# Sigen PV (50–125)M1
# Sigen PV (50–110)M1-HYA Series
# Installation Guide

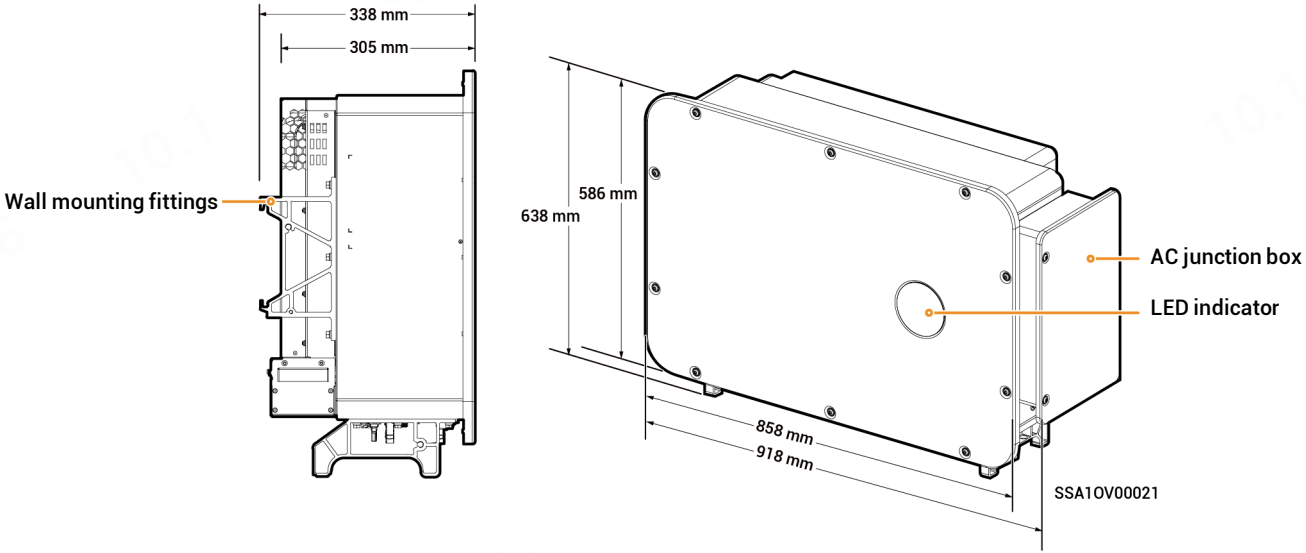
Version: 05
Release date: 2026-02-03

## Caution

- Trained or experienced electrical personnel are required to operate the equipment.
- Operators should be familiar with national and local laws, regulations, and standards, and the compositions and operating principles of relevant systems.
- Please read carefully the operating requirements and precautions in this document and “Important Notice” before operating. Failure to do so may result in damage to the equipment that is not covered by the warranty.

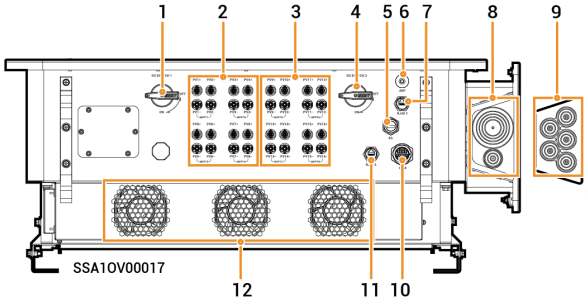
# 1 Product Introduction

## 1.1 Appearance and Dimensions



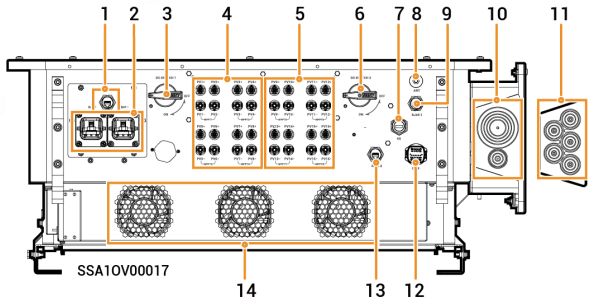
## 1.2 Port Descriptions

### Sigen PV (50–125)M1 Bottom View




| S/N | Name | Marking |
|---|---|---|
| 1 | DC switch 1 | DC SWITCH 1 |
| 2 | DC input terminal group 1 (Controlled by DC SWITCH 1) | PV1 to PV8 |
| 3 | DC input terminal group 2 (Controlled by DC SWITCH 2) | PV9 to PV16 |
| 4 | DC switch 2 | DC SWITCH 2 |
| 5 | Sigen CommMod interface | 4G |
| 6 | Antenna interface | ANT |
| 7 | Network interface | RJ45 1 |
| 8 | Routing hole for multi-core cable | - |
| 9 | Routing hole for single-core cable | - |
| 10 | Communication interface | COM |
| 11 | Network interface | RJ45 2 |
| 12 | Cooling fan | - |

### Sigen PV (50–110)M1-HYA Bottom View




| S/N | Name | Marking |
|---|---|---|
| 1 | SigenStack network interface | RJ45 3 |
| 2 | SigenStack DC cable interface | BAT+/BAT- |
| 3 | DC switch 1 | DC SWITCH 1 |
| 4 | DC input terminal group 1 (Controlled by DC SWITCH 1) | PV1 to PV8 |
| 5 | DC input terminal group 2 (Controlled by DC SWITCH 2) | PV9 to PV16 |
| 6 | DC switch 2 | DC SWITCH 2 |
| 7 | Sigen CommMod interface | 4G |
| 8 | Antenna interface | ANT |
| 9 | Network interface | RJ45 1 |
| 10 | Routing hole for multi-core cable | - |
| 11 | Routing hole for single-core cable | - |
| 12 | Communication interface | COM |
| 13 | Network interface | RJ45 2 |
| 14 | Cooling fan | - |

## 2 Pre-installation Check

- Check whether the components are entirely supplied against the packing list and whether the appearance is in good condition. For any problem, contact your sales representative.
- Parts and accessories supplied with the packing box are personal assets of the owner and must not be taken away from the installation site.
- Check personal protective equipment and installation tools to ensure that they are complete; If not, please make them up.
- Check and ensure the completeness of personal protective equipment and installation tools; replenish if necessary.

### Protective equipment


Safety hat


Goggles

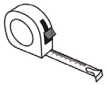

Dust mask


Protective gloves

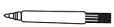

Insulating gloves

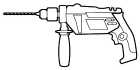

Insulating shoes

### Installation tool


Tape measure


Level

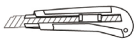

Marker


Power drill

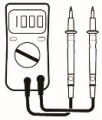

Rubber mallet


Scissors

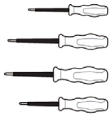

Cable tie

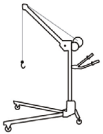

Utility knife


Fire-proof sealant


Multimeter


Vacuum cleaner


Insulation screwdriver set

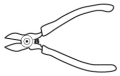

Lift


Flexible braided flat tape (bearing: ≥400 kg Diameter: 6 mm)


Insulation sleeve set


Torque socket wrench

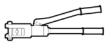

Insulated hexagonal L-type wrench set

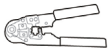

Wire cutter


Wire stripper

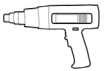

Cold terminal crimping pliers


Insulation impedance tester


Crimp tool


Network cable pliers


Crimping pliers


Heat gun


Heat shrinkable sleeve


Open-end wrench (model: PV-MS Manufacturer: Staubli)


Crimping pliers (model: PV-CZM-22100 Manufacturer: Staubli)


Open-end wrench (model: H4TW0008 Manufacturer: Amphenol)


Crimping pliers (model: H4TC0003 Manufacturer: Amphenol )

## Installer-provided cable

**Caution**

- The specifications of the Installer-provided cable must comply with the cable regulations and standards of the country or region standards.
- L1, L2, L3, N and PE should be connected to other equipment in sequence without mixing.

S is the cross-sectional area of the AC cable conductor, and Sp is the cross-sectional area of the protective ground cable conductor.

<table>
<tr><th>No.</th><th>Cable name</th><th colspan="4">Type</th><th>Recommended specification</th></tr>
<tr><td>1</td><td>Protective grounding cable</td><td colspan="4">Outdoors single-core copper flexible cable</td><td>Cross-sectional area of cables:<br>Sp ≥ S/2</td></tr>
<tr><td rowspan="5">2</td><td rowspan="5">AC output cable (multi-core)</td><td>Ground Connection Location</td><td>Availability of N Line</td><td>Recommended Cable</td><td>OT/DT Terminal Specifications</td><td rowspan="5">Cross-sectional area of conductor:<br>• Copper core cables:<br>– S: 70 mm² to 240 mm²<br>– Sp ≥ S/2<br>• Aluminum alloy cables or copper-clad aluminum cables:<br>– S: 95 mm² to 240 mm²<br>– Sp ≥ S/2<br>Cable OD: 24 mm to 66 mm</td></tr>
<tr><td>Chassis casing</td><td>Without N line</td><td>Outdoors three-core (L1, L2, L3) cable</td><td>L1, L2, L3 line: M12</td></tr>
<tr><td>Inside AC protective door</td><td>Without N line</td><td>Outdoors four-core (L1, L2, L3, PE) cable</td><td>L1, L2, L3 line: M12<br>PE wire: M10</td></tr>
<tr><td>Chassis casing</td><td>With N line</td><td>Outdoors four-core (L1, L2, L3, N) cable</td><td>L1, L2, L3, N line: M12</td></tr>
<tr><td>Inside AC protective door</td><td>With N line</td><td>Outdoors five-core (L1, L2, L3, N, PE) cable</td><td>L1, L2, L3, N line: M12<br>PE wire: M10</td></tr>
<tr><td>3</td><td>AC output cable (single-core)</td><td colspan="4">Outdoors single-core cables and M12 OT/DT terminals are recommended.</td><td>Cross-sectional area of conductor:<br>• Copper core cables:<br>– S: 70 mm² to 240 mm²<br>• Aluminum alloy cables or copper-clad aluminum cables:<br>– S: 95 mm² to 240 mm²<br>– Sp ≥ S/2<br>Cable OD: 14 mm to 32 mm</td></tr>
</table>

Note [1]: The Sp value in this table is valid only when the conductor material of the protective ground cable and the AC output cable is the same. Otherwise, the protective ground cable conductance should be equivalent to that specified in this table by selecting an appropriate cable conductor cross-sectional area. The specifications of the protective ground cable are determined by this table or calculated in accordance with IEC 60364-5-54.

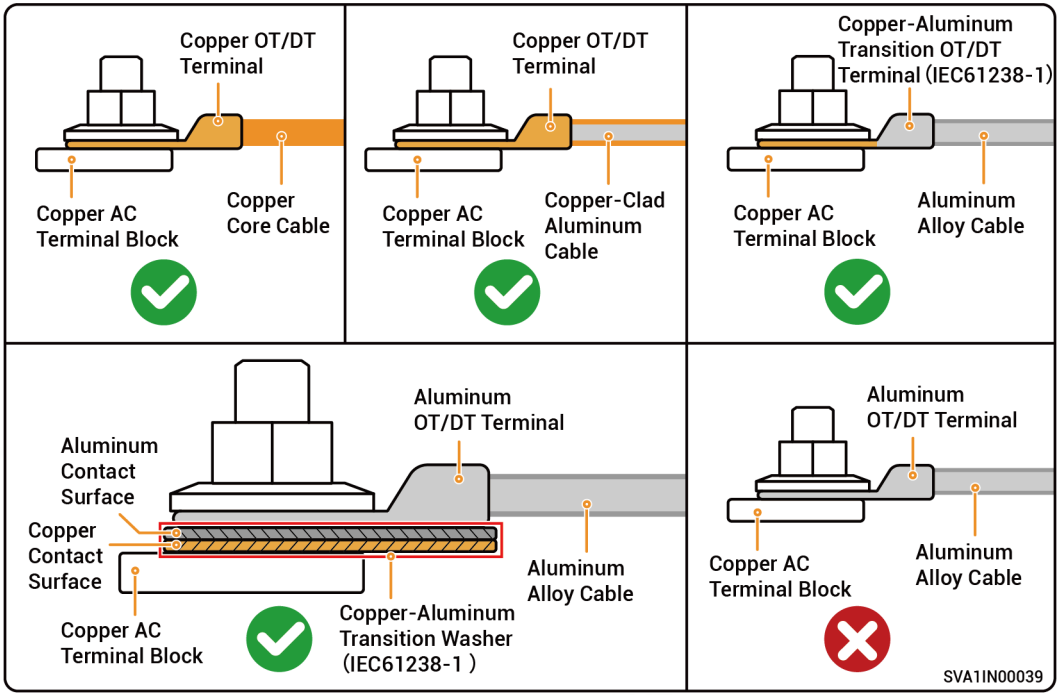
| S/N | Cable name | Recommended specifications |
|---|---|---|
| 4 | (Optional) Power cable between inverter and BC-BST/BC[2] | Cable specifications refer to the "SigenStack Energy Storage System Installation Guide". |
| 5 | (Optional) Network cable between inverter and BC-BST/BC[2] | Cable specifications refer to the "SigenStack Energy Storage System Installation Guide". |
| 6 | Signal cable | Outdoor two-core shielded twisted pair<br>Cross–sectional area of core conductor:<br>0.5–0.75 mm² (multi–core flexible conductor, Tubular terminal needed)<br>0.5–1 mm² (single–strand hard conductor, no tubular terminal needed)<br>Outer diameter: 4.5–6.5 mm<br>Cable length: ≤ 1000 m[3]<br>Baud rate: ≤ 9600 bps |
| 7 | Network cable | Outdoor eight-conductor shielded twin-twisted pair cable<br>Cross-sectional area of conductor: 0.13–0.2 mm²<br>Cable OD: 4–7.5 mm<br>Single cable length: ≤ 800 m[3] |
| 8 | DC cable | Outdoor photovoltaic cable<br>Cross-sectional area of core conductor: 4–6 mm²<br>Outer diameter: 5.9–8.8 mm |

Note [2]: When configuring SigenStack, this cable must be purchased separately. If SigenStackis not configured, purchasing this cable is not required.
Note [3]: The cable length should be limited for good communication. Too long cable degrades the communication effect.

## Tips

Recommended specifications for cables connecting power sensors to Distribution panel and to the grid, as well as step-by-step instructions for wiring, can be found in the accompanying documentation for each respective model.

## Requirements for OT/DT Terminals



# 3 Site Selection Requirements

## Tips

- Before installing the equipment, please be sure to carefully read the following installation requirements. The company will not be liable for any functional abnormalities or damages arising from the operation of the equipment if the installation requirements are not followed, even in cases leading to personal safety incidents.
- During actual installation, the selection of installation location should comply with local firefighting, environmental protection regulations, and other relevant laws. The specific installation location planning should be subject to the installer or engineering, procurement, and construction (EPC) contracts.

