SAIL SOLAR

USER MANUAL

INDUSTRIAL AND COMMERCIAL OUTDOOR CABINET

50KWh

Catalogue

1. General rules

1.1 preface

Energy storage effectively resolves the contradiction between intermittent renewable energy supply and users' continuous electricity demand. It enables power system peak shaving and frequency regulation, smooths out demand fluctuations, improves energy efficiency, and supports the achievement of the "dual carbon" goals. With the gradual transition to a new power system, the energy storage industry is entering a period of rapid development, spanning the three critical phases of power generation, transmission, distribution, and consumption in this transformation.

Energy storage applications in power systems can compensate for the lack of storage and release functions, serving as a key factor in ensuring the large-scale development of clean energy and the safe, economical operation of power grids. By altering the scale of synchronized electricity production, transmission, and consumption, energy storage makes the rigid real-time balancing power system more flexible. This flexibility is particularly evident in mitigating the volatility caused by large-scale clean energy generation integration into the grid.

This document outlines the packaging, transportation, installation, and electrical connections for the 100KWh industrial and commercial outdoor cabinet (hereinafter referred to as the product). Before using the product, please carefully read this manual to understand safety information and familiarize yourself with its functions and features.

1.2 Symbols and Identifiers

In order to ensure the personal and property safety of users when using the product, and to better use the product, the manual provides relevant information and uses appropriate symbols to highlight.

The following is a list of symbols and signs that may be used in this manual. Please read it carefully.

symbol	Explain
Danger	Indicates a hazard with a high level of risk that could result in death or serious injury if avoided.
Warning	Indicates a hazard with a moderate risk that may result in death or serious injury if avoided.
Attention	Indicates hazards with low risk that may cause minor or moderate injury if avoided.
Notice	Used to convey safety warnings for devices or environments. Avoiding them may cause device damage, data loss, reduced performance, or other unpredictable consequences. "Know" does not involve personal injury.
Instructions	Supplement the key information in the body. The description is not a safety warning and does not involve personal, equipment, or environmental hazards
	This mark indicates that the body contains high pressure touch may cause the danger of electric shock
	This symbol indicates that the temperature is higher than the acceptable range for human body. Do not touch it to avoid injury.
	This symbol indicates that this is a protective earth (PE) terminal, which requires a firm grounding to ensure the safety of the operator.

Energy Storage System ESS	Energy Storage Converter PCS
Energy Management System EMS	Battery Management System BMS
Battery Cell Management Unit BCU	Battery Management Unit BMU

2.Safety Note

2.1 Staff Requirements

Be fully familiar with the composition and working principle of the product, as well as the relevant standards of the country/region where the project is located.Personnel responsible for installing and maintaining the company's equipment must first undergo rigorous training to understand various safety precautions and master the correct operating methods. Only qualified professionals or trained personnel are permitted to install, operate, and maintain the equipment.

Only qualified professionals are allowed to remove safety facilities and maintain equipment.

Operators, trained personnel, and professionals handling equipment must possess local national certifications for specialized operations, such as high-voltage work, elevated work, and special equipment operation. Equipment or components (including software) must be replaced by authorized professionals.

Professional: a person with training or experience in operating equipment who is aware of the potential sources and levels of danger in the process of equipment installation, operation and maintenance.

Trained personnel: Personnel who have received appropriate technical training and have the necessary experience to be aware of the dangers that may be brought to them in carrying out a particular operation and to take measures to minimize the danger to themselves or to others.

Operators: Operators who may come into contact with the equipment, excluding trained personnel and professionals

2.2 General Security

Statement

Before installing, operating, or maintaining the equipment, read this manual and follow all safety precautions marked on the equipment and in this manual.

The "Important Notes", "Caution", "Warning", and "Danger" sections in the manual do not represent all safety requirements to be followed, but serve as supplementary safety guidelines. The company shall not be liable for any consequences arising from violations of general safety operating procedures or breaches of design, production, and equipment safety standards.

This product should be used in an environment that meets the design specifications. Otherwise, it may cause equipment failure, resulting in equipment function abnormalities or component damage, personal safety accidents, property losses, etc., which are not covered by the equipment quality assurance.

When installing, operating, or maintaining equipment, comply with local laws, regulations, and standards. The safety precautions in the manual are intended to supplement these requirements.

The Company shall not be liable for any of the following circumstances and shall not operate under the conditions of use specified in this manual.

The installation and use environment exceeds the provisions of relevant international or national standards.

Do not disassemble, modify products, or alter software code without authorization.

The operation was not performed as instructed in the product and documentation, including safety warnings.

Equipment damage caused by abnormal natural environment (force majeure, such as earthquake, fire, storm, etc.).

Transport damage caused by the customer's failure to comply with the transportation requirements.

Damage caused by storage conditions that do not meet product documentation requirement

Standard requirements.

It is strictly prohibited to install, use, or operate outdoor equipment and cables under adverse

weather conditions such as lightning, rain, snow, or strong winds of level 6 (including but not limited to moving equipment, operating equipment and cables, plugging and disconnecting outdoor signal interfaces, high-altitude work, and outdoor installation).

Do not wear watches, bracelets, bracelets, rings, necklaces or other conductive objects during installation, operation and maintenance to avoid electric shock burns. During installation, operation, and maintenance, use specialized protective equipment such as insulated gloves, safety goggles, protective clothing, and safety harnesses.

Wear a helmet, safety shoes, etc., as shown inigure bellation, operation, and maintenance must follow the step-by-step instructions in the manual.

