

Sigen PV (36–125)M1-HYB Series

Installation Guide

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Revision History

Version	Date	Description
01	2026.08.15	Initial release

Preface

Overview

This document mainly introduces the Sigen PV (36–125)M1-HYB series, including product overview and equipment installation.

Intended Audience

This document is intended for product users and professionals.

Icon Definition

The following icons may be used in the document to indicate safety precautions or key information. Before installation and operation, please be familiar with and master the icons and the corresponding definitions.

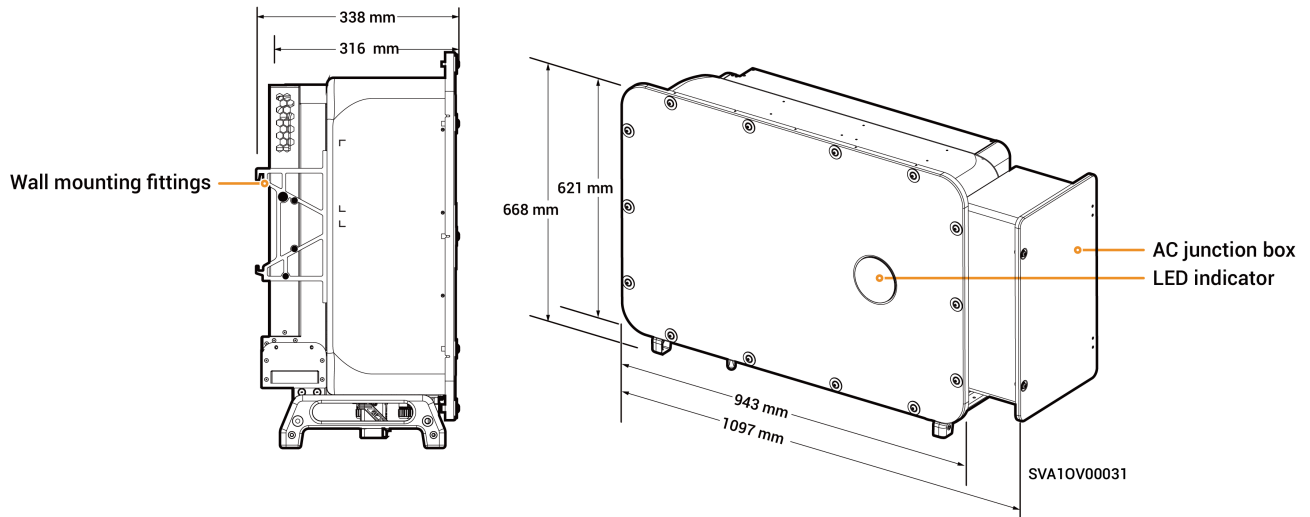
Icon	Definitions
 Danger	Danger. Indicates an imminently hazardous situation which, if not avoided, will result in death or serious personal injury.
 Warning	Warning. Indicates a potentially hazardous situation which, if not avoided, will result in serious personal injury or property damage.
 Caution	Caution. Indicates a potentially hazardous situation which, if not avoided, will result in property damage.
Tips	Indicates important or key information and provides operation tips.

Caution

- Only trained or qualified persons with electrical engineering knowledge can work directly on the device.
- Operators should be familiar with national and local laws, regulations, and standards, and the compositions and operating principles of relevant systems.
- Before operations, please carefully read operating requirements and precautions in this document and Important Notice. Any equipment damage caused by improper operation will not be covered under warranty.

Chapter 1 Product Introduction

1.1 Appearance and Dimensions

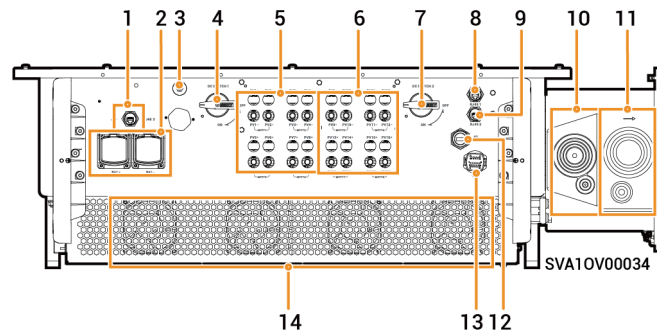


1.2 Port Introduction

Tips

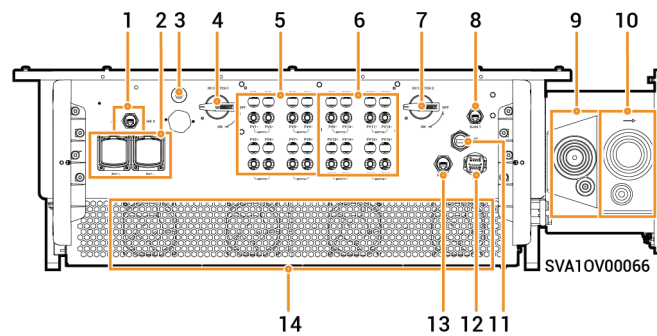
Ports may have two different appearances. The actual unit received shall prevail.

Appearance 1



No.	Marking	Name
1	RJ45 3	SigenStack network cable interface
2	BAT+/BAT-	SigenStack DC cable interface
3	ANT	Antenna interface
4	DC SWITCH 1	DC switch 1
5	PV1 ~ PV8	DC input terminal block 1 (controlled by DC SWITCH 1)
6	PV9 ~ PV16	DC input terminal block 2 (controlled by DC SWITCH 2)
7	DC SWITCH 2	DC switch 2
8	RJ45 1	Network cable interface
9	RJ45 2	Network cable interface
10	-	(Optional) Backup load routing hole
11	-	Grid routing hole
12	4G	Sigen CommMod interface
13	COM	Communication interface
14	-	Cooling fan

Appearance 2



No.	Marking	Name
1	RJ45 3	SigenStack network cable interface
2	BAT+/BAT-	SigenStack DC cable interface
3	ANT	Antenna interface
4	DC SWITCH 1	DC switch 1
5	PVI ~ PV8	DC input terminal block 1 (controlled by DC SWITCH 1)
6	PV9 ~ PVI6	DC input terminal block 2 (controlled by DC SWITCH 2)
7	DC SWITCH 2	DC switch 2
8	RJ45 1	Network cable interface
9	-	(Optional) Backup load routing hole
10	-	Grid routing hole
11	4G	Sigen CommMod interface
12	COM	Communication interface
13	RJ45 2	Network cable interface
14	-	Cooling fan

Chapter 2 Checks Before Installation

- 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 and ensure the completeness of personal protective equipment and installation tools; replenish if necessary.
- Check and ensure the correctness of quantity and specifications of the installer-provided cables; re-prepare if necessary.

Personal Protective Equipment



Safety hat



Goggles



Dust mask



Protective gloves

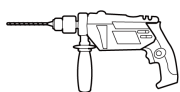


Insulating gloves

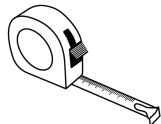


Insulating shoes

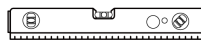
Installation Tools



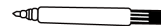
Power drill



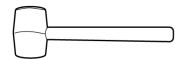
Tape measure



Level



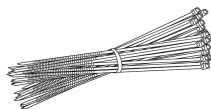
Marker



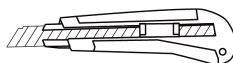
Rubber mallet



Scissors



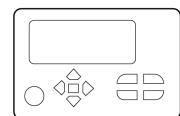
Cable ties



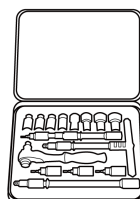
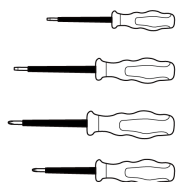
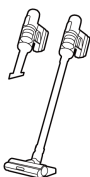
Utility knife

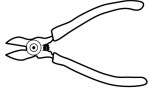
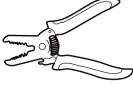
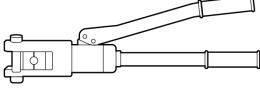
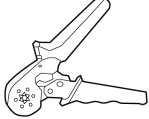
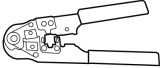
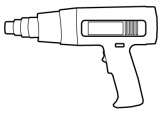
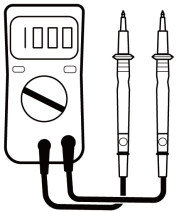
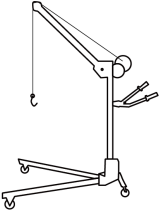
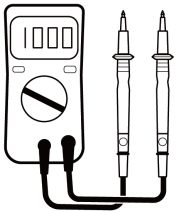
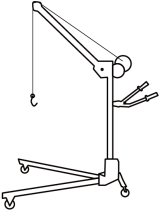


Fire-proof sealant



Insulation resistance tester



Vacuum cleaner	Insulated screwdriver set	Insulated sleeve set	Torque socket wrench	Insulated hexagonal L-type wrench (T-30)
				
Wire cutter	Wire stripper	Crimp tool	Cold terminal crimping pliers	Network cable pliers
				
Crimping pliers	Heat gun	Heat shrinkable sleeve	Open-end wrench (Model: H4TW0008 Supplier: Amphenol)	Crimping pliers (Model: H4TC0003 Supplier: Amphenol)
				
Multimeter	Flexible braided flat cable (Load capacity: ≥ 400 kg Diameter: ≥ 6 mm)	Hoist		
				

Installer-provided Cables

Caution

The installer-provided wire specifications shall conform to the regulations and standards on cables in the countries/regions where they are located.

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

No.	Cable Name	Recommended Specification
1	Casing protective ground cable ^[1]	Outdoors single-core copper flex cable Cross-sectional area of cables: $S_p \geq S/2$

No.	Cable Name	Recommended Specification
2	DC input cable	Photovoltaic cable for outdoor use Cross-sectional area of conductor: 4–6 mm ² Outer diameter: 5.9–8.8 mm
3	Network cable	Outdoor 8-core shielded twisted-pair network cable Cross-sectional area of conductor: 0.13–0.2 mm ² Outer diameter: 4–7.5 mm Single cable length: ≤ 800 m ^[2]
4	Signal cable	Shielded twisted pair cable for outdoor use Cross-sectional area of conductor: 0.5–0.75 mm ² (multi-core flex conductor; tubular terminals required) 0.5–1 mm ² (single-strand solid conductor; no tubular terminals required) Outer diameter: 4.5–6.5 mm Single cable length: ≤ 1000 m ^[2] Baud rate: ≤ 9600 bps
5	DC cable between the inverter and BC-BST/BC	For cable specifications, see the SigenStack Energy Storage System Installation Guide.
6	Signal cable between the inverter and BC-BST/BC	For cable specifications, see the SigenStack Energy Storage System Installation Guide.

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.

Note [2]: The cable length should be limited for good communication. Too long cable degrades the communication effect.

Tips

For the recommended cable specifications and detailed wiring steps for cables connecting the power sensor to the home distribution panel and to the grid, please refer to the documentation included in the package for the corresponding model.

7 Recommended AC cable specifications

Tips

- The table is recommended based on the situation of circuit 1.
- If not connected to our company's Sigen Gateway, the AC cable supports up to 300 mm².
- When the cable cross-sectional area is < 70 mm², seal the wiring hole with fire-proof sealant.

Application scenario	Model	Port type	Cable Specifications at 380 V/400 V		Cable Specifications at 480 V	
-	-	-	Recommended Copper Conductor Cross-Sectional Area	Recommended Aluminum Conductor Cross-Sectional Area	Recommended Copper Conductor Cross-Sectional Area	Recommended Aluminum Conductor Cross-Sectional Area
HYB models are not equipped with the Sigen Gateway.	Sigen PV 36MI-HYB	Grid port	35 mm ²	50 mm ²	-	-
		Load port	16 mm ²	25 mm ²	-	-
	Sigen PV 45MI-HYB	Grid port	50 mm ²	70 mm ²	-	-
		Load port	16 mm ²	25 mm ²	-	-
	Sigen PV 50MI-HYB Sigen PV 50MI-HYB-AU	Grid port	70 mm ²	95 mm ²	50 mm ²	70 mm ²
		Load port	25 mm ²	35 mm ²	16 mm ²	25 mm ²
	Sigen PV 60MI-HYB	Grid port	95 mm ²	120 mm ²	70 mm ²	95 mm ²
		Load port	35 mm ²	50 mm ²	25 mm ²	35 mm ²
	Sigen PV 80MI-HYB	Grid port	150 mm ²	185 mm ²	95 mm ²	120 mm ²
		Load port	50 mm ²	70 mm ²	35 mm ²	50 mm ²
	Sigen PV 99.9MI-HYB-AU Sigen PV 99.99MI-HYB Sigen PV 100MI-HYB	Grid port	150 mm ²	185 mm ²	95 mm ²	120 mm ²
		Load port	70 mm ²	95 mm ²	50 mm ²	70 mm ²
	Sigen PV 110MI-HYB Sigen PV 110MI-HYB-AU	Grid port	150 mm ²	185 mm ²	95 mm ²	120 mm ²
		Load port	95 mm ²	120 mm ²	70 mm ²	95 mm ²
	Sigen PV 125MI-HYB	Grid port	150 mm ²	185 mm ²	95 mm ²	120 mm ²

Application scenario	Model	Port type	Cable Specifications at 380 V/400 V		Cable Specifications at 480 V	
HYB models are not equipped with the Sigen Gateway.	Sigen PV 125M1-HYB-BR Sigen PV 125M1-HYB-AU	Load port	120 mm ²	150 mm ²	70 mm ²	120 mm ²

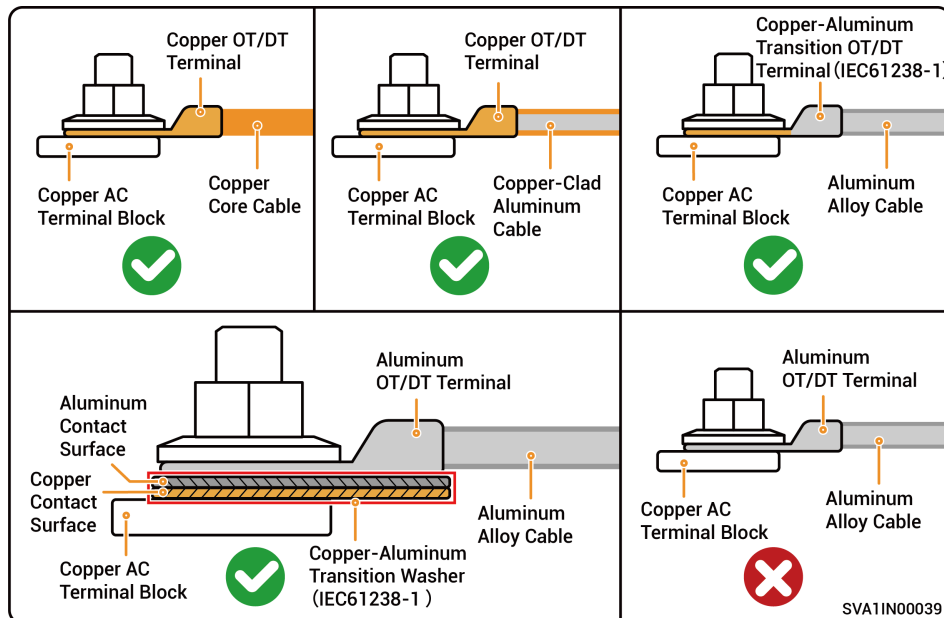
Tips

- If connected to our company's Sigen Gateway, the AC cable supports a maximum of 95 mm².
- If larger-gauge aluminum conductors are used, a copper busbar adapter or a larger MCCB is required.
- When the cable cross-sectional area is < 70 mm², seal the wiring hole with fire-proof sealant.

