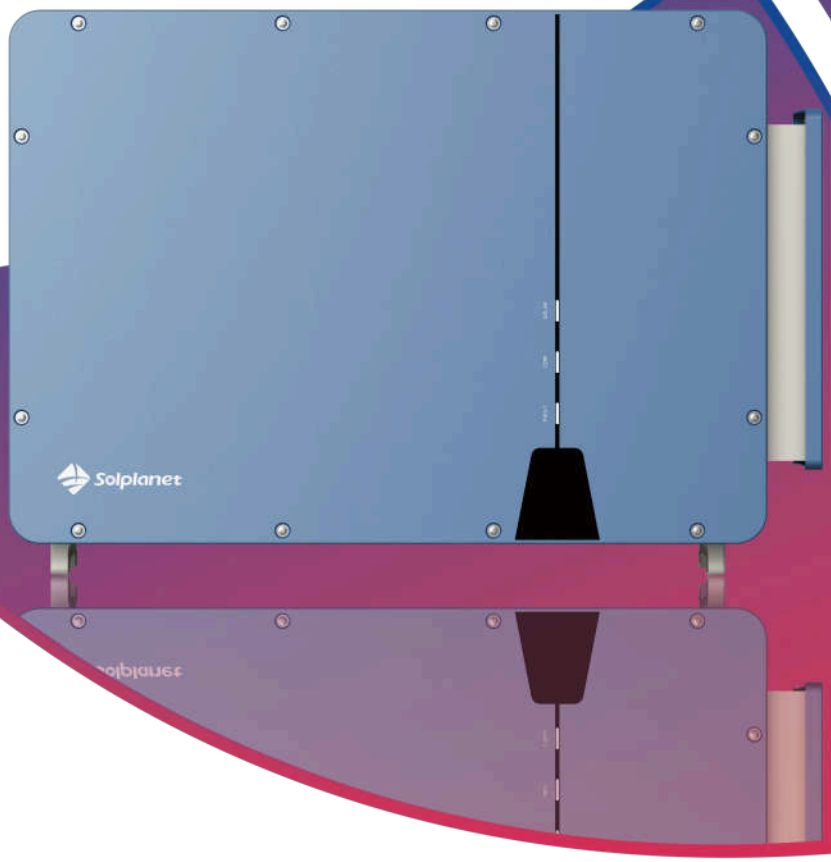
Solplanet



PV Grid-Connected Inverter User Manual

ASW250K-HT/ ASW333K-HT

ASW350K-HT/ ASW360K-HT

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1 General information

1.1 About this document

This document describes the mounting, installation, commissioning, configuration, operation, troubleshooting and decommissioning of the product as well as the operation of the product user interface.

The contents of this user manual may be updated or revised due to on-going product development and continuous improvement. The information in this guide is subject to change without notice. The latest version of this document, the quick installation guide and further information are to be found in PDF format at www.solplanet.net.

It is recommended that this document is stored in an appropriate location and be available at all times.

1.2 Product validity

This document is valid for the following models:

- ASW250K-HT
- ASW333K-HT
- ASW350K-HT
- ASW360K-HT

1.3 Target group

This document is intended for qualified persons who must perform the tasks exactly as described in this user manual.

All installation work must be performed by appropriately trained and qualified persons. Qualified persons must possess the following skills:

- Knowledge of how an inverter works and is operated.
- Training in how to deal with the dangers and risks associated with installing, repairing and using electrical devices and installations.
- Training in the installation and commissioning of electrical devices.
- Knowledge of all applicable laws, standards and directives.
- Knowledge of and compliance with this document and all safety information.

1.4 Safety warning symbols guide

DANGER

Indicates a hazardous situation which, if not avoided, will result in death or serious injury.

WARNING

Indicates a hazardous situation which, if not avoided, could result in death or serious injury.

CAUTION

Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

NOTE

Indicates a situation which, if not avoided, can result in property damage.

Information that is important for a specific topic or goal, but is not safety relevant.

2 Safety

2.1 Intended use

- The product is a transformerless PV inverter with 10 MPP trackers, which converts the direct current of the PV modules into grid-compliant alternating current and feeds it into the utility grid.
- The product is suitable for indoor and outdoor use.
- The product must only be operated with PV modules of protection class II in accordance with IEC 61730, application class A. The PV modules must be compatible with this product.
- The product is not equipped with an integrated transformer and therefore has no galvanic isolation. The product must not be operated with either grounded DC conductors or PV modules whose outputs are grounded. This can cause the product to be destroyed. The product may be operated with PV modules whose frame is grounded.
- When designing the PV system, ensure that all components remove this word remain within their permitted operating ranges and their installation requirements at all times.
- The product must only be used in countries for which it is approved or released by Solplanet and the grid operator.
- Use this product only in accordance with the information provided in this documentation and with the locally applicable standards and directives. Any other application may cause personal injury or property damage.
- The type 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

The product has been designed and tested in accordance with international safety requirements. As with all electrical or electronical devices, there are residual risks despite careful construction. To prevent personal injury and property damage and to ensure long-term operation of the product, read this section carefully and observe all safety information at all times.

⚠ DANGER

Danger to life due to high voltages of the PV array !

When exposed to sunlight, the PV array generates dangerous DC voltage which is present in the DC conductors and the live components of the product. Touching the DC conductors or the live components can cause to lethal electric shocks. If the DC connectors are disconnected from the product under load, an electric arc may occur leading to electric shock and burns.

- Do not touch non-insulated parts or cables.
- Do not touch the DC conductors.
- Do not touch any live components of the product.
- Do not open the product.
- All work on the product must only be carried out by qualified personnel who have read and fully understood all safety information contained in this document.
- Disconnect the product from voltage sources and ensure it cannot be reconnected before working on the product.
- Wear suitable personal protective equipment for all work on the product.

⚠ DANGER

Danger to life due to electric shock when touching live system components in case of a ground fault!

If a ground fault occurs, parts of the system may still be live. Touching live parts and cables results in death or lethal injuries due to electric shock.

- Disconnect the product from voltage sources and ensure it cannot be reconnected before working on the device.
- The DC switch may be operated whilst the inverter is in operation.
- Do not touch any parts of the substructure or frame of the PV array.
- Do not connect PV strings with ground faults to the product.

⚠ WARNING

Danger to life due to electric shock from destruction of the measuring device due to overvoltage!

Overvoltage can damage a measuring device and result in voltage being present in the enclosure of the measuring device. Touching the live enclosure of the measuring device results in death or lethal injuries due to electric shock.

- Only use measuring devices with a DC input voltage range of 500 Vdc or higher.

⚠ WARNING

Risk of burns due to hot enclosure parts !

Some parts of the enclosure can become hot during operation, touching these parts may cause burns.

- Only touch the DC switch when the inverter is running.
- Do not touch any parts other than the enclosure lid of the product during operation.

⚠ WARNING

Risk of injury due to weight of product !

Injuries may result if the product is lifted incorrectly or dropped while being transported or mounted.

- Transport and lift the product carefully. Take the weight of the product into account.
- Qualified person should wear appropriate personal protective equipment.

NOTE

Damage to the inverter due to electrostatic discharge.

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

- Ground yourself before touching any component.

ℹ

The country grid code must be set correctly.

If you select a country grid code which is not valid for your country and purpose, it can cause a disturbance in the PV system and lead to problems with the grid operator. When selecting the country grid code, you must always observe the locally applicable standards and directives as well as the properties of the PV system (e.g. PV system size, grid-connection point).

- If you are not sure which standards and directives are valid for your country or purpose, contact the grid operator.

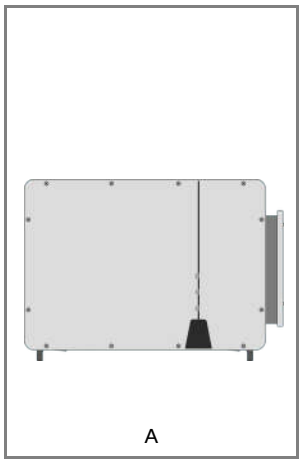
2.3 Symbols on the label

	Beware of a danger zone This symbol indicates that the inverter must be additionally grounded if additional grounding or equipotential bonding is required at the installation site.
	Beware of high voltage and operating current The inverter operates at high voltage and current. Work on the inverter must only be carried out by skilled and authorized electricians.
	Beware of hot surfaces The inverter may become hot during operation. Avoid contact during operation.
	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.
	Certification mark The product has been tested by TUV and got the quality certification mark.
	RCM Mark The product complies with the requirements of the applicable Australian standards.
	Capacitor discharge Danger to life due to high voltages in the inverter. Do not touch live parts for 25 minutes after disconnection from the power sources.
	Observe the documentation Observe all documentation supplied with the product.

3 Unpacking and storage

3.1 Scope of delivery

Check the scope of delivery for completeness and any visible external damage. Contact your supplier if the scope of delivery is incomplete or damaged.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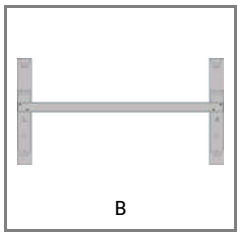
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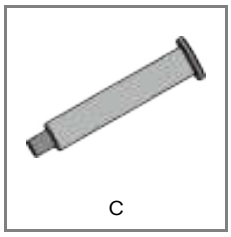
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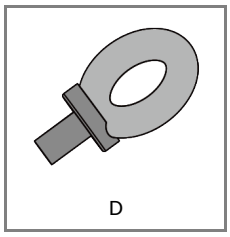
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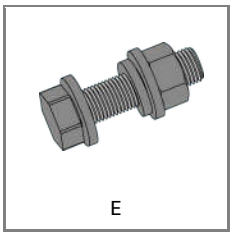
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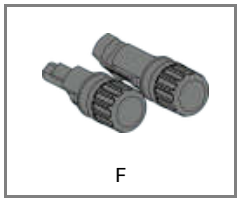
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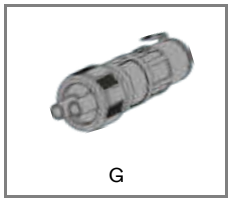
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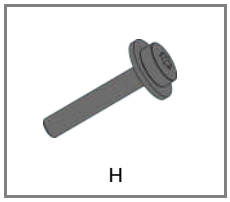
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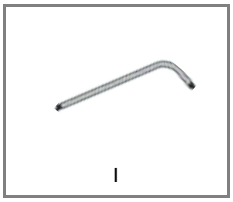
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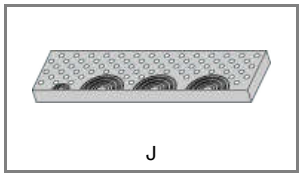
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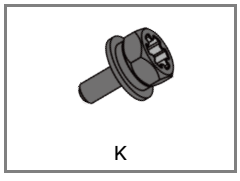
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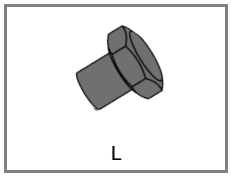
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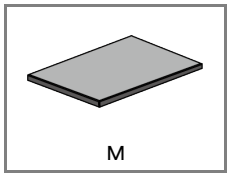
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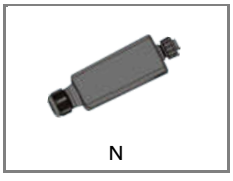

N

NO.	Name	Quantity
A	Inverter	1
B	Mounting-bracket	1
C	Handle (Optional)	4
D	Lifting ring (Optional)	2
E	Combination bolt	4
F	DC connector (pair)	25/30
G	RS485 COM plug	1
H	M6×35 Screws	2
I	T30 plum blossom wrench	1
J	Three-core protective coil	2
K	M4×10 Screws	4
L	M10×20 Bolt	2
M	Document package	1
N	Ai-Dongle (Optional)	1

*There are 25 pairs of ASW250K-HT DC terminals and 30 pairs of ASW333/350/360K-HT DC terminals.

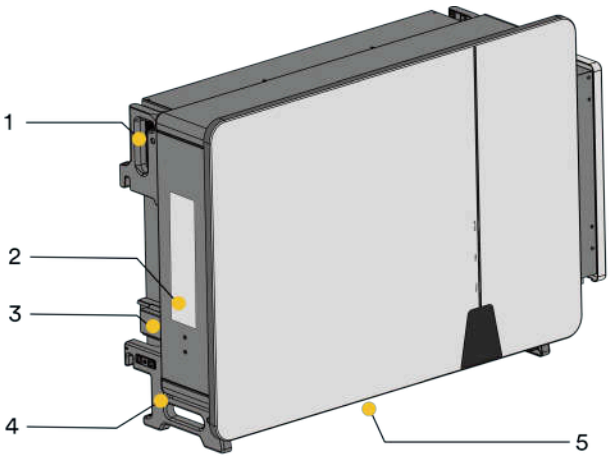
3.2 Product storage

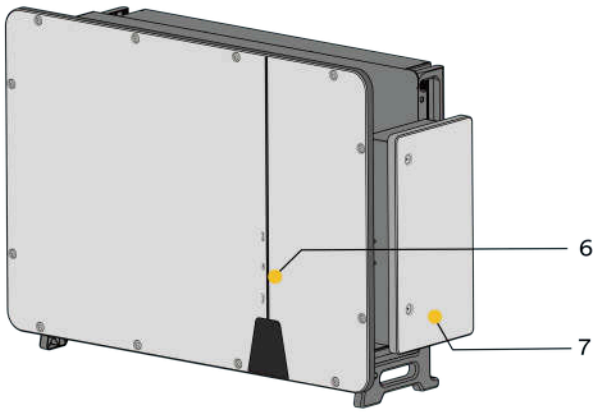
Suitable storage is required if the inverter is not installed immediately:

- Store the inverter in the original package.
- The storage temperature must be between -40°C to +70°C, and the storage relative humidity must be between 0 and 100%, non-condensing.
- The packing with the inverter shall not be tilted or inverted.
- The product must be fully inspected and tested by professionals before it can be put into operation, if it has been stored for six months or more.

4 Inverter overview

4.1 Product description

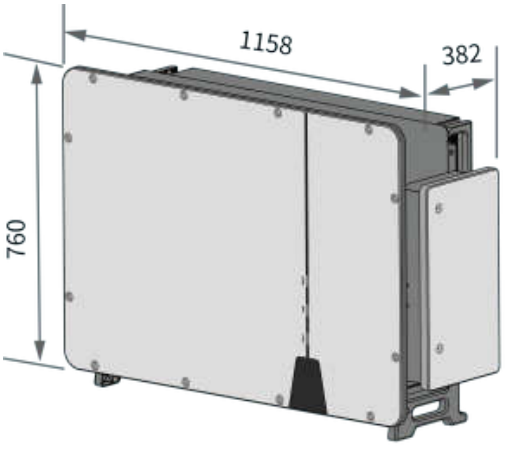


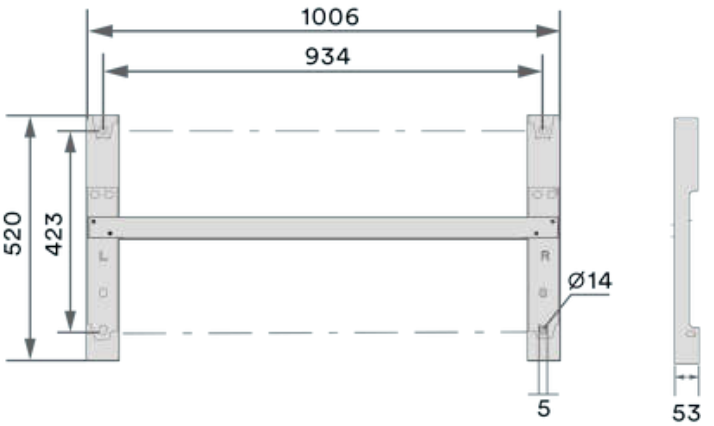


NO.	Name	Description
1	Top lug	One left and one right for inverter mounting on a pegboard.
2	Labels	Warning symbols, nameplate, and QR code.
3	Fan assembly	Maintain and replace the fan.
4	Bottom handles	One left and one right for inverter handling and installation.
5	DC wiring area	DC switches, DC terminals and communication terminals.
6	LED indicator	Indicate the present working state of the inverter.
7	AC Wiring area	Connect the AC side cables.

4.2 Dimensions

Unit: mm





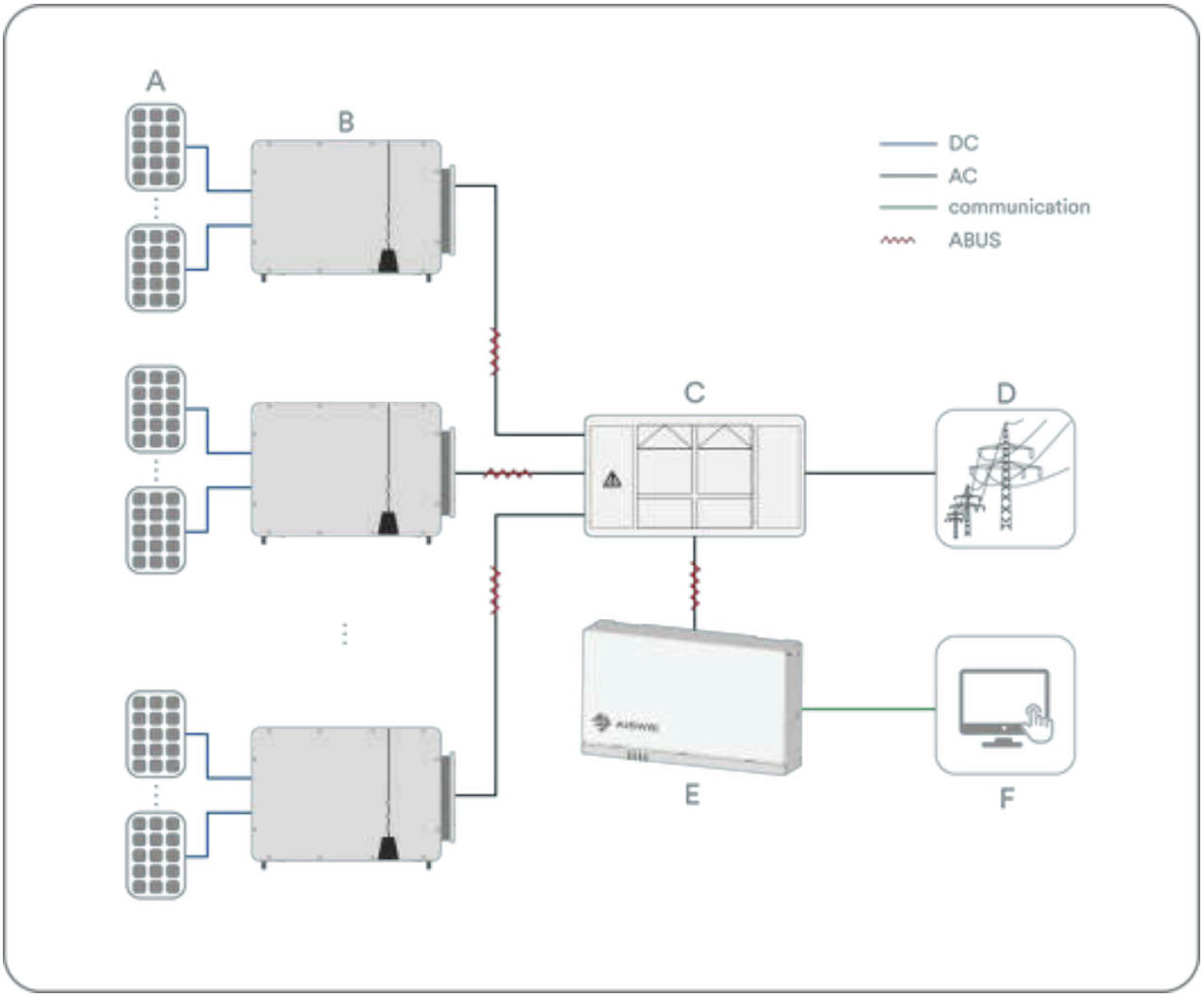
4.3 LED indicator

The LED indicator can indicate the operation state of the inverter.

LED indicator	LED state		Description
SOLAR (White)	Glowing		When the product is in normal grid-connected operation, the white LED is always on.
	Blinking fast (400ms)		When the product has DC power but not grid-connected operation, the white LED flashes fast.
	Blinking slowly (1400ms)		When the product has AC power and no DC power is available, the white LED flashes slowly.
	OFF		When the product is powered, the white LED is off.
COM (White)	When no USB flash drive is connected	Glowing	This does not happen.
		Blinking fast (400ms)	This does not happen.
		Blinking slowly (1400ms)	When communication is normal, the white LED blinks slowly.
		OFF	The white LED turns off when the communication timeout occurs.
	When connecting USB flash drive	Glowing	When the upgrade is successful or the log export is successful, the white LED is always on.
		Blinking fast (400ms)	When the upgrade or log export is in progress, the white LED blinks rapidly.
		Blinking slowly (1400ms)	When the upgrade fails, the white LED blinks slowly.
		OFF	This does not happen.
FAULT (Red)	Glowing		When there is a product failure, the red LED is always on.
	Blinking fast (400ms)		When there is an alarm on the product, the red LED blinks rapidly.
	OFF		When there is no current fault or alarm, the red LED is off.

