

Sigen EV DC Charging Module Installation Guide

SigenStor EVDC 12 (5S2, 7.5S2, 10S2)
SigenStor EVDC 25 (5S2, 7.5S2, 10S2)

Version: 01
Release date: 2024-06-20

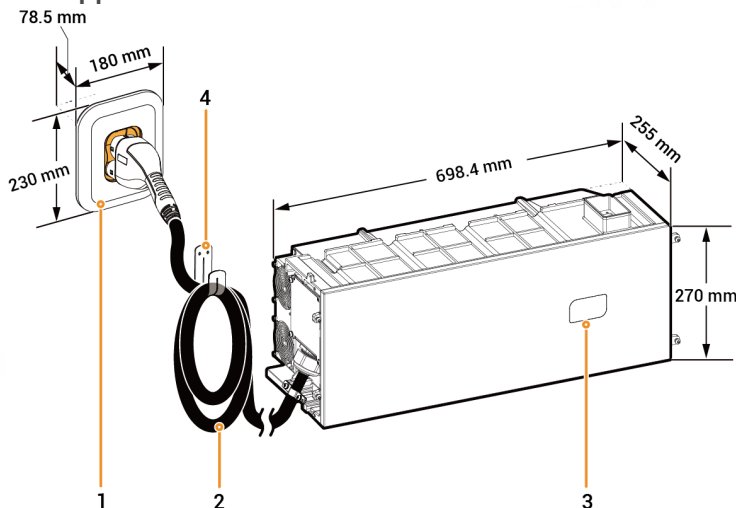


⚠ Caution

- Only trained or qualified persons with electrical engineering knowledge can work directly on the equipment.
- Operators should be familiar with national and local laws, regulations, and standards, and the compositions and operating principles of relevant systems.
- Before performing operations, carefully read the document and the operation requirements and precautions in the Precautions section. If any damage is caused by failure to perform operations under requirements, the equipment is not covered by the warranty.

1 Introduction

1.1 Appearance and Dimensions



No.	Description
1	Charging connector holder for placing the charging connector
2	Charging connector cable
3	RFID card reading area
4	Cable holder for storing the charging cable

1.2 Typical Installation Scenarios

Sigen EV DC Charging Module (hereinafter referred to as SigenStor EVDC) can be used with our inverters (SigenStor EC, SigenStor AC, and Sigen Hybrid series) and battery pack (SigenStor BAT) in the following different installation scenarios.

No.	Component Configuration	Installation Status of Components
1	SigenStor EC/SigenStor AC/Sigen Hybrid + SigenStor EVDC + Battery Pack	Adding the SigenStor EVDC, with other components installed
2		Newly installing the SigenStor EVDC and other components
3	Sigen Hybrid + SigenStor EVDC	Adding the SigenStor EVDC, with other components installed
4	Sigen Hybrid + SigenStor EVDC	Newly installing the SigenStor EVDC and other components

2 Inspections 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.
- 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.

Safety Devices



Safety hat



Goggles



Dust mask



Protective gloves

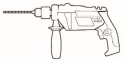


Insulating gloves



Insulating shoes

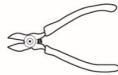
Installation Tools



Power drill



Vacuum cleaner



Wire cutter



Crimp tool



Crimping pliers



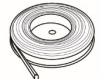
Wire stripper



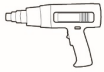
Scissors



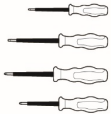
Cable ties



Heat shrinkable sleeve



Heat gun



Insulated screwdriver set
(bit length ≥ 200 mm)



Digital adjustable open-end
torque socket wrench
(Opening ≥ 53 mm)



Marker



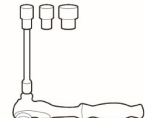
Rubber mallet



Level



Tape measure



Insulated torque socket
wrench set
(extension bar ≥ 200 mm)

(Optional) Installer-provided Cables

For the configuration with an inverter + SigenStor EVDC + battery pack, where the SigenStor EVDC is an additional configuration, check if the owner has a cable of sufficient length in the existing equipment. If available, skip this step. If not, prepare a cable with the appropriate specifications.

3 Site Requirements

Tips

The warranty applies when the equipment has been installed properly for its intended use and in accordance with the operating instructions.

Installation Environment

- Do not install the equipment in a smoky, flammable, or explosive environment.
- 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.
- The temperature and humidity of the installation environment should meet equipment 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).

Installation Base

- Do not install the equipment on a flammable base.
- The installation base should meet the load-bearing requirement. Solid brick-concrete structures, concrete walls, and floors are recommended.
- The installation base should be flat, and the installation area should meet the installation space requirements.
- No plumbing or electrical alignments should be inside the installation base to avoid potential drilling hazards during equipment installation.

Installation Location

- Do not tilt or overturn the equipment to ensure that it is installed horizontally.
- Do not install the equipment in areas easily accessible to children.
- Do not install the equipment in places with fire or damp.
- Please keep away from the daily work and living places.
- 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.
- You are advised to install the equipment in a location where you can easily operate and maintain it and view the 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.
- Install the equipment near the parking space. Refer to the figure for the installation distance.

SigenStor EVDC can only be installed underneath the inverter.

Relative humidity: 5% to 95%RH

Ambient temperature: -30°C to 60°C

Heat source (60°C) distance: $\geq 2\text{ m}$

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Charging port position

Model	R (m)
SigenStor EVDC 12 5S2, SigenStor EVDC 25 5S2	4.85
SigenStor EVDC 12 7.5S2, SigenStor EVDC 25 7.5S2	7.35
SigenStor EVDC 12 10S2, SigenStor EVDC 25 10S2	9.85

Charging port position

Model	R (m)
SigenStor EVDC 12 5S2, SigenStor EVDC 25 5S2	$= 5 - N \times 0.292$
SigenStor EVDC 12 7.5S2, SigenStor EVDC 25 7.5S2	$= 7.5 - N \times 0.292$
SigenStor EVDC 12 10S2, SigenStor EVDC 25 10S2	$= 10 - N \times 0.292$

Tips

There will be errors in the actual distance under different installation environments, and the figure is for reference only.

4 Installation

4.1 Inverter + SigenStor EVDC + Battery Pack

4.1.1 Adding SigenStor EVDC

Danger

Do not perform operations on the equipment with power on. Before operation, make sure to disconnect all power supplies of the equipment, including power switches on the power grid side, inverters, and diesel generators.

- 1** (Optional) Determine the mounting hole positions of the inverter after installing the SigenStor EVDC. Drill holes and install expansion bolts accordingly.

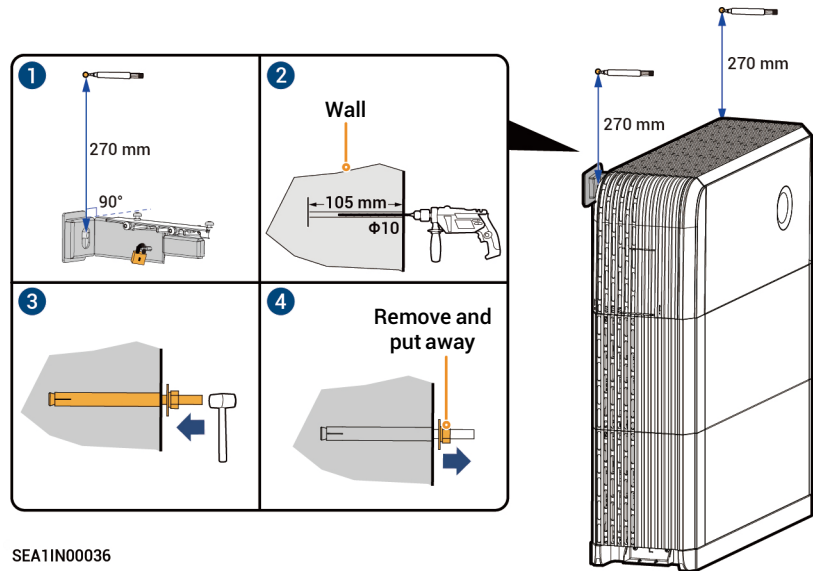
Historical scenario of 1 inverter + 1 battery pack

Skip this step if the inverter is not wall-mounted.

Historical scenario where the inverter has been wall-mounted

Tips

- Expansion bolts required in this step are supplied by users. M8 × 120 SS sleeve expansion bolts with washers are recommended.
- Drilling will generate dust. Do not remove the decorative cover before drilling.

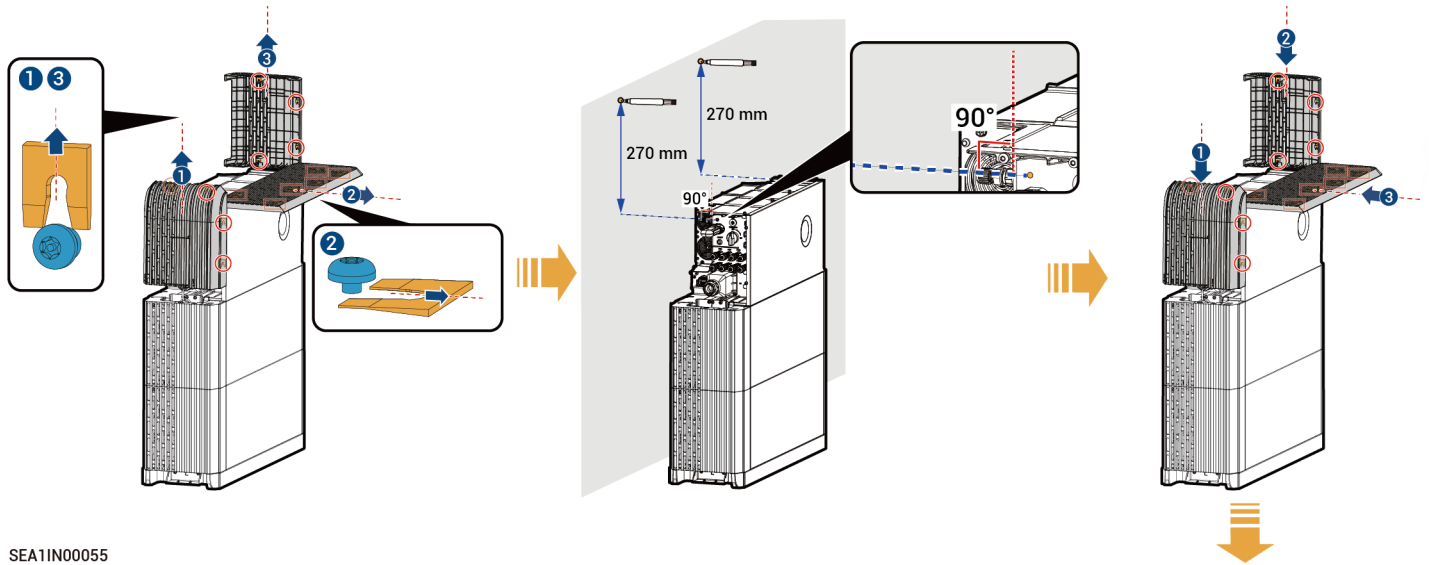


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Historical scenario of 1 inverter + 2 battery packs