Application scenario	Model	Port type	Cable Specifications at 380 V/400 V		Cable Specifications at 480 V	
-	-	-	Recommended Copper Conductor Cross-Sectional Area	Recommended Aluminum Conductor Cross-Sectional Area	Recommended Copper Conductor Cross-Sectional Area	Recommended Aluminum Conductor Cross-Sectional Area
HYB models are equipped with the Sigen Gateway	Sigen PV 36M1-HYB Sigen PV 45M1-HYB	Grid port	16 mm ²	25 mm ²	-	-
	Sigen PV 50M1-HYB Sigen PV 50M1-HYB-AU		25 mm ²	35 mm ²	16 mm ²	25 mm ²
	Sigen PV 60M1-HYB		35 mm ²	50 mm ²	25 mm ²	35 mm ²
	Sigen PV 75M1-HYB-BR Sigen PV 80M1-HYB		50 mm ²	70 mm ²	35 mm ²	50 mm ²

Application scenario	Model	Port type	Cable Specifications at 380 V/400 V		Cable Specifications at 480 V	
HYB models are equipped with the Sigen Gateway	Sigen PV 99.9MI-HYB-AU Sigen PV 99.99MI-HYB Sigen PV 100MI-HYB	Grid port	70 mm ²	95 mm ²	50 mm ²	70 mm ²
	Sigen PV 110MI-HYB Sigen PV 110MI-HYB-AU		95 mm ²	/	70 mm ²	95 mm ²
	Sigen PV 125MI-HYB Sigen PV 125MI-HYB-BR Sigen PV 125MI-HYB-AU		95 mm ²	/	95 mm ²	/

OT/DT Terminal Requirements



Chapter 3 Location Requirements

Tips

- Before installing the equipment, be sure to read the following installation requirements carefully. The company will not bear any responsibility if the equipment malfunctions, is damaged, or even causes a personal safety accident during operation due to failure to operate as required.
- During actual installation, the selection of the installation location should comply with local regulations, firefighting 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 a smoky, flammable, or explosive environment.
- Do not install the equipment in an environment with conductive metal dust or magnetic dust. Do not install the equipment in an environment that is prone to mold and fungi.
- 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 (EMI).
- The temperature and humidity of the installation environment should meet equipment requirements.
- The equipment shall be installed in an area at least 500 m away from corrosion sources such as high salt or high acidity (corrosion sources include but are not limited to seaside, thermal power plant, chemical plant, smelter, coal plant, rubber plant, electroplating plant, etc.).
- 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 Location

- Do not tilt the equipment or place it upside down. Ensure that the equipment is horizontally installed.
- Do not install the equipment in a place with fire hazards or is prone to moisturizing.
- Do not install the equipment in a sealed, poorly ventilated location without fire protection measures and difficult access for firefighters.
- Do not install the equipment under water sources, including but not limited to water pipes and air conditioner outlet windows, where condensate or water leakage may occur. Otherwise, liquid may enter the equipment and cause short circuit.

- The equipment is hot when it is operating. If the equipment is installed indoors, please ensure good indoor ventilation and avoid significant indoor temperature rise by more than 3°C while the equipment is operating. Otherwise, the equipment will be derated.
- The equipment generates heat when it is operating. Do not install the equipment in areas easily accessible to heat dissipation surfaces.
- Do not install the equipment in mobile scenarios such as recreational vehicles, 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 Sigenenergy for further advice.

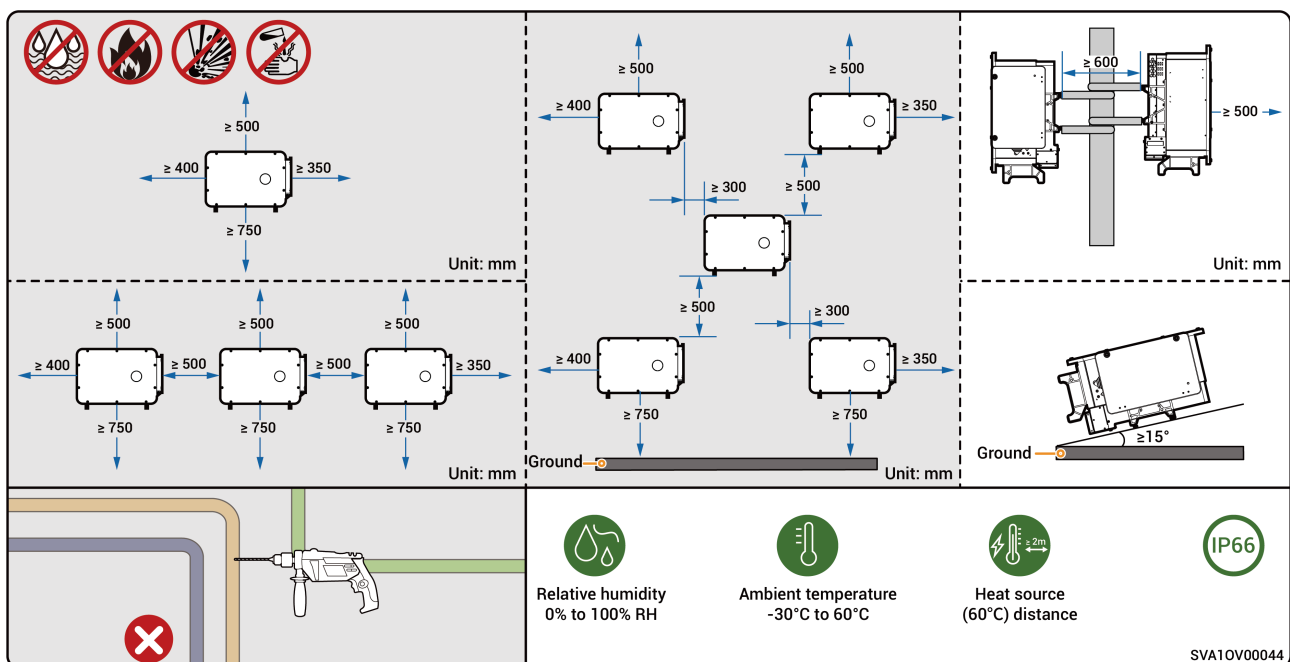
Installation Base

- Do not install the equipment on a flammable base.
- The installation base should meet the load-bearing requirement and should be free of adverse geological conditions including but not limited to rubber soil and soft soil. Solid brick-concrete structures and concrete walls are recommended.
- The installation base should be flat, and the installation area should meet the installation space requirements.
- No plumbing or electricity routing should be inside the installation base to avoid potential drilling hazards during equipment installation.

PV Scenario

Tips

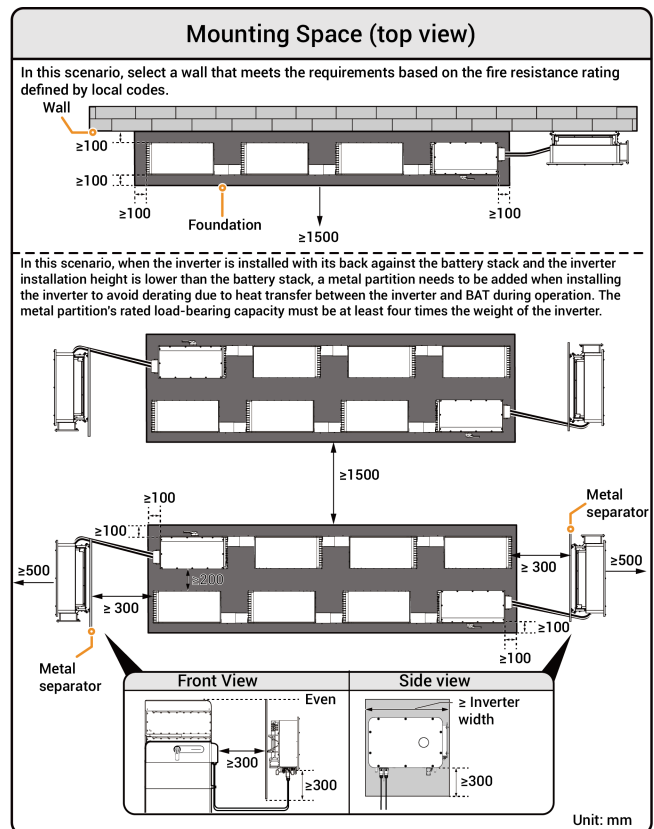
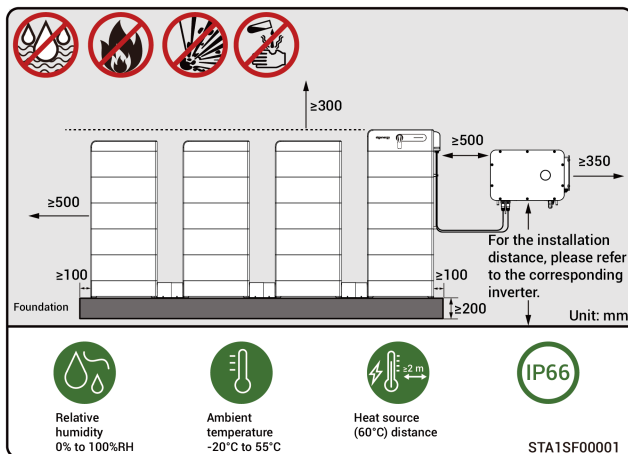
- To ensure optimal performance of the device, it is suggested that the installation distance between the device and surrounding obstacles be planned with reference to the diagram. If the installation site is well-ventilated, the optimal solution may be deployed based on actual conditions.
- To facilitate 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 Storage Scenarios

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 requirements.
- 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.



Chapter 4 Device Installation

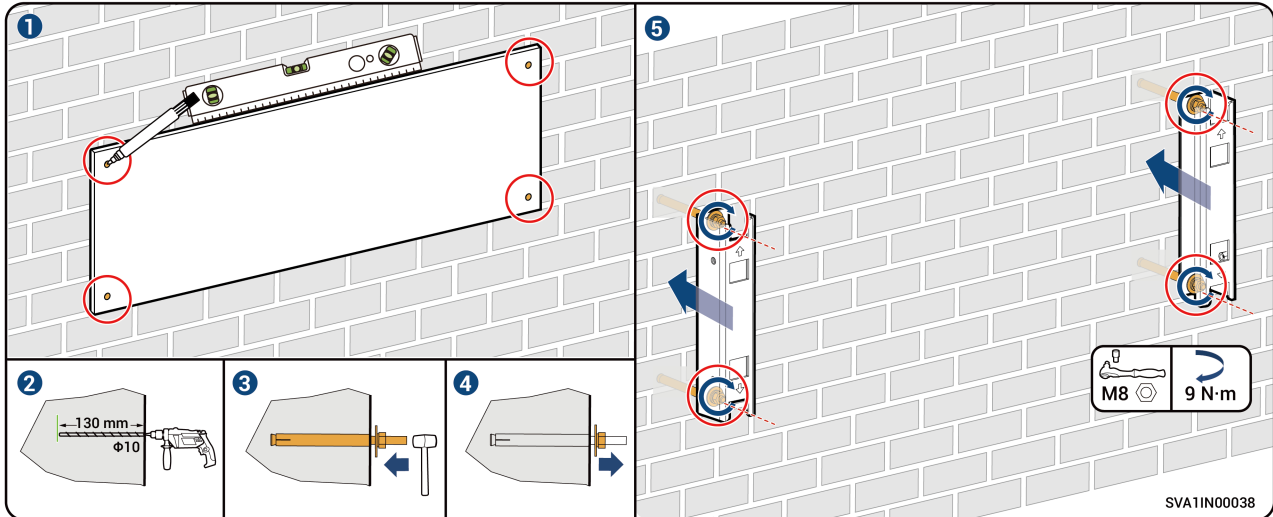
4.1 Handling the Inverter

Tips

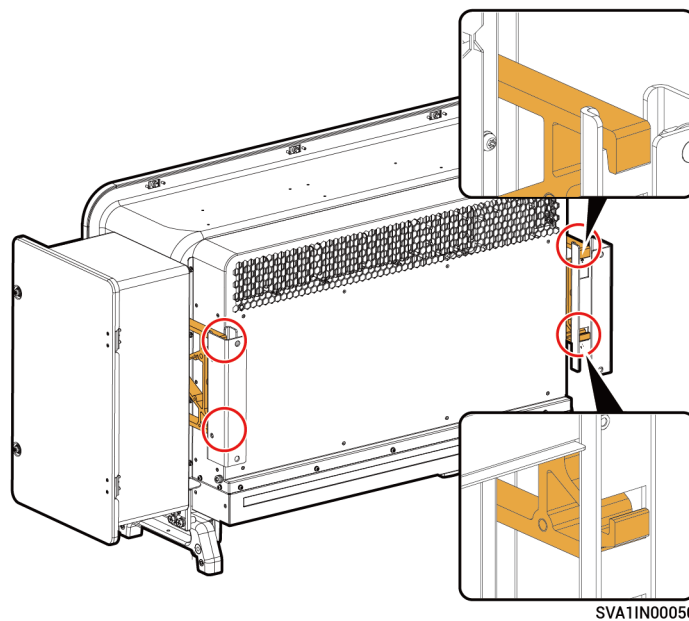
- Keep the inverter balanced while handling to avoid personal injury.
- No load is allowed on the ports and terminals at the bottom of the inverter. Do not allow the ports and terminals to be in direct contact with the ground or other supports.
- Put foam or cardboard under the inverter before placing 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 Wall-Mounted Device Installation