4.4 Communication introduction

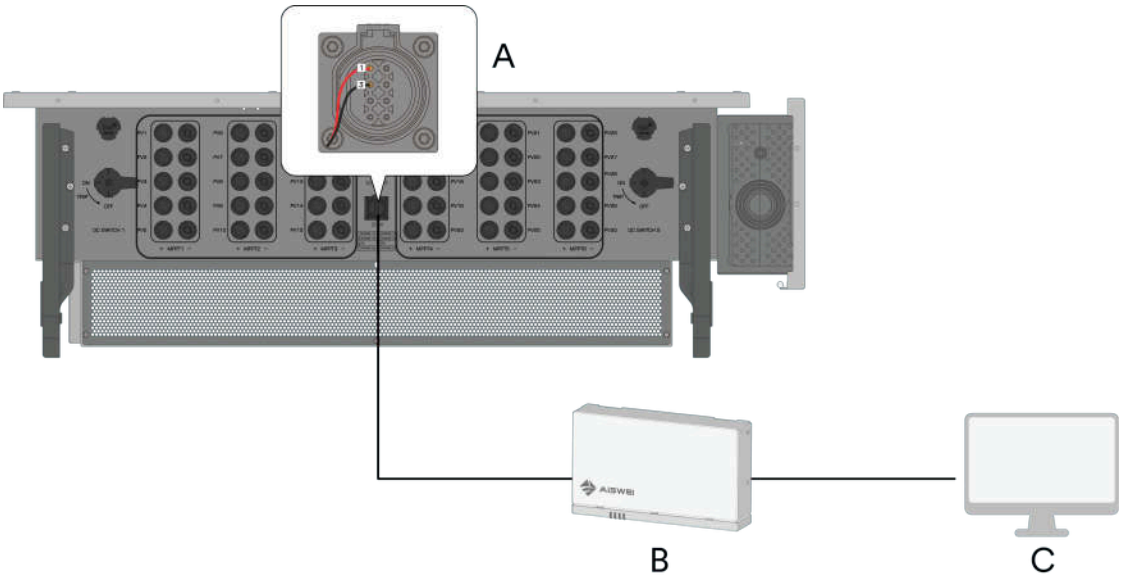
Schematic diagram of ABUS networking application:



NO.	Name	NO.	Description
A	PV strings	B	Inverter
C	Compact substation	D	Grid
E	Ai-Logger 2000	F	PC

Single Inverter RS485 Communication System

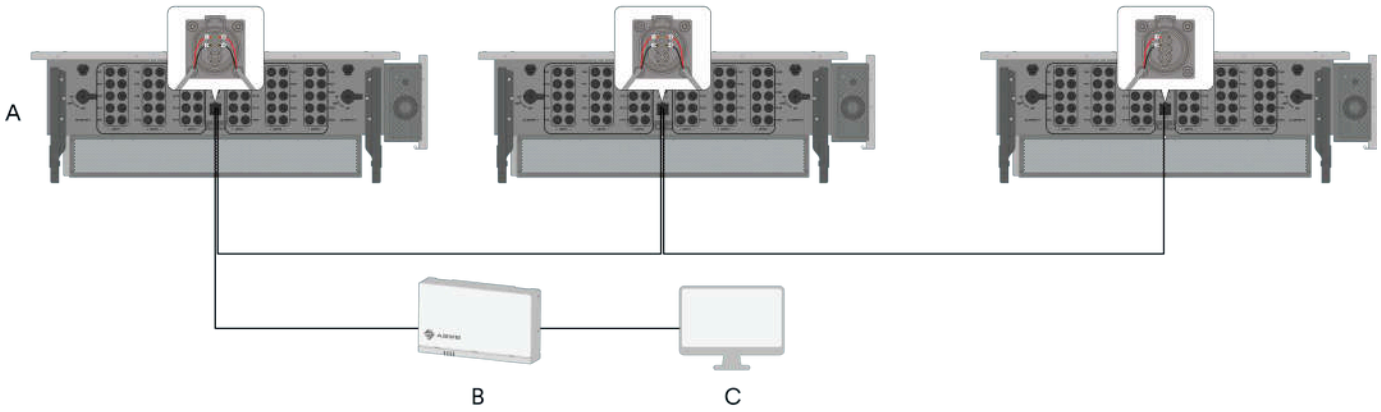
For single inverter applications, a single RS485 communication cable can be used to realise the communication connection. The following is an illustration of this system.



(A) Inverter (B) Ai-Logger 2000 (C) PC

Multiple inverters connected to the State Grid dispatching device (optional)

For multiple inverters, all inverters can be daisy-chained with RS485 cables. The details are as follows.



(D) Inverter (E) Ai-Logger 2000 (F) PC

The length of the RS485 communication cable between the collector and the final inverter should not exceed 1000m.

If multiple inverters communicate and are connected through the data collector, the maximum number of daisy chains supported and the total number of devices allowed to be connected need to meet the equipment requirements (see the user manual accompanying the data collector for details).

4.5 Interfaces and functions

The product is equipped with the following interfaces and functions:

RS485 Interface

The product is equipped with multiple RS485 interfaces, which can be configured according to customer requirements. The inverter can communicate with Solplanet communication products or third-party devices via the RS485 interface. For more information regarding third party devices, please contact the local Solplanet service department.

Modbus RTU

The Modbus of the supported Solplanet products is designed for industrial use and allows:

- Remote query of measured values
- Remote setting of operating parameters
- Setpoint specifications for system control

USB interface

The product is equipped with a USB port, which allows you to insert a USB stick into the USB port for software upgrade or log export operations.

Built-in Bluetooth

The device can be connected by mobile phone, supporting mobile phone direct connection operation and maintenance.

5 Installation

5.1 Requirements for mounting

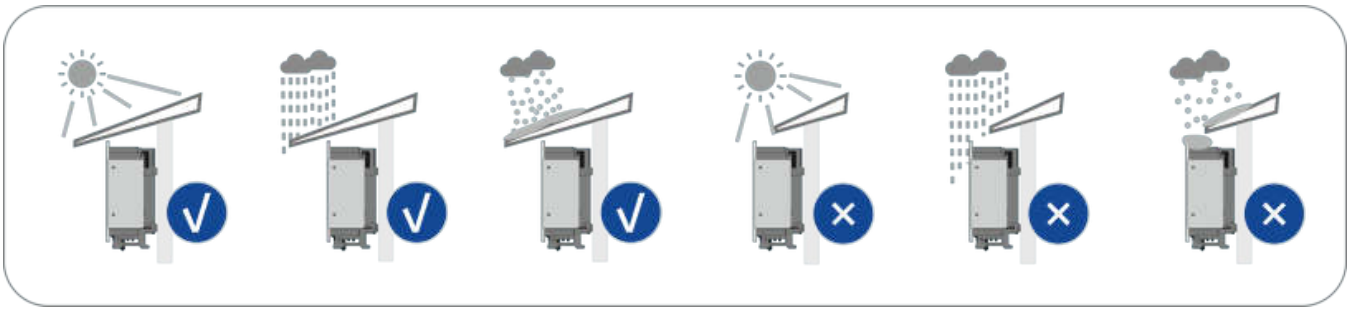
⚠ DANGER

Danger to life due to fire or explosion !

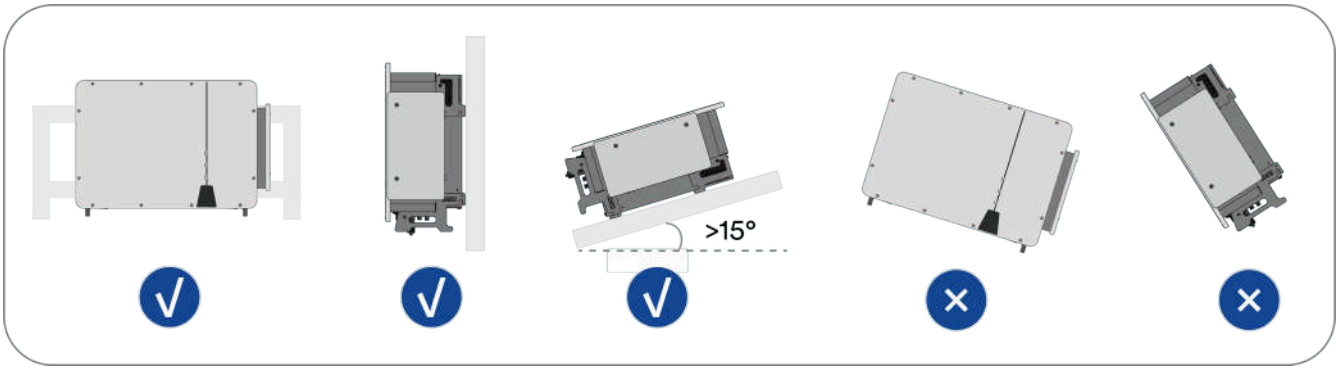
Despite careful construction, electrical devices can cause fires. This can result in death or serious injury.

- Do not mount the product in areas containing highly flammable materials or gases.
- Do not mount the inverter in areas where there is a risk of explosion.

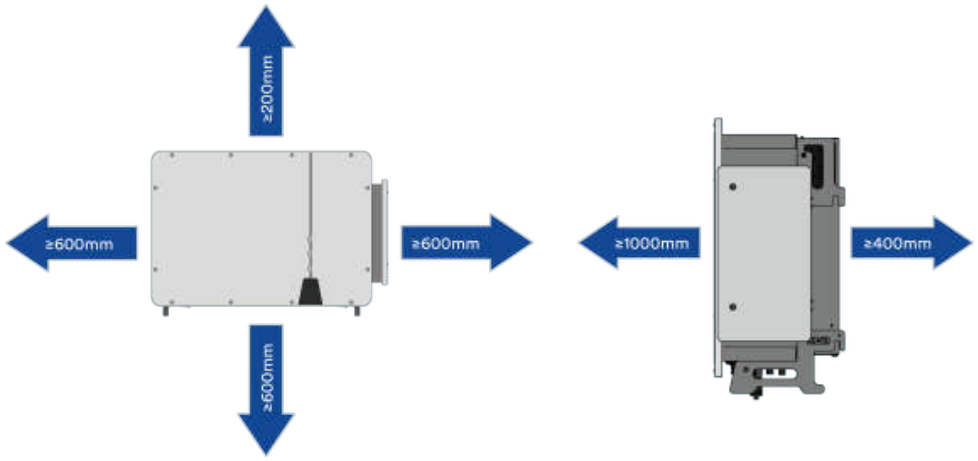
- The ambient temperature recommended to be below 40°C to ensure optimal operation.
- A solid support surface must be available (e.g. concrete or masonry). Ensure that the installation surface is solid enough to bear four times the weight of the inverter. When mounted on drywall or similar materials, the inverter may emit audible vibrations during operation.
- The mounting location must be inaccessible to children.
- The mounting location should be freely and safely accessible to authorised personnel at all times without the need for any auxiliary equipment (such as scaffolding or lifting platforms). Non-fulfilment of these criteria may restrict operation and maintenance activities.
- The mounting location must not be exposed to direct solar irradiation. If the product is exposed to direct solar irradiation, the exterior components may age prematurely, and overheating might occur. When becoming too hot, the product reduces its power output to avoid overheating.



- Never install the inverter horizontally, or with a forward / backward tilt exceeding what is shown in the image below, or even upside down. The horizontal installation can result in damage to the inverter.



- Maintain the recommended clearances to other inverters or objects.

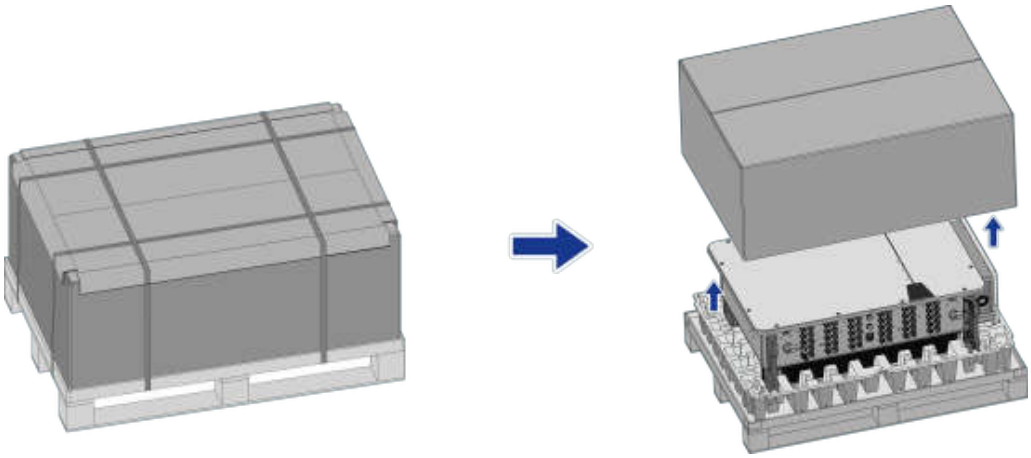


- In case of multiple inverters, ensure the appropriate clearance between the inverters.

- The product should be mounted such that the LED indicators can be viewed without difficulty.
- The DC switch of the product must always be readily accessible.

5.2 Removing the inverter

Open the box and remove the inverter after installing the four handles in turn.



The carrying handle is optional and can be used either unassisted or with the help of the carrying handle.

5.3 Installing the inverter

⚠ CAUTION

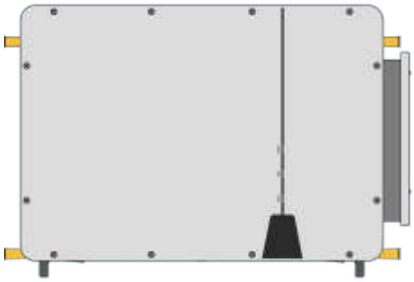
Dropping the product can result in a risk of personal injury!

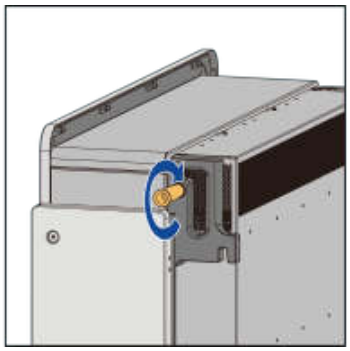
The product has a net weight of 117Kg, and if incorrectly lifted, or if it is incorrectly lifted during transport and installation, dropping it may result in injury to persons or damage to equipment.

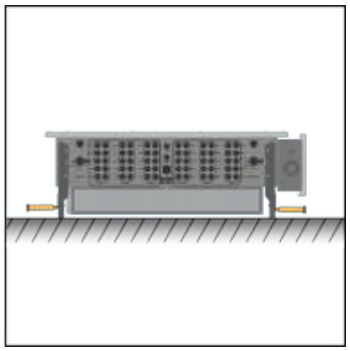
- Consider the weight of the product when handling and lifting with care.
- Specialist technicians wear suitable personal protective equipment.

5.3.1 Manual transport

Use the handles on the top and base to carry the inverter to its destination.



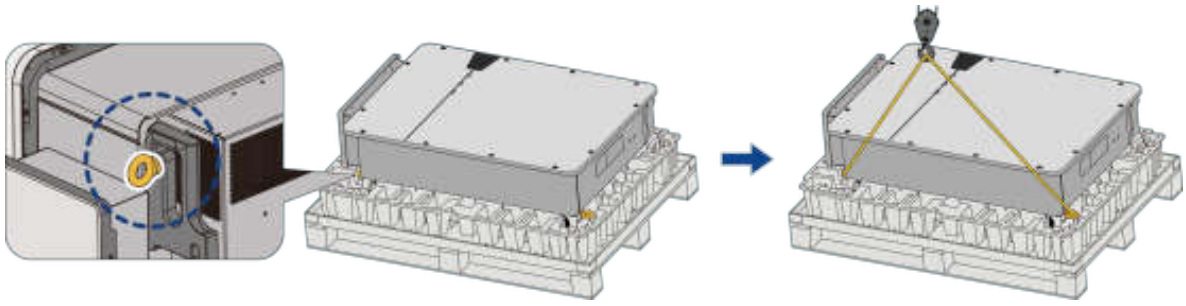




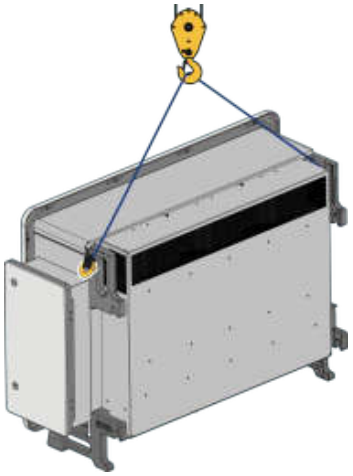
The lifting handles are optional and can be used either unassisted or with the aid of the lifting handles.

5.3.2 Lifting rings

Step 1: Screw the two lifting rings onto the back plate of the inverter and pass the rope through the two lifting rings in turn and tie them tightly.



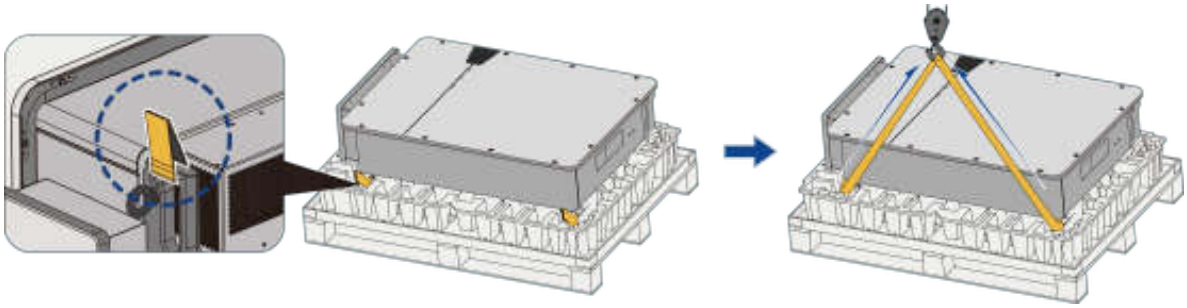
Step 2: Use lifting equipment to lift the inverter 100mm off the ground and pause to check the tightness of the lifting rings and ropes. Make sure the connection is firm and then lift the inverter to the destination.



Step 3: Remove the lifting ring and finish.

5.3.3 Sling Handling

Step 1: Tie the two slings to the back plate of the inverter and stretch the slings through the two lifting loops in turn and fasten them.



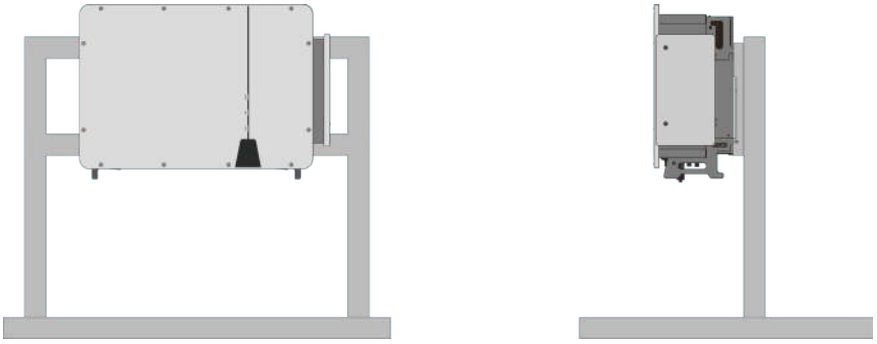
Step 2: Use the lifting equipment to lift the inverter 100mm off the ground and pause to check the tightness of the lifting rings and ropes. Make sure the connection is firm and then lift the inverter to the destination.

Handle and lifting ring are optional, sling and rope are not included in the scope of supply.

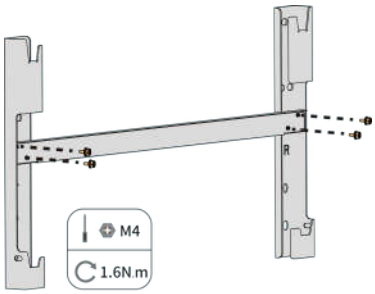
5.4 Mounting

5.4.1 Mounting the back plate

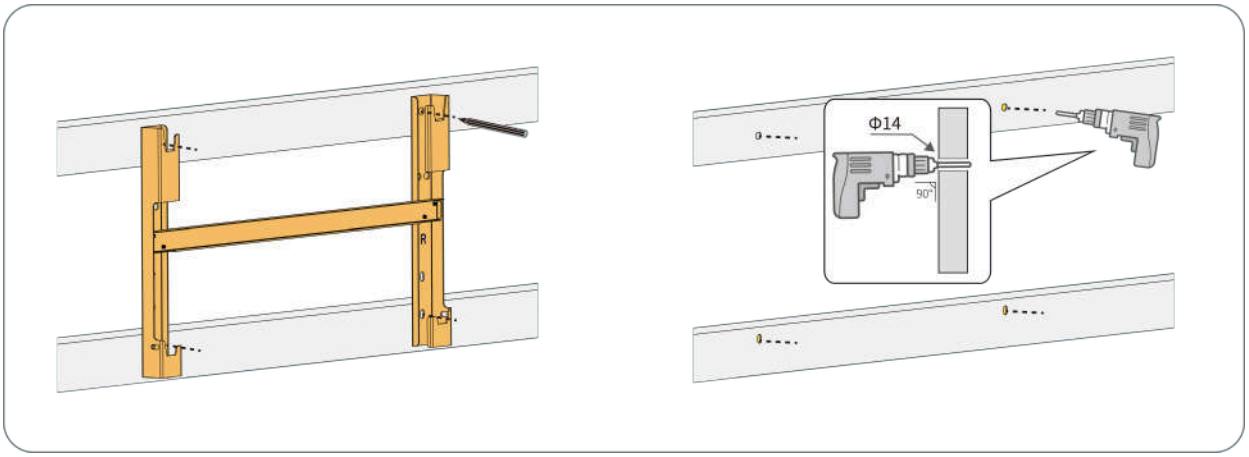
Ensure that there is an open environment behind the back plate.



