SigenCube Series

User Manual

Version: Draft A

Release date: 2026.09.24



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Revision History

Version	Date	Description
Draft A	2026.09.24	Initial Release

Preface

Overview

This document primarily introduces the SigenCube product series (hereinafter referred to as SigenCube), including product overview and networking information.

Target Audience

This document is intended for product users and professionals.

Icon Definitions

The following icons may be used in this document to indicate safety precautions or key information. Please familiarize yourself with these icons and their definitions before installation and operation.

Icon	Definition
 Danger	Indicates danger. Non-compliance may result in death or serious personal injury.
 Warning	Indicates warning. Non-compliance may cause serious personal injury or property damage.
 Caution	Indicates caution. Non-compliance may lead to property damage.
Tips	Highlights key information or provides operational tips.

Chapter 1 Safety Precautions

Before operation, please thoroughly read the safety precautions. Damage to the equipment caused by failure to comply with the operating requirements will not be covered under the equipment warranty.

1.1 General Requirements

Before installing, operating, and maintaining the equipment, familiarize yourself with this user manual. Strictly follow the instructions in the manual and adhere to all safety precautions indicated on the equipment and within the manual.
The "Danger," "Warning," and "Caution" statements described in this manual are only supplementary precautions to all safety notices.
The Company shall not be held liable for equipment damage or property loss resulting from violation of safety operation requirements or safety standards of design, production, and use of equipment, including but not limited to the following:

- The installation environment does not comply with relevant international, national, or regional standards.
- Failure to comply with local laws and regulations during the transportation, installation, operation, and maintenance of the equipment.
- The installation area does not meet the requirements of the equipment.
- Cables, tools, and other materials used do not comply with relevant international, national, or regional standards.
- Operation connected to the grid without obtaining permission from the power authorities of the country or region where it is located.
- Damage caused by storage conditions that do not meet the requirements of the equipment.
- Failure to operate according to the instructions and precautions in the manual.
- Failure to follow the prescribed sequence of steps for installation, operation, and maintenance in the manual, unauthorized changes to the installation sequence, unauthorized modification, additions, or changes to equipment, etc.
- Do not install other equipment on top of the equipment without our evaluation.
- Failure to handle the equipment with care or violent installation may result in equipment damage and liquid leakage and pose a risk of fire or explosion hazards.
- Failure to follow the operational requirements indicated on warning labels on the equipment or tools.
- Negligence, improper operation, or deliberate damage.
- Damage caused during transportation by you or a third party you commission.
- Damage caused by the change of the scenarios for which the equipment is intended on the customer or a third party company side.
- Equipment damage caused by failure to use the accessories supplied with the packing box or purchase and use accessories of the same specification on the customer or a third-party company side.

- Equipment damage caused by unauthorized disassembly or replacement of the equipment or modification of software code, or other improper operations.
- Equipment damage caused by force majeure (such as war, earthquake, fire, storms, lightning, floods, and debris flow).
- Damage caused by the failure of the natural environment or external power parameters to meet the standard requirements for the normal operation of the equipment. For example, the actual operating temperature of the equipment is too high or too low.
- The equipment is stolen.
- The equipment is damaged after the warranty period expires.
- It is strictly forbidden for fingers, parts, screws, tools, or boards to touch the running fan to avoid injury to hands or damage to the equipment.
- Some loads may have a relatively high starting power and starting current. Customers must check whether the starting power of the load exceeds the peak output power specified on the nameplate. Otherwise, customers should reduce the load or configure a frequency converter.

1.2 Personnel Requirements

- Professionals or well-trained personnel must be assigned to install, operate, and maintain the equipment. During operations, irrelevant personnel are prohibited from approaching the work area.
  - Professionals: Personnel who are familiar with the composition and working principle of the system or equipment, have participated in training or operated the equipment, and are familiar with the factors that may lead to risks during the installation, operation, and maintenance of the equipment and risk levels.
  - Well-trained personnel: Personnel who have participated in relevant technical and safety training, have relevant experience, can identify operational risks, and can take relevant corrective measures to reduce the impact of risks.
- For special operations, such as climbing and electrical operations on high-voltage equipment, the operator must be certified for special operations as required by the local country/region.
- Only authorized professionals can replace the equipment or components (including software), remove safety devices, or repair the equipment.

1.3 Requirements for Loading, Unloading and Transportation

- When handling equipment, wear proper personal protective equipment (such as protective gloves, safety shoes, etc.).
- Select appropriate handling methods based on the weight of the equipment.
- Handle the equipment according to the direction indicated on the packaging. Inversion or tilting is prohibited.
- The maximum tilt angle for packaged equipment is ≤15°, and ≤10° after unpacking. For multi-person handling, consider the height of handlers to ensure stable movement.
- Lift or move the equipment slowly to avoid injuries.
- When using forklifts, position the forks at the center of the equipment and secure with straps as needed. Designated personnel must supervise during movement. No personnel are allowed under the forks.
- Stack the equipment according to the packaging instructions.
- Ensure stable placement of equipment and prevent inversion or tilting during transportation.
- Use protective transport tools. Exposure to rain or water immersion is strictly prohibited.

