User Manual

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Date 2026-05-20

SieB-HQ14-F

SieB-HQ14-F1

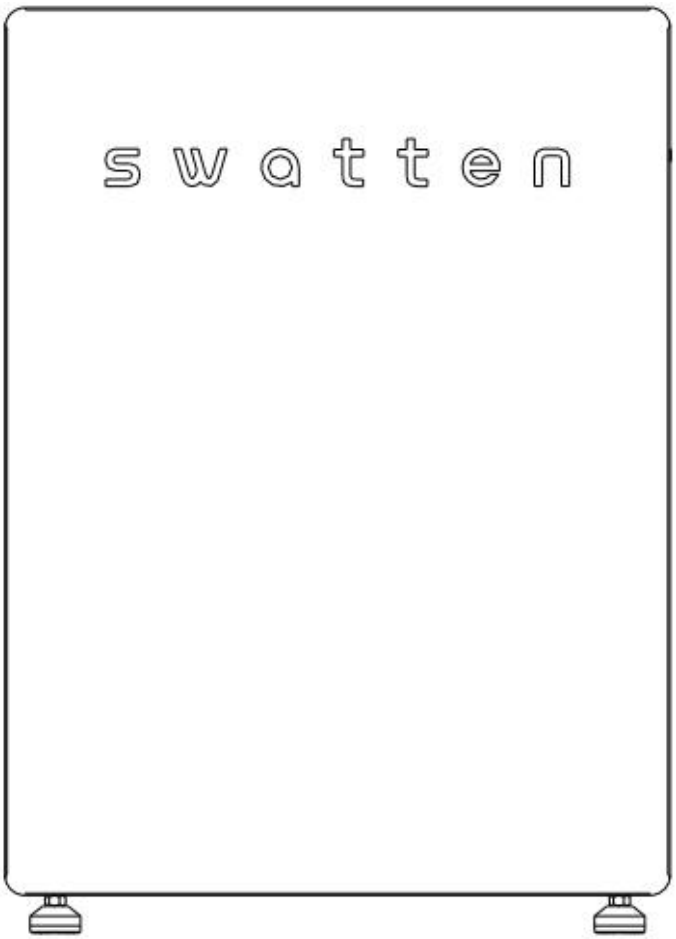
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Shanghai Sieyuan Watten Technology Co., Ltd.

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About This Manual

The manual primarily encompasses product information, along with installation, operation, and maintenance guidelines.

It will refer to the device as the "inverter" unless otherwise specified.

- Target Audience

  This manual is intended for professional technicians who have responsibilities for the installation, operation, and maintenance of inverters, as well as users who need to check inverter parameters.

  Installation Requirements:

  The installation of the inverter should only be carried out by professional technicians who meet the following requirements

- Possess knowledge of electronics, electrical wiring, and mechanical expertise, and be familiar with electrical and mechanical schematics.
- Have received professional training related to the installation and commissioning of electrical equipment.
- Capable of promptly responding to hazards or emergencies that may arise during the installation and commissioning process.
- Familiar with local standards and relevant safety regulations pertaining to electrical systems.
- Thoroughly read this manual and understand the safety instructions associated with the operations.

- How to Use This Manual

- Please carefully read this manual before utilizing the product and store it in a readily accessible location.
- All content, images, trademarks, and symbols in this manual are the property of Swatten. No part of this document may be reproduced by individuals not employed by Swatten without written authorization.

The contents of this manual may be periodically updated or revised, and the specifications of the actual product purchased should take precedence.

- **Symbols**

  This manual incorporates crucial safety instructions that are emphasized using specific symbols. These symbols are employed to ensure the safety of individuals and property during product usage or to assist in maximizing product performance efficiently..

  It is essential to thoroughly comprehend the significance of the warning symbols to enhance your utilization of the manual.

DANGER

Indicates the presence of high-risk potential hazards that, if not avoided, could result in severe injury or even death.

WARNING

Indicates the presence of moderate-risk potential hazards that, if not avoided, could result in serious injury or even death.

CAUTION

Indicates the presence of low-risk potential hazards that, if not avoided, may lead to minor or moderate injury.

NOTICE

Indicates potential risks that, if not avoided, may result in device malfunctions or financial losses.

The "NOTE" designation is used to indicate supplementary information, emphasized content, or helpful tips that can assist you, such as problem-solving techniques or time-saving suggestions.

Change History

Changes between document issues are cumulative, meaning that each subsequent document issue includes all the changes made in earlier issues.

Issue 1 (2026-05-20)

This issue is the first official release.

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1 Safety Precaution

Please ensure to strictly adhere to the safety instructions provided in the user manual during the operation of the system. These instructions are designed to ensure the safe and proper functioning of the equipment and to prevent any potential hazards or accidents.

NOTICE

The products have been designed and tested to comply with applicable safety regulations. It is essential to read and follow all safety instructions and cautions before performing any operations. Failure to do so may result in personal injury or property damage, as these products are electrical equipment.

1.1 General Safety

NOTICE

- The information in this user manual is subject to change due to product updates or other reasons. This guide is not a substitute for the product labels or the safety precautions in the user manual unless specified otherwise. All descriptions are for guidance purposes only.
- Before proceeding with any installations, carefully read and familiarize yourself with the user manual to understand the product and its associated precautions.
- All operations should be carried out by trained and knowledgeable technicians who are well-versed in local safety regulations and standards.
- When operating the equipment, utilize insulating tools and wear appropriate personal protective equipment (PPE) to ensure personal safety. This may include anti-static gloves, clothing, and wrist straps when handling electronic devices to protect both yourself and the equipment from damage.

1.2 Battery Safety

DANGER

- Power off the equipment before performing any operations to avoid danger. Strictly follow the safety precautions outlined in this manual and the safety labels on the equipment during operation. The battery system maintains a high voltage during operation.
- The inverter used with the battery must be approved by the battery manufacturer. You can obtain the approved list of batteries and matched inverters through the official website.
- Do not disassemble, modify, or replace any part of the battery or power control unit without official authorization from the manufacturer. Unauthorized actions may cause electrical shock or equipment damage, for which the manufacturer will not be held responsible.
- Avoid hitting, pulling, dragging, squeezing, or stepping on the equipment, and do not expose the battery to fire. Mishandling the battery may lead to explosions.
- Keep the battery away from high temperature environments. Ensure there is no direct sunlight or heat source near the battery. Temperatures exceeding 60℃ can cause fires.
- Do not use a defective, broken, or damaged battery or power control unit. Damaged batteries may leak electrolyte.
- During transportation, take precautions to protect the battery pack and its components. Ensure that transportation personnel are trained and record all transportation operations. Keep the equipment balanced to prevent falls.
- The battery equipment is heavy. Assign personnel according to its weight capacity to avoid exceeding the carrying capacity of the human body and causing injuries.
- If the battery fails to start, contact after-sales service immediately to prevent permanent damage to the battery.
- Do not move the battery system if it is connected to external battery modules. Contact after-sales service for any battery replacement or addition needs.
- The protective cap is pre-installed, should be kept on the battery terminal during transportation, and should only be removed when the installer is ready to make the wire connections. The BAT switch of master battery should be kept off during transportation, and there is no power on the battery terminal when BAT switch is off.
- For any internal maintenance, product must be returned to Swatten.

CAUTION

- Ensure the battery system is safeguarded during the transportation and storage phases.
- Trained professionals should handle transportation and maintain a record of all operations.
- Keep the equipment stable to prevent damage and minimize the risk of personal injuries.

- Maintain a minimum distance of 30mm between cables and heating components or heat sources to prevent damage to the cable insulation.
- Tie cables of the same type together for organization and avoid entanglement or crossing of cables.
- Keep cables of different types at least 30mm apart to prevent interference.
- Follow proper cable management practices to ensure safety.

Label Description

Symbol	Explanation
	Do not disassemble the Battery pack
	Do not immerse the battery pack in water
	Do not short-circuit the battery
	Do not leave the battery near by fire
	Read Technical Manual Before Servicing
	Flammable Fire Hazard warning symbol
	Danger electrical hazard high voltage
	CE mark of conformity.
	Regulatory compliance mark.



UKCA mark of conformity.



Read the user manual before maintenance!



Recycling symbol



No waste.

1.3 Emergency Measures

1.3.1 Battery Electrolyte Leakage

In case of electrolyte leakage from the battery module, it is crucial to avoid any contact with the leaked liquid or gas due to its corrosive nature. The electrolyte can cause skin irritation or chemical burns to individuals. If anyone accidentally comes into contact with the leaked substance, the following steps should be taken:

i: Inhalation of the leaked substance:
Immediately evacuate from the contaminated area. Seek immediate medical assistance.

ii: Eye contact with the leaked substance:
Rinse the affected eyes with clean water for at least 15 minutes. Seek immediate medical assistance.

iii: Skin contact with the leaked substance:
Thoroughly wash the affected area with soap and clean water. Seek immediate medical assistance.

iv: Ingestion of the leaked substance:
Induce vomiting, if possible.Seek immediate medical assistance.

It is crucial to prioritize safety and take prompt action by seeking appropriate medical attention in case of any contact with the leaked electrolyte.

1.3.2 Fire

When the ambient temperature exceeds 150℃, there is a risk of the battery exploding. In the event of a fire involving the battery, it is important to be aware that poisonous and hazardous gases may be released.

