SigenStor BC Energy Storage System Installation Guide

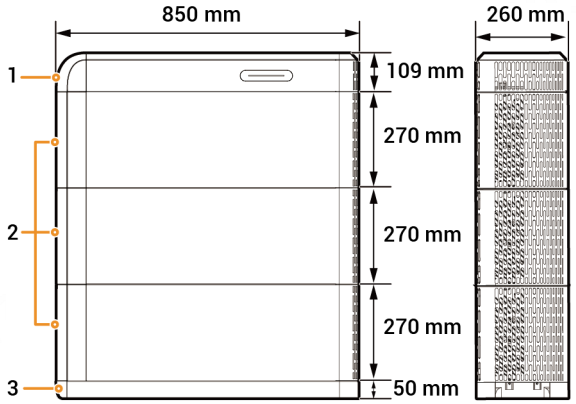
Version: Draft A
Release date: 2025-04-25

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 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.

1 Introduction

1.1 Appearance and Dimensions



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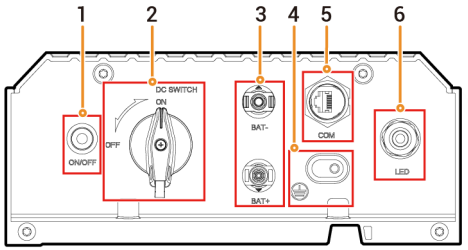
No.	Description
1	SigenStor BC
2	SigenStor BAT (5.0-10.0), 1 ≤ number of units ≤ 6
3	Base

1.2 Port Introduction

SigenStor BC



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No.	Name	Marking
1	Power button	ON/OFF
2	DC switch	DC SWITCH
3	Battery pack input interface	BAT+/BAT-
4	Grounding point (connecting the inverter)	⏚
5	Communication port	COM
6	Decorative strip light	LED

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.
- 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

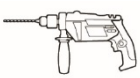

Dust mask


Protective gloves


Insulating gloves

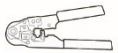

Insulating shoes

Installation Tools


Power drill


Heat gun


Wire cutter


Crimp tool


Crimping pliers


Wire stripper


Scissors


Cable ties


Heat shrinkable sleeve

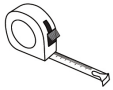

Insulated sleeve set

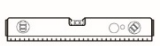

Torque socket wrench


Marker


Rubber mallet


Hexagonal L-type wrench (4 mm on the opposite side)


Tape measure


Level


Vacuum cleaner


Insulated screwdriver set


Open-end wrench (Model: H4TW0001 Supplier: Amphenol）


Energy storage terminal crimping pliers (Model: UTXTC0004 Supplier: Amphenol)

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.
- Please prepare the cables according to actual needs.

No.	Cable Name	Recommended Specification
1	Protective ground cable	Single-core copper core flexible conductor for outdoor use Docked inverter ≤ 12 kW: 6 mm² Docked inverter ＞ 12 kW: 8 mm²
2	Communication cable	CAT6 eight-core shielded twisted pair network cable for outdoor use Conductor cross-sectional area: 0.2 mm²; Cable OD: 4.5 mm to 6.1 mm Single cable length ≤ 20 m
3	DC input cable	Photovoltaic copper core cable for outdoor use Cross-sectional area of the conductor: 6 mm²; cable OD: 4.5 mm to 7.8 mm Single cable length ≤ 20 m

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 installation location should comply with local firefighting, environmental protection regulations, and other relevant laws. The specific installation location planning should be subject to the installer or engineering, procurement, and construction (EPC) contracts.

