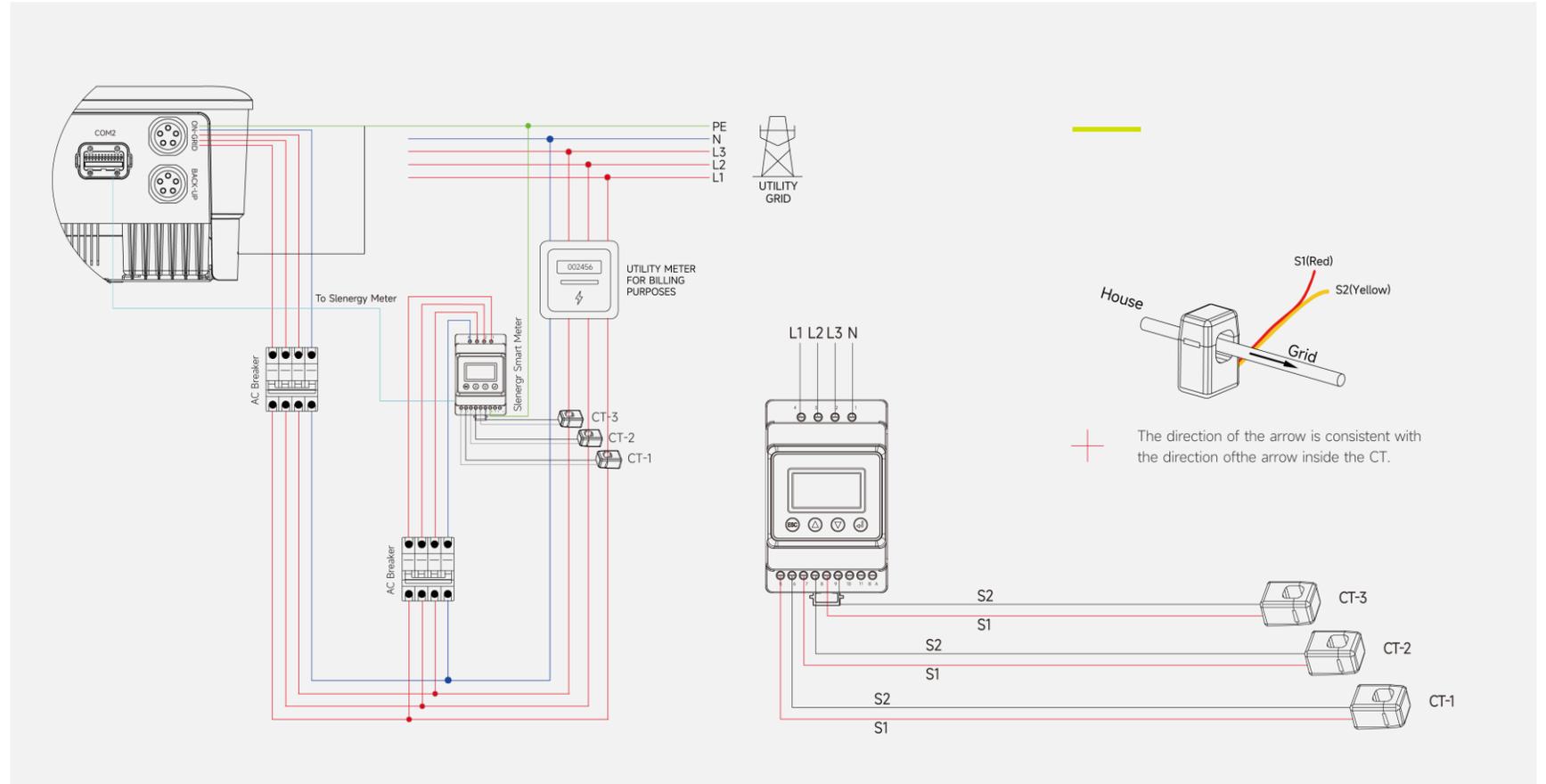
Inverter Electrical Connection



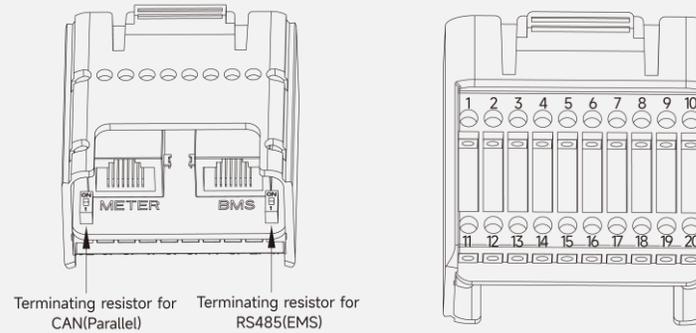
Monitoring Device Installation



Meter and CT Connection



Meter and CT Connection

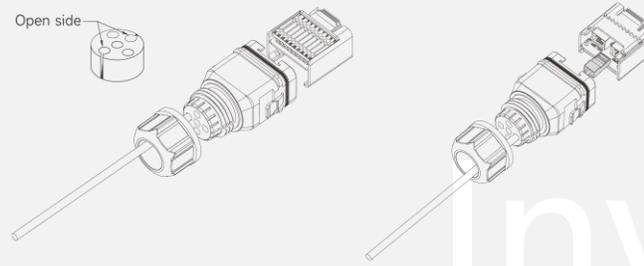


Meter terminals definition

MI	Definition	Function	Cable
5	L1-S1	To detect the CT current and direction	Slenergy CT cable
6	L1-S2		
7	L2-S1		
8	L2-S2		
9	L3-S1		
10	L3-S2		
1	L1	L1/L2/L3/N connect to grid to detect power grid voltage	UL2586 4x20AWG