To effectively respond to a battery fire, please follow these guidelines:

- Ensure the availability of a carbon dioxide (CO2) extinguisher, Novac1230, or FM-200 nearby. These types of fire extinguishers are suitable for tackling electrical fires, including battery fires.
- Avoid using water or ABC dry powder extinguishers to extinguish the fire. Water can spread the fire and dry powder may not be effective in suppressing a battery fire.
- If a fire occurs, contact the local fire department immediately. Firefighters should be equipped with full protective clothing and self-contained breathing apparatus to safely handle the situation.

It is crucial to prioritize safety and take appropriate measures to handle battery fires, including the use of suitable fire extinguishers and protective equipment for firefighting personnel.

1.4 EU Declaration of Conformity

Shanghai Sieyuan Watten Technology Co., Ltd. hereby declares that the inverter without wireless communication modules sold in the European market meets the requirements of the following directives:

- Electromagnetic compatibility Directive 2014/30/EU (EMC)
- Electrical Apparatus Low Voltage Directive 2014/35/EU (LVD)
- Battery Directive 2006/66/EC and Amending Directive 2013/56/EU
- Waste Electrical and Electronic Equipment 2012/19/EU
- Registration, Evaluation, Authorization and Restriction of Chemicals (EC) No.RZUN2023-2770 (REACH)

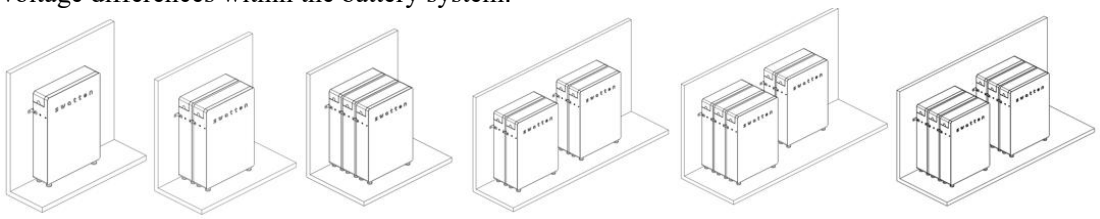
You can download the EU Declaration of Conformity on the official website: https://www.swatten.com

2 Product Introduction

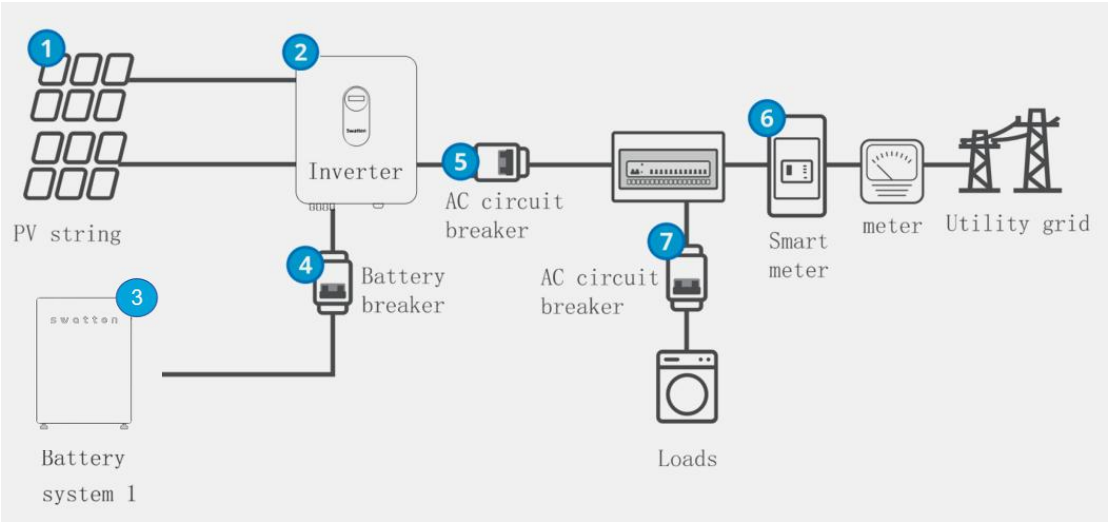
2.1 Product Overview

Battery system, including the master battery and slave battery, is responsible for storing and discharging electrical energy based on the needs of the solar energy storage system. The energy storage system operates with high-voltage direct current (DC) input and output ports.

NOTICE
The battery system allows for capacity expansion, and one master battery can be added with a maximum of 5 slave battery modules to increase the usable energy of the system. It is important to strictly adhere to the expansion requirements specified by the manufacturer. For more information and detailed guidelines, please consult the Dealer or Manufacturer. Failure to follow the recommended expansion procedures may result in issues such as undervoltage, overvoltage, or voltage differences within the battery system.

