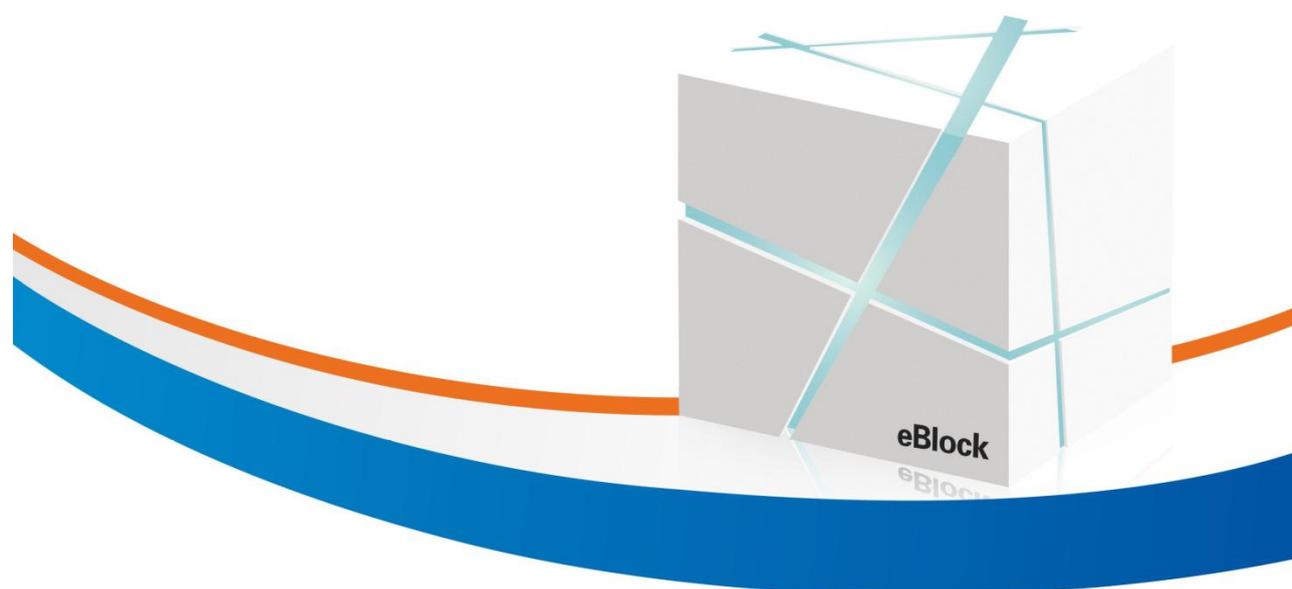


eBlock-418A User Manual



Xi'an JD Energy Co., Ltd.
April, 2024

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1. About the Manual

1.1. Applicable Scope

Thank you for using our energy storage series products. In this manual, we will introduce the smart eBlock-418A energy storage cabinet to you. This manual only details the product information, installation instructions, fault information and routine maintenance of the energy storage cabinet, excluding all information about energy storage systems. For correctly installing and using the energy storage cabinet, as well as making full use of its excellent performance, please carefully read this User Manual and follow all the precautions herein before carrying, installing, operating, and maintaining the cabinet. The content of the Manual will be continuously updated and upgraded. In case of slight discrepancies between this Manual and the actual product, the latter one shall prevail. Users are allowed to request the latest version of the Manual through sales channels.

1.2. Warranty Statement

JD Energy will provide warranty services for the malfunctions or damages caused under normal use during the warranty period; However, the damages caused by the following circumstances during the warranty period will be charged for repair.

- ◆ Damages due to failure to operate this product according to the instructions in the Manual.
- ◆ Damages due to fires, floods, and abnormal voltage.
- ◆ Damages due to application of this product for abnormal functions.
- ◆ Damages due to application of this product exceeding the specified range.
- ◆ Secondary damages due to force majeure factors such as natural disasters, earthquakes, and lightning strikes.

Please properly keep this Manual for future reference.

1.3. Symbolic Interpretation

For better use of this Manual, please read the following symbol instructions carefully:

Symbol	Symbol Name	Symbol Meaning
	Shock hazard identification	There is a risk of electric shock of places marked by this symbol, which may pose a danger to the user's safety. Please do not touch them casually.
	Grounding sign	Location of protective ground wire connection
	Smart eBlock S/N	S/N information

1.4. Safety Instructions

	Warning!
	Please read the safety instructions carefully when using and operating the eBlock.
	Warning!
	Batteries being potentially dangerous, proper protective measures must be taken during operation and maintenance! The maintenance of batteries must be conducted by personnel with battery expertise and safety training.

✓ Insulating gloves and shoes should be worn.

✓ Wearing necklaces, rings, watches, or other metal objects is strictly prohibited.

- ✓Tools with insulated handle should be used.
- ✓Do not place tools or other metal objects on the equipment.
- ✓Please be sure to turn off the power when performing wiring and maintenance.
- ✓Non-professionals are strictly prohibited from opening the smart eBlock without authorization to avoid electric shock.
- ✓This equipment should be installed in environments away from ignition sources, as well as flammable, explosive, or corrosive gases;
- ✓Due to the high current of the system during operation, all terminals and bolts should be tightened to ensure good contact during wiring.
- ✓The equipment should be operated by professionals.
- ✓Do not touch the equipment since there is high voltage inside even without external power input.
- ✓No articles should be placed into voids or open devices inside the smart eBlock.
- ✓Dangerous voltage in the smart eBlock survives when all switches and circuit breakers are turned off. Only professionals can open, move or operate the equipment.
- ✓Power off the equipment for maintenance and repair requires a warning sign hung at the switch to clearly warn other personnel that the equipment is being operated and it is strictly prohibited to close.
- ✓When operating the cabinet, operators are strictly prohibited from leaving the site midway and should confirm that the cabinet door is locked tightly after completing the relevant operations, and the equipment is in normal working condition before leaving.
- ✓When it is impossible to confirm if the equipment is safe, relevant personnel must be contacted first. Proceeding with relevant operations is allowed only when it is confirmed that the equipment is safe to operate. Operations under potential safety hazards are strictly prohibited, and all operations must comply with relevant regulations.