Installation Environment

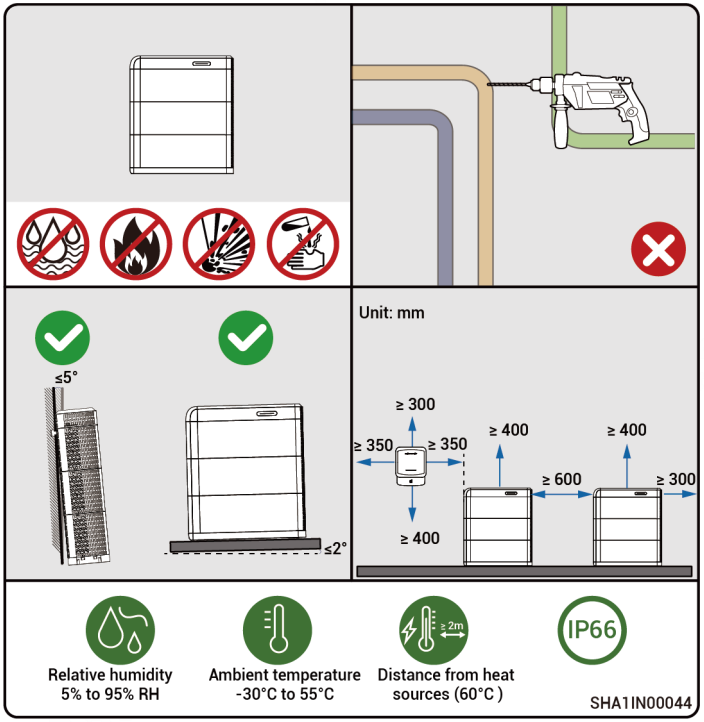
- Do not install the equipment in a smoky, flammable, or explosive environment.
- Avoid exposing the equipment to direct sunlight, rain, standing water, snow, or dust. Install the equipment in a sheltered place. Take preventive measures in operating areas prone to natural disasters such as floods, mudslides, earthquakes, and typhoons.
- Do not install the equipment in an environment with strong electromagnetic interference (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 areas easily accessible to children.
- Do not install the equipment in a place with fire hazards or is prone to moisturizing.
- The equipment produces sound when it is operating. Please install the equipment in a place with appropriate distance at which there is no impact to daily work and life.
- 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 operating. If the equipment is installed indoors, please ensure good indoor ventilation and avoid significant indoor temperature rise by 3°C while the equipment is operating. Otherwise, the equipment will be derated.
- 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.
- Keep the equipment clear of vehicle passage when installed in a garage to avoid collisions.

Installation Base

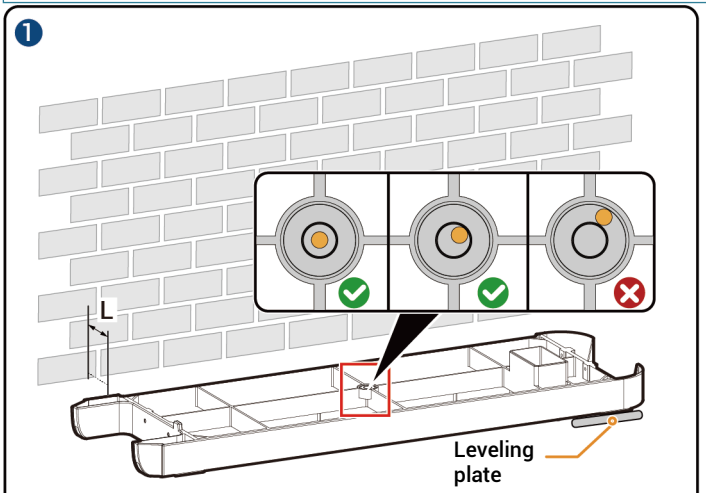
- Do not install the equipment on a flammable base.
- The installation base should meet the load-bearing requirement. Solid brick-concrete structures and concrete walls are recommended.
- The installation base should be flat, and the installation area should meet the installation space requirements.
- No plumbing or electricity routing should be inside the installation base to avoid potential drilling hazards during equipment installation.
- The base of the equipment is made of aluminum. Suppose the equipment is installed on a metal base that is prone to electrochemical corrosion (such as high-chromium stainless steel, austenitic stainless steel, nickel-plated steel, etc.). In that case, insulation pads must be placed between the equipment and the base.(Such as non-metallic PC insulation pads, PTFE insulation pads, PVDF insulation pads, etc.)



4 SigenStor BC and Battery Pack Installation

Tips

- It supports up to 6 SigenStor BATs.
- Please use a crane when installing the third SigenStor BAT.
- If the ground is prone to water accumulation, please build a waterproof platform.
- The equipment is heavy. Handle the equipment with due care to avoid falling or injuring the operator.
- Do not use the SigenStor BAT after it falls, please purchase a new one.
- Do not drag the equipment during installation.
- During the installation process, avoid rain, snow, wind, sand, and other foreign objects from entering the device port.



If the bubble level is not centered, use a leveling plate to adjust.