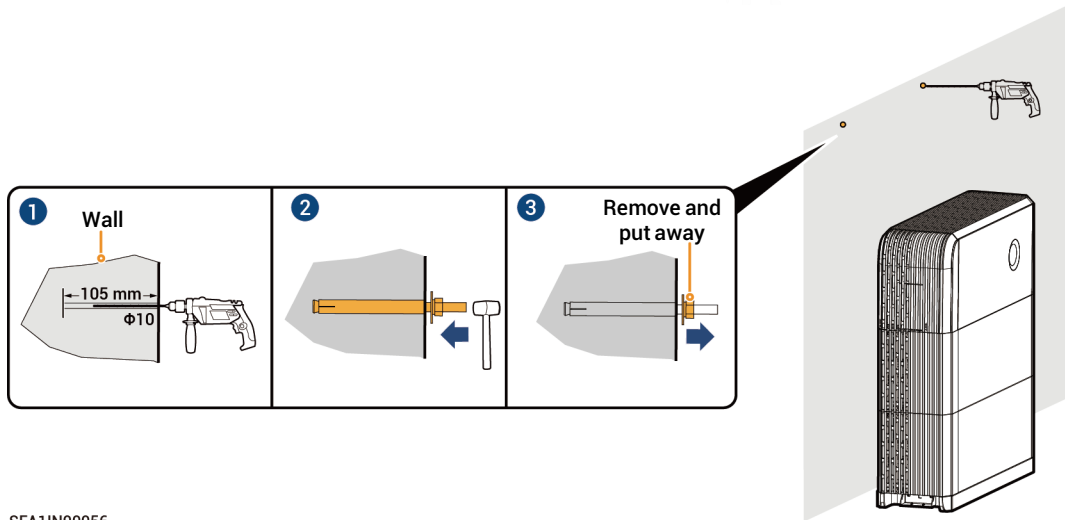
Tips

- Expansion bolts required in this step are supplied by users. M8 × 120 SS sleeve expansion bolts with washers are recommended.
- Obtain the wall connectors required for this scenario from the historical "Installation package". If you can not find the wall connector, please contact your sales representative.
- Drilling will generate dust. Do not remove the decorative cover before drilling.



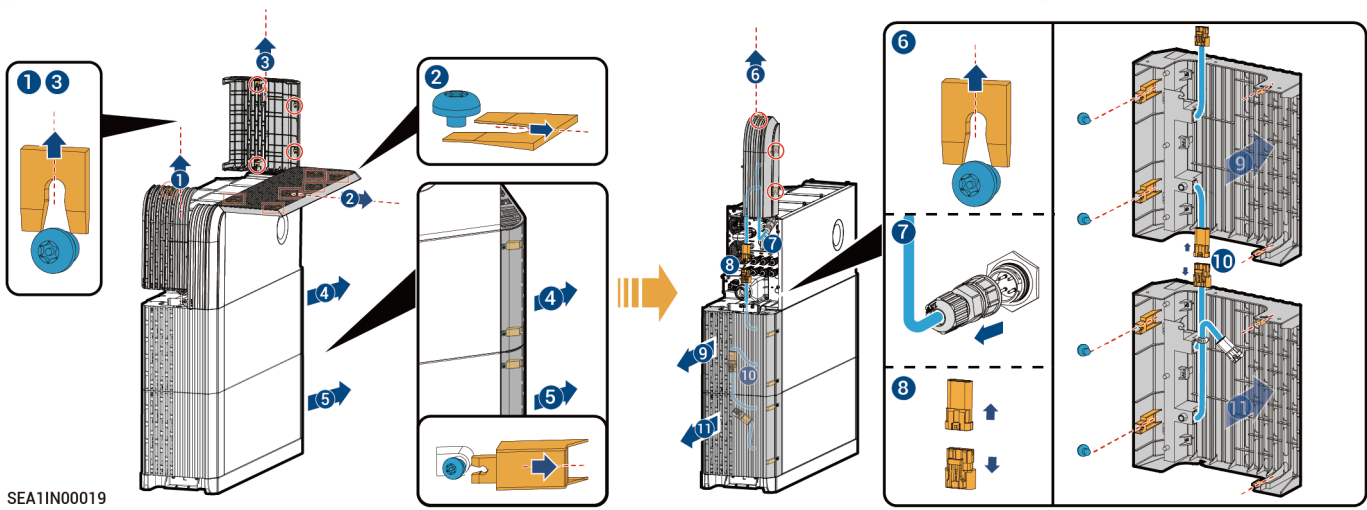
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Historical scenario of 1 inverter + 2 battery packs

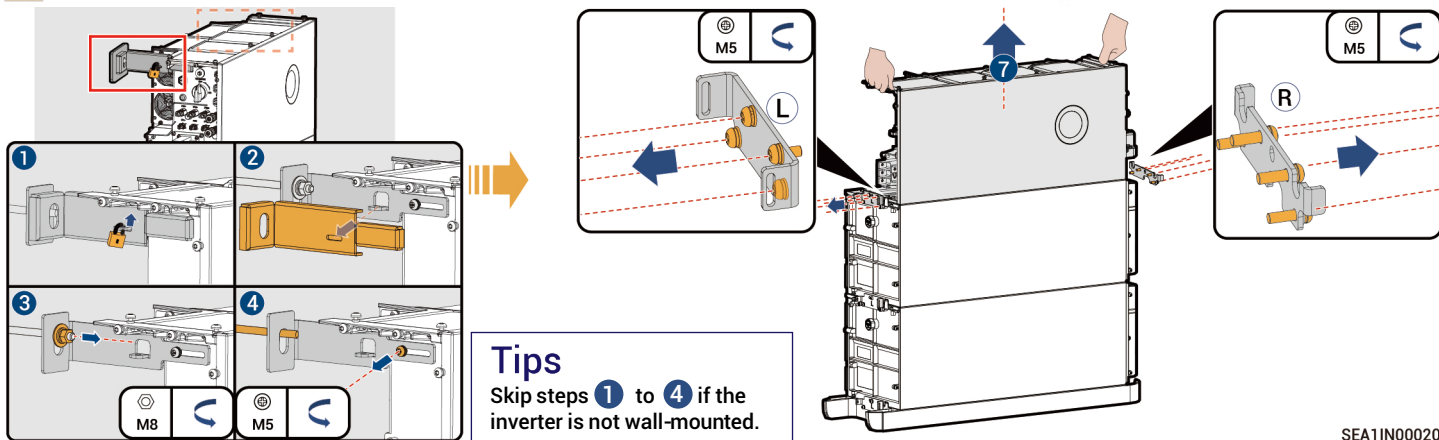


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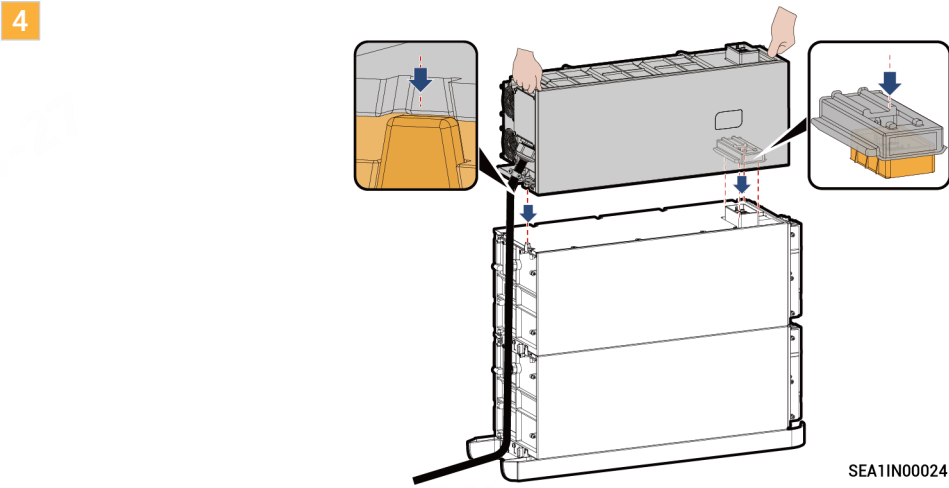
2



3 Remove the cable connected to the inverter and remove the inverter.

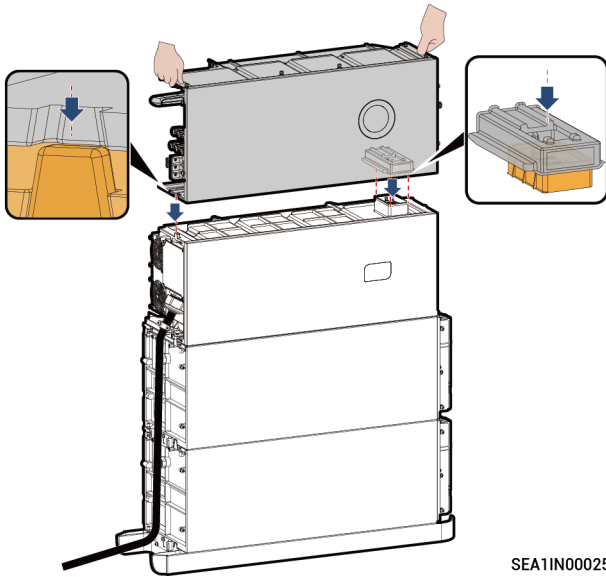


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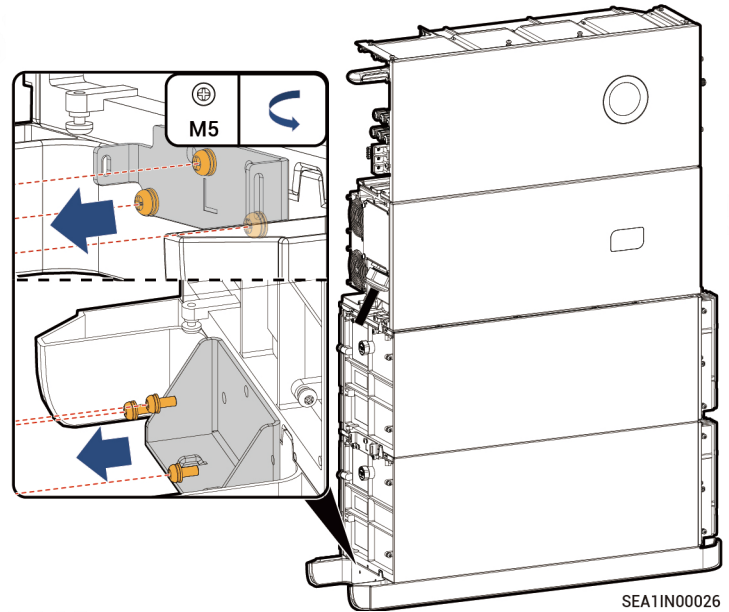