1.4 Storage Requirements

- The storage location must comply with local laws and regulations.
- Do not store unpackaged equipment. If the equipment has been unpacked and is not immediately put into use, please place it back into its original packaging with desiccant retained and seal it with tape.
- Do not place the equipment in environments exposed to direct sunlight, humidity, condensation, dirt, rain, flammability, explosion risk, or corrosion.
- During storage, conduct regular inspections (recommended every three months). Implement pest and rodent control measures at the storage site. If packaging damage due to pests or rodents is found, replace the packaging promptly.
- When storing equipment, place it correctly according to the packaging requirements.
- For temporary outdoor storage, stacking on pallets is prohibited. Protective measures (such as rain covers) must be implemented to prevent exposure to rain, snow, or water accumulation.
- During storage, regularly record the temperature and humidity of the storage environment.
- If the equipment has been stored for more than 2 years, it must undergo inspection and testing by professionals before being put into use.
- When shipping equipment, follow the first-in-first-out (FIFO) principle.

1.5 Operational Requirements

Danger

High Voltage, Hazardous:

- Live working is prohibited (including but not limited to installation, wiring, replacement, etc.). Before operation, ensure all power supplies to the equipment are disconnected. Live working may cause fire, electric shock, arc flash, or explosion, resulting in personal injury or property damage.
- Do not energize the equipment before installation is completed or without professional evaluation.
- Operation of the equipment is prohibited during severe weather conditions (including but not limited to thunderstorms, rain, snow, typhoons, etc.).
- Do not expose the equipment to high-temperature environments or heat sources for extended periods (e.g., sunlight, open flames, heaters, etc.).
- Do not clean or immerse the equipment with water, alcohol, oil, etc., to avoid electrical leakage.
- Impact, dragging, or stepping on the equipment is prohibited. In case of accidental impact, immediately stop using the equipment and contact your sales agent. The equipment may only be reused after professional inspection and evaluation.
- Before operating the equipment, inspect it for damage. If abnormalities are found (e.g., deformation, unusual odors, etc.), contact your sales agent immediately. Self-disassembly of the equipment is prohibited.
- During operation, if abnormalities or conditions that may cause personal injury are detected (e.g., deformation, unusual odors, arc flashes, etc.), immediately stop operation, report to the responsible personnel, and take effective measures.
- When operating equipment, wear insulated gloves, insulated shoes, safety helmets, and other protective gear. Do not wear conductive accessories such as metal bracelets, rings, or necklaces.
- Use insulated tools during installation and wiring.
- Permanently connect the protective ground for equipment requiring grounding. When connecting cables, the protective ground wire must be connected first; when replacing equipment, the protective ground wire must be removed last.
- Do not touch equipment terminals with bare hands or using conductors or damp objects. Before contacting equipment terminals, measure the voltage at the contact point to ensure there is no risk of electric shock.
- During equipment operation, do not allow foreign objects to fall into the equipment, as this may cause short-circuit faults, damage, load power reduction or outage, or even personal injury.
- If the equipment surface has paint scratches, promptly perform touch-up painting.

Safety requirements

Danger

- Do not expose the equipment to high-temperature environments or heat sources (such as sunlight, fire sources, or heaters) for extended periods.
- Do not clean or soak the equipment with water, alcohol, oil, etc., as this may cause leakage or other hazards.
- Do not strike or impact the equipment. In case of accidental impact, immediately stop using the equipment and contact your installer or sales agent. The equipment can only be reused after professional inspection and evaluation.

Warning

- Do not disable protective devices in the equipment, including but not limited to protective covers and lightning arresters.
- During equipment operation, the temperature in the heat dissipation area is high. Do not touch it.
- During equipment operation, covering the heat dissipation area is prohibited to prevent high-temperature fires.

Caution

- The equipment must obtain power permits from the country or region before being connected to the grid for operation.
- The use of damaged or unqualified cables and tools is prohibited. Before operating the equipment, check that the cables and tools meet the requirements and register them. After completing the operation, conduct an inventory and recovery to avoid leaving them inside the equipment, which could cause safety hazards.
- When operating the equipment, comply with the power station safety regulations of the country or region, including but not limited to executing operation tickets and work permits.
- It is recommended to have carbon dioxide fire extinguishers or ABC dry powder fire extinguishers available at the site.
- Non-staff members are prohibited from entering the operation site. Install temporary fences or warning ropes around the operation site and hang signs such as "No Entry for Non-Staff Members."
- Deliberately obscuring or damaging warning signs or nameplates on the equipment is prohibited. If warning signs or nameplates are found to be damaged or unclear due to long-term use, replace them promptly.
- Before operating or maintaining the equipment, check for water accumulation, snow, or other debris on the top of the equipment. If present, clean it first.