2. Introduction to the Product

2.1. Brief Introduction

2.1.1. Overview

The eBlock-418A smart energy block is an integrated energy storage equipment designed to meet the energy storage needs of the source network side, also a kind of integrated equipment for energy storage and conversion in electrochemical energy storage systems, controlling the charging and discharging of batteries, performing AC/DC conversion, and directly supplying power to AC loads in the absence of a power grid.

The eBlock-418A consists of the battery module (pack), power conversion system (PCS), burner control system (BCS, integrated inside PCS), water cooling unit and cabinet structural components. The BCS receives control instructions from the upper communication manager (eLink), and controls the PCS to charge or discharge the battery based on the symbol and size of power instructions, thus adjusting the active and reactive power of the power grid.

The eBlock-418A is characterized by high safety, high energy density, high conversion efficiency, and strong environmental adaptability.

2.1.2. Model Introduction

The model description of the smart eBlock is shown in Fig. 2-1:

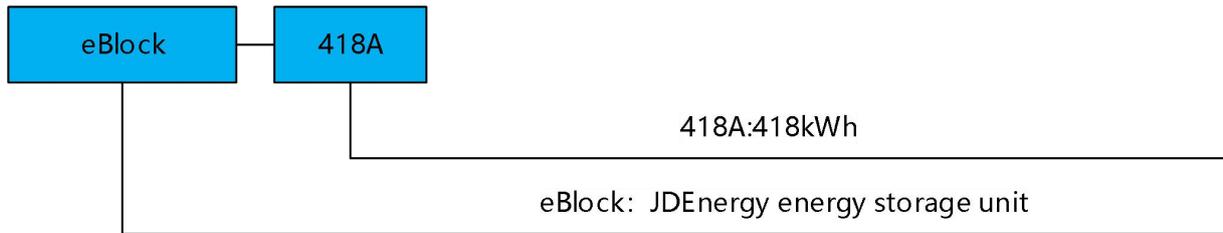


Fig. 2-1 Description of Smart eBlock Model

2.1.3. Power Grid Form

The AC voltage of eBlock-418A is 690V, supporting IT power grid for connection, as shown in Fig. 2-2:

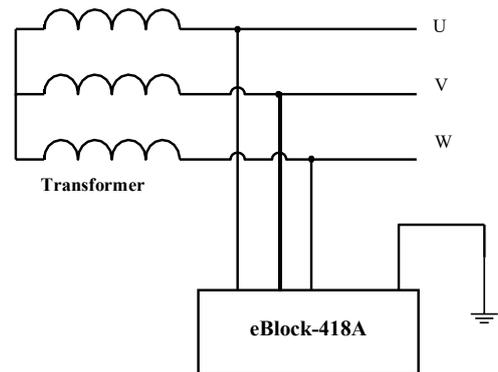


Fig. 2-2 Energy Storage Grid-connected System

2.2. Appearance Introduction

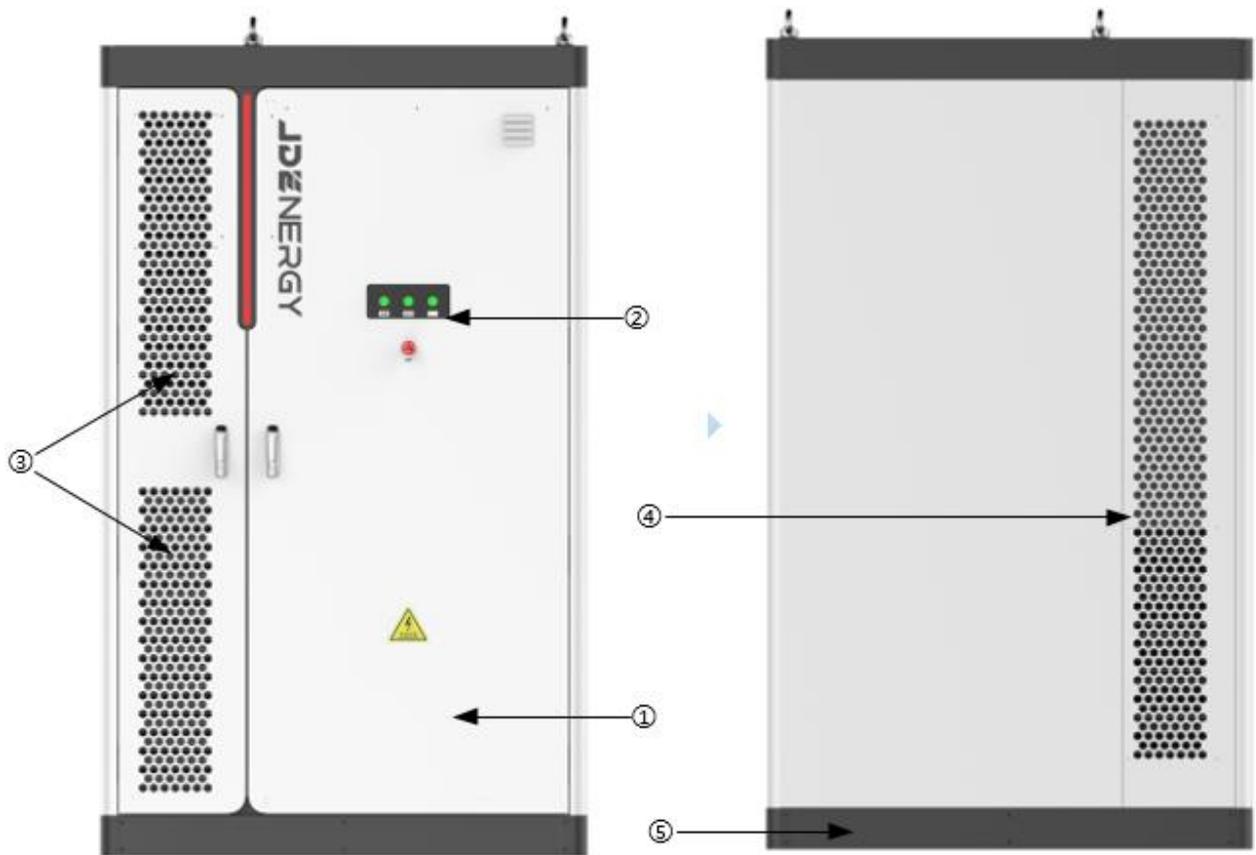


Fig. 2-3 Appearance of Smart eBlock

Table 2-1 Appearance Description of Smart eBlock

No.	Description
1	Cabinet
2	Status indicator and emergency stop switch
3	Air inlet
4	Air outlet
5	Base