### Installation environment

- Do not install the equipment in smoky, flammable, or explosive environments.
- Avoid exposing the equipment to direct sunlight, rain, standing water, snow, or dust. Install the equipment in a sheltered place. Take preventive measures in operating areas prone to natural disasters such as floods, mudslides, earthquakes, and typhoons.
- Do not install the equipment in an environment with strong electromagnetic interference.
- Ensure that the temperature and humidity of the installation environment comply with the equipment's requirements.
- The equipment should be installed in an area that is at least 500 m away from corrosion sources that may result in salt damage or acid damage (corrosion sources include but are not limited to seaside, thermal power plants, chemical plants, smelters, coal plants, rubber plants, and electroplating plants).
- In areas with good marine environments (such as Norway, where the nearshore salinity is ≤ 28 psu), the mounting distance of the device from the coastline can be appropriately relaxed to ≥ 200 m.
- If the outer surface of the device is damaged, please repaint the device in time.

### Installation position

- Do not tilt or overturn the equipment to ensure that it is installed horizontally.
- Do not install the equipment in places with fire or damp.
- Do not install the equipment in a sealed, poorly ventilated location without fire protection measures and difficult access for firefighters.
- The equipment is hot when it is running. If the equipment is installed indoors, please ensure good indoor ventilation and avoid significant indoor temperature rise by 3° C while the equipment is running. Otherwise, the equipment will be derated.
- Do not install the equipment in mobile scenarios such as RVS, cruise ships, and trains.
- You are advised to install the equipment in a location where you can easily access, install, operate, maintain it, and view the indicator status.
- The recommended length for the AC cable between the inverter and the upstream transformer should be ≤ 600 meters. If the length exceeds 600 meters, it may affect the parallel operation of the inverters. Please contact Sigenergy for further advice.

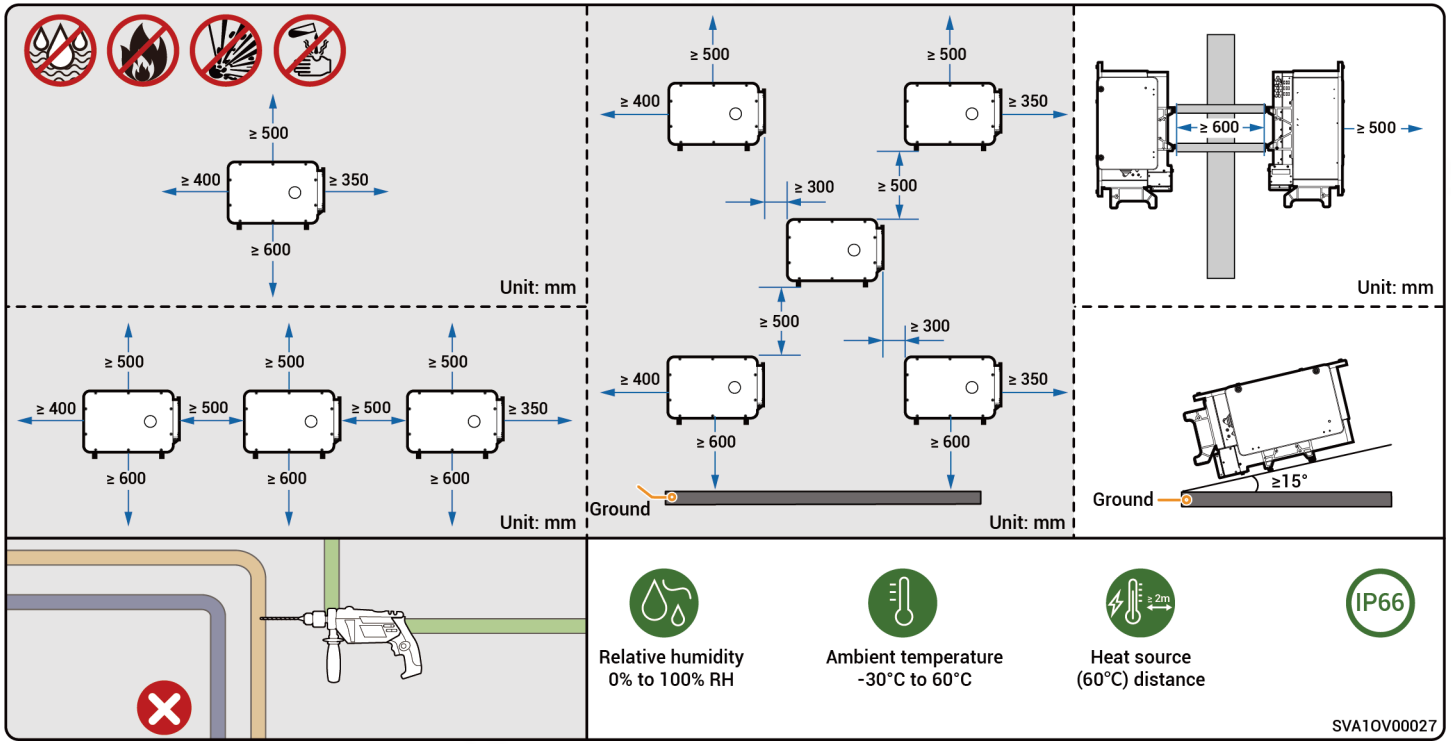
### Mounting surface

- Do not install the equipment on a flammable installation base.
- The installation base should meet the load–bearing requirement. Solid brick–concrete structures, concrete walls are recommended.
- The surface of the installation base must be smooth and the installation area must meet the installation space requirements.
- No water or electricity is routed inside the installation base to prevent drilling hazards during equipment installation.

## Tips

- To ensure optimal performance of the device, it is suggested that the installation distance between the device and surrounding obstacles be planned with reference to the diagram. If the installation site is well-ventilated, the optimal solution may be deployed based on actual conditions.
- To facilitate subsequent maintenance (such as routine inspection or disassembly of the fan), it is suggested that a clearance of at least 400 mm be reserved on the left side of the device.

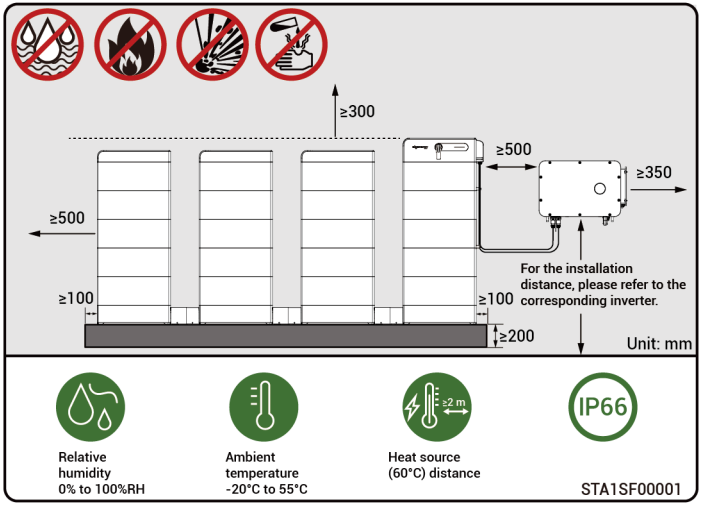
PV-only installation scenario



## PV-storage installation scenario

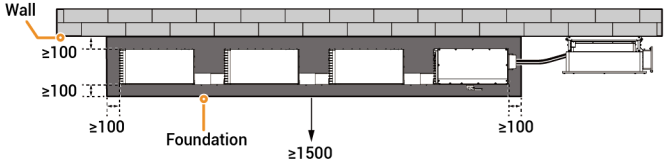
## Tips

- To ensure optimal performance of the device, it is suggested that the installation distance between the device and surrounding obstacles be planned with reference to the diagram. If the installation site is well-ventilated, the optimal solution may be deployed based on actual conditions.
- To ensure unobstructed access for installation tools (such as lifting tools or forklifts), it is suggested that a clearance of at least 1500 mm be reserved in front of the battery cluster, which may be adjusted based on actual conditions.
- After installation, please ensure that there is no water accumulation at the bottom of the device, and add drainage channels if necessary.

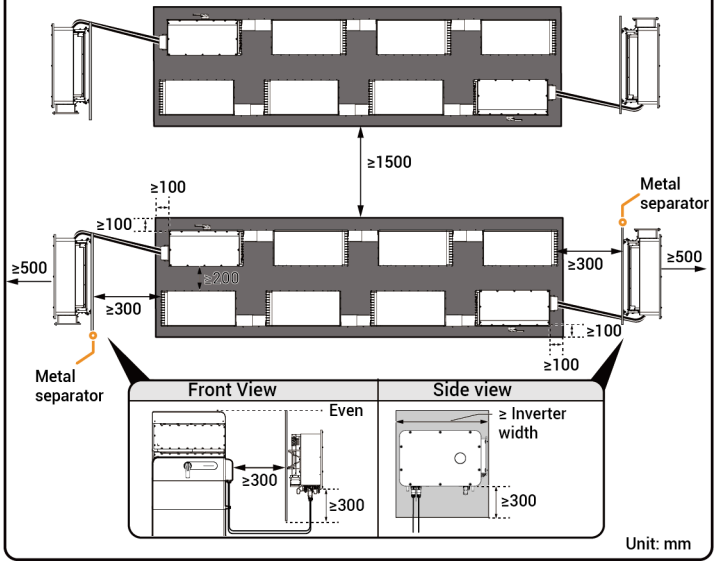



## Mounting Space (top view)

In this scenario, select a wall that meets the requirements based on the fire resistance rating defined by local codes.




In this scenario, when the inverter is installed with its back against the battery stack and the inverter installation height is lower than the battery stack, a metal partition needs to be added when installing the inverter to avoid derating due to heat transfer between the inverter and BAT during operation. The metal separator must meet load-bearing requirements.



# 4 Installation

## 4.1 Transport the inverter

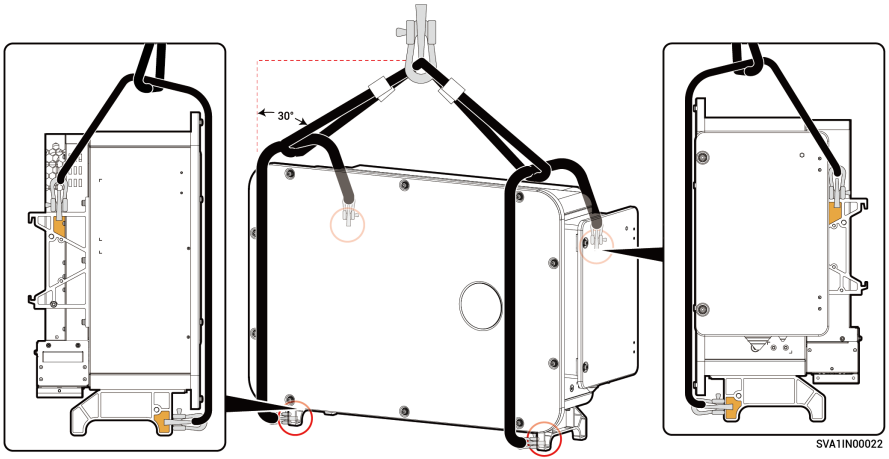
### Tips

- Keep the inverter balanced while handling to avoid personal injury.
- No load is allowed on the ports and terminals at the bottom of the inverter. Do not touch the ports and terminals directly with the ground or other supports.
- Put foam or cardboard under the inverter before placing the inverter on the ground to avoid damage to the casing.
- Lift the inverter and move it to the installation site instead of dragging it.

## 4.2 (Optional) Hoisting the Inverter

### Caution

- If the inverter is installed at a higher mounting location, it can be installed by hoisting.
- Only one device is allowed to be hoisted at a time.
- Please keep the device vertical during the hoisting process, and do not let the device tilt ≥15° front, back, left, or right.
- Be careful not to scratch the surface of the device with the flexible braided flat belt during the hoisting process.



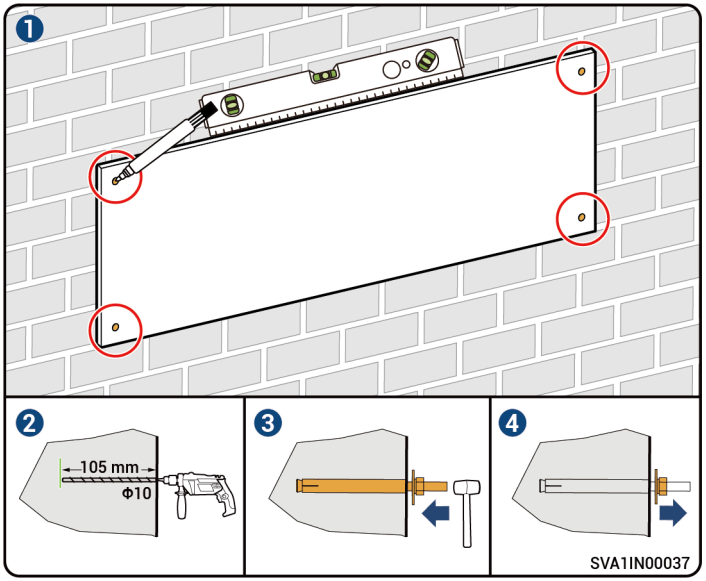
## 4.3 Wall Mounting

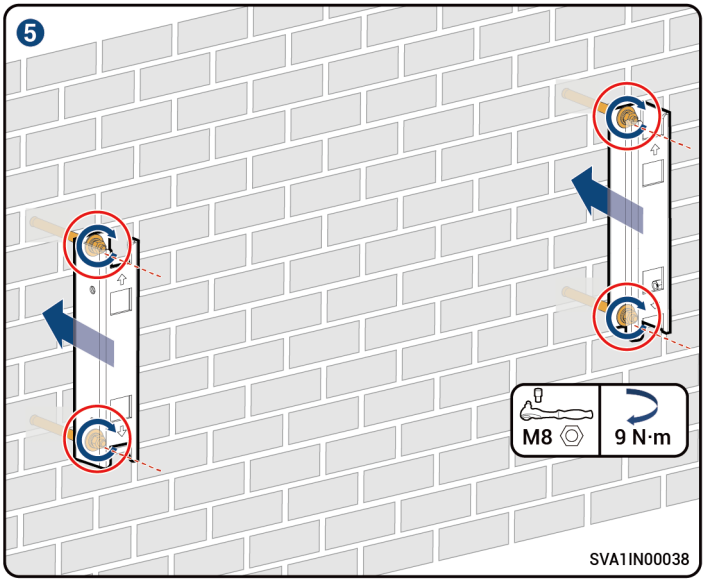
1

### Tips

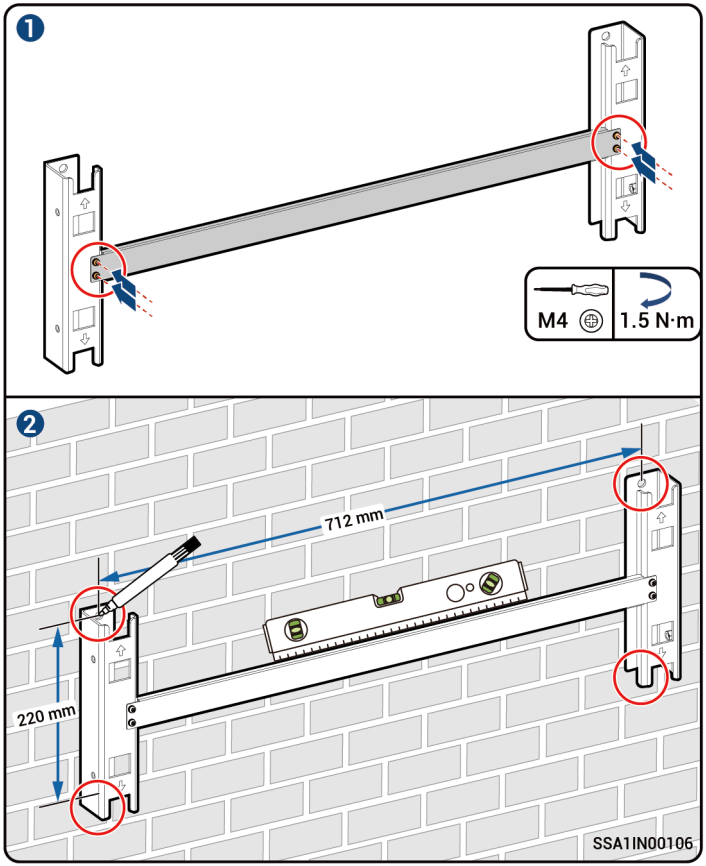
There are two types of wall bracket appearances, and the installation methods differ. Please refer to the actual product received.