Measure the voltage at the contact point before touching any conductor surface or terminal to confirm that there is no danger of electric shock.

After installing the equipment, remove all empty packaging materials from the equipment area, such as cardboard boxes, foam, plastic, and tie-down straps. In case of fire, evacuate the building or equipment area and press the fire alarm bell or call the fire department. Under no circumstances should you re-enter the burning building.

Do not disable the protection device.

Do not ignore the manual, warnings, and precautions on the device.

Replace dangerous signs that have become blurred due to long-term use.

Only authorized personnel may operate this equipment. Other individuals must not approach it. All tool handles must be insulated or replaced with insulated tools. All cable entry points must be sealed, with fireproof sealant applied to the completed cable entry points.

It is strictly prohibited to tamper with, damage or cover the identification and nameplate on the equipment.

When installing the equipment, use a torque wrench with the appropriate range to tighten the screws according to the instructions. Do not operate the installation process while powered on.

Paint scratches occurring during equipment transportation and installation must be repaired in time, and scratches must not be exposed to outdoor environment for a long time. Before operation, the equipment should be securely fixed to the floor or other solid object.

Do not use water to clean the internal and external electrical components of the cabinet.

Do not change the device structure or installation order without authorization.

Do not touch the running fan with fingers, parts, screws, tools, or single boards before the fan is powered off and stopped rotating, so as to avoid hand injury or equipment damage.

It is not allowed to reverse engineer, decompile, disassemble, modify, implant or otherwise derive the device software, study the internal implementation of the device in any way, obtain the source code of the device software, steal intellectual property rights, or disclose the results of any device software performance test.

personal security

During the operation of the equipment, if a fault that may cause personal injury or equipment damage is found, the operation should be stopped immediately, the person in charge should be informed, and effective protective measures should be taken.

Before using the tool, master its correct usage to avoid injuring others or damaging equipment.

The casing is hot when the device is running. Do not touch it.

Do not power on the device if it is not fully installed or not confirmed by a professional.

2.3 Electrical Safety

Grounding requirements:

For equipment that requires grounding, the protective earth wire must be installed first and removed last. It is prohibited to damage the grounding conductor.

Do not operate the equipment without a grounded conductor.

The equipment must be permanently connected to a protective earth. Before operation, verify the electrical connections to ensure reliable grounding. Grounding resistance must be <4Ω . Standard requirements:

Danger

Before making electrical connections, make sure the equipment is not damaged, otherwise it may cause electric shock or fire. All electrical connections must meet the electrical standards of the country/region in which they are located.

You must obtain permission from the power department of your country/region to work on the grid.

User-owned cables shall comply with local laws and regulations.

When operating high voltage, be sure to use special insulation tools.

AC and DC operation requirements:

Danger

Do not install or remove power cables while they are energized. An electric arc or spark may occur when the cable core contacts the conductor, which may cause fire or personal injury.

Before installing or removing the power cord, you must first turn off the power switch.

Before connecting the power cable, make sure the cable label is correct.

If the device has multiple inputs, disconnect all inputs and wait until the device is completely powered down before operating it. If a part is damaged, it must be replaced by a professional to avoid risk.

Wiring requirements:

The use of cables in high temperature environment may cause insulation aging and damage. The distance between cables and heating devices or the periphery of heat source area is at least 30mm.

Do not allow cables to pass through the air inlet and outlet of the device.

Flame retardant cables should be selected and the flame retardant grade should meet the requirements of local laws and regulations. Cables ofthe same type should be tied together, and cables of different types should be laid at least 30mm apart. It is forbidden to wind or cross each other. The cables used in this product must be securely connected, well insulated, and properly sized.

When the temperature is too low, violent impact and vibration may cause the plastic outer skin of the cable to crack. In order to ensure the construction safety, the following requirements should be followed:

All cables should be laid and installed above 0℃. When handling cables, especially in low temperature environment construction, they should be handled gently. If the storage temperature of the cable is below 0℃, the cable must be moved to a room temperature environment for storage for more than 24 hours before laying the cable. It is forbidden to push the cable directly from the car and other non-standard operations. The selection, wiring, and routing of cables must comply with local laws, regulations, and standards.

electrostatic prevention

Notice

Static electricity generated by the human body can damage electrostatic-sensitive components on the board, such as large-scale integrated circuits. Anti-static gloves must be worn before touching the equipment or holding the plug.

When holding the plug-in, you must hold the edge of the plug-in without components. Do not touch the components with your hands. The removed plug-in must be packaged with anti-static packaging materials before storage or transportation.

2.4 Mechanical Safety

hoisting

When lifting heavy objects, it is strictly prohibited to walk under the crane arm or lifting objects.

Personnel engaged in lifting operations shall undergo relevant training and shall not be allowed to work until qualified. Lifting tools must be inspected and used only when all tools are complete.

Before lifting operations, ensure the lifting tools are securely fastened to a load-bearing fixed object or wall. During the lifting process, ensure the two cables are properly positioned.

The angle is no greater than 90°, as shown in the figure below.

During lifting operations, it is prohibited to drag steel cables or lifting equipment, and to use hard objects for impact. Ladders must be used.

When high-altitude operation may involve electricity, wooden ladder or fiberglass ladder and other qualified insulated ladder should be used. When using a U-shaped ladder, the rope must be firmly pulled and someone must hold the ladder during the operation. Before using the ladder, make sure it is in good condition and can support the required weight. Do not use it ifit is overloaded. Place the ladder on a stable surface.

The ladder should be inclined at 75°, which can be measured with a protractor, as shown in the figure below. When using the ladder, the wide foot should be facing down or protective measures should be taken at the bottom of the ladder to prevent slipping.