2.3. Internal Layout

The internal layout of the smart eBlock is shown in Fig. 2-4:

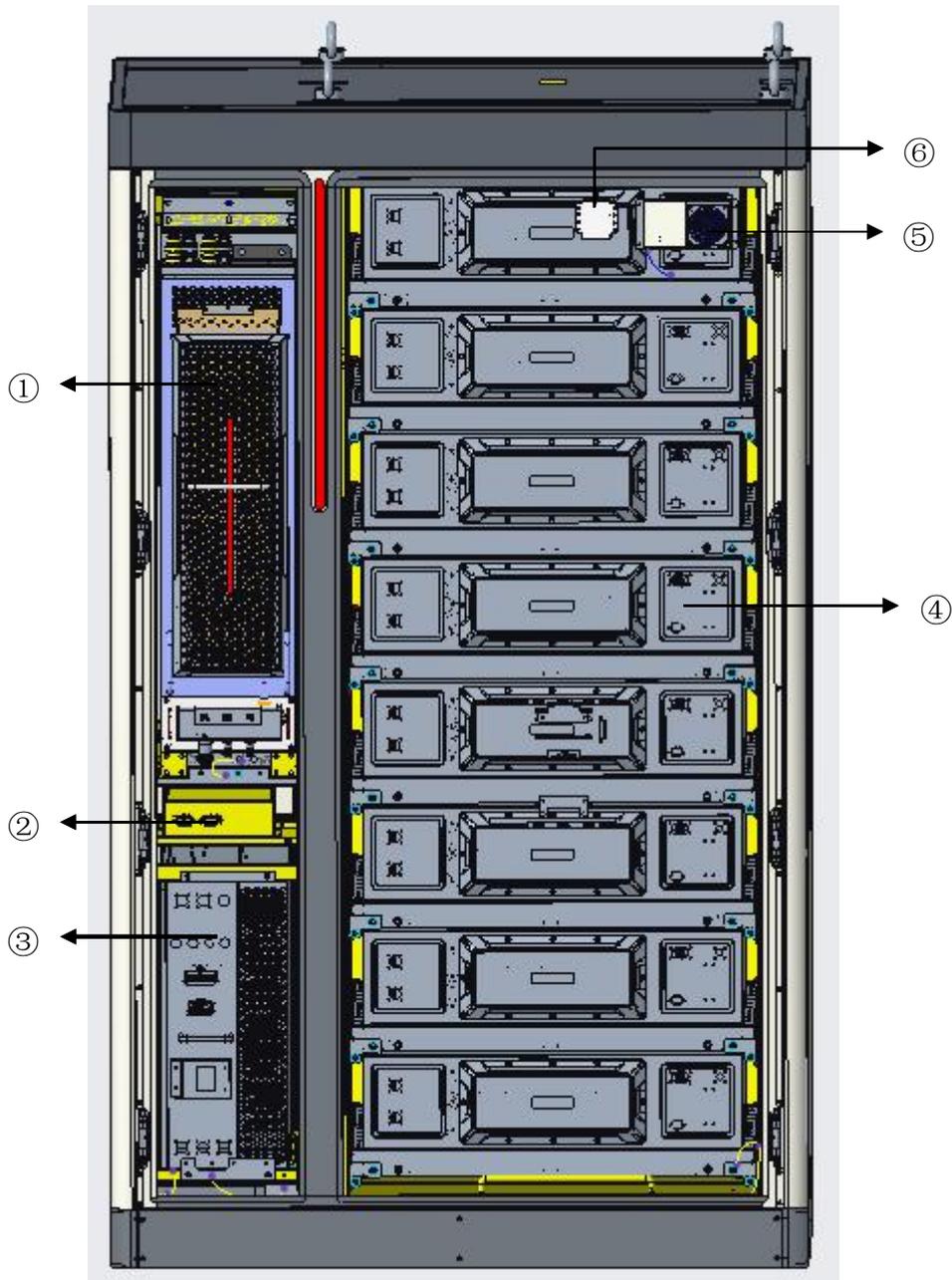
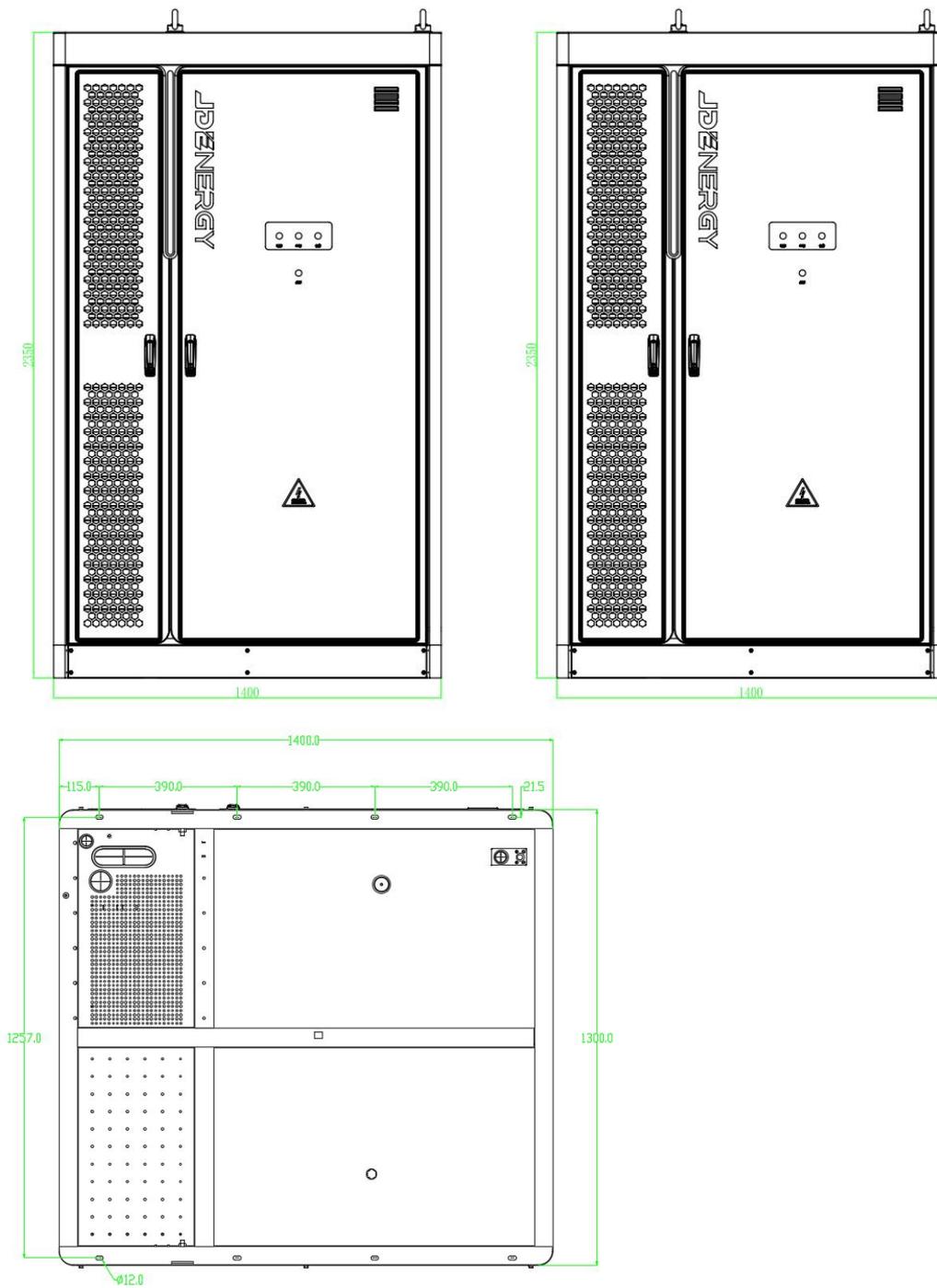