Number of SigenStor BATs	L (Distance from Base to Wall) Range
≤ 2	L ≥ 35 mm
3 to 6	35 mm ≤ L ≤ 50 mm

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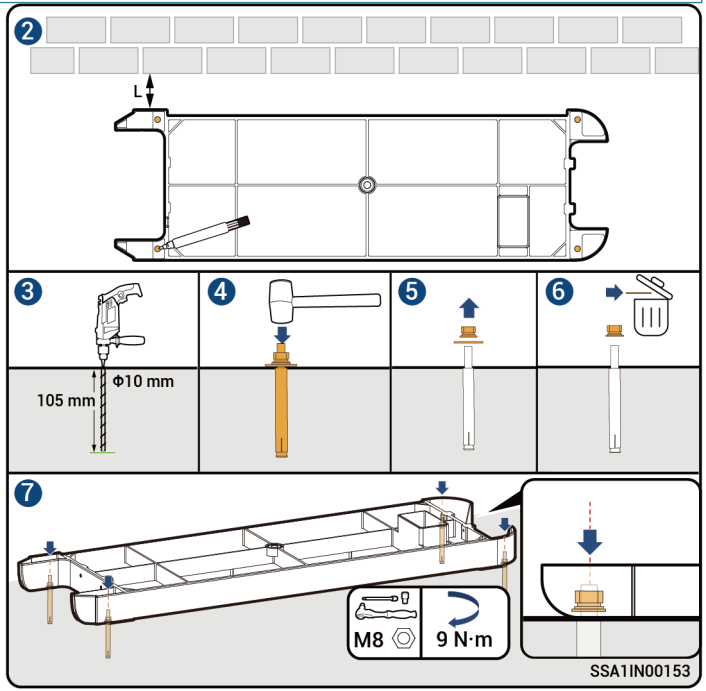

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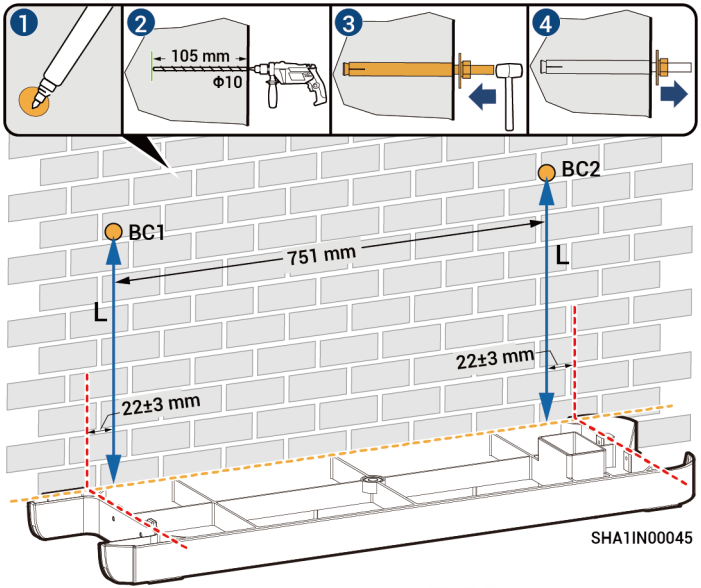
2 BC1 is the mounting hole for the left wall fastener, and BC2 is the mounting hole for the right wall fastener.

Calculation formula for punch height
L needs to be measured from the top surface of the base: L= N x 270 mm - 27 mm ± 3 mm

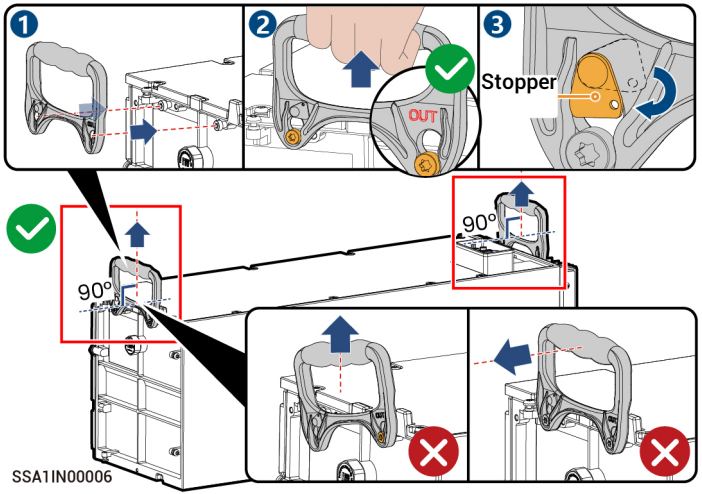
Note: N represents the number of SigenStor BATs, and N ranges from 3 to 6.