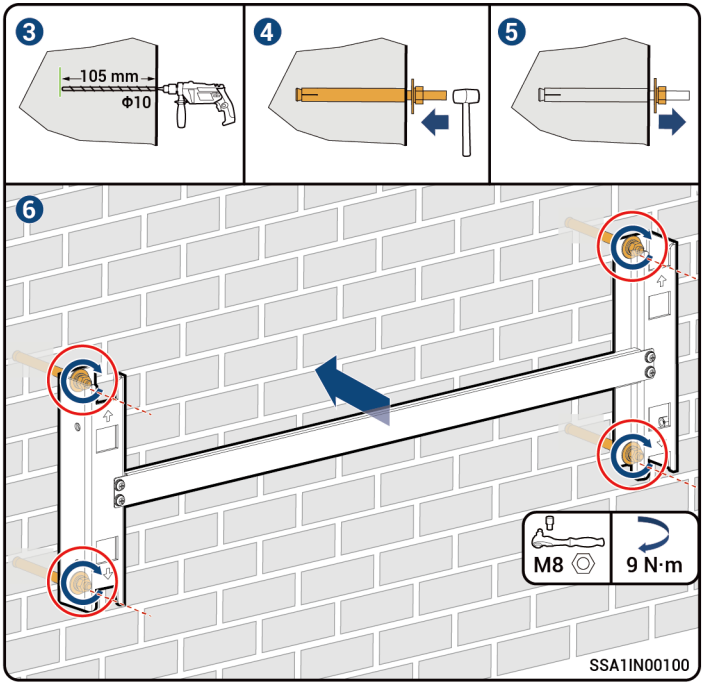
**Appearance 1**



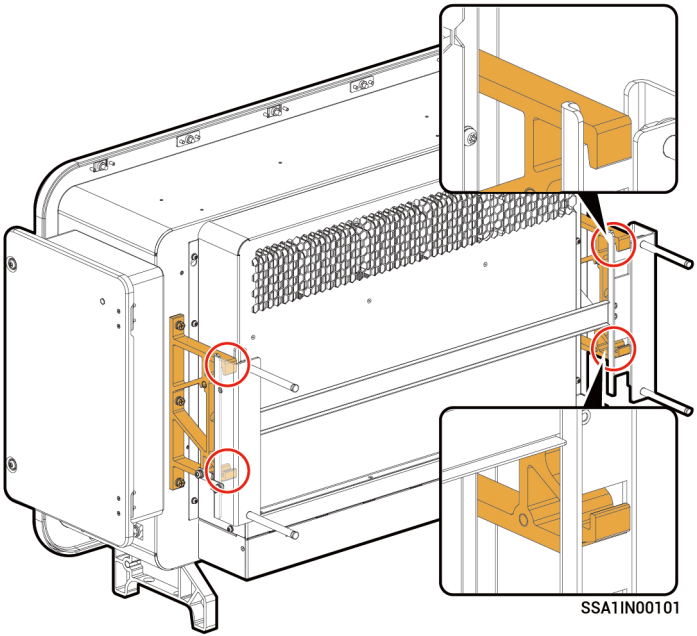



Appearance 2



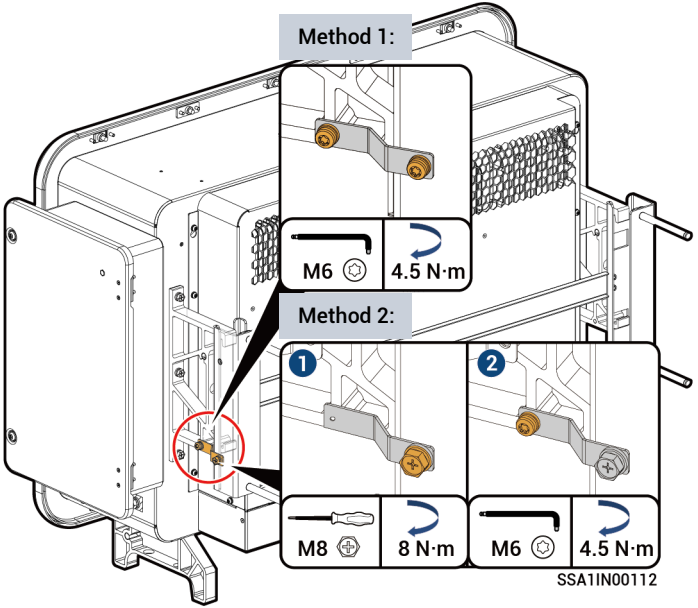
## 2




## 3 (optional)

### Tips

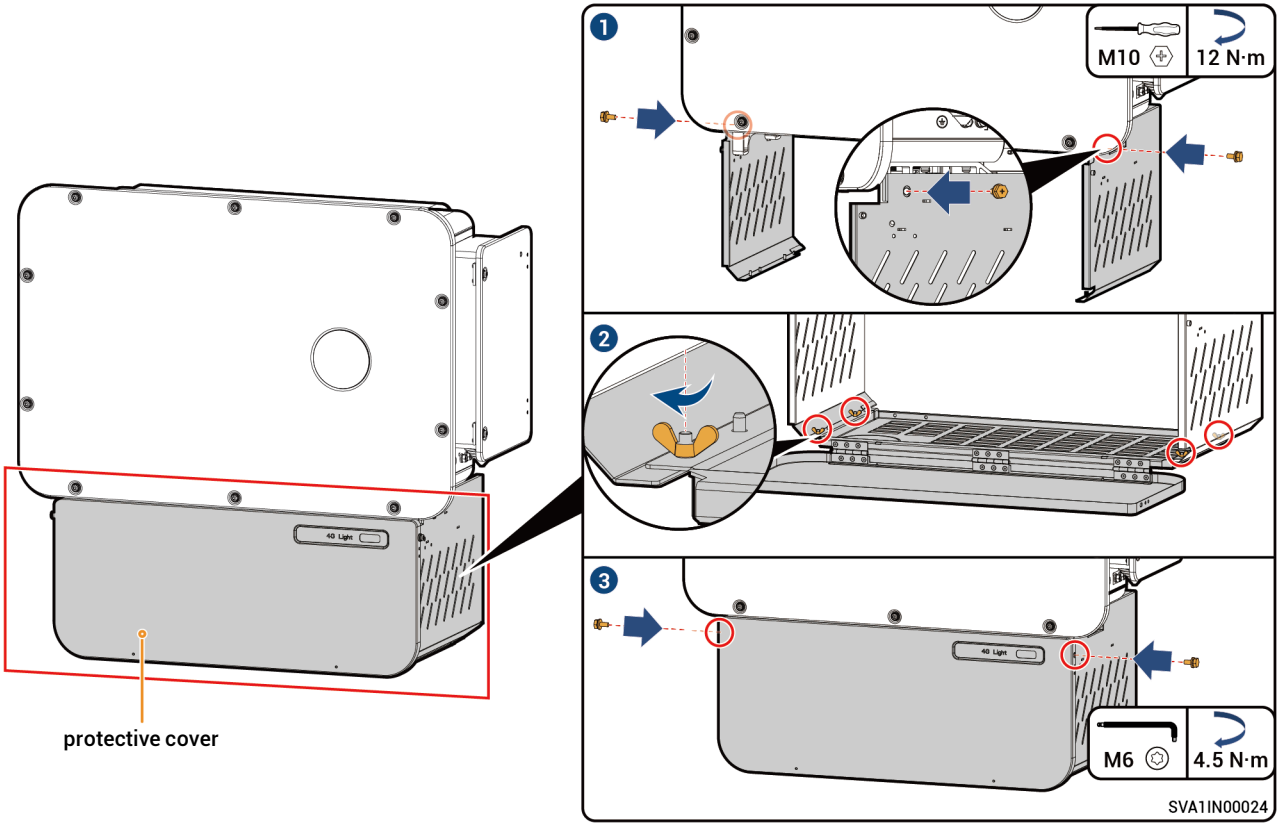
- To prevent equipment theft, this step may be performed.
- The cascade plate fixing screws have two installation methods, subject to the actual received product.



4 (Optional)

## Tips

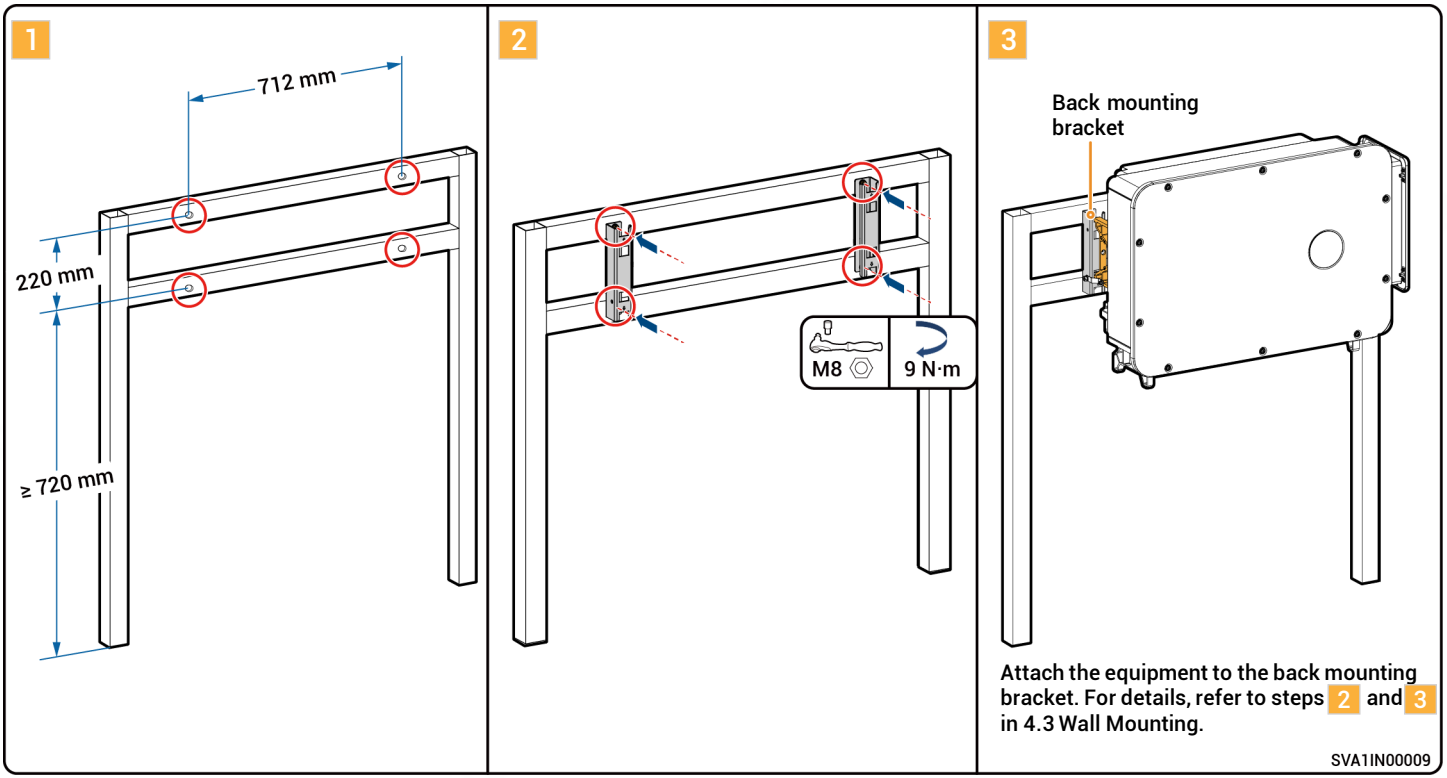
If the owner receives an installation package with a protective cover, this step needs to be performed. If not, please ignore this step.