Fig. 2-4 Internal Layout of Smart eBlock

Table 2-2 Internal Layout Description of Smart eBlock

No.	Description
1	Water cooling unit
2	Fire relay unit
3	PCS
4	Battery pack
5	Exhaust assembly
6	Monitoring module

2.4. Product Dimension



2.5. Bottom Opening of Cabinet

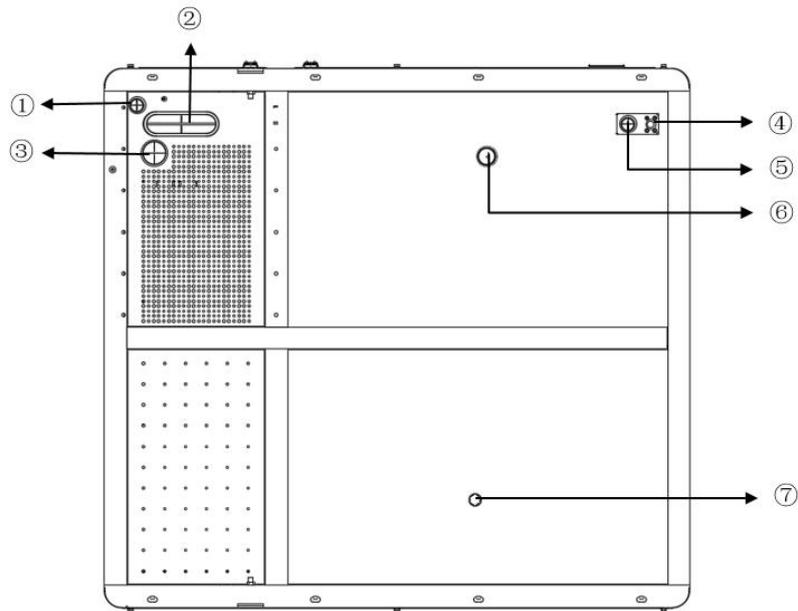


Fig. 4-1 Bottom Opening Description of Smart eBlock

No.	Description
1	PCS auxiliary power supply inlet hole
2	AC main power inlet hole
3	Fire communication line inlet hole
4	Perfluoro fire pipeline quick connector
5	Dehumidifier power supply inlet hole
6	Floor drain
7	Water fire pipeline interface

2.6. Electrical Interface of Smart eBlock

The electrical interface of the smart eBlock is located on the PCS, as shown in Fig. 2-5:

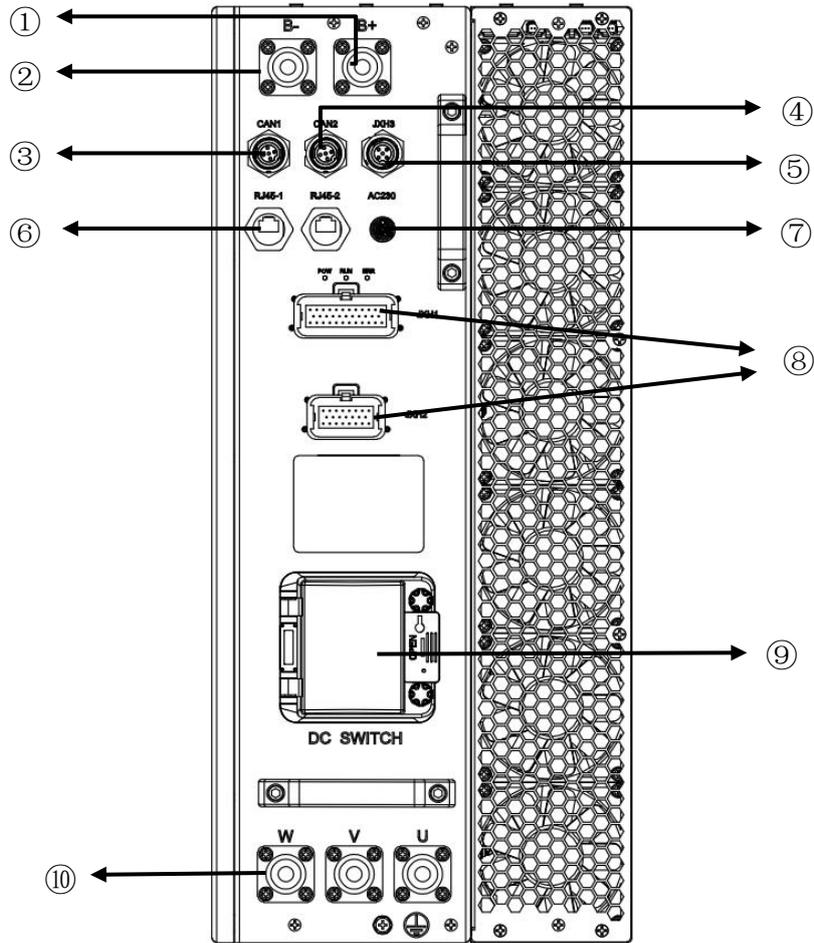


Fig. 2-5 Terminals of PCS

Table 2-3 Terminals Details of Smart eBlock

No.	Description
1	DC-
2	DC+
3	HF synchronous CAN interface 1
4	HF synchronous CAN interface 2
5	Water cooling unit CAN communication interface
6	External communication Ethernet interface
7	PCS auxiliary power supply 220Vac 220Vac
8	Cabinet communication interface
9	DC switch
10	AC main power U, V, W-phase interface

2.7. Display Panel

The display panel of the smart eBlock is shown in Fig. 2-6:

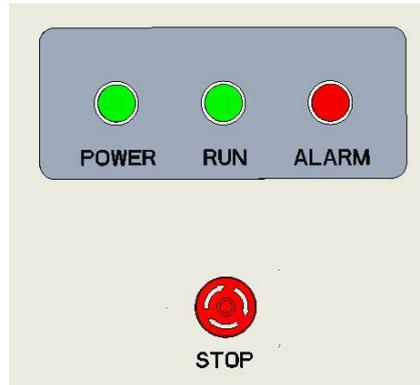


Fig. 2-6 Display Panel

Table 2-4 Status Description of Display Panel

No.	Name	Status	Description
1	POWER	Green: normally on	Normal control power supply
		Green: off	No or abnormal control power supply
2	RUN	Green: normally on	System charging
		Green: flashing	System discharging
		Green: off	System not running
3	ALARM	Red: normally on	Shutdown fault
		Red: flashing	Non shutdown failure
		Red: off	No fault
4	STOP	Press down	Emergency shutdown
		Turn up	Normal status

3. Smart eBlock Storage

If the smart eBlock is not immediately put into use, its storage must meet the following conditions:

✓Storage time not exceeding 1 month, temperature maintained between -35°C - 60°C, relative humidity maintained between 5% RH - 85%RH;

✓Storage time exceeding 1 month, temperature maintained between 5°C - 35°C, relative humidity maintained between 5% RH - 85%RH;

✓The smart eBlock should have a power no less than 20%, and should be regularly checked and recharged during usage;

The recommended recharge cycle is 6 months from -35°C to 30°C;

The recommended recharge cycle is 3 months from 30°C to 45°C;

The recommended recharge cycle is 1 month from 45°C to 60°C;

✓Store the eBlock in a clean and dry place, avoiding splashing water, rain, humidity, high temperature, or outdoor exposure, as well as dust or water vapor;

✓The storage space should be free of harmful gases, flammable or explosive products, or corrosive chemicals;

✓It should be away from environments with mechanical impact, heavy pressure, strong electric and magnetic field;

✓Long-term storage of the smart eBlock requires professionals' inspection and testing before putting it into use;

4. Installation

4.1. Mechanical Installation

4.1.1. Installation Environment Requirements

- (1) The installation site should have a bearing capacity of no lower than 5 tons and is sturdy and reliable enough to support the smart eBlock for a long time;
- (2) Given the local temperature (e.g. the air outlet) of the smart eBlock is relatively high during operation, please do not place it with flammable materials;
- (3) Do not install the product in spaces containing flammable gases, corrosive gases, and etc.;
- (4) The altitude of the installation site should be $\leq 2000\text{m}$;
- (5) The installation site should be away from strong electromagnetic field;
- (6) It should be installed in environments with good ventilation to facilitate heat dissipation;
- (7) The surroundings of the smart eBlock should be sufficient for easy data observation and maintenance;
- (8) The installation site should facilitate electrical connection and maintenance;
- (9) The installation site should be kept at a temperature of $-25^{\circ}\text{C} - 45^{\circ}\text{C}$ and should be clean.