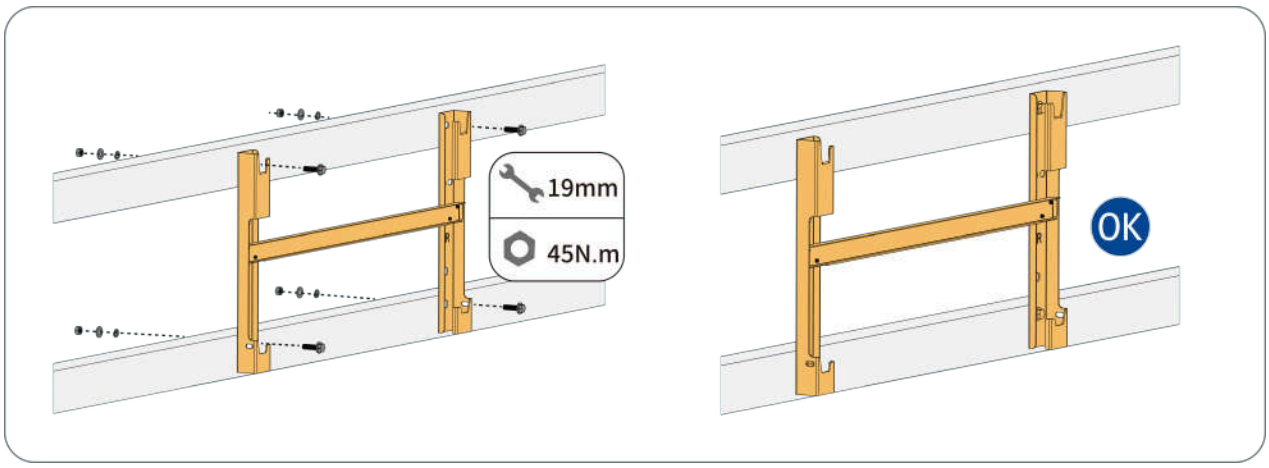
Step 1: Fix the two components together with the connecting rods.



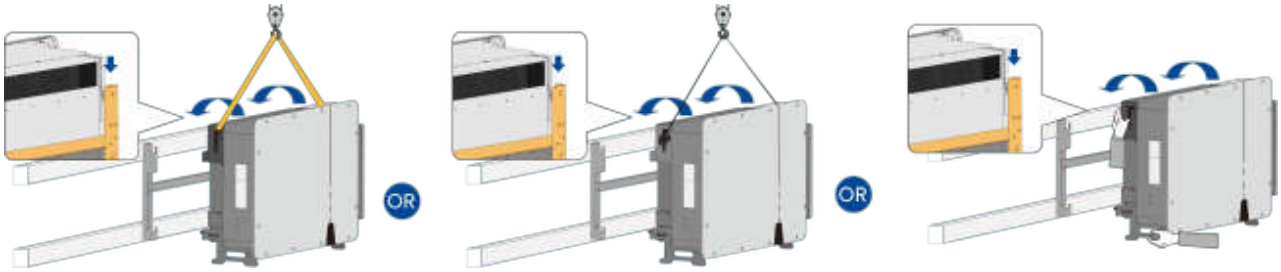
Step 2: Place the assembled panel on the mounting point, adjust the angle with a levelling tape, mark the position of the holes with a pencil and drill 4 holes with a Ø14mm drill bit.



Step 3: Fix the plate using the combination bolts.

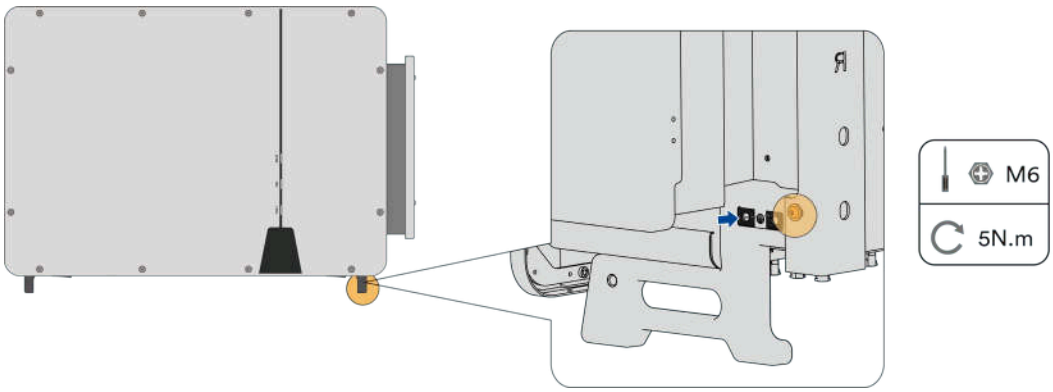


Step 4: If the mounting position is high, you need to lift the inverter to the hanging plate (see '5.3.2 Lifting Ring Handling' / '5.3.3 Lifting Strap Handling' for details), otherwise, please ignore this step and choose to lift the inverter manually; hang the lugs on the back of the inverter to the hanging plate; use a pencil to mark the holes. Hang the lugs on the back of the inverter above the grooves on the top and bottom of the hanger plate.



Make sure that all four lugs fit well into the grooves.

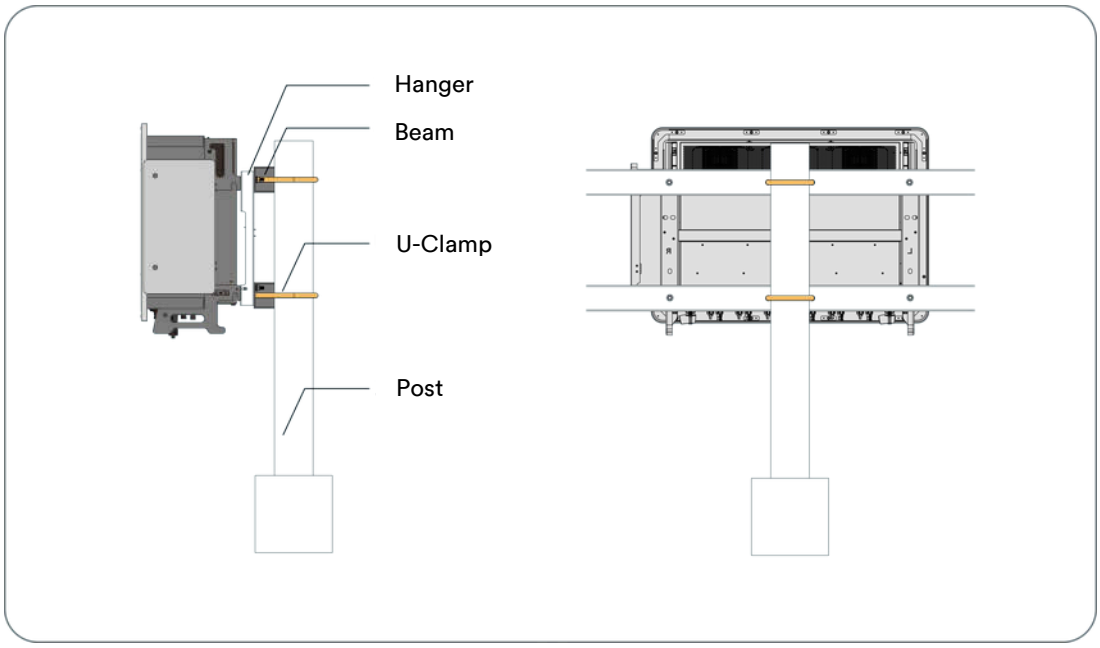
Step 5: Secure the inverter with two M6 x 12 screws.



Step 6: Installation is complete.

5.4.2 Hoop Installation

*The crossbar and U-shaped clamps must be provided by the customer.



5.4.3 Wall mounting (not recommended)

⚠ CAUTION

Risk of injury due to the weight of the product !

Injuries may result if the product is lifted incorrectly or dropped while being transported or mounted.

- Transport and lift the product carefully. Take the weight of the product into account.
- Wear suitable personal protective equipment for all work on the product.

⚠ CAUTION

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 cables on the wall or inside the wall cavity are damaged when drilling.

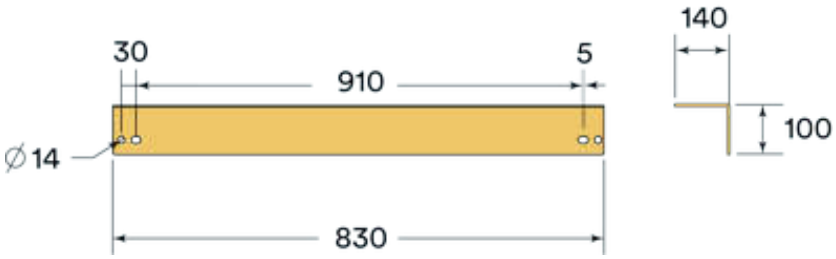
i

Close to the wall installation, you need to reserve space for air ducts, and in order to avoid the formation of air inlet and outlet reflux, you need to increase the L-shaped windbreak. When the distance from the wall to the wall is more than 600mm, the windshield can not be installed.

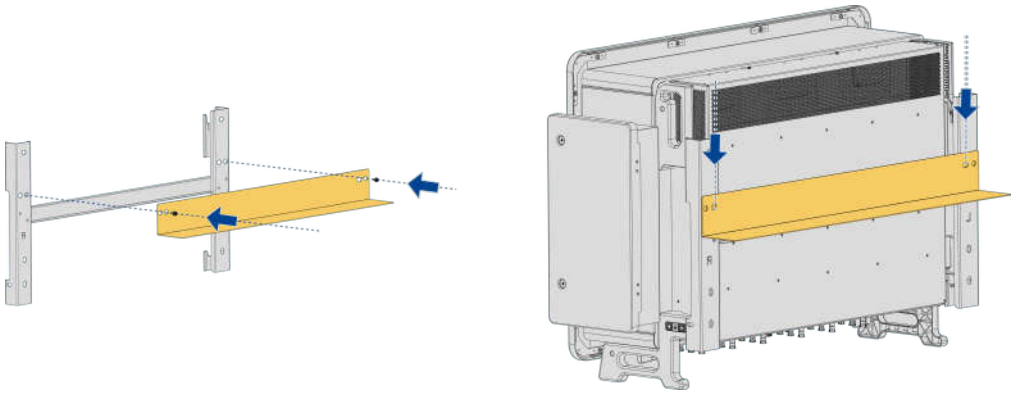
L-shaped windshield recommended use of aluminium, thickness > 2mm, width recommended d-10mm (d is the distance from the hanging plate to the wall).

When the distance from the hanging plate to the wall is 120mm, the recommended dimensions of the windbreak are as follows:

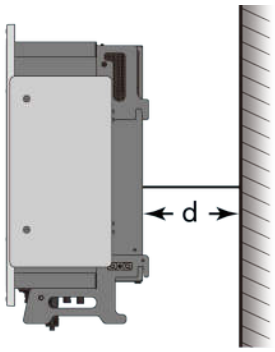
Unit: mm



The windbreak is first pre-installed on the wall plate, and then installed on the wall bracket with the wall plate. The specific operation is as follows:



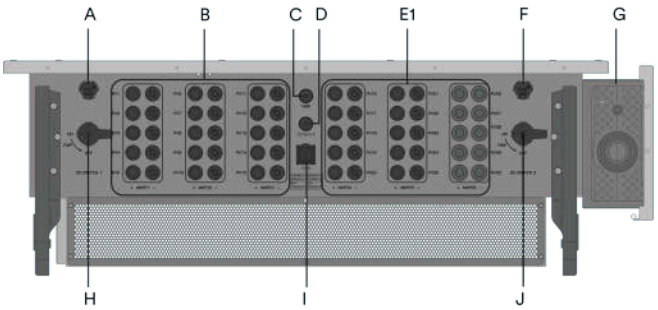
The distance between the machine and the wall is shown as follows:

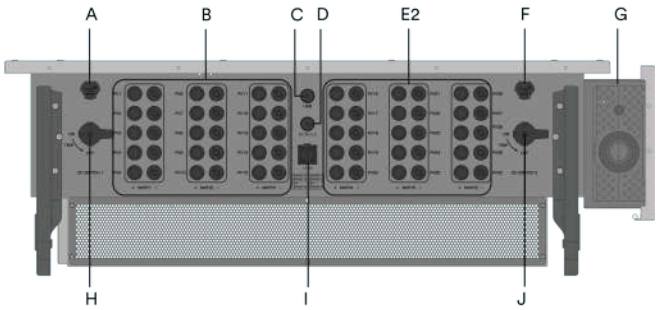


600mm≥d≥150mm

6 Electrical connection

6.1 Overview of the connection area





NO.	Name
A	Ventilator 1
B	DC connector inputs 1-15 (connected to DC switch 1)
C	USB port
D	Communication device port
E1	ASW250K-HT series:DC connector inputs 16-30 (connected to DC switch 2)
E2	ASW333/350/360K-HT series:DC connector inputs 16-30 (connected to DC switch 2)
F	Ventilator 2
G	AC cable - knockout seal
H	DC switch 1
I	RS485 Communication port
J	DC switch 2

6.2 Connecting additional grounding

The inverter is equipped with a grounding fault monitoring device. The grounding fault monitoring device will disconnect the inverter from utility grid when it detects there is no ground conductor connected. Hence the product does not require additional grounding or equipotential bonding when operating.

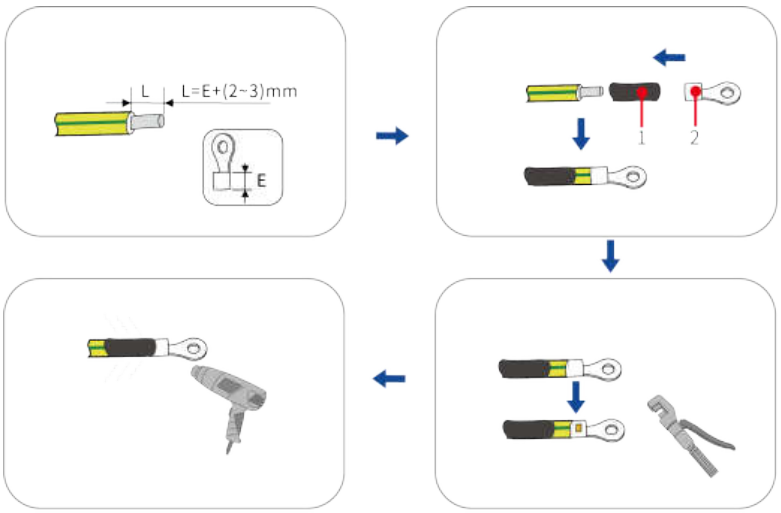
If the ground fault monitoring function is deactivated or the additional grounding is required by local installation standards, then additional grounding can be connected to the inverter.

Requirements for secondary protection ground cable:

Item	Description	Note
1	Screw	Specifications M10, supplied
2	OT/DT terminal	Specifications M10, provided by the customer
3	Yellow and green ground cable	Same cross-sectional area as the PE wire of the AC cable

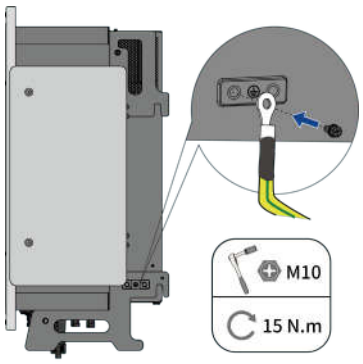
Procedure:

Step 1: Strip the grounding cable insulation. Insert the stripped part of the ground cable into the ring terminal and crimp using a crimping tool. Insert the stripped part of the grounding cable into the ring terminal and crimp using a crimping tool.



1: Heat shrink tubing 2: OT/DT terminal (M4)

Step 2: Remove the screw on the ground terminal, insert the screw through the OT/DT terminal, and tighten the screw. Apply paint to the grounding terminal to ensure corrosion resistance.



Step 3: Apply paint to the grounding terminal to ensure corrosion resistance.

The product provides multiple secondary earth protection points, at least one of which is selected for earthing.

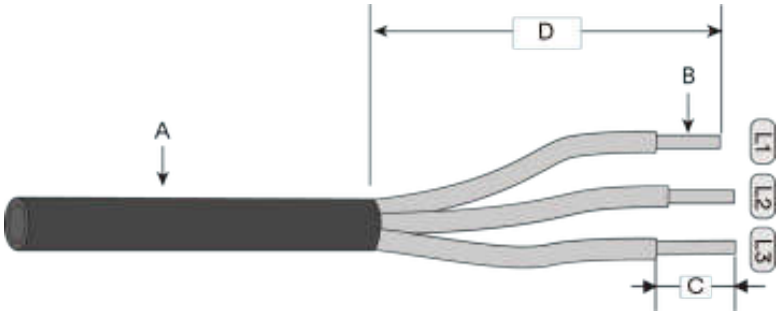
6.3 AC connection

6.3.1 Requirements for the AC connection

Cable Requirements

Multi-core cable specification requirements

The cables are recommended to be 3 or 4 core flexible cables (L1, L2, L3 and PE), depending on the grid type, if the cable is not configured please omit this step, the recommended standard cables are as follows:



Item	Description	Value
A	External diameter of outer sheath	32...72 mm
B	Copper cable conductor cross-section	120~185 mm²
	Aluminium cable conductor cross-section	150~500 mm²
	Recommended cross-sectional area of PE line	≥1/2 cross-sectional area of phase line
C	Insulation stripping length	Matching terminal
D	Sheath stripping length	200~220 mm

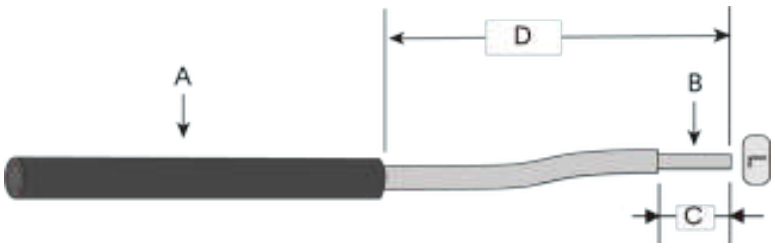
Note: The longer the cable, the larger the wire gauge required.

The cross-sectional area of the conductor depends on the current level of the inverter, the ambient temperature, the wiring method, the cable type, the cable loss, the regulatory requirements of the respective country or region, etc.

For aluminium conductors with a cross-sectional area of ≥ 400 mm^2 , use DIN 46329 type terminals.

Single-core cable specification requirements

Depending on the grid type, please omit this step if the cable is not configured, the recommended standard cables are as follows:



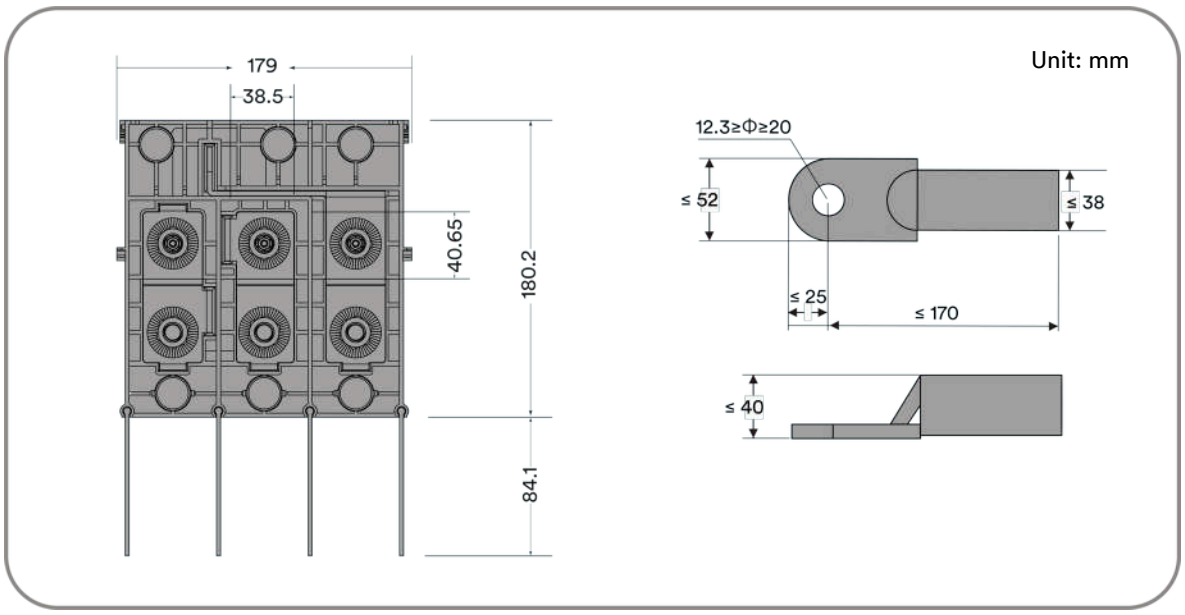
Item	Description	Value
A	External diameter of outer sheath	10…44 mm
B	Copper cable conductor cross-section	120~185 mm²
	Aluminium cable conductor cross-section	150~500 mm²
	Recommended cross-sectional area of PE line	≥1/2 cross-sectional area of phase line
C	Insulation stripping length	Matching terminal
D	Sheath stripping length	200~220 mm

Note: The longer the cable, the larger the wire gauge required.