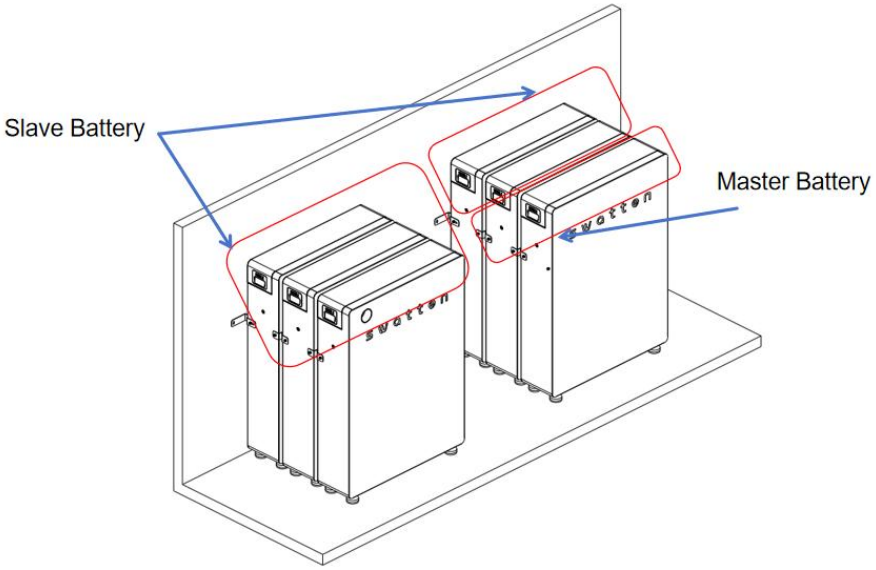


2.2 Application Scenarios

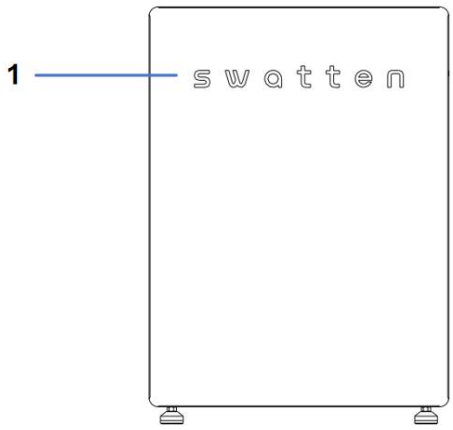


2.3 Appearance

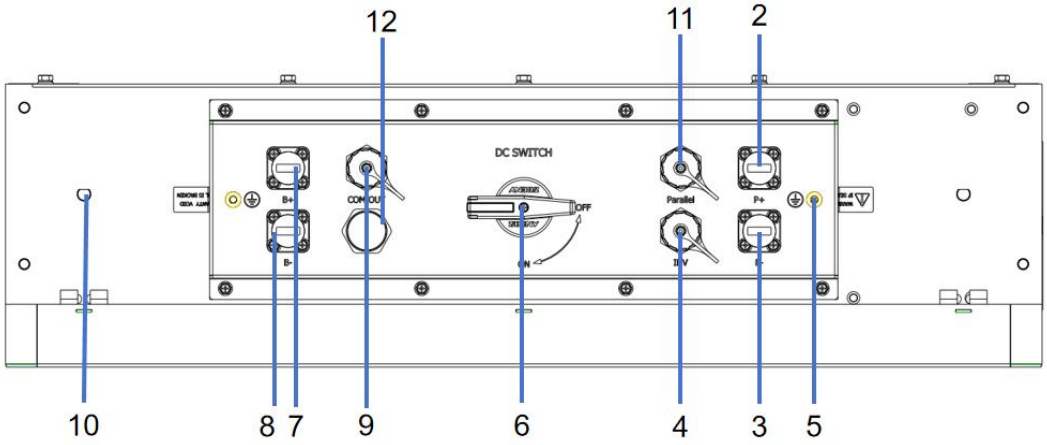
Battery system appearance



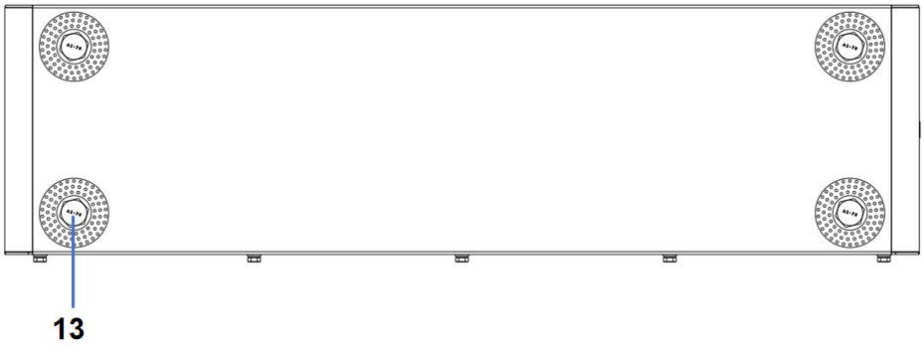
Master Battery appearance



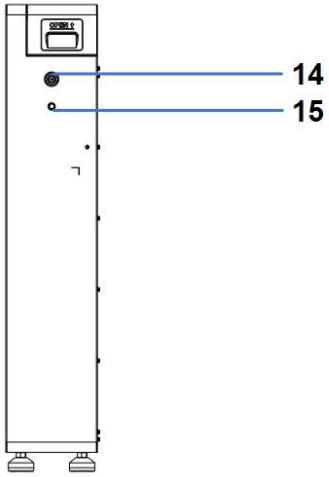
Front View



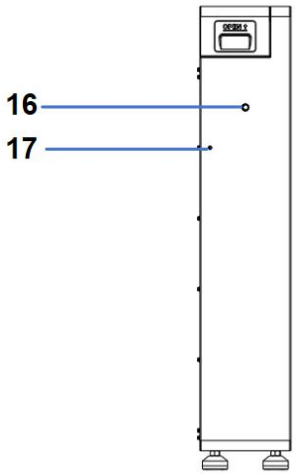
Top View



Bottom View



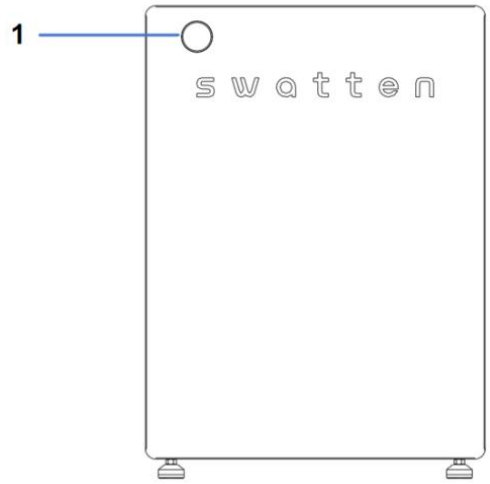
Right View



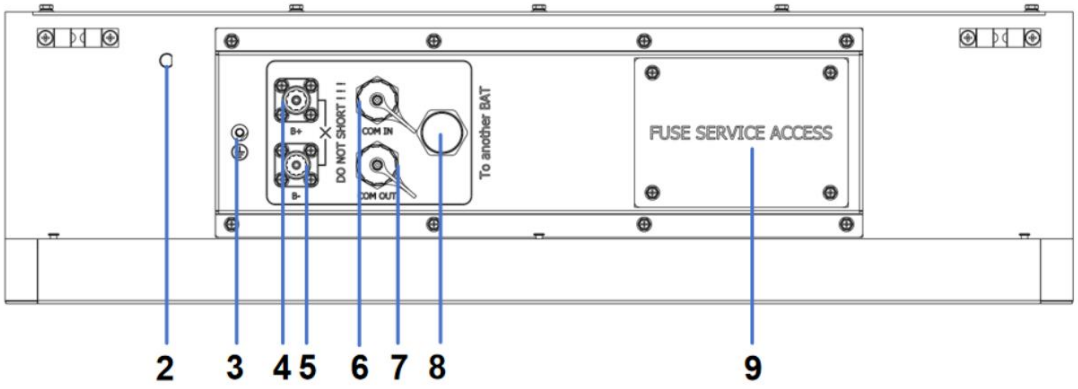
Left View

Item	Name
1	logo
2	Power port connected to the inverter (P+)
3	Power port connected to the inverter (P-)
4	Communication interface with the inverter
5	Grounding point
6	DC Switch
7	Power port between battery modules (B+)
8	Power port between battery modules (B-)
9	Communication port between battery modules
10	Cable tie port
11	Reserved function port/Maintain port
12	Explosion-proof valve
13	Base
14	Indicator light
15	Handle port (right)
16	Handle port (left)
17	Fixed port

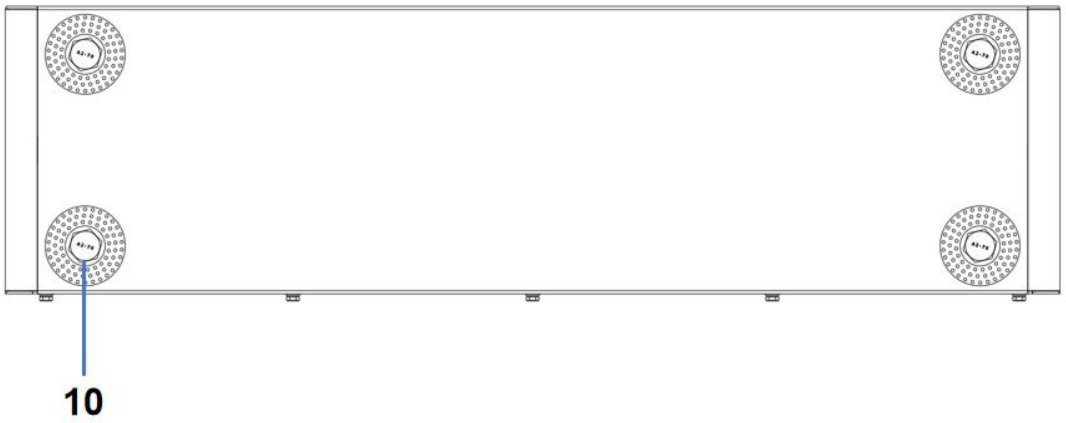
Slave Battery appearance



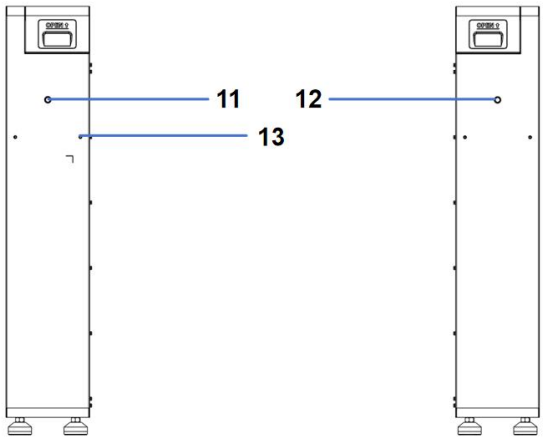
Front View



Top View



Bottom View

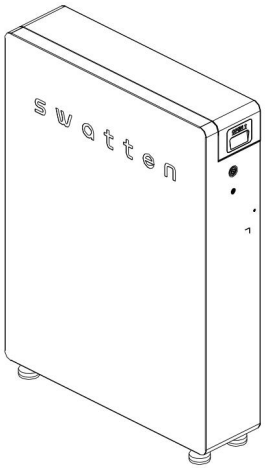


Right View Left View

Item	Name
1	Cable path hole
2	Cable tie port
3	Grounding point
4	Power port between battery modules (B+)
5	Power port between battery modules (B-)
6	Communication port between battery modules (IN)
7	Communication port between battery modules (OUT)
8	Explosion-proof valve
9	FUSE SERVICE ACCESS
10	Base
11	Handle socket (right)
12	Handle socket (left)
13	Fixed port

2.4 Dimensions

SieB-HQ14-F series



SieB-HQ14-F series	W	H	D
SieB-HQ14-F (M)	660	880	180
SieB-HQ14-F (S)	660	880	180

3 Check and Storage

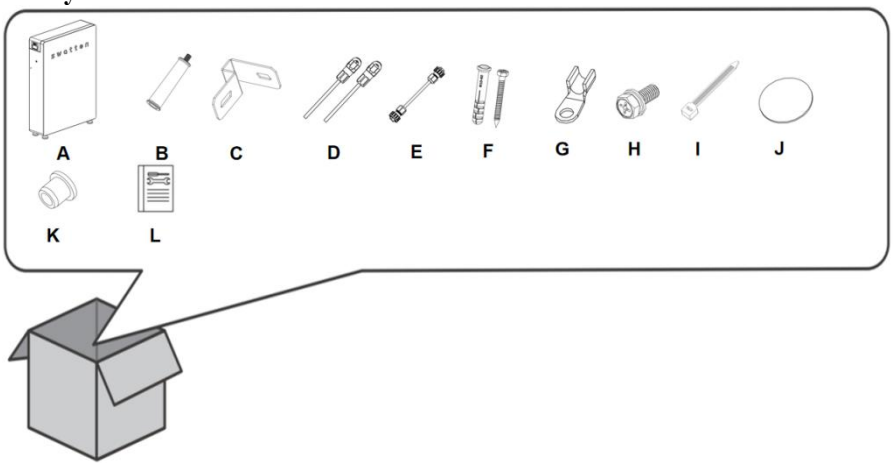
3.1 Check Before Receiving

Check the following items prior to receiving the product:
1. Inspect the outer packaging box for any signs of damage, such as holes, cracks, deformation, or other indications of equipment damage. If any damage is detected, refrain from unpacking the package and promptly notify the supplier.
2. Verify that the product model matches your request. If the product model does not correspond to your specifications, refrain from unpacking the product and contact the supplier.
3.Confirm that the deliverable include the correct model and all the necessary components. Ensure that the contents are complete and nothing is missing.