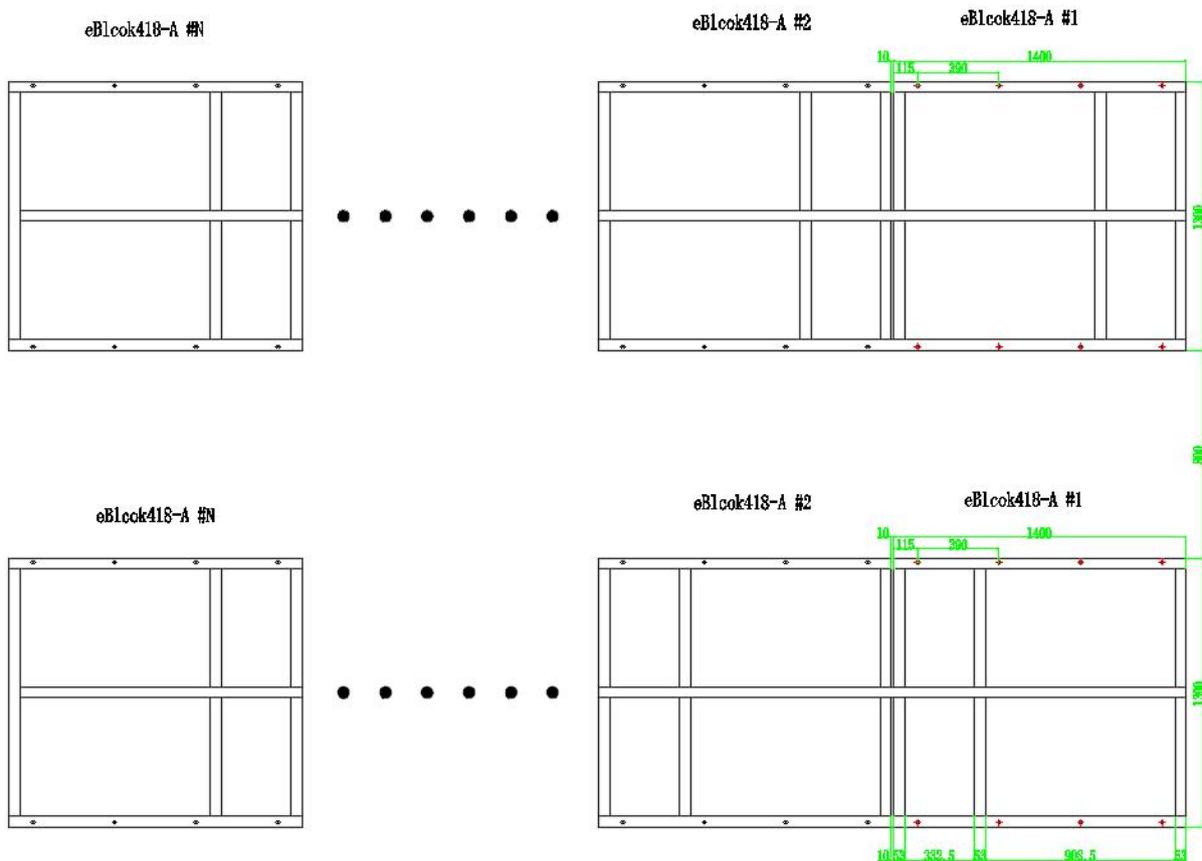
Max. ambient temperature: 45°C



Min. ambient temperature: -25°C

Fig. 4-1 Temperature Map of the Installation Environment for Smart eBlock

4.1.2. Requirements for Layout of Square Array Installation



Top View of eBlock418-A Square Array Installation Layout

Fig. 4-2 Top View of eBlock-418 Square Array Installation

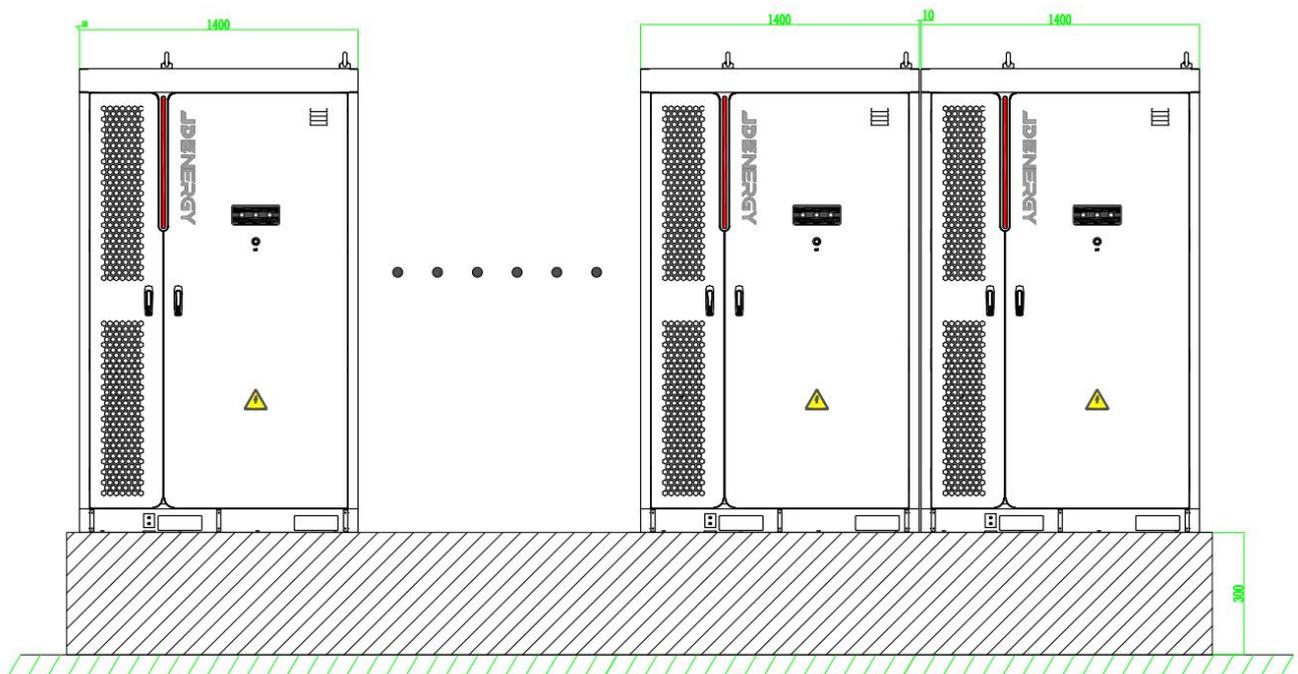


Fig. 4-3 Schematic Diagram of eBlock-418A Square Array Layout

★Note: The site layout scheme of eBlock-418A should subject to the detailed design drawings of the construction site. This figure is for reference only.

4.1.3. Foundation Requirements

Before installation, the concrete platform and trench should be constructed on the selected ground. The foundation should be constructed as follows:

- The foundation size meets the requirements for cabinet installation and load-bearing.
- The average strength of the supporting foundation is greater than 100kg/cm².
- The horizontal error of the contact surface between the foundation and the cabinet is less than 5mm.
- The grounding grid is embedded and a ground copper bar is reserved at the grounding position of the cabinet. The ground copper bar is made of 50mm×5mm HDG flat steel, with one end connected to the embedded grounding grid and the other end connected to the cabinet grounding point. When embedding the grounding grid, the ground strap is reserved in sufficient length to ensure connection to the cabinet grounding point.
- The lap resistance of the cabinet does not exceed 0.1Ω.
- The inner diameter of the laid protective tube is not less than 1.5 times the outer diameter of the cable (including the protective layer)
- The foundation construction meets the drainage requirements of the local historical maximum rainfall. The discharged water needs to be treated in accordance with local laws and regulations.