When climbing a ladder, pay attention to the following actions to reduce the risk and ensure safety.

Keep your body steady.

The maximum height at which workers can stand on their feet should not exceed the fourth step from the top of the ladder. Make sure your body weight doesn't shift off the edge of the ladder.

drill

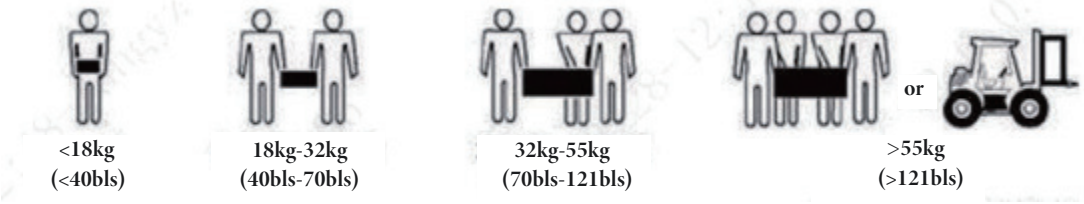
Notice

Drilling is strictly prohibited on the equipment. Drilling will damage the electromagnetic shielding performance, internal components and cables ofthe equipment. Metal chips generated by drilling will enter the equipment and cause short circuit.

Lifting heavy objects

Danger

When installing equipment or pulling it out of the cabinet, be careful to install equipment that may not be stable or heavy on the cabinet, and avoid being crushed or hit. When carrying heavy objects, be prepared to bear the weight and avoid being crushed or twisted by heavy objects.



<18kg (<40bls) | 18kg-32kg (40bls-70bls) | 32kg-55kg (70bls-121bls) | >55kg (>121bls)

Equipment by hand, wear protective gloves to avoid injury. Avoid scratching the equipment surface or damaging parts and cables during handling.

When using a forklift, keep it centered to prevent tipping. Before moving, secure the equipment with a rope to the forklift. A designated person must supervise during movement.

Handle the device carefully to avoid damage from impact or drop.

2.5 Product Security

Danger

Do not immerse the product in water.

The product is not used and stored correctly, there is a risk of fire, explosion and burn, do not disassemble, crush, burn or heat the product. Do not expose the product to fire or prolonged exposure to high temperatures exceeding the temperature limits specified in this

specification, as this may cause fire. Under normal operating conditions, the temperature of the cells within the module must not exceed 60℃. If the temperature exceeds 60℃, the product should be shut down and the operation stopped.

Keep the product out of the reach of children, do not remove the original packaging before use, and dispose of the used product in a timely manner according to local recycling or waste regulations.

Do not disassemble, remove, or modify the product in any way.

Do not mix products of different specifications, brands, or batches.

If the product has a bad smell, fever, deformation, color change or any other abnormal phenomenon, do not use it and move it to a safe place.

Short circuits between the positive and negative terminals ofthe product are prohibited, otherwise strong current and high temperature may cause personal injury or fire. Sufficient safety protection should be provided during battery system assembly and connection to avoid short circuits.

Connect the positive and negative poles ofthe product strictly according to the label and instructions. Do not charge in reverse or in series. Overcharging or overdischarging the product is prohibited, as it may cause overheating of the cells in the module and fire accidents.

During installation and use, multiple hardware and software overcharge and overdischarge failure safety protections should be implemented.

Improper termination of charging may occur during product charging. This includes stopping charging due to exceeding permitted time, excessive voltage, or overly high current. These phenomena are defined as "improper termination of charging". When such occurrences happen, they may indicate leakage in the battery system or component failures. Continuing charging without identifying and resolving the root cause could lead to overheating of cells within the module or even fire.

The customer shall secure the product safely on a solid surface and secure the power cord in a suitable position to avoid friction and electric arc and spark.

Do not use plastic for electrical connections. Incorrect electrical connections may cause the product to overheat during use.

In the event of electrolyte leakage, avoid contact with skin and eyes. If contact occurs, immediately rinse affected areas with copious amounts of water and seek medical assistance. No person or animal should ingest any components of the product. Protective measures must be implemented during use to shield the product from mechanical vibrations, impacts, and pressure shocks, as failure to do so may cause internal short circuits, resulting in high temperatures and fires. The product poses inherent risks requiring appropriate protective measures during operation and maintenance. Improper handling during safety performance testing experiments may trigger cell fires or explosions within the module, and such tests must be conducted exclusively by qualified professionals in specialized laboratories equipped with proper protective gear. Failure to comply with these warnings may lead to severe personal injuries and property damage. Non-compliance with the above warnings could result in multiple catastrophic incidents.

Customers should be aware of the following potential hazards during product use and operation: Operators may be exposed to chemical burns, electric shocks, or electric arc injuries. Although the human body reacts differently to direct current (DC) and alternating current (AC), both DC voltages above 50V and AC currents pose equally severe risks. Therefore, customers must adopt conservative precautions to avoid electrical hazards. When operating the product and selecting personal protective equipment (PPE),

Customers and their employees must take into account the potential risks above to prevent accidental short circuits that can cause arcs, explosions, or thermal runaway.

If the internal resistance of the product in use exceeds 200% of the original internal resistance or the capacity is less than or equal to 70% of the nominal capacity, the customer shall stop using the product. Otherwise, shall not be liable for any failure of parameters, quality problems, cell failure or any loss.

4. System Introduction

ndustrial and commercial energy storage outdoor cabinets are energy storage carriers, mainly composed of battery system and auxiliary system to monitor and protect the battery system, including BMS management system, thermal management system, fire protection system, power distribution control system, etc.