3.2 Scope of Delivery

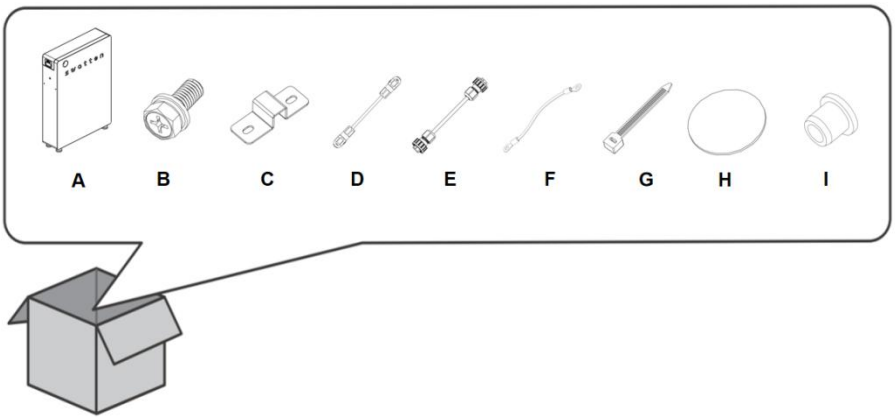
Checking the Outer Packing
Inspect the outer packing for any signs of damage, such as holes or cracks. Additionally, verify the battery model to ensure it corresponds to your request. If you notice any damage or if the battery model is incorrect, refrain from unpacking the product, and promptly contact your dealer for further assistance.
Checking Deliverables
Upon unpacking the battery, carefully inspect the deliverables to ensure they are undamaged, complete, and free from any noticeable defects. If you find any missing or damaged items, promptly contact your dealer for resolution.Please refer to the Packing List within the packing case for specific information regarding the number of deliverables that should have been included with the battery.

Master Battery module



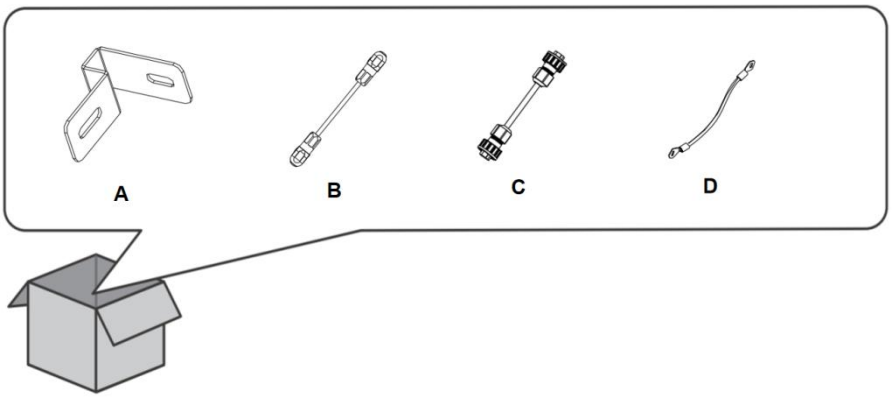
Item	Name	Quantity
A	Master Battery module	1
B	Carrying handle	2
C	Wall bracket	2
D	Battery power cable	2(One positive and one negative)
E	Battery communication cable	1
F	Expansion bolt	2
G	Ground cable Terminal	1
H	M5*12 combination screw	6
I	Nylon cable tie	2
J	Leveling shim	4
K	Handle hole plug	2
L	Quick start guide	1

Slave Battery module



Item	Name	Quantity
A	Slave Battery module	1
B	M5*12 combination screw	6
C	Fixing bracket	2
D	Series power cable	1
E	Battery communication cable	1
F	Ground cable	1
G	Nylon cable tie	2
H	Leveling shim	4
I	Handle hole plug	2

Alongside Package



Item	Name	Quantity
A	Wall bracket	2
B	Power cable	2
C	Battery communication cable	1
D	Ground cable	1

3.3 Storage

If the equipment is not intended for immediate installation or use, please ensure that the storage environment meets the following requirements:

- Do not unpack the outer packing box or discard the desiccant.
- If the equipment is not installed within three days of unpacking, repack and store it in the original packing box.
- Follow the labels and requirements on the packing box when stacking the equipment.
- Take caution when stacking the equipment to prevent it from falling.

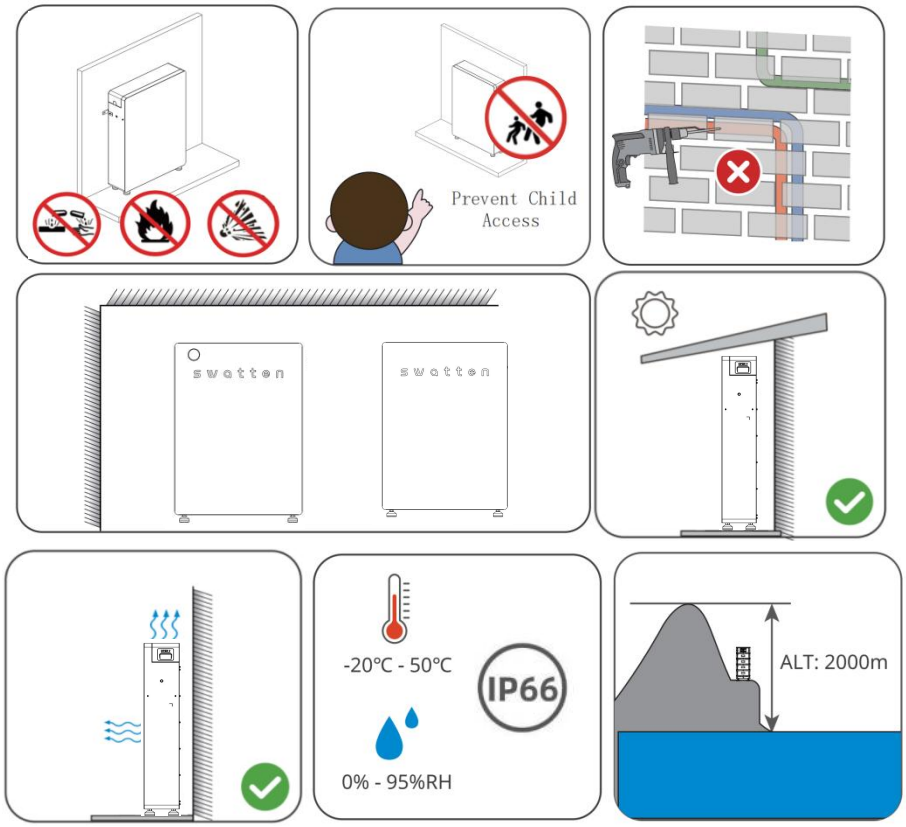
- Keep the equipment away from flammable, explosive, and corrosive substances.
- Store the equipment in a cool place away from direct sunlight.
- Ensure the storage location is clean, with appropriate temperature and humidity levels to prevent condensation.
- Maintain a State of Charge (SOC) between 25% and 50% during storage. Perform charge-discharge cycles every six months.
- Recommended storage temperature: -20℃ to 45℃ (for periods less than one month), -20℃ to 25℃ (for periods less than 6 months).
- Recommended storage humidity: 5% to 95% RH (without condensation). Do not install the battery if moisture or condensation is present.

4 System Installation

4.1 Installation Requirements

Installation Environment Requirements:

- Do not install the equipment near flammable, explosive, or corrosive materials.
- Avoid installing the equipment in accessible areas, especially within reach of children. The equipment generates high temperatures during operation, so touching the surface should be avoided to prevent burns.
- Take care to avoid drilling holes near water pipes and buried cables in walls.
- Install the equipment in a sheltered location to protect it from direct sunlight, rain, and snow. If necessary, construct a sunshade.
- Ensure that the equipment is installed in a well-ventilated area to facilitate proper dissipation of heat. The installation space should be spacious enough for ease of operation.
- The equipment's ingress protection rating determines whether it can be installed indoors or outdoors. Additionally, ensure that the temperature and humidity at the installation site are within the specified range.
- Install the equipment at a suitable height for convenient operation, maintenance, electrical connections, and easy access to indicator and labels.
- The installation altitude should not exceed 2000m above sea level.
- Keep the equipment away from electromagnetic interference. If there are any radio or wireless communication devices operating below 30MHz near the equipment, ensure that the equipment is at least 30m away from those devices.
- Not within two meters from heat source such as hot water system, gas heaters or the like.