2	L2		
3	L3		
4	N		
12	L	Power supplied from grid	
13	N		
RS485	RS485	Communicate with inverter	RJ45

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	DRED For Australia and New Zealand
6	DRM3/7	
7	DRM2/6	
8	DRM1/5	
15	COM D/0	
16	REF D/0	Fast stop
11	Fast stop +	
12	Fast stop -	EMS
13	485 B1	
14	485 A1	
17	CANL_P	
18	CANH_P	CAN for parallel connection of inverters
19	/	Reserved
20	/	Reserved

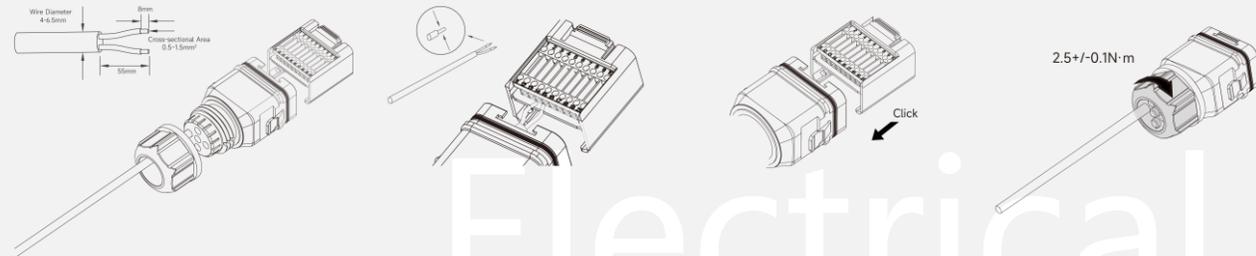
Connect the Meter and BMS Communication Cables