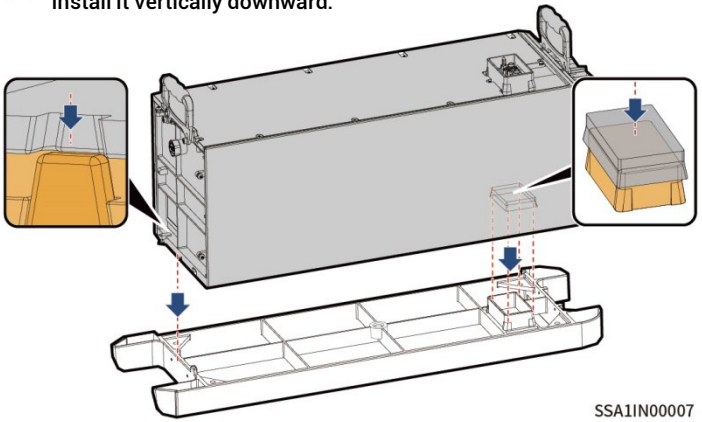
3 Before installing the handle, use a torque socket wrench to measure the screws and confirm that the screws on the Sigen BAT are tightened, with a tightening torque of 4.5 N·m (±0.45 N·m).

Caution

- Use the new handle supplied with the inverter for your installation operation.
- The "OUT" lettering on the handle must face outwards.
- Do not use a handle with stoppers that fell off or damaged for your installation operation. (Including but not limited to rust, paint peeling, deformation, and fracture)
- The handle is a personal asset of the owner. After use, it must be handed over to the owner for future use and must not be taken away from the installation site.
- The handle shall not be used more than 100 times. The handle that exceeds the use limits shall be scrapped.



4 Keep the SigenStor BAT horizontal and install it vertically downward.



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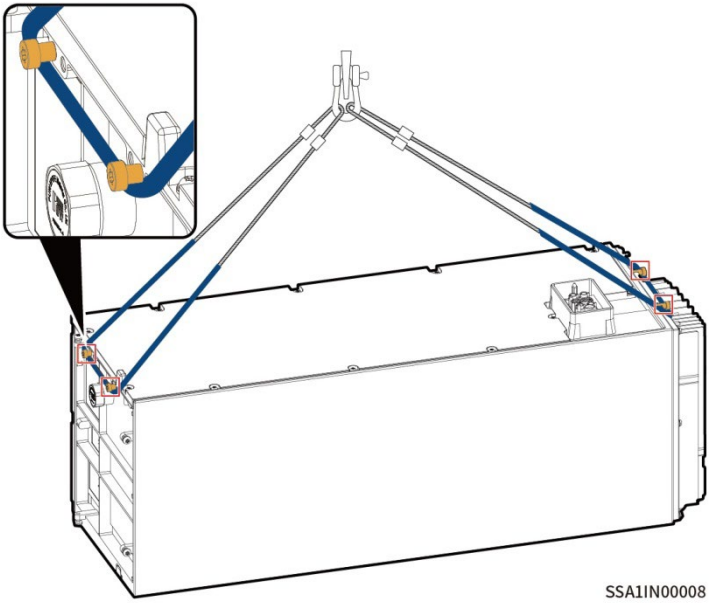
5 To place the second SigenStor BAT, refer to step 3 4 .

6 To install three or more SigenStor BATs, please use a crane.



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Tips

When lifting, wrap a protective layer around the area where the lifting rope comes into contact with the equipment to avoid damage to the equipment.