1



2

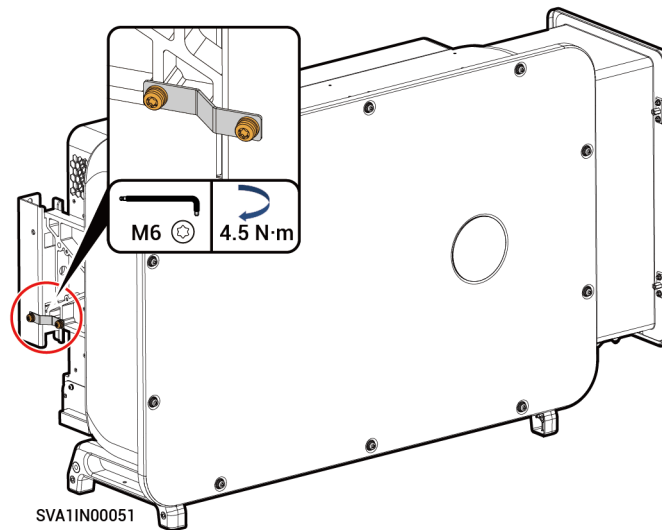


3

(Optional)

Tips

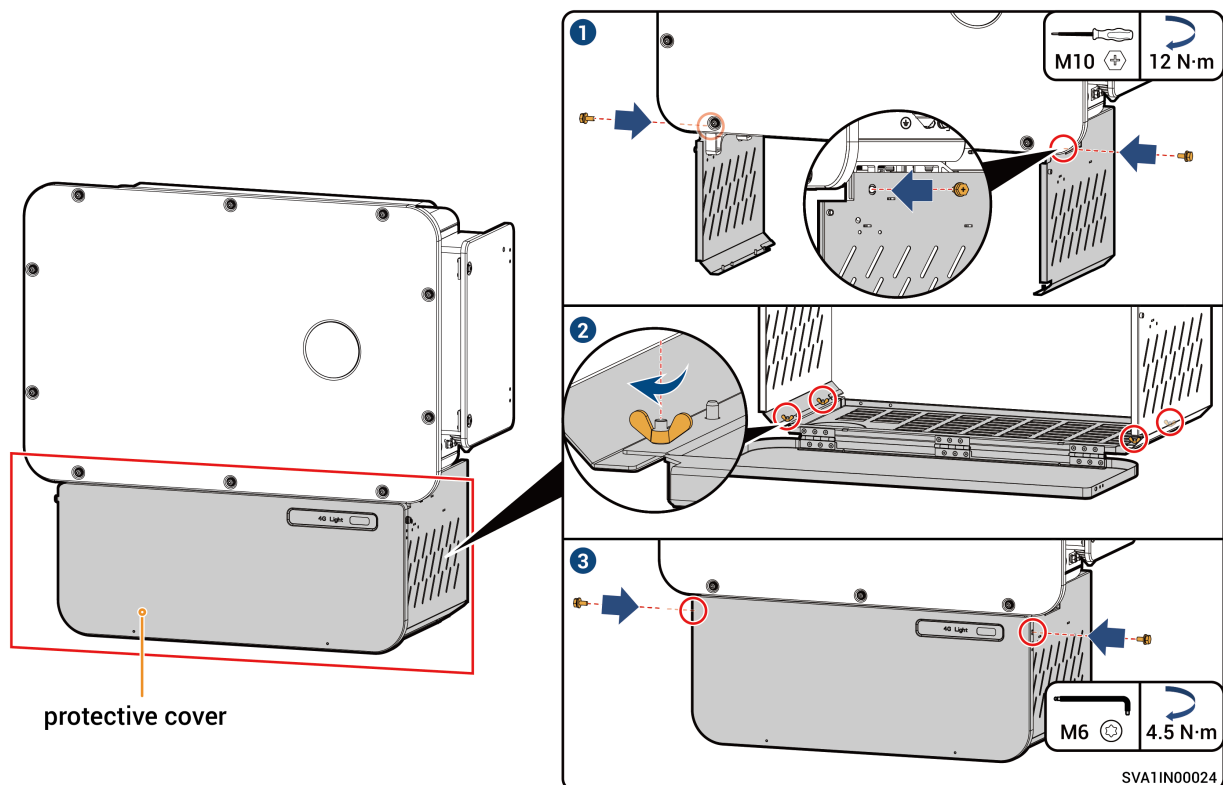
To prevent the device from theft, this step can be performed.



4 (Optional)

Tips

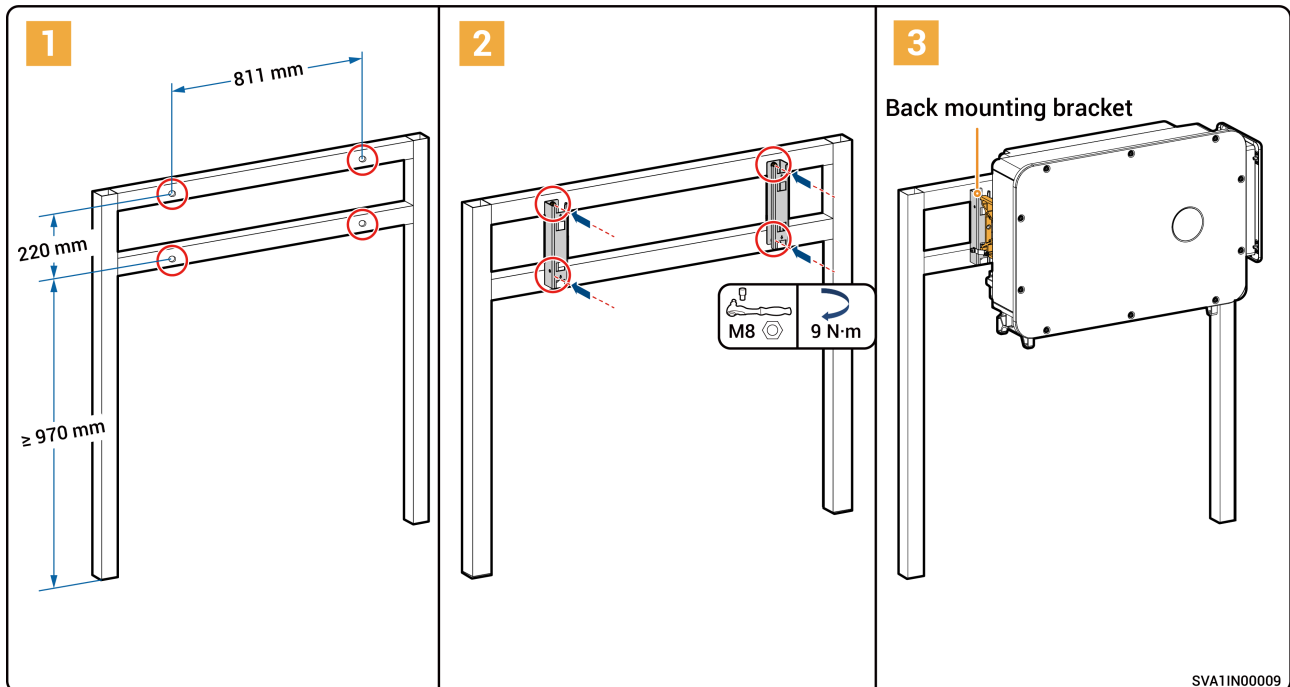
If the owner receives an installation package with a protective cover, this step needs to be performed. If not, please ignore this step.



4.3 Crossarm Installation

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.

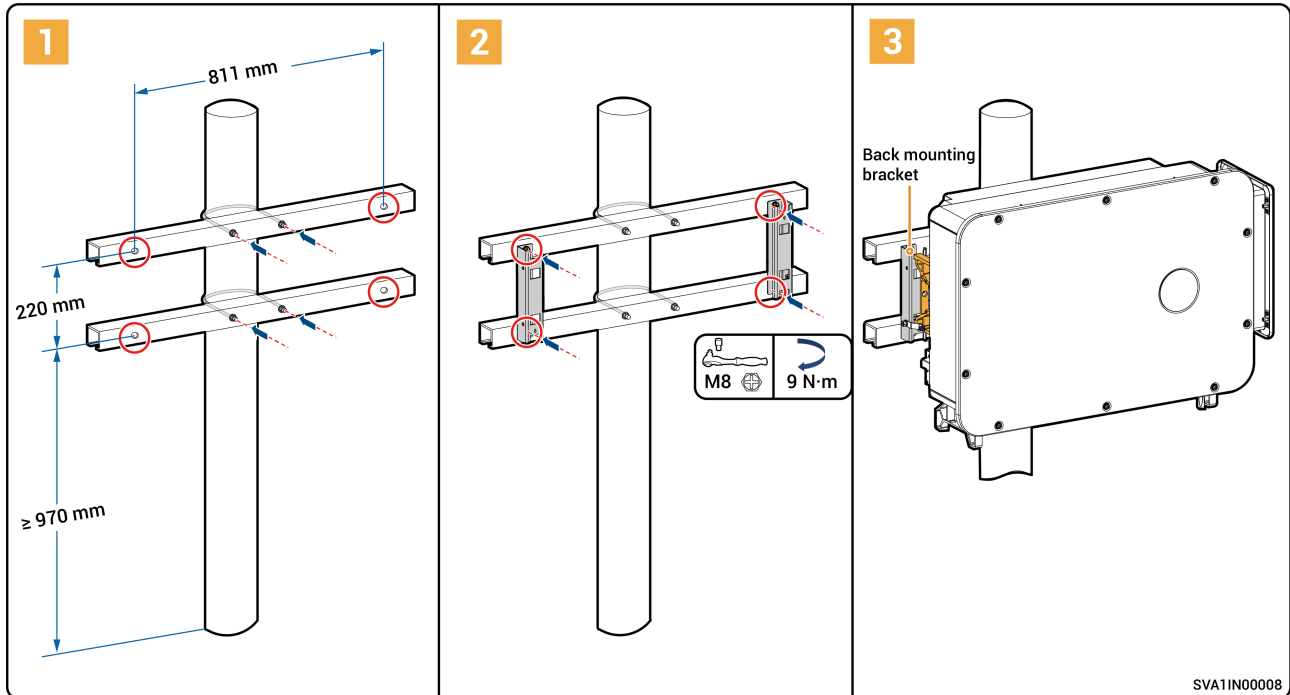


Secure the device to the back mounting bracket. For detailed operation steps, please refer to the steps of [Wall-Mounted Device Installation](#) **2** **3**.

4.4 Clamping Installation

Caution

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



Secure the device to the back mounting bracket. For detailed steps, please refer to the

Equipment Wall-Mounted Installation **2** **3** section.

Chapter 5 Cable Connection and Part Installation

5.1 Connection Relationships

Danger

- Before connecting the cables, please ensure the "DC SWITCH" is in the "OFF" position and the upstream switch of the AC cable is turned off.
- Do not perform operations on the device with power on. Before operation, please make sure all power supplies to the device have been disconnected, including but not limited to the grid side, inverter, and diesel generator power switches.
- The cable colors shown in the diagram are only used to distinguish different cable types. The actual cable colors used shall prevail. Power cables and signal cables must be tied separately.
- Do not leave construction residues, for example, cut cores of cables, in or around the device, such as, in terminals and in or around fans.
- Only models with a backup load port can be directly connected to the backup load. Models without a backup load port need to be connected to a Gateway first, and then connected to the backup load through the Gateway.
- Ports may have two different appearances. The actual unit received shall prevail.

Tips

For detailed operations on the SigenStack side, please refer to the Installation Guide for the corresponding model.