## 4.4 Support mounting

**Caution**

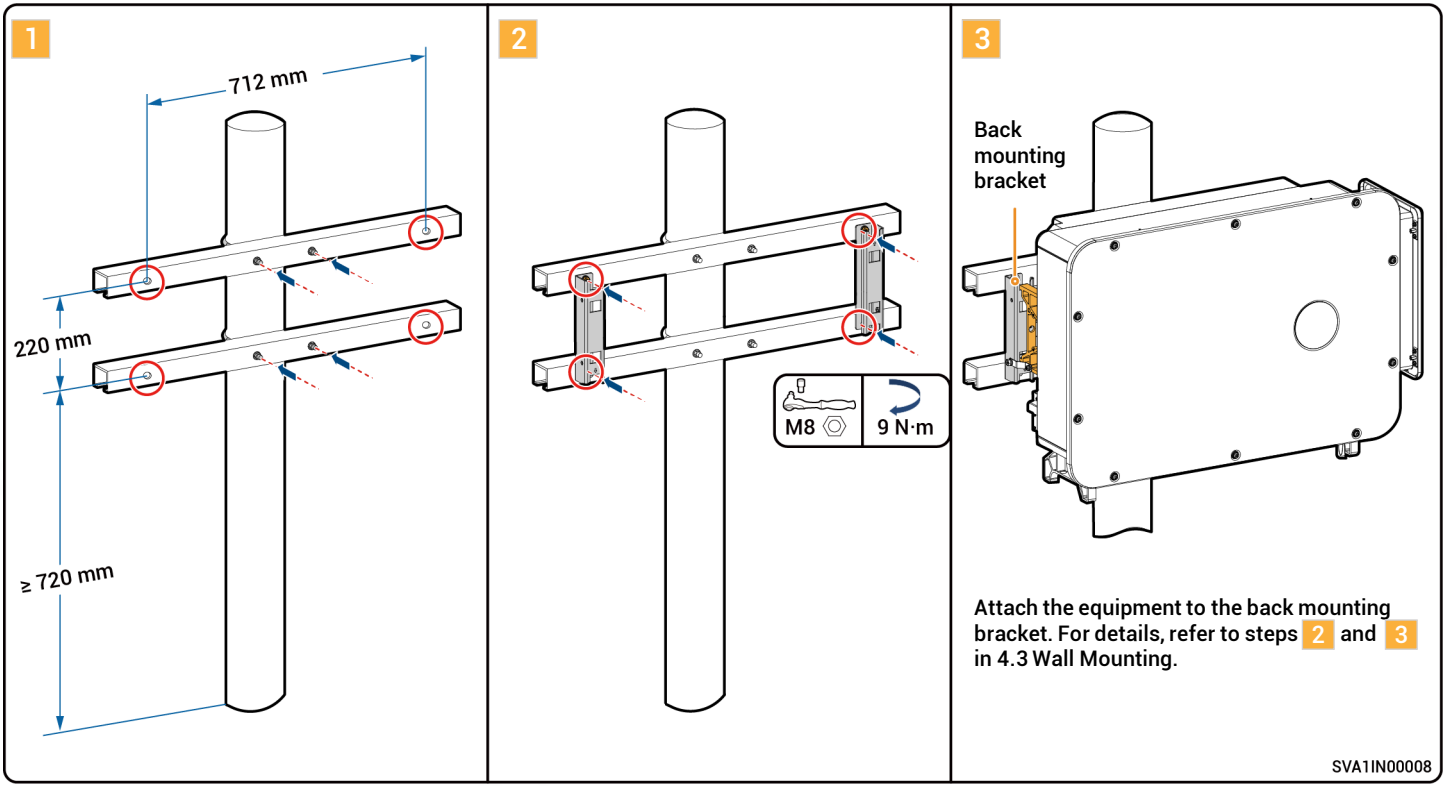
- If this method is used to install the device, a sunshade shelter must be built above the device.
- The crossarm drilling dimensions for ground tilt installation and crossarm installation are the same, and the figure takes crossarm Installation as an example.



## 4.5 Pole-clamp mounting

**Caution**

If this method is used to install the device, a sunshade shelter must be built above the device.

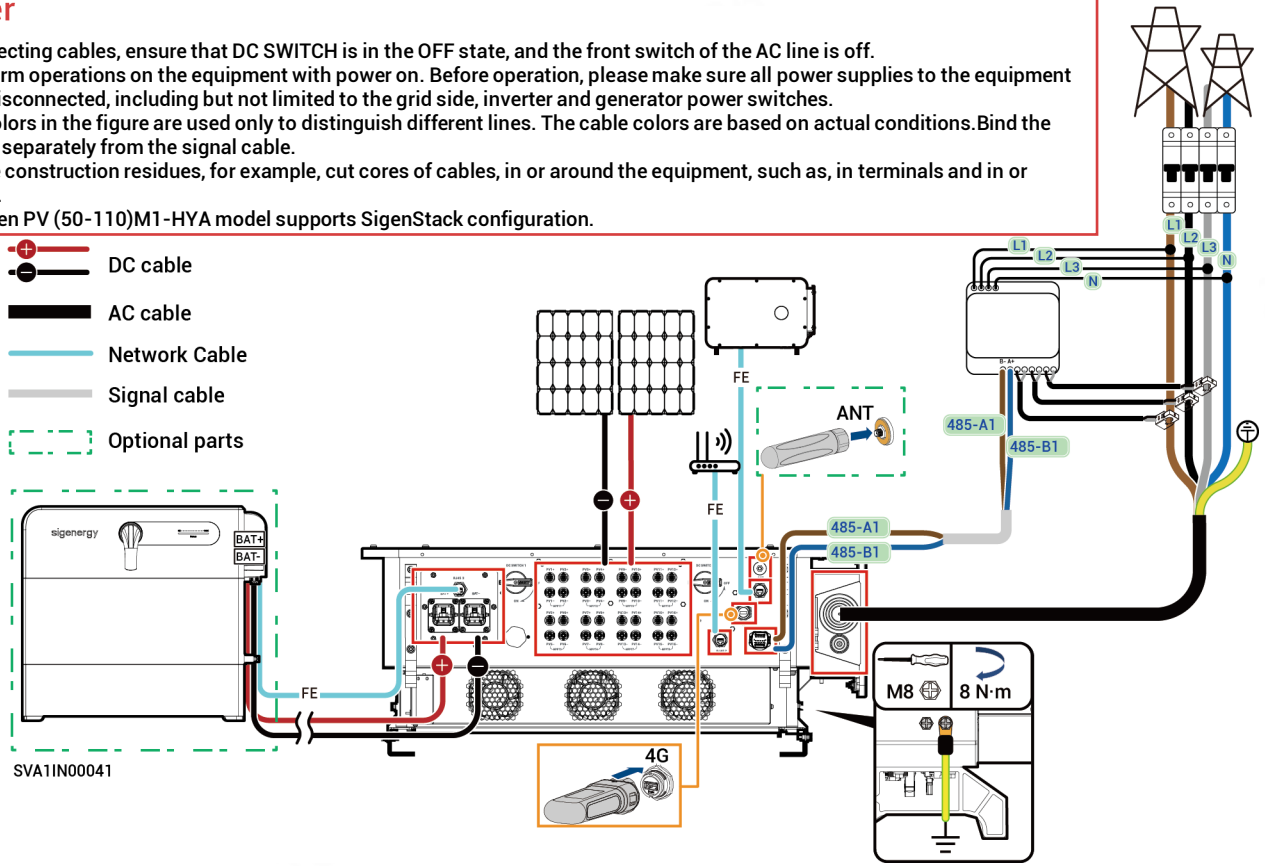


# 5 Cable Connection and Component Installation

## 5.1 Interface Relationship

### Danger

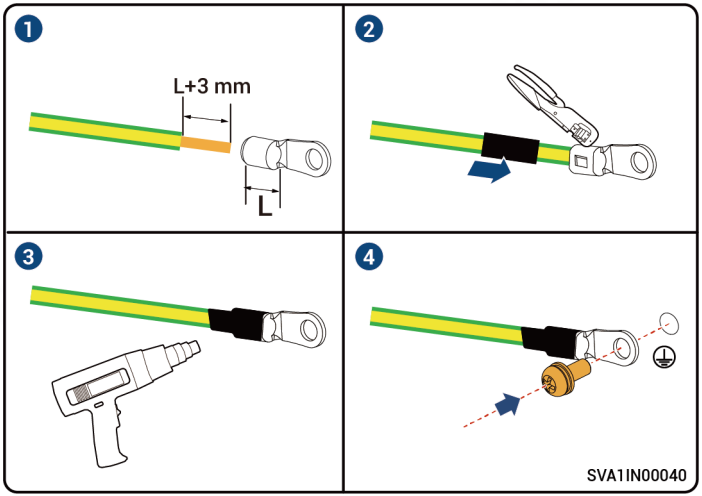
- Before connecting cables, ensure that DC SWITCH is in the OFF state, and the front switch of the AC line is off.
- Do not perform operations on the equipment with power on. Before operation, please make sure all power supplies to the equipment have been disconnected, including but not limited to the grid side, inverter and generator power switches.
- The cable colors in the figure are used only to distinguish different lines. The cable colors are based on actual conditions.Bind the power cable separately from the signal cable.
- Do not leave construction residues, for example, cut cores of cables, in or around the equipment, such as, in terminals and in or around fans.
- Only the Sigen PV (50-110)M1-HYA model supports SigenStack configuration.



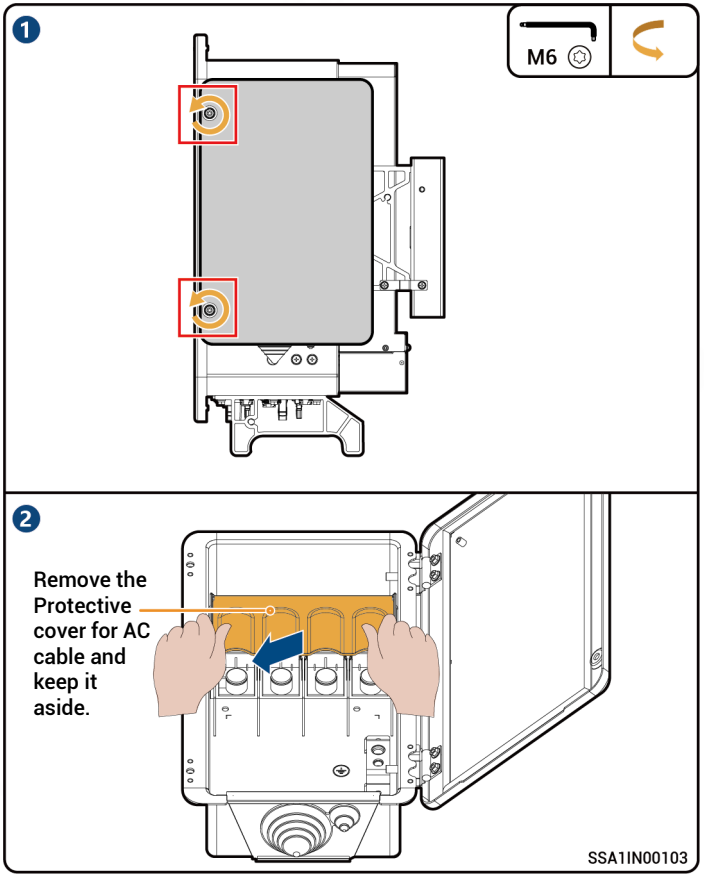
## 5.2 Protective Ground Cable Connection

### Tips

- It is suggested that the protective ground cable be connected to the grounding point of the chassis casing. The grounding point in the maintenance chamber is mainly used to connect the grounding cable included in the multi-core AC cable.
- When the wire diameter of the protective ground cable meets the requirement, you can choose either the grounding point on the chassis casing or the grounding point in the maintenance chamber.




## 5.3 Removing AC Protective Door



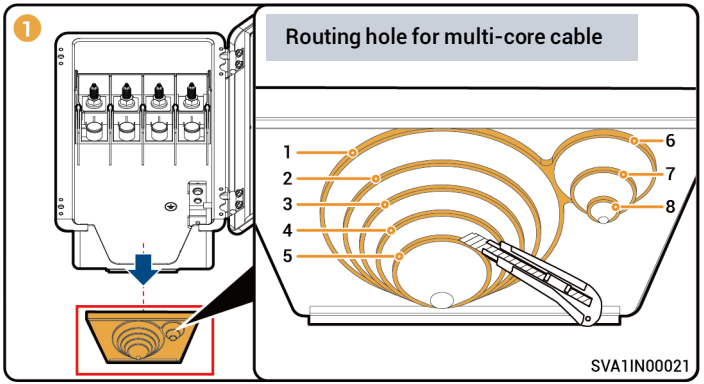
## 5.4 Multi-core AC output Cable Connection

### Tips

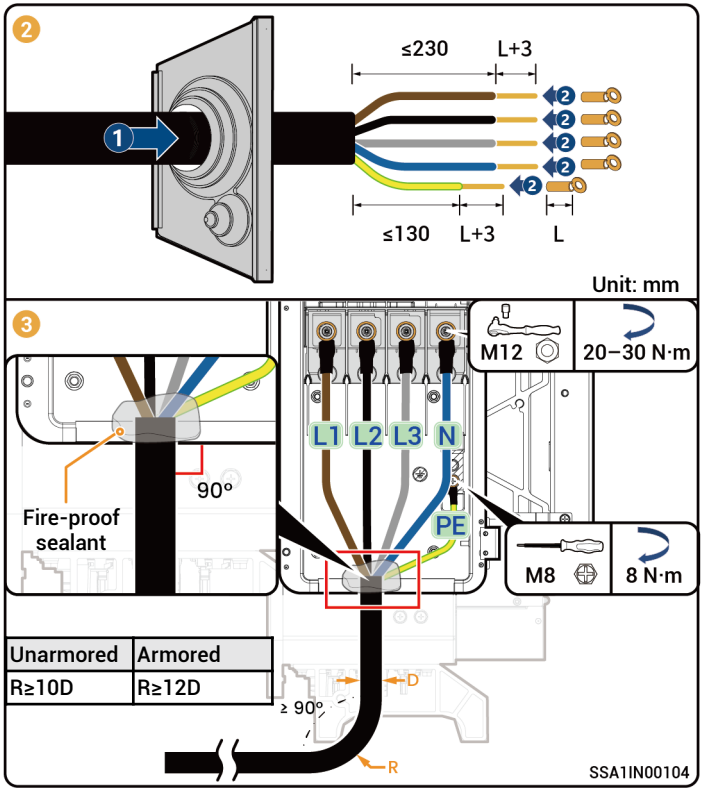
- This article takes five-core wire as an example to introduce the wiring steps. The wiring methods of three-core wire and four-core wire are the same as those of five-core wire.
- The cables must be inserted vertically into the maintenance chamber to avoid the terminals being damaged by lateral force. Damage caused by this is not covered by the warranty.