7 For the method of placing the SigenStor BC, please refer to step 4 .

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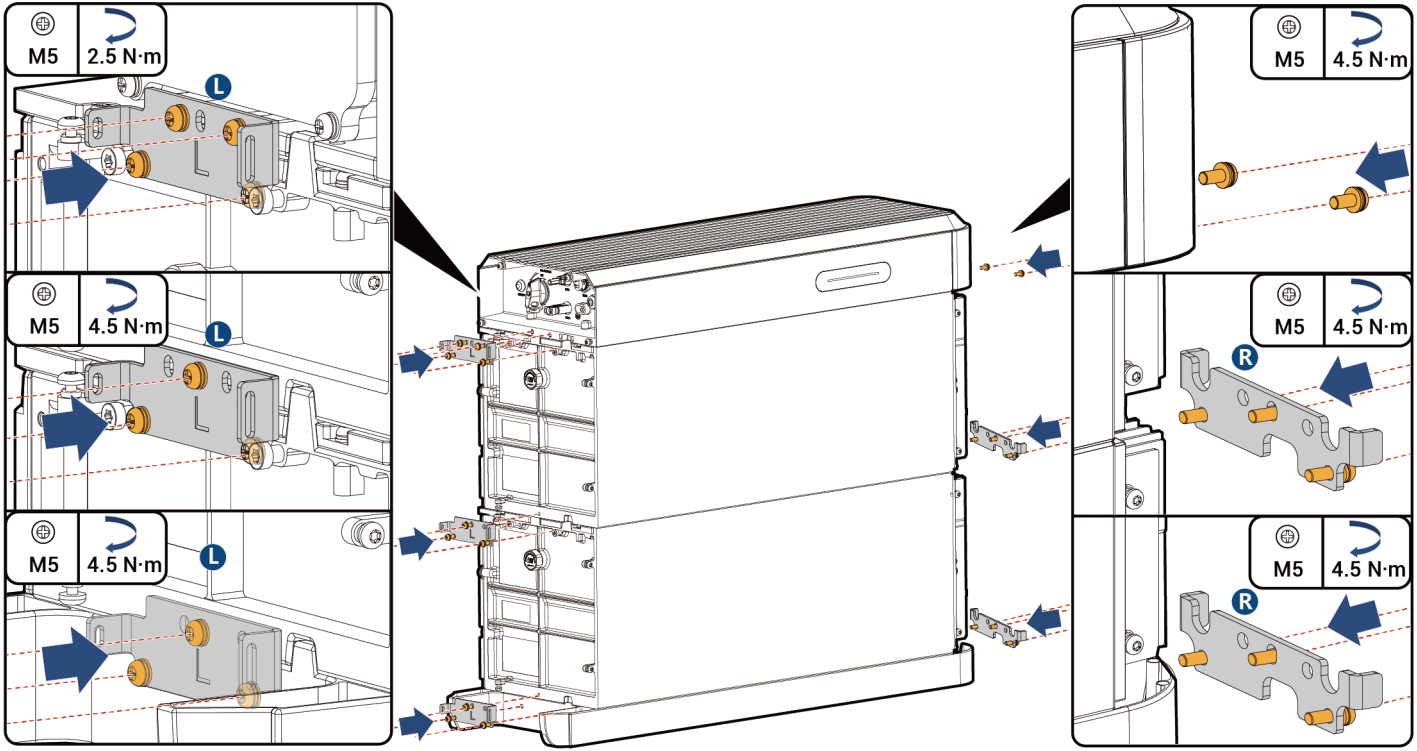
M5
2.5 N·m
L
M5
4.5 N·m
L
M5
4.5 N·m
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M5
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R
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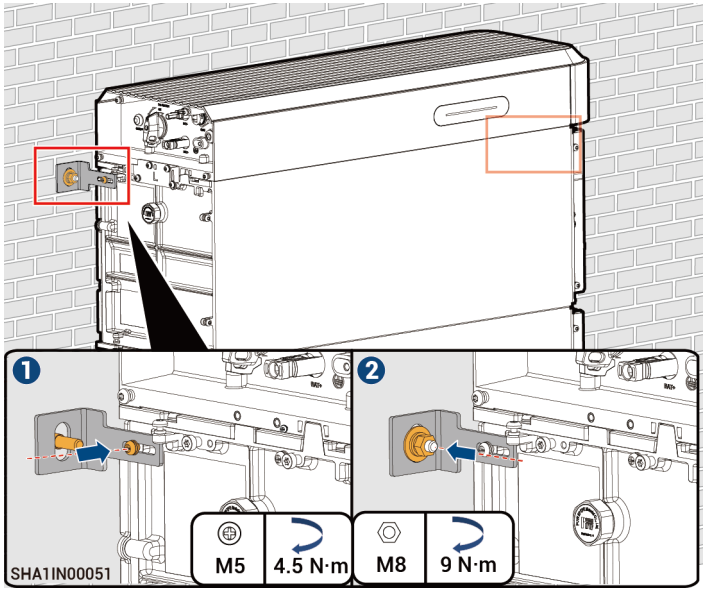
9