Appearance 1

Fig 5-1 Sigen PV (36~125) MI-HYB + Sigen Sensor

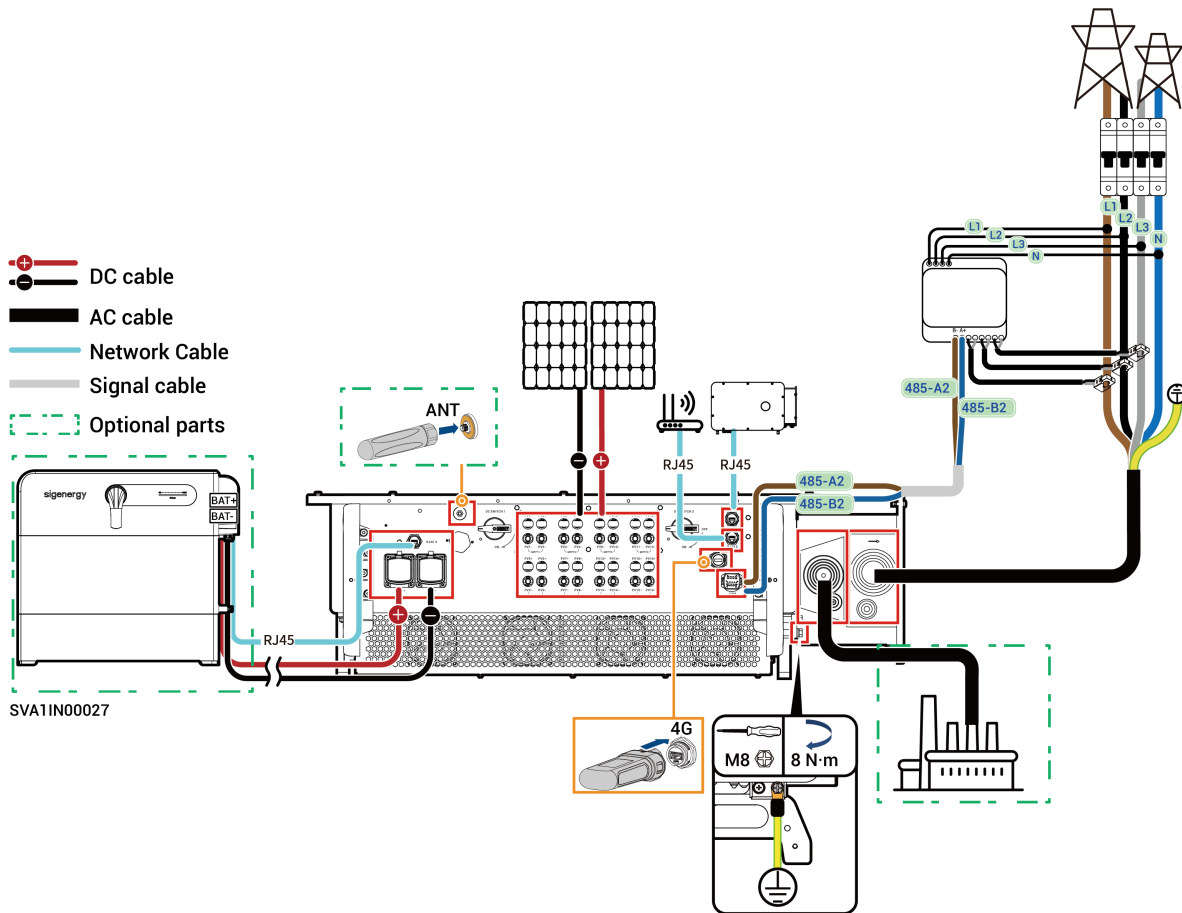
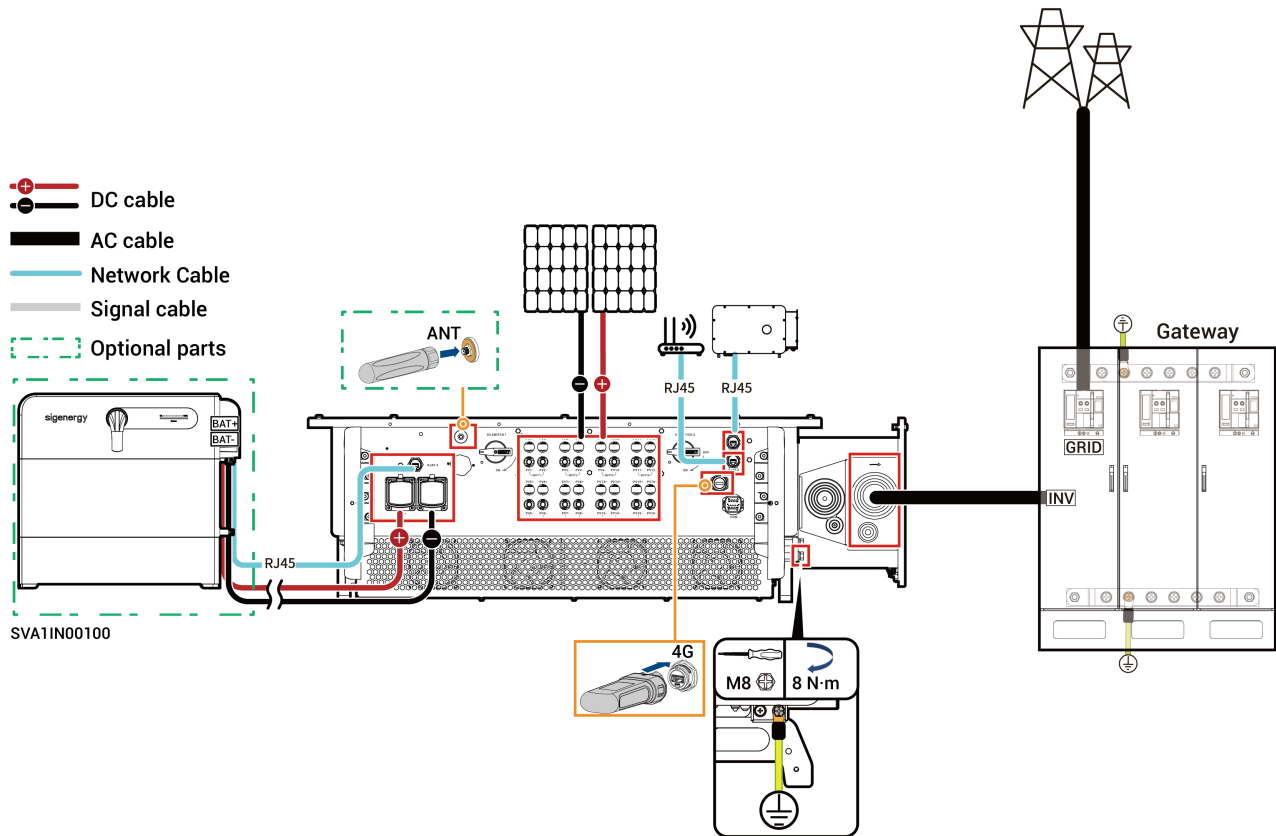


Fig 5-2 Sigen PV (36-125) MI-HYB + Sigen Gateway



Appearance 2

Fig 5-3 Sigen PV (36-125) MI-HYB + Sigen Sensor

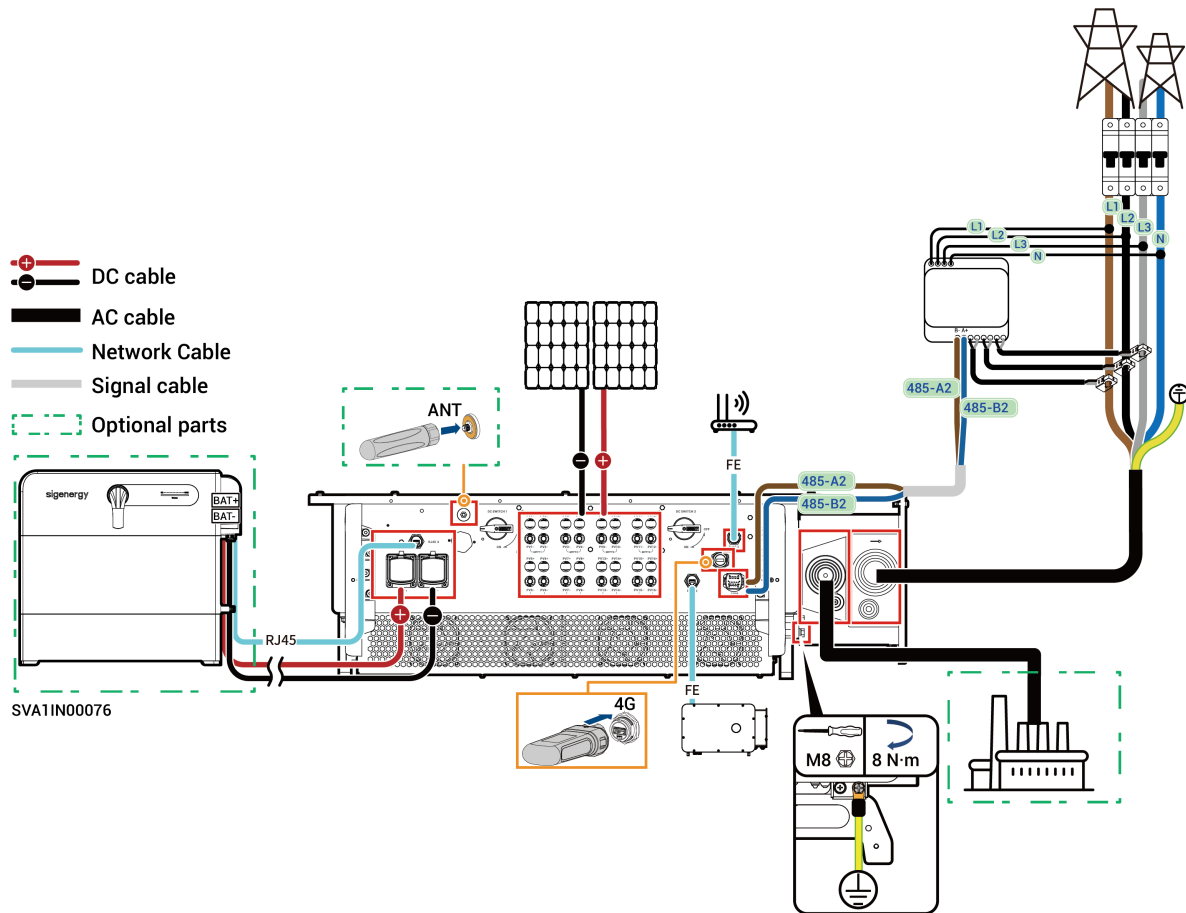
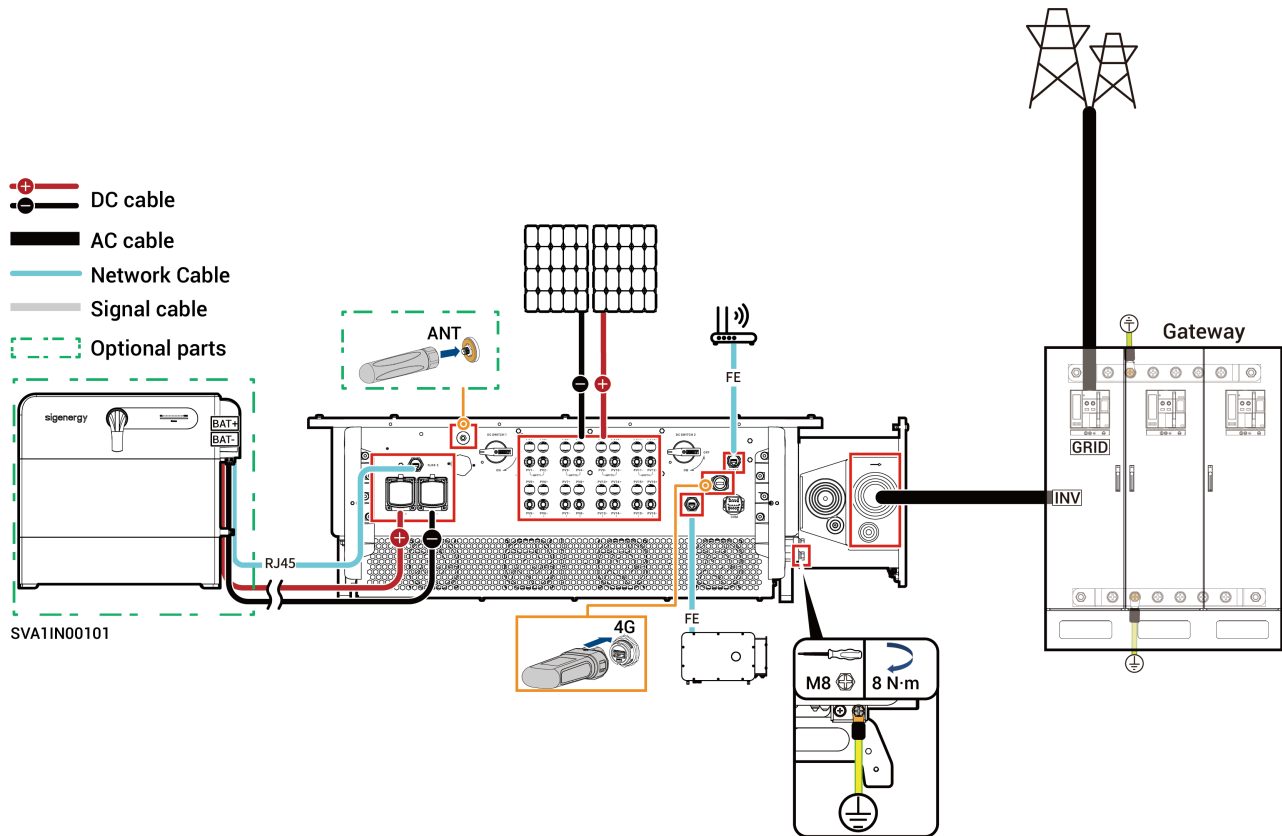


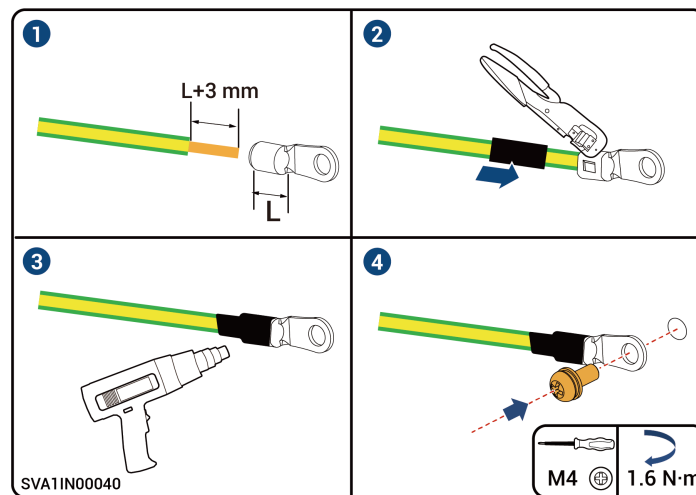
Fig 5-4 Sigen PV (36-125) MI-HYB + Sigen Gateway



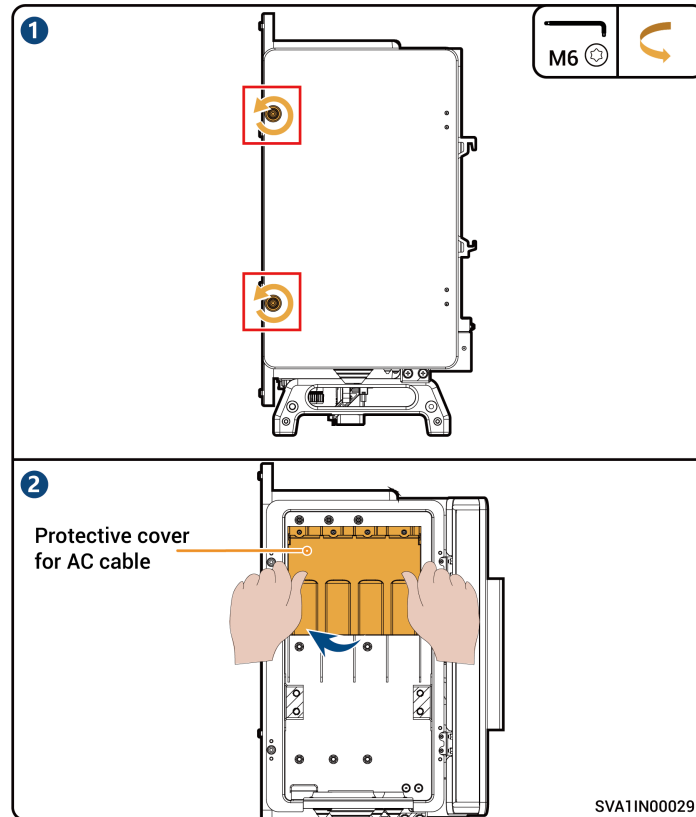
5.2 Casing Protective Ground Cable

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.
- It is recommended to ground the inverter near the end. The grounding points of all inverters in the same subarray need to be connected to each other to ensure that the grounding cables are connected at the same potential.