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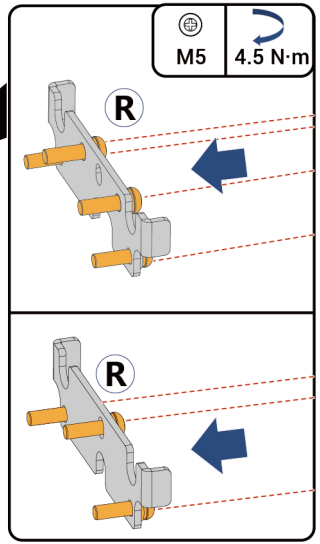
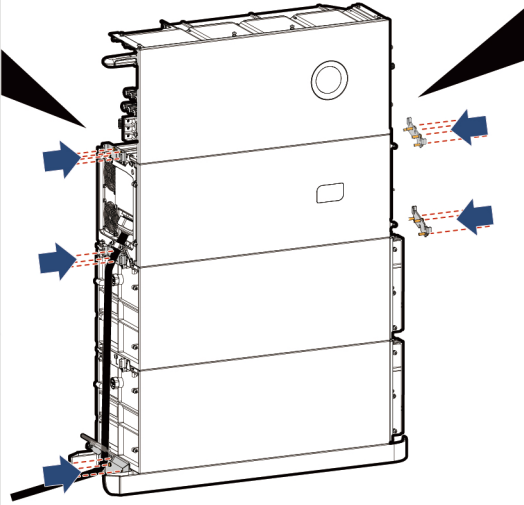
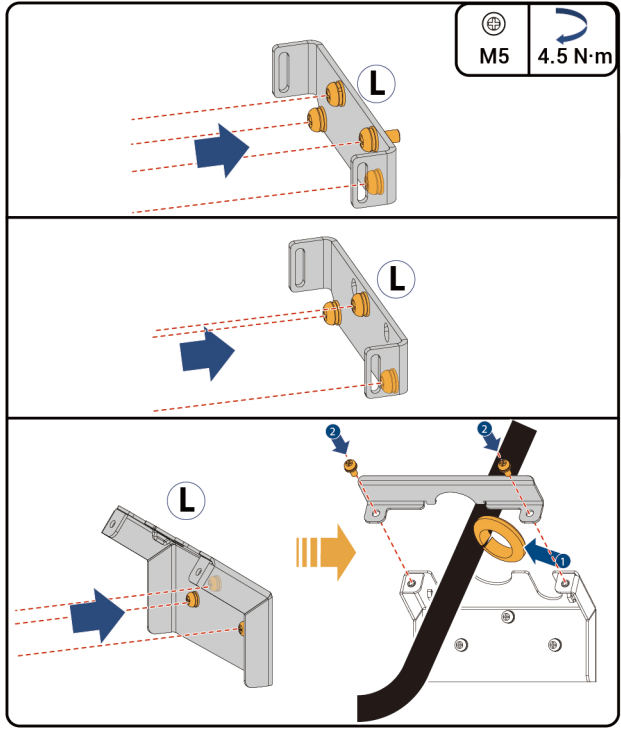
6

Tips

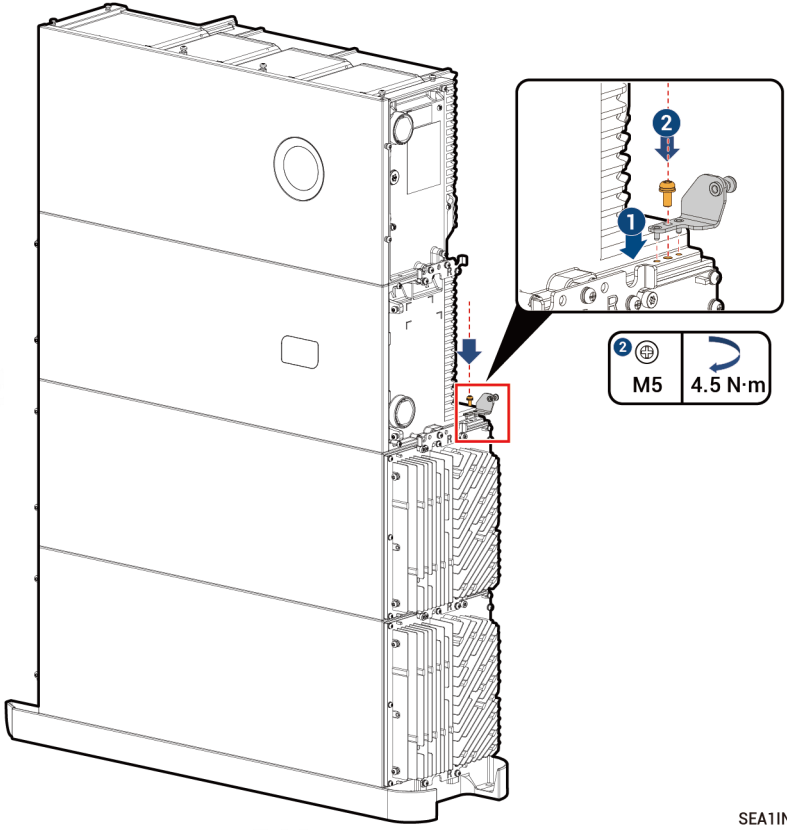
A cascade piece has two available appearance specifications.
The actual application shall prevail.



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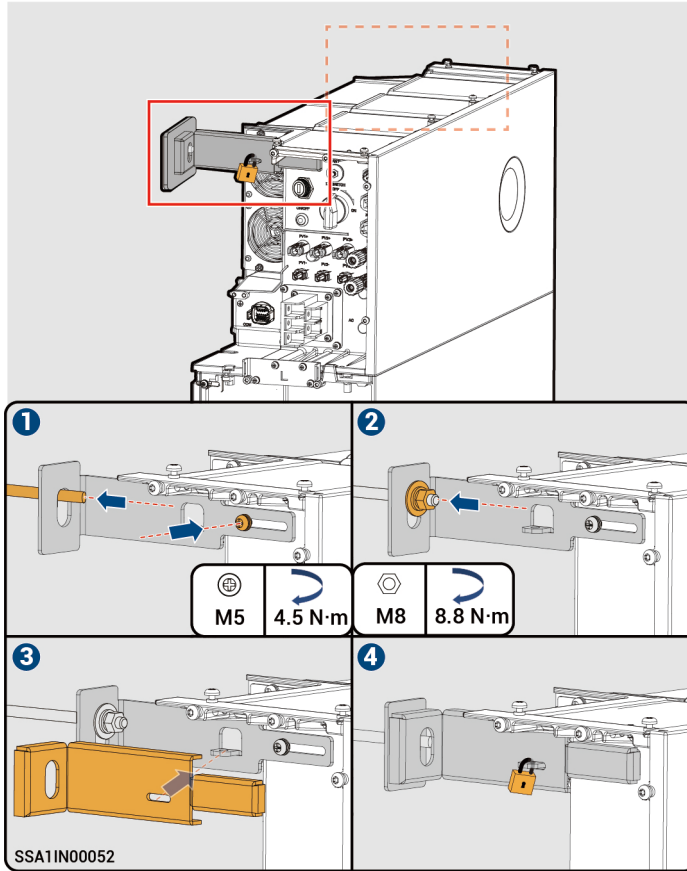


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9 (Optional) Follow these steps to mount the inverter to the wall securely.



10 Reinstall the inverter cable.

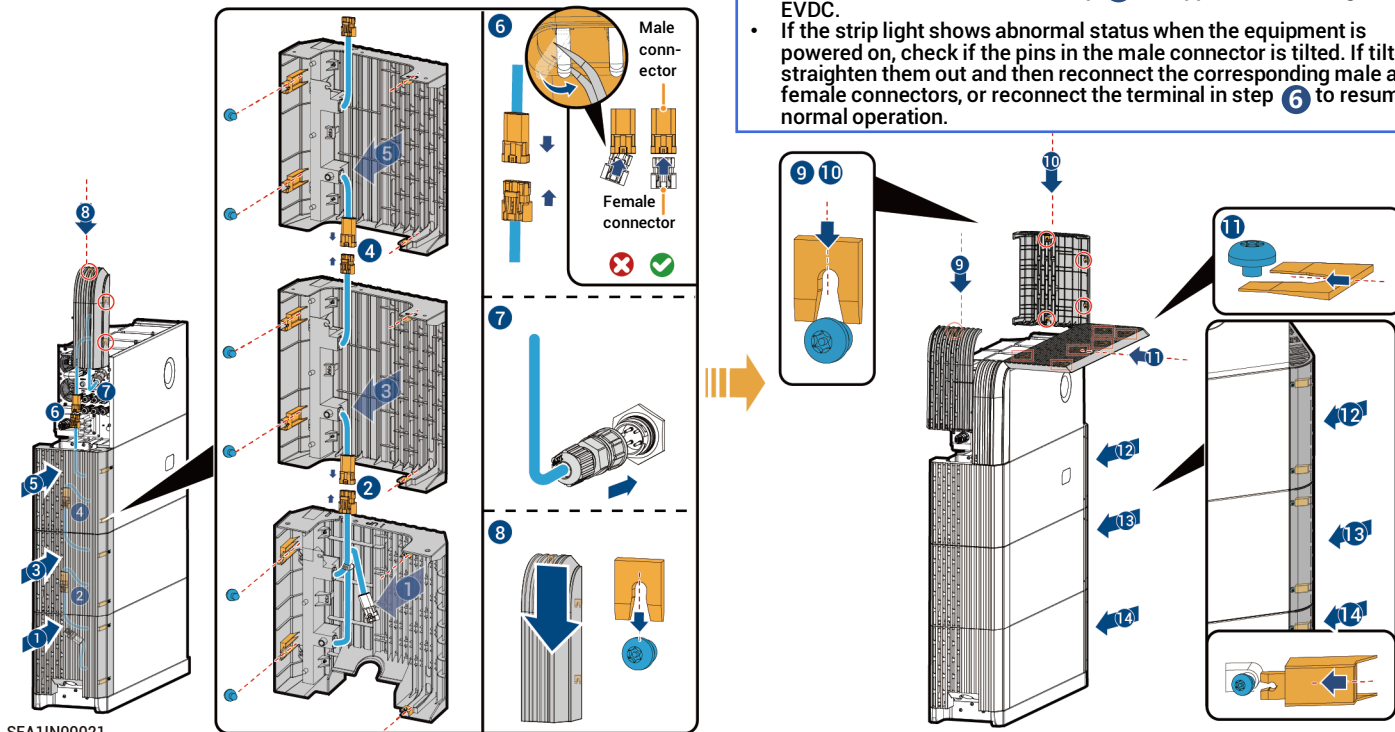
Tips

If the cable length is insufficient during reinstallation, please refer to the corresponding model's SigenStor Home Installation Guide for specific installation instructions.