Prohibited usage scenarios for the equipment:

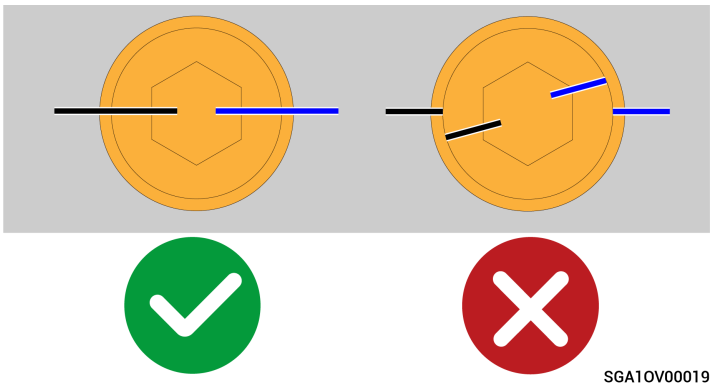
- Connecting to public infrastructure systems (such as traffic lights, security systems, etc.).

- Connection to emergency medical facilities.
- Connection to control equipment such as elevators.
- Any other similar scenarios.

1.5.1 Equipment Installation

Warning

- Before installing the equipment, check whether the factory-installed screws are tightened. Before leaving the factory, tightened screws are marked with lines. If the marks are misaligned, it indicates that the screws are loose and need to be re-tightened.



- When moving the equipment, ensure proper load-bearing preparation. Do not let it slip or fall to avoid injury.

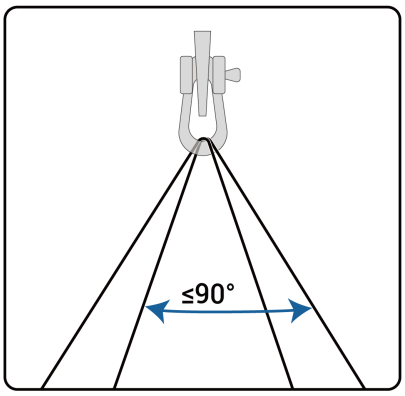
Ladder Safety

- Untrained or unguided personnel are prohibited from using ladders.
- The use of unqualified ladders (including but not limited to damaged, broken, deformed, or makeshift ladders) is prohibited.
- The use of ladders that do not meet load-bearing requirements is prohibited.
- When performing elevated operations near electrical hazards, use wooden or fiberglass ladders.
- When using a straight ladder, the inclination angle should be between 60° and 70°.
- When working on a ladder, throwing objects from height is prohibited.
- When working on a ladder, it is recommended to have a supervisor present.
- When using a ladder at the passage doorway, the door must be locked.

Lifting Safety

- Personnel performing lifting operations must undergo relevant training and be qualified before starting work.
- Temporary warning signs or barriers must be erected to isolate the lifting area.
- The foundation for lifting operations must meet the load-bearing requirements of the crane.

- Before lifting, ensure that the lifting tools are securely fixed to load-bearing standard fixtures or walls.
- During lifting, walking under the boom or lifted objects is strictly prohibited.
- During lifting, dragging wire ropes or lifting gear is prohibited, and striking with hard objects is forbidden.
- During the lifting process, select ropes that meet the product's load-bearing requirements and ensure the angle between each rope passing through the hook does not exceed 90°, as shown in the figure below.



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Drilling Safety

- Drilling on equipment is prohibited.
- Wear safety goggles and protective gloves when drilling.
- During drilling, it is prohibited to place equipment around the drilling area to prevent debris from falling into the equipment.
- Clean up promptly after drilling.

1.5.2 Cable Connection

Danger

- Before wiring, ensure the equipment is undamaged to prevent electric shock or fire.
- Before connecting or disconnecting cables, confirm all upstream/downstream switches and the equipment's own switches are turned off.

- Cables must not be tangled or crossed indiscriminately. Cables should be categorized and bundled. If power cables are found to be insufficient in length, replace them entirely - splicing or soldering connections is strictly prohibited.
- Cables must connect vertically to the equipment to avoid terminal damage from lateral stress.
- Do not route cables through equipment air intake/exhaust vents.
- Do not use cables with damaged insulation. Cable pass-through points must be free of sharp edges or burrs. Replace insufficient-length cables rather than extending them through welding or other methods.
- Equipment grounding impedance must comply with national/regional standards.
- When wiring methods or environmental conditions (temperature/humidity) change, verify cable selection according to IEC-60364-5-52 or local regulations.
- Maintain ≥100mm clearance between cables and heat sources to prevent accelerated aging from high temperatures.
- The lower the ambient temperature, the more brittle the plastic outer sheath of the cable becomes. To avoid cracking during installation, install at temperatures above 0°C and handle cables gently. If cables have been stored in environments below 0°C for extended periods, move them to an environment above 0°C and store for at least 24 hours before use.
- Before installing cables, ensure they are properly labeled, insulated, and correctly identified. During wiring, follow the labels and installation instructions to ensure correct and complete connections.
- For underground wiring, use brackets and cable clamps to secure the cables. Before backfilling soil, it is recommended to leave an appropriate length of cable. Ensure the backfilled area keeps the cable tightly fitted to the ground to prevent deformation, damage, or loosening of terminals due to stress during burial.
- When installing equipment, use a torque tool with an appropriate range to tighten screws. When using a wrench, ensure it is not tilted and that the torque value error does not exceed the specified 10%.