5.3 Removing the AC Protective Door



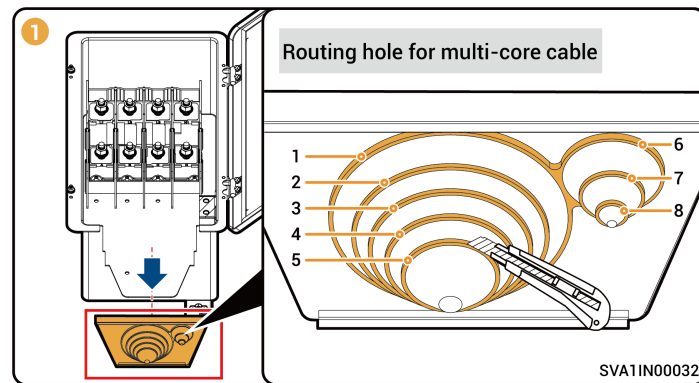
5.4 Backup Load Connection (Multi-core Cable)

Tips

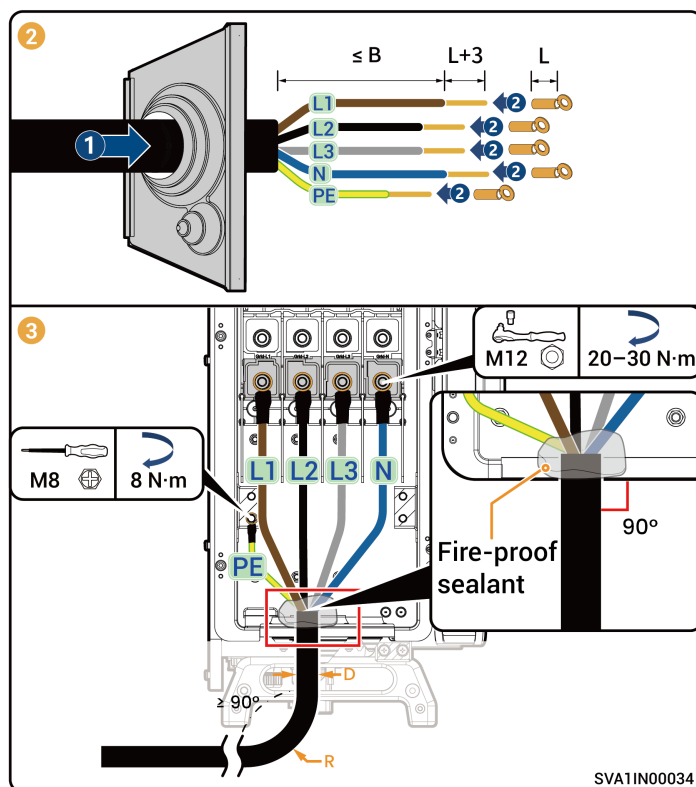
This document uses a five-core cable as an example to describe the wiring procedure. The wiring method for three-core and four-core cables is the same as that for the five-core cable.

⚠ 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.
- Route the cable through the cable guard plate first, then crimp the terminal.
- Apply fire-proof sealant if the seal is damaged or sealing failure occurs after cables are routed.



No.	Diameter of Routing Hole	Wire Diameter
1	74 mm	-
2	60 mm	64-66 mm
3	50 mm	55-64 mm
4	40 mm	46-55 mm
5	30 mm	32-46 mm
6	32 mm	28-32 mm
7	20 mm	21-28 mm
8	10 mm	14-21 mm



	L1	N	L2	L3	PE
B	≥290 mm		≥280 mm		≥140 mm
Unarmored			Armored		
R ≥ 15D			R ≥ 12D		

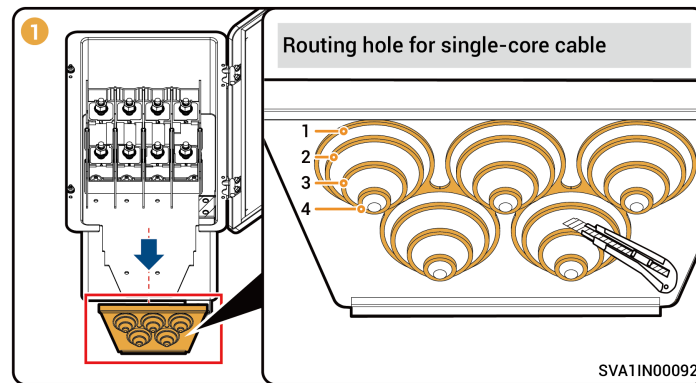
5.5 Backup Load Connection (Single-core Cable)

Tips

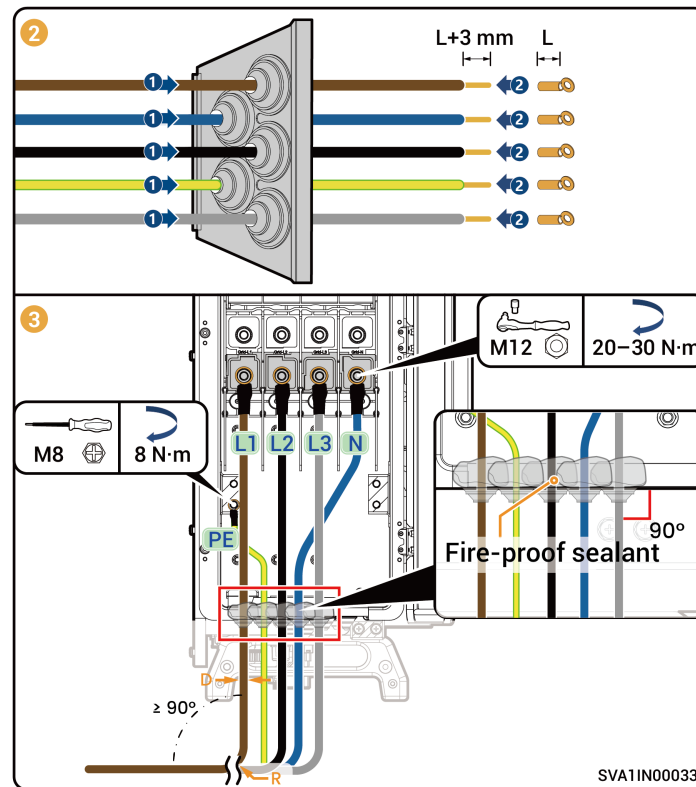
This document uses a five-core cable as an example to describe the wiring procedure. The wiring method for three-core and four-core cables is the same as that for the five-core cable.

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.
- Route the cable through the cable guard plate first, then crimp the terminal.
- Apply fire-proof sealant if the seal is damaged or sealing failure occurs after cables are routed.



No.	Diameter of Routing Hole	Wire Diameter
1	36.5 mm	–
2	30 mm	28–32 mm
3	20 mm	21–28 mm
4	10 mm	9–21 mm



Unarmored	Armored
$R \geq 20D$	$R \geq 15D$

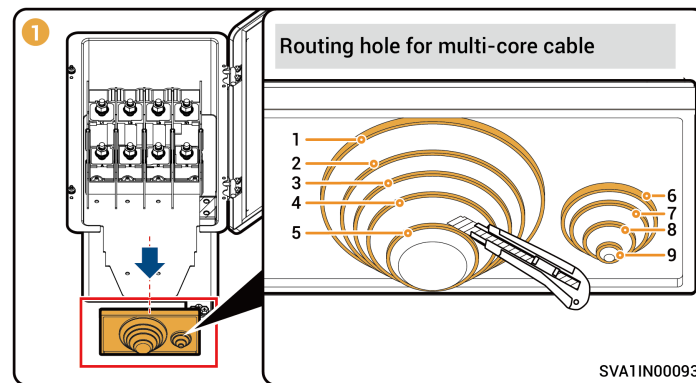
5.6 Grid Connection (Multi-core Cable)

Tips

This document uses a five-core cable as an example to describe the wiring procedure. The wiring method for three-core and four-core cables is the same as that for the five-core cable.

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.
- Route the cable through the cable guard plate first, then crimp the terminal.
- Apply fire-proof sealant if the seal is damaged or sealing failure occurs after cables are routed.



No.	Diameter of Routing Hole	Wire Diameter
1	82 mm	83–90 mm
2	72 mm	73–80 mm
3	60 mm	61–68 mm
4	50 mm	51–68 mm
5	40 mm	41–48 mm
6	34 mm	35–42 mm
7	27 mm	28–35 mm
8	17 mm	18–25 mm
9	7 mm	8–15 mm



	L1	N	L2	L3	PE
B	≥390 mm		≥380 mm		≥140 mm
Unarmored			Armored		
R ≥ 15D			R ≥ 12D		

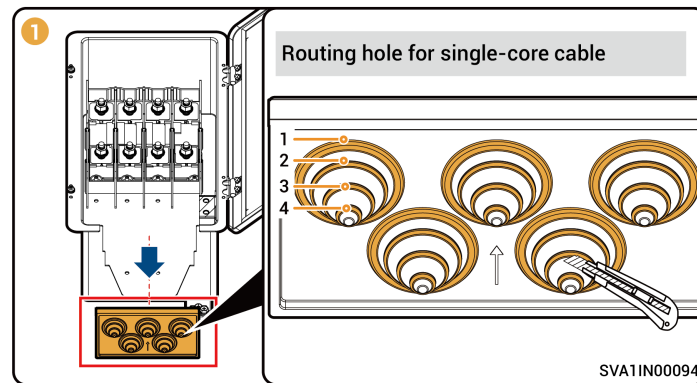
5.7 Grid Connection (Single-core Cable)

Tips

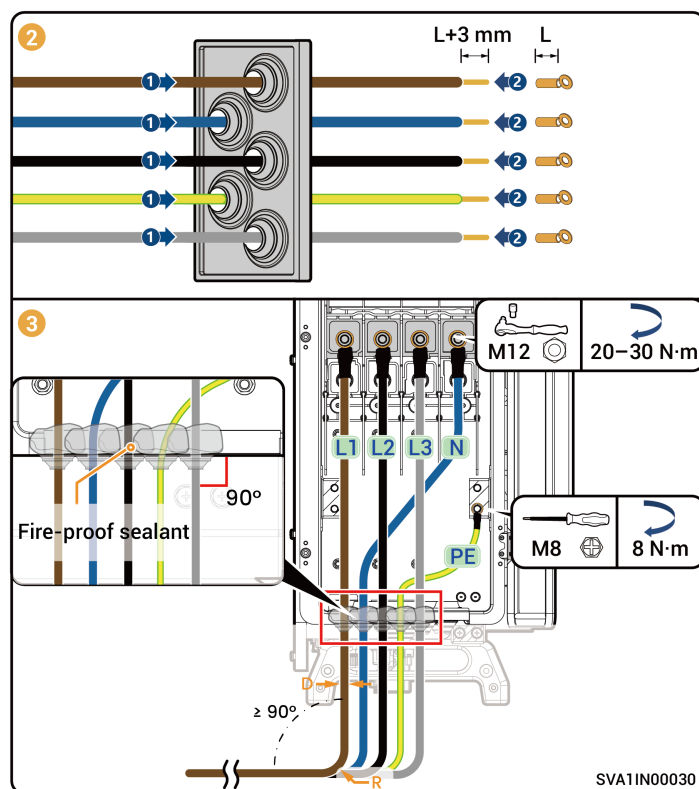
This document uses a five-core cable as an example to describe the wiring procedure. The wiring method for three-core and four-core cables is the same as that for the five-core cable.

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.
- Route the cable through the cable guard plate first, then crimp the terminal.
- Apply fire-proof sealant if the seal is damaged or sealing failure occurs after cables are routed.