11

Caution

- The decorative cover used in step 1 is supplied with the SigenStor EVDC.
- If the strip light shows abnormal status when the equipment is powered on, check if the pins in the male connector is tilted. If tilted, straighten them out and then reconnect the corresponding male and female connectors, or reconnect the terminal in step 6 to resume normal operation.



4.1.2 Newly Installing All Components

Tips

- Install the battery pack, SigenStor EVDC, and inverter in sequence.
- This section introduces the installation procedure of SigenStor EVDC only. For detailed instructions on installing the inverter and battery pack, please refer to the SigenStor Home Installation Guide for the specific model.

- 1 Determine the mounting hole positions of the inverter after installing the SigenStor EVDC. Drill holes and install expansion bolts accordingly.

Wall Mounting

Tips

INV1 is the mounting hole on the left side of the inverter for wall installation, while INV2 is the mounting hole on the right side for wall installation.

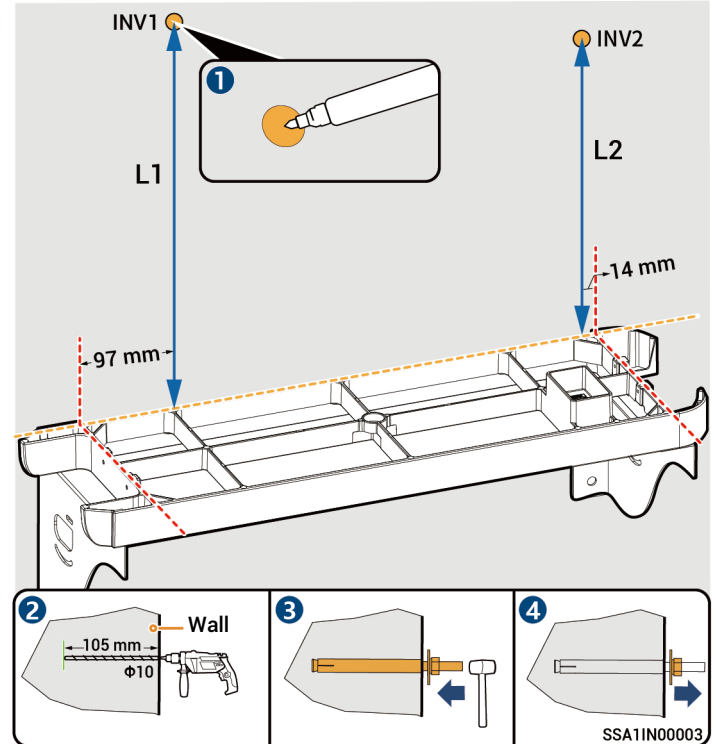
Calculation formula for punch height:

L1 and L2 should be measured from the upper surface of the base:

$$L1 = N \times 270 \text{ mm} + 270 \text{ mm} + 261 \text{ mm} \pm 3 \text{ mm}$$

$$L2 = N \times 270 \text{ mm} + 270 \text{ mm} + 254 \text{ mm} \pm 3 \text{ mm}$$

Note: N is the number of SigenStor BATs and $N \leq 2$.



Floor Mounting

Tips

- You do not have to mount the inverter to the wall when there are one SigenStor BAT.
- INV1 is the mounting hole on the left side of the inverter for wall installation, while INV2 is the mounting hole on the right side for wall installation.

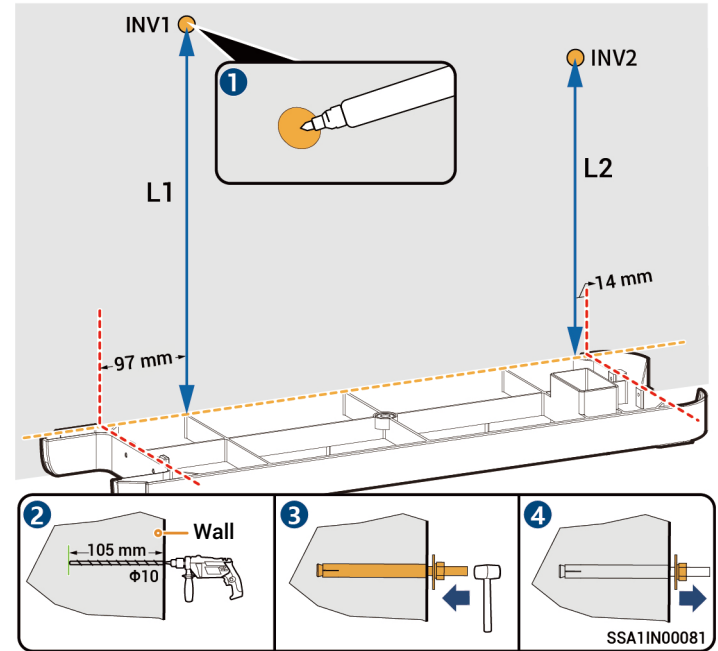
Calculation formula for punch height

L1 and L2 should be measured from the upper surface of the base:

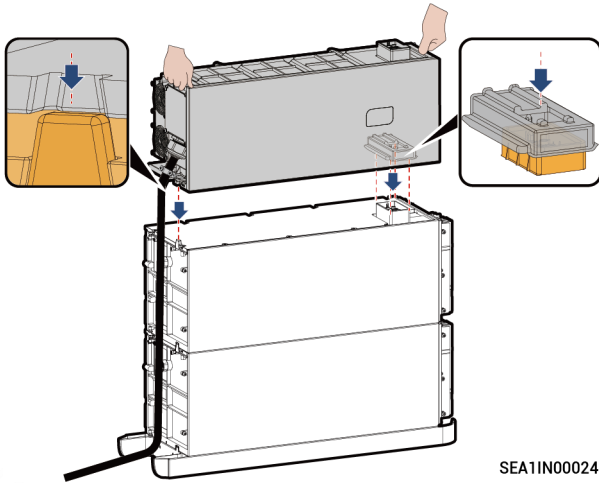
$$L1 = N \times 270 \text{ mm} + 270 \text{ mm} + 261 \text{ mm} \pm 3 \text{ mm}$$

$$L2 = N \times 270 \text{ mm} + 270 \text{ mm} + 254 \text{ mm} \pm 3 \text{ mm}$$

Note: N is the number of SigenStor BATs and N ranges from 2 to 5.

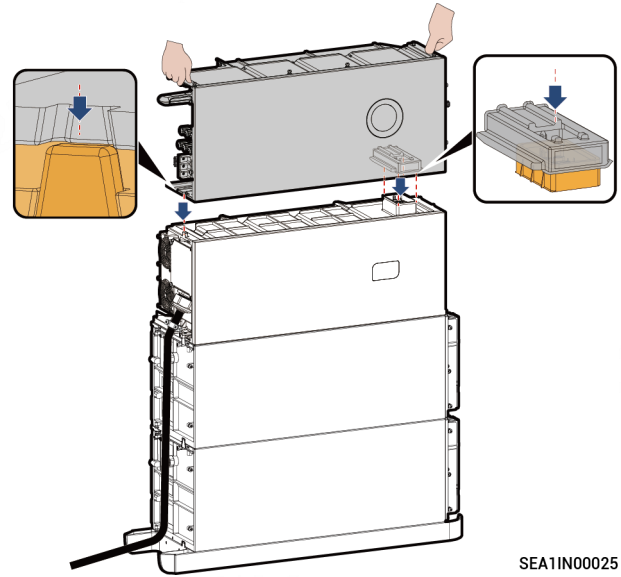


2 Install the SigenStor EVDC.

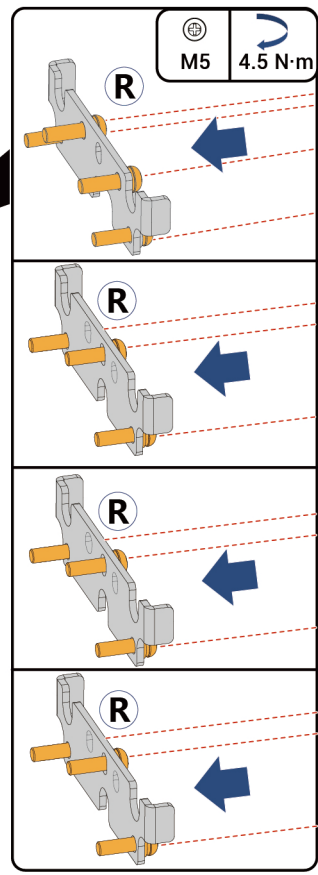
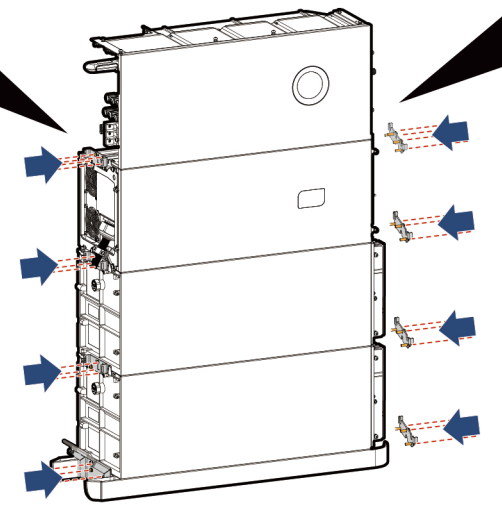
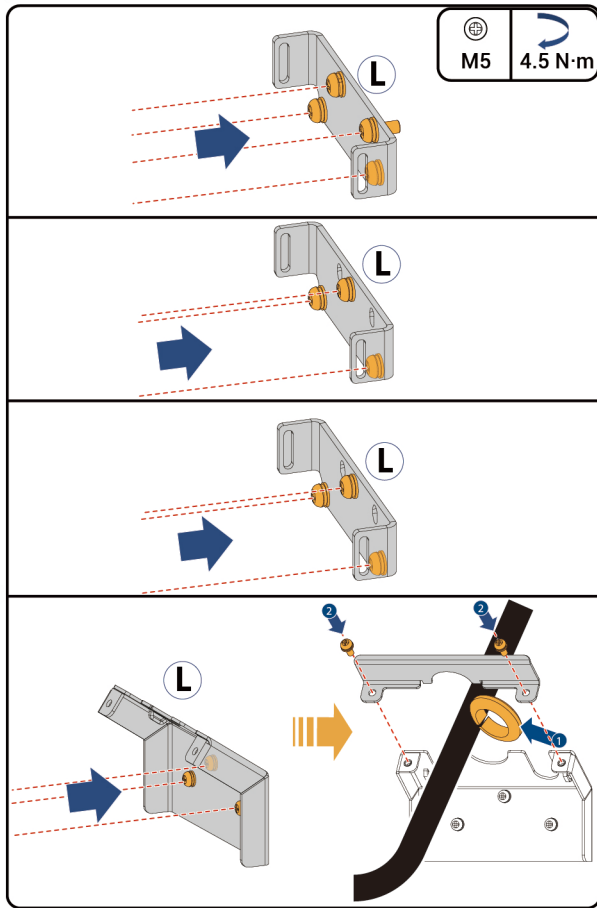