1.5.3 Safety Tips for Working at Heights

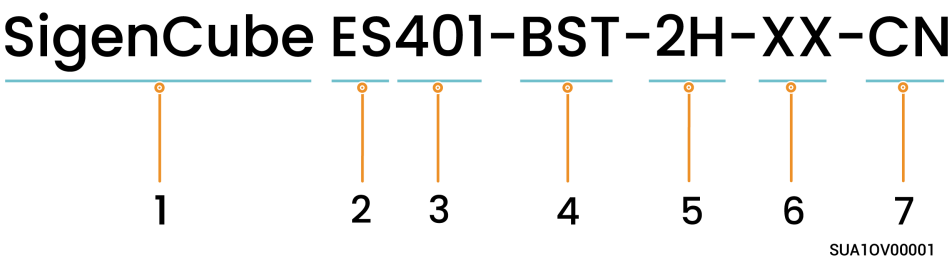
- Comply with the local regulations on working at heights.
- Operators engaged in working at heights shall behave in strict accordance with the safety regulations on working at heights, and the Company shall not be liable for accidents caused by the violation of the safety regulations on working at heights.
- Carrying out work at more than 2 meters above the ground is considered as work at heights.
- Do not work at heights in one of the following conditions: steel pipe not drying up and other conditions that may cause danger.
- Before working at heights, carefully check the climbing tools and safety appliances, such as safety hats, safety belts, ladders, platforms, scaffolds, and lifting equipment, and take immediate improvement measures or refuse to work at heights if any requirements are not met.
- Mark out a hazardous area on the work-at-height scene and set an eye-catching sign indicating that unauthorized personnel are prohibited from entering.
- Set guardrails and signs at the edges and holes in the work-at-height area to prevent accidental falls.
- It is strictly forbidden to stack scaffolds, platforms, or other things on the ground below the work-at-height area. Personnel on the ground should be strictly prohibited from staying or passing through directly below the work-at-height area.
- Try to avoid working on the upper and lower platforms at the same time. If this cannot be avoided, a special catch platform should be set, or other protective measures should be taken between the upper and lower platforms. It is strictly forbidden to stack tools, materials, and other things on the upper platform.
- Take protection measures, wear a safety hat and a safety belt or a waist rope, tie it to a solid and rigid structural member. It is strictly forbidden to hang it on an unstable moving object or metal with sharp corners to prevent accidental falls due to hook slip.
- Carry the operating apparatuses and tools well and prevent them from falling and injuring others.
- Workers at heights are strictly forbidden from throwing objects from heights to the ground nor from the ground to heights. Rigid ropes, hoists, aerial lifts, or cranes should be used to transport objects.
- Horseplay is strictly forbidden while working at heights, and resting in the work-at-height area is prohibited.
- After work at heights, climbing tools, safety appliances, personal protective equipment, and other things shall be cleaned up or taken away from the scene, and the scene shall be restored to its original state.

1.5.4 Equipment Maintenance and Replacement

- Before maintaining or replacing the equipment, power off and wait for the delay time as instructed on the label on the equipment before operation.
- When maintaining the power equipment or power distribution equipment at the downstream direction of the power supply equipment, turn off the output switch of the power supply equipment.
- When maintaining the power distribution equipment or power equipment at the downstream direction of the power supply equipment, turn off the output switch of the power supply equipment. To maintain a load, disconnect the load from the power switch.
- During equipment maintenance, attach labels, for example, "Do Not Turn On", on the upstream and downstream switches or circuit breakers and set warning signs to prevent accidental reconnection. Power up and put the equipment back into operation only after trouble is eliminated, or replacement is complete.
- Damaged cables, if any, should be replaced by professionals.

