

SigenStor Home Installation Guide

Single-phase System A1

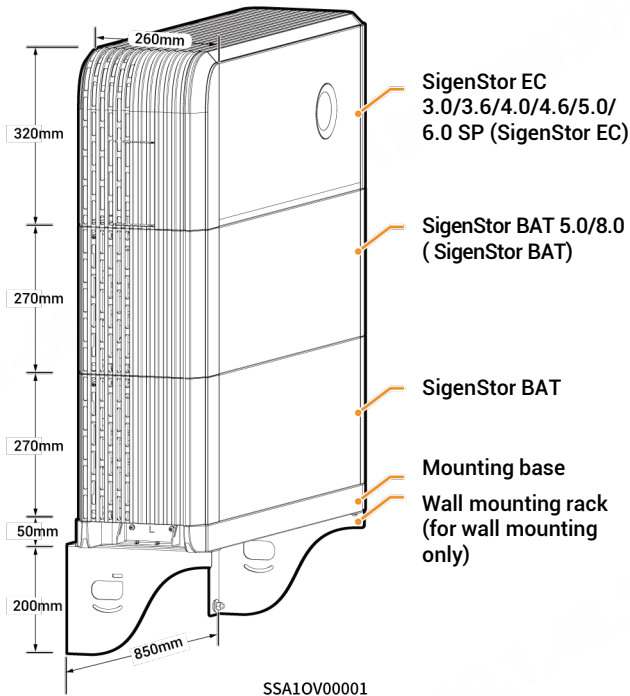


⚠ Caution

- Trained or experienced electrical personnel are required to operate the equipment.
- Operators should be familiar with national/regional laws, regulations and standards, the structure and working principle 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 Introduction to Single-phase System

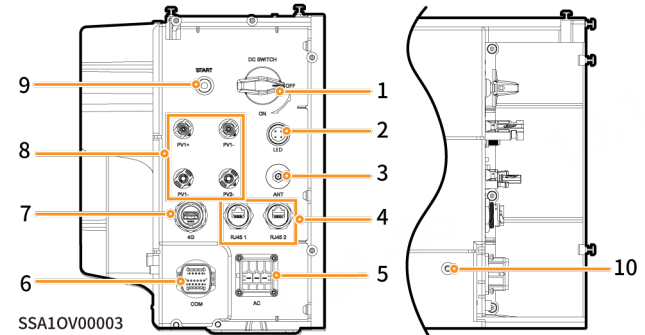
1.1 Appearance and Dimensions



1.2 Ports

SigenStor EC (left side view)

SigenStor EC (rear view)



Serial number	Name	Marking
1	DC switch	DC SWITCH
2	Decorative cover light strip connector	LED
3	Antenna interface	ANT
4	Cable interface	RJ45 1/ RJ45 2
5	AC output interface	AC
6	Communication interface	COM
7	Sigen CommMod interface	4G
8	DC input interface	PV1+ / PV2+ / PV1- / PV2-
9	Switch button	START
10	Ground screw	-

2 Pre-installation Check

- According to the packing list, check whether the components are complete and in good appearance. If any abnormality occurs, contact your sales agent in time.
- Check personal protective equipment and installation tools to ensure that they are complete; if not, please make them up.
- Check the customer-provided cable to ensure that the quantity and specifications are correct; if not, prepare again.

Protective equipment



Safety hat



Goggles



Dust mask



Protective gloves

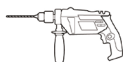


Insulating gloves



Insulated shoes

Installation tool



Power drill



Vacuum cleaner



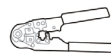
Rubber mallet



Marker



Wire cutter



Hydraulic pliers



Crimping pliers



Wire stripper



Scissors



Heat shrinkable sleeve



Heat gun



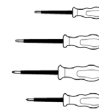
Cable tie



Crane
(used when SigensTor
BAT ≥ 3 units)



Stainless steel covered plastic steel rope (bearing: ≥ 250 kg)
Diameter: 3mm



Insulation screwdriver set sleeve



Insulation sleeve set



Torque socket wrench

Customer-provided cable

Serial number	Cable name	Recommended specification	Serial number	Cable name	Recommended specification
1	Protective ground cable	Cross-sectional area of conductor: 5.26mm ²	2	AC output cable	Three-core outdoor copper cable (L, N, PE) Cross-sectional area of core conductor: 5.26mm ² ; External diameter: 10-21mm
3	RS485 signal cable	Outdoor cable or two-core shielded twisted pair cable Cross-sectional area of core conductor: 0.129-0.518mm ² External diameter: 4.8-6.20mm	4	RJ45 cable	Outdoor shielded twisted pair cable Cross-sectional area of conductor: 0.129-0.205mm ² External diameter: 4.5-7.5mm
5	DC input cable	Outdoor photovoltaic cable Cross-sectional area of conductor: 3.31-5.26mm ² ; outer diameter of cable sheath: 4.5-7.8mm			

3 Equipment Installation

3.1 Site Selection Requirements

Installation environment

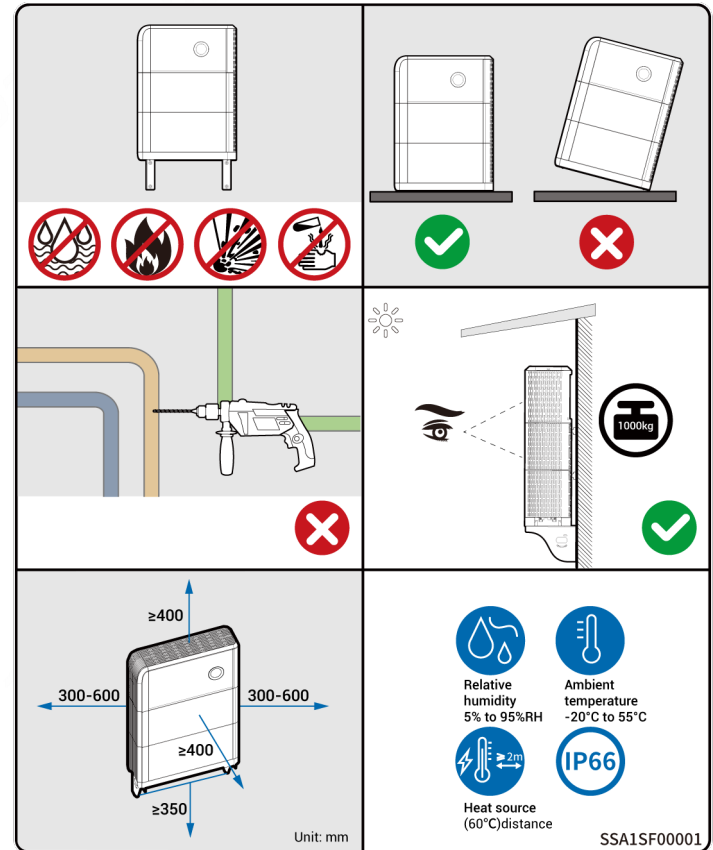
- Do not install the equipment in smoky, flammable, explosive, or corrosive environments.
- Do not install the equipment outdoors in areas prone to salt damage area, which are located less than 500 meters from the coastline or affected by sea wind.
- Do not install the equipment in environments exposed to direct sunlight, rain, standing water, snow accumulation, sand, and dust. It is recommended to install in a sheltered location. If the area is susceptible to natural disasters such as floods, landslides, earthquakes, or typhoons, take preventive measures during equipment installation.
- Do not install the equipment in environments with electromagnetic interference.
- Ensure that the temperature and humidity of the installation environment comply with the equipment's requirements.