5 Cable Connection

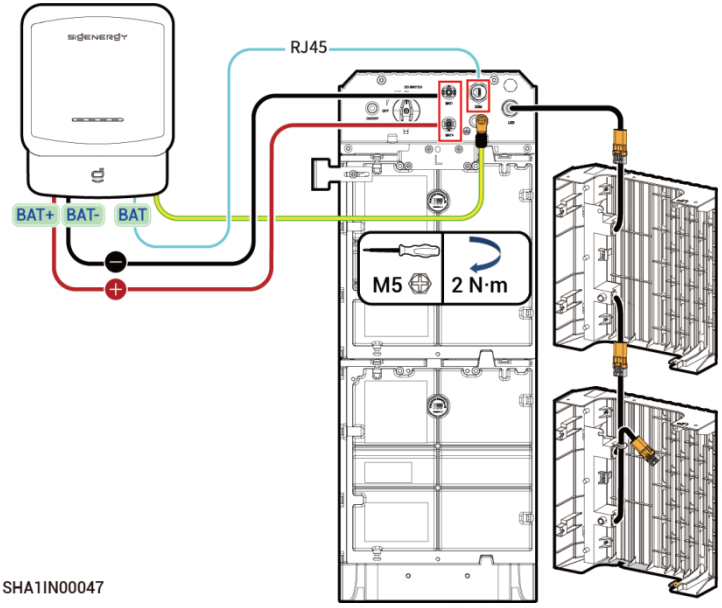
5.1 Interface Relationship

Danger

Before wiring, please ensure that the SigenStor BC and the docking device are powered off.

Tips

For specific operations on the inverter side, please refer to the Installation Guide of the corresponding model.



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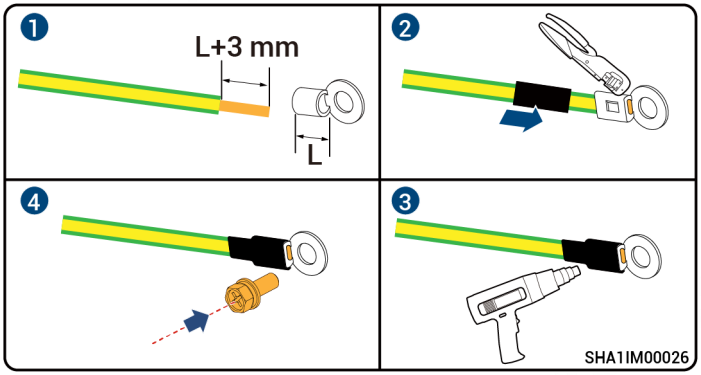
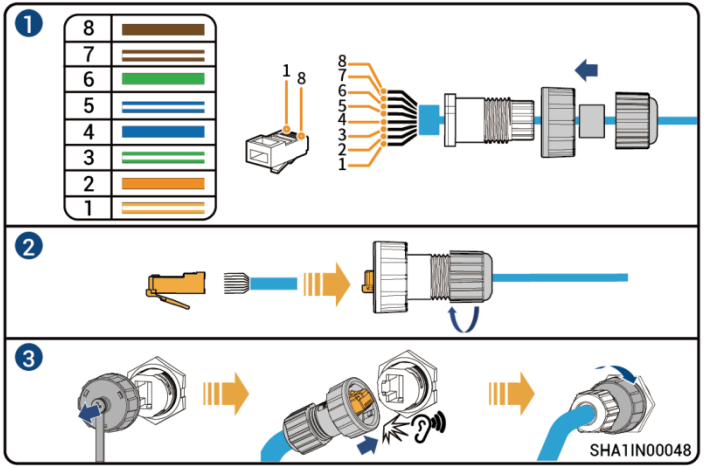
5.2 Ground Cable