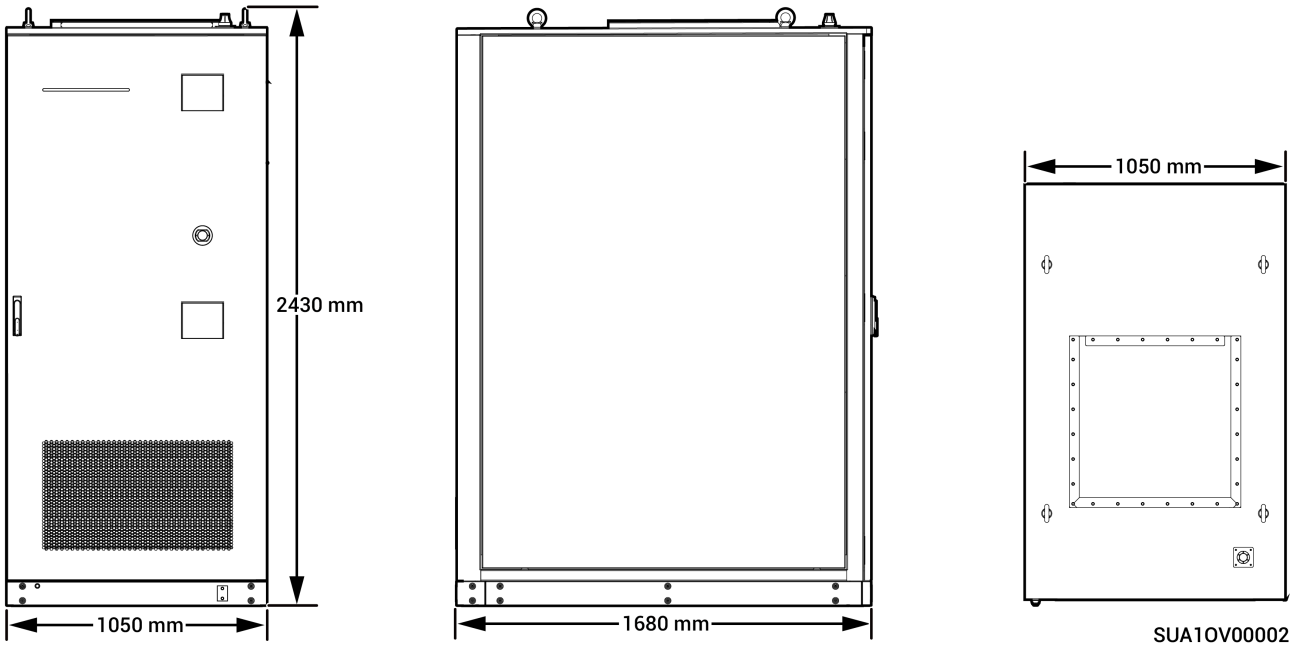
Chapter 2 Product Introduction

2.1 Model Description



No.	Definition
1	Represents the product series name of commercial & industrial liquid-cooled cabinet
2	Represents commercial/industrial & utility-scale storage platform: ST stands for DC-side energy storage system, ES represents complete AC-side integrated energy storage system
3	Battery capacity: 401kWh
4	BST is the abbreviation of Boost: BST indicates inclusion of DCDC module, absence of BST means without DCDC
5	Represents system energy duration: 2H stands for 2-hour system, 4H represents 4-hour system
6	Two-digit hardware version: First digit (A-Z) distinguishes system hardware versions; Second digit (1-9) differentiates power segments (standard models omit this by default, other similar power segments follow this rule - actual power varies per specification)
7	Country code: European version defaults to blank, CN represents China, JP for Japan, GL indicates Pan-Europe/Southeast Asia/Africa

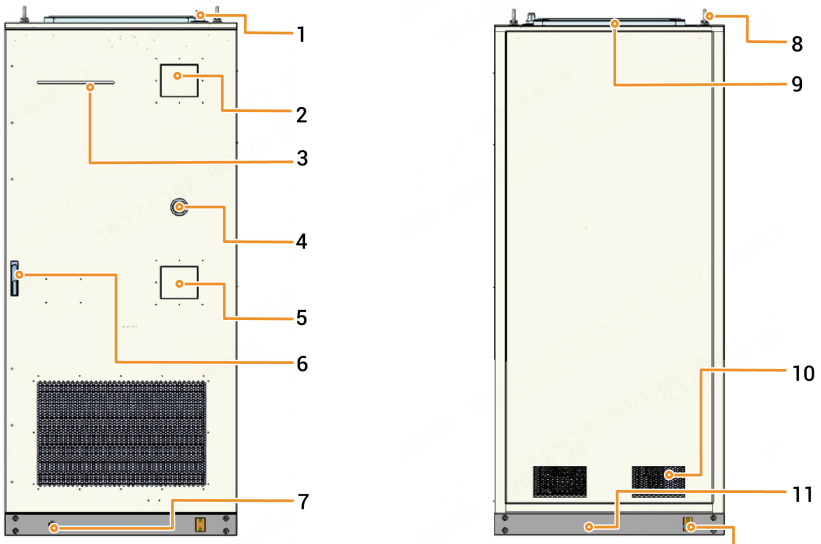
2.2 Product Dimensions



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2.3 Appearance and Port Introduction

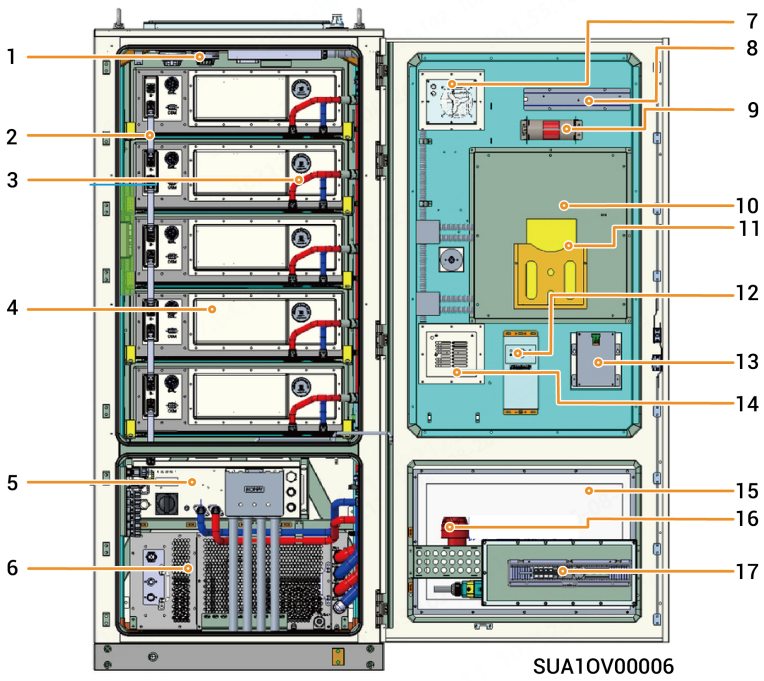
Appearance Introduction



SUA1OV00007

No.	Name
1	Antenna
2	Fire exhaust vent
3	LED light strip
4	Emergency stop button
5	Fire air intake
6	Door lock
7	Water firefighting interface
8	Lifting ring
9	Explosion vent window
10	Liquid cooling unit air outlet
11	Forklift opening decorative panel
12	Cabinet external grounding point