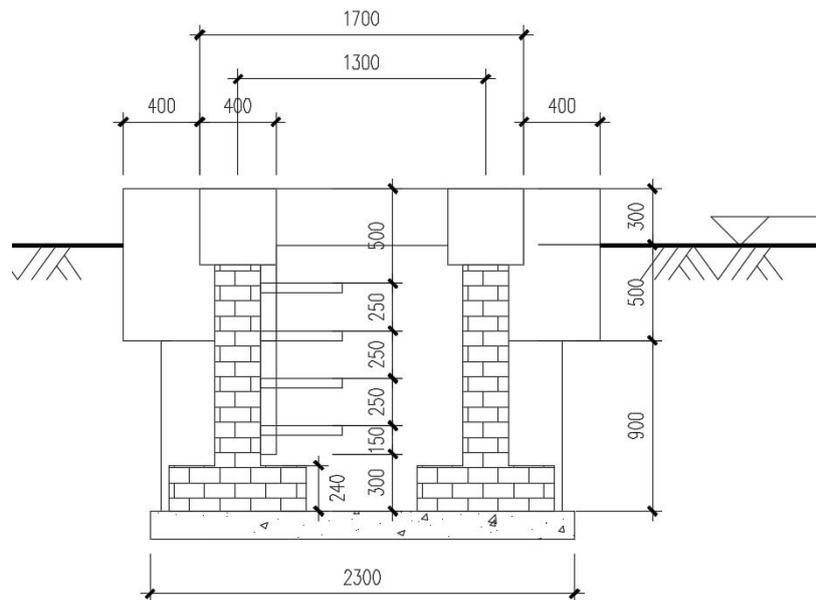


Fig. 4-4 Dimensional Diagram of Smart eBlock Foundation

★Note: The specific foundation size should subject to the detailed design drawings of the construction site. This figure is for reference only.

4.1.4. Installation Process Description

The installation process of the smart eBlock is shown in Table 4-5.

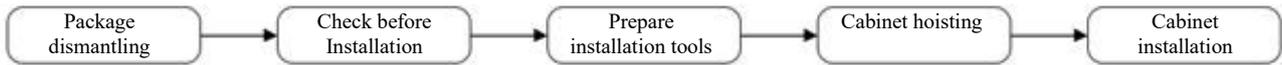


Fig. 4-5 Installation Flowchart of Smart eBlock

4.1.5. Package Dismantling

1. Before hoisting, use a scissor to remove the packaging film of the cabinet, and remove the foam corner protectors;
2. Use a Phillips screwdriver or socket to remove a total of 12 M16*16 assembling bolts that secure the sealing plate before and after the base;
3. Use a socket to remove a total of 4 ST9.5-40 self-tapping screws that secure the cabinet base and tray;
4. Properly preserve the removed base sealing plate and installation bolts;

4.1.6. Check before Installation

Please check if the fittings are complete before installation, as shown in Table 4-1.

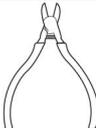
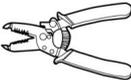
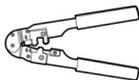
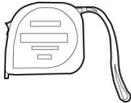
Table 4-1 Check Items before Installation

S/N	Check Items	Check Situation
1	No damage, scratches, or dents on the appearance	
2	Whether the fittings ordered for the product are complete	
3	Whether the nameplate information is consistent with the ordered product model	
4	No damage, scratches, or blurriness of the warning label	

4.1.7. Preparation for Installation Tools

Tools needed for installation are shown in Table 4-2:

Table 4-2 List of Installation Tools

S/N	Name	Appearance	S/N	Name	Appearance
1	Insulating gloves		2	Safety helmet	
3	Goggles		4	Marking pen	
5	Insulated rubber tape		6	Nylon cable ties	
7	Electric hand drill		8	Flathead screwdriver (2mm-5mm)	
9	Cross screwdriver M5/M6/M8		10	Diagonal plier	
11	Wire stripper		12	Registered jack crimping plier	
13	Adjustable wrench		14	Socket wrench set	
15	Electric hammer		16	Angle grinder	
17	Multimeter 2000V		18	Network cable tester	
19	Tape		20	Leveling instrument	
21	Scissor		22	Utility knife	
23	Herringbone ladder		24	Dust collector	

4.1.8. Cabinet Hoisting

The smart eBlock requires hoisting for installation, and the hoisting schematic diagram is shown in Figure 4-6:

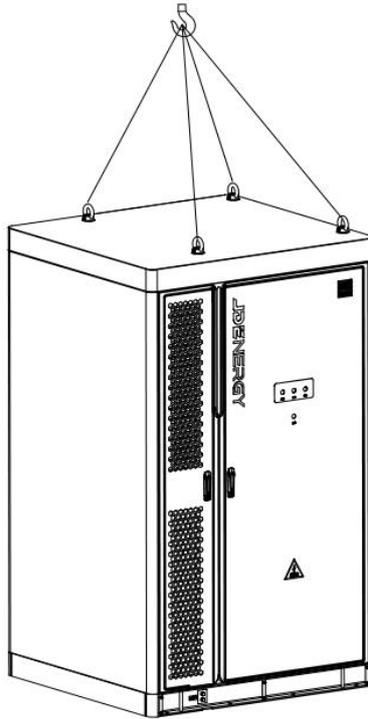


Fig. 4-6 Hoisting Schematic Diagram of Smart eBlock

Hoisting requirements:

- ◆No one stays, works or passes under the boom and hoisting objects during crane operation. When hoisting heavy objects, it is strictly prohibited for people to pass through from above.
 - ◆The hoisting tonnage is ≥ 8 tons.
 - ◆Hoisting is carried out in clear and windless weather.
 - ◆Flexible sling or binding is adopted for hoisting, with the weight of a single sling no less than 4 tons.
 - ◆A single sling is greater than 5m in length, and $< 60^\circ$ in hoisting angle.
 - ◆The hoisting equipment is hoisted and placed gently, and the cabinet falls slowly and steadily to avoid impact on internal equipment.
 - ◆When transporting with a crane, a trial hoisting is carried out to confirm the weight that the binding can withstand and ensure no tilted hoisting.
 - ◆The hook is located at the center of gravity, the hoisting and landing is gentle enough to avoid impact or vibration, and the swinging angle is less than 10° .
- ★Note: Refer to the *Special Safety Construction Plan for JD Energy Hoisting Operations* for specific hoisting plans.