Installation position

- Do not tilt or overturn the equipment to ensure that it is installed horizontally.
- Do not install the equipment in a place easily touched by children.
- Do not install the equipment in places with fire or damp (including but not limited to kitchen, tea room, toilet, shower room, laundry room, etc.).
- Please keep away from the daily work and living places (including but not limited to living room, bedroom, studio, lounge, study, etc.)
- Do not install the equipment in areas with difficult access (including but not limited to attic, basement, etc.).
- Do not install the equipment in mobile scenarios such as RVS, cruise ships, and trains.
- You are advised to install the equipment in a position that is easy to operate, maintain, and view indicator status.
- When installing the equipment in the garage, do not install the equipment in the position where the vehicle passes through to avoid collision.

Mounting surface

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

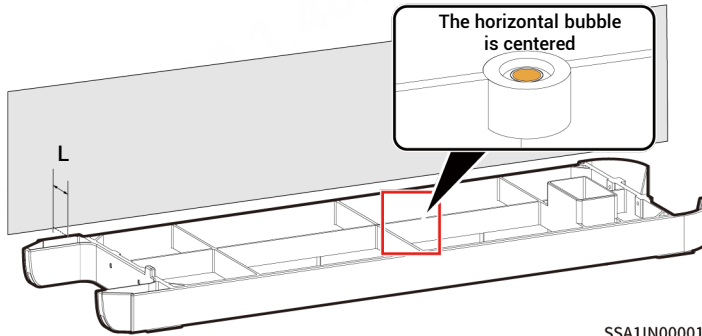


Tips


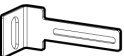
- At least two people are required to install the equipment.
- Up to six SigenStor BATs are supported for floor installation and up to three for wall installation.
- When installing four or more SigenStor BATs on the floor, use the crane tool.
- Multiple SigenStor BATs can be installed onsite based on the actual configuration.
- If there is water on the floor, install it on the wall.
- The equipment is heavy, do not slip off when handling the equipment to avoid the equipment falling and injuring the operator.
- SigenStor BAT is forbidden to be used after falling, please buy a new one.

3.2 Floor Installation

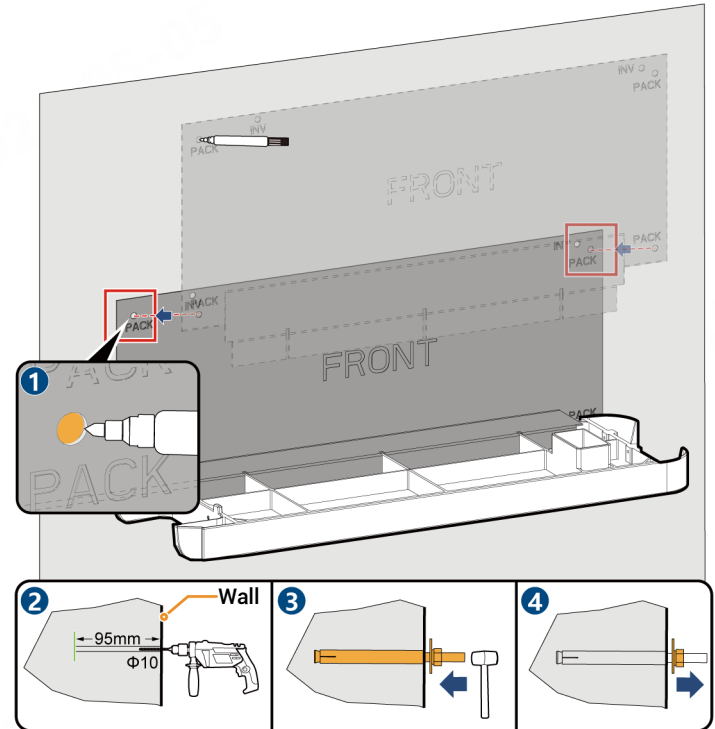
- 1 If the horizontal bubble is not centered, use a leveling gasket to level it.



SSA1IN00001

Wall fastener	Length of wall fastener	L
	68.5mm	25-43mm
	85.5mm	52-70mm

- 2 Follow the steps on the underlined template. PACK is the punch point for SigenStor BAT, and INV is the punch point for SigenStor EC.

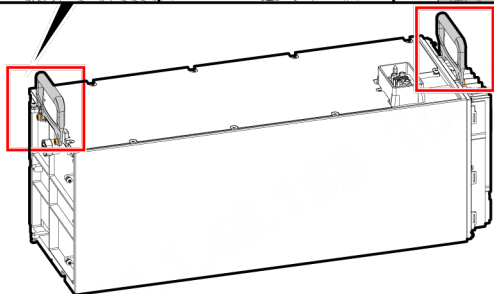
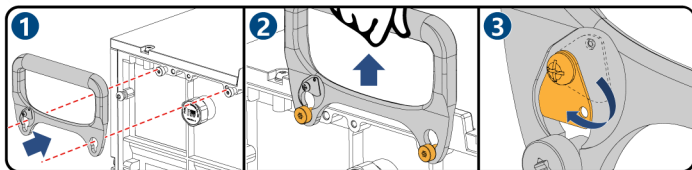


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Tips

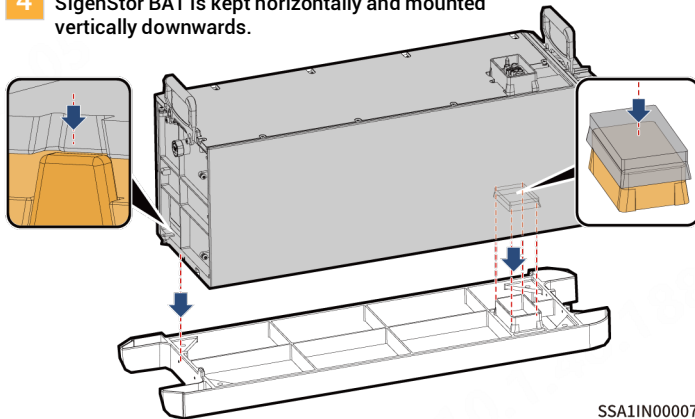
After installing the expansion bolt on the wall, remove the nut and store it properly for later use.

- 3** Before installing the handle, ensure that the screws on the SigenStor BAT are secured.