The cross-sectional area of the conductor depends on the current level of the inverter, the ambient temperature, the wiring method, the cable type, the cable loss, the regulatory requirements of the respective country or region, etc.

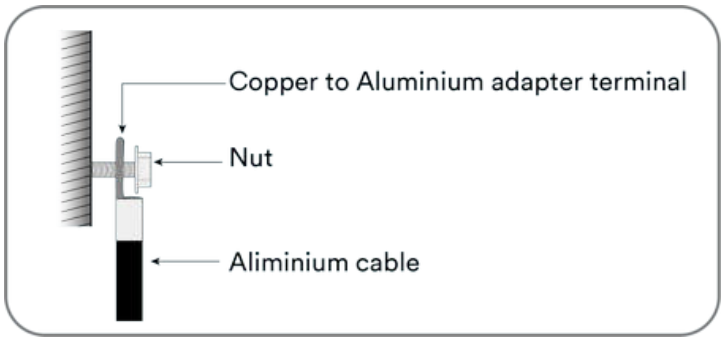
Requirements for AC side OT/DT terminals

Fixing the AC cable to the terminal block requires the use of OT/DT terminals with M12 mounting (not included in the scope of supply), which should be selected according to the following requirements:



Aluminium Cable Requirements

If an aluminium cable is selected, use a copper to aluminium adapter terminal to avoid direct contact between the copper bar and the aluminium cable.



Ensure that the selected terminal can directly contact with the copper bar. If there are any problems, contact the manufacturer of terminal.

Direct contact between the copper bar and the aluminium cable will cause electrochemical corrosion and impair the reliability of electrical connection.

Overvoltage category

The product can be used under grid conditions of overvoltage category III or lower. For the definition of overvoltage category, please see standard GB/T 16935.1 The product is capable of connecting directly to grid connection points inside buildings. If the installation of this product involves long outdoor cable routing, consideration should be given to reducing the overvoltage category of the grid connection point from Class IV to Class III through additional measures.

AC circuit breaker

In PV systems with multiple inverters, protect each inverter with a separate circuit breaker. This will prevent residual voltage being present at the corresponding cable after disconnection.

No consumer load should be applied between AC circuit breaker and the inverter.

The selection of the AC circuit breaker rating depends on the wiring design (wire cross-section area), cable type, wiring method, ambient temperature, inverter current rating, etc. Derating of the AC circuit breaker rating may be necessary due to self-heating or if exposed to heat.

The maximum output current and the maximum output overcurrent protection of the inverters can be found in section 10 “Technical data”.

6.3.2 AC cable connection

⚠ WARNING

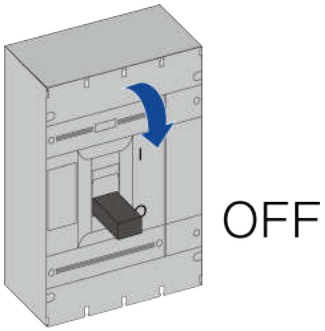
Risk of injury due to electric shock by high leakage current.

If the ground wire is disconnected , touching the product may result in death or lethal injuries due to high leakage current.

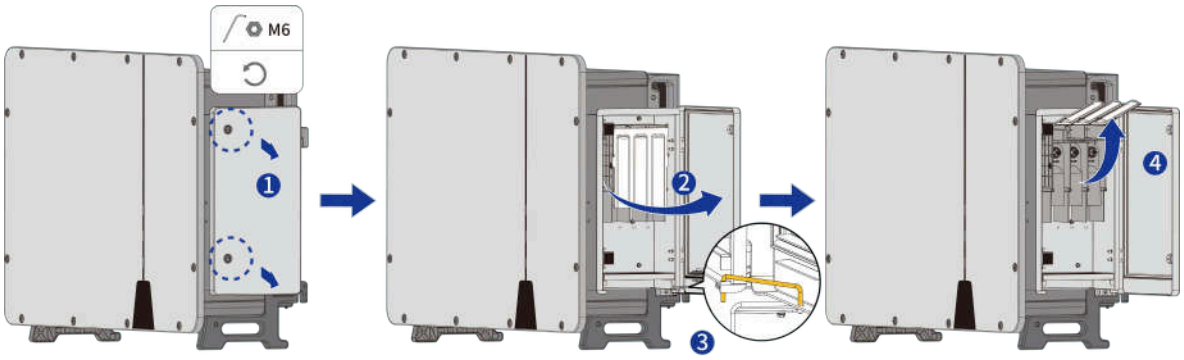
- The product must be grounded correctly in order to protect property and personal safety.

Procedure:

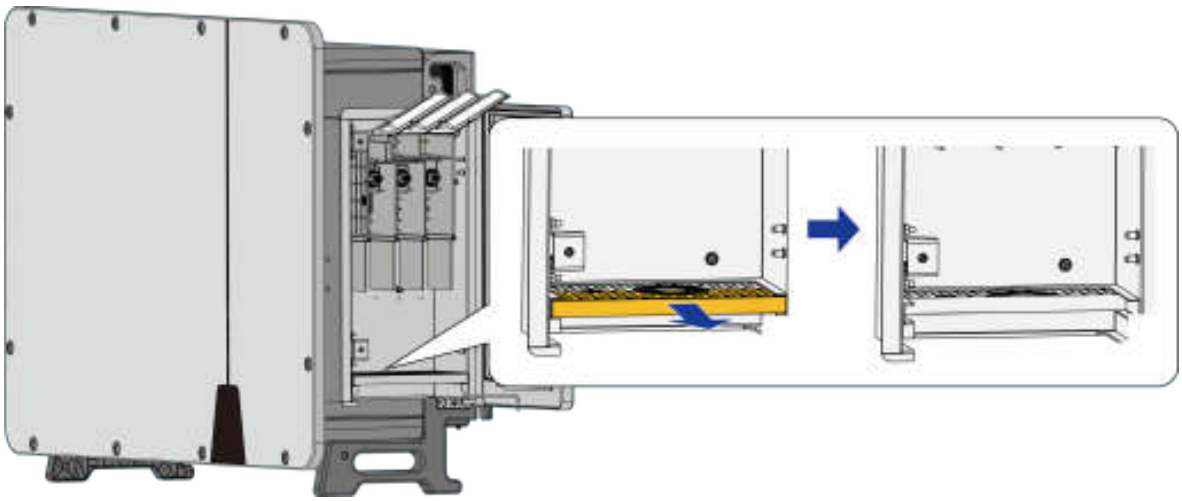
Step 1: Switch off the AC circuit breaker and lock it to avoid it from being inadvertently switched on.



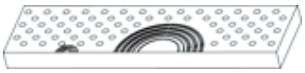
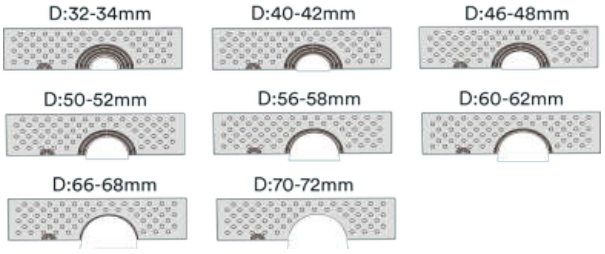
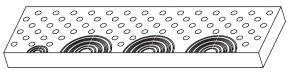
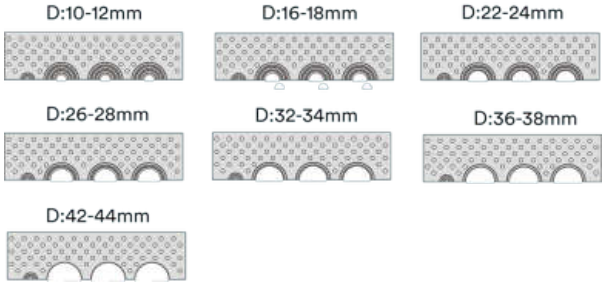
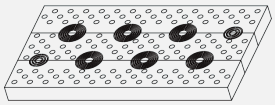
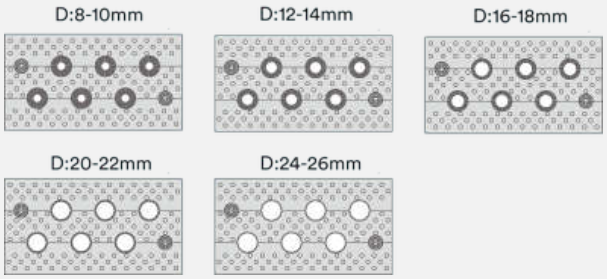
Step 2: Remove the two screws on the junction box with a plum-shaped screwdriver, open the junction box, use the limit lever on the junction box to fix its position for wiring operation, and open the transparent dust cover upwards.



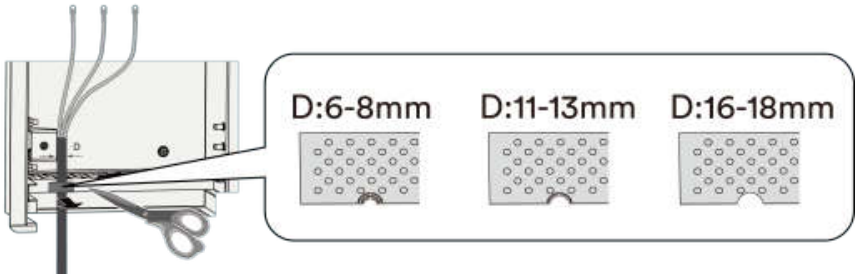
Step 3: Remove the top half of the coil guard from the bottom of the junction box by hand from the slot and store it in a safe place.



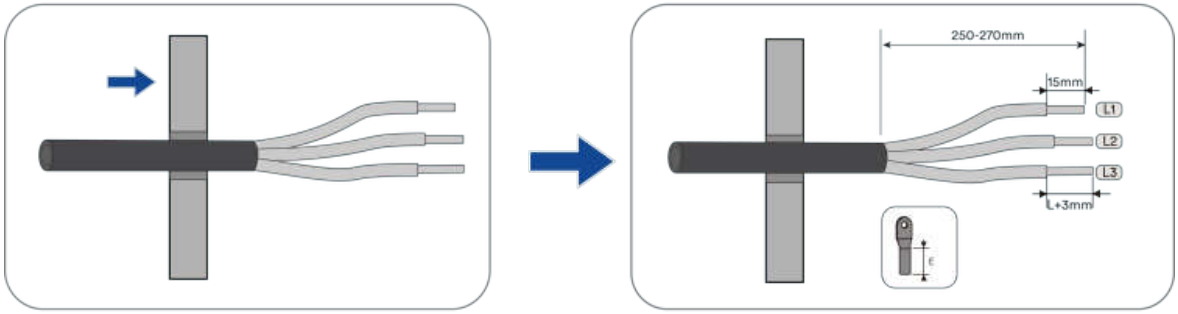
Step 4: Cut suitable holes in the coil guard according to the type of coil selected and the AC wire O.D. specification.

Coil type	Core type	Cable O.D.
Standard 		
Standard 		
(Option) 		

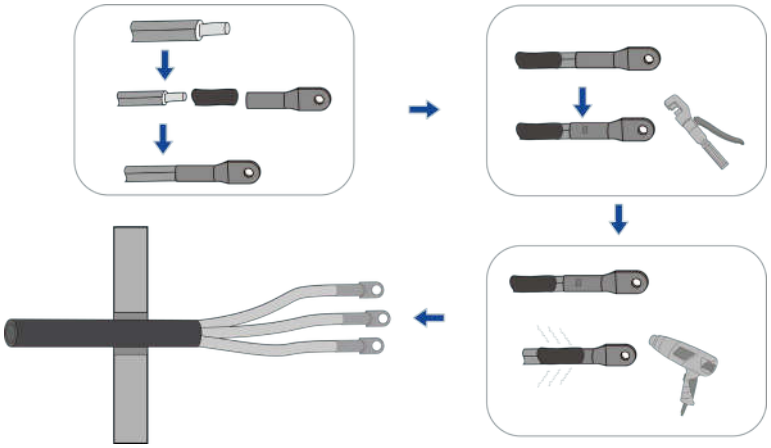
Step 5: According to the wire diameter specification of the tracking bracket, cut the appropriate hole in the corresponding position of the guard coil.



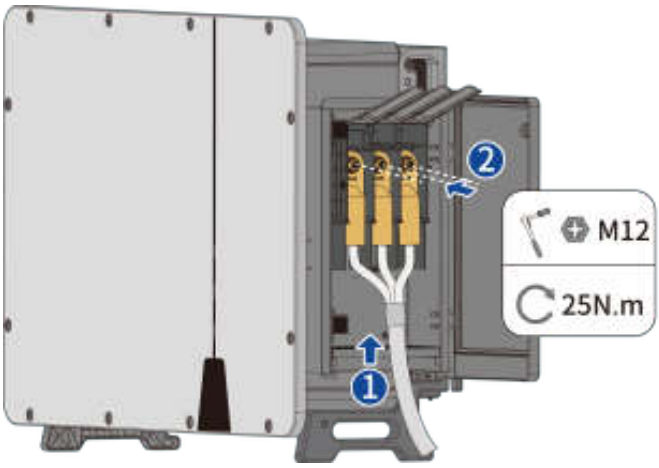
Step 6: Thread the cable into the waterproof ring in sequence, and strip off a certain length of the protective layer and insulation according to the requirements shown in the diagram.



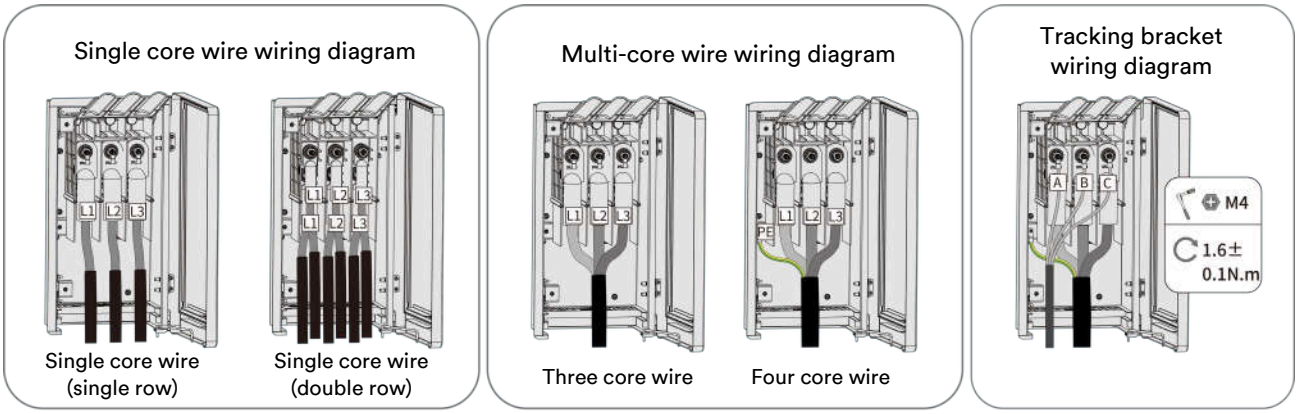
Step 7: Make the cable and crimp the OT/DT terminals.



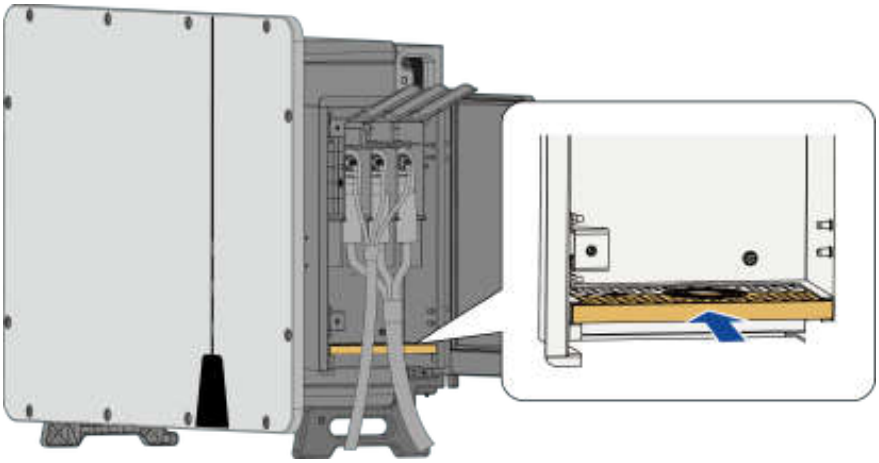
Step 8: Fix the cable to the corresponding terminal.



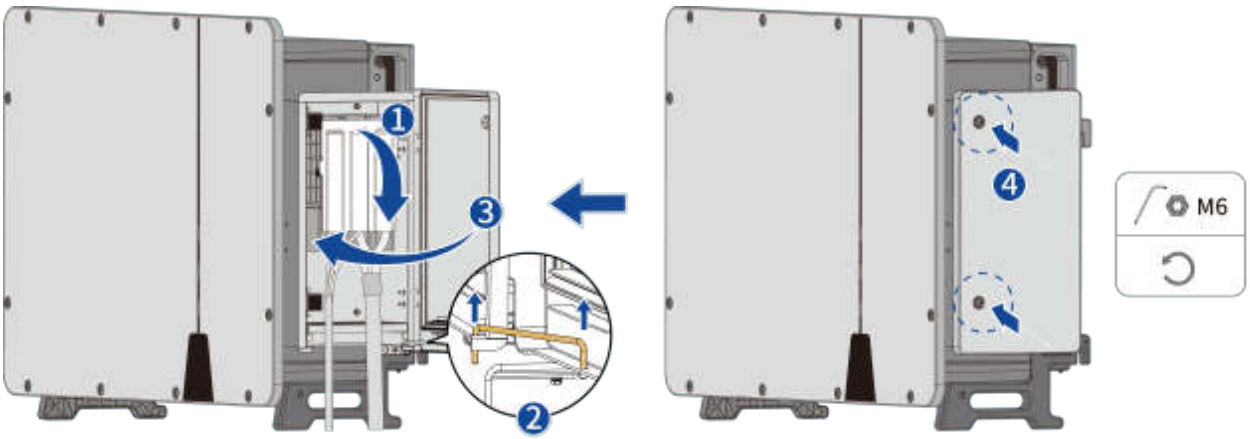
Step 9: The final wiring diagram is shown in the figure.



Step 10: Put the upper part of the protective coil removed in step 3 back into the original slot.



Step 11: Place the transparent dust cover downwards, retract the limit lever to its original position, close the terminal box and lock the screws.



6.4 DC connection

6.4.1 Requirements for the DC connection

Requirements for the connection of PV modules per MPPT input

- All PV modules should be of the same type.
- All PV modules should be aligned and tilted identically.
- On the coldest day based on statistical records, the open-circuit voltage of the PV array must never exceed the maximum input voltage of the inverter.
- The same number of series-connected PV modules must be connected to each string.
- The maximum input current per string must not be exceeded and must stay within the DC rating of the DC connectors.
- The DC cables to the inverter must be used with the connectors included in the scope of delivery.
- The thresholds for the input voltage and the input current of the inverter must be adhered to.
- The positive DC cables of the PV modules must be used with the positive DC connectors. The negative DC cables of the PV modules must be used with the negative DC connectors.