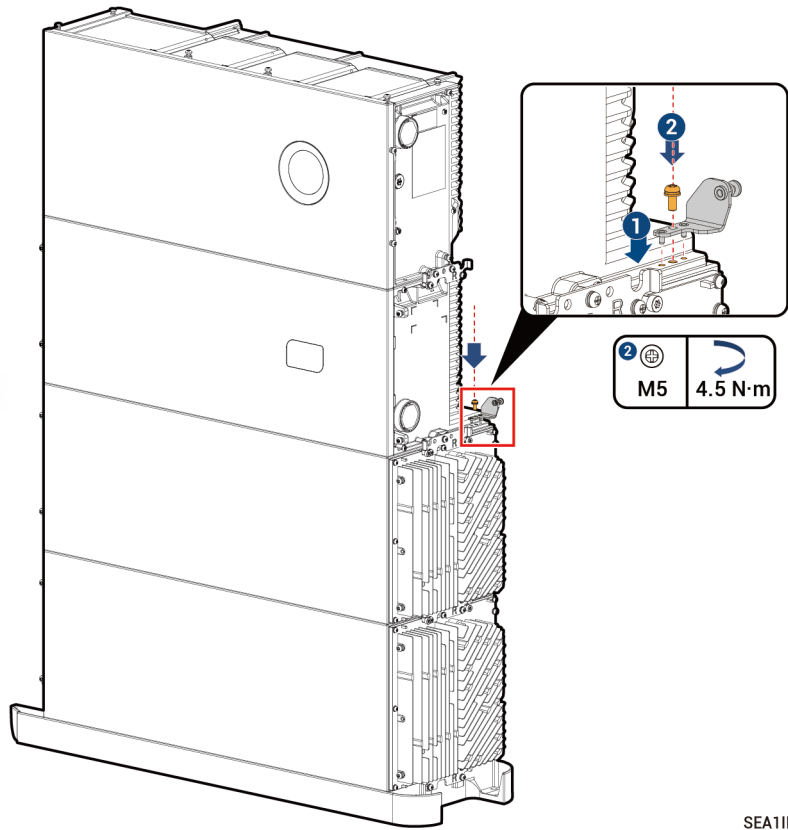
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3 Install the inverter.



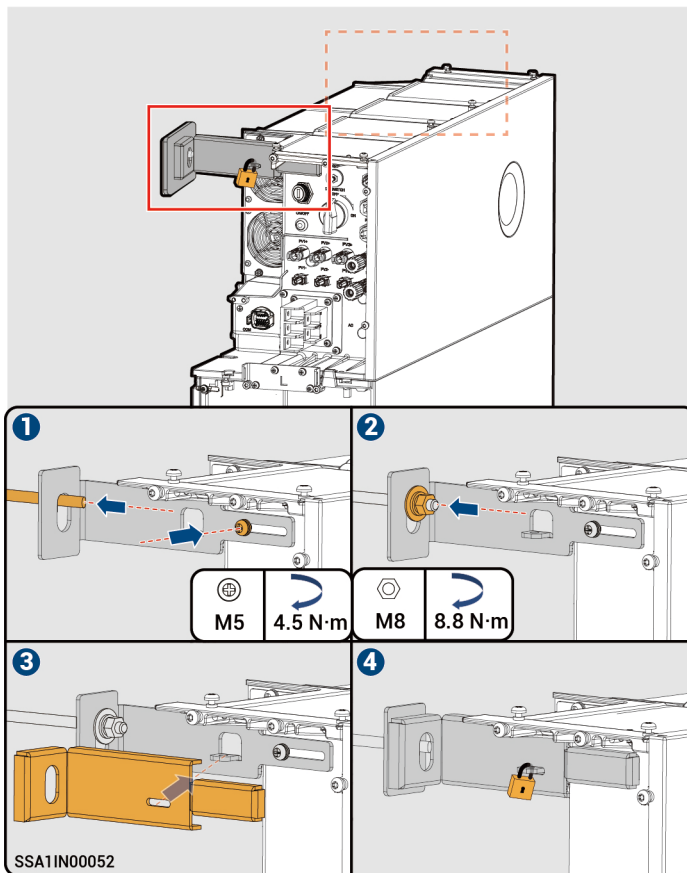
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6 (Optional) Follow these steps to mount the inverter to the wall securely.

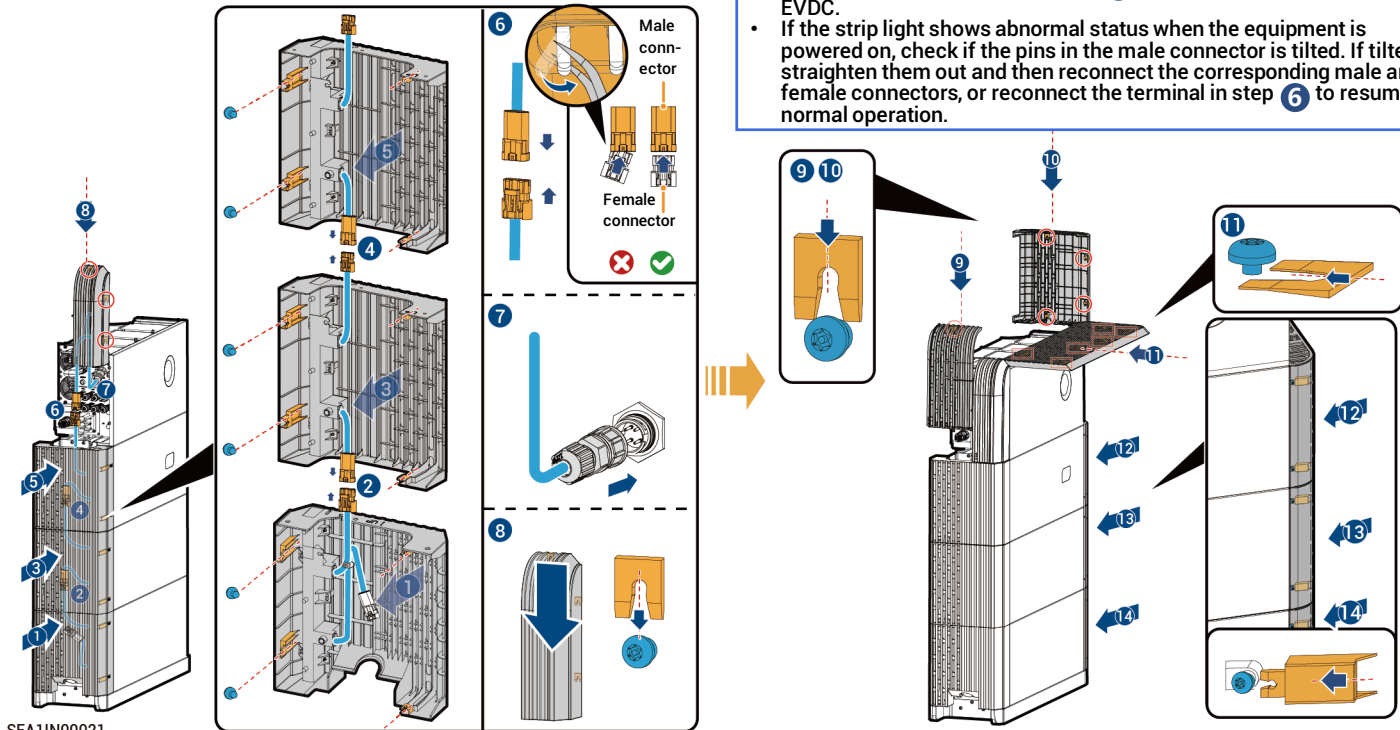


Tips

Before installing the decorative components, please ensure the inverter cable is securely and properly connected. Please refer to the corresponding model's SigenStor Home Installation Guide for specific wiring operation procedures of the inverter.

Caution

- The decorative cover used in step 1 is supplied with the SigenStor EVDC.
- If the strip light shows abnormal status when the equipment is powered on, check if the pins in the male connector is tilted. If tilted, straighten them out and then reconnect the corresponding male and female connectors, or reconnect the terminal in step 6 to resume normal operation.



4.2 Inverter + SigenStor EVDC

4.2.1 Adding SigenStor EVDC

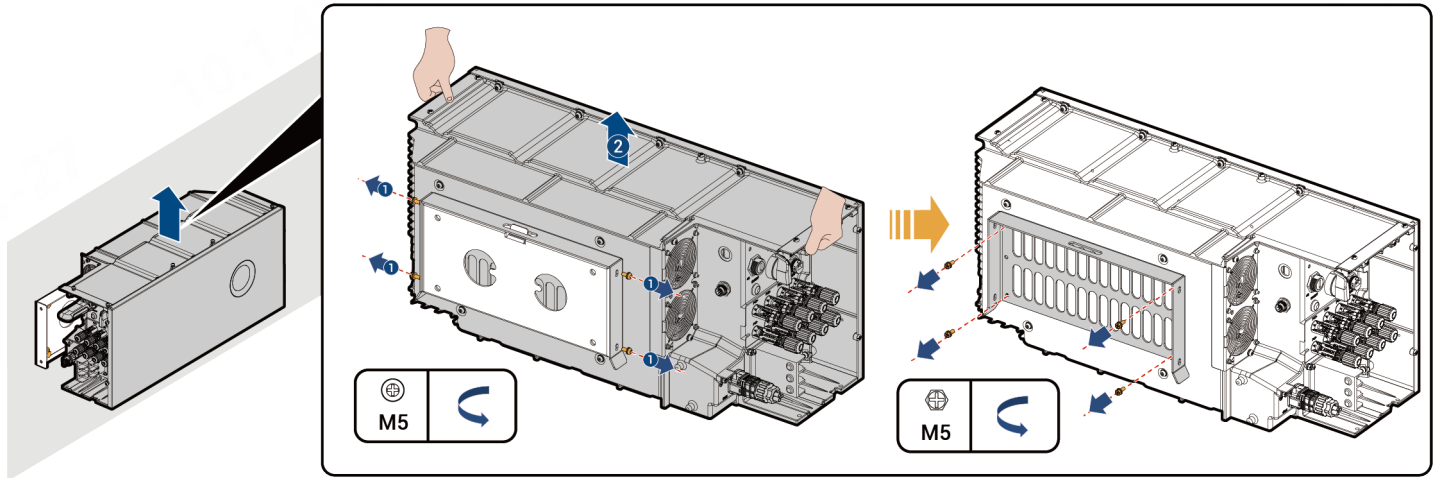
Danger

Do not perform operations on the equipment with power on. Always cut off the power supply before operation.