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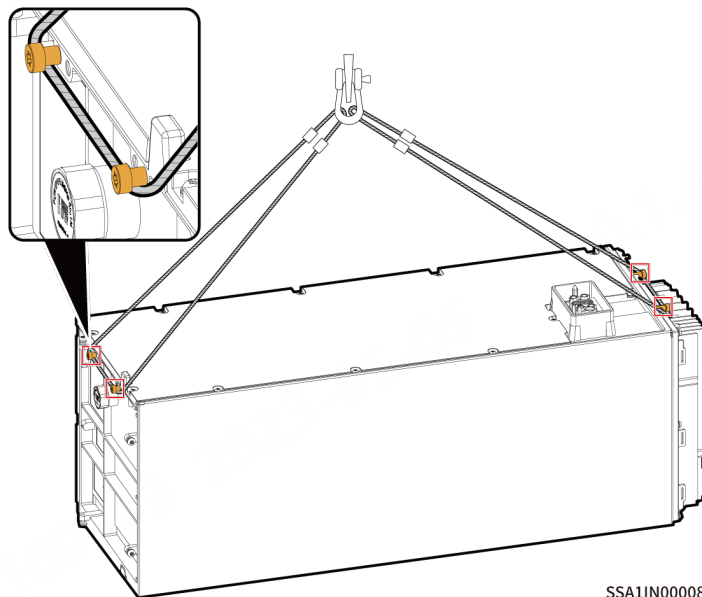
- 4** SigenStor BAT is kept horizontally and mounted vertically downwards.



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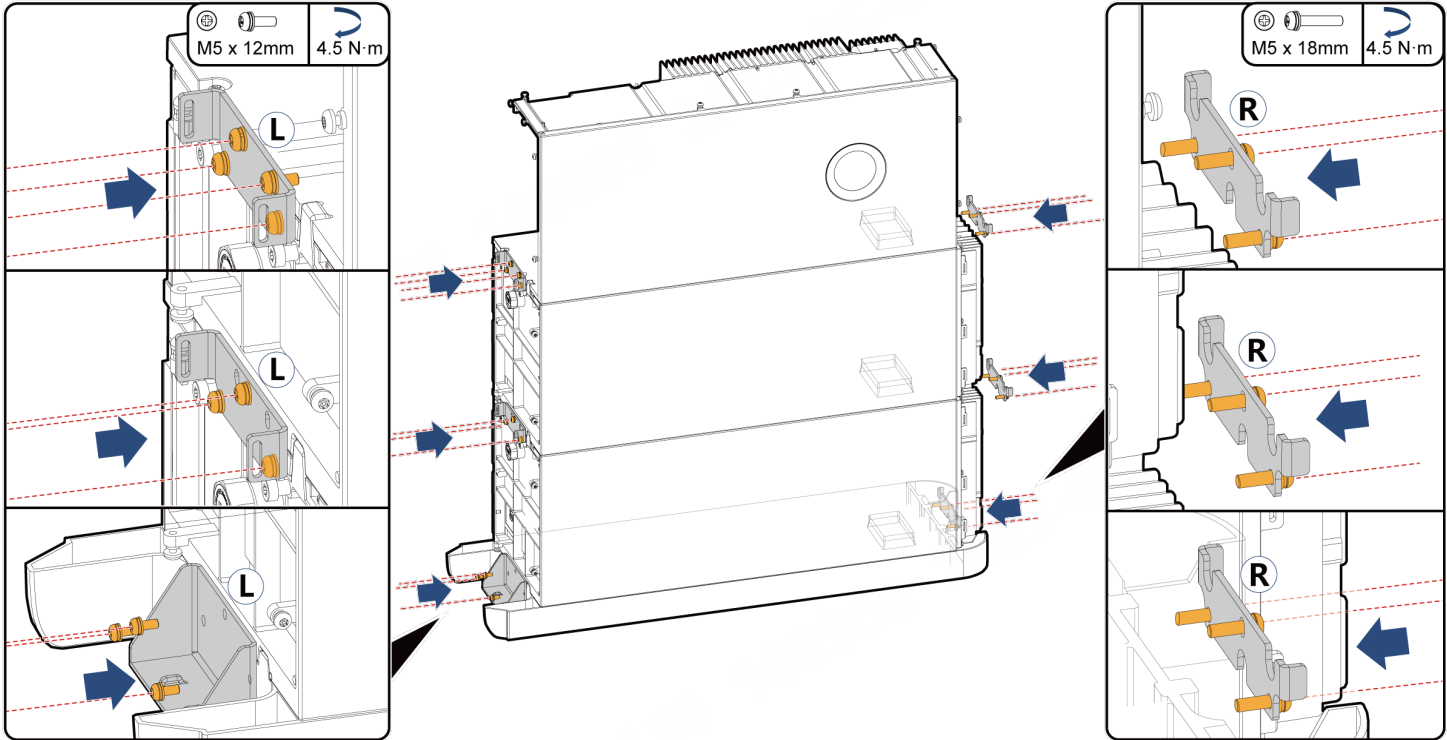
- 5** For details about how to place the second and third SigenStor BATs, see Steps **3** **4**

- 6** (Optional) If four or more SigenStor BATs are to be installed, use a crane tool. For details about the hoisting rope binding scheme, see the figure.



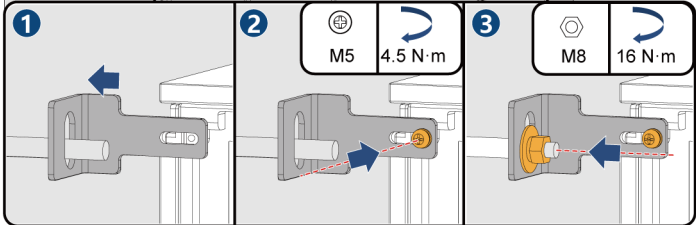
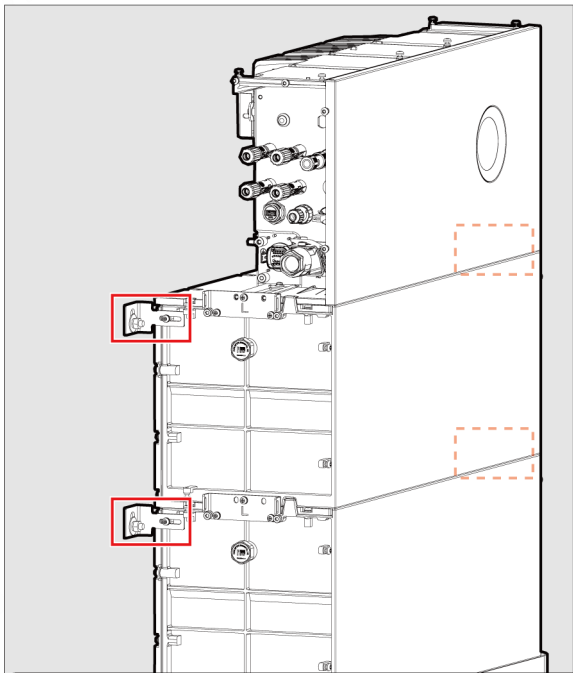
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- 7** For details about how to place SigenStor EC, see Step **4** .