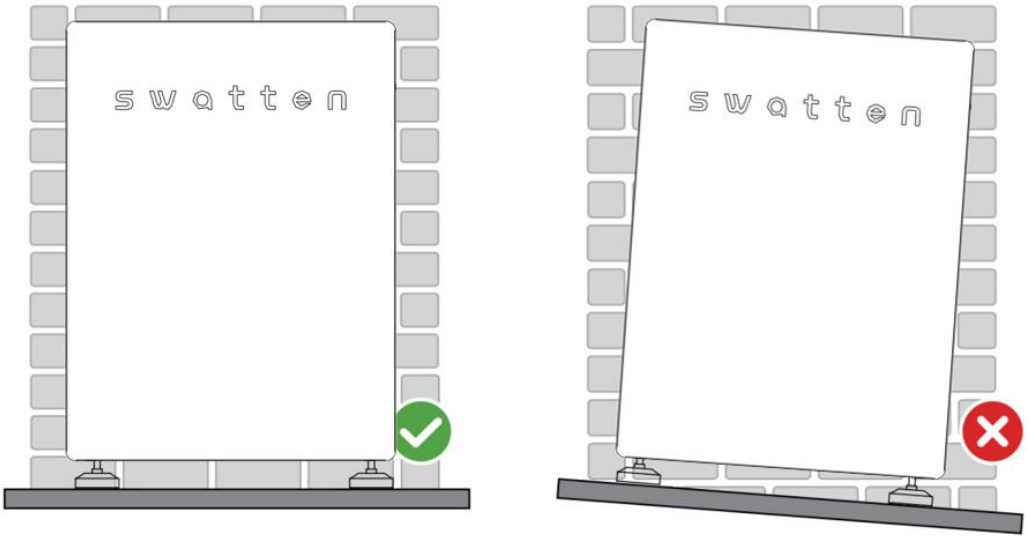


Mounting Support Requirements:

- Ensure that the mounting support is made of nonflammable and fireproof materials.
- The surface where the equipment is mounted should be sturdy enough to support the weight of the product.
- Position the battery system near a wall and securely install the locking brackets to prevent the battery from accidentally falling..

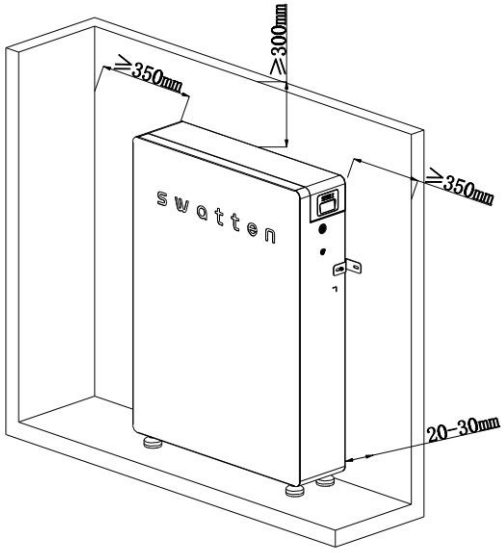
Installation Angle Requirements:

- The equipment must be installed vertically, without any tilt or upside down.

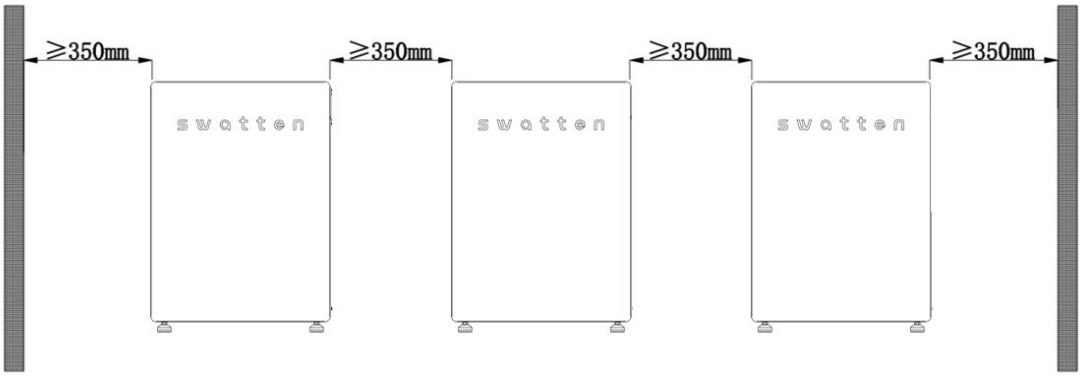


Installation Clearance Requirements:

- Ensure adequate clearance around the battery for proper heat dissipation.



- If using multiple batteries, allocate specific spacing between them.



NOTICE
The distance is merely a suggested guideline, which can be adjusted based on the actual conditions.

4.2 Installing the Battery System

4.2.1 Moving the Equipment

CAUTION

- All operations, including transportation, turnover, and installation, must comply with the laws and regulations of the country or region where the equipment is located.
- Before moving the equipment, carefully consider its weight and allocate an adequate number of personnel to ensure safe handling and to prevent personal injury.
- It is recommended to wear safety gloves during the moving process to minimize the risk of personal injury.
- Maintain balance and stability while moving the equipment to prevent it from falling or tipping over, which can result in both personal injury and equipment damage.

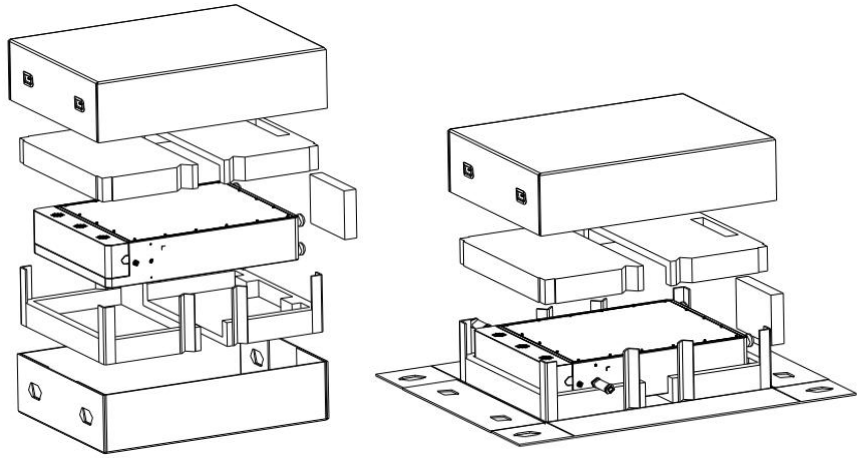
4.2.2 Installing the Battery System

NOTICE

- Make sure all wall-mounted batteries are securely fixed to the wall.
- When installing battery modules, align the holes of the front and back modules.
- Make sure the locking bracket is firmly attached to the wall.
- Don’t install two locking brackets on the same side; they should be installed on opposite sides to ensure stability.

Unpacking the package.
Screw the handle to the hole of the battery. The handle is in the Master Battery package.

Carry out the battery.



Step 1: Place the Master battery beside the wall as 10mm distance with handle, and then remove the handle.

Step 2: Use a pencil or marker to mark the drilling positions on the wall, Carefully drill holes at the marked positions on the wall using an electric drill. Insert the expansion bolts into the drilled holes and tighten the wall-bracket firmly.

Step 3: Place the 2nd battery(Slave) in front of the Master battery as 20mm distance with handle, and then remove the handle.

Step 4: Connect the 2nd battery(Slave) and the Master battery with connect-bracket firmly as torque 4N·m.

Step 5: Place the 3rd battery(Slave) in front of the 2nd battery as 20mm distance with handle, and then remove the handle.

Step 6: Connect the 3rd battery and the 2nd battery with connect-bracket firmly as torque 4N·m.

Step 7: Place the 4th battery(Slave) beside the wall as 10mm distance with handle, and then remove the handle. The distance between two columns is considered as 350mm according to the size of screw tool.

Step 8: The same as step 2. Use a pencil or marker to mark the drilling positions on the wall, Carefully drill holes at the marked positions on the wall using an electric drill. Insert the expansion bolts into the drilled holes and tighten the wall-bracket firmly as torque 4N·m.

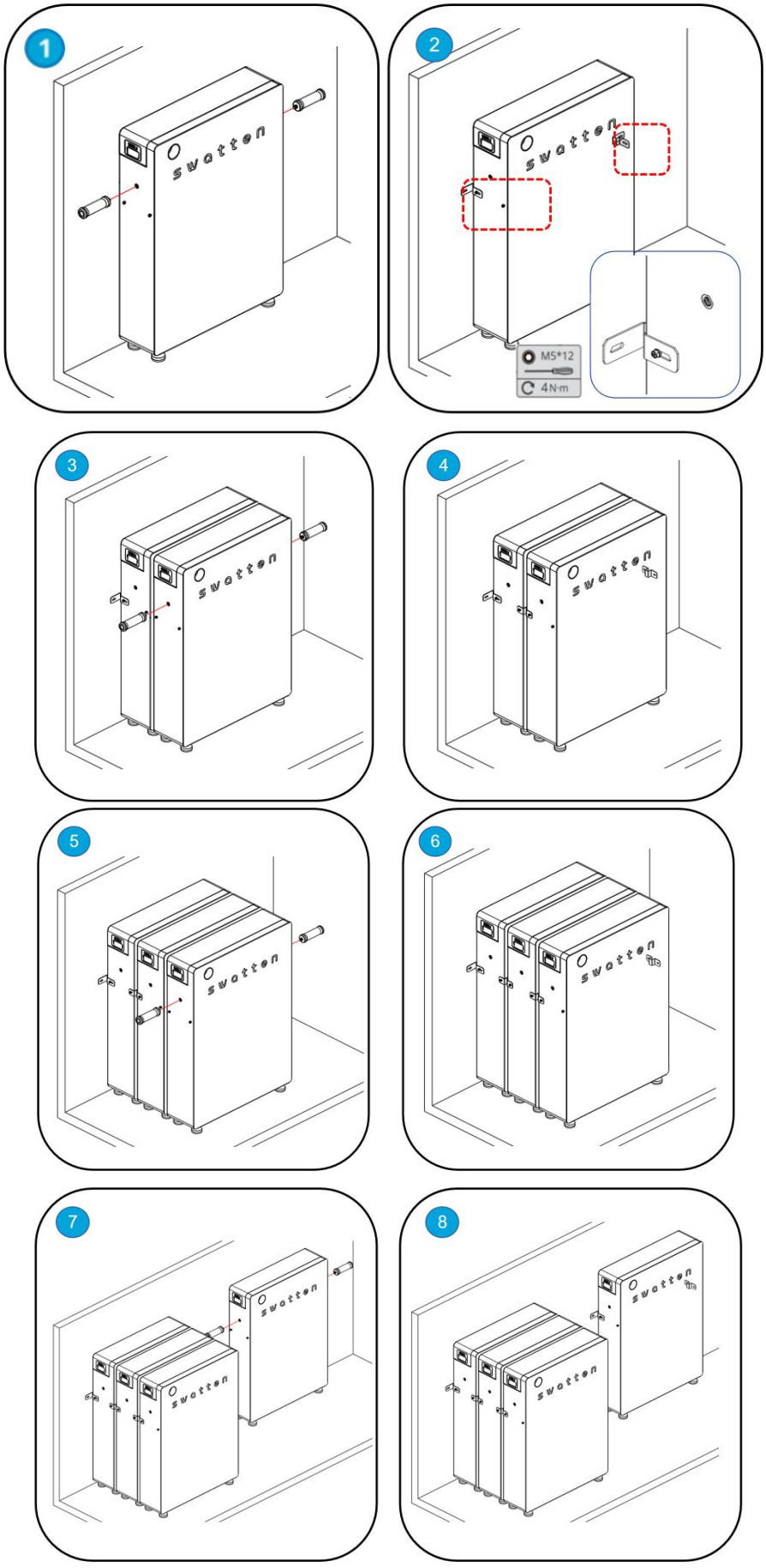
Step 9: Place the 5th battery(Slave) in front of the 4th battery as 20mm distance with handle, and then remove the handle.