4.1.9. Cabinet Installation

The installation steps are as follows:

- 1) The cabinet should be installed according to the construction drawings and placed on the foundation steel in order. Individual cabinets should be installed by reference to the verticality between the surface and the sides. After each cabinet in the row is in place, tie a small line from the bottom to two-thirds of the height above the cabinets on both ends to align each cabinet one by one. 0.5mm iron sheets can be used for alignment, with no more than three sheets each place. Then fix the iron sheet of each cabinet, and weld it on the foundation steel frame using a welding machine.
- 2) After the cabinet is in place, aligned and leveled, fix it to the foundation steel. Galvanized screws are used to connect the cabinets to each other, and to the side baffle.

4.2. Electrical Connection

4.2.1. Electrical Wiring Requirements

- 1) Follow the User Manual and Electrical Diagram for correct on-site wiring.
- 2) The power line, power cord, and communication line should be firmly and reliably connected at both ends.
- 3) The power cord routing should meet the requirements for strong and weak current routing, and complies with the system routing plan. The power cord and signal cable are tied separately.
- 4) The cable tie should have no sharp corners, uniform spacing, and moderate elasticity, with the knot facing in one direction.
- 5) The tied cables should be tightly packed together, straight and neat.
- 6) Excess cables should be neatly coiled and easy to locate.
- 7) The cable should not be excessively bent at turns to avoid damaging the wire core.

4.2.2. Connection of Protective Conductor

Install the grounding flat steel onto the grounding point of the cabinet base, as shown in Figure 4-7:

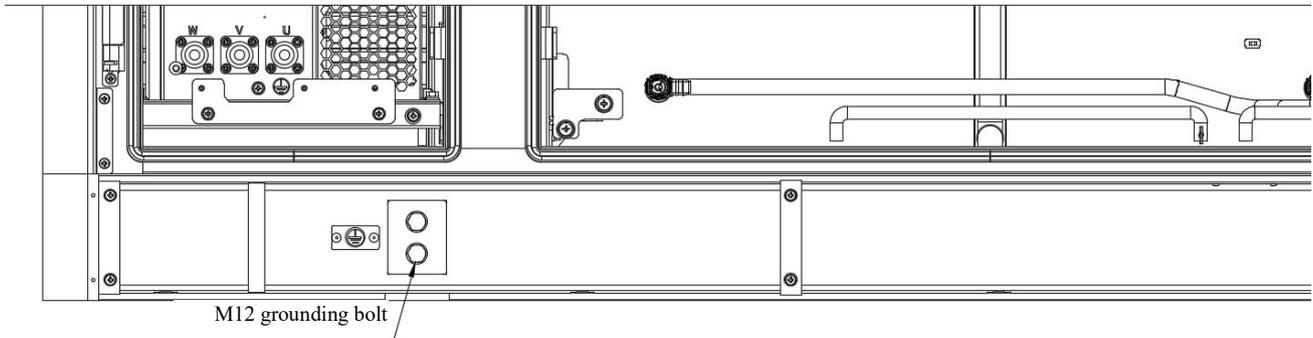


Fig. 4-7 Main Grounding Diagram of Smart eBlock

4.2.3. PCS Main Power Connection

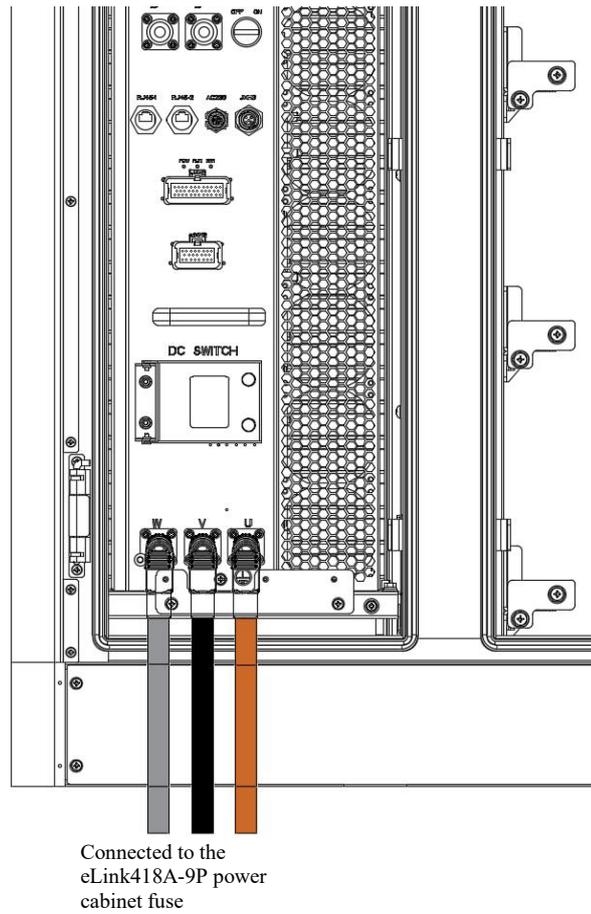


Fig. 4-8 Wiring Diagram of PCS Main Power

Table 4-3 Connection Description of PCS Main Power Interface

Starting point	Corresponding pin position	Meaning	Cable connector model	Cable model	Ending point
PCS AC Main power interface	U	Main power U-phase	General Connectivity: PSRP10A95	WDZ-DCYJR-125 95mm ² /1000VAC	Power cabinet branch fuse
	V	Main power V-phase			
	W	Main power W-phase			

4.2.4. PCS Communication Connection

The PCS communication uses an RJ45 interface, connected to a cat 5e stp network cable, with a standard communication method of TIA568b. The RJ45 interface is equipped with a registered jack for connection, which is shielded. The PCS communication wiring diagram is shown in the following figure:

Note: The two eBlock-418A HF synchronous CAN at the beginning and end of a single energy storage array need to be connected to a 120Ω terminal resistor.

4.2.6. PCS Auxiliary Power Supply Connection