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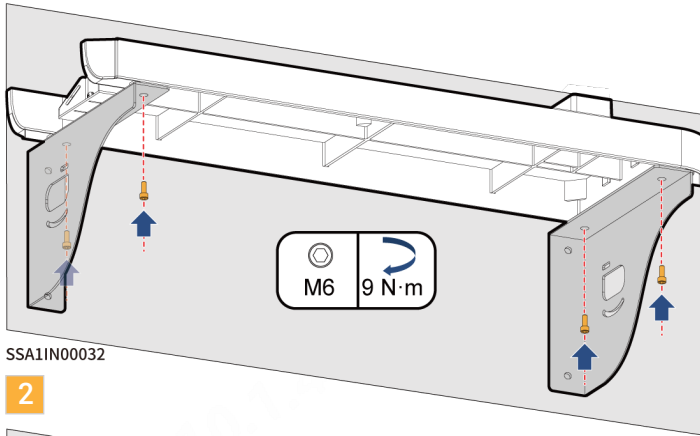
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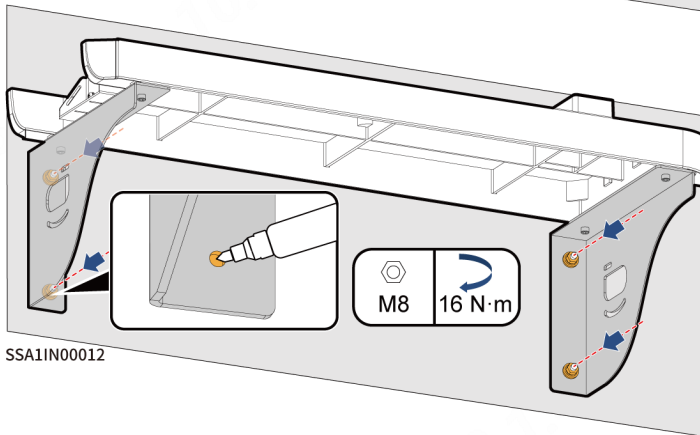
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3.3 Wall Installation

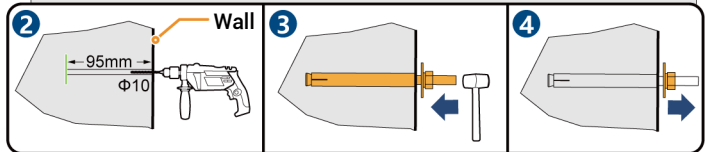
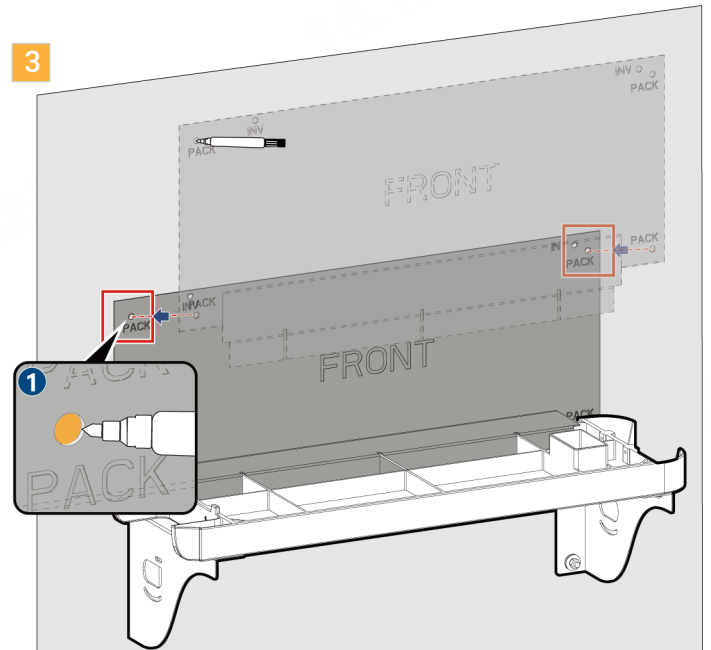
1



2



3



4 For details about how to place the SigenStor BAT, see Steps 3 4 of 3.2 Floor installation.

5 For details about how to fix the equipment, see Steps 5 6 7 of 3.2 Floor installation.






4 Cable Connection

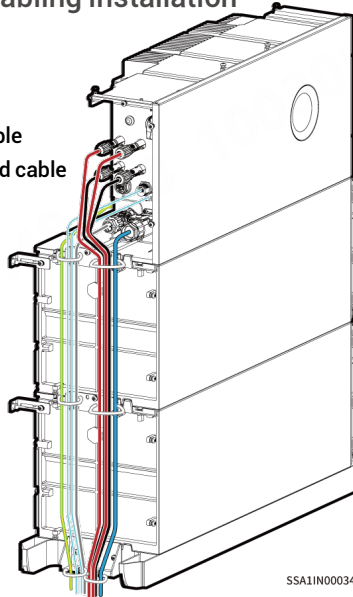
Warning

Before connecting cables, ensure that DC SWITCH is in the OFF state, and the front switch of the AC line is off.

4.1 Recommended Cabling installation

Scheme I

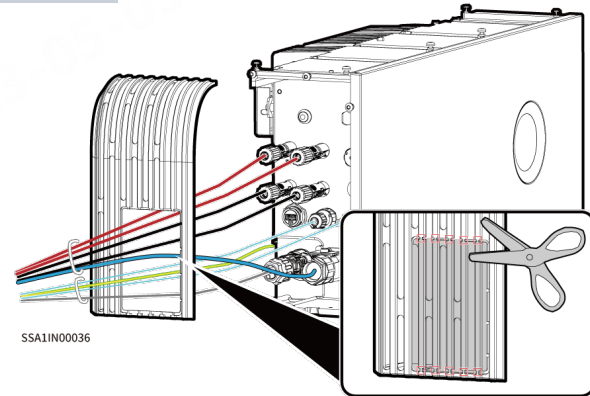
-  AC output cable
-  RS485 signal cable
-  Protective ground cable
-  RJ45 cable
-  DC input cable



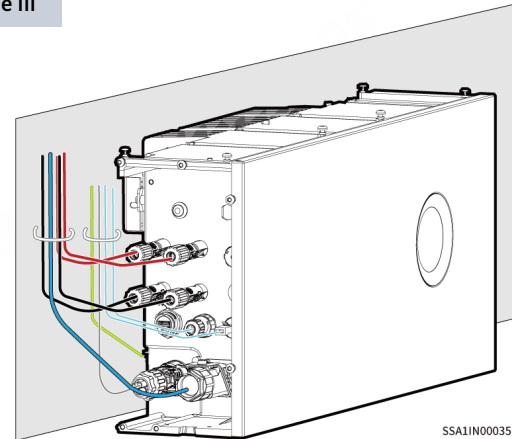
Tips

- 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.
- There are three routing schemes. Select them based on the actual situation.
- If pipe routing is used onsite, the recommended pipe diameter is at least 67mm.