Cable requirements:

Item	Description	Value
1	Cable type	PV1-F，UL-ZKLA/USE2
2	External diameter	5-8 mm
3	Conductor cross-section	4-6 mm²
4	Number of copper strands	At least 7
5	The rated voltage	≥ 1500 V

6.4.2 Assembling the DC connectors

⚠ DANGER

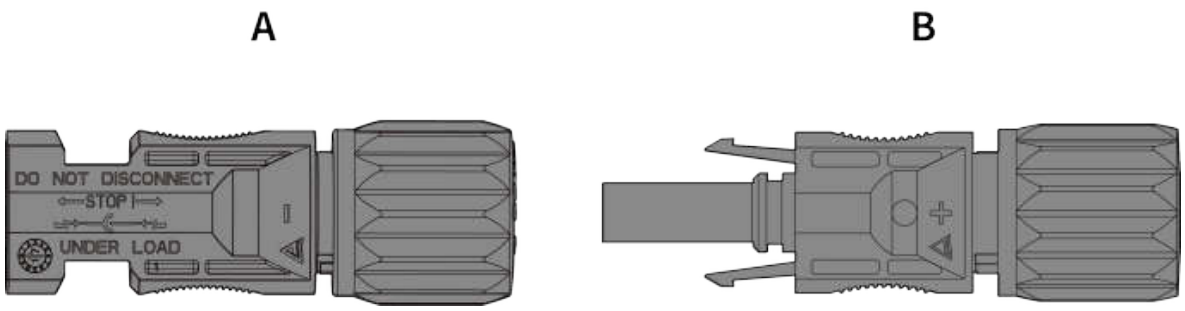
Danger to life due to electric shock when live components or exposed DC cables are touched！

When exposed to light, the PV modules generate high DC voltage which is present in the DC cables. Touching exposed live DC cables may result in death or lethal injuries due to electric shock.

- Do not touch non-insulated parts or cables.
- Disconnect the product from voltage sources and ensure it cannot be reconnected before working on the device.

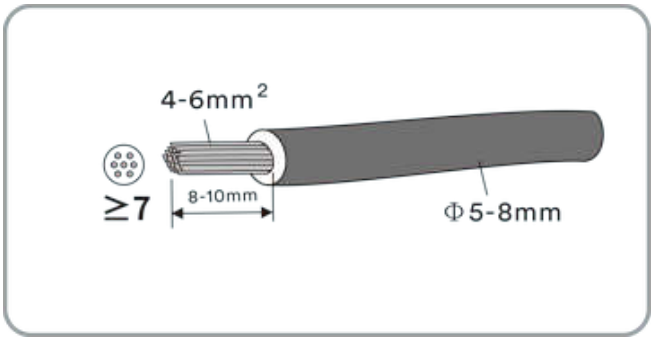
For connection to the inverter, all PV module cables must be fitted with the DC connectors provided.

Assemble the DC connectors as described below. Be sure to observe the correct polarity. The DC connectors are marked with the symbols “+” and “ – ”.

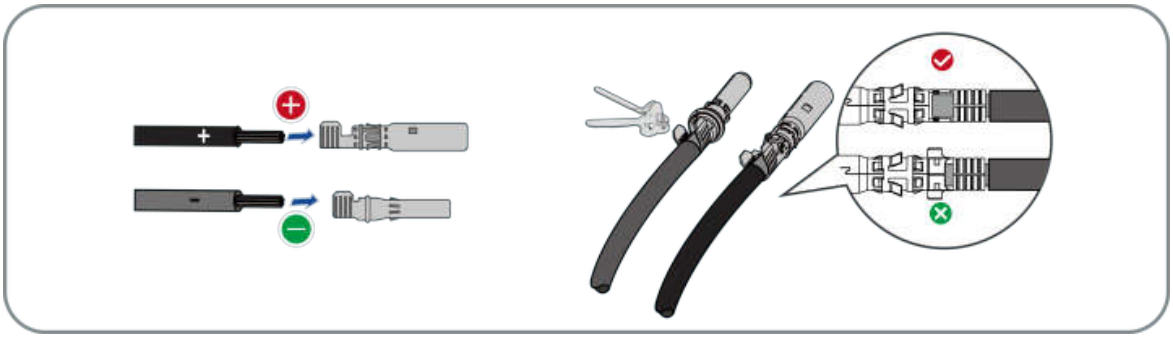


Procedure:

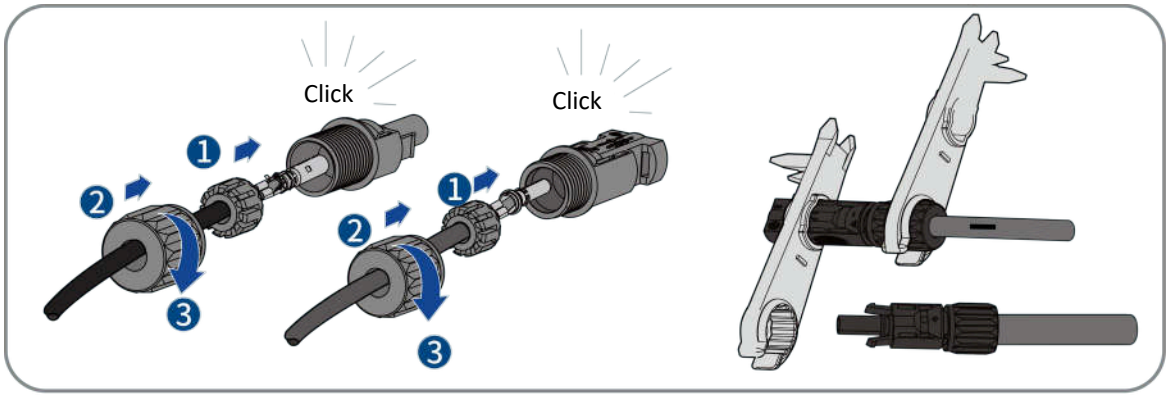
Step 1: Strip 12 mm off the cable insulation.



Step 2: Slip the positive and negative metal terminals over the cable that has been stripped of its outer jacket and crimp it tightly with crimping pliers.



Step 3: Insert the cable through cable gland and insert into the housing until it snaps into place. Gently pull the cable backward to ensure firm connection. Tighten the cable gland and onto the housing (Torque 2.5-3Nm).



Step 4: Ensure that the cable is correctly positioned.

6.4.3 Connecting the PV array

⚠ DANGER

Danger to life due to high voltages in the inverter!

When exposed to light, the PV modules generate high DC voltage which is present in the DC cables. Touching live DC cables may result in death or lethal injuries due to electric shock.

- Before connecting the PV array, ensure that the DC switch is switched off and that it cannot be turned on.
- Do not disconnect the DC connectors under load.

NOTE

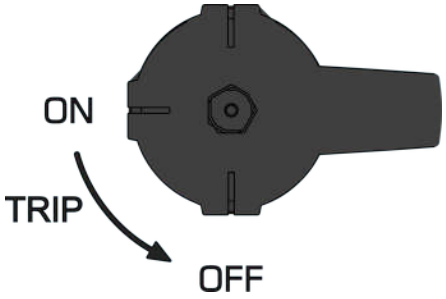
The inverter can be destroyed by overvoltage.

If the voltage of the strings exceeds the maximum DC input voltage of the inverter, it can be destroyed due to overvoltage. All warranty claims become void.

- Do not connect strings with an open-circuit voltage greater than the maximum DC input voltage of the inverter.
- Check the design of the PV system.

Step 1: Ensure that the inverter AC circuit breaker is switched off and ensure that it cannot be accidentally turned on.

Step 2: Ensure that the DC switch is switched off and ensure that it cannot be accidentally turned on.

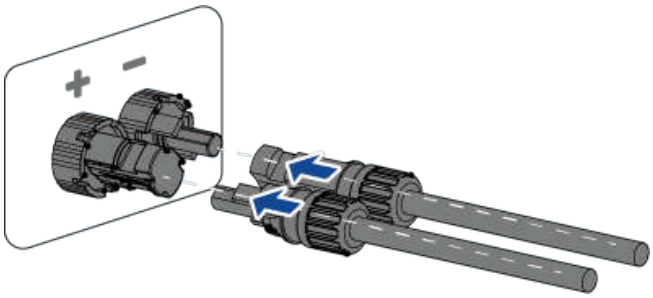


Step 3: Ensure that there is no ground fault in the PV array.

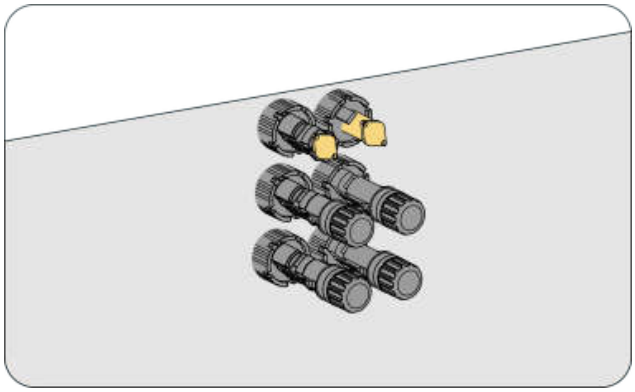
Step 4: Check whether the DC connector has the correct polarity. If the DC connector is equipped with a DC cable having the wrong polarity, the DC connector must be reassembled. The DC cable must always have the same polarity as the DC connector.

Step 5: Ensure that the open-circuit voltage of the PV array does not exceed the maximum DC input voltage of the inverter. Connect the assembled DC connectors to the inverter until they audibly snap into place.

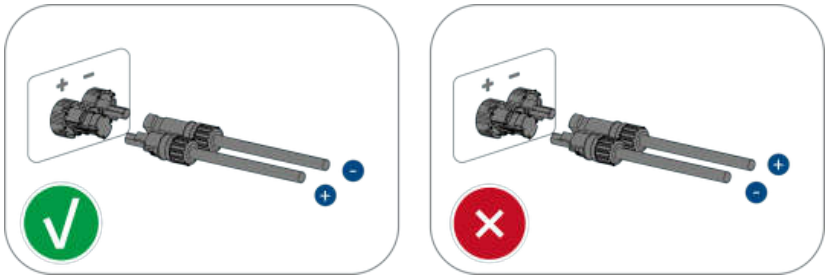
Step 6: Insert the DC connectors into the corresponding DC inputs on the inverter.



Step 7: Do not remove the sealing plug from the input of the DC connector on the empty side of the inverter.



Check the positive and negative polarity of the PV strings and connect the PV connectors to corresponding terminals only after ensuring polarity correctness.



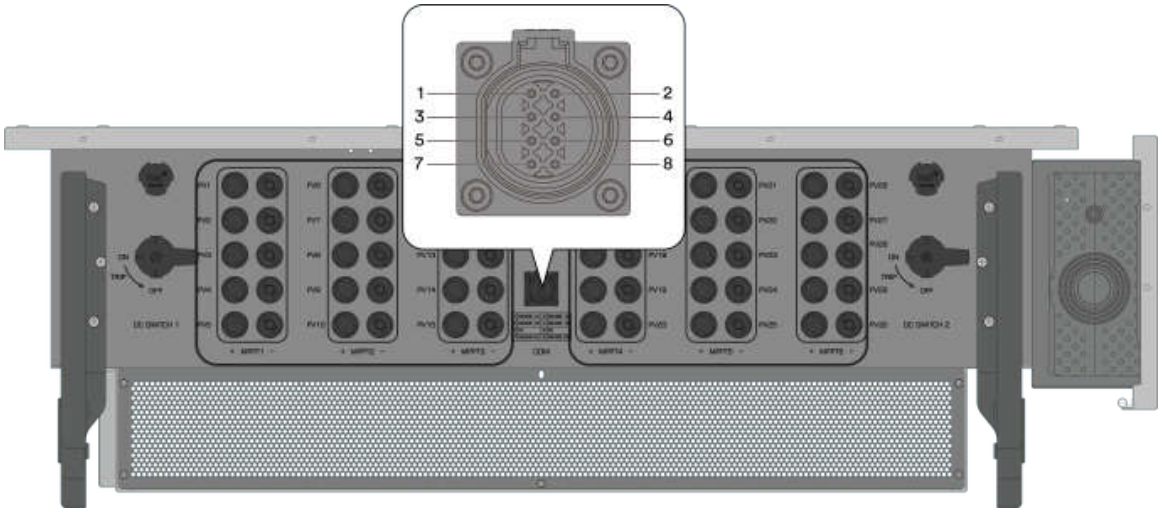
Step 8: Ensure that all DC connectors and the DC connectors with sealing plugs are securely in place.

6.5 Communication device connection

6.5.1 Communication interface

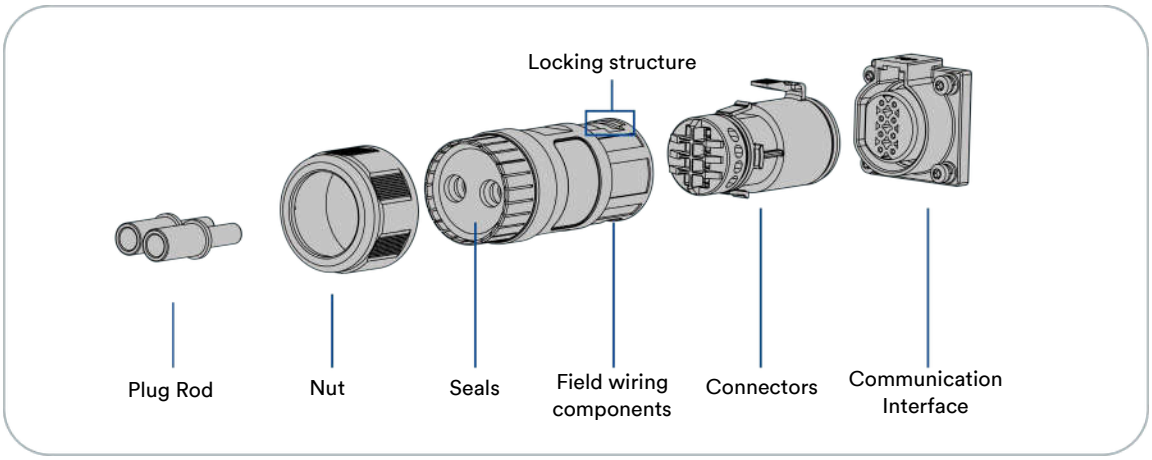
When connecting the communication cable, please make sure that the wiring port definition matches exactly with the device, and the communication cable must be separated from other power cables to avoid communication interference.

The communication interface signal definition is shown in the figure:

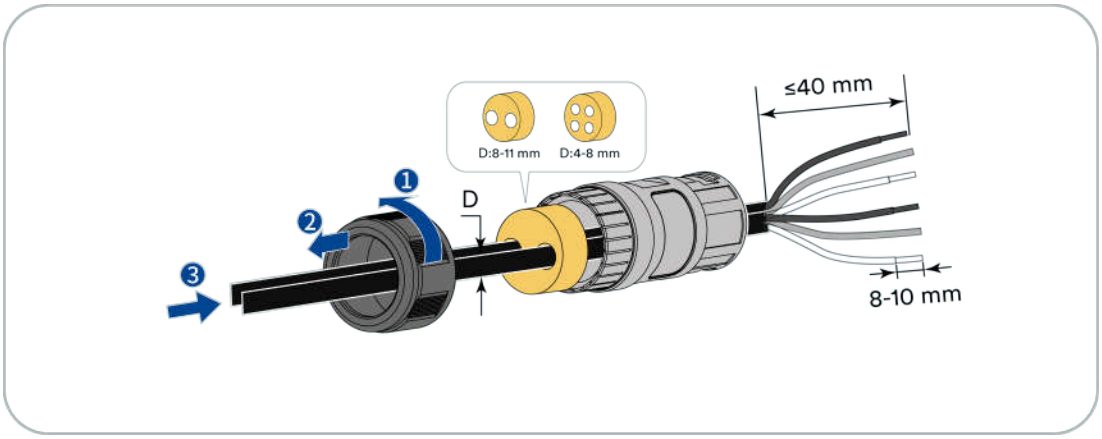


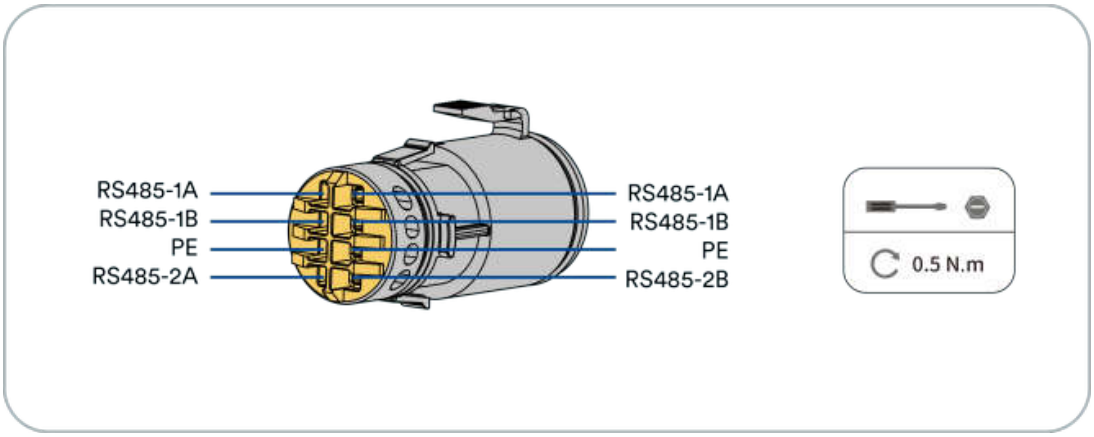
Port	PIN	Definition	Description
RS485-1	1	RS485-1A	For cascading inverters or connecting to Ai-Logger 2000 and third-party monitor devices
	2	RS485-1A	
	3	RS485-1B	
	4	RS485-1B	
Shield	5	PE	Communication shield grounding
	6	PE	Communication shield grounding
RS485-2	7	RS485-2A	For connection to tracking bracket or third party monitor
	8	RS485-2B	

6.5.2 RS485 communication line installation

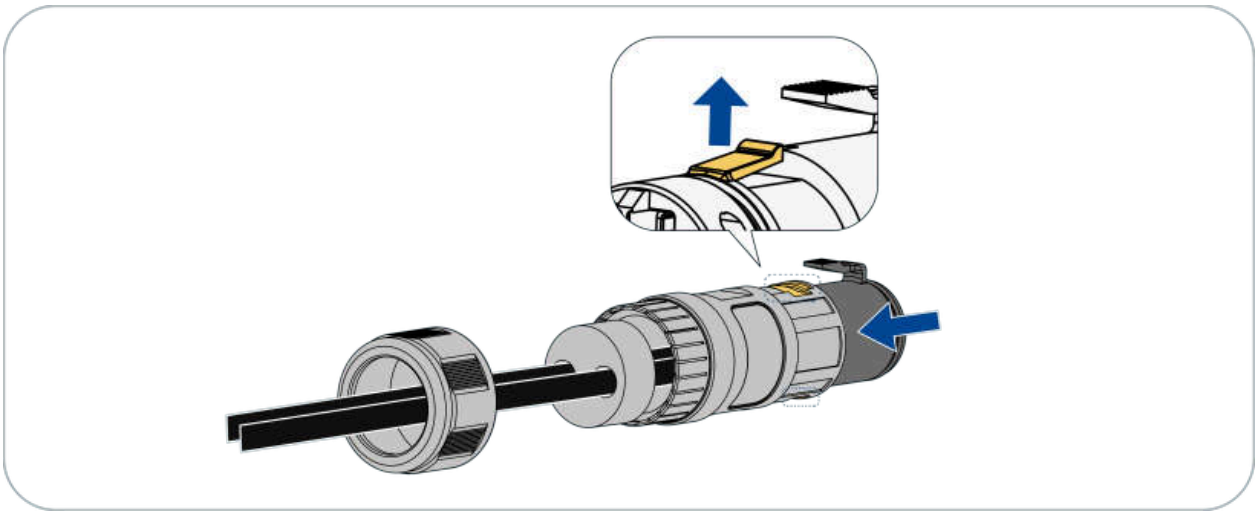


Step 1: Remove the plug bar and turn the nut counterclockwise to remove the seal. Select the sealing ring according to the cable OD D. Thread the cable into the locknut, sealing ring and field assembly in turn.