Cell

The battery cell adopts the mature technology, reliable and safe, long life lithium iron phosphate material system, the battery cell has the following characteristics:

（1） The battery is a square structure, which is made of domestic first-line brands. All the batteries have been strictly processed and tested, and the quality of the single battery is guaranteed.

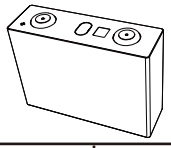
（2） The battery cell has a capacity of 100Ah and can be used for energy storage applications such as grid side, power generation and user. The battery cell can be offline for no more than 3 months.

（3） The name of the manufacturer and trademark, model and specification, polarity symbol and production date are indicated on the cell.

（4） The internal resistance of the cell is <0.25m Ω（1kHz, 25℃）

（5） The appearance of the battery cell is no deformation or crack, the surface is dry, flat, no burr, no trauma, no dirt, and the marking is clear and correct.

（6） The performance of the battery cell meets the standard test of GB/T 36276-2018, and has the relevant test report.

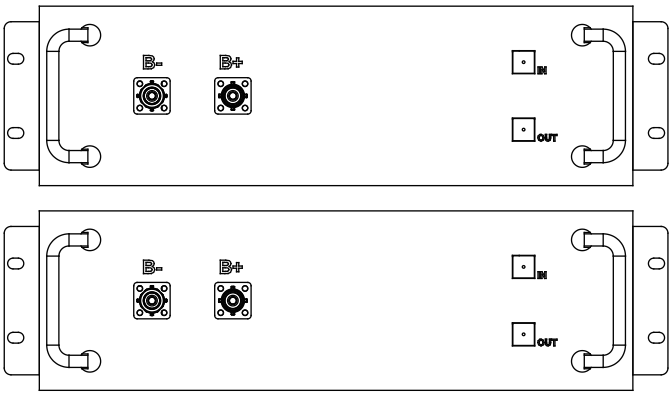
Cell			
			
Rated voltage	3. 2V	Size	159.7mm*118.3mm*50.0mm
Rated capacity	100Ah	Charge/discharge current	⩽0. 5C
Rated energy	320Wh	Working temperature	Charging: 0℃~55℃ Discharge: -20℃~60℃
Cycle life	6000@25° C, 0. 5C/0. 5C, 90%DOD, 70%EOL		

Batteries should be stored at room temperature with a remaining charge of 20% to 50%. For long-term storage:
At -10° C to 30° C, the recommended recharging cycle is 6 months.
At 30° C to 45° C, the recommended recharging cycle is 3 months.
At 45° C to 60° C, the recommended recharging cycle is 1 month.
The state of charge (SOC) during storage shall not be lower than 3%. The storage period does not consider the self-discharge impact from the BMS or other components other than the battery cells. Irregular charge and discharge maintenance may result in battery over-discharge and voltage imbalance issues.

Battery Module

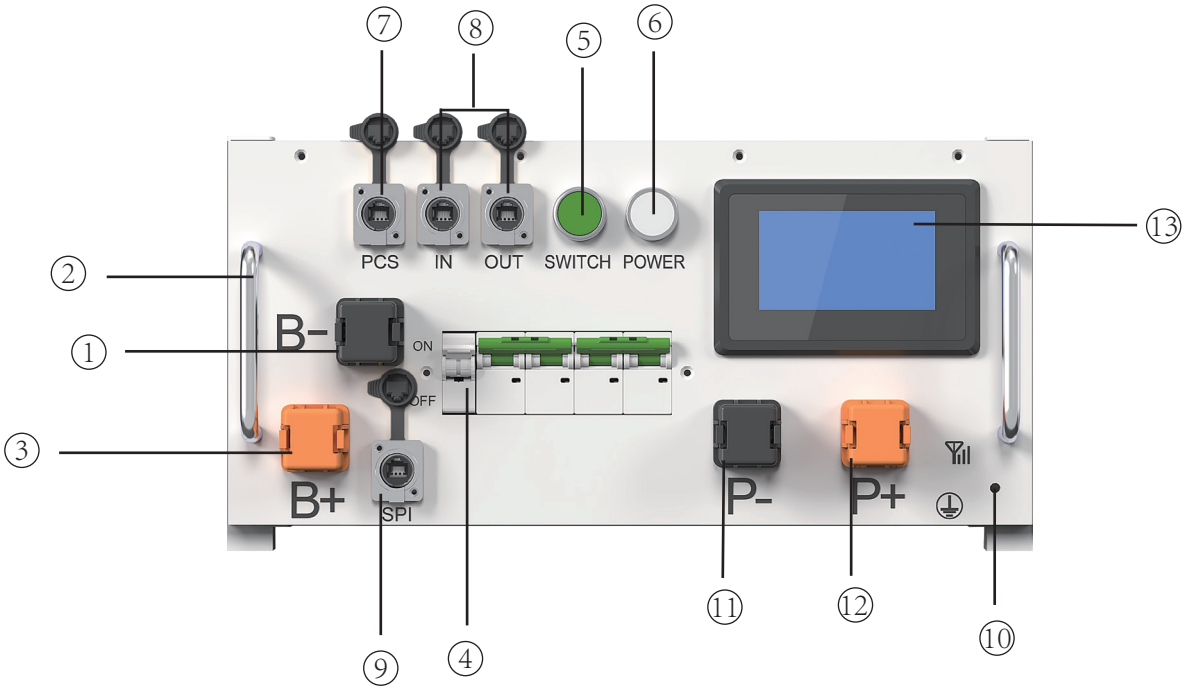
The battery module consists of multiple cells connected in series and parallel, including a housing, collection unit, and wiring harness.In this design, the battery module consists of 16 battery cells connected in series.