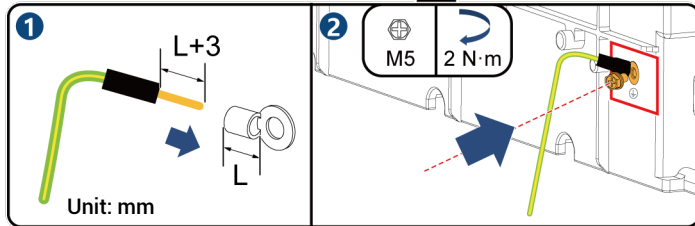
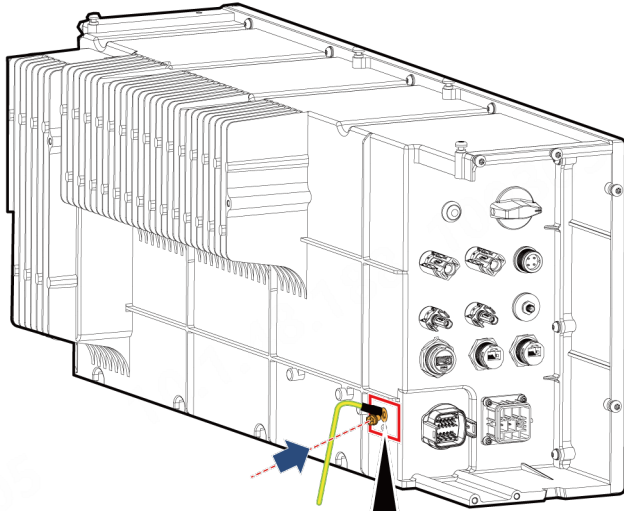
Scheme II



Scheme III



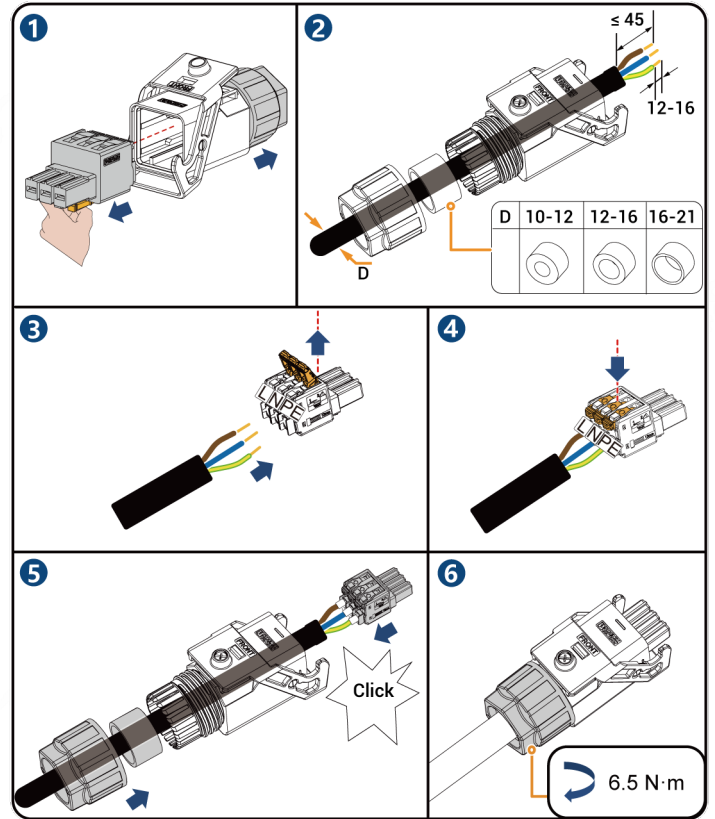
4.2 Protective Ground Cable



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4.3 AC Output Cable

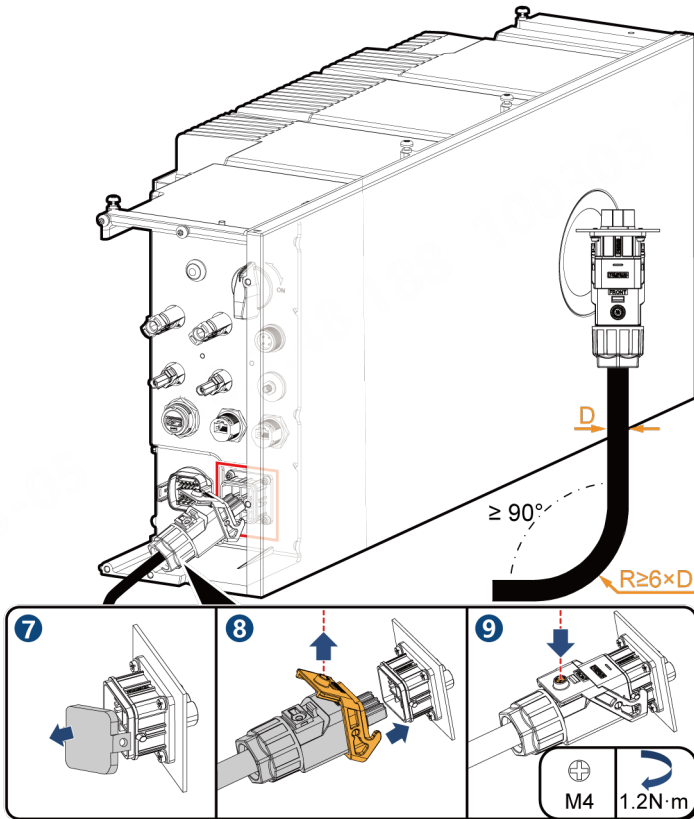
Unit: mm



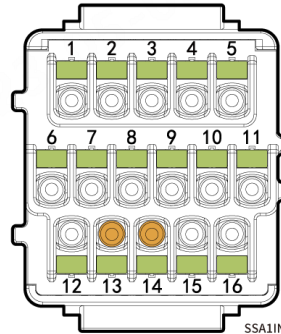
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4.4 RS485 Signal Cable

4.4.1 Interface Description



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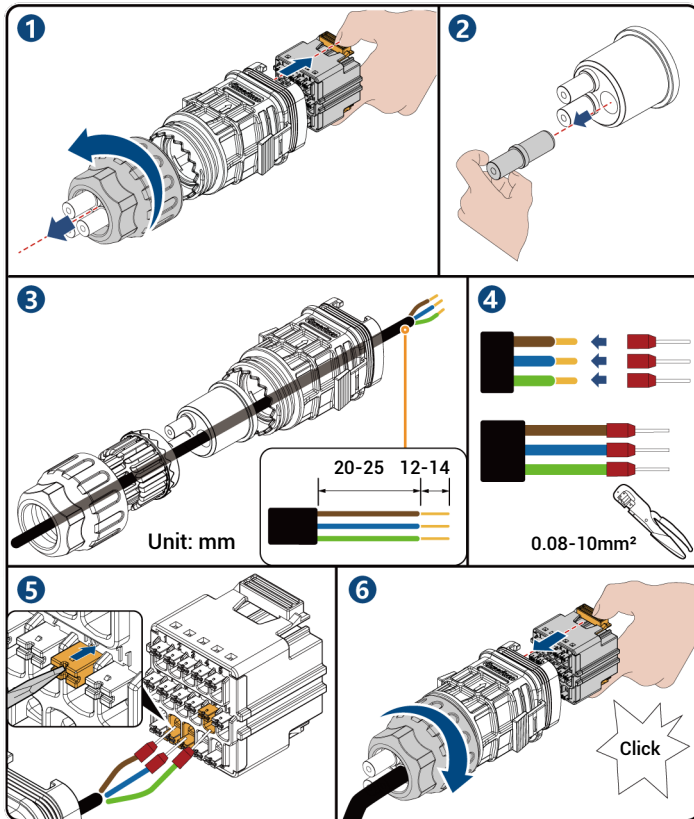
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Tips