Tips

Users can add the SigenStor EVDC to the Sigen Hybrid series inverters.

- 1 Remove the cable connected to the inverter and remove the inverter.

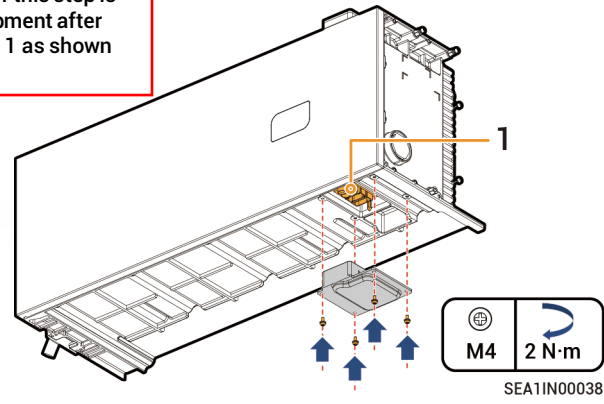


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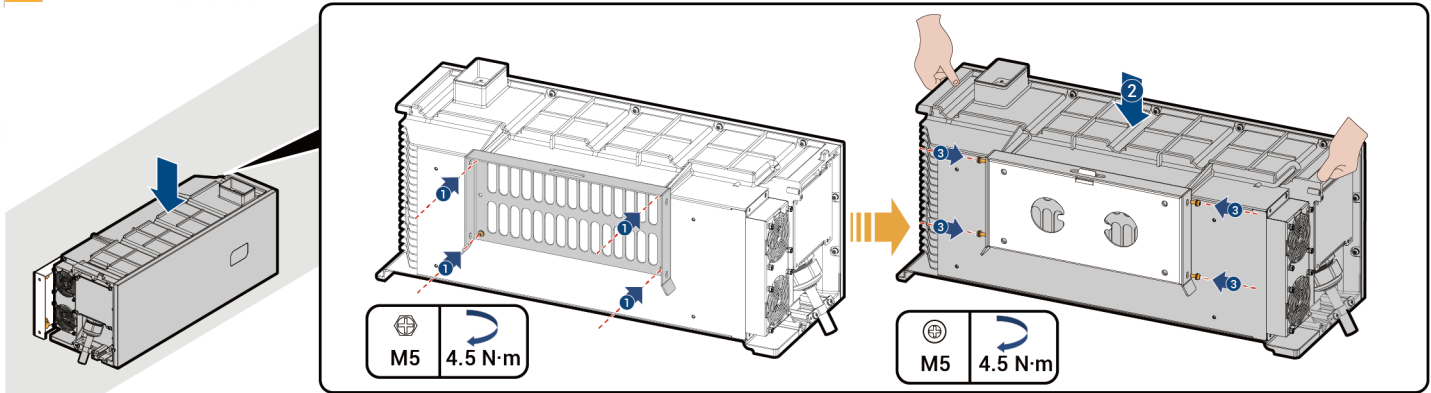
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Danger

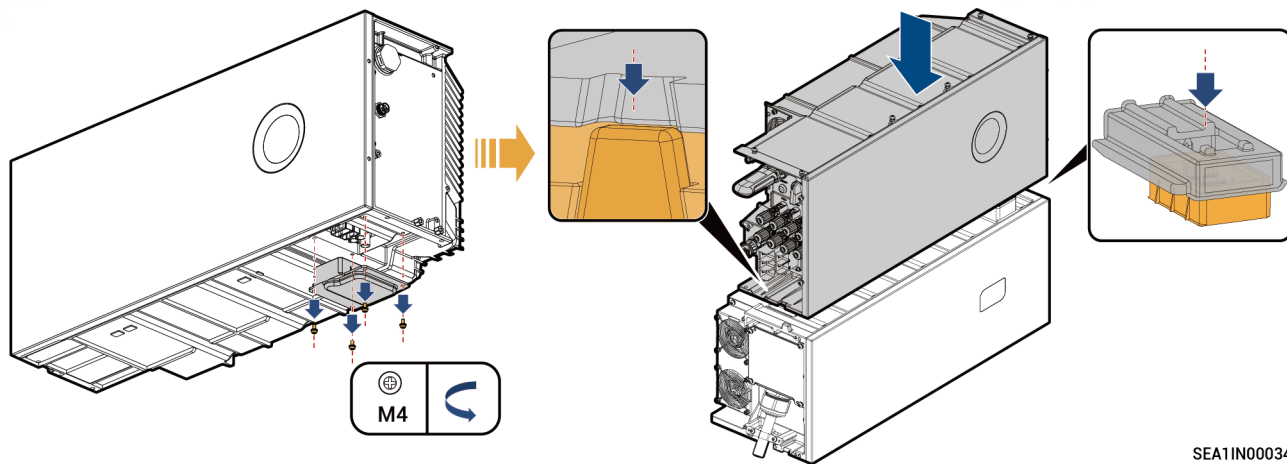
Please follow the operation steps hereby precisely. If this step is not followed, there may be high voltage on the equipment after the equipment is powered on, and touching Position 1 as shown in the figure will cause personal injury.



3

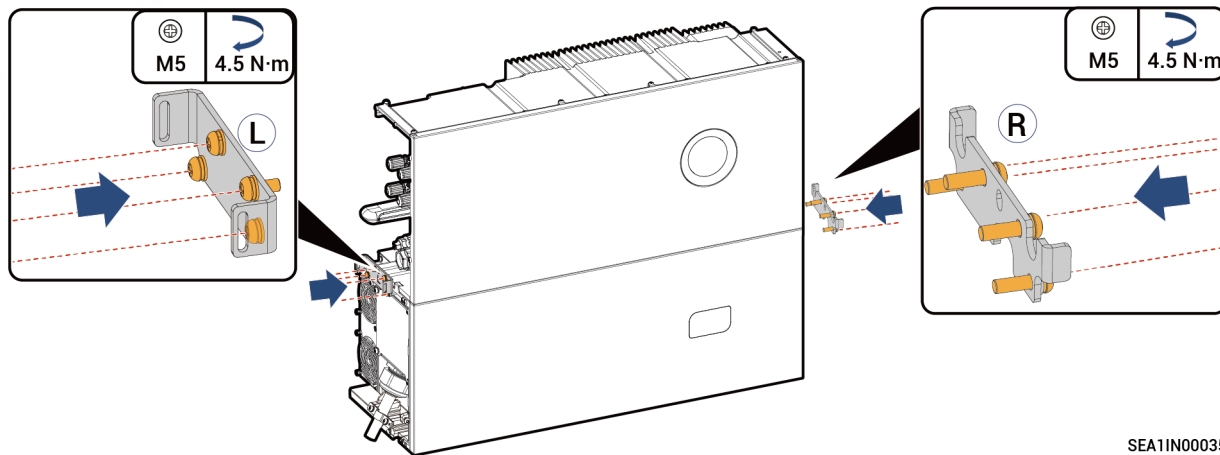


4



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5



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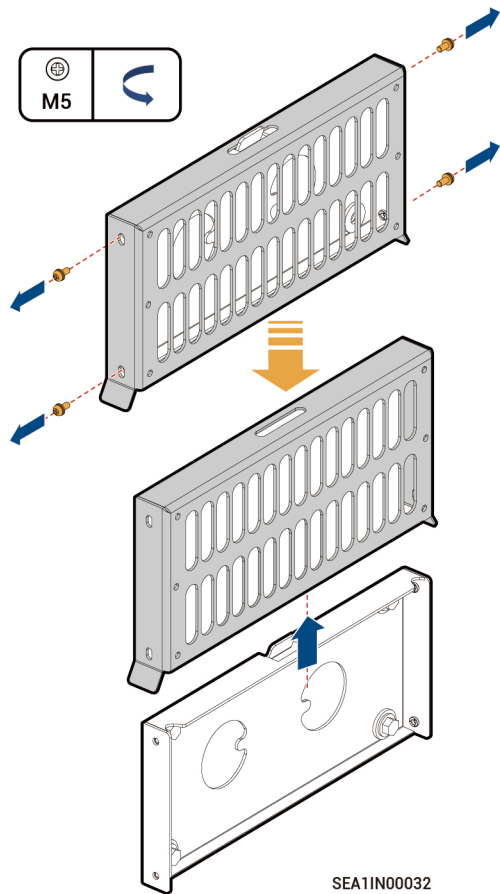
6 Reinstall the inverter cable.

Tips

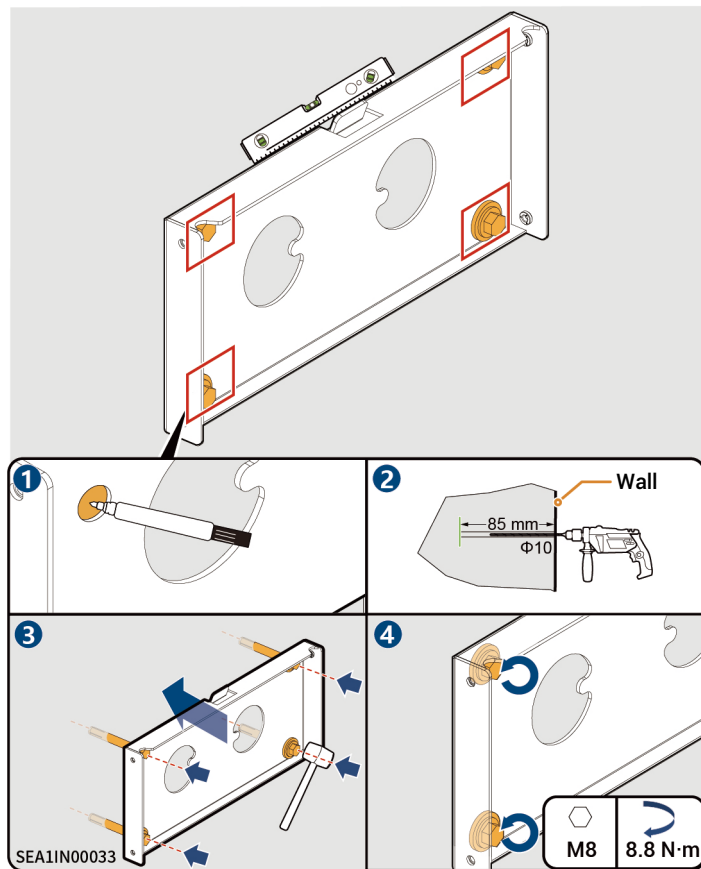
Please refer to the corresponding model's Installation Guide for specific installation procedures.