Battery Module

battery pack			
schematic diagram			
Battery Type	LFP	Rated Charging Current	50A
Dimension	440*440*134 (H)	Rated Discharging Current	50A
Weight	≈42KG	Rated Voltage	51. 2V
Voltage Range	44. 8V~57. 6V	Rated Energy	5. 12kWh
Rated Capacity	100Ah	Operating Humidity	5%~95% RH
		Operating Temperature	Charge:0°C~55°C, Discharge:-20°C~55°C

High-Voltage Compartment

The high-voltage enclosure of the battery cluster is meticulously designed for the number of connected battery modules, featuring control components, fuses, and clearly marked circuit breakers. It provides fault alarms, protection mechanisms, and safety safeguards to ensure electrical safety. The system also includes emergency shutdown functionality and allows step-by-step disconnection during maintenance. Dedicated DC switches are engineered to withstand high-altitude effects on current interruption and voltage tolerance. The battery cluster's high- voltage control box contains a main positive contactor, main negative contactor, pre-charging circuit, fuse, and molded case circuit breaker. All contactors must be compatible with battery management system controls.



① B-: Battery common negative connection position (black)

② Handle

③ B+: Battery common positive connection position (orange)

④ On/Off Switch

⑤ Wake-up switch

⑥ Power Indicator

⑦ PCS communication port: connect with PCS/Inverter

⑧ High-voltage cabinet parallel communication interface

⑨ High-voltage box communication and fan power supply interface with the battery pack

⑩ Connection to the battery rack and the ground point

⑪ Connection position of PCS negative pole (black)

⑫ Connection position of PCS positive pole (orange)

⑬ Battery Screen: Dispaly battery SOC, Voltage, Current and Temperature, Time, Fault code

Battery Cluster

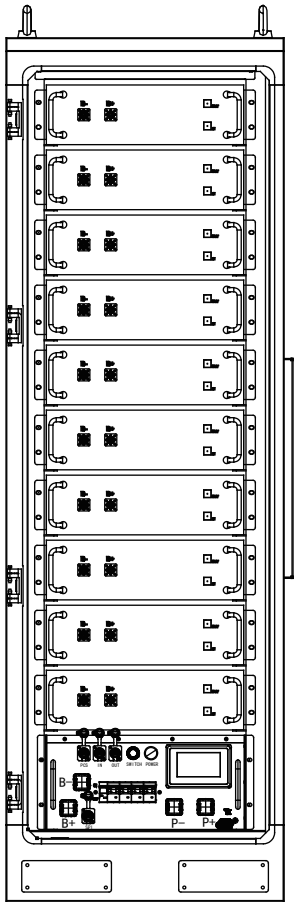
The battery cluster adopts a frame-type sheet metal structure, supporting the integration of 10battery plug-in boxes. The number of battery plug-in boxes can be flexibly designed according to project requirements. In this project, the battery cluster integrates 10 battery plug-in boxes and 1 high-voltage box. The battery cluster has the following characteristics:

(1) The cabinet is equipped with cabinet merging interfaces and grounding interfaces, meeting the requirements for overall connection during transportation and system grounding.

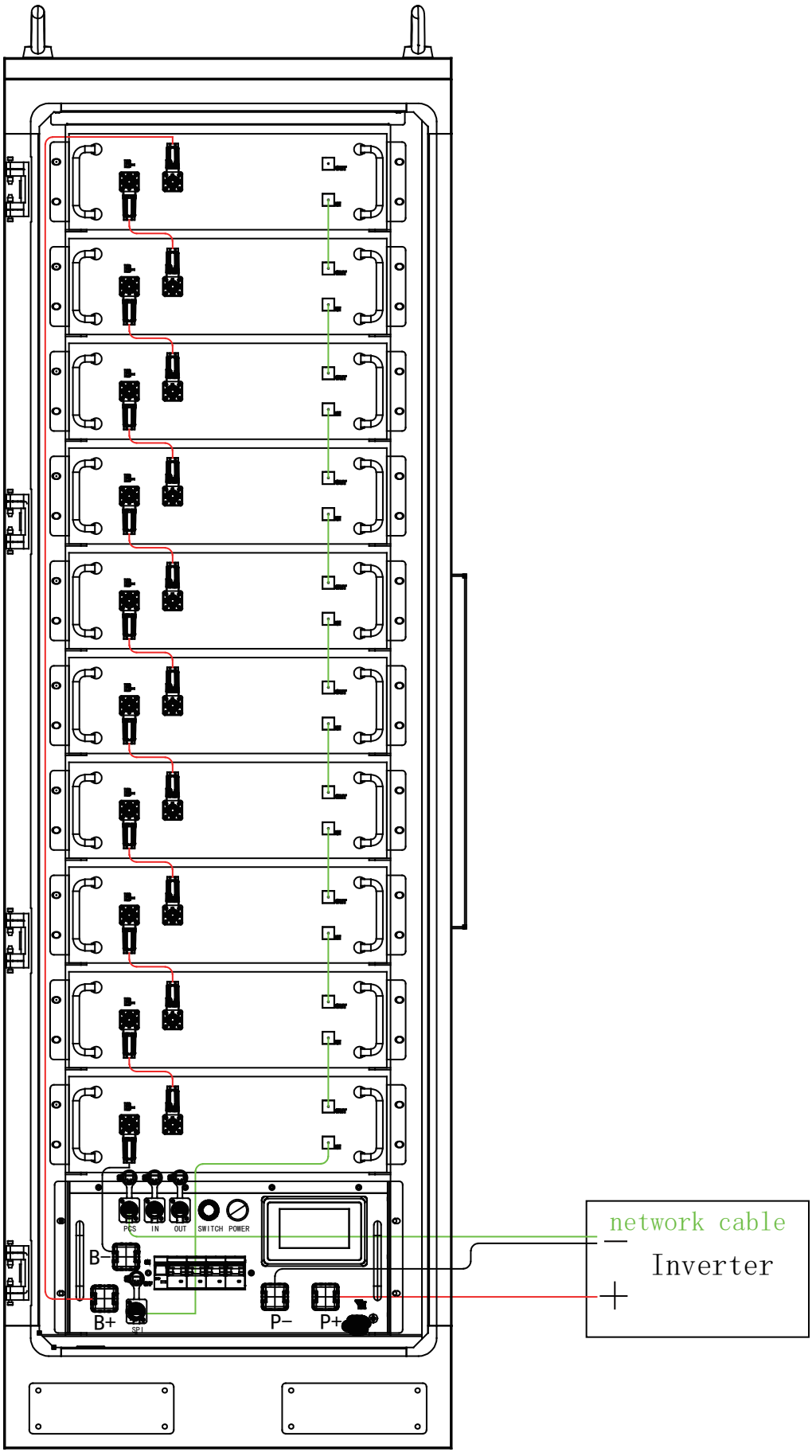
(2) The battery cluster adopts front-mounted installation and maintenance design, and the modules are connected with waterproof quick-plug terminals, which is convenient for installation, has large current-carrying capacity, and the system design is reliable.