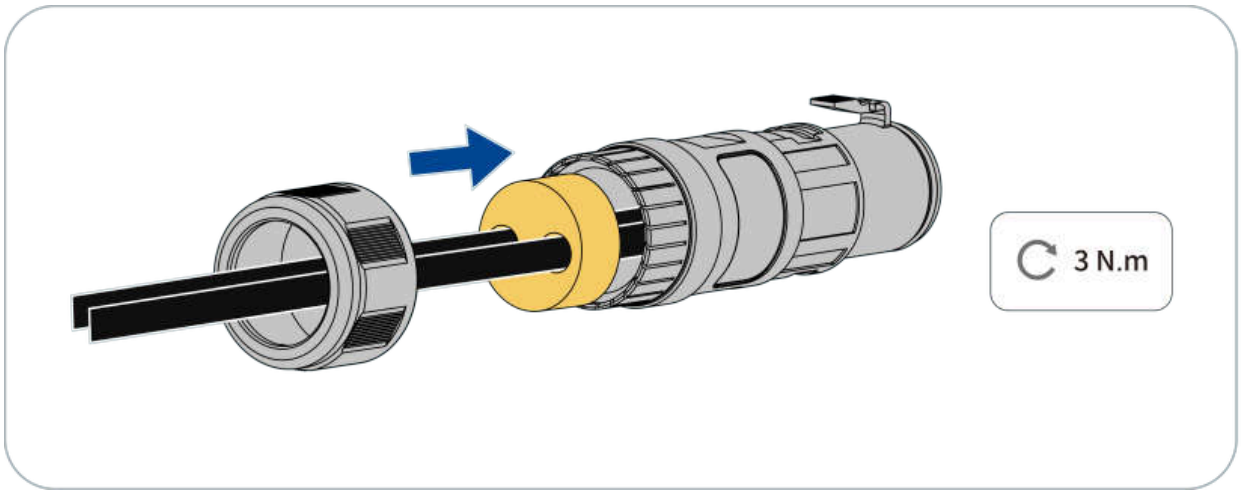




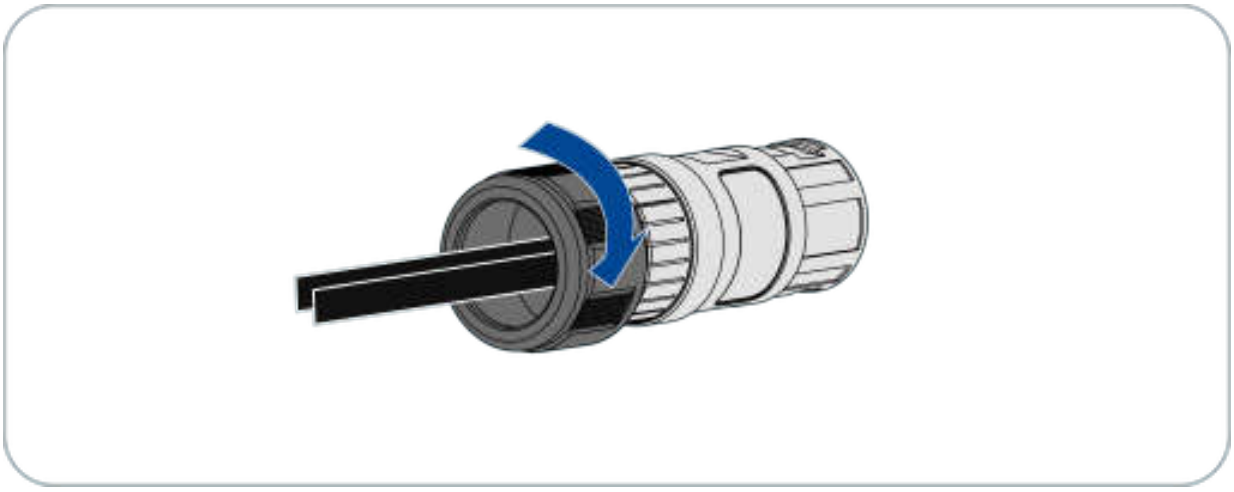
Step 2: Insert the connector into the field wiring component and the connector snap pops out indicating success.



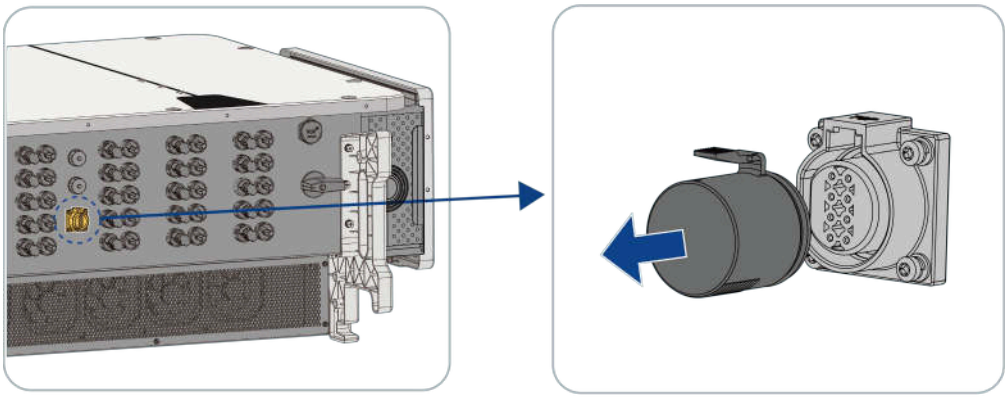
Step 3: Insert the cable into the lock nut, sealing ring and field assembly in turn.



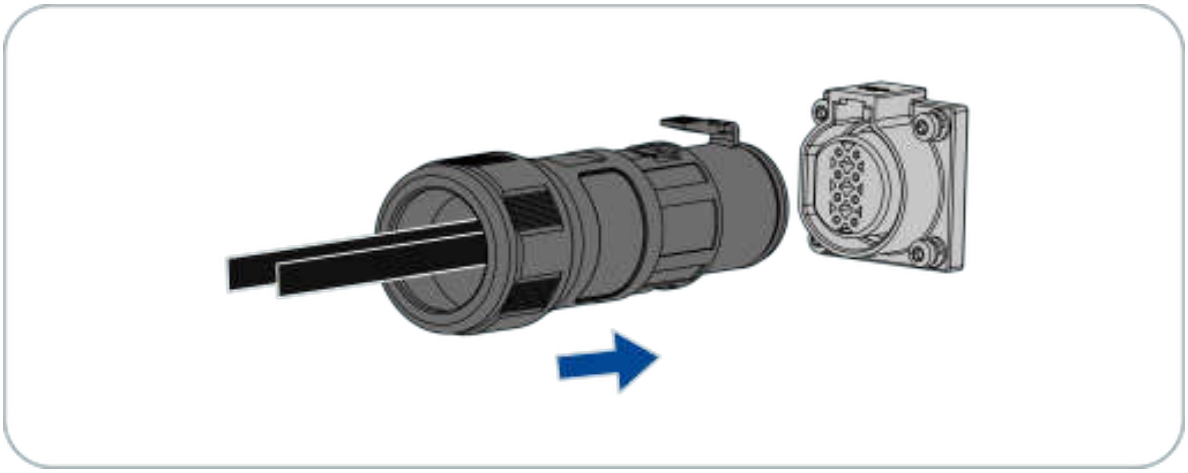
Step 4: Gently pull back the cable and tighten the lock nut clockwise.



Step 5: ： Remove the waterproof cover of RS485 communication interface on the inverter.



Step 6: Insert the connector into the communication interface to complete the installation.

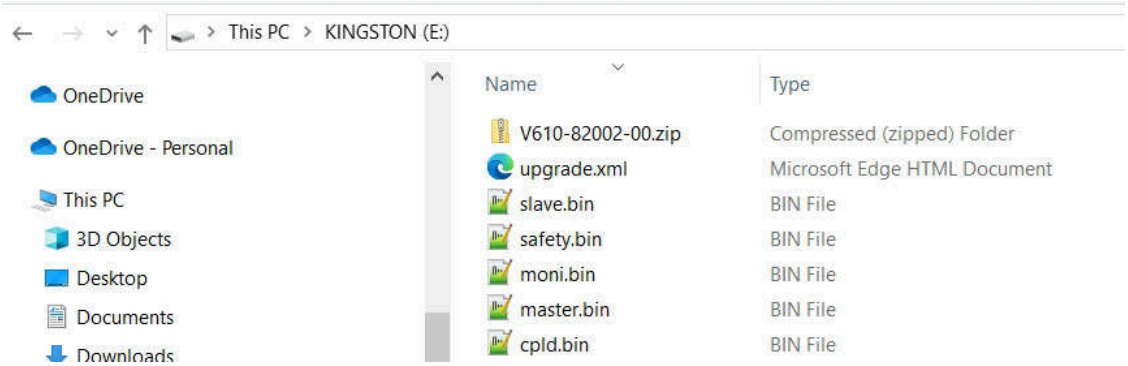


6.5.3 Software Upgrade/Log Export

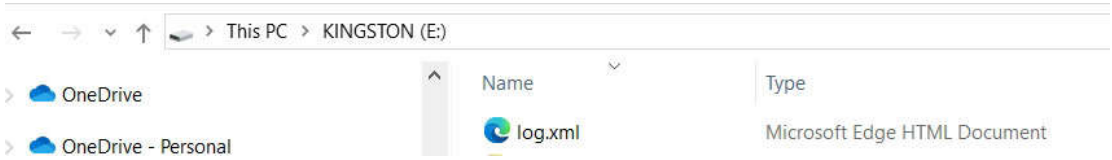
The USB stick format must be FAT32.

The upgrade script is upgrade.xml and the log export script is log.xml.

Upgrade: There must be upgrade.xml file and upgrade package.bin file in the USB flash drive to perform the upgrade operation.



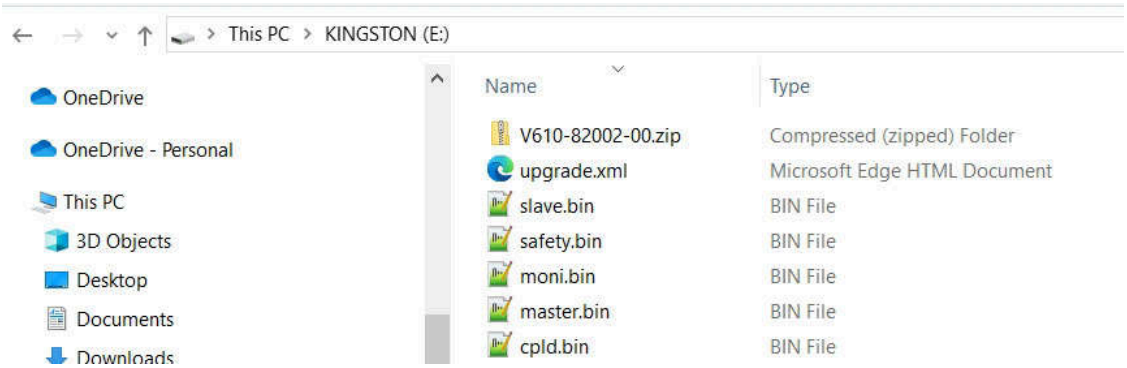
Log export: There must be a log.xml file on the USB flash drive to perform the log export operation.



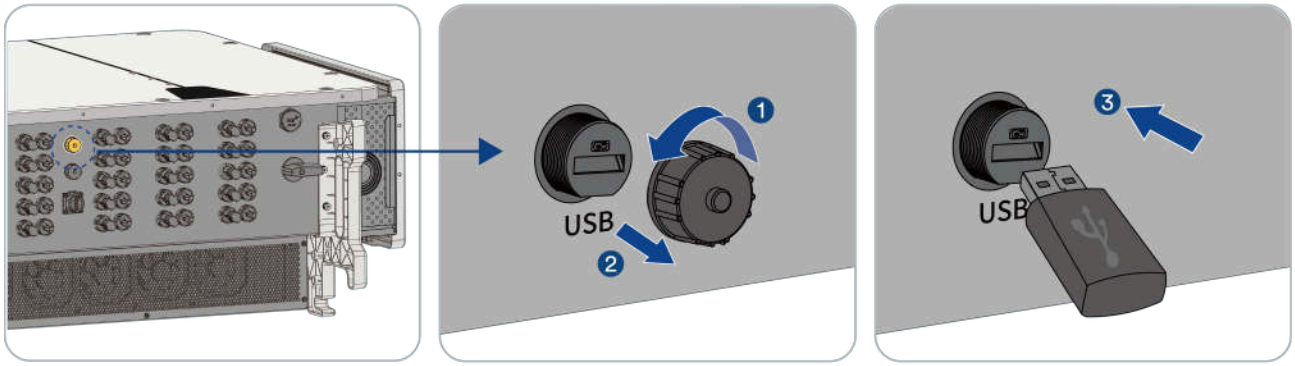
*For upgrade.xml, log.xml script file and upgrade package.bin file, please contact the after-sales personnel of Ashwin Technology Co.

6.5.3.1 Software Upgrade

Step 1: Unzip the upgrade package and put it in the root directory of the USB memory stick.



Step 2: After the machine is powered on, wait for 10s and insert the USB flash drive. Do not plug and unplug the USB flash drive during the upgrade process, otherwise the software upgrade may fail.



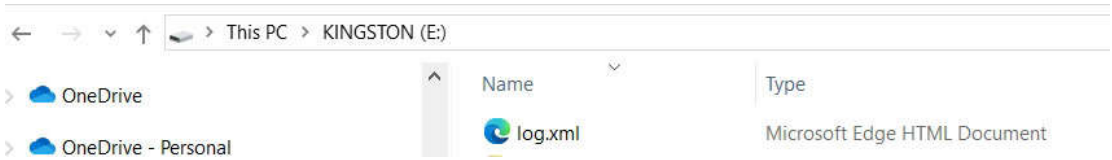
The upgrade operation will not be performed when the software version in the USB flash drive and the software version in the inverter are the same.

Step 3: When the USB flash drive is inserted, you can judge the software upgrade status according to the indicator status.

Upgrade Status	Indicator status description
Upgrading	COM light is flashing fast (period 400ms)
Upgrade failed	COM light flashes slowly (period 1600ms)
Upgrade successful	COM light is always on
Upgrade completed	The system will reboot automatically, and all LEDs will be off during the reboot process; after the reboot is completed, the COM light is always on, indicating that the upgrade operation is successful.

6.5.3.2 Log Export

Step 1: Put the log export script log.xml into the root directory of the USB memory stick.



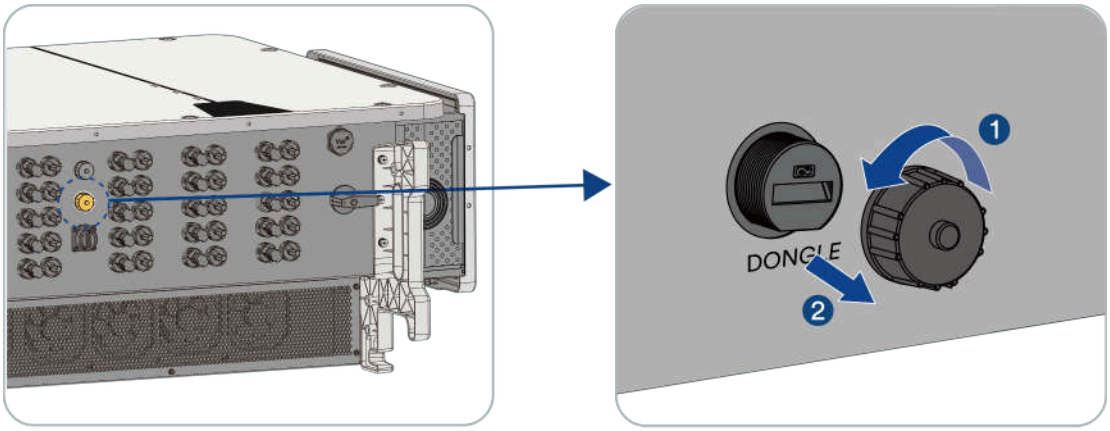
Step 2: Insert the USB flash drive into the machine; when the USB flash drive is inserted, you can judge the log export status according to the indicator status:

Log export status	Indicator lamp status description
Exporting	COM light flashes fast (period 400ms)
Successful export	COM light is always on

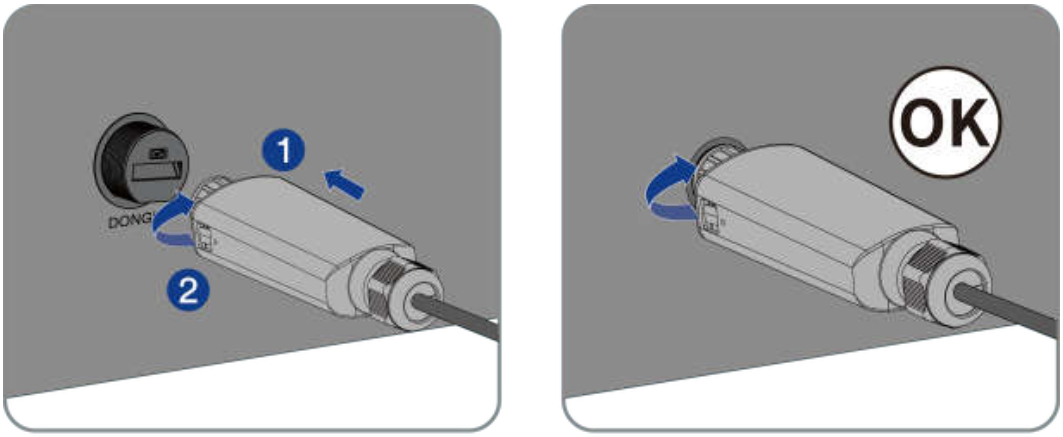
Step 3: After the log is successfully exported, you can view the log, log name: inverter serial number + log export time.

6.5.4 Communication stick module connection (optional)

Step 1: Remove the dust and waterproof cover from the communication terminals on the inverter.



Step 2: Insert the communication stick into the corresponding connector of the chassis to complete the connection.



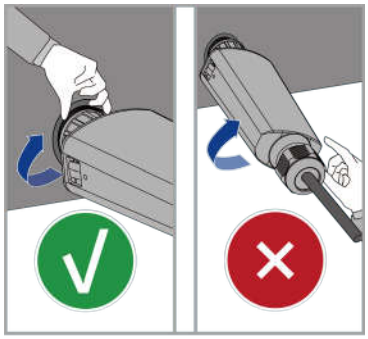
NOTE

Rotating the communication modular will damage the communication modular!

The communication modular is protected by locking nuts to protect the reliability of the connection. If the body of the communication modular is rotated, the communication modular will be damaged.

It can only be locked by a nut.

- Do not rotate the communication modular body.



7 Commissioning

7.1 Inspection before commissioning

⚠ WARNING

Danger to life due to high voltages on DC conductors !

When exposed to sunlight, the PV array generates dangerous DC voltage which is present in the DC conductors. Touching the DC and AC conductors can lead to lethal electric shocks.

- Only touch the insulation of the DC cables.
- Only touch the insulation of the AC cables.
- Do not touch ungrounded PV modules and brackets.
- Wear personal protective equipment, such as insulating gloves.

Check the following items before starting the inverter:

- Ensure the inverter DC switch inverter AC circuit breaker are OFF.
- Ensure the inverter has been correctly mounted onto the mounting bracket.
- Ensure there are no objects lying on top of the inverter.
- Ensure the communication cable and AC connector have been correctly wired and tightened.
- Ensure the inverter's exposed metal surface has a ground connection.
- Ensure the DC voltage of the strings does not exceed the permitted limits of the inverter.
- Ensure the DC voltage has the correct polarity.
- Ensure that the insulation resistance to ground is greater than the insulation resistance protection value.
- Ensure the grid voltage at the point of connection of the inverter complies with the permitted value of the inverter.
- Ensure the AC circuit breaker complies with this manual and all applicable local standards.

7.2 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. Close the AC circuit breaker, wait for the inverter indicator light to light up, and the SOLAR light to flash slowly.
2. Turn the DC switch of the inverter to the "ON" position, wait for 1 minute to observe whether the DC switch is tripped. If it is tripped, check whether the PV wiring is reversed, short-circuited, or the PV components are seriously mismatched to cause backflow.
3. If there is sufficient sunlight, wait for the inverter SOLAR indicator to flash quickly until it is connected to the grid, which is successful.
4. Observe the LED indicator to ensure that the inverter operates normally , the SOLAR indicator is always on, and no fault occurs.
5. Set initial protection parameters via the Solplanet App. For details, please refer to "8.4 Create a new plant".

When the light is weak, the inverter may start and shut down frequently. This is because the input voltage and power are too low, which is a normal state of the inverter. When the light is stronger, the voltage and input power are increased enough to start the inverter, but the inverter still restarts frequently, please call the customer service hotline.

8 Solplanet app

8.1 Brief introduction

The Solplanet App can establish communication connection to the inverter via WLAN, thereby allowing local maintenance on the inverter. Users can view inverter information and set parameters through the App.

8.2 Download and install

Scan the following QR code to download and install the App.

Android

iOS

8.3 Create an account

If you do not have an account, register a new account first.

Procedure:

Step 1: Open Solplanet App to enter the login screen, and click <Register> to enter the next screen.

Step 2: The user groups <Business user> and <End user> need be selected according to your identity, and click <Next step>.

The end user and the business user have the different permissions for setting parameters. The end user only can set the parameter during commissioning. The business user has more permissions.