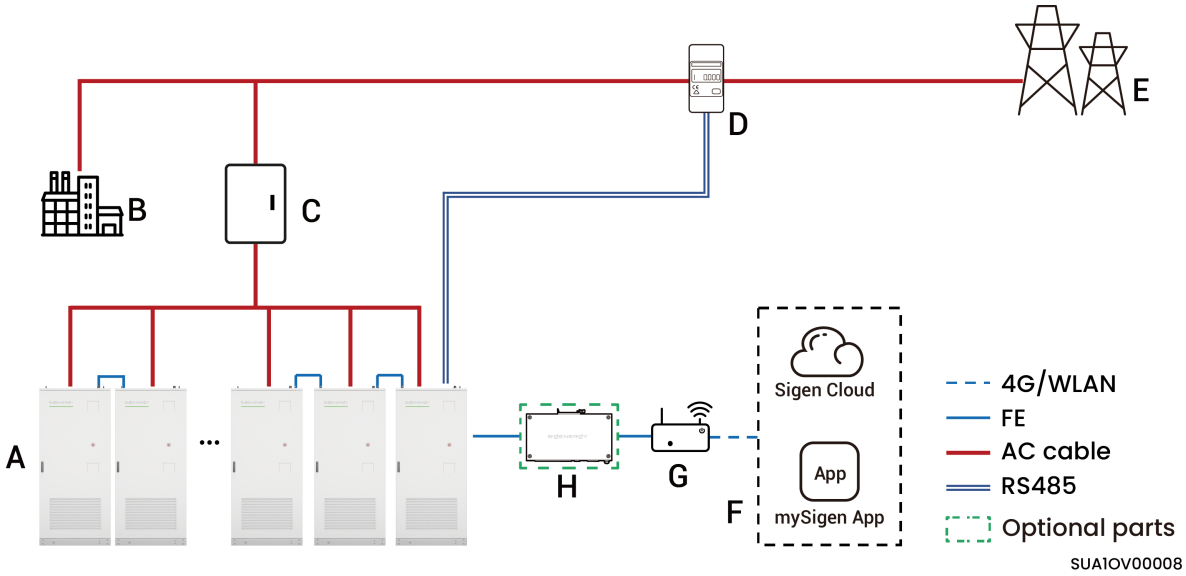
Internal port introduction



Serial number	Name
1	Smoke, temperature, and combustible detector
2	Series-connected copper busbar
3	Liquid cooling pipeline
4	Battery pack
5	PCS
6	Liquid cooling unit
7	Fire exhaust
8	LED strip PCBA
9	Aerosol
10	BAU PCBA & Communication rod PCBA & UPS
11	Folder
12	Dehumidifier
13	UPS battery
14	Fire air intake
15	Shutters
16	Sound alarm light
17	AC control box

2.4 Introduction to Typical Networking

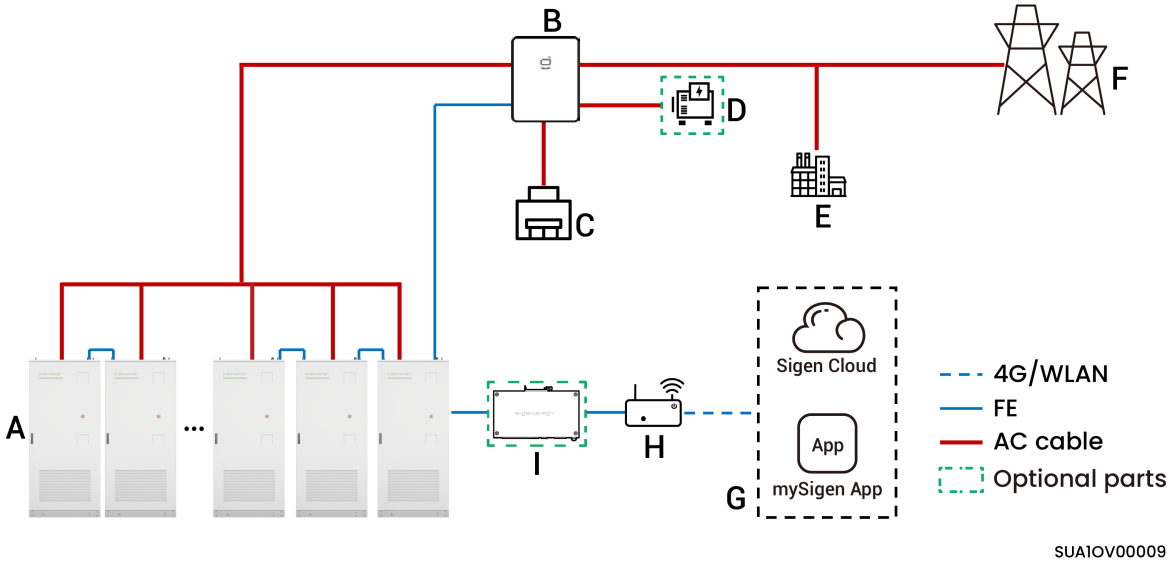
On-grid



A. SigenCube	B. Loads	C. AC Combiner	D. Power Sensor
E. Grid	F. mySigen	G. Router	H. Sigen Communication Bridge[1]

Note [1]: When the communication distance exceeds 100 meters, please use the Sigen Communication Bridge to achieve long-distance data transmission.