5.3 Communication Cable



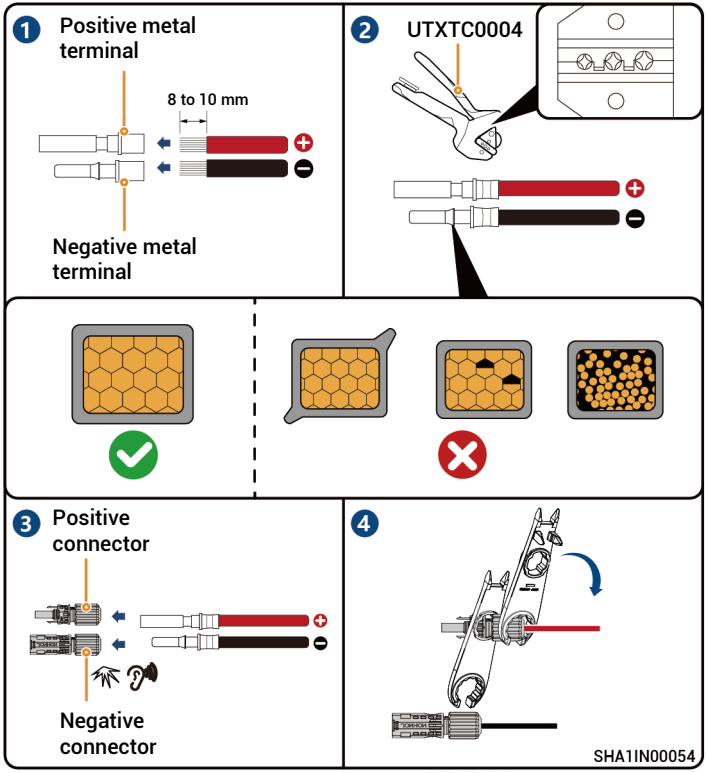
5.3 DC Input Cable

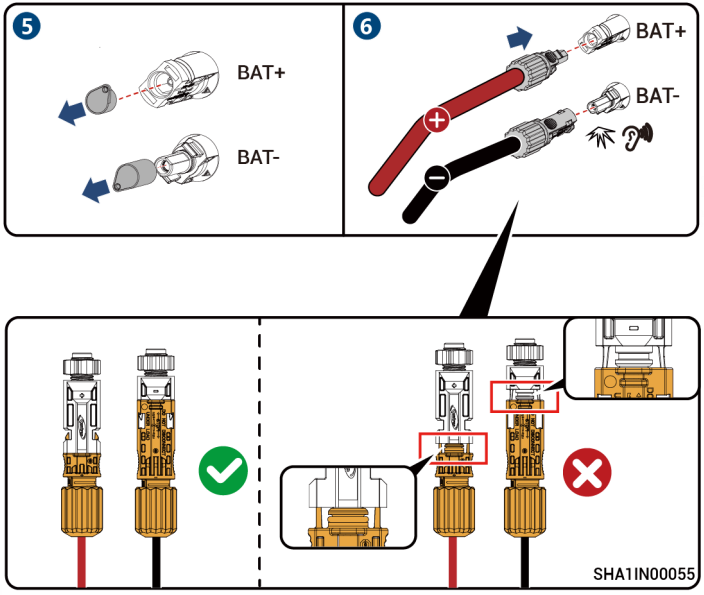
Tips

Before wiring, please make sure that the SigenStor BC side and inverter side are not powered.