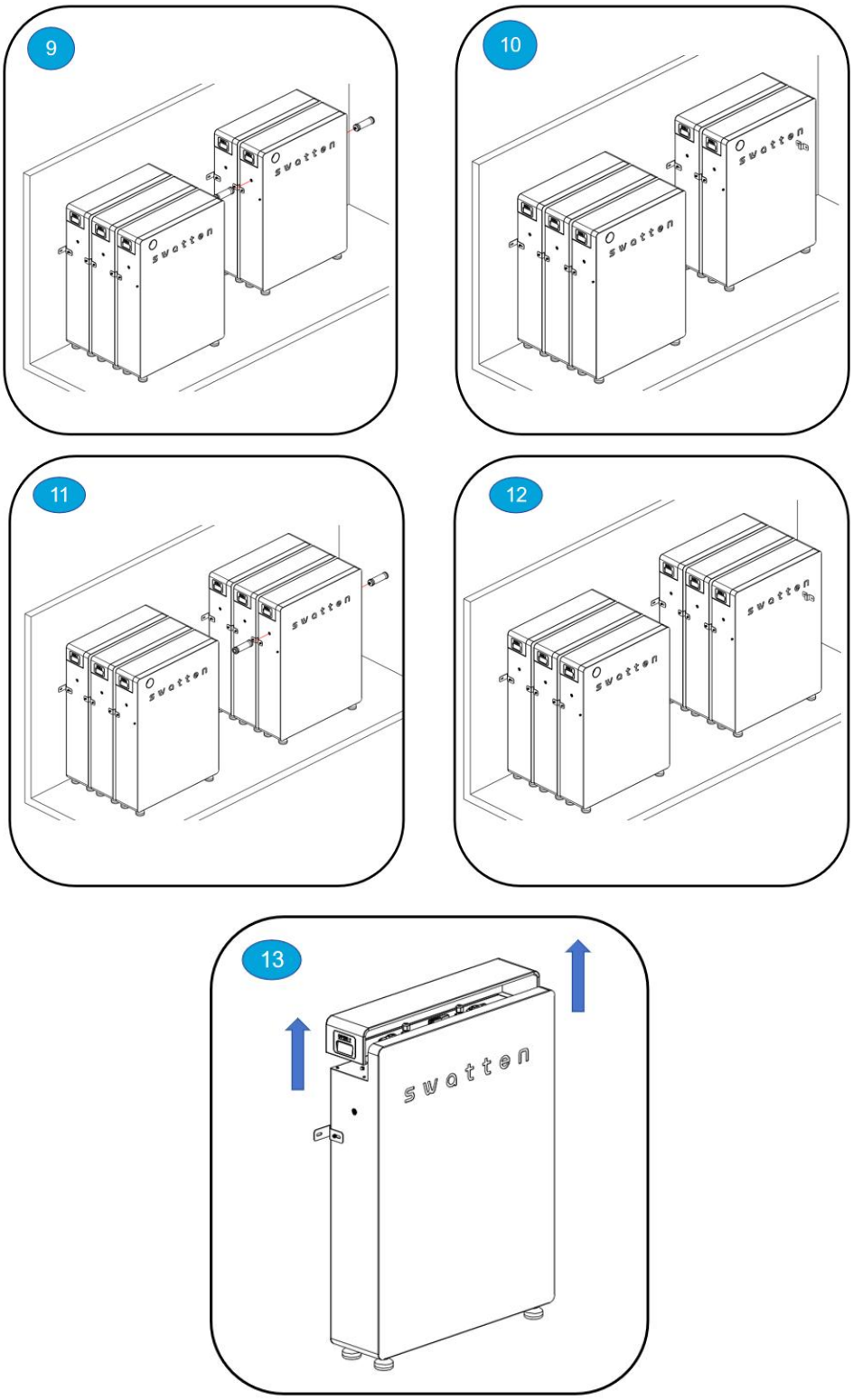
Step 10: Connect the 5th battery and the 4th battery with connect-bracket firmly as torque 4N·m.

Step 11: Place the 6th battery(Slave) in front of the 5th battery as 20mm distance with handle, and then remove the handle.

Step 12: Connect the 6rd battery and the 5nd battery with connect-bracket firmly as torque 4N·m.

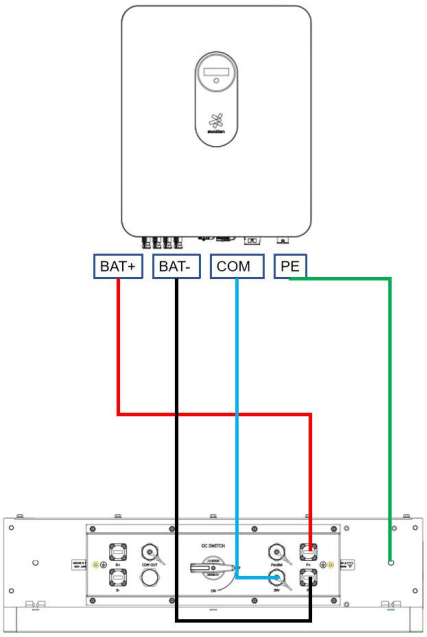
Step 13: Remove all the protective cover of batteries.


1
2
M5*12
4 N·m
3
4
5
6
7
8


9
10
11
12
13
swatten

5 Electrical Connection

5.1 Safety Precaution



DANGER

- Prior to any operations, ensure that the power is turned off to prevent any potential dangers. It is crucial to strictly adhere to the safety precautions provided in this manual as well as the safety labels affixed to the equipment.
- When conducting electrical connections, it is essential to follow the specifications and guidelines mandated by the local laws and regulations.
- Properly organize and separate cables based on their types. Avoid entangling or crossing different cables.
- During the process of crimping terminals, ensure that the cable conductor makes full contact with the terminal while ensuring that the cable insulation is not crimped with the terminal. This ensures optimal functionality and reliability of the device, preventing any potential damage to the terminal block and other related issues.

NOTICE

- When conducting electrical connections, it is essential to wear appropriate personal protective equipment such as safety shoes, safety gloves, and insulating gloves. These protective measures ensure your safety during the process.
- It is recommended to have qualified professionals perform all electrical connections. Their expertise and knowledge ensure proper installation and reduce the risk of errors or accidents.
- The cable colors mentioned in this document are for reference purposes only. It is crucial to ensure that the cable specifications meet the requirements set by local laws and regulations.

5.2 Internal Electrical Connections of the Battery

5.2.1 Installing an Internal Ground Cable

DANGER

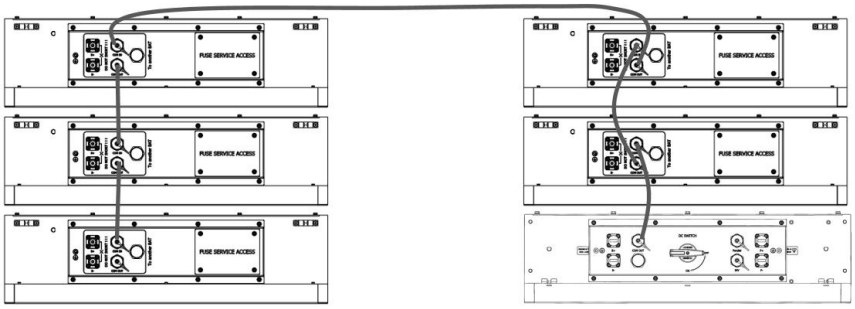
Make sure to securely connect the PE cable to avoid the risk of electric shocks. Manufacture provide the internal PE cable.