Table 4.5 Battery Cluster Parameter Table

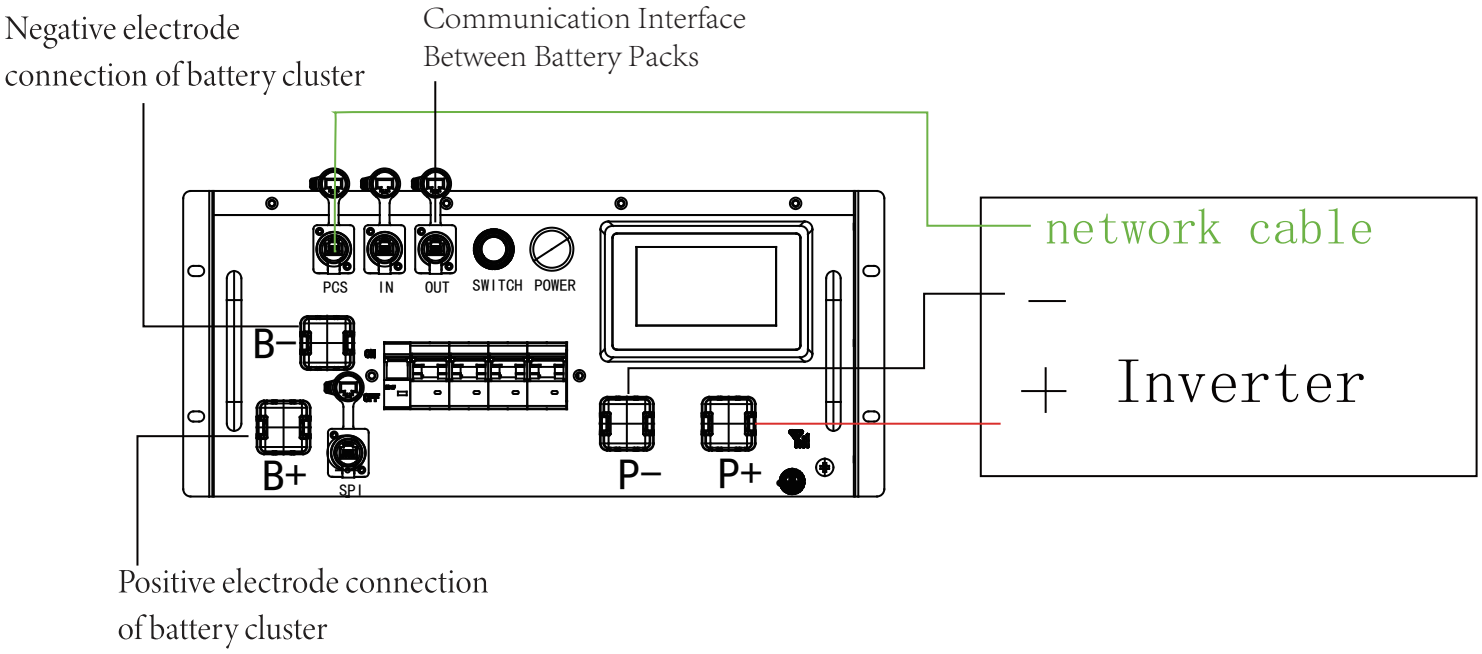
Performance Indicator	Parameter	Remarks
Nominal Capacity (Ah)	100	
Series-Parallel Configuration	160S1P	
Nominal Energy (kWh)	50	
Rated Voltage (V)	512	
Minimum Operating Voltage (V)	448	
Maximum Operating Voltage (V)	576	
Rated Charge-Discharge Rate	0.5P	
Battery Cabinet Dimension (W*D*H, mm)	780*640*2000	
Weight (T)	≈0.65	



Battery Packing Diagram



Schematic diagram of wiring inside outdoor cabinet



Schematic diagram of outdoor cabinet appearance structure

Diagram of the Inner Structure of the Outdoor Cabinet Door

Industrial and Commercial Energy Storage Outdoor Cabinet Design

The outdoor cabinet for industrial and commercial energy storage adopts an integrated design, integrating the energy storage battery system, power distribution control system, thermal management system, and fire protection system into one cabinet.