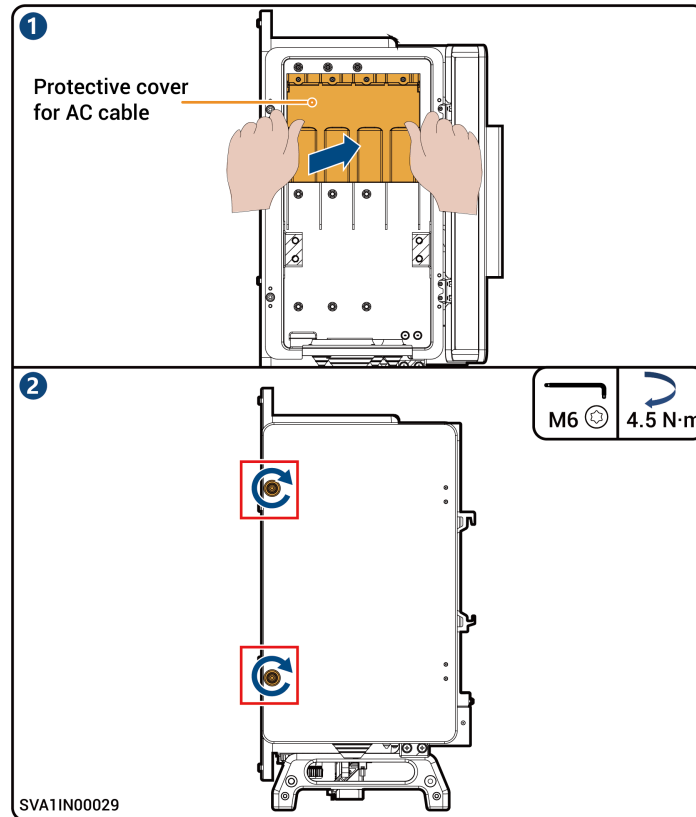


No.	Diameter of Routing Hole	Wire Diameter
1	35 mm	36–43 mm
2	27 mm	28–35 mm
3	17 mm	18–25 mm
4	7 mm	8–15 mm



Unarmored	Armored
R ≥ 20D	R ≥ 15D

5.8 Installing the AC Protective Door



5.9 Connecting DC Cable

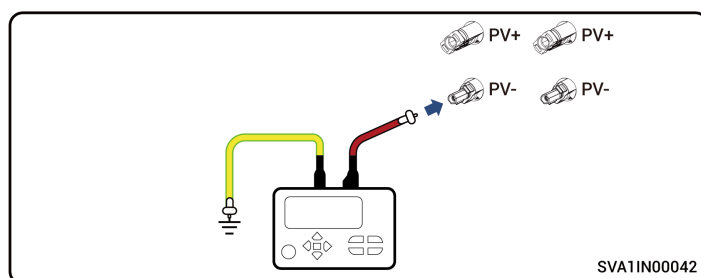
Tips

- Please make sure that the circuit breaker on the PV side is de-energized before connection.
- 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 device is operating, resulting in device damage. The device damage caused by this is not covered under the device warranty.

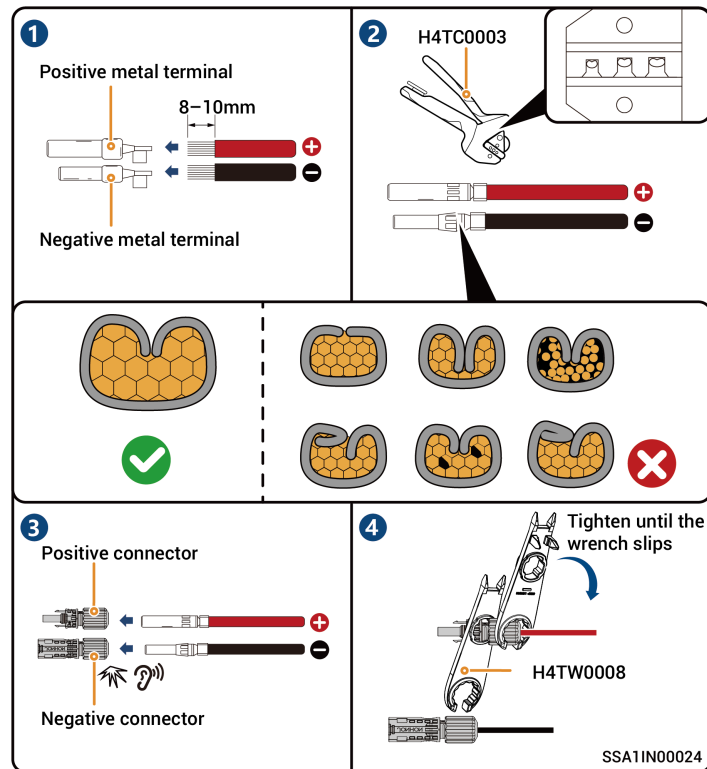
1

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 resistance tester to test the insulation resistance of the PV cable to the ground: Apply a 1000 Vd.c. voltage between the PV cable and the ground, and check the value of the insulation resistance.
 - If the insulation resistance is $\geq 1 \text{ M}\Omega$, it is normal.
 - If the insulation resistance is less than $1 \text{ M}\Omega$, you need to check the insulation problem of the cable/string.

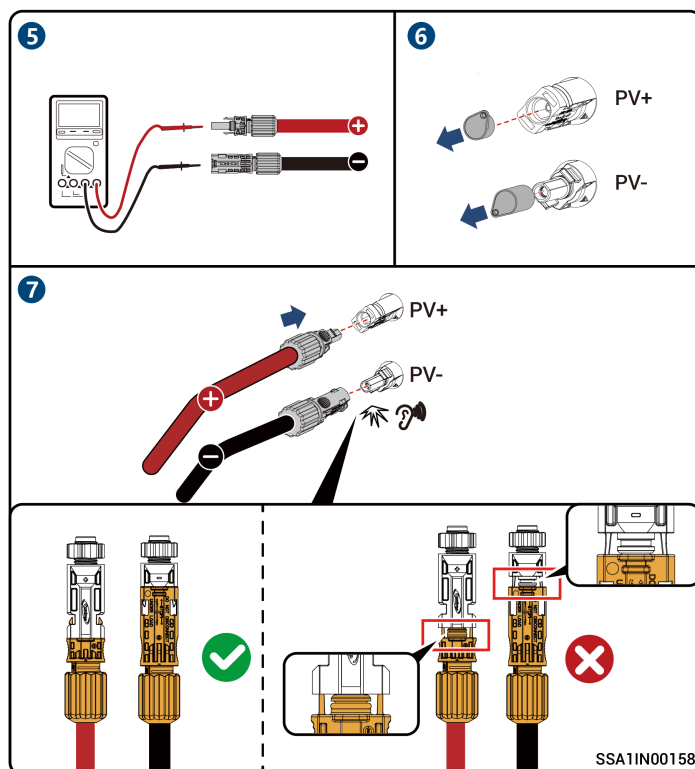


2



⚠ Caution

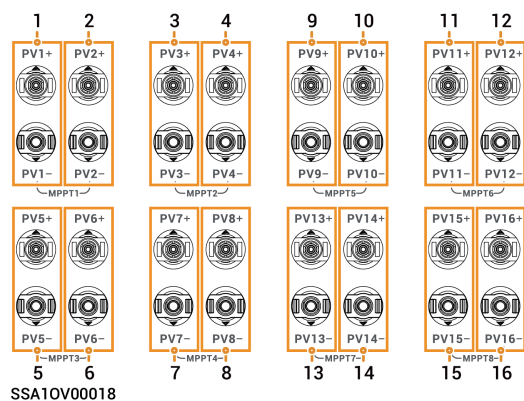
- If the voltage is negative, it represents a polarity error, please correct it in time.
- If the voltage exceeds the maximum allowable voltage, please reduce the number of components in the string. (The maximum allowable voltage can be found on the inverter label.)



3

Caution

- Please select the PV strings according to the product specifications listed in the table.
- PV string allocation principles: Give priority to connecting to PV9 to PV16. You should distribute PV strings as evenly as possible.
- 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

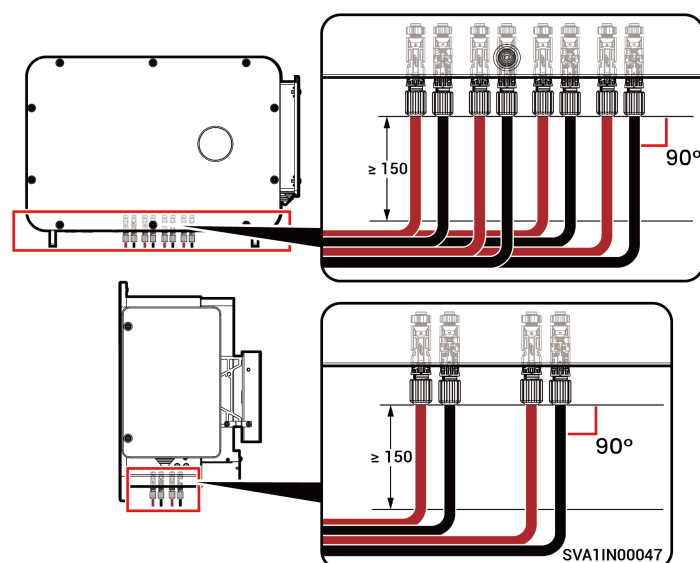
Power Range	Configuration of PV String
36/45/50 kW	Connect 8 strings (9, 10, 11, 12, 13, 14, 15, 16)
60 kW	Connect 10 strings (7, 8, 9, 10, 11, 12, 13, 14, 15, 16)
75/80 kW	Connect 12 strings (5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16)
99.9/99.99/100/110/125 kW	Connect 16 strings (1, 2, 3, 4, 5, 6, 7, 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
36/45/50 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
75/80 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

Power Range	Number of PV Strings	Configuration of PV String
75/80 kW	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
99.9/99.9 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

Bending requirements for DC cables

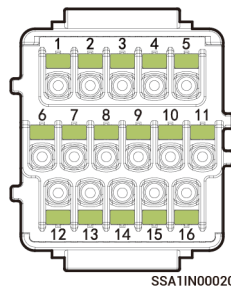


5.10 Signal Cable Connection

Tips

- Power sensors need to be purchased from our official channel.
- For the appearance and specific wiring of the power sensor, refer to the user manual shipped with the box.

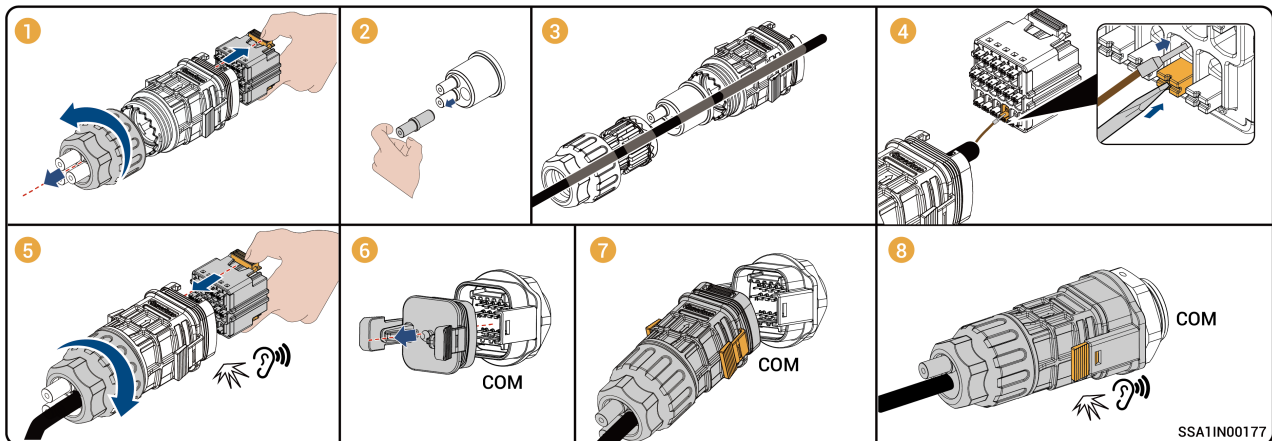
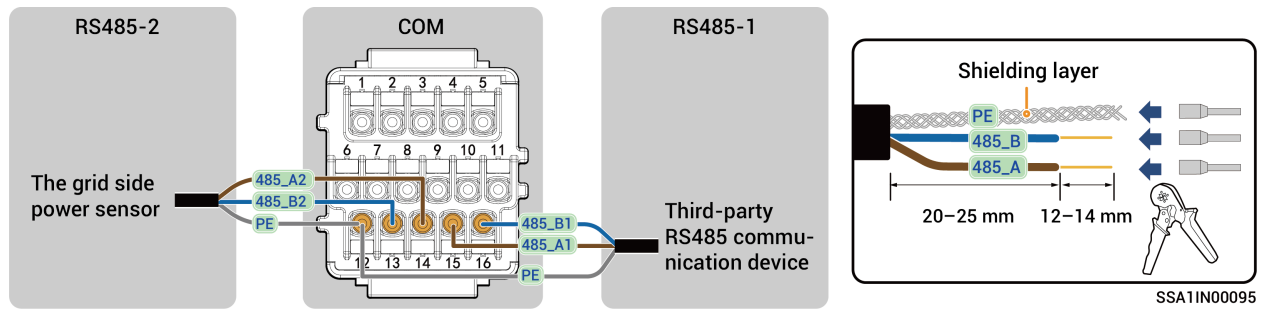
5.10.1 COM Port Description



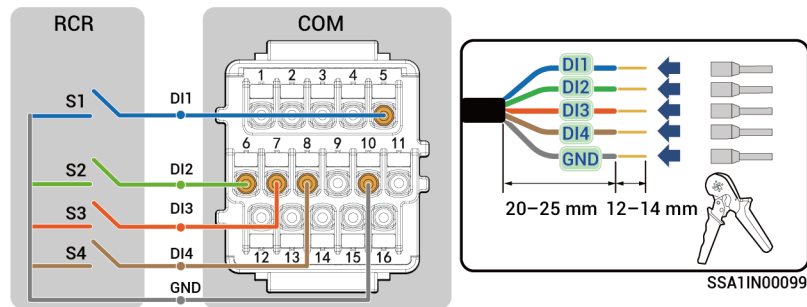
Pin No.	Pin Definition		Description	Sigen Sensor TP-CT300-DH (SDM630M CT 40 mA/300 A)	Sigen Sensor TP-CT600-DH (SDM630M CT V2/600 A)	Sigen Sensor TPX-CH (DTSU666)
1	DO1-COM	Dry contact 1 - common point	(Reserved) Supports signal voltage up to 12 V and signal current up to 1 A. Can be connected to third-party smart power equipment, such as switch controls and heat pumps. Or on-grid/off-grid control.	–	–	–
2	DO1-NO	Dry contact 1 - normally open		–	–	–
3	DO2-COM	Dry contact 2 - common point	(Reserved) DO2, used for connecting to a diesel generator.	–	–	–
4	DO2-NO	Dry contact 2 - normally open		–	–	–
11	DO2-NC	Dry contact 2 - normally closed		–	–	–
5	DI1	Digital input signal 1	Used for power scheduling, such as DRM, Ripple Control Receiver (RCR).	–	–	–
6	DI2	Digital input signal 2		–	–	–