Inverter

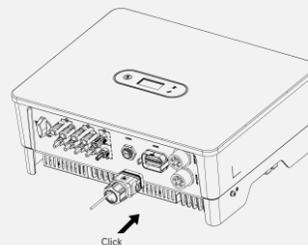
Connect Other Cables

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



Electrical

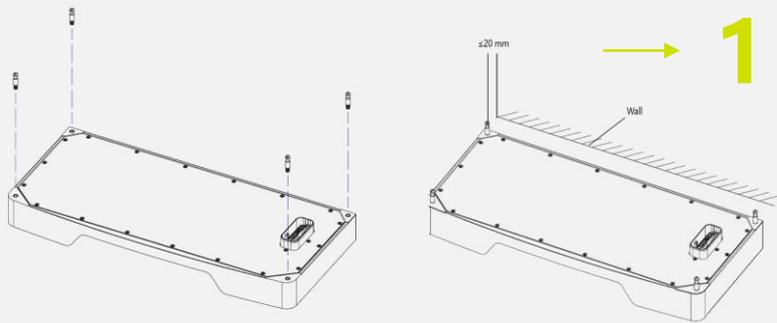
Installing the COM Connector



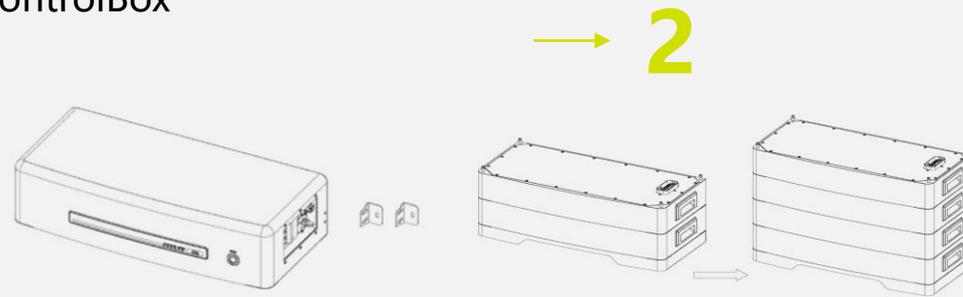
Connection

Battery installation

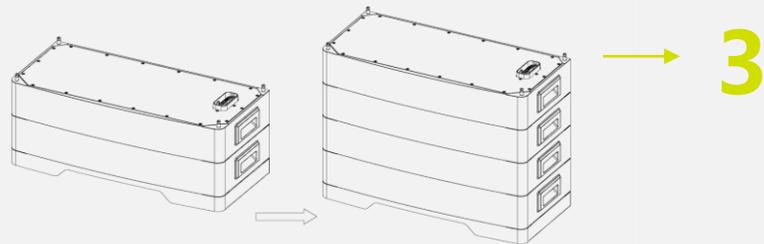
Installation of the Base



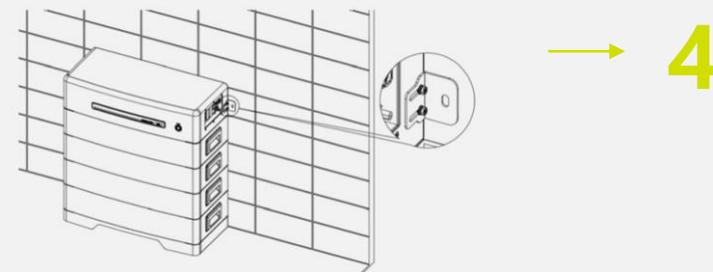
Install the Battery ControlBox



Installation of Slave Battery



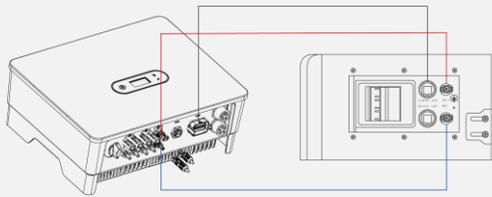
Fix the Product



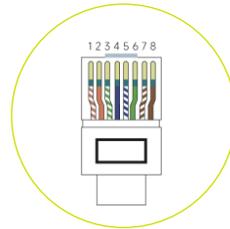
Battery electrical connection

Power Cable of Battery Connection

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

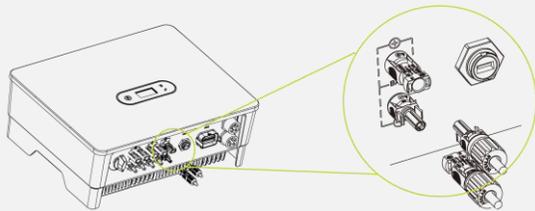


→ 5

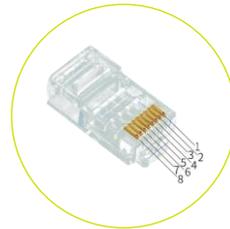


Battery grounding

Connect the grounding wire BVR-1*6mm²



→ 6



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	/

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	-

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:

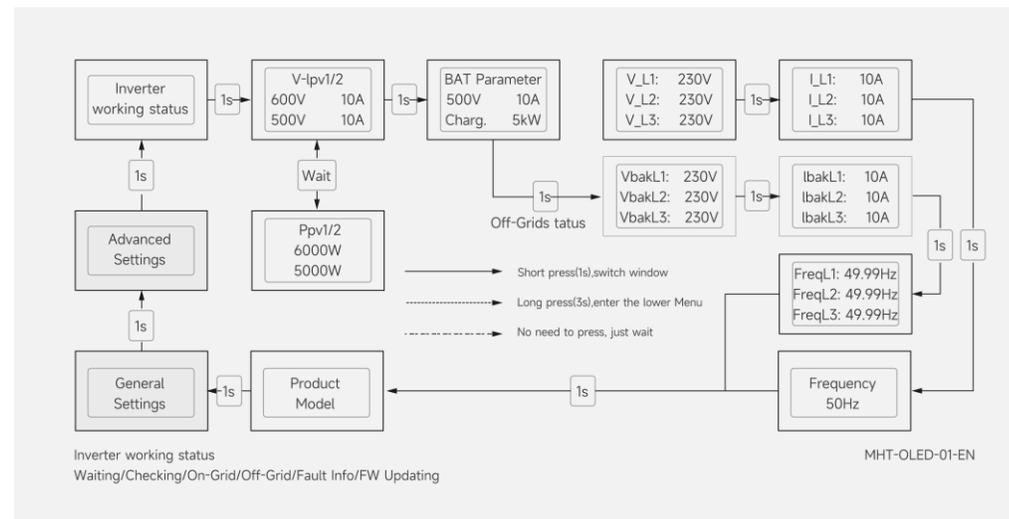
- ① All equipment has been reliably installed.
- ② DC switch(es) and AC circuit breaker are in the "OFF" position.
- ③ The ground cable is properly and reliably connected.
- ④ The AC cable is properly and reliably connected.
- ⑤ The DC cable is properly and reliably connected.
- ⑥ The communication cable 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



WiFi Module Configuration Guide

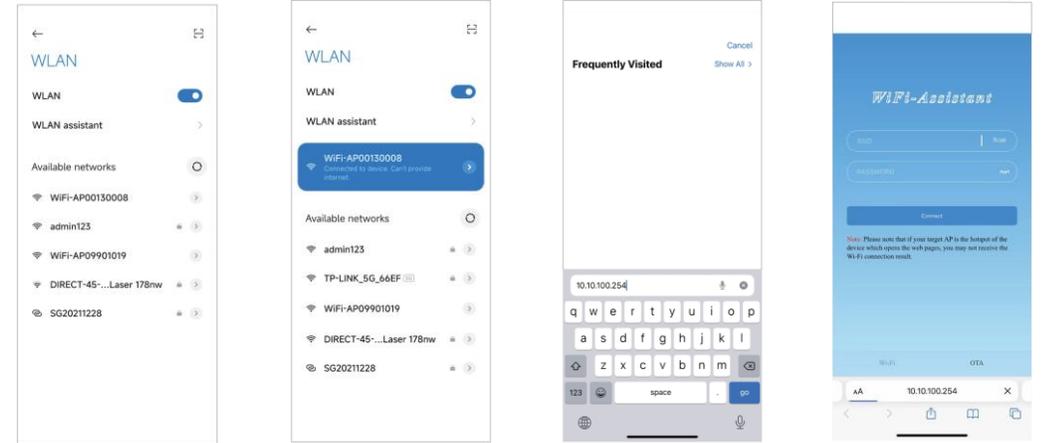
① → ② → ③ → ④

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.