### Caution

- Cut a routing hole of the appropriate size based on the cable diameter.
- Do not cut reserved routing holes to avoid the effect on ingress protection.
- Apply fire-proof sealant if the seal is damaged or sealing failure occurs after cables are routed.




| S/N | Routing hole Diameter | Cable OD | S/N | Routing hole Diameter | Cable OD |
|---|---|---|---|---|---|
| 1 | 74 mm | - | 6 | 32 mm | 28-32 mm |
| 2 | 60 mm | 64-66mm | 7 | 20 mm | 21-28 mm |
| 3 | 50 mm | 55-64mm | 8 | 10 mm | 14-21 mm |
| 4 | 40 mm | 46-55mm | | | |
| 5 | 30 mm | 32-46mm | | | |



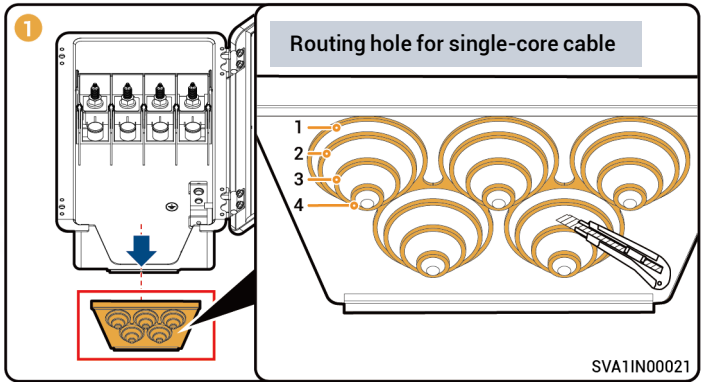
## 5.5 Single core AC output Cable Connection

### Tips

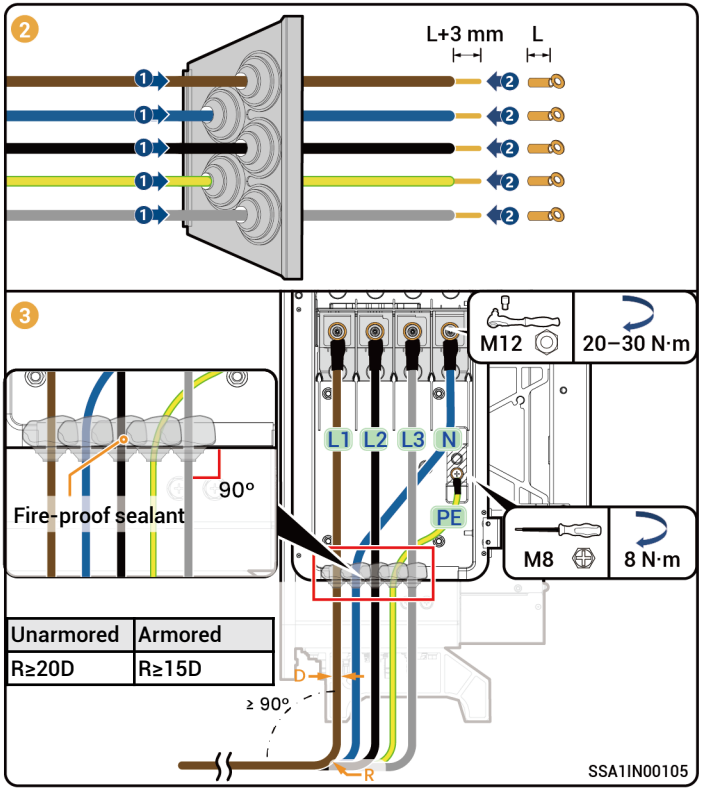
- This article takes five-wire as an example to introduce the wiring steps. The wiring methods of three-wire and four-wire are the same as those of five-wire.
- The cables must be inserted vertically into the maintenance chamber to avoid the terminals being damaged by lateral force. Damage caused by this is not covered by the warranty.

### Caution

- Cut a routing hole of the appropriate size based on the cable diameter.
- Do not cut reserved routing holes to avoid the effect on ingress protection.
- Apply fire-proof sealant if the seal is damaged or sealing failure occurs after cables are routed.

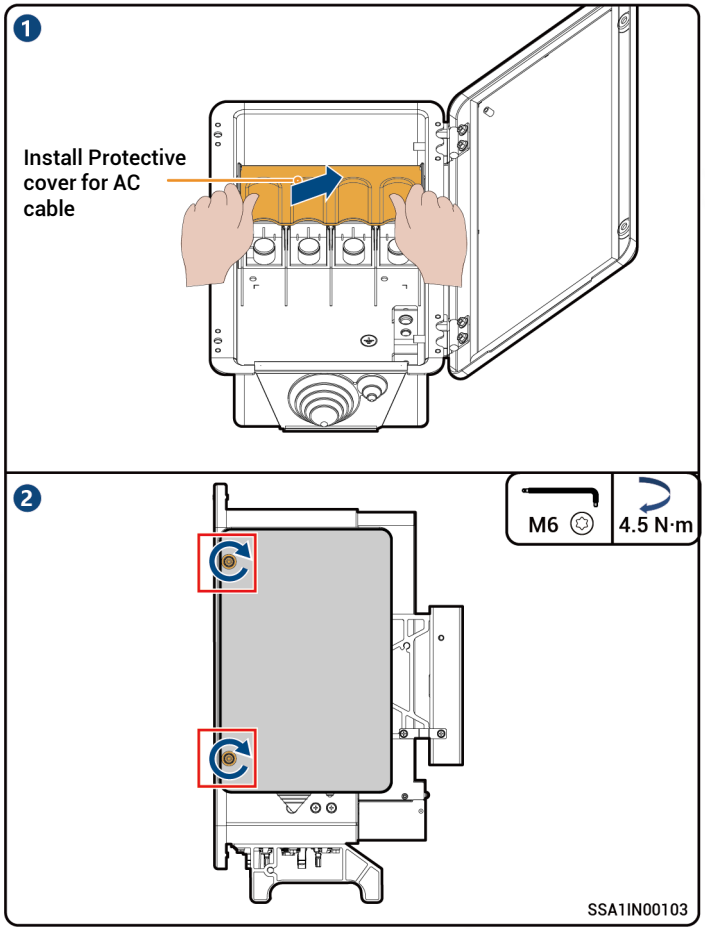



| S/N | Routing hole Diameter | Cable OD |
|---|---|---|
| 1 | 36.5 mm | - |
| 2 | 30 mm | 28-32 mm |
| 3 | 20 mm | 21-28 mm |
| 4 | 10 mm | 14-21 mm |




| Unarmored | Armored |
|---|---|
| R≥20D | R≥15D |

## 5.6 Installing AC Protective Door




## 5.7 DC input cable Connection

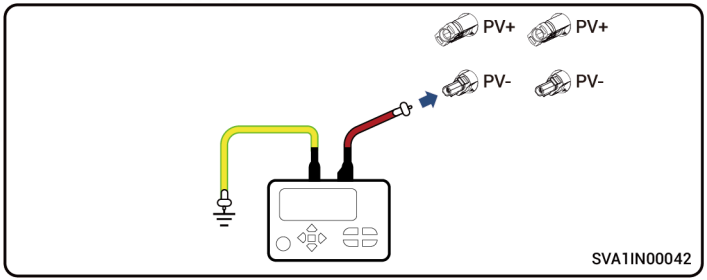
### Tips

- Before wiring, make sure that the circuit breaker on the PV side is not energized.
- Please use the PV connector supplied with the inverter. If it is accidentally lost or damaged, you need to purchase a PV connector of the same model. Do not use incompatible PV connectors.
- The positive or negative terminal of the PV string is short to the ground if the power distribution cables are not installed or routed in accordance with the requirements. As a result, the AC-DC short circuit may occur when the equipment is operating, resulting in equipment damage. The equipment damage caused by this is not covered under the equipment warranty.

1

### Tips

- Before connecting the strings to the inverter, ensure that the insulation resistance to the ground of each string is normal.
- Test method: Use an insulation impedance tester to test the insulation resistance to the ground of the PV cable: Apply a DC voltage of more than 1000V between the PV cable and the ground to check the insulation resistance value.
  - ➢ If the insulation resistance is ≥ 1MΩ, it is normal.
  - ➢ If the insulation resistance is less than 1MΩ, you need to check the insulation problem of the cable/string.

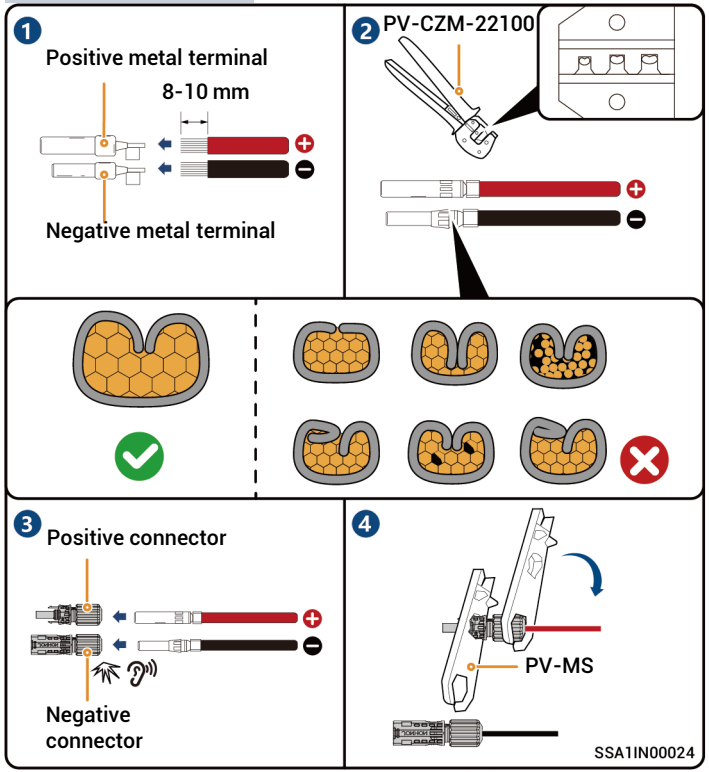


2

## Tips

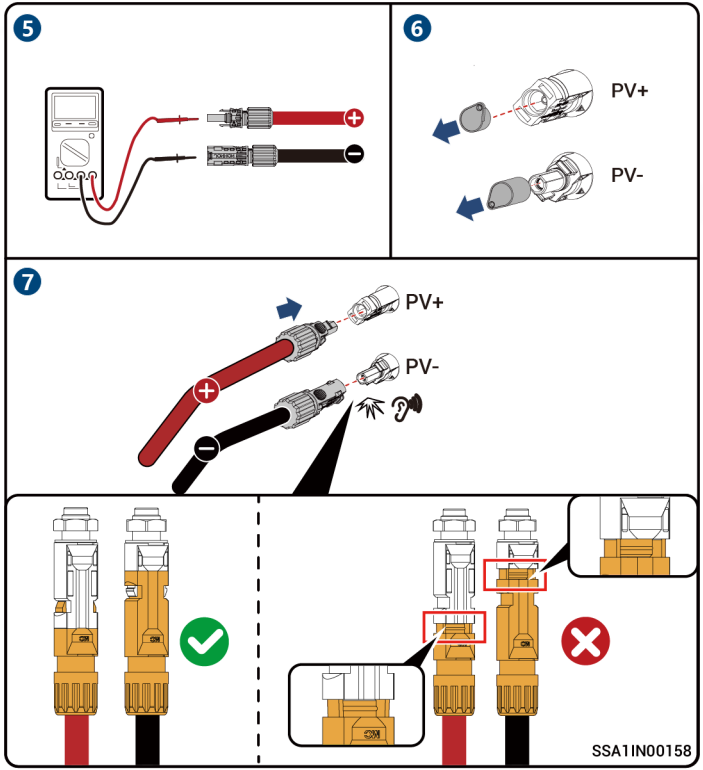
There are two types of PV connectors: Stäubli and Amphenol. Please install according to the model listed in the box.

Stäubli PV connector




## Caution

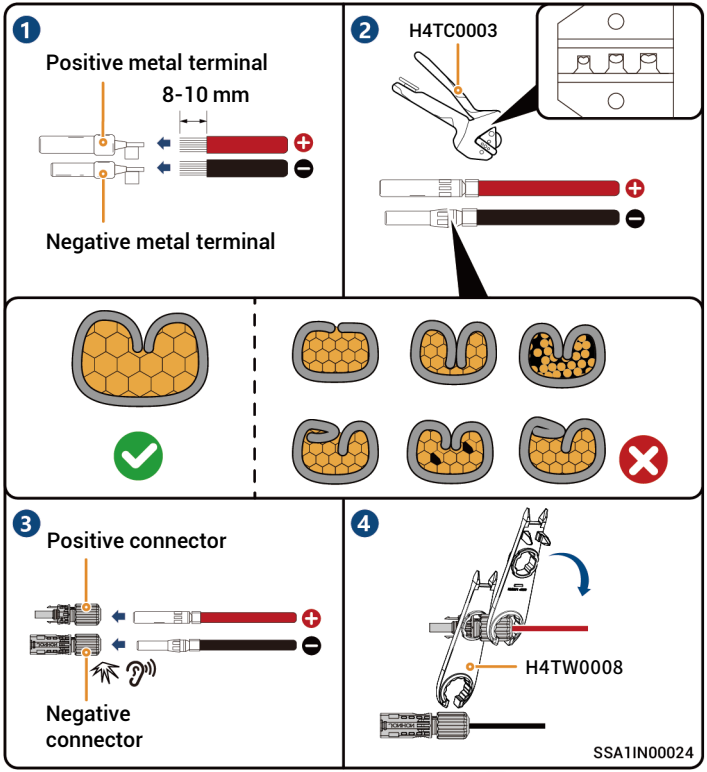
- If the voltage is negative, the polarity is incorrect. Rectify the fault in time.
- If the voltage exceeds the maximum allowable voltage, please reduce the number of components in the string. (The maximum allowable voltage can be found on the inverter label.)

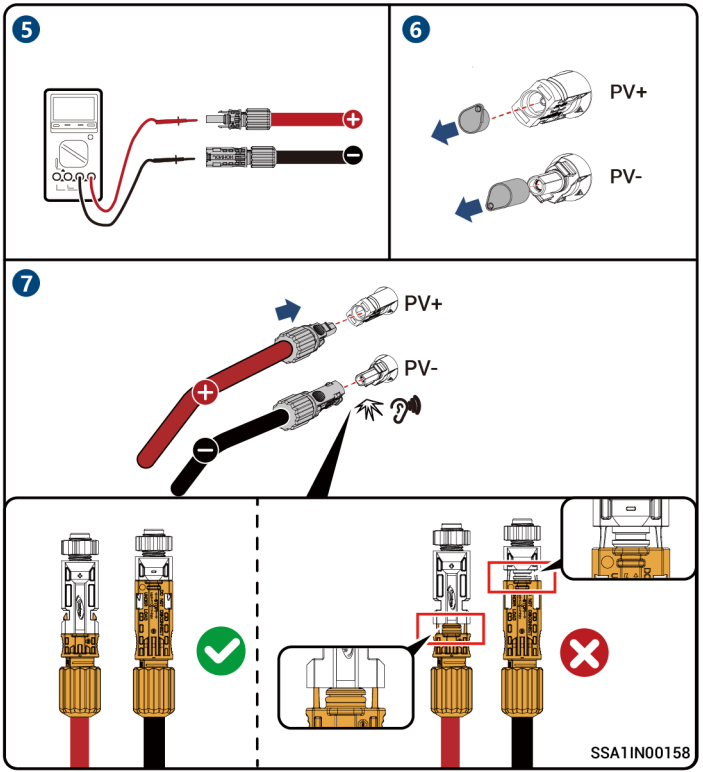


## Caution

- If the voltage is negative, the polarity is incorrect. Rectify the fault in time.
- If the voltage exceeds the maximum allowable voltage, please reduce the number of components in the string. (The maximum allowable voltage can be found on the inverter label.)