4.2.2 Newly Installing All Components

1



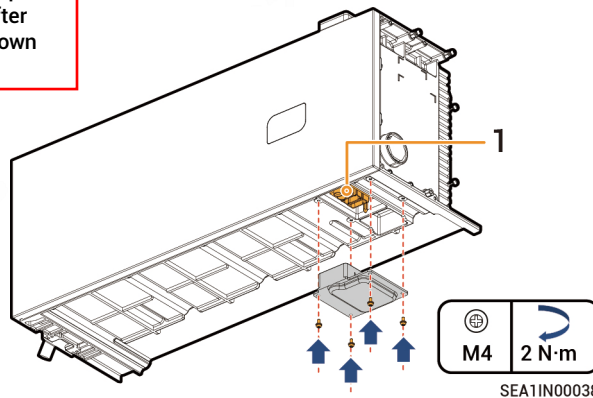
2



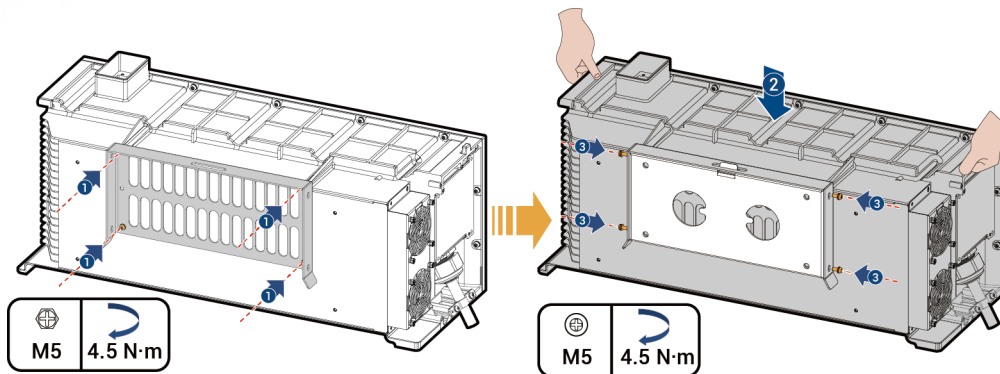
3

Danger

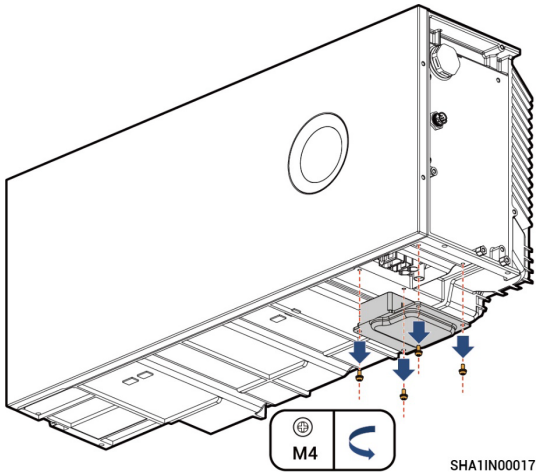
Please follow the operation steps hereby precisely. If this step is not followed, there may be high voltage on the equipment after the equipment is powered on, and touching Position 1 as shown in the figure will cause personal injury.



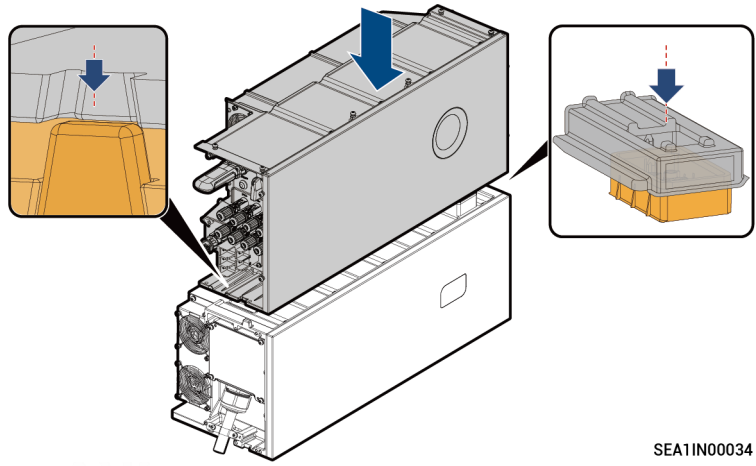
4



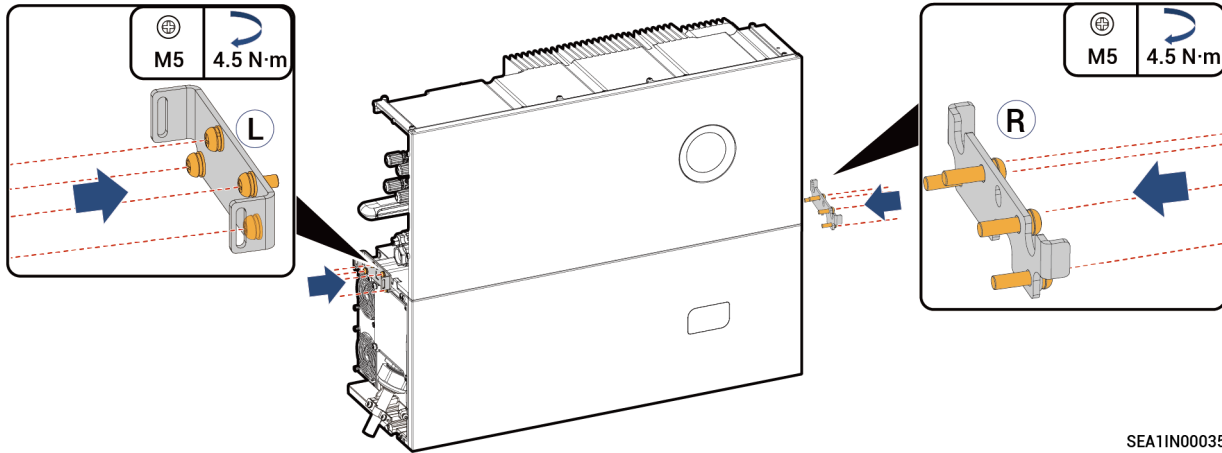
5



6



7



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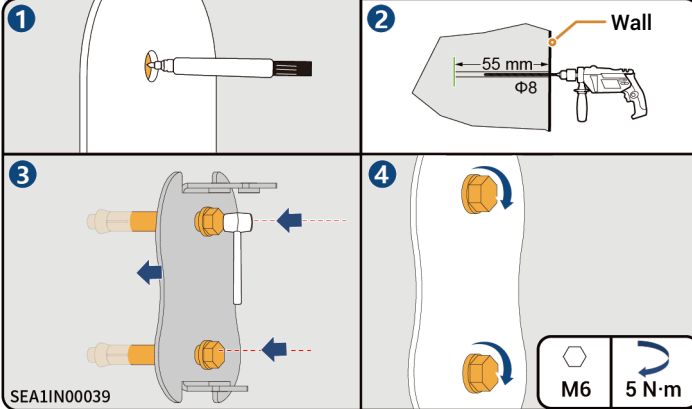
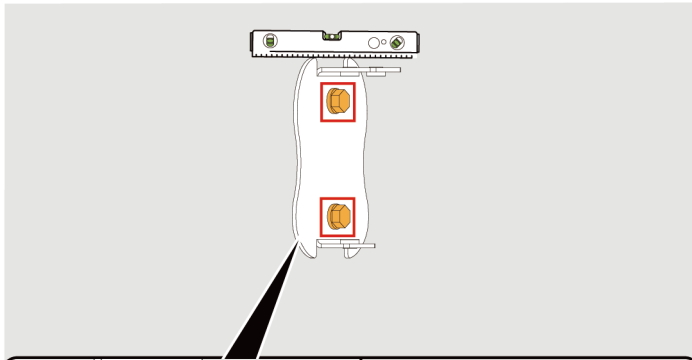
8 Connect the inverter cable.

Tips

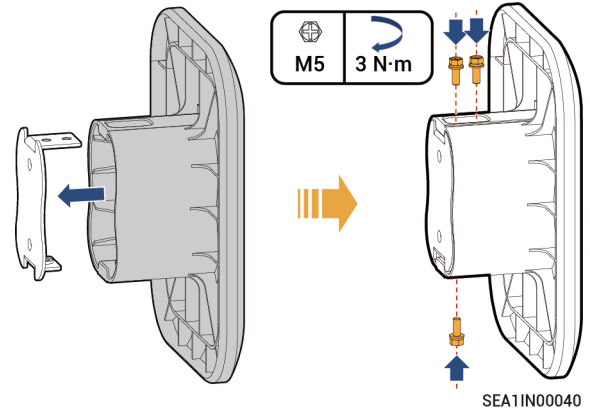
Please refer to the corresponding model's SigenStor Home Installation Guide for inverter details.