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

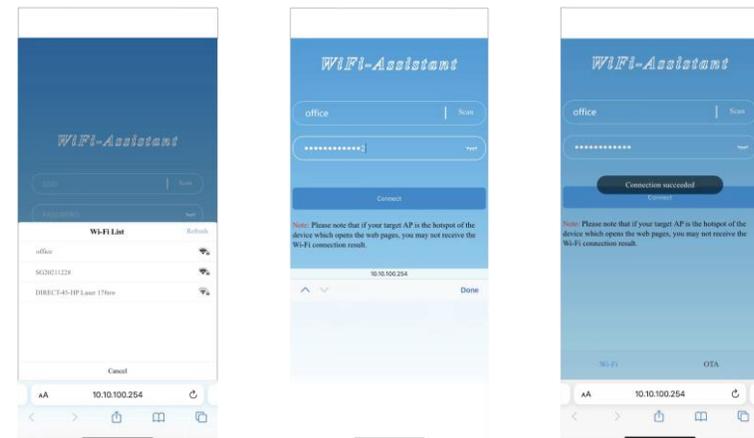


⑤ → ⑥ → ⑦

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

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

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

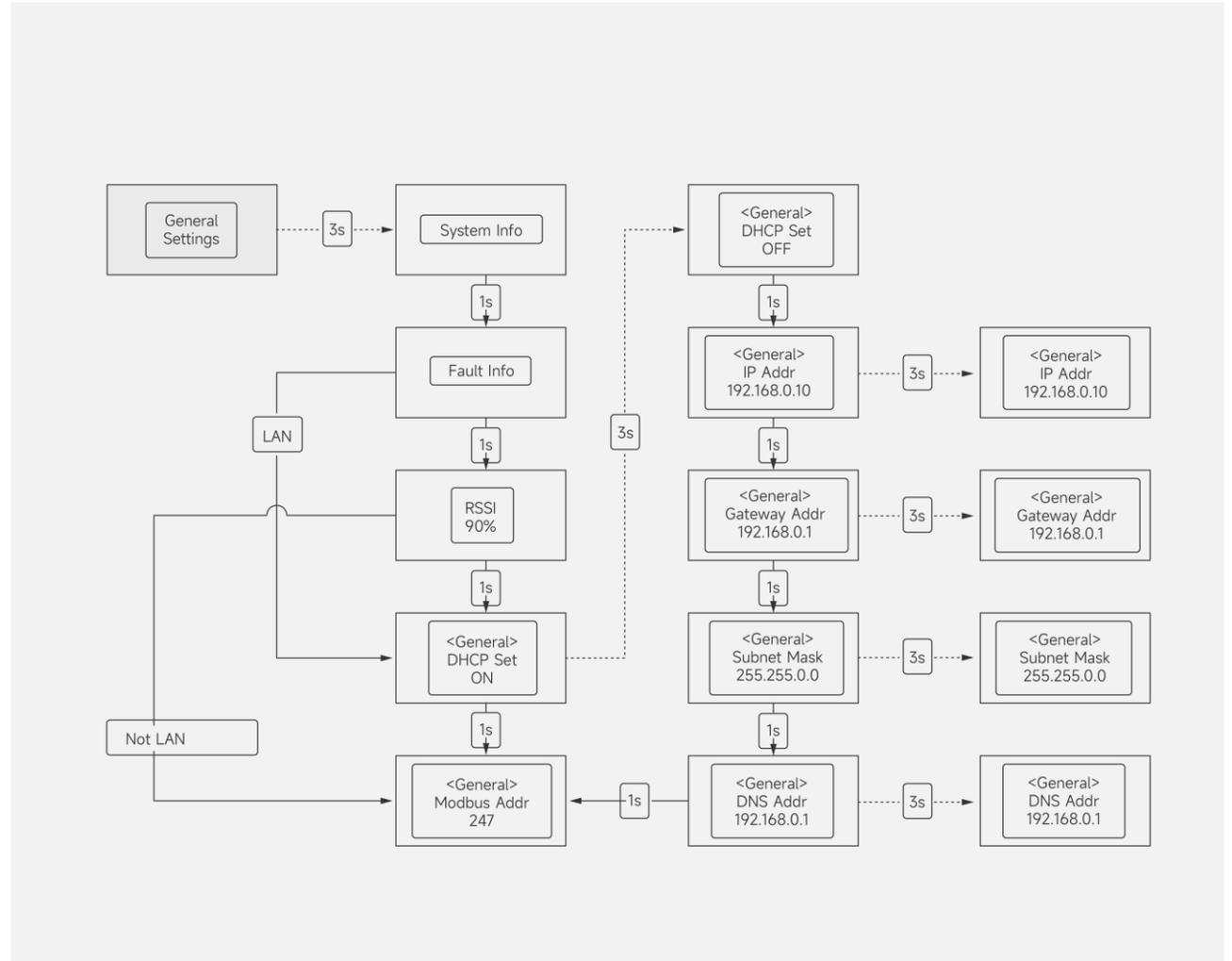




LAN Module Configuration Guide

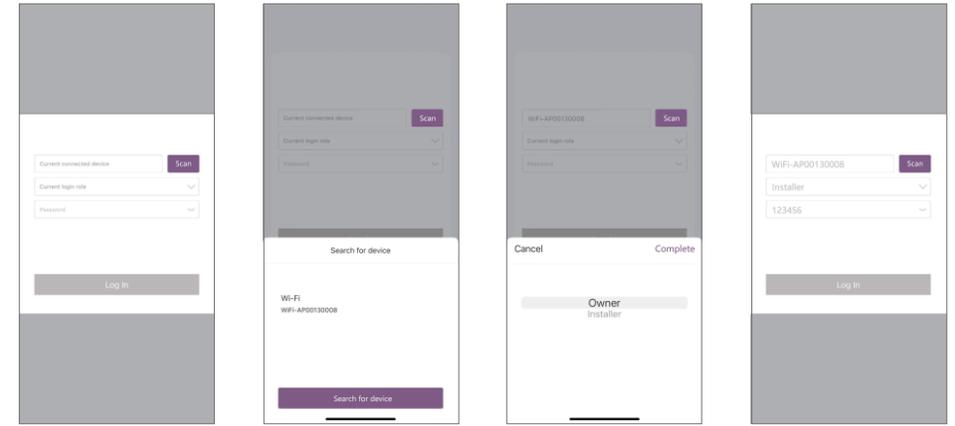
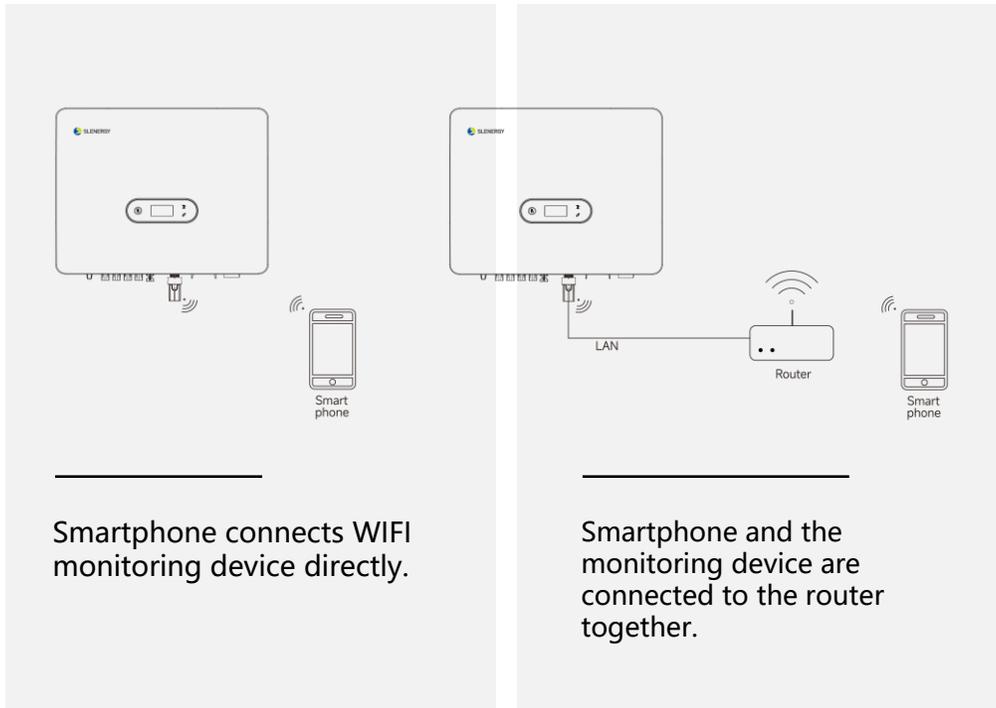
If DHCP is enabled on the router, the LAN module does not need to be configured. Otherwise, the LAN module will need to be configured on inverter screen.

- 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

Indicator	Status	Description	
 Power and Alarm Indicator	Off	No power.	
	Green	Quick flashing	Inverter entered self-test status.
		Slow flashing	Inverter entered waiting status.
		Breathe flashing	Inverter works normal.
	Orange	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 Slenergy 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.





Easy Energy Easy Life

 **Share-Home**

iShare-Home Residential Solar Energy Solution