Amphenol PV connector

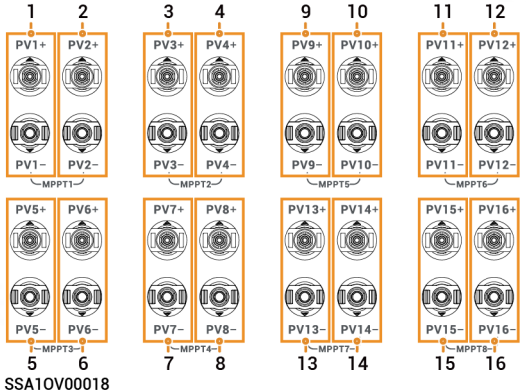


3

## Caution

- Please select the PV strings according to the table.
- PV strings connected to the same MPPT must use the same model and number of PV modules.
- The voltage difference between different MPPT channels must be < 125 V. The string configuration voltage should be higher than the lower limit of the full-load MPPT voltage.




PV strings with all channels used

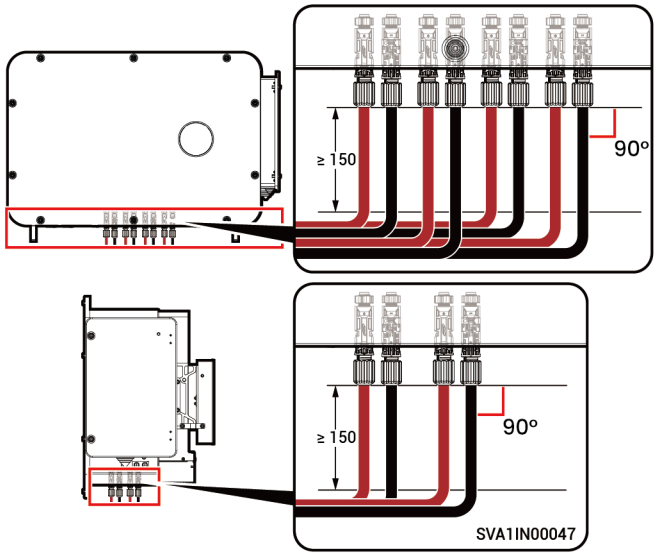
| Product power range | PV string formation configuration |
|---|---|
| 50 kW | Connected with 8 channels of strings (9, 10, 11, 12, 13, 14, 15, 16) |
| 60 kW | Connected with 10 channels of strings (7, 8, 9, 10, 11, 12, 13, 14, 15, 16) |
| 75/80 kW | Connected with 12 channels of strings (5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16) |
| 99.9/100/110/125 kW | Connected with 16 channels of strings (1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16) |

PV strings with partial channels used

| Power range | Number of PV strings | Configuration of PV string |
|---|---|---|
| 50 kW | 1 | Any one channel from 9 to 16 |
| | 2 | 12, 16 |
| | 3 | 10, 12, 16 |
| | 4 | 10, 12, 14, 16 |
| | 5 | 10, 12, 14, 15, 16 |
| | 6 | 9, 10, 12, 14, 15, 16 |
| | 7 | 9, 10, 11, 12, 14, 15, 16 |
| | 8 | 9, 10, 11, 12, 13, 14, 15, 16 |
| 60 kW | 1 | Any one channel from 9 to 16 |
| | 2 | 12, 16 |
| | 3 | 8, 12, 16 |
| | 4 | 8, 10, 12, 16 |
| | 5 | 10, 12, 14, 15, 16 |
| | 6 | 8, 10, 12, 13, 14, 15, 16 |
| | 7 | 7, 8, 10, 12, 13, 14, 15, 16 |
| | 8 | 7, 8, 10, 11, 12, 13, 14, 15, 16 |
| | 9 | 7, 8, 9, 10, 11, 12, 13, 14, 15, 16 |

| Power range | Number of PV strings | Configuration of PV string |
|---|---|---|
| 80 kW | 1 | Any one channel from 9 to 16 |
| | 2 | 12, 16 |
| | 3 | 8, 12, 16 |
| | 4 | 6, 8, 12, 16 |
| | 5 | 6, 8, 12, 14, 16 |
| | 6 | 6, 8, 10, 12, 14, 16 |
| | 7 | 6, 8, 10, 12, 14, 15, 16 |
| | 8 | 5, 6, 8, 10, 12, 14, 15, 16 |
| | 9 | 5, 6, 8, 9, 10, 12, 14, 15, 16 |
| | 10 | 5, 6, 8, 9, 10, 12, 13, 14, 15, 16 |
| | 11 | 5, 6, 7, 8, 9, 10, 12, 13, 14, 15, 16 |
| | 12 | 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16 |
| 99.9/100/110 /125 kW | 1 | Any one channel from 9 to 16 |
| | 2 | 12, 16 |
| | 3 | 8, 12, 16 |
| | 4 | 4, 8, 12, 16 |
| | 5 | 4, 8, 12, 14, 16 |
| | 6 | 4, 8, 10, 12, 14, 16 |
| | 7 | 4, 6, 8, 10, 12, 14, 16 |
| | 8 | 2, 4, 6, 8, 10, 12, 14, 16 |
| | 9 | 2, 4, 6, 8, 10, 12, 14, 15, 16 |
| | 10 | 2, 3, 4, 6, 8, 10, 12, 14, 15, 16 |
| | 11 | 2, 3, 4, 6, 8, 10, 12, 13, 14, 15, 16 |
| | 12 | 2, 3, 4, 5, 6, 8, 10, 12, 13, 14, 15, 16 |
| | 13 | 2, 3, 4, 5, 6, 8, 10, 11, 12, 13, 14, 15, 16 |
| | 14 | 2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 14, 15, 16 |
| | 15 | 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16 |
| | 16 | 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16 |

## DC cable bending requirements

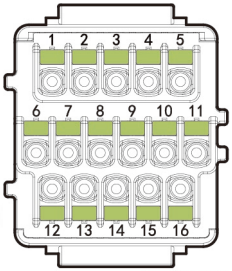


## 5.8 Signal cable Connection

### Tips

- The power sensor needs to be purchased from our company's official channels.
- The appearance and specific wiring of the power sensor can be found in the instruction manual delivered with the case.

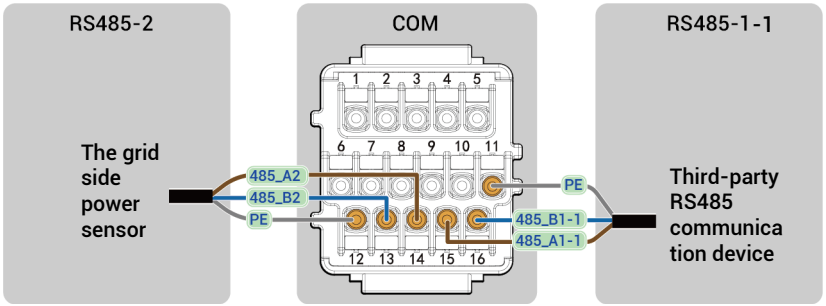
### 5.8.1 COM terminal introduction

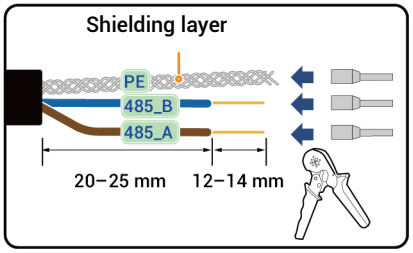


SSA1IN00020

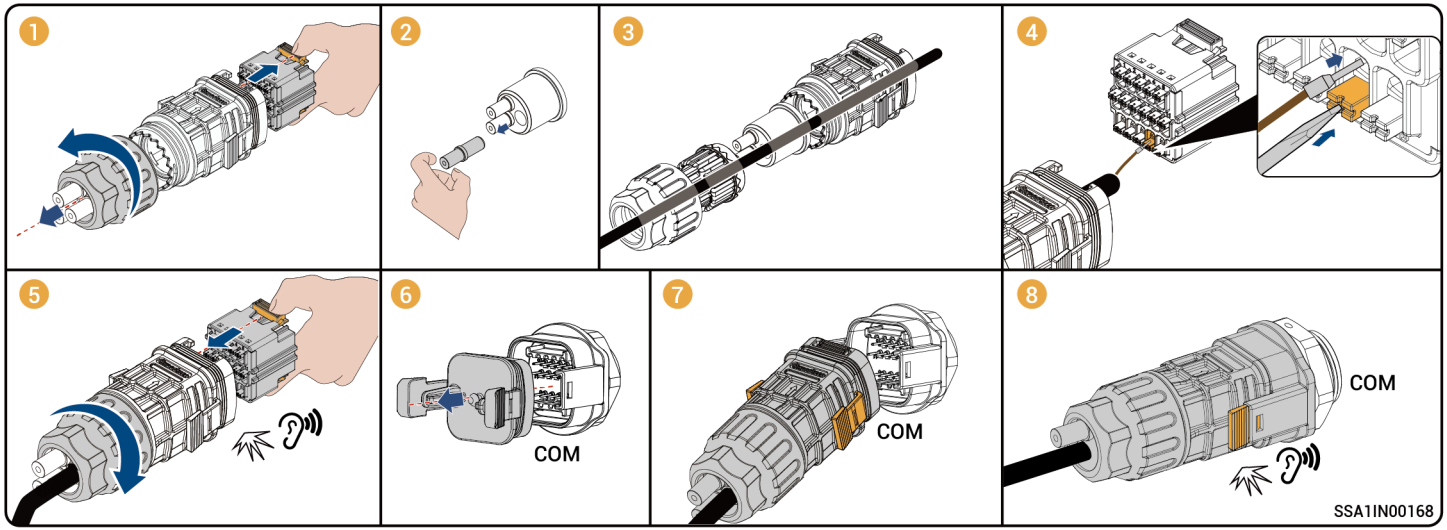
| Function description | Pin Definition | | Pin Number | Sigen Sensor TP-CT300-DH (SDM630MCT 40mA/300A) | Sigen Sensor TP-CT600-DH (SDM630MCT V2/600A) | Sigen Sensor TPX-CH (DTSU666) |
|---|---|---|---|---|---|---|
| (Reserved) Supports a maximum signal voltage of 12 V and a signal current of 1 A. Connected to third party intelligent electric equipment, such as switch control and heat pump. | DO1-COM | Dry contact 1-Common | 1 | – | – | – |
| | DO1-NO | Dry contact 1-Normal Open | 2 | – | – | – |
| (Reserved) | RS485A1-2 | RS485 signal 1-2_A+ | 3 | – | – | – |
| | RS485B1-2 | RS485 signal 1-2_B– | 4 | – | – | – |
| Used for grid power scheduling, such as DRM, Ripple Control Receiver, etc. | DI1 | Digital input 1 | 5 | – | – | – |
| | DI2 | Digital input 2 | 6 | – | – | – |
| | DI3 | Digital input 3 | 7 | – | – | – |
| | DI4 | Digital input 4 | 8 | – | – | – |
| - | GND | Signal GND | 10 | – | – | – |
| Used to connect the rapid shutdown DI interface as the signal cable port for the NS protection device, Emergency power off button (EPO). | DI5 | Digital input 5 | 9 | – | – | – |
| RS485-2, Used to access the grid side power sensor. | PE | PE signal shielding ground | 12 | – | – | – |
| | RS485B2 | RS485 signal 2_B– | 13 | 13 | 13 | 25 |
| | RS485A2 | RS485 signal 2_A+ | 14 | 14 | 14 | 24 |
| RS485-1-1, Custom port. Used to connect Meteorological Station, a third-party EMS controller and so on. | PE | PE signal shielding ground | 11 | – | – | – |
| | RS485A1-1 | RS485 signal 1-1_A+ | 15 | – | – | – |
| | RS485B1-1 | RS485 signal 1-1_B– | 16 | – | – | – |

## 5.8.2 RS485 Signal Cable Connection



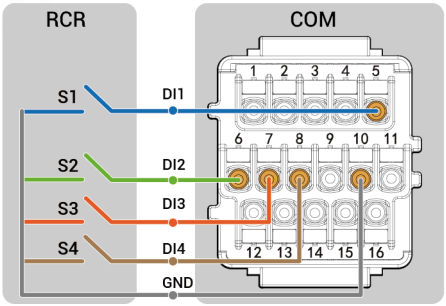



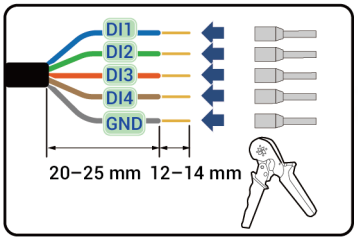

SSA1IN00095




SSA1IN00168

## 5.8.3 (Optional) Grid Scheduling Signal Cable Connection (taking RCR as an example)

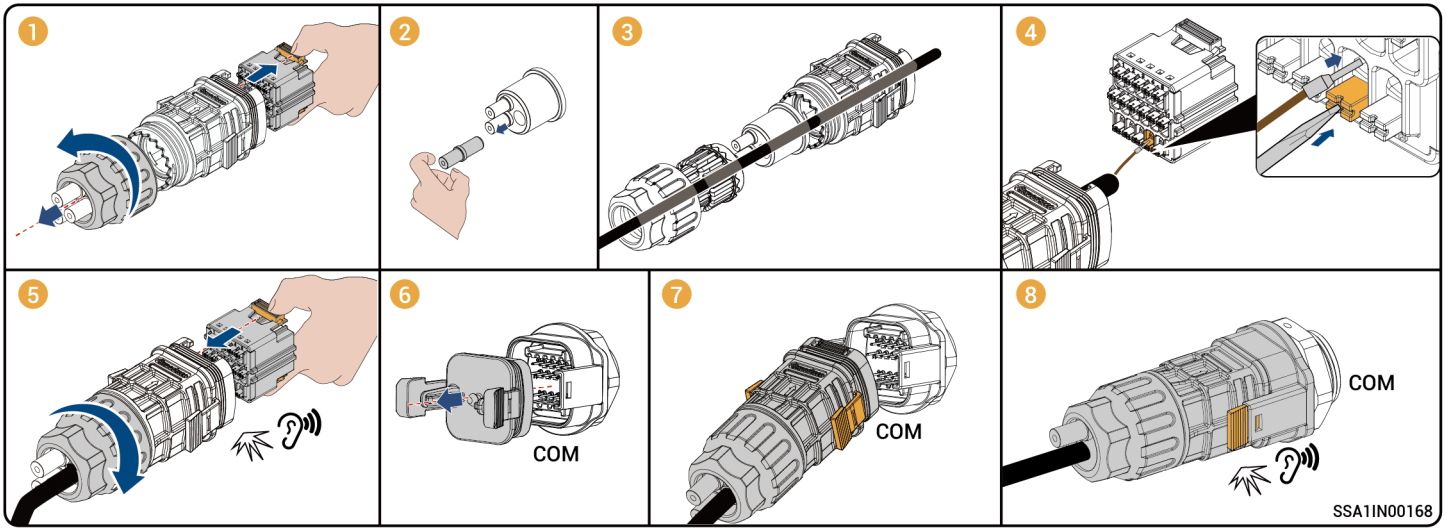



SSA1IN00099

### Tips

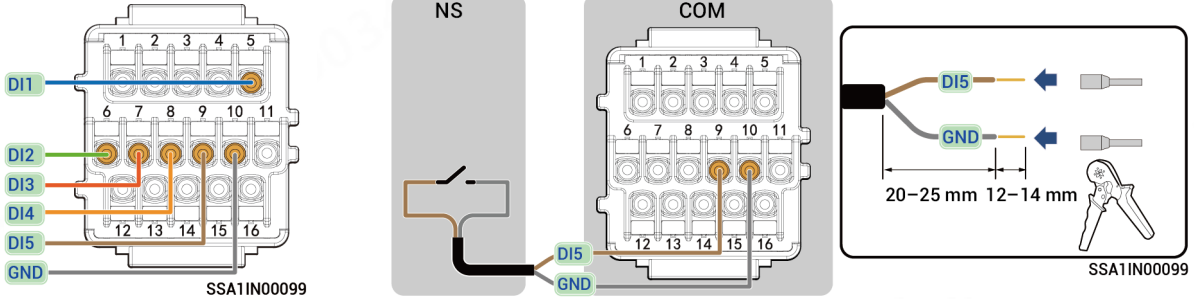
After creating new systems, you can use the mySigen App to set the parameters for Active Dry Contact scheduling or Reactive Dry Contact scheduling. For specific operation steps, please refer to mySigen App Installer Manual.