5 Installation of Charging Socket and Placement of Charging Connector

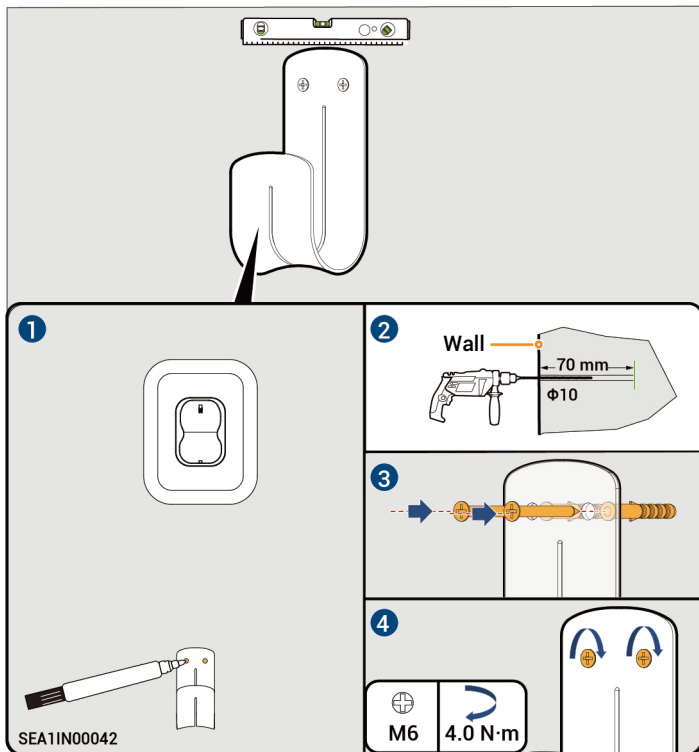
1



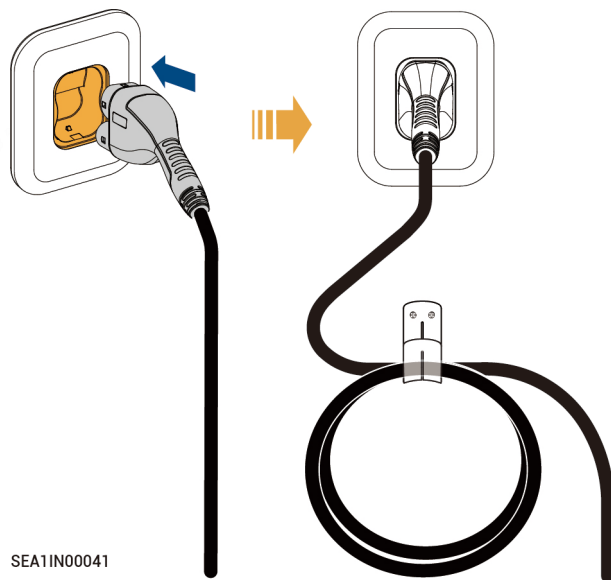
2



3

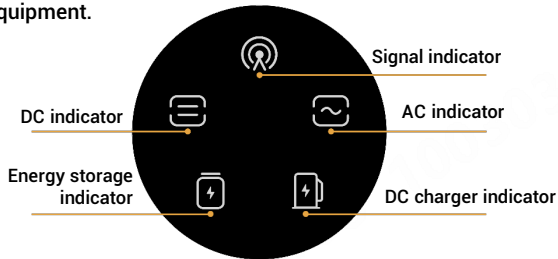


4



6 Power On

1. Turn on the upstream switch of equipment.
2. Turn the "DC SWITCH" of the inverter to the "ON" position. (This step is not necessary for SigenStor AC)
3. View indicator status on the front panel of the SigenStor EC/SigenStor AC/Sigen Hybrid to check the operation status of the equipment.



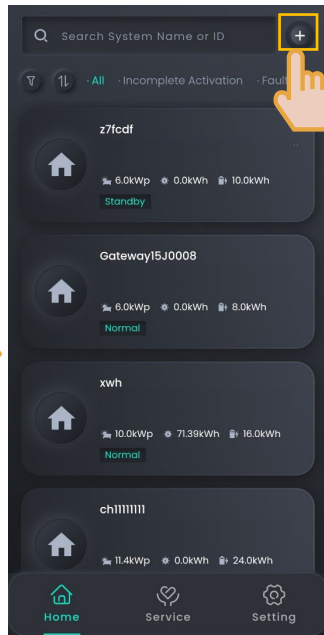
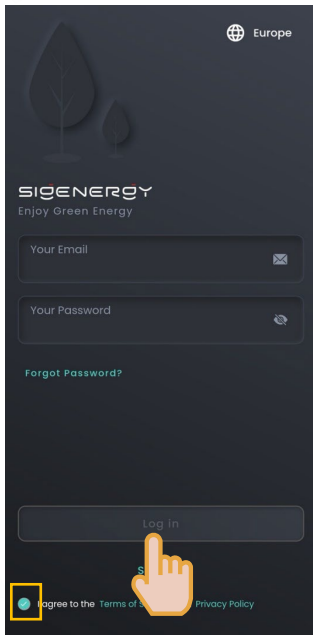
Indicator	Color	Status	Status of SigenStor EVDC
		Off	Not powered on.
		Steady on	Powered on but the charging connector not connected to the vehicle.
		Steady on	<ul style="list-style-type: none"> The charging connector connected to the vehicle. Charging completed.
		Blink	Charging.
		Steady on	Alarming.
		Steady on	Equipment failure.

7 Creating a New System

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



Creating New Systems in Both SigenStor EVDC and Other Devices



- Create a new system as instructed on the screen.
- Please refer to the corresponding model's SigenStor Home Installation Guide or corresponding inverter's Installation Guide for operation procedures.

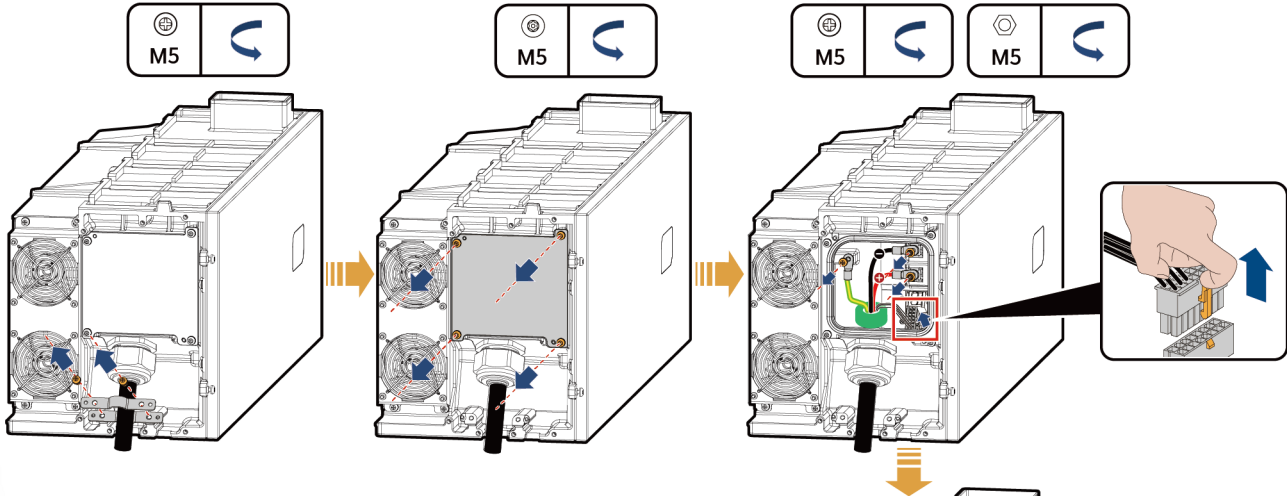
Adding SigenStor EVDC to an Existing Power Station

Please contact our technical engineers to add SigenStor EVDC to the Existing Power Station.

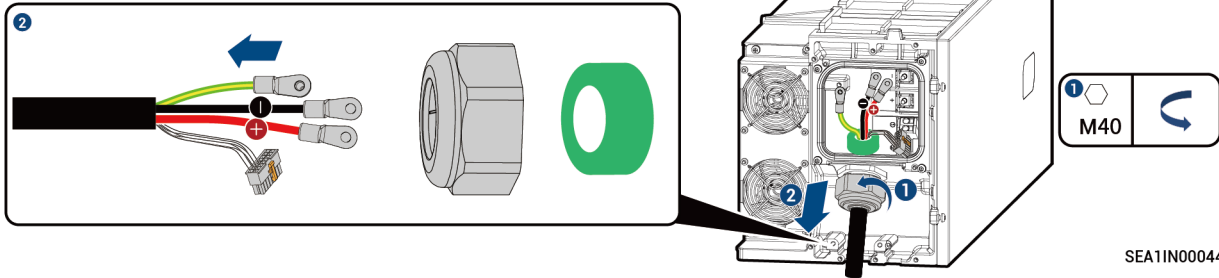
■ FAQ

How to remove and install the charging connector cable of the SigenStor EVDC?

Remove the charging connector cable



After removing the charging connector cable, do not damage the cable label.

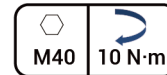
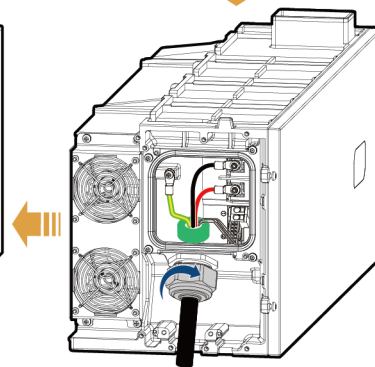
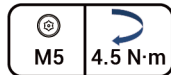
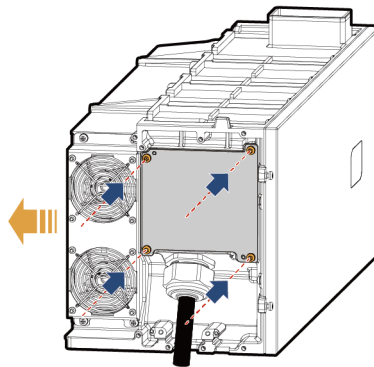
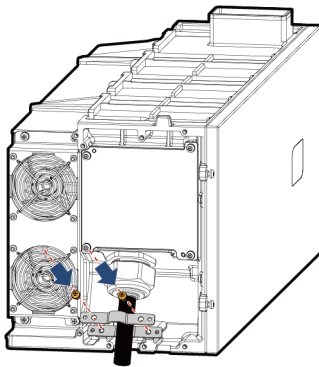
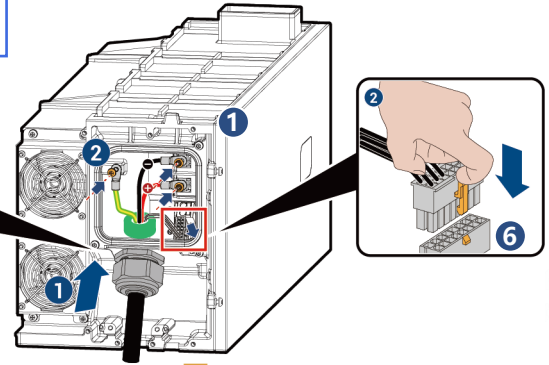
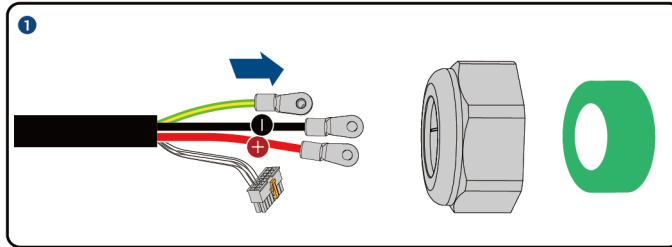


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Install the charging connector cable

Caution

Please make sure that the cable is properly connected and the screws are tightened to prevent equipment damage.



Sigenergy Technology Co., Ltd.



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