Pin No.	Pin Definition		Description	Sigen Sensor TP-CT300-DH (SDM630M CT 40 mA/300 A)	Sigen Sensor TP-CT600-DH (SDM630M CT V2/600 A)	Sigen Sensor TPX-CH (DTSU666)
7	DI3	Digital input signal 3	Used for power scheduling, such as DRM, Ripple Control Receiver (RCR).	–	–	–
8	DI4	Digital input signal 4		–	–	–
10	GND	Signal GND	–	–	–	–
9	DI5	Digital input signal 5	Used to connect the rapid shutdown DI signal interface, serving as the signal cable port for the NS protection device and the emergency power off (EPO) button.	–	3cm –	–
13	RS485B2	RS485 signal 2_B-	RS485-2; used to connect to the grid connection point power sensor.	13	13	25
14	RS485A2	RS485 signal 2_A+		14	14	24
12	PE	PE signal-shield ground	RS485-1, used to connect third-party RS-485 communication devices, such as: environmental monitoring instrument (EMI), smart miniature circuit breaker, and third-party EMS controllers.	–	–	–
15	RS485A1	RS485 signal 1_A+		–	–	–
16	RS485B1	RS485 signal 1_B-		–	–	–

5.10.2 RS485 Signal Cable Connection

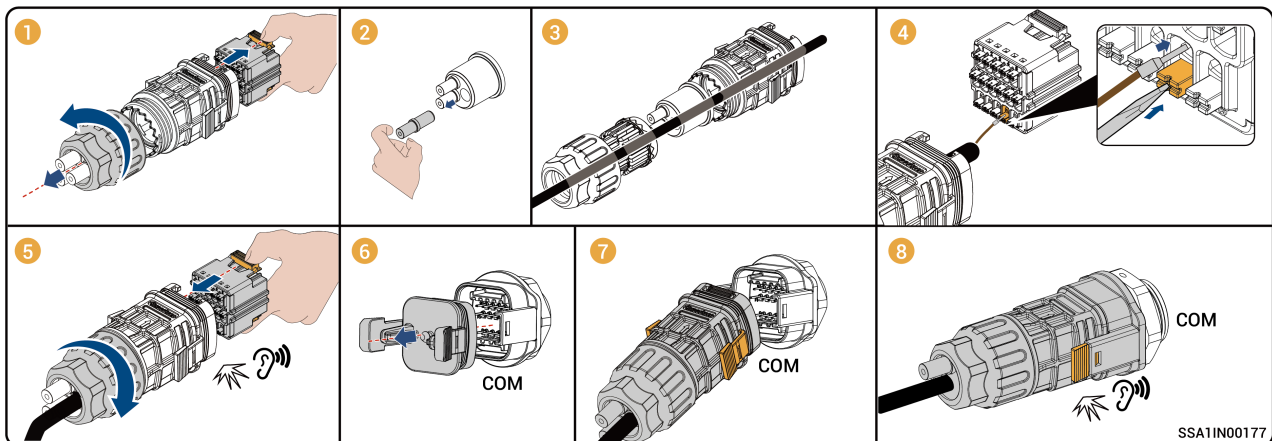


5.10.3 (Optional) Grid Scheduling Signal Cable Connection (Taking RCR as an Example)



Tips

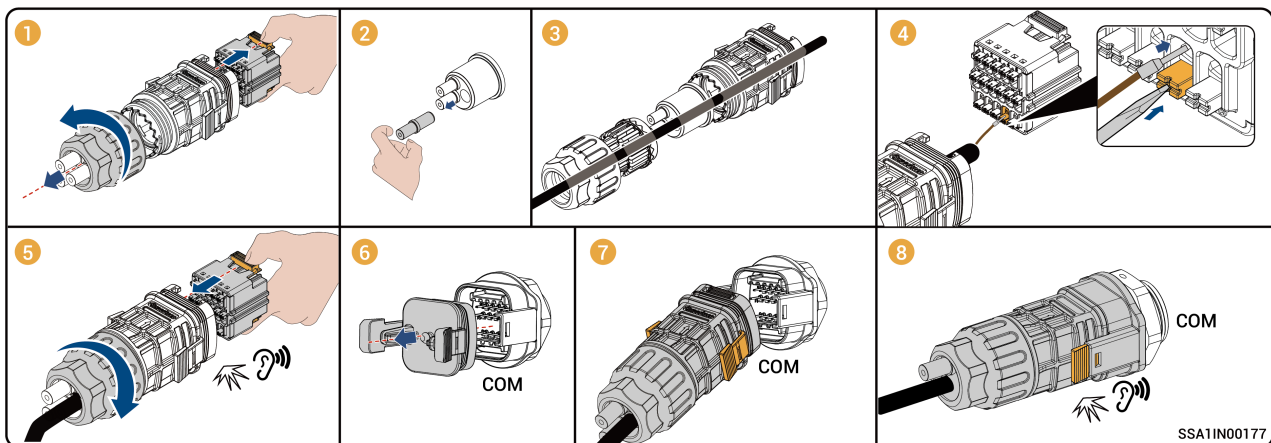
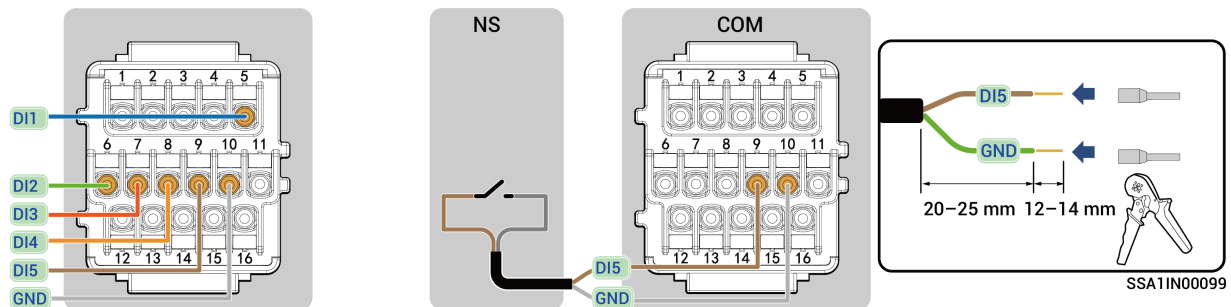
After a new system is created, you can use the mySigen App to configure parameters for dry-contact active or dry-contact reactive scheduling. For detailed steps, please refer to the [Grid Scheduling](#) section in the mySigen App Installer Manual.



5.10.4 (Optional) NS Protection Signal Cable Connection

Tips

- If DI1, DI2, DI3, DI4, DI5, and GND are not connected to other devices, an 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.



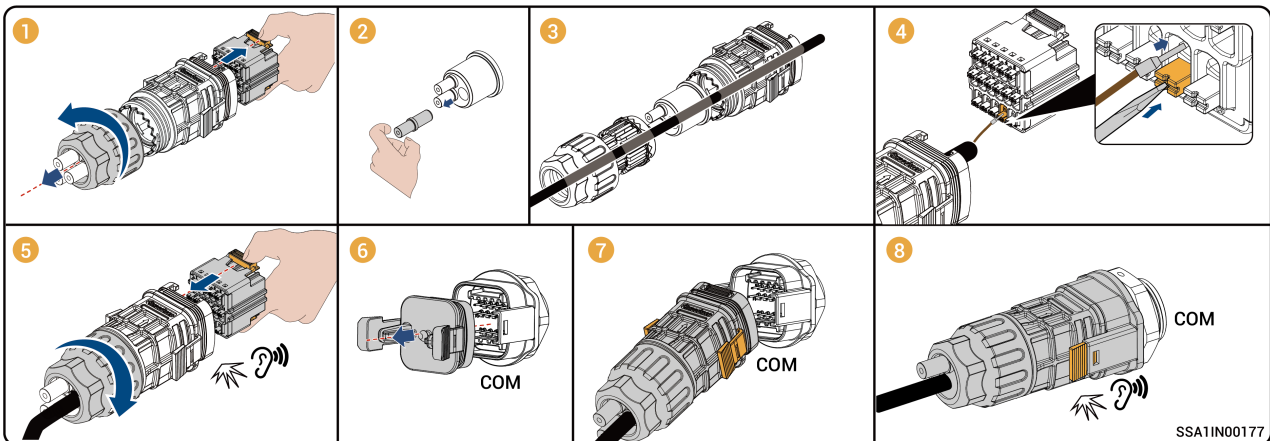
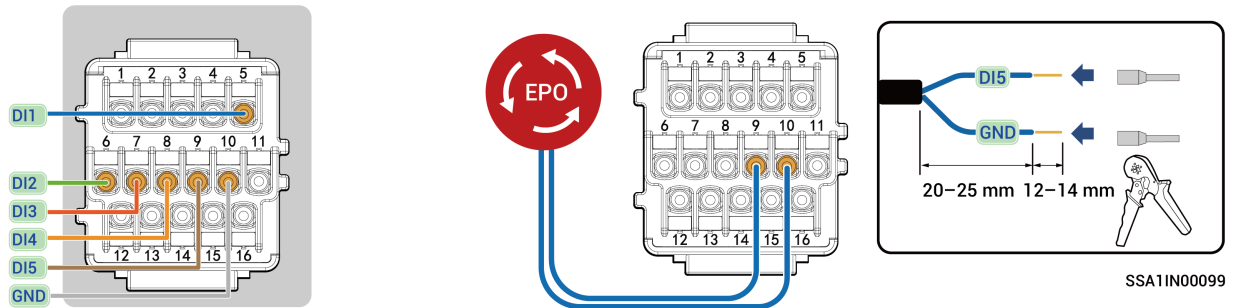
Tips

After a new system is created, you can use the mySigen App to configure NS protection parameters. For detailed steps, please refer to the [DI Customization](#) section in the mySigen App Installer Manual.

5.10.5 (Optional) Emergency Power Off (EPO) Button Connection

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.



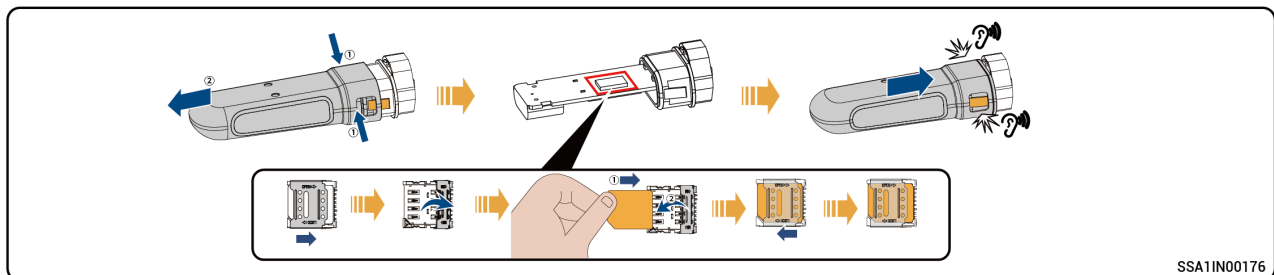
Tips

After a new system is created, you can use the mySigen App to configure EPO protection parameters. For detailed steps, please refer to the [DI Customization](#) section in the mySigen App Installer Manual.

5.11 (Optional) Replacing SIM Card of Sigen CommMod

Tips

- After the purchased CommMod's complimentary 4G data is used up, the SIM card needs to be replaced.
- Please replace the SIM card in the Sigen CommMod with a SIM card from the country or region where the device is located. Recommended data plan: $\geq 50 \text{ MB/month} \times N$. (Wherein, N is the number of inverters)

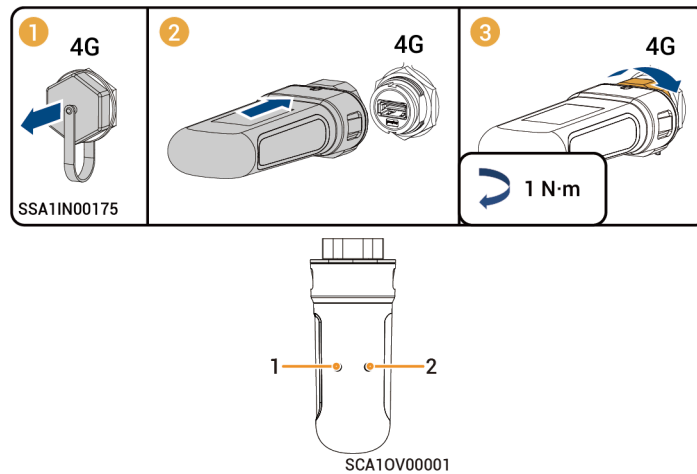


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5.12 (Optional) Sigen CommMod Installation

Tips

- When using 4G communication, Sigen CommMod shall be installed.
- To ensure reliable communication, rotate the Sigen CommMod clockwise for at least two full turns until it is securely tightened.

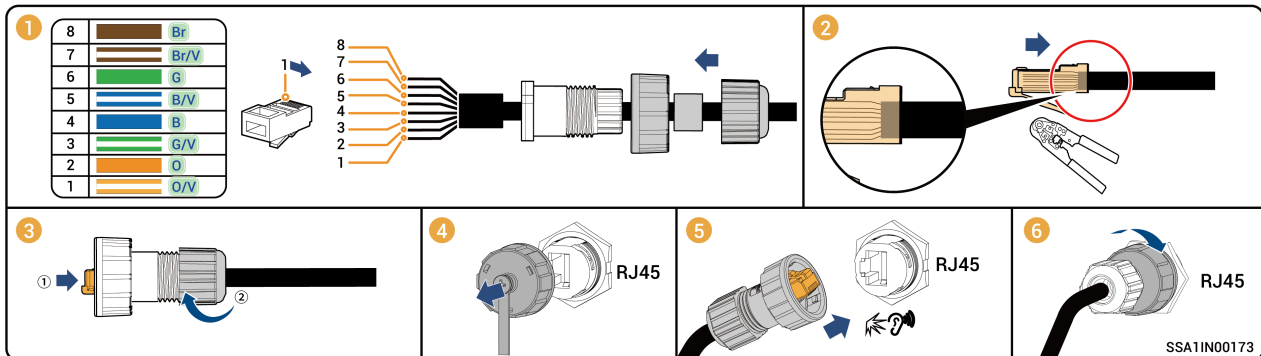


No.	Indicator	Description
1	Power indicator	–
2	Network status indicator	• Slow flashing (200 ms on/1800 ms off): Connecting to the network • Slow flashing (1800 ms on/200 ms off): On standby • Quick flashing (125 ms on/125 ms off): Data transfer in progress

5.13 RJ45 Network Cable Connection

Tips

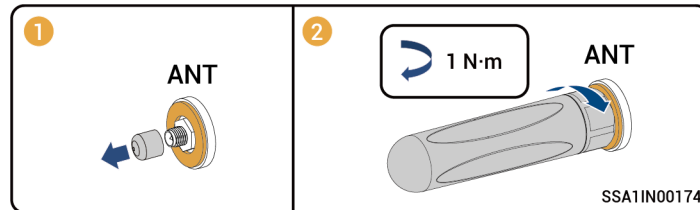
- The RJ45 network cable is an EIA/TIA 568B standard network cable.
- Two RJ45 Ethernet ports, one of which is connected to the router, and the other is connected to other devices (e.g., inverters, gateways, etc.).