On/Off-grid



A. SigenCube
B. Sigen Energy Gateway
C. Backup Loads
D. Diesel Generator
E. Loads
F. Grid
G. mySigen
H. Router
I. Sigen Communication Bridge[1]

Note [1]: When the communication distance exceeds 100 meters, please use the Sigen Communication Bridge to achieve long-distance data transmission.

Chapter 3 System Maintenance

3.1 Pre-operation Notices

Danger

Live Circuit Warning:

- The equipment contains lethal high voltage. Accidental contact may cause fatal electric shock.
- Do not perform any operations on control cables when outdoor cabinets or external control circuits are energized. Even if the power supply to outdoor cabinets is disconnected, externally powered control circuits may still generate hazardous voltage inside the cabinets.
- If only the DC switch is disconnected, the cable terminals inside outdoor cabinets remain live.
- To reduce shock hazards, do not perform any maintenance or repair operations beyond those specified in this manual.

Warning

Power-off Inspection Requirements:

- Place conspicuous warning signs at disconnection points to prevent accidental reconnection.
- Never directly disconnect AC/DC side switches during normal operation to avoid arc hazards that may damage switches. Severe cases may also cause damage to outdoor cabinets.
- Disconnect all external connections of outdoor cabinets and internal power supply connections.
- Ensure all disconnected points cannot be accidentally re-energized.
- Use a multimeter to verify that all relevant maintenance areas inside the equipment are completely de-energized.
- Implement necessary grounding and short-circuit connections.
- Use insulating fabric to cover adjacent potentially live components near the operation area.
- After shutdown, wait at least 20 minutes before opening the cabinet door.
- Some devices in outdoor cabinets may contain heating elements that remain at high temperatures after shutdown. When handling such components, it is recommended to wear anti-scalding gloves or other protective equipment.

Caution

- During normal operation, ensure all outdoor cabinet and internal equipment doors are closed and locked, with keys removed and properly stored by authorized personnel. This

Caution

prevents unauthorized access that may cause accidents or expose internal equipment to rain or animal intrusion.

- Do not perform door-opening maintenance on battery outdoor cabinets during rainy, humid, or windy weather. Our company shall not be liable for any unavoidable damages caused under such conditions.
- Avoid opening cabinet doors during rainy, snowy, or foggy conditions with high humidity. After closing the door, ensure the sealing strips around the door edges are not curled.
- Do not open cabinet doors during sandstorm seasons, snowy/rainy weather, or when ambient relative humidity exceeds 95%.
- The fans and cooling fans inside the outdoor cabinet may generate some noise during operation. It is recommended to wear noise-canceling earplugs when entering the power station.

Tips

- In case of heavy snowfall at the project site, promptly remove accumulated snow from the top and surrounding areas of the equipment.
- During clear weather conditions, it is advisable to open the cabinet doors to ventilate and dehumidify the equipment.

3.2 Routine Maintenance

To ensure long-term optimal operation of the equipment, it is recommended to perform routine maintenance as described in this section.

Inspection Items	Inspection Methods	Power Off Required	Maintenance Interval
System Cleaning	Regularly inspect decorative parts, fans, etc. for obstructions and dust accumulation. If found, clean them. Prohibited tools that may cause electric shock or insulation damage, such as steel brushes, must not be used during cleaning.	Yes	Every 3 months
System operating status	• Inspect the equipment for any damage or deformation. • Listen for any abnormal noises during equipment operation. • Check whether all equipment parameters are correctly set during operation.	No	Once every 6 months
Liquid cooling system maintenance	• Fan: Check whether the fan blades rotate normally and are free from damage. If the fan fails to rotate or the blades are damaged, replace the fan. • Water pump: Check whether the dirt blockage area of the water pump's cooling air intake exceeds 5%. If it does, clean it with a brush. Visually inspect the pump body (excluding pipe connections) for obvious dripping (excluding condensation). If obvious dripping occurs, replace the water pump's sealing ring.	Yes	Once every 6 months
Replace coolant	1. The antifreeze has obvious impurities. 2. The antifreeze color has significantly darkened.	Yes	Once every 5-6 years
Firefighting equipment maintenance and servicing	Please refer to the fire protection system maintenance.		

3.3 Fire Protection System Maintenance

Danger

- Before inspection, testing, or maintenance, ensure the wiring of aerosol fire suppression devices is disconnected to prevent accidental discharge.
- After completion of operations, promptly restore the wiring of aerosol fire suppression devices.

Caution

In case of incidents, professionals should handle them, while non-professionals should keep away.