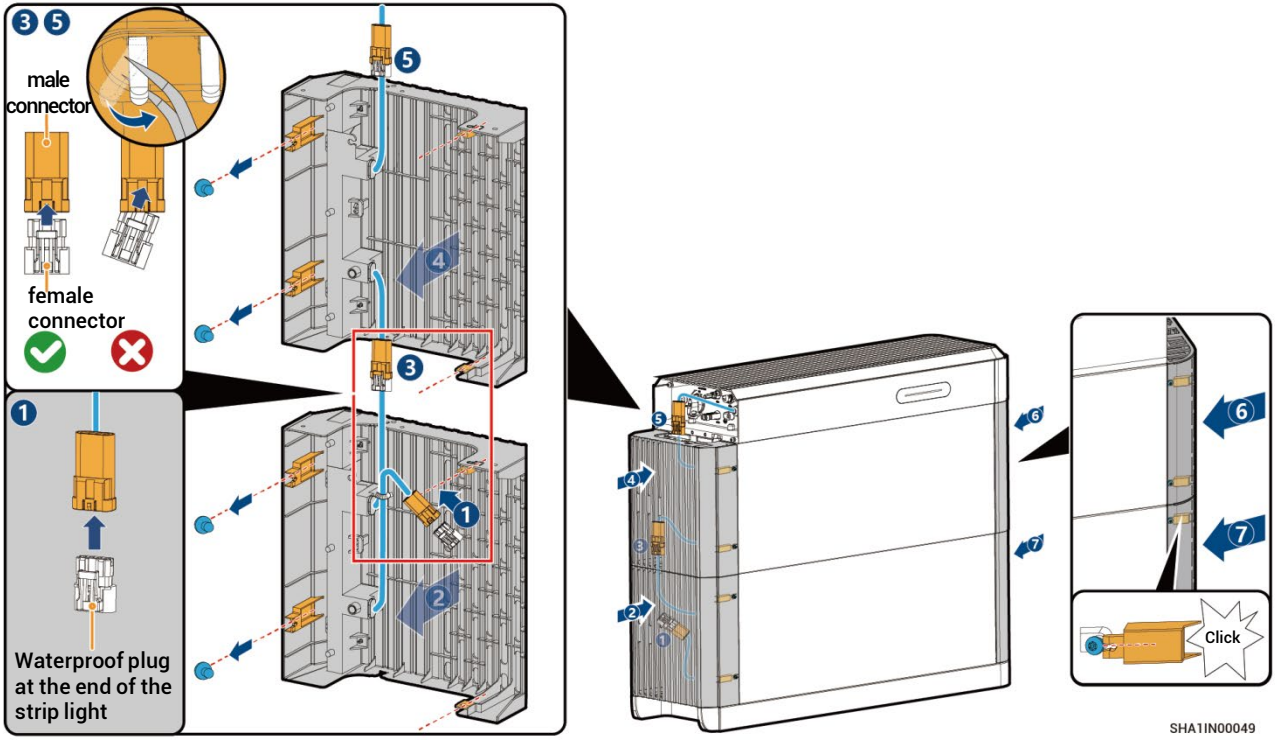
Caution

When connecting cables, please ensure that the level of connection with the inverter is correct.





6 Decorative Cover Installation



Caution

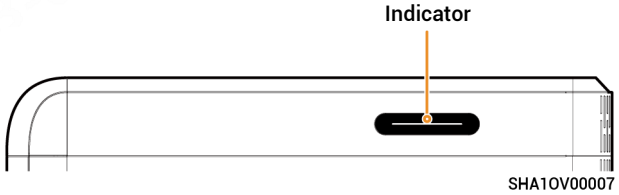
- The waterproof plug at the end of the strip light in step ❶ is on the LED port strip light of the SigenStor BC.
- If the strip light shows an abnormal status when the device is powered on, check if the pin in the male connector is tilted. If it is tilted, straighten it and re-plug the male connector and female connector at the abnormal position.

6 Inspections After Installation

No.	Check Item
1	The equipment is securely installed.
2	Ground cables, DC cables, AC cables, signal cables, etc. are installed accurately, with no omissions.
3	Lock screws or terminal blocks are installed in place without any looseness.
4	Cutouts of cable ties are free of burr or sharp edges.
5	"DC SWICH" 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.

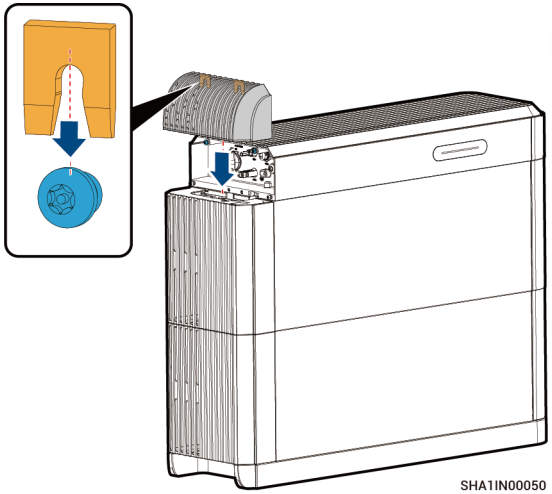
7 Power-on

1. Close the upstream AC switch of the inverter.
2. Rotate the inverter's "DC SWITCH" to the "ON" position.
3. Rotate the SigenStor BC's "DC SWITCH" to the "ON" position.
4. Observe the status of the indicator on the front of the SigenStor BC to understand the device status.



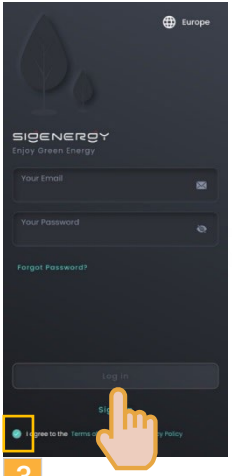
Color	Status	Meaning
	Steady on	Battery rack in standby mode.
	Breathing blink	Charging.
	Breathing blink	Discharging.
	Steady on	The communication between the battery cluster and the inverter is abnormal.
	Breathing blink	The SigenStor BC communication is abnormal.
	Steady on	Equipment failure.

After power-on is complete, install the remaining decorative cover.



8 Creating a New System

1. Please visit https://www.sigenergy.com and go to "Partner" → "Register Now" to complete the account registration according to the actual situation.
2. Download the mySigen app to initiate the creation of a new system for your equipment.



- When installed together with the inverter, the system is created together with the inverter.
- When adding to an existing power station, click the power station name > " ··· " > "Post-Sales Service" to complete the addition.
- Refer to the *mySigen App Creating New Systems Guide* for the startup operation method.

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.

Sigenergy Technology Co., Ltd.

Website	LinkedIn	YouTube

www.sigenergy.com

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