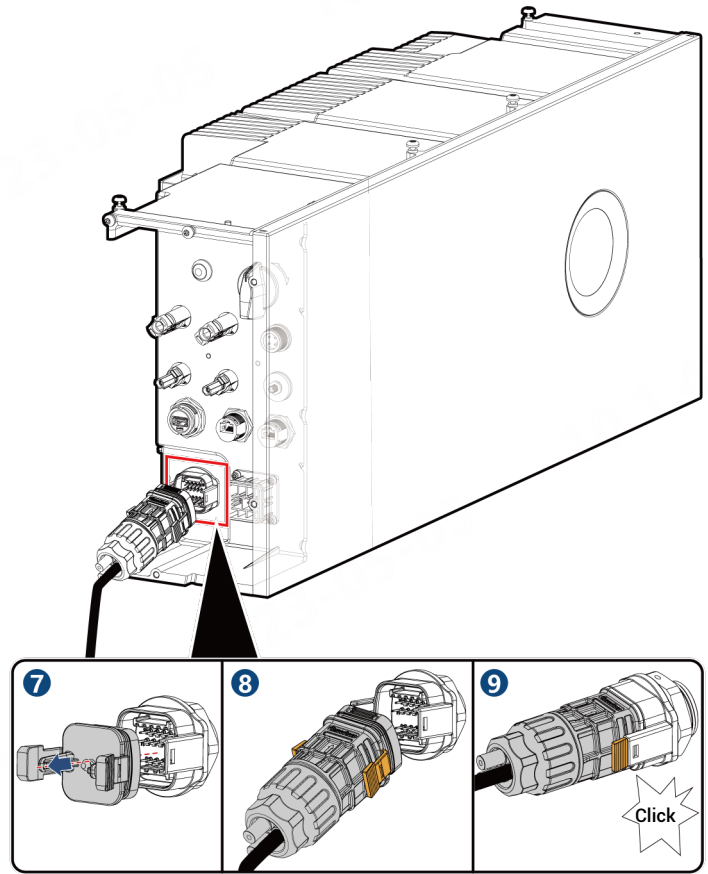
The model of the electric meter delivered with the box is SDM230-Modbus. For details, see the installation guide of the corresponding electric meter model.

Description	Interface definition	COM port	Meter port
(Reserved) DO1, connected to third party intelligent load, such as switch control, heat pump	Relay 1 common point	1	-
Relay 1 is always on		2	-
(Reserved) DO2, connected to third party intelligent load, such as switch control, heat pump	Relay 2 common point	3	-
Relay 2 is always on		4	-
(Reserved) For power scheduling, such as DRM and Ripple control	DI1, input signal 1	5	-
	DI2, input signal 2	6	-
	DI3, input signal 3	7	-
	DI4, input signal 4	8	-
	DI5, input signal 5	9	-
COM port used to access the meter	Enable Signal GND	10	-
	PE signal shielding ground	12	-
	RS485 signal-2_B-	13	6
(Reserved) Standby RS485 port	RS485 signal-2_A+	14	5
	PE signal shielding ground	11	-
	RS485 signal-1_A+	15	-
	RS485 signal-1_B-	16	-

4.4.2 Installation of RS485 Signal Cable

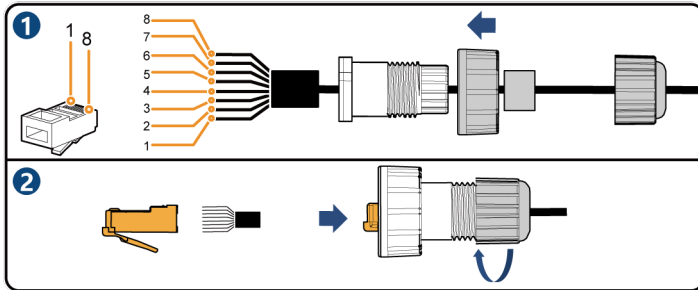


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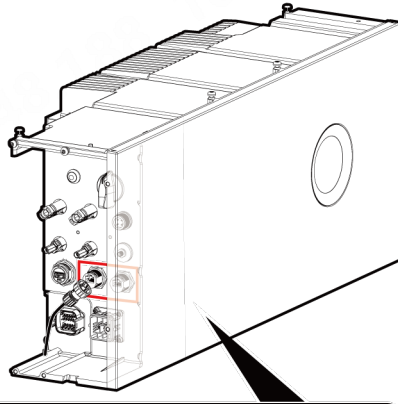
4.5 RJ45 Cable



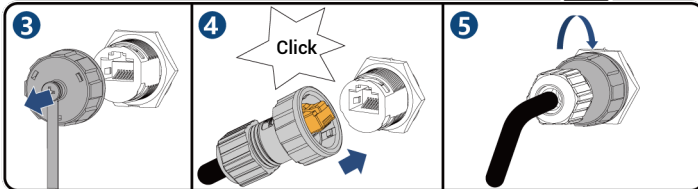
- ① White orange
- ② Orange
- ③ White green
- ④ Blue
- ⑤ White blue
- ⑥ Green
- ⑦ White brown
- ⑧ Brown

Tips

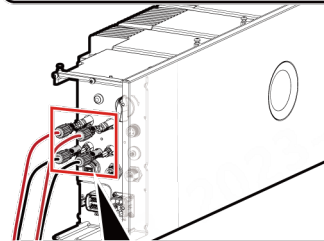
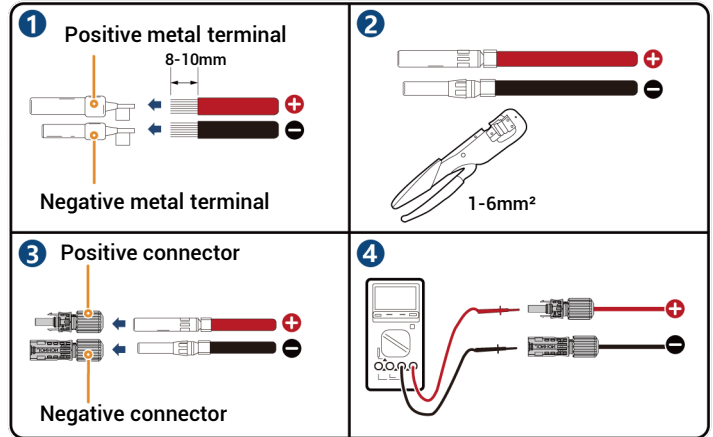
RJ45 cables are EIA/TIA 568B standard cables.