The reliability of fire protection systems is crucial for ensuring the safety of personnel and property. To guarantee effective system performance during fire alarms or emergencies, system users must arrange for professional inspection, testing, and maintenance of all subsystems at least annually. These operations not only help maintain optimal system performance but also prevent potential failures.

The inspection, testing, and maintenance cycles mentioned in this manual represent minimum requirements. If the Authority Having Jurisdiction (AHJ) imposes stricter cycle requirements, those shall take precedence.

This chapter does not exhaustively describe all system inspection, testing, and maintenance requirements. Users should comply with applicable national, state, and local laws, regulations, and codes to establish appropriate inspection, testing, and maintenance management systems.

Table 3-1 System Maintenance Checklist

No.	Category	Inspection Items	Maintenance Cycle		
			Semi-annual	Annual	
1	Aerosol Fire Extinguishing Device	Appearance		✓	1. Check whether the aerosol fire extinguishing device body is damaged. 2. Check whether the aerosol fire extinguishing device has expired. 3. Check whether the fixing bracket of the aerosol fire extinguishing device is loose. 4. Inspect the battery compartment structure protected by the aerosol fire extinguishing system to eliminate any adverse effects that may cause changes in the extinguishing volume.

No.	Category	Inspection Items	Maintenance Cycle		
			Semi-annual	Annual	
2	Smoke detector	Performance		✓	Use a smoke and temperature gun to conduct functional tests on the detection components. If the operation light remains red constantly, replace the smoke detector with a new one if it does not remain red constantly.
		Appearance	✓		Check whether the working status is normal.
3	Heat detector	Performance		✓	Conduct functional testing of detection components using a smoke/heat gun. Replace the thermal detector if the operation indicator light remains constantly red when it should not.
		Appearance	✓		Check whether the working status is normal.
4	Gas detector	Performance		✓	Perform testing using calibrated gas. When first-level combustible gas alarm is triggered, activate the explosion-proof ventilation system in linkage.
		Appearance	✓		1. Check for deformation, rust, aging, etc. on the exterior. 2. Verify the installation is secure.
5	Fire audible and visual alarm	Performance		✓	During linkage testing, if the alarm fails to activate audible/visual alerts, inspect wiring and replace with a new unit.
		Appearance	✓		1. Check for any deformation, corrosion, aging, etc. on the appearance. 2. Check if the installation is secure.
6	Explosion-proof fan	Performance		✓	Conduct linkage test or manual start-up; check if the supply fan and exhaust fan open the louver and rotate. If they fail to start normally, inspect the fan starting circuit and power supply lines. If there are no circuit issues, replace the exhaust or supply fan with a new one.
		Appearance	✓		1. Check for any deformation, corrosion, aging, etc. on the appearance. 2. Check if the installation is secure.

Maintenance Requirements

- The maintenance frequency of system equipment should be determined based on the type of equipment and actual environmental conditions.
- The cleaning frequency of system equipment should be determined based on the type of equipment and actual environmental conditions.
- All devices requiring reset to maintain normal operation should be reset as soon as possible after each test or alarm.

Precautions After Aerosol Discharge

Danger

- Flammable gases may exist inside the integrated cabinet, which could cause re-ignition or explosion. Do not bring open flames, heat sources, or lit cigarettes into the hazardous area.
- Toxic gases may exist inside the integrated cabinet, posing risks to personnel safety and health. Proper personal protective equipment must be worn before entering the hazardous area.
- After aerosol fire suppression, professional firefighters must assess the safety risks inside the integrated cabinet and confirm no hazards exist before opening the cabinet door.

- Personnel involved in on-site fire incident response must wear respiratory protective equipment meeting relevant OSHA requirements to avoid inhaling toxic substances and aerosol extinguishing agents.
- If small amounts of aerosol extinguishing agent residues remain after ventilation, thorough vacuuming, blowing, and brushing should be performed promptly.
- In some cases, aerosol fire extinguishing agent may accumulate on equipment or surfaces near the discharge port of the aerosol fire suppression device. Timely inspection and thorough vacuuming, blowing, and brushing are required to ensure no buildup of extinguishing agent.
- For a period after discharge, used aerosol fire suppression devices may remain at high temperatures and should not be touched. When removing the device, appropriate protective gloves must be worn and removal must be performed according to operational procedures.
- If the air humidity is high, perform dehumidification treatment after ventilating the hazardous area. Unremoved extinguishing agent residue can absorb moisture, potentially causing corrosion to metals and electronic equipment.
- Please dispose of used aerosol fire suppression devices according to local regulations in your area.
- If the aerosol fire suppression system requires re-commissioning or the device needs replacement, contact the service provider for assistance.

Post-discharge aerosol treatment

Gently wipe down the protected area with a lint-free cloth.

Tips

- Do not use cloth to wipe circuit boards to avoid scratching components or causing them to dislodge.
- Avoid using any paper products as paper fibers may remain and scratch circuit boards.

- Use a toothbrush to remove remaining particles, including dried liquid residue.
- Use compressed air to blow away dust and dried liquid residues, ensuring quick, short bursts of spraying in one direction.
- Within 24 hours after discharge, use contact-type cleaning spray to remove any accumulated particles.