5.14 WLAN Antenna Installation

Tips

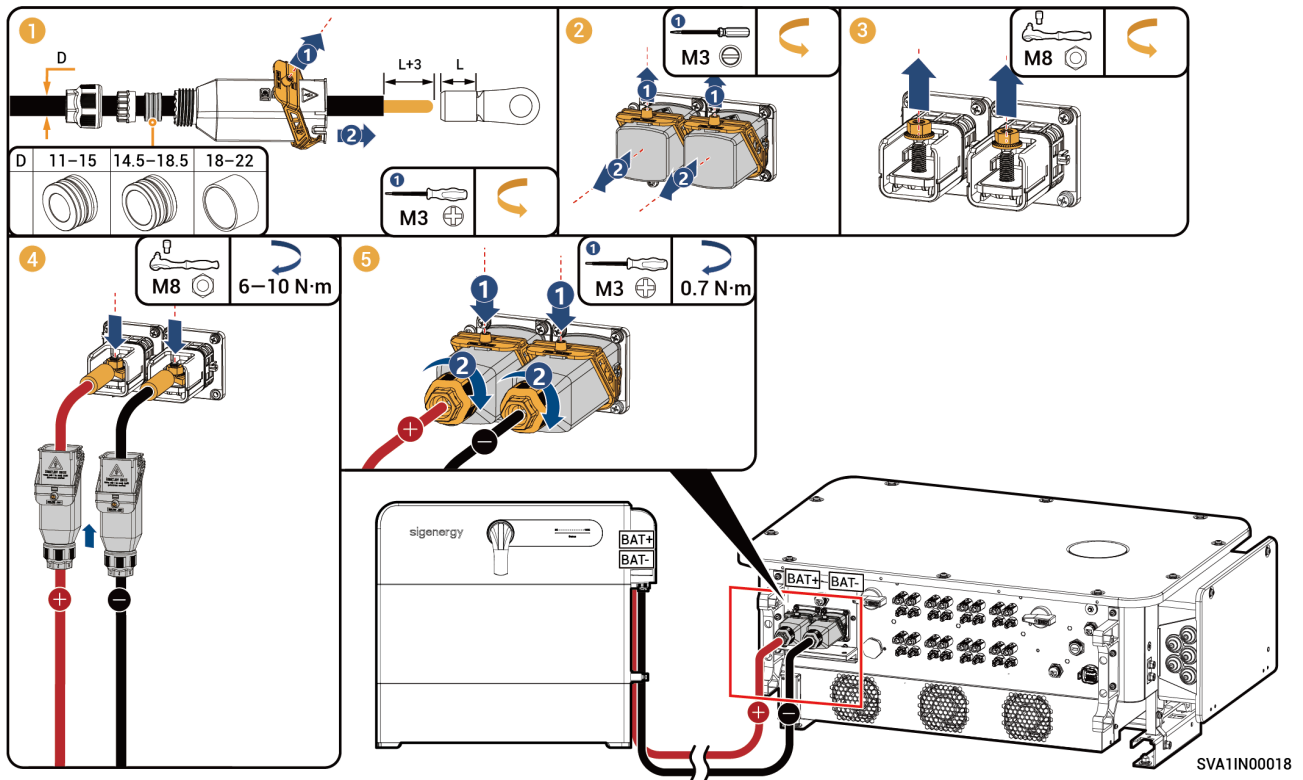
- When using WLAN communication, an antenna shall be installed.
- To ensure good communication, the antenna must be tightened clockwise. The antenna rod is tightened up when it cannot be easily turned counterclockwise.



5.15 (Optional) SigenStack DC Cable Connection

Tips

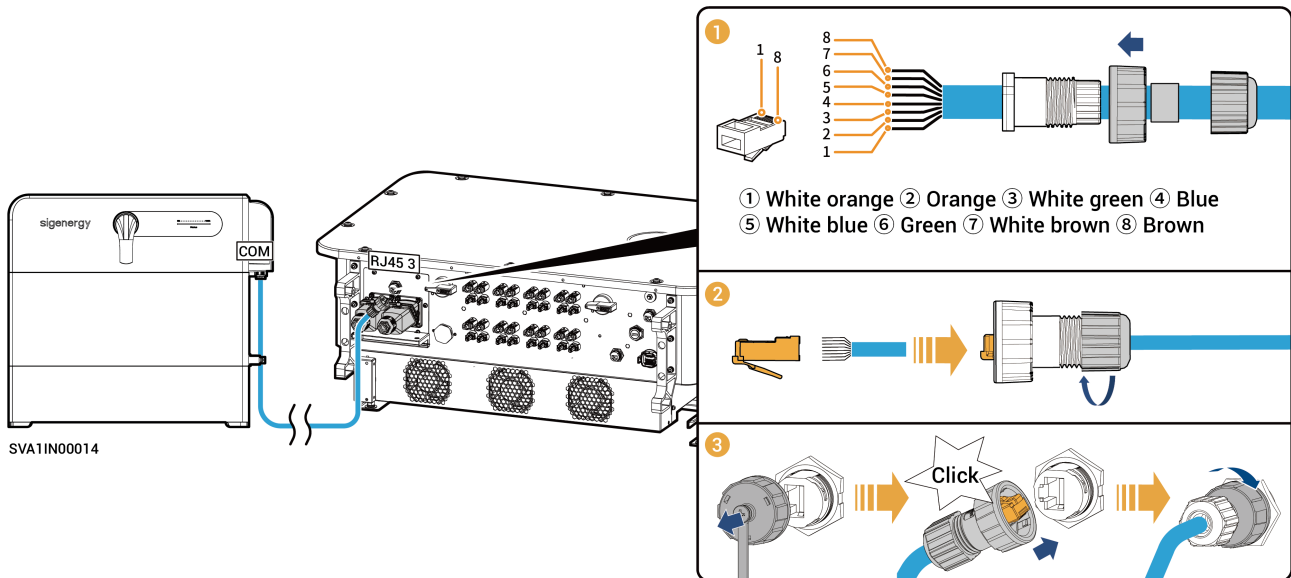
- If you need to configure SigenStack, perform this step; otherwise skip this step.
- For specific operations on the SigenStack side, please refer to the Installation Guide for the corresponding model.



5.16 (Optional) SigenStack Network Cable Connection

Tips

- If you need to configure SigenStack, perform this step; otherwise skip this step.
- For specific operations on the SigenStack side, please refer to the Installation Guide for the corresponding model.

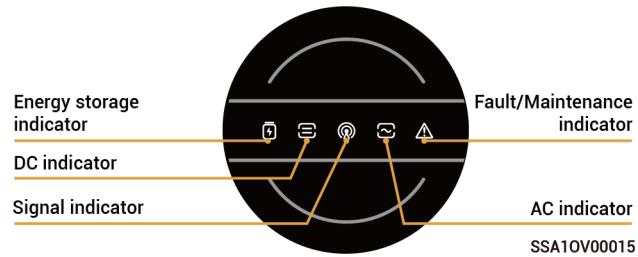


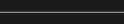
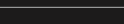
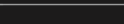
Chapter 6 Inspections After Installation

No.	Check Item
1	The equipment is securely installed.
2	Grounding cables, AC cables, and signal cables are properly connected without omission.
3	All screws and terminal blocks on the device have been installed and are secure.
4	Cutouts of cable ties are free of burr or sharp edges.
5	"DC SWITCH" is in the "OFF" state.
6	Unused ports are protected with water-proof covers or water-proof plugs.
7	No construction residue inside and outside the equipment.

Chapter 7 Equipment Power-on

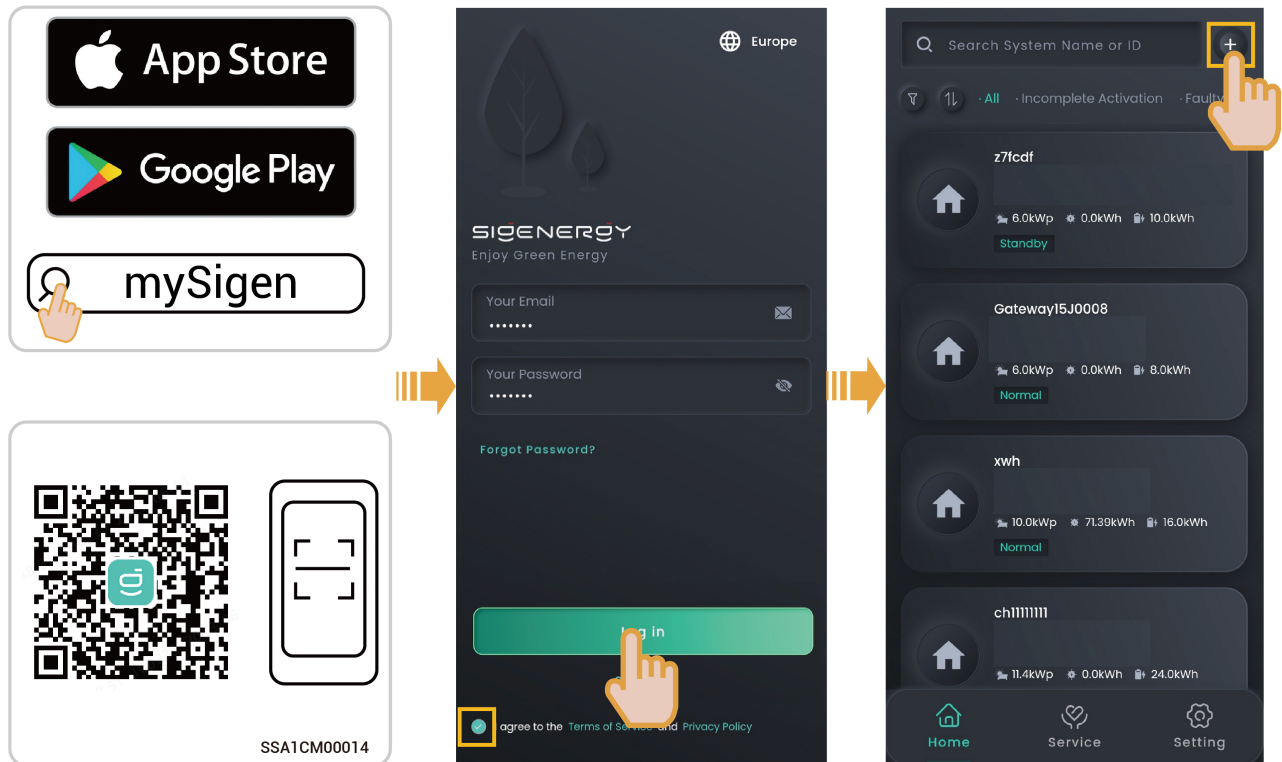
1. Turn on the upstream AC switch.
2. Rotate the "DC SWITCH" to the "ON" position.
3. Observe the status of the indicator on the front of the inverter to understand the device status.



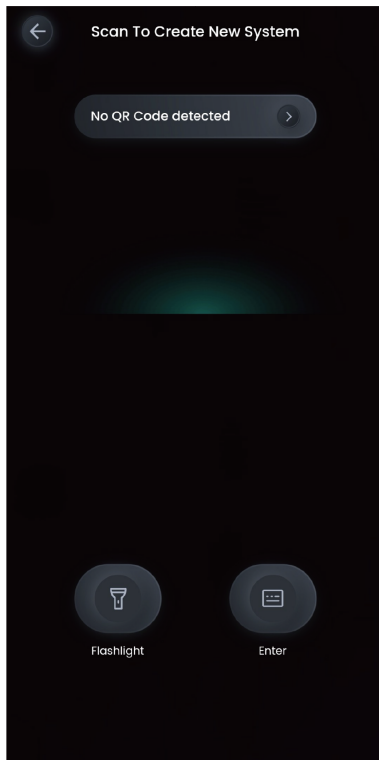
Indicator	Color	State	Description
		-	All SigenStacks lie dormant.
		Breathing blink	All SigenStacks are connected but not running.
		Always on	SigenStack neither charges nor discharges.
		Flash	SigenStack is charging.
		Flash	SigenStack is discharging.
		Always on	SigenStack disconnected.
		Always on	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.
		-	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.
		Always on	Bypass mode. The grid supplies power to the load.
		-	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.
		Always on	Proximity password reset in progress.
		Flash	Ethernet port 1/2 abnormality
		-	No alarms and no local maintenance operations.

Chapter 8 Downloading mySigen App and Creating a New System

1. Please visit <https://www.sigenenergy.com> and go to "Partner" → "Register Now" and sign up for your account.
2. Download the mySigen app to create a new system for the equipment. 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.

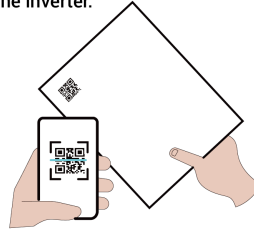


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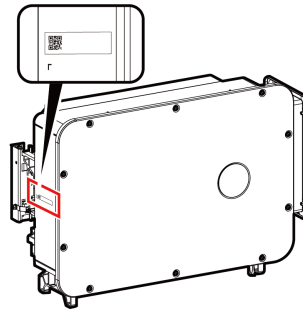


MSA1CM00122

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



or



3. An installer should ask the owner to check the email titled "sigencloud" to activate the account within 24 hours after creating a new system.