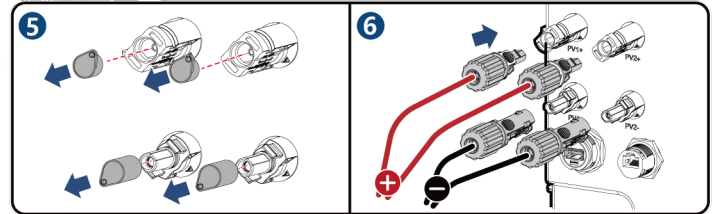
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4.6 DC Input Cable



⚠ Caution
If the voltage is negative, the polarity is incorrect. Rectify the fault in time.



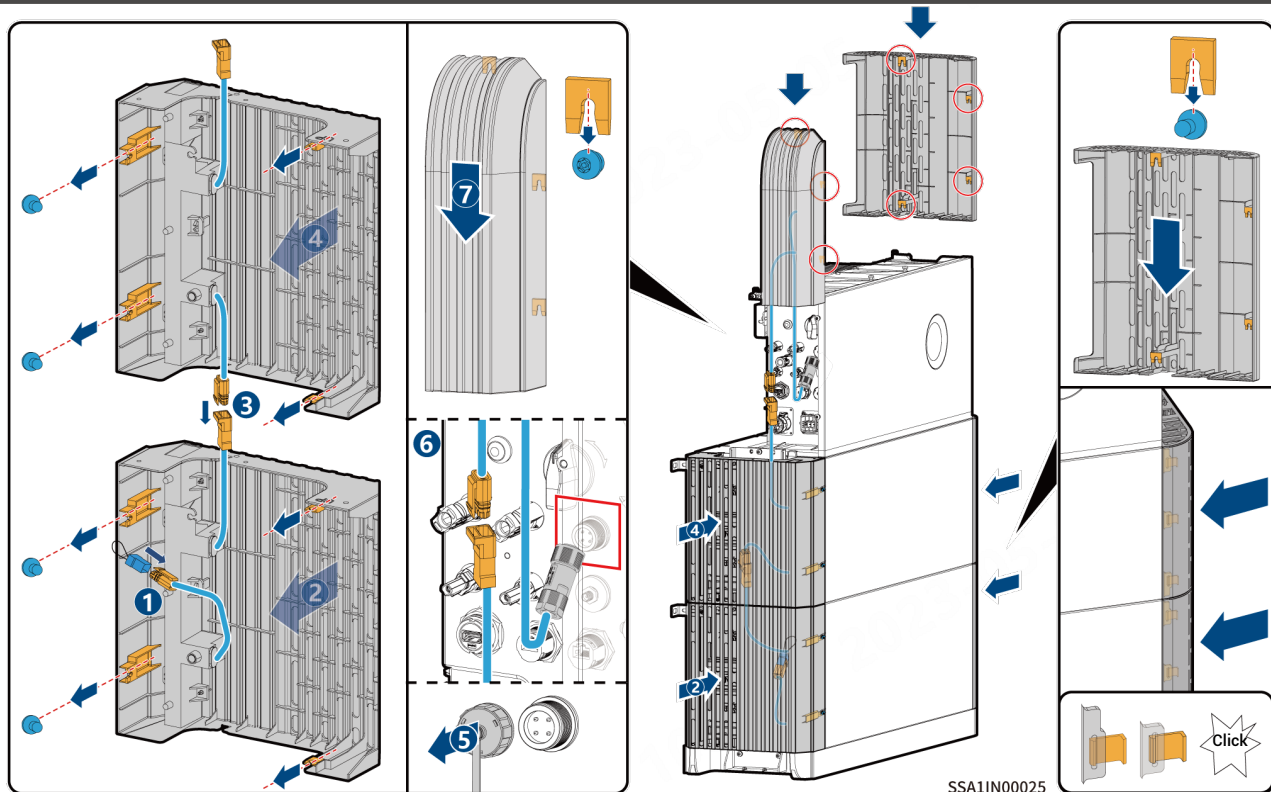
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5 Post-installation Check

Serial number	Check Item
1	The equipment has been securely installed.
2	The cable fastening screws or terminals are properly installed.
3	There are no sharp spikes or acute angles at the cut point of the cable tie.
4	DC SWICH is in the OFF state.
5	Ports that are not in use have waterproof covers or plugs installed.
6	There is no construction left inside or outside the equipment.

After confirmation, install the SigenStor BAT and SigenStor EC decorative covers.

6 Installation of the Decorative Cover

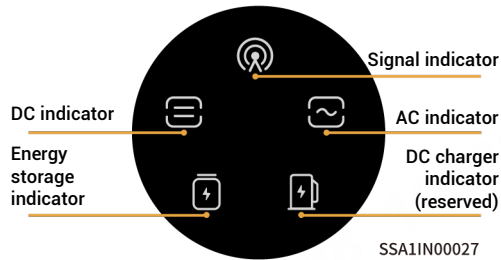


⚠ Caution

- The Short connector for light strip in Step **1** is in the SigenStor EC part that comes with the box.
- If the equipment is not equipped with a decorative cover light strip, ignore Steps **1 3 5 6** in the figure.

6 Equipment Power-On

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

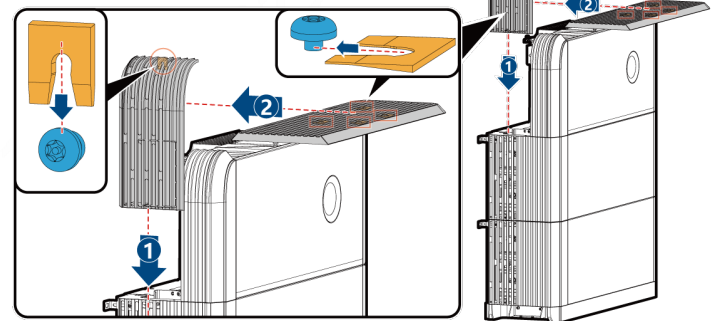


Indicator indicator	Color	State	Meaning
	White	Always on	The DC side is connected but not running.
	Green	Always on	The DC side is running.
	No	Off	The DC side is not connected.
	Orange	Flash	The DC side is faulty.
	Red	Always on	The SigenStor EC is faulty.
	White	Always on	The AC side is connected but not running.
	Green	Always on	Grid-connected operation.
	Blue	Always on	Off-grid operation.
	No	Off	The AC side is not connected.
	Blue	Flash	Off-grid overload operation.
	Orange	Flash	The AC side is faulty.
	Red	Always on	The SigenStor EC is faulty.