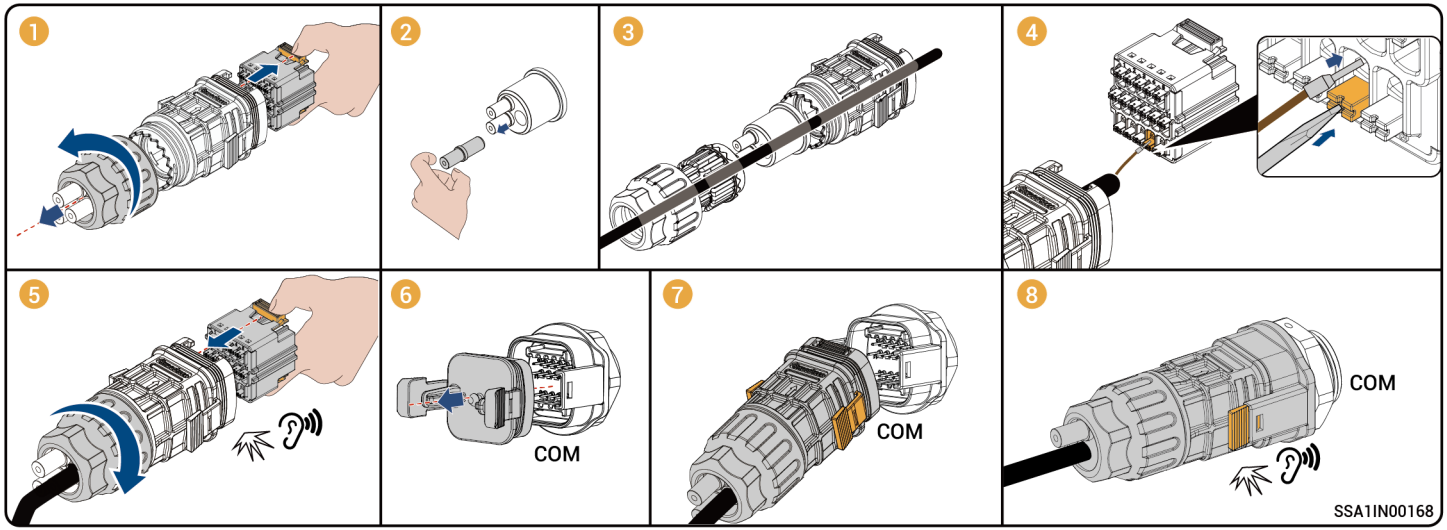


### 5.8.4 (Optional) NS Protection Signal Cable Connection

## Tips

- If DI1, DI2, DI3, DI4, DI5 and GND are not connected to other devices, the NS protection device can be connected.
- DI1, DI2, DI3, DI4, DI5 and GND use the same method to connect the NS protection device. This section uses DI5 and GND as an example.
- When the NS protection switch is turned on and, the NS protection function is triggered, the inverter automatically shuts down.
- When the NS protection switch is turned off, and the NS protection function is not enabled, the inverter must be manually shut down.
- The rapid shutdown device and the NS protection device use the same DI and GND. Either one of them can be selected.





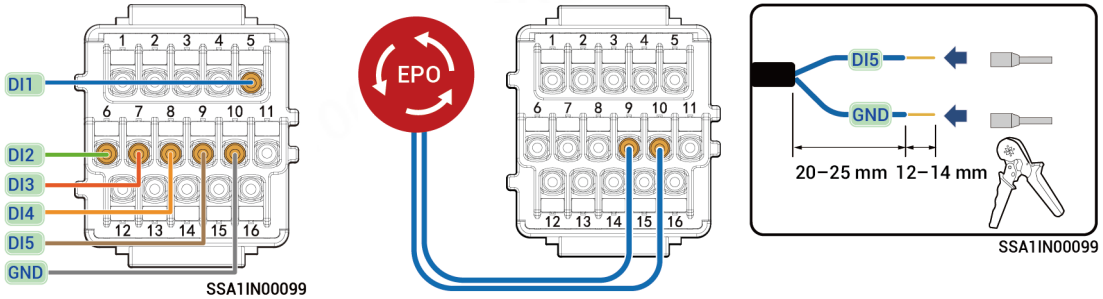

## Tips

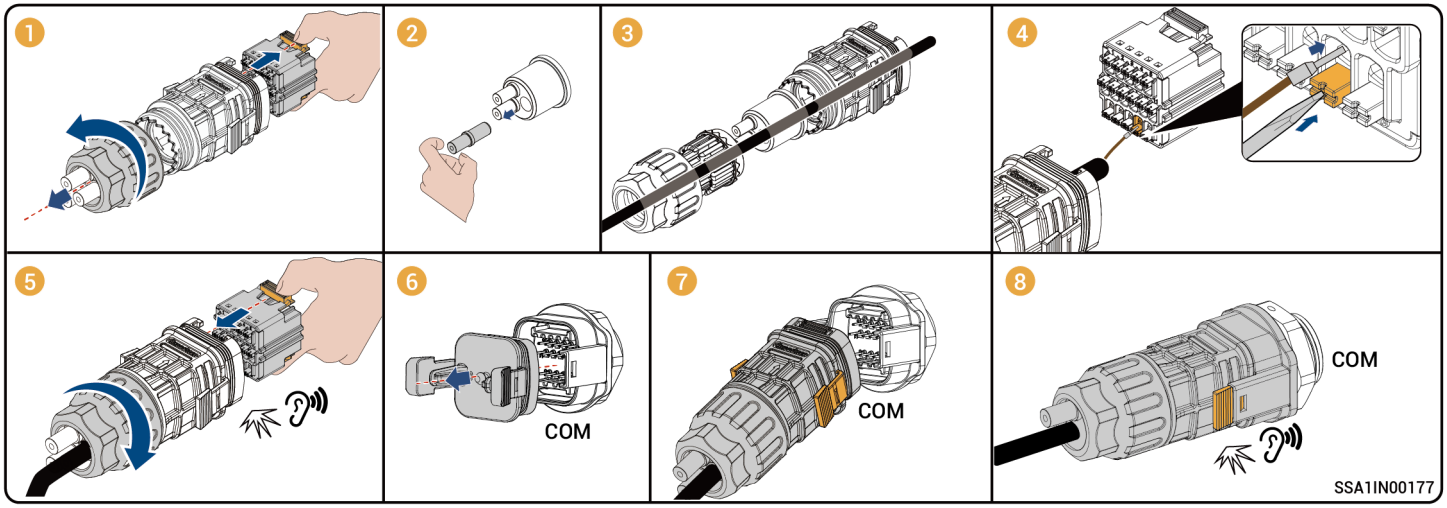
After creating new systems, you can use mySigen App to set NS protection parameters. Please refer to mySigen App Installer Manual for detailed instructions.

### 5.8.5 (Optional) Connection of Emergency Power Off (EPO) Button

## Tips

- If DI1, DI2, DI3, DI4, DI5 and GND are not connected to other devices, an emergency power off (EPO) button can be connected.
- The connection method for the emergency power off button to DI1, DI2, DI3, DI4, DI5 and GND is the same. This section uses DI5 and GND as an example.
- To prevent misoperations, the EPO button must have a protective cover, and the connecting cables must be protected with conduits.





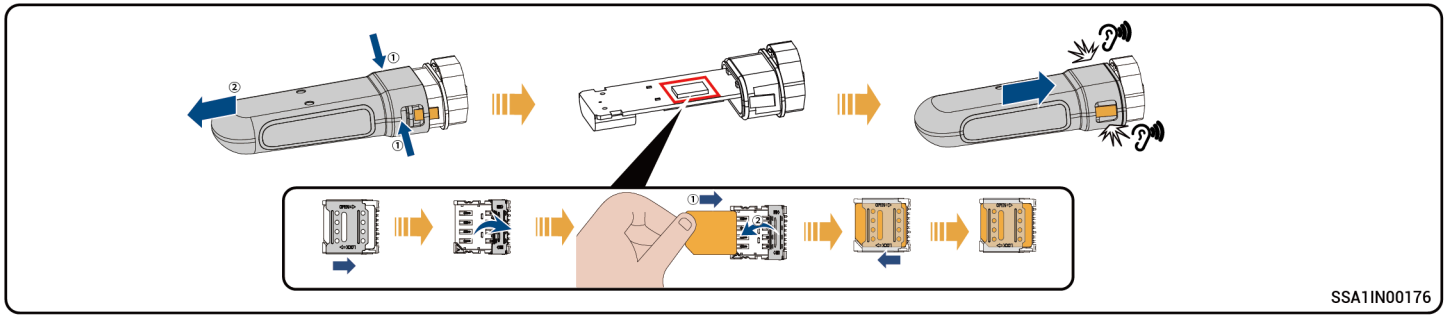

## Tips

**After creating new systems, you can use mySigen App to set NS protection parameters. Please refer to mySigen App Installer Manual for detailed instructions.**

## 5.9 (Optional) Replacing SIM card of Sigen CommMod

### Tips

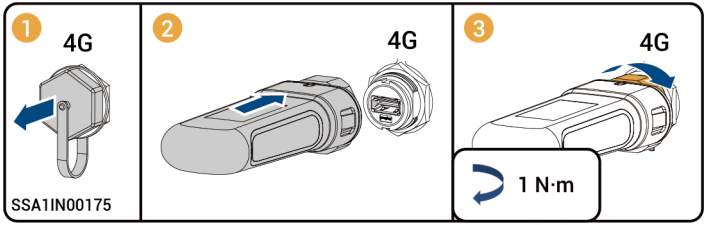
- When free 4G traffic of CommMod runs out, users must replace an SIM card.
- Please replace the SIM card in Sigen CommMod with a SIM card of your country or region.Recommended data plan: ≥ 25 MB/month x N. (Wherein, N is the number of inverters)
- If you hear only one click sound when assembling Sigen CommMod in Step 3, complete the assembly on the other side.

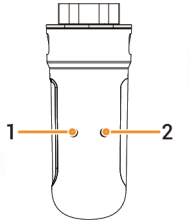



## 5.10 Sigen CommMod Installation

### Tips

Sigen CommMod is required for 4G communication.



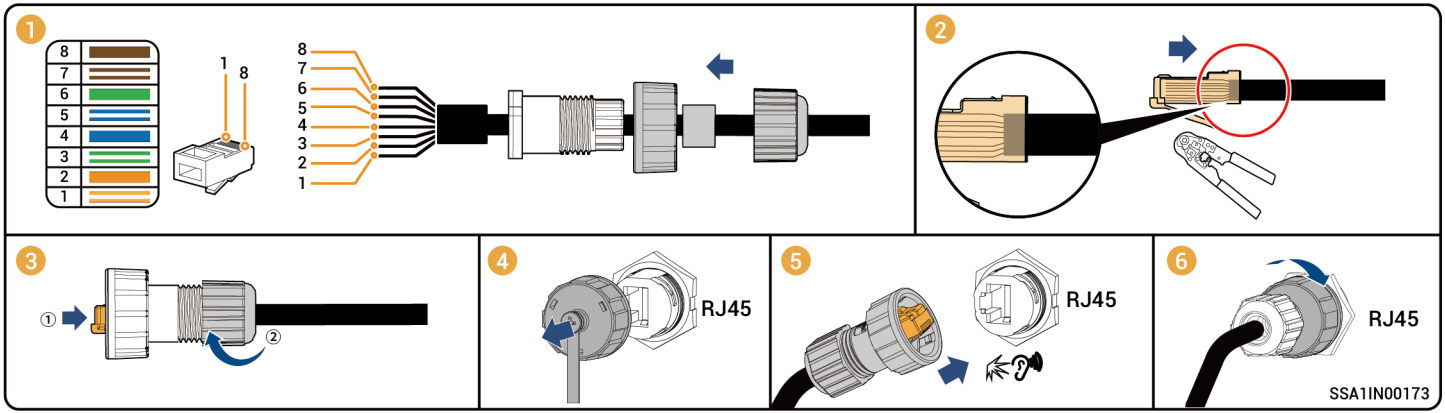




| S/N | Indicator | Description |
|---|---|---|
| 1 | Power indicator | - |
| 2 | Network state indicator | • Slow flashing(200 ms on/1800 ms off): The network is being connected<br>• Slow flashing(1800 ms on/200 ms off): Standby<br>• Quick flashing(125 ms on/125 ms off): Data is being transferred |

## 5.11 RJ45 Cable Connection

### Tips

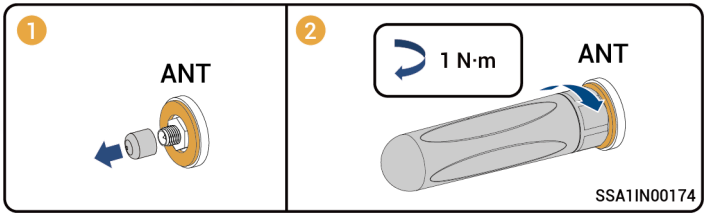
- RJ45 cables are EIA/TIA 568B standard cables.
- Two RJ45 Ethernet ports, one is connected to the router, and the other is connected to other equipment.(e.g., inverter, Gateway etc.)