Step1: Make sure to connect the PE cable to both the Master Battery modules and the Slave Battery modules as torque 4N·m. This ensures proper grounding and safety during the operation of the battery system.



5.2.2 Installing Communication Terminals

Connecting Communication Cables between the Master Battery module and Slave Battery Modules.



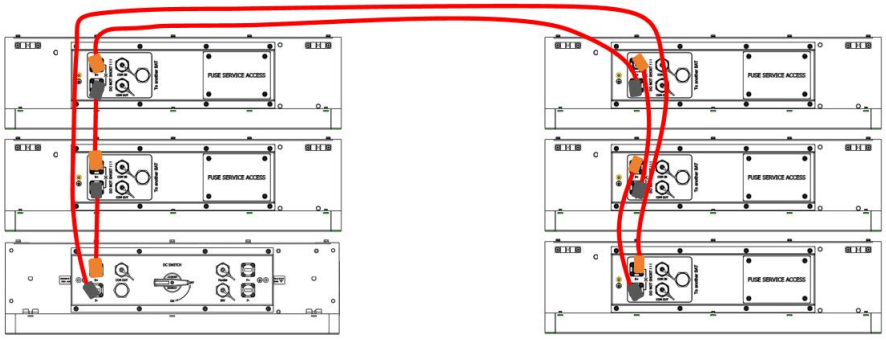
5.2.3 Installing Internal DC Terminals & Protection Cover

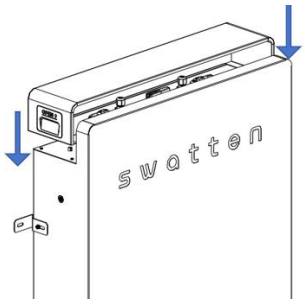
Step1: Remove the protective cap of B+/B- before install the inter DC terminals.

Insert the positive and negative connectors that came with the battery into the corresponding positive and negative battery cascading terminals (B+ and B–). Make sure the connectors are securely and properly inserted to ensure a reliable connection.

Manufacture provide the DC cables between batteries.

Step2: Close all the protective cover of the batteries.





NOTICE

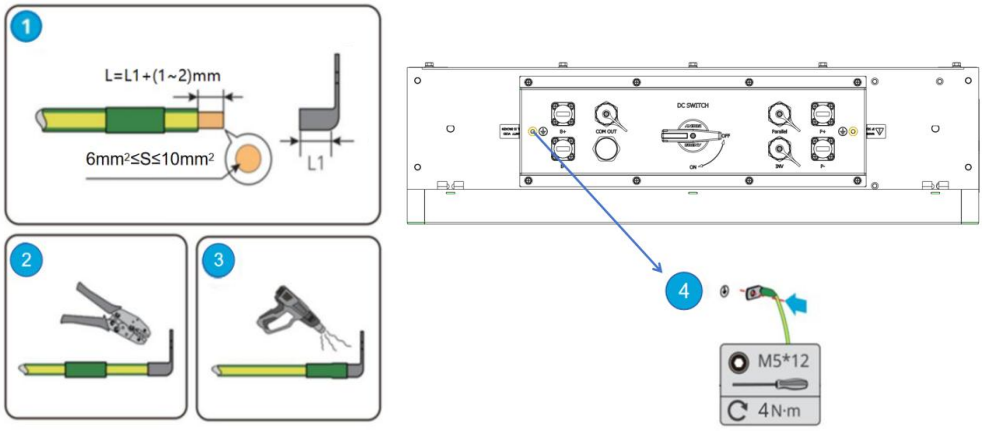
After the positive and negative connectors snap into place, pull the DC input power cables back to ensure that they are connected securely. This will help ensure a reliable and stable connection between the components.

5.3 External Electrical Connections of the Battery

5.3.1 Connection the PE cable

NOTICE

- Prior to installing the equipment, connect the PE cable first. It is essential for safety purposes. Similarly, disconnect the PE cable before dismantling the equipment.
- After crimping the cable, make sure that it has a drawing force of at least 4N·m. This will ensure a secure and reliable connection.
- The PE cable should be connected to the master battery in the same manner. Follow the provided instructions for the specific equipment.
- It is the responsibility of the customer to prepare the PE cable. The recommended specifications for the cable are as follows:
  - Type: Single-core outdoor copper cable
  - Cross-sectional area range: 6mm²-10mm²



5.3.2 Connecting the Power Cable

NOTICE

- Ensure battery system is powered off before connecting power cable to prevent high voltage hazards.
- The DC cable between master battery and inverter is in the deliveries, which is including battery terminal. The installer should assemble inverter terminal of DC cable.
- Connect red power connector to red wire harness and black power connector to black wire harness.
- Properly install back cover without leaving any gaps.
- Cover unused ports for protection.

DANGER

High voltage precautions:

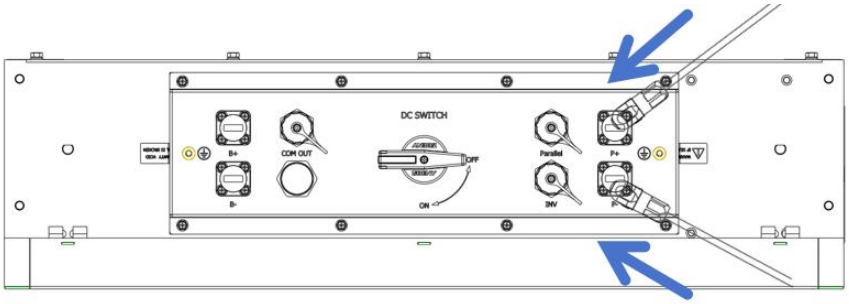
- Prior to conducting any electrical operations, ensure that all cables are free of voltage.
- Do not connect the DC switch and AC circuit breaker until the electrical connections are completed.

To maintain IP66 protection, only use the provided connector.

Step 1: Assemble inverter terminal of DC cable, please refer to inverter guideline.

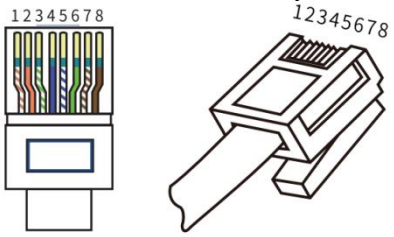
Step 2: Verify the polarity correctness.

Step 3: Remove the protective cap of P+/P- before install the inter DC terminals. Connect the positive terminal of the cable to the positive terminal of the battery, and connect the negative terminal of the cable to the negative terminal of the battery. When you hear a “Click”, it indicates that the connection is complete.

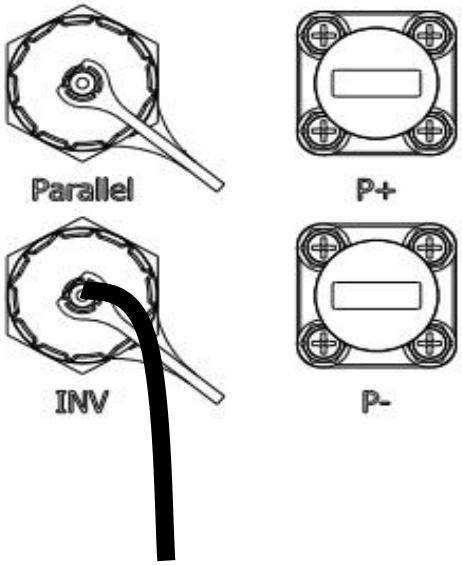


5.3.3 Connecting the Communication Cable

Installer provide the extenal communication cable. Manufacture provide the RJ45 connector.
Step 1: Remove the waterproof protective cover .
Step 2: Disassemble the waterproof protective cover to prepare for wiring.
Step 3: Thread the communication cables through the waterproof protective cover in sequence.
Step 4: Connect the communication cables that pass through the protective cover to the communication ports and tighten them.
Step 5: Verify that the protective cover is installed correctly and securely.



PIN	Description
5	CAN_H
6	CAN_L
1, 2, 3, 4, 7, 8	N/A

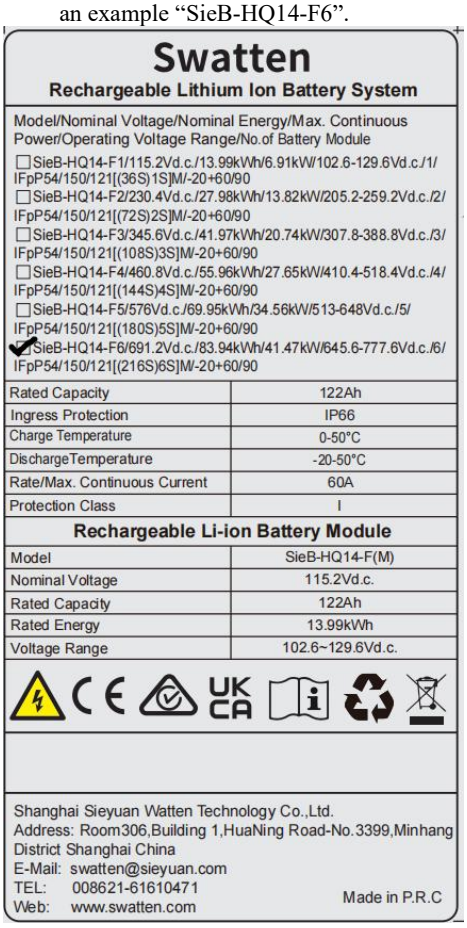


6 System Operation

6.1 Check Before Power ON

Check the following items before powering on to ensure the safety and proper functioning of the battery system:

- Verify that the inverter is securely installed in a clean and well-ventilated location.
- Ensure that the PE cable, power cable, communication cable are connected correctly and securely.
- Inspect the cable ties to ensure they are intact, properly routed, and evenly secured.
- Seal any unused ports and terminals to prevent dust or debris from entering.
- There is no need to set up in monitoring which is automatic for the battery system.
- The installer needs to mark "√" in front of the corresponding model on the nameplate with a marker as an example “SieB-HQ14-F6”.