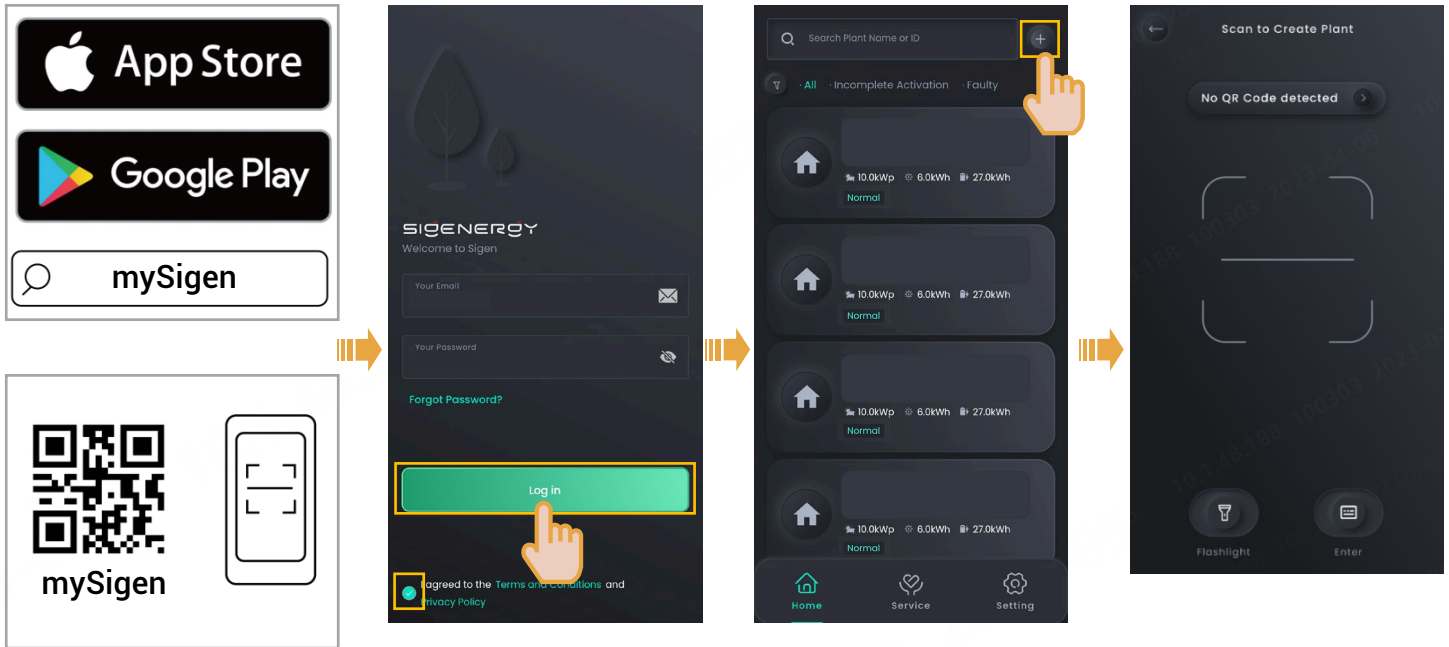
Indicator indicator	Color	State	Meaning
	White	Always on	All SigenStor BATs are connected but not running.
	Green	Flash slowly/ Always on	SigenStor BAT is charging.
	Blue	Flash slowly/ Always on	SigenStor BAT is discharging.
	No	Off	All SigenStor BATs lie dormant.
	Red	Flash	Some SigenStor BATs are faulty.
	Red	Always on	All SigenStor BATs are faulty.
	Orange	Flash	The management system is not connected.
	Green	Flash	Connected to local APP.
	Green	Always on	Connected to the management system using an FE or WLAN.
	Blue	Always on	Connected to the management system over 4G.

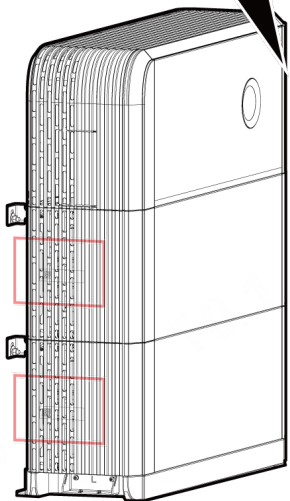
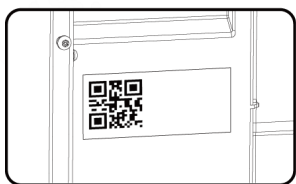
After powering on the equipment, install the remaining decorative covers.

SSA1IN00026



7 Download and Deploy mySigen APP





← Add New Plant

1 2 3 4 5

Basic

Plant Details

Plant Name

Support 1-20 characters, including numbers, upper and lower case letters and English brackets.

Plant Location

Timezone

Total String Capacity (kWp)

Owner Details

First Name

Last Name

Email

The owner will use this email address as login credentials for the mySigen app. Please remind the owner to check their email after the add new plant process.

Next



← Add New Plant

1 2 3 4 5

Devices

Inverter Standby

Battery Standby

Your Software of SigenStar is up to date.

I confirm all the devices have been added to the plant.
What to do when devices are not discovered?

Next



← Add New Plant

1 2 3 4 5

Parameter

Grid code
GRID_CODE_VDE_AR_N_4105

Export Limitation

Maximum Power of Export Limitation
0

Maximum Power Support from -1000 to 1000. Set this parameter based on the counter current threshold allowed by the power grid company.

Operational Mode
Sigen AI Mode

Backup Capacity (%)
30

Next

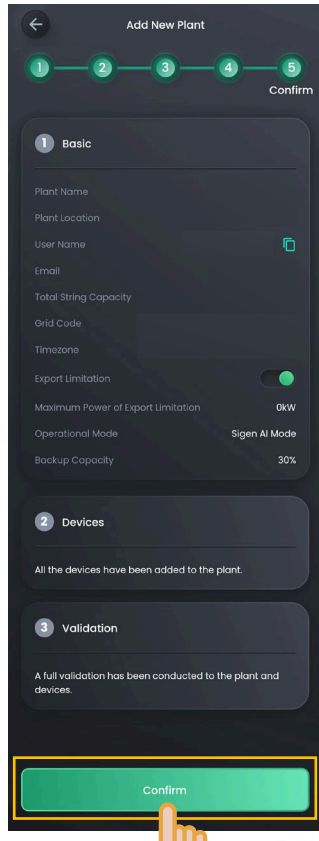
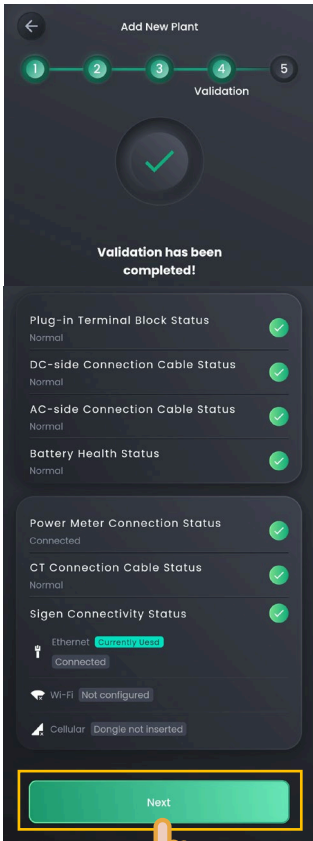


Scan the SN code label on the accompanying box material. If the SN is lost, scan the SN on the side of the SigenStor EC or SigenStor BAT.

Locate the address manually and complete the Total String Capacity and Owner Details

If an upgrade is required, perform the upgrade

You can manually set and modify some function parameters of the power station.



Shanghai SIGEN New Energy Technology, Co., Ltd.

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www.sigenergy.com**



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