The energy storage battery system consists of 10 sets of 100Ah-1P16S battery clusters, with a rated voltage of 512 V and a configured capacity of 50KWh.

The preliminary overall design dimensions of the prefabricated cabin are (mm): 780 (W) * 640 (D) * 2000 (H). It adopts a non-stepping outward-opening door design, facilitating operation, maintenance, and inspection.

Appearance Diagram

50 Outdoor cabinet technical parameters table

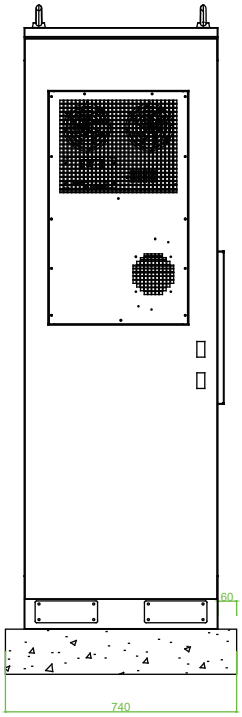
Model number	BESS-I50
Battery cell	LFP100Ah
Battery pack	51.2V 100Ah
Rated voltage (V)	512V(10 module series)
Rated energy (kWh)	50kWh
Voltage range (V)	448~576
Rated current (A)	50
Size: W*D*H (mm)	780*640*2000
Weight (kg)	625
Level	IP54
Operating temperature range (℃)	-20~50℃
Relative humidity	0~95%
Altitude (m)	<2000
Cooling method	Air cooling (refrigeration, ventilation, heating)
Noise	≤75dB
System efficiency	≥90%
Fire protection system	Integrated
Messaging	RS485，CAN

Explanation:

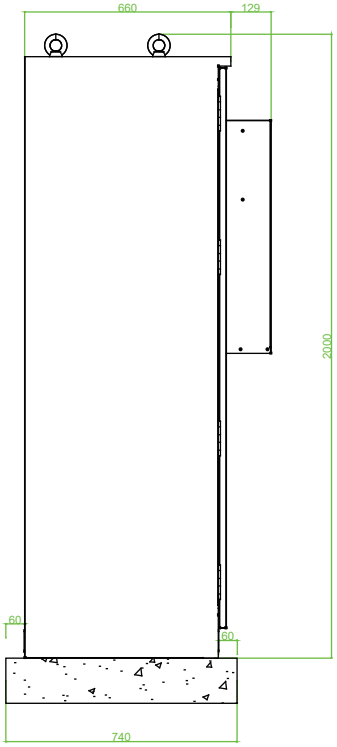
1. The length and width dimensions of the foundation can be adjusted according to the actual dimensions.

2. The height of the cement base is 0.1m - 0.2m.

3. The load of the cement base is ⩾ 2T, and the load - bearing capacity of the foundation meets the specified requirements.

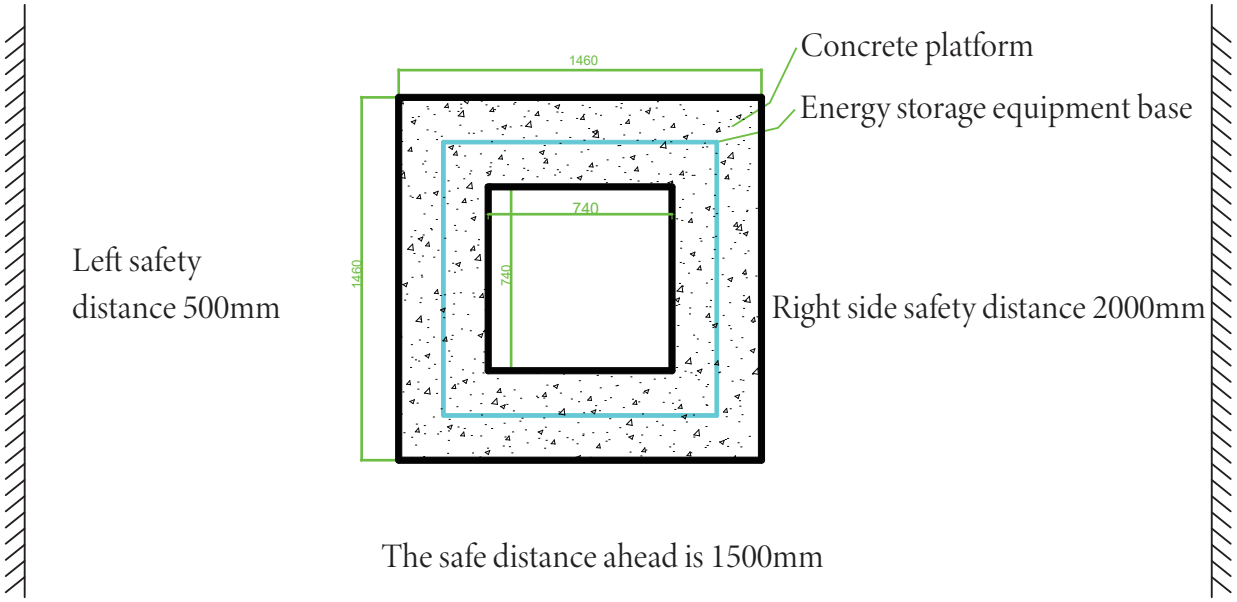


front view



side view

Rear safety distance 1500mm



The safe distance ahead is 1500mm

vertical view

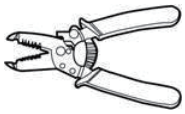
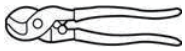
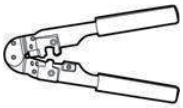
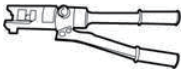
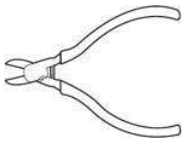
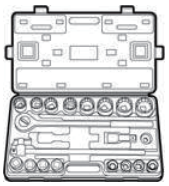
5.Product Installation and Linking