## 5.12 WLAN antenna stick Installation

### Tips

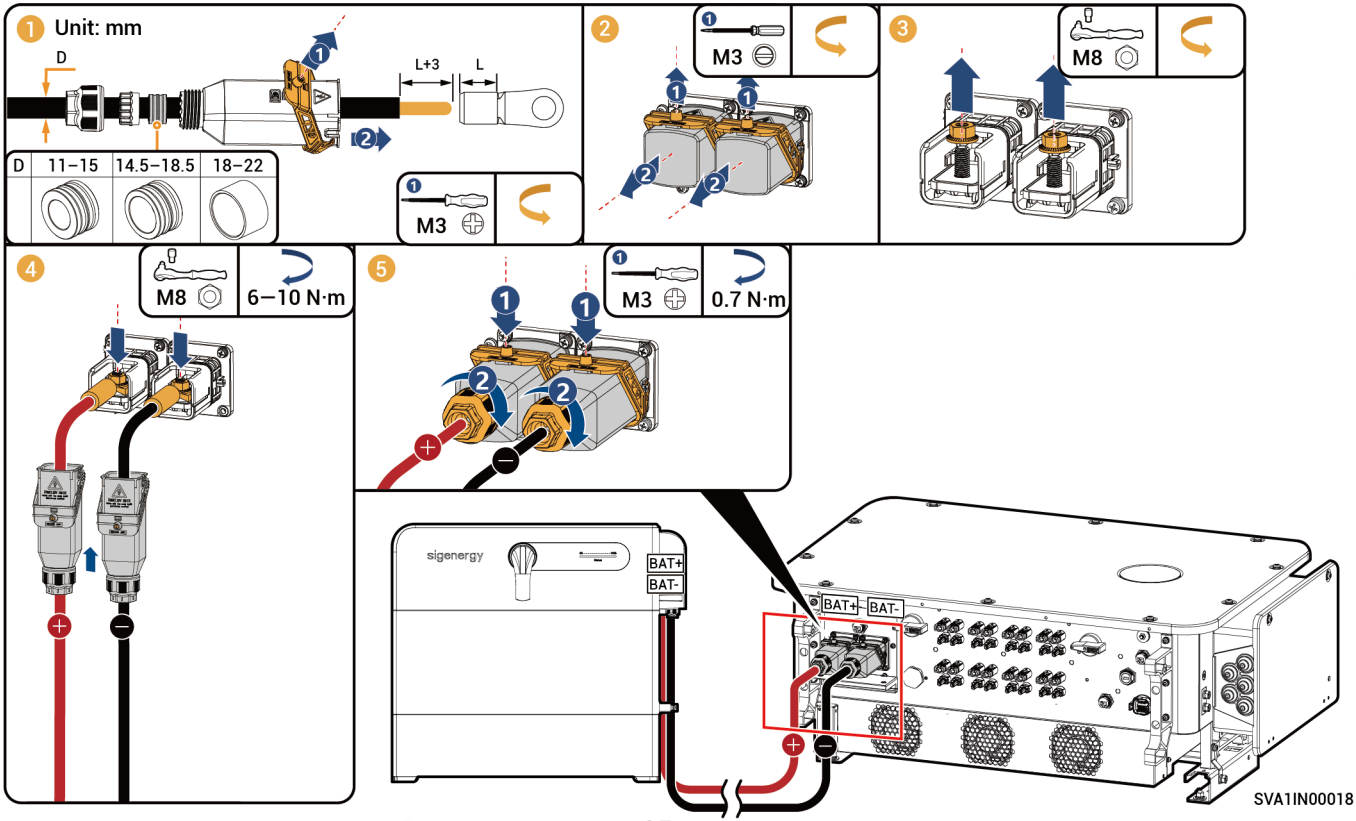
- WLAN communication requires the installation of WLAN antenna stick.
- To ensure good communication, tighten the antenna rod up clockwise. The antenna rod is tightened up when it cannot be easily turned counterclockwise.



## 5.13 (Optional) SigenStack DC Cable Connection

### Tips

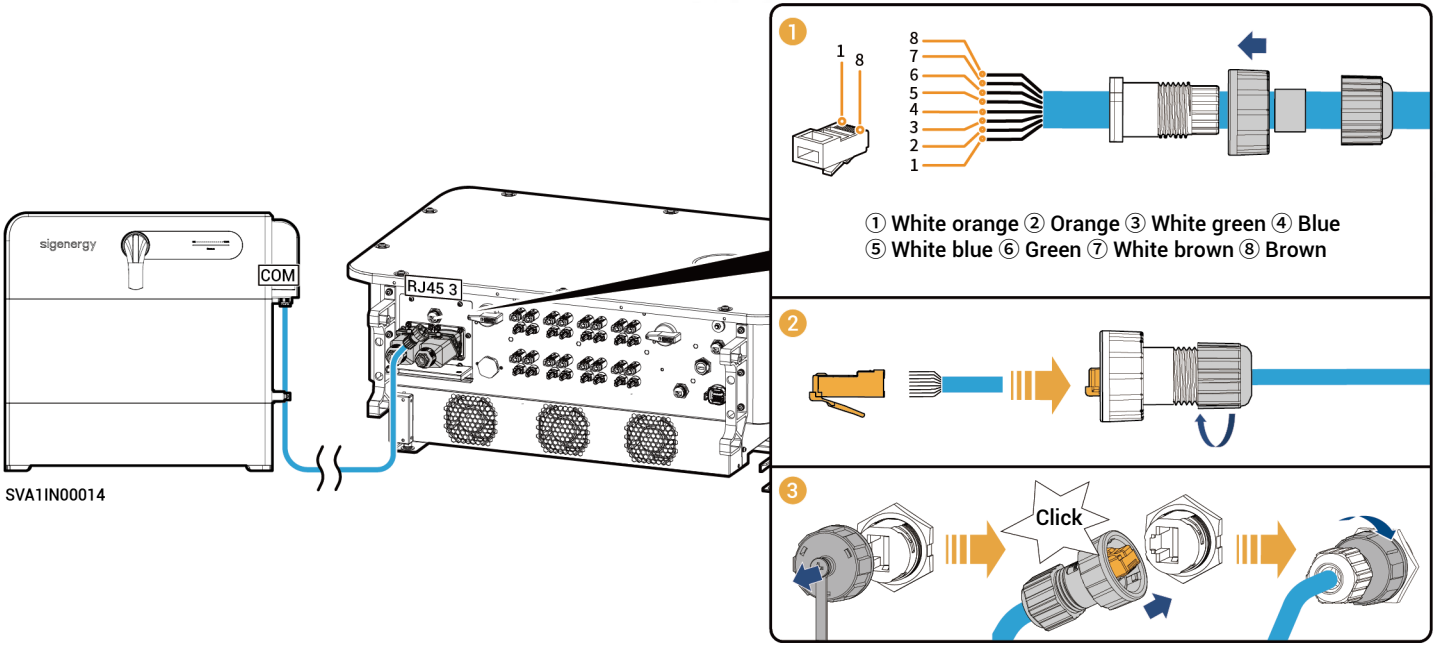
- This step is required if SigenStack is configured. If SigenStack is not configured, this step can be ignored.
- For detailed operations on SigenStack, please refer to the corresponding model's Installation Guide.



## 5.14 (Optional) SigenStack Network Cable Connection

### Tips

- This step is required if SigenStack is configured. If SigenStack is not configured, this step can be ignored.
- For detailed operations on SigenStack, please refer to the corresponding model's Installation Guide.



# 6 Post-installation Check

| S/N | Check Item |
| --- | --- |
| 1 | The equipment has been securely installed. |
| 2 | Ground cables, DC cables, signal cables, etc. are installed accurately without leftovers. |
| 3 | The cable fastening screws or terminals are properly installed. |
| 4 | There are no sharp spikes or acute angles at the cut point of the cable tie. |
| 5 | DC SWICH is in the OFF state. |
| 6 | Ports that are not in use have waterproof covers or plugs installed. |
| 7 | There is no construction left inside or outside the equipment. |

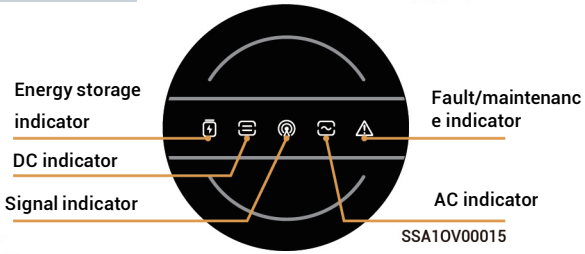
# 7 Equipment Power-On

1. Turn on the upstream switch of equipment.
2. Rotate DC SWITCH to ON.
3. Observe the indicators on the front side of the inverter to learn about the equipment status.

## Tips

There are two types of indicators: a yellow indicator, see Light Language 1, and a blue indicator, see Light Language 2.

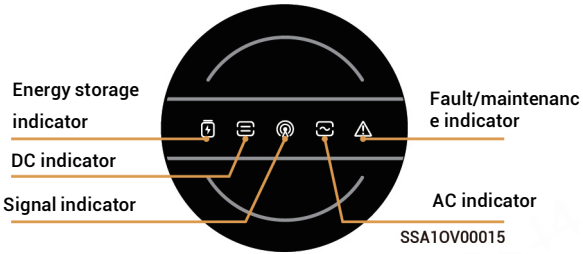
### Light Language 1




| Indicator | Color | State | Description |
|---|---|---|---|
| | | - | All SigenStacks lie dormant. |
| | | Flash | SigenStack is charging. |
| | | Breathing blink | All SigenStacks are connected but not running. |
| | | Always on | SigenStack neither charges nor discharges. |
| | | Flash | SigenStack is discharging. |
| | | Always on | SigenStack disconnected. |
| | | Always on | Some SigenStacks are faulty. |

| Indicator | Color | State | Description |
|---|---|---|---|
| | | - | The DC side is not connected. |
| | | Breathing blink | The DC side is connected but not running. |
| | | Always on | The DC side is running. |
| | | Flash | The DC side is faulty. |
| | | Always on | The inverter is faulty. |
| | | - | The AC side is not connected. |
| | | Breathing blink | The AC side is connected but not running. |
| | | Always on | Grid-connected operation. |
| | | Always on | Off-grid operation. |
| | | Flash | The AC side is faulty. |
| | | Always on | The inverter is faulty. |
| | | - | The management system is not connected. |
| | | Flash | App connects to the device hotspot. |
| | | Always on | Connected to the management system using an FE or WLAN. |
| | | Always on | Connected to the management system over 4G. |
| | | Flash | Insufficient traffic for Sigen CommMod. |
| | | Flash | Network port 1/2 failure. |
| | | Always on | Proximity password reset in progress. |
| | | - | No alarms and no local maintenance operations. |

## Light Language 2



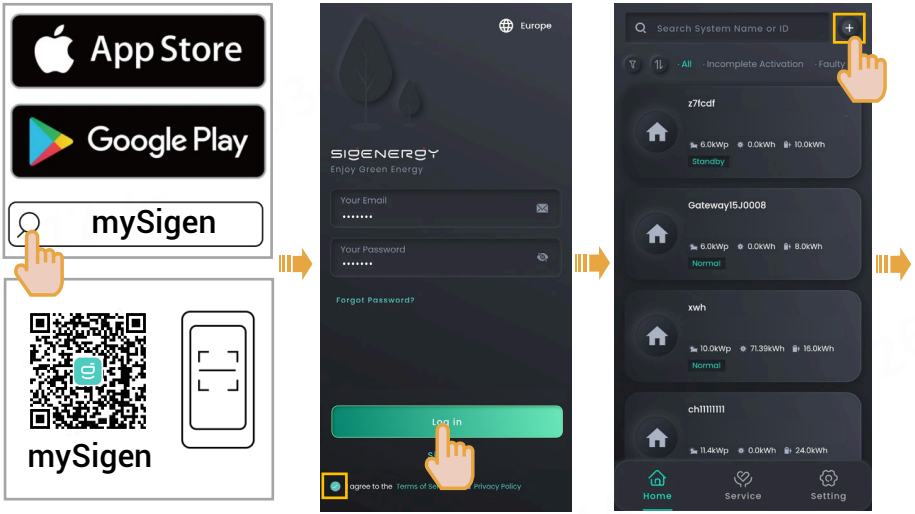

| Indicator | Color | State | Description |
|---|---|---|---|
| | | - | All SigenStacks lie dormant. |
| | | Breathing blink | All SigenStacks are connected but not running. |
| | | Always on | SigenStack neither charges nor discharges. |
| | | Flash | SigenStack is charging. |
| | | Flash | SigenStack is discharging. |
| | | Always on | SigenStack disconnected. |
| | | Always on | Some SigenStacks are faulty. |
| | | - | The DC side is not connected. |
| | | Always on | The DC side is connected but not running. |
| | | Always on | The DC side is running. |
| | | Flash | The DC side is faulty. |
| | | Always on | The inverter is faulty. |

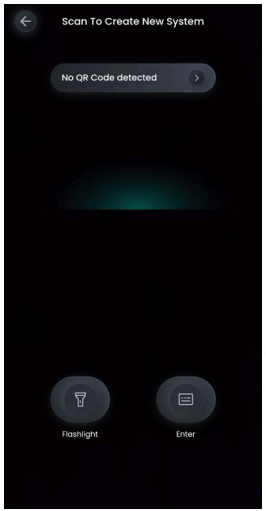
| Indicator | Color | State | Description |
|---|---|---|---|
| | | - | The AC side is not connected. |
| | | Always on | The AC side is connected but not running. |
| | | Always on | Grid-connected operation. |
| | | Always on | Off-grid operation. |
| | | Flash | Off-grid overload operation. |
| | | Flash | The AC side is faulty. |
| | | Always on | The inverter is faulty. |
| | | - | The management system is not connected. |
| | | Flash | App connects to the device hotspot. |
| | | Always on | Connected to the management system using an FE or WLAN. |
| | | Always on | Connected to the management system over 4G. |
| | | Flash | Insufficient traffic for Sigen CommMod. |
| | | Flash | Network port 1/2 failure. |
| | | Always on | Proximity password reset in progress. |
| | | - | No alarms and no local maintenance operations. |

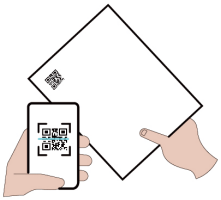
## 8 Download and create new system for mySigen APP

1 Please enter the "Partner" → "Register Now" at the Company's official website (https://www.sigenergy.com), and complete the account registration based on facts.

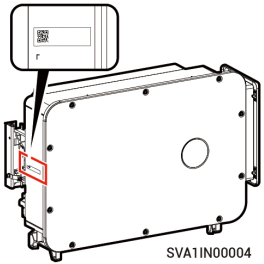
2 Download the mySigen App and create new system for the device.





or




According to the interface prompts, complete the startup or refer to the "mySigen App Creating New Systems Guide" to obtain the operation method of startup.

Scan the SN code label on the accompanying box material. If the SN is lost, scan the SN on the side of the inverter.

3 **Upon completion of the new system creation, the installer shall inform the owner to check its "sigencloud" e–mail within 24 hours and proceed with activating its account.**

**Sigenergy Technology Co., Ltd.**

| Website | LinkedIn | YouTube |
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**www.sigenergy.com**