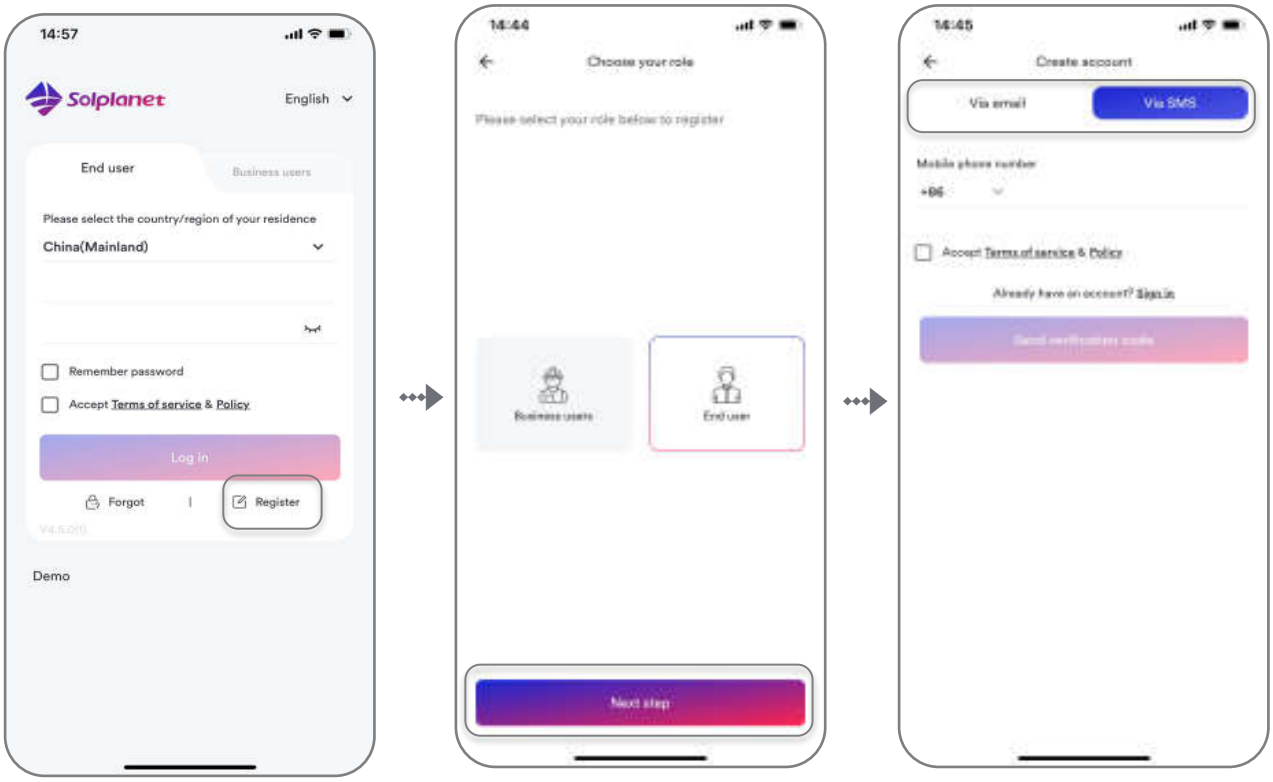
Step 3: Priority should be given to displaying the email address for registration on the registration page.After selecting your desired registration method (mobile phone/email), enter the correct email or mobile, perform image verification.

Step 4: Correctly enter the verification code received via SMS/email on your mobile phone to be automatically taken to the next page.

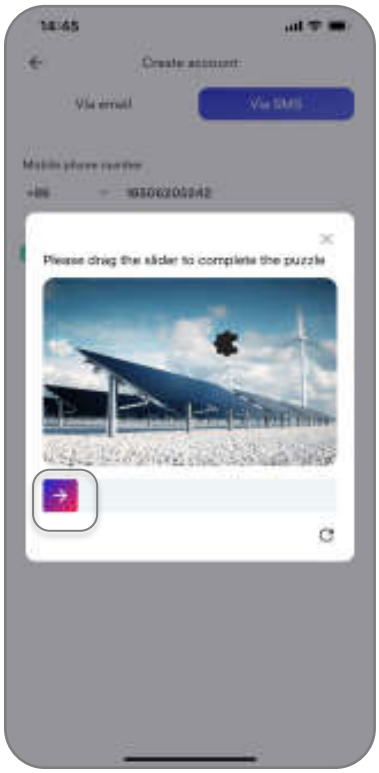
Step 5: Set the login password you wish to enter for this login account and click<Register>. At this point, account registration is complete.

The password must be 8-32 digits long and contain at least one letter and one number.

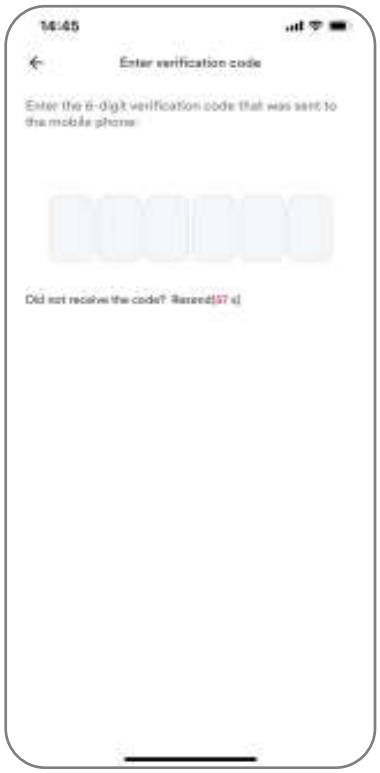
Step 6: After registration is completed, prompt for registration completion. You can click <Go to login>, then jump to the login page and enter the registered account password to successfully log in.



Step 1 Step 2 Step 3

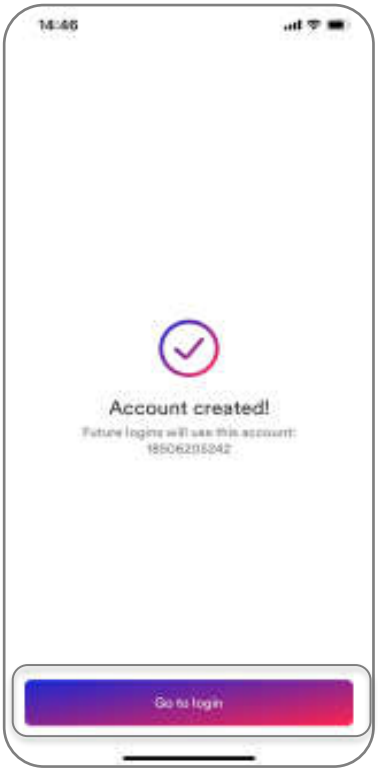


Step 3



Step 4

Step 5



Step 6

8.4 App & Inverter Near-End Configuration

Scenario 1: No network situation on mobile phone

Procedure:

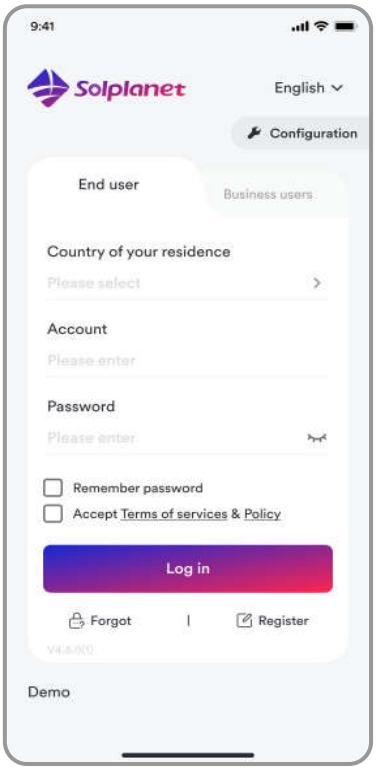
Step 1: Click 'Near Field Commissioning' in the upper right corner of the 'Login Screen'.

Step 2: Scan the QR code on the inverter and enter the next page automatically.

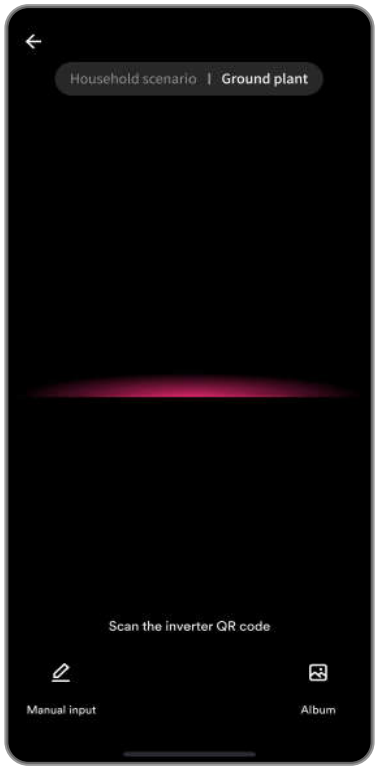
Near-end configuration needs to turn on the Bluetooth of the mobile phone, if the Bluetooth of the mobile phone is not turned on, the mobile phone will show the following prompts, please follow the prompts to carry out the corresponding operation.

Step 3: Select the appropriate user and click 'Next step'.

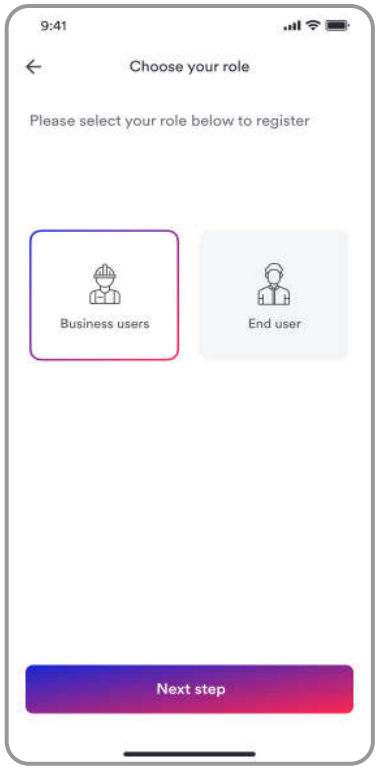
Step 4: Enter the 'Inverter Password' as prompted on the page. If you are logging in for the first time, you need to set a new password, click 'Set up' to proceed to the next step. If you already have a password, enter it and click 'Login' to proceed to the next step. For the remaining steps, please refer to Step 6 of Scenario 2 for details.



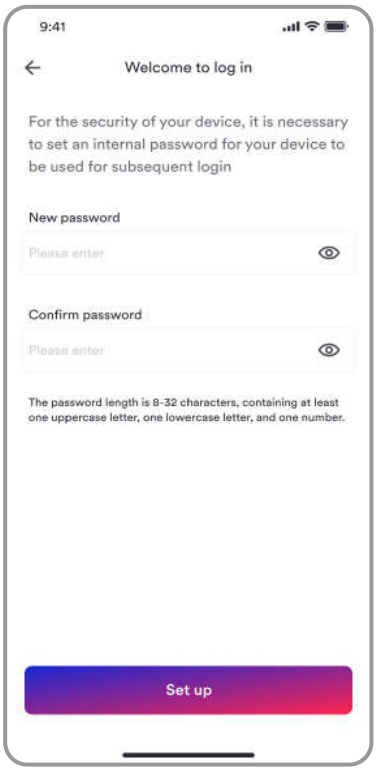
Step 1



Step 2



Step 3



OR

Step 4

Scenario 2: Mobile phone with network situation

Procedure:

Step 1: Enter your account name and password in the login screen of Solplanet App and click 'Login' to enter the next page.

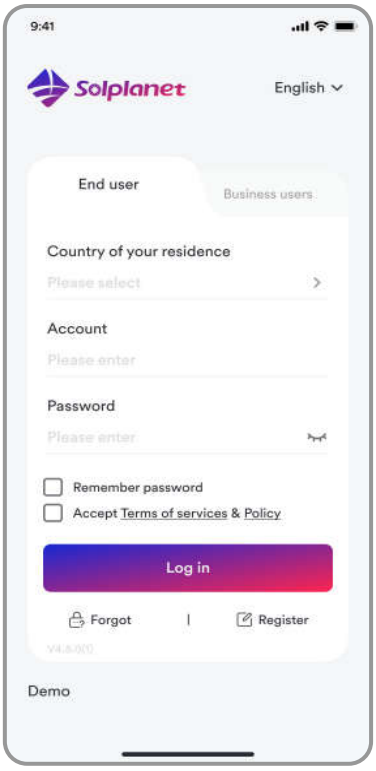
Step 2: Click the symbol '+' to enter the next page.

Step 3: Click 'Configure parameters'.

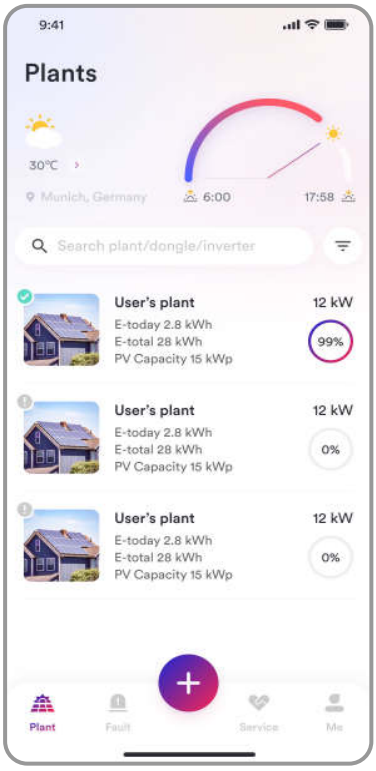
Step 4: Scan the QR code on the inverter and go to the next page.

Step 5: Enter your password and click 'Login' to proceed to the next screen.

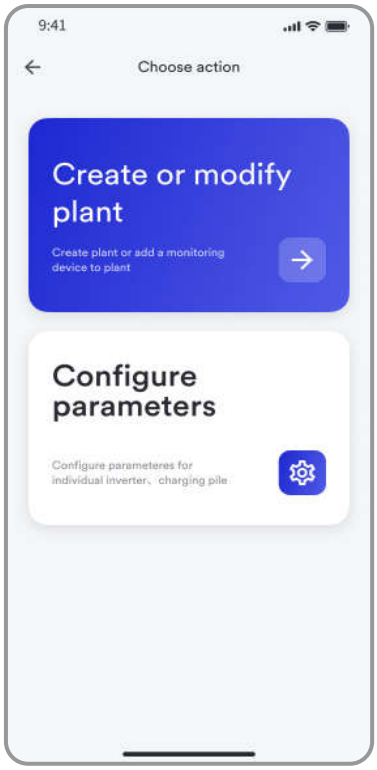
Step 6: Select the content you want to configure and make relevant settings.



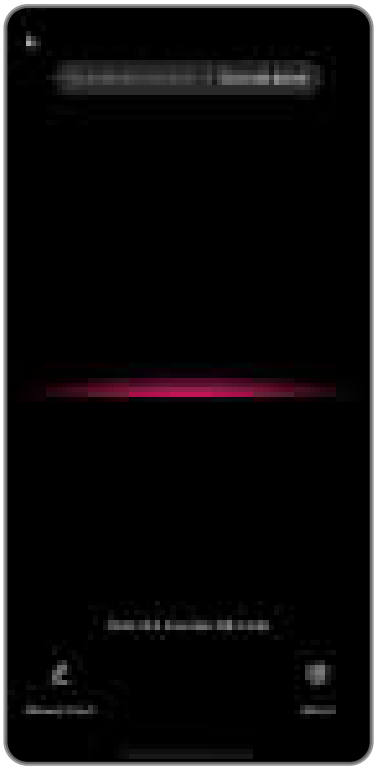
Step 1



Step 2

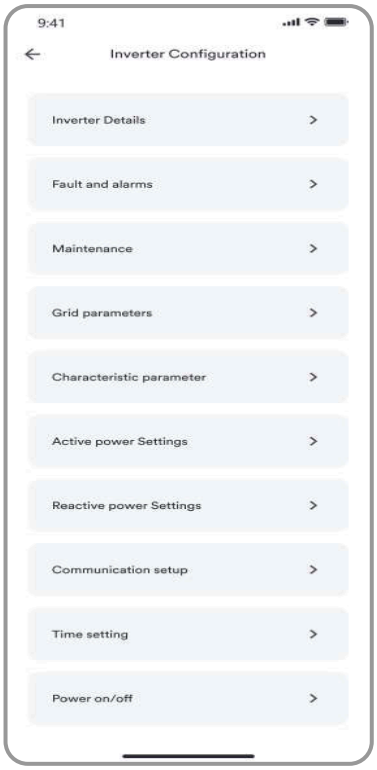


Step 3



Step 4

Step 5



Step 6

8.5 Create a new plant (optional)

* Open Solplanet App to enter the login screen, enter the account name and password, and tap <Log in> to enter the next screen (if you do not have account, please refer to 3.1 above).

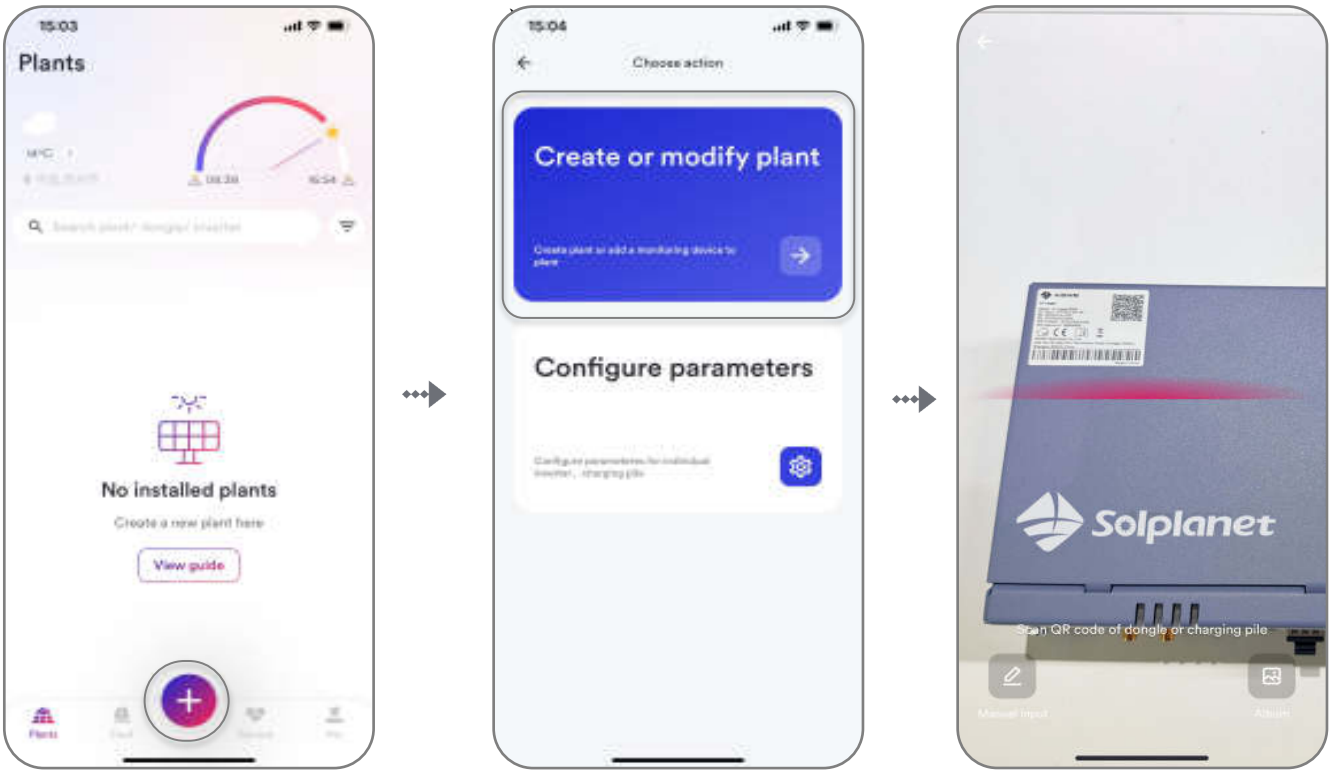
Step 1: Click the symbol <+> to enter the next screen, and click <Create or modify plant>, and scan the QR code of the Ai-logger 2000 Stick to enter the next screen.

Step 2: Please select an existing plant or click <Create or modify plant > to go to the next screen.

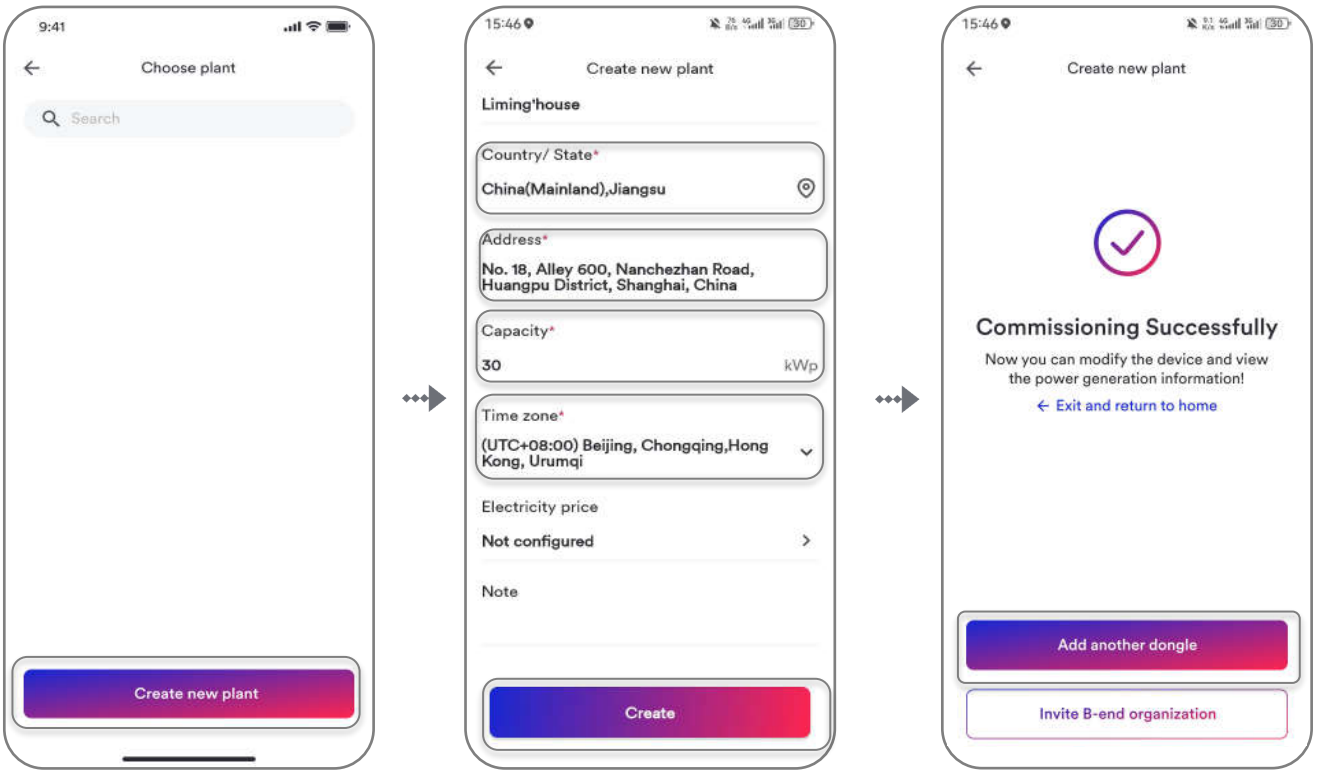
Step 3: Enter the PV plant information in all fields marked with a red asterisk <*>, and tap <Create> to enter the next screen.

Step 4: Commissioning Successfully! Now you can Modify the device and view the power generation information!

If creating a factory fails! There may be a problem, please contact customer service.



Step 1



Step 2 Step 3 Step 4

9 Decommissioning the product

9.1 Disconnecting the inverter from voltage sources

Prior to performing any work on the product, always isolate it from all voltage sources as described in this section. Always adhere to the prescribed sequence.

⚠ WARNING

Danger to life due to electric shock from destruction of the measuring device due to overvoltage.

Overvoltage can damage a measuring device and result in voltage being present in the enclosure of the measuring device. Touching the live enclosure of the measuring device results in death or lethal injuries due to electric shock.

- Only use measuring devices with a DC input voltage range of 500 Vdc or higher.

Procedure:

Step 1: Turn OFF the AC circuit breaker connected downstream of the AC output of the inverter and lock and secure it to avoid inadvertent reconnection.

Step 2: Turn OFF the DC switch and lock and secure it to avoid inadvertent reconnection.

Step 3: Wait until the LEDs are OFF.

Step 4: Use a current clamp meter to ensure that no current is present in the DC cables.

⚠ DANGER

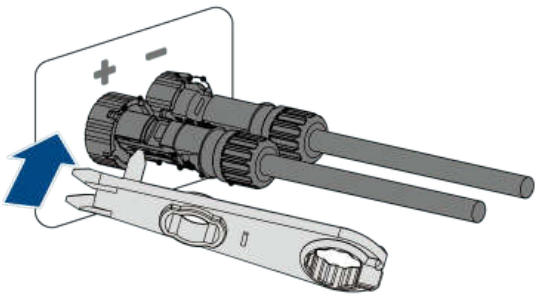
Danger to life due to electric shock when touching exposed DC conductors or DC plug contacts if the DC connectors are damaged or loose!

The DC connectors can break or become damaged, become free of the DC cables, or no longer be connected correctly if the DC connectors are released and disconnected incorrectly. This can result in the DC conductors or DC plug contacts being exposed. Touching exposed live DC conductors or DC plug connectors will result in death or serious injury due to electric shock.

- Wear appropriately insulated gloves and use appropriately insulated tools when working on the DC connectors.
- Ensure that the DC connectors are in perfect condition and that none of the DC conductors or DC plug contacts are exposed.
- Carefully release and remove the DC connectors as described in the following.

Step 5: Ensure that no voltage is present between the positive terminal and negative terminal at the DC inputs using a suitable measuring device.

Step 6: To remove DC plug connectors, insert the appropriate tool into the slots and press the tool with an appropriate force.



Step 7: Open the AC/COM cover junction box and use a mustimeter to ensure that the AC wiring terminals isolated from an AC power source.

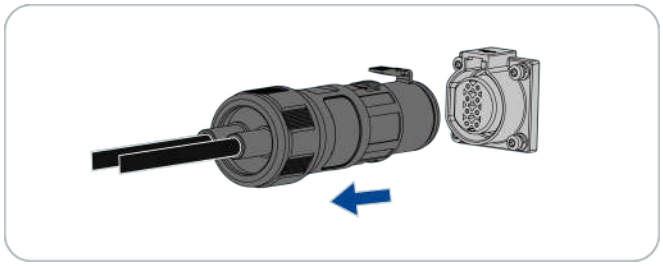
DANGER

Danger to life due to electric shock when touching exposed AC conductors if the AC connectors are damaged or loose!

The AC connectors can break or become damaged, become free of the AC cables, or no longer be connected correctly if the AC connectors are released and disconnected incorrectly. This can result in the AC conductors being exposed. Touching live AC conductors will result in death or serious injury due to electric shock.

- Wear insulated gloves and use insulated tools when working on the AC connectors.
- Ensure that the AC connectors are in perfect condition and that none of the AC conductors are exposed.
- Carefully release and remove the AC connectors as described in the following.

Step 8: Press and hold the RS485 communication terminal side snap, and then pull out the RS485 communication terminal outward.



9.2 Dismantling the inverter

After disconnecting all electrical connections as described in Section 9.1, the inverter can be removed as follows.

Procedure:

Step 1: Dismantle the inverter referring to “5.3 Mounting” in reverse steps.

Step 2: If necessary, remove the wall-mounting bracket from the wall.

Step 3: If the inverter will be reinstalled in the future, please refer to “3.2 Inverter Storage”.

10 Technical data

10.1 AC/DC

DC Input				
Type	ASW250K-HT	ASW333K-HT	ASW350K-HT	ASW360K-HT
Maximum input voltage	1500 V			
MPP voltage range	500V - 1500 V			
MPP voltage range at Pnom	860V - 1300 V			
Rated input voltage	1080 V			
Minimum input voltage	500 V			
Startup input voltage	550 V			
Max. operating input current per MPP	75 A			
Max. short circuit current per MPP	113 A			
Maximum reverse current into the PV modules	0A			
Number of independent MPP inputs	5	6	6	6
Strings per MPP input	5			
Overvoltage category in accordance with ICE 60664-1	II			
AC output	**ASW250K-HT**	**ASW333K-HT**	**ASW350K-HT**	**ASW360K-HT**
Rated apparent power at cosφ = 1	250000 VA	333000 VA	352000 VA	363000 VA
Maximum apparent power at cos φ = 1	250000 VA	333000 VA	352000 VA	363000 VA
Nominal grid voltage	800 V AC, 3W+PE			
Grid voltage range[1]	640 V- 920 V			
Nominal grid frequency	50Hz/ 60Hz			
Grid frequency range[2]	50 Hz / 45 Hz - 55 Hz 60 Hz / 55 Hz - 65 Hz			
Maximum output current	198.5 A	240.3 A	254.0 A	262.0 A
Total harmonic distortion of the output current with total harmonic distortion of the AC voltage <2%, and AC power >50% of the rated power	<3%			
Power factor at rated power	1			
Adjustable displacement power factor	0.8 leading ... 0.8 lagging			
Feed-in phase	3			
Connection phase	3			
Overvoltage category in accordance with ICE 60664-1	III			
Efficiency				
Maximum efficiency	99.01%			
European weighted efficiency	98.52%			

1. The voltage range meets the requirements of the corresponding national grid code.

2. The frequency range meets the requirements of the corresponding national grid code.

10.2 General data

General data	ASW250K-HT	ASW333K-HT	ASW350K-HT	ASW360K-HT
Width × height × depth	1158 mm × 760 mm ×382 mm			
Weight	≤ 116 kg	≤ 117 kg	≤ 117 kg	≤ 117 kg
Topology	Non-isolated			
Operating temperature range	-30℃...+60℃, > 50℃de-rating-	-30℃...+60℃, > 40℃de-rating-	-30℃...+60℃, > 30℃de-rating-	-30℃...+60℃, > 30℃de-rating-
Allowable relative humidity range (non-condensing)	0% ... 100%			
Degree of protection for electronics in accordance with IEC 60529	IP66			
Climatic category in accordance with IEC 60721-3-4	4K4H			
Protection class (according to IEC 62103)	I			
Pollution degree outside the enclosure	3			
Pollution degree inside the enclosure	2			
Maximum operating altitude above mean sea level	5000 m (derated when the altitude is greater than 4000 m)			
Self-consumption (night)	<5 W			
Cooling method	Smart active cooling			
Display	LED indicator, App			
Interfaces	RS485, ABUS, Bluetooth, USB			
Communication	Modbus RTU			
Mounting information	Hoop Mount/Bracket Mount			

10.3 Protective device

Protective devices	ASW250/333/350/360K-HT
DC reverse polarity protection	Integrated
DC isolator	Integrated
AC short-circuit current capability	Integrated
All-pole sensitive residual current monitoring unit	Integrated
Active anti-islanding protection	Integrated
PV string current monitoring	Integrated
DC current injection monitoring	Integrated
Low voltage ride through	Integrated
High voltage ride through	Integrated
Overvoltage protection	DC Type II / AC Type II

11 Troubleshooting

When the PV system does not operate normally, we recommend the following solutions for quick troubleshooting. If an error occurs, the red LED will turn solid ON. The error code can be read from the Solplanet APP.

Error code	Message	Corrective measures
E41242 2-12	Self-test fault	• Disconnect the inverter from the mains and the PV module, wait for the LED to go out and then reconnect it. If the problem persists, contact Solplanet service.
E41256 8	High bus voltage	• Check the open-circuit voltage of the PV string to ensure that it is below the maximum DC input voltage of the inverter. • If the input voltage is within the permitted range and the fault still occurs, it might be that the internal circuit has been damaged. Contact Solplanet service.
E41250 7, 17-18	Grid frequency fault	• Check the grid frequency and observe how often major fluctuations occur. • If this fault is caused by recurring frequency fluctuations, please try to modify the operating parameters, but only after obtaining permission from the power supply unit. Please call the service hotline and we will recommend reasonable parameters.
E41250 3-6 , 14-16, 21	Grid voltage fault	• Check the voltage and wiring on the AC terminal block in the inverter. • Check the grid voltage at the inverter grid connection point. • If the grid voltage exceeds the permissible range due to local grid conditions, try to modify this operating parameter, but only after obtaining permission from the power supply unit. Please contact Solplanet service and we will recommend a reasonable parameter for you. If the grid voltage is within the permissible range and the fault persists, please contact Solplanet service.
E41250 20	No grid voltage	• Check the fuses in the distribution box, the AC circuit breakers. • Check the grid voltage as well as the availability of the grid, the AC cables and the connections. If the fault persists, contact Solplanet service.
E41242 21-23, 27	Residual current fault	• Check to ensure that the inverter is grounded reliably. • Check all PV modules, cables and connections between them. If the fault persists, contact Solplanet service.
E41244 2-7	DC input voltage too high	• Check the open circuit voltage of the PV strings to ensure that it is below the maximum DC input voltage of the inverter. • If the input voltage is within the permissible range and the fault persists, the internal circuit may be damaged, contact Solplanet service. • 2-7 correspond to MPPT circuits 1 to 6.
E41242 20	Insulation resistance fault	• Check that the insulation impedance of the PV string to ground is greater than 70kohm. • If it does not match, check all PV modules, cables and connections between them. • Check to ensure that the inverter earth is reliable. If this fault persists, contact Solplanet service.
E41242 26	High temperature fault	• Check that the fan inlet or radiator outlet is not obstructed. • Check that the ring temperature around the inverter or the fan inlet is not too hot. • Check the fan for blocked rotation and strange noises. If the problem persists, contact Solplanet service.

E41246 0-29	PV reverse connection	• Please check whether the positive and negative polarity of the corresponding string on the device is reversed; if so, wait until the current of the PV string is reduced to less than 0.5A, and then adjust the polarity of the string by putting the 'DC SWITCH' in the 'OFF' position. • After confirming that the string polarity is correctly adjusted, please contact Solplanet service if the equipment fault still exists. • 0-29 corresponds to PV 1 to 30.
41-45 47	Self-test fault	• Disconnect the inverter from the mains and the PV module, wait for the LEDs to go out and then reconnect. If the problem persists, contact Solplanet service.
E41254 0-11	DC overcurrent	• Disconnect the inverter from the mains and PV modules, wait until the LEDs go out and then reconnect. If the problem persists, please contact Solplanet service. • 0-1 corresponds to MPPT 1st circuit, 2-3 corresponds to MPPT 2nd circuit, 4-5 corresponds to MPPT 3rd circuit, 6-7 corresponds to MPPT 4th circuit, 8-9 corresponds to MPPT 5th circuit, 10-11 corresponds to MPPT 6th circuit.
E41256 0-6	AC overcurrent	• Disconnect the inverter from the mains and the PV module, wait for the LEDs to go out and then reconnect them. If the problem persists, contact Solplanet service.
W41230 1-2	Lightning protection device alarm	• Disconnect the inverter from the mains and PV modules, wait until the LEDs go out and then reconnect. If the problem still exists, please contact Solplanet service. • 1 corresponds to the DC side lightning protection device, 2 corresponds to the AC side lightning protection device.
W41232 0-29	String Loss Alarm	• Check if the string terminal wiring is normal. • If you confirm that the problem is not caused by the above reasons and the alarm still exists, please contact the Solplanet service. • 0-29 corresponds to PV string 1-30.
W41230 3-9	External Fan Alarm	• Disconnect the AC-side switch, DC-side switch, clean the foreign matter around the fan, and check whether the fan body is damaged. • Reinstall the fan, close the AC-side switch, DC-side switch, and after the equipment resumes grid-connected operation for 15 minutes, if the fault is reported again, replace the fan. 3-9 corresponds to external fans FAN1-FAN7.
W41230 12-14	Internal fan alarm	Disconnect the AC side switch, DC side switch, and close the AC side switch, DC side switch after 5 minutes. • After the unit has resumed grid-connected operation for 5 minutes, if the fault is reported again, contact Solplanet service. • 12-14 corresponds to internal fans FAN1-FAN3.

Contact Solplanet service if you encounter errors not listed in the table above.

12 Maintenance

12.1 Cleaning the contacts of the DC switch

⚠ DANGER

High voltage of PV string may cause life danger!

If the DC connector is disconnected while the PV inverter is working, an electric arc may occur causing electric shock and burns. Wear appropriately insulated gloves and use appropriately insulated tools when working on the DC connectors.

- Please disconnect the circuit breaker on the AC side first, and then disconnect the DC switch.

⚠ DANGER

Danger to life due to high voltages in the inverter.

Do not touchlive parts for 5 minutes after disconnection from the power sources.

To ensure the normal operation of the DC input switch, it is necessary to clean the DC switch contacts every year.

Procedure:

Step 1: Turn OFF the AC circuit breaker downstream of the inverter AC output and lock and secure it to avoid inadvertent reconnection.

Step 2: Rotate the DC switch handle from the ON" position to the "OFF" position and repeat five times.

12.2 leaning air inlet and outlet

⚠ WARNING

Hot enclosure or heat sink may cause personal injury!

When the inverter is working, the temperature of the enclosure or heat sink may be higher than 70℃. Physical contact may cause burns.

- Before cleaning the air outlet, shut down the machine and wait approximately 30 minutes until the temperature of the enclosure decreases to a normal temperature.

A considerable amount of heat is generated as the inverter is feeding power into the grid. The inverter adopts a controlled forced-air cooling method. In order to maintain good ventilation, please check to make sure the air inlet and outlet are not blocked.

Procedure:

Step 1: Turn OFF the AC circuit breaker downstream of the AC output of the inverter and ensure that it cannot be inadvertently reconnected.

Step 2: Turn OFF the DC switch, rotate the DC switch handle from the "ON" position to the "OFF" position.

Step 3: Clean the air inlet and outlet of the inverter with a soft brush.

12.3 Fan maintenance

⚠ WARNING

Hot enclosure or heat sink may cause personal injury!

When the inverter is working, the temperature of the enclosure or heat sink may be higher than 70℃. Physical contact may cause burns.

- Before cleaning the air outlet, shut down the machine and wait approximately 30 minutes until the temperature of the enclosure decreases to a normal temperature.

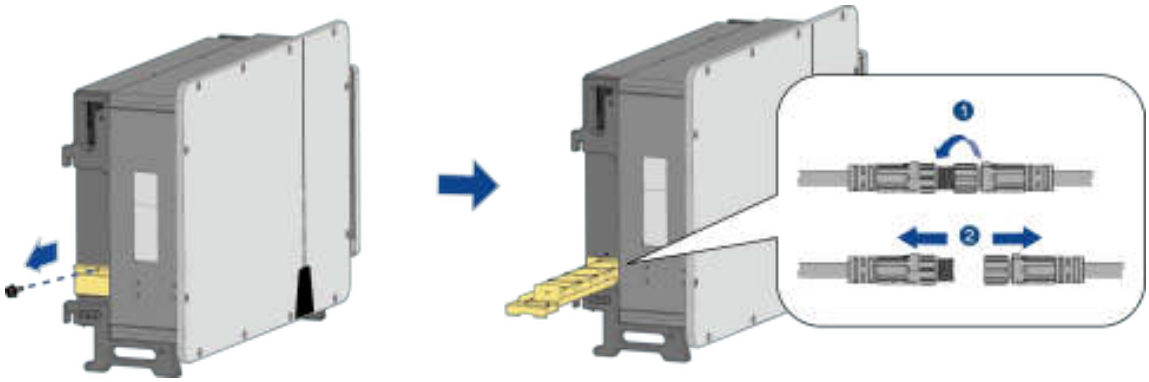
Fans inside the inverter are used to cool the inverter during operation. If the fans do not operate normally, the inverter may not be cooled down and inverter efficiency may decrease. Therefore, it is necessary to clean the dirty fans and replace the broken fans in time.

Procedure:

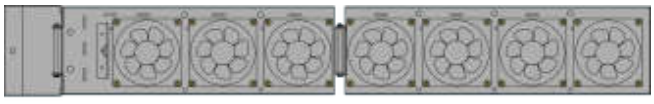
Step 1: Turn OFF the AC circuit breaker downstream of the AC output of the inverter and ensure that it cannot be inadvertently turned ON.

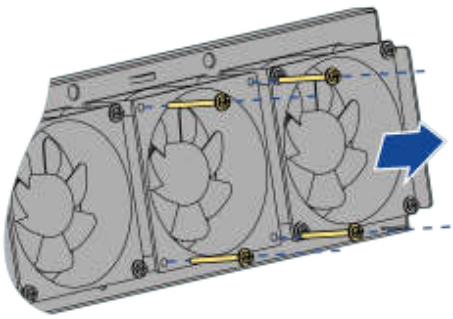
Step 2: Disconnect the DC switch and rotate the DC switch handle from the “ON” position to the “OFF” position. Wait for approximately 30 minutes until the heatsink temperature is reduced to normal temperature.

Step 3: Remove the screws on the fan module cover plate, pull the fan holder outwards flush with the inverter, pull it out until the connector leaks out, unscrew the connector and disconnect the fan power connector.



Step 4: Remove the screws at the bottom of the fan. Use a clean cloth, brush, or vacuum cleaner to clean the fan, or replace the faulty fan directly.





Step 5: Reinstall the fan back to the inverter in reverse order and restart the inverter.

13 Recycling and disposal

Dispose of the packaging and replaced parts according to the rules applicable in the country where the device is installed.

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.

14 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 inverters 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.

15 Service and warranty

If you have any technical problems concerning our products, please contact Solplanet service. We require the following information in order to provide you with the necessary assistance:

- Inverter device type
- Inverter serial number
- Type and number of connected PV modules
- Error code
- Mounting location
- Installation date
- Warranty card

Warranty terms and conditions can be downloaded at www.solplanet.net.

When the customer needs warranty service during the warranty period, the customer must provide a copy of the invoice, factory warranty card, and ensure the electrical label of the inverter is legible. If these conditions are not met, Solplanet has the right to refuse to provide with the relevant warranty service.

16 Contact

EMEA

Service email: service.EMEA@solplanet.net

APAC

Service email: service.APAC@solplanet.net

LATAM

Service email: service.LATAM@solplanet.net

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+48 134 926 109 (Poland)

Add.: Barbara Strozzilaan 101, 5e etage,kantoornummer 5.12, 1083HN Amsterdam, the Netherlands

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

AISWEI Technology CO., Ltd