Swatten

Rechargeable Lithium Ion Battery System

Model/Nominal Voltage/Nominal Energy/Max. Continuous Power/Operating Voltage Range/No.of Battery Module

☐SieB-HQ14-F1/115.2Vd.c./13.99kWh/6.91kW/102.6-129.6Vd.c./1/IFpP54/150/121[(36S)1S]M/-20+60/90
☐SieB-HQ14-F2/230.4Vd.c./27.98kWh/13.82kW/205.2-259.2Vd.c./2/IFpP54/150/121[(72S)2S]M/-20+60/90
☐SieB-HQ14-F3/345.6Vd.c./41.97kWh/20.74kW/307.8-388.8Vd.c./3/IFpP54/150/121[(108S)3S]M/-20+60/90
☐SieB-HQ14-F4/460.8Vd.c./55.96kWh/27.65kW/410.4-518.4Vd.c./4/IFpP54/150/121[(144S)4S]M/-20+60/90
☐SieB-HQ14-F5/576Vd.c./69.95kWh/34.56kW/513-648Vd.c./5/IFpP54/150/121[(180S)5S]M/-20+60/90
✔SieB-HQ14-F6/691.2Vd.c./83.94kWh/41.47kW/645.6-777.6Vd.c./6/IFpP54/150/121[(216S)6S]M/-20+60/90

Rated Capacity	122Ah
Ingress Protection	IP66
Charge Temperature	0-50°C
DischargeTemperature	-20-50°C
Rate/Max. Continuous Current	60A
Protection Class	I

Rechargeable Li-ion Battery Module

Model	SieB-HQ14-F(M)
Nominal Voltage	115.2Vd.c.
Rated Capacity	122Ah
Rated Energy	13.99kWh
Voltage Range	102.6~129.6Vd.c.

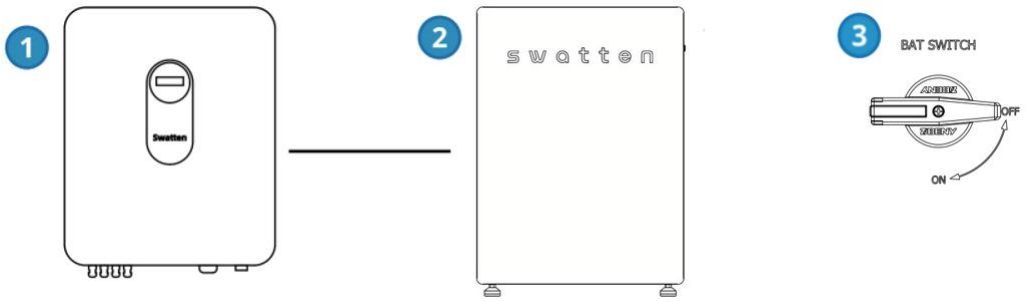
Shanghai Sieyuan Watten Technology Co.,Ltd.
Address: Room306,Building 1,HuaNing Road-No.3399,Minhang District Shanghai China
E-Mail: swatten@sieyuan.com
TEL: 008621-61610471
Web: www.swatten.com
Made in P.R.C

6.2 Power ON the Battery System

NOTICE

- The installation of the DC breaker between the inverter and the battery must comply with the relevant local laws and regulations.
- The DC breaker should be capable of simultaneously isolating both the positive and negative conductors.
- The battery system are monitored via inverter. The battery adopts adaptive configuration and no manual settings are required.

Step 1: (Optional) Activate the breaker between the inverter and the battery system.
Step 2: Turn on the BAT Switch of the battery system.
Step 3: Power on the inverter in the system by following the instructions provided in the inverter's user manual.



Inverter Battery System BAT SWITCH

7 Maintenance

7.1 Power OFF the Battery System

DANGER

- Ensure that the battery system is powered off before performing any operations or maintenance tasks. Failure to do so may result in equipment damage or electric shocks.
- To restart the battery, simply Connect the BAT switch.

To power off the battery system and prevent any potential damage, please follow the method as below:
Step 1: Refer to the user manual of the inverter and follow the instructions to turn off the inverter in the system.
Step 2: Disconnect the BAT switch of the master battery and ensure that status indicator is off.
Step 3: Disconnect the DC breaker between the inverter and the battery, if the breaker is present.

7.2 Routine Maintenance

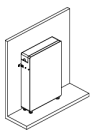
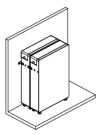
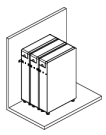
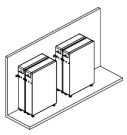
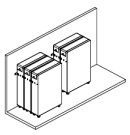
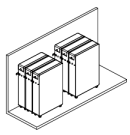
WARNING

- If you encounter any issues that could potentially affect the battery or hybrid inverter, please contact the after-sales service for assistance. Unauthorized disassembly is strictly prohibited.
- If you notice exposed copper conductors, please contact the after-sales service for assistance. Do not touch or attempt to disassemble the equipment privately due to the risk of high voltage.
- In the event of any other emergencies, please contact the after-sales service immediately. Follow the provided instructions or wait for the after-sales service personnel to assist you.

Maintaining Item	Maintaining Period
Check the securing of the locking brackets. If they are not properly secured, tighten them as necessary.	Once every 6 months
Inspect the outer enclosure for any signs of damage or breakage. If any issues are found, repair the painting or contact the after-sales service for assistance.	Once every 6 months
Check for any exposed cables. If any cables are exposed, replace them or contact the after-sales service for help.	Once every 6 months
Inspect the battery module for any dust accumulation. Clean the dust if present to prevent it from affecting heat dissipation.	Once every 6 months
Check for the presence of any liquid or pests near the battery. Take measures to prevent long-term intrusion.	Once every 6 months

8 Appendix

8.1 Technical Data

Manufacturer		**Shanghai Sieyuan Watten Technology Co., Ltd.**					
System Model Type		SieB-HQ14-F1	SieB-HQ14-F2	SieB-HQ14-F3	SieB-HQ14-F4	SieB-HQ14-F5	SieB-HQ14-F6
Technische Daten							
Nominal Energy(kWh)		13.99	27.98	41.97	55.96	69.95	83.94
Usable Energy(kWh)*		13.99	27.98	41.97	55.96	69.95	83.94
Module Destination		1*SieB-HQ14-F(M)	1*SieB-HQ14-F(M) 1*SieB-HQ14-F(S)	1*SieB-HQ14-F(M) 2*SieB-HQ14-F(S)	1*SieB-HQ14-F(M) 3*SieB-HQ14-F(S)	1*SieB-HQ14-F(M) 4*SieB-HQ14-F(S)	1*SieB-HQ14-F(M) 5*SieB-HQ14-F(S)
Module Type		SieB-HQ14-F(M) / SieB-HQ14-F(S)					
Module Parameter		115.2V 122Ah 660*180*880(WDH) 108kg (M)/ 106kg (S)					
Cell Type		LFP（LiFePO4）					
Battery Module(M)		1					
Battery Module(S)		0	1	2	3	4	5
Cell Configuration		1P36S	1P72S	1P108S	1P144S	1P180S	1P216S
Nominal Voltage(V)		115.2	230.4	345.6	460.8	576	691.2
Operating Voltage Range(V)		102.6~129.6	205.2~259.2	307.8~388.8	410.4~518.4	513~648	615.6~777.6
Max. Continuous Current(A)**		60					
Max. Continuous Power(kW)**		6.91	13.82	20.74	27.65	34.56	41.47
Short circuit current (A)		3000					
Communication		CAN / RS485					
Weight(Kg)		109	215	321	427	533	639
Dimensions(W*D*H)(mm)***		660*180*880 	660*380*880 	660*580*880 	1670*380*880 	1670*580*880 	1670*580*880 
Operating Temperature(°C)		Charge: 0~50 / Discharge: -20~50					
Storage Temperature(°C)		-20~45(≤1 Months) / -20~25(≤6 Months)					
Humidity [%]		5~95					
Altitude(m)		≤2000					
Degree of protection		IP66（Indoor / Outdoor）					
Cooling		Natural convection					
Installation Location		Floor-standing					
Display		Status indicator					
Standard and Certification	Safety	IEC62619，IEC63056，IEC62040-1，IEC62477-1，CEC					
	EMC	IEC61000-6-1/3					
	Transportation	UN38.3					
	Others	CE，ROHS					
Warranty****		10 Years					

* Test conditions： 3.0V~3.5V，0.2C Charge(CC-CV) and Discharge at 25±3℃； 100% depth of discharge (DOD);

** Max. Continuous Current / Power derating will occur related to Temperature/ SOC/ Humidity;

*** The distance between two columns is considered as 350mm according to the size of screw tool;

**** Refer to Swatten SieB-HQ14-F Limited Warranty Letter;