5.1 Tool Preparation

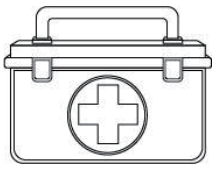
The tools and protective equipment required before equipment installation are as follows. Installation tools

Attention

Tools such as socket wrenches, torque wrenches, and screwdrivers should be handled with insulating protection or insulating tools.

 Connection cover cutting pliers	 One-bit screwdriver Cutting tip: 0.6 mm× 3.5mm	 Rubber Ham- mer	 Tool Knife
 Wire nipper	 Crystal Glass Wire Pliers	 Vacuum cleaner	 Multimeter DC voltage range ⩾ 1500V DC
 Marker pen	 Tape measure	 Digital or bubble level	 Hydraulic wrench
 Heat-shrinkable tubing	 Heat gun	 Zip Ties	 Insulator
 Clamps	 Lifting rope	 Tightening wrench	 Torque spanner

Personal protective equipmen

 Safety gloves	 Eye shield	 Dust mask	 Safety shoe
 Reflective vest	 Safety helmet	 Medical Kit	

5.2 Installation Environment

The external environment meets the requirements of GB 51048-2014 Design Code for Electrochemical Energy Storage Power Stations. Do not block the ventilation or cooling system while the device is running to prevent high temperature fire.

The equipment should be installed in a place far away from liquid. It should not be installed under the water pipe, air outlet and other places where condensation is easy to produce. It should not be installed under the air conditioning outlet, ventilation outlet, machine room outlet window and other places where leakage is easy to prevent liquid from entering the equipment and causing equipment failure or short circuit.

If you find liquid entering the equipment, immediately shut off the power and notify the on-site management.

Do not place the device in environments with flammable, explosive gases, or smoke, and avoid performing any operations in such conditions. Installation in salt-affected areas may cause corrosion and fire risks. Do not install energy storage systems outdoors in salt-affected regions. These areas are defined as coastal zones within 2km of the shoreline or regions exposed to sea breezes. The extent of sea breeze exposure varies depending on meteorological conditions (e. g., typhoons, monsoons) or topographical features (such as embankments or hills).

Altitude: ⩽3000m.

6.Packaging, Transportation, and Storage

Adopted by UN38.3 (UN38.3: Section 38.3 of the sixth Revised Edition of the

Recommendations on the Transport of Dangerous Goods: Manual of Tests

and the certification of SN/T 0370.2-2009 "Inspection Regulations for Export Dangerous Goods Packaging- Part 2: Performance Inspection" (this product falls under Category 9 of dangerous goods).

The product can be delivered directly to the site, meeting transportation requirements for vehicles and ships. The transport packaging must be sturdy, with the exterior conforming to national standards and bearing labels such as 'Handle with Care' and ' Moisture-Proof'. Due to external environmental factors (such as temperature, transportation, and storage), the product specifications are based on the factory date.

During transportation, avoid direct rain and snow, falling into water, falling, mechanical impact,

inversion and tilting. It is strictly prohibited to be placed together with corrosive substances such as acid and alkali.

When storing products, they should be kept in a dry, well-ventilated, clean, waterproof, anti-corrosion, dust-proof, and relatively humid environment.

Storage conditions: 5%RH to 80%RH, ambient temperature 0℃ to 35℃, recommended storage temperature 20℃ to 30℃ . Avoid direct sunlight, maintain a distance of at least 2 meters from heat sources, and prevent contact with corrosive organic solvents, gases, or other substances. The product's SOC (State of Charge) should be maintained within 20% to 50%. For customers planning to store the product for over 1 month but not exceeding 6 months, perform a full charge-discharge cycle in advance to adjust the SOC to 20%~

50%. If the product's storage SOC exceeds the 20% to 50% range or remains uncharged/discharged for over 6 months, it may result in capacity loss or other damage.

7.An Emergency Measures

The energy storage system consists of multiple battery strings connected in parallel and series. The system design has taken into account the occurrence of danger or failure. However, the absolute safety of the system cannot be guaranteed.

If the internal materials of the product are leaked, the user should follow the following suggestions.

If inhaled, leave the contaminated area immediately and seek medical attention.

If it comes into contact with the eyes, rinse the eyes with running water for 15 minutes and seek medical attention immediately. If skin contact occurs, wash the area thoroughly with soap and seek immediate medical attention.

If eaten, induce vomiting and seek medical attention.

If the battery is found to be on fire, under the condition of ensuring safety, first cut off the circuit breaker of the power distribution section and turn off the system connection. Evacuate people immediately and contact the local fire department.

Note: To continuously improve customer satisfaction, our products and product manuals are constantly being improved and upgraded. If there are discrepancies between your manual and the product, it may be due to version differences. Please refer to the project technical documents. If you still have questions, please contact our company.

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Please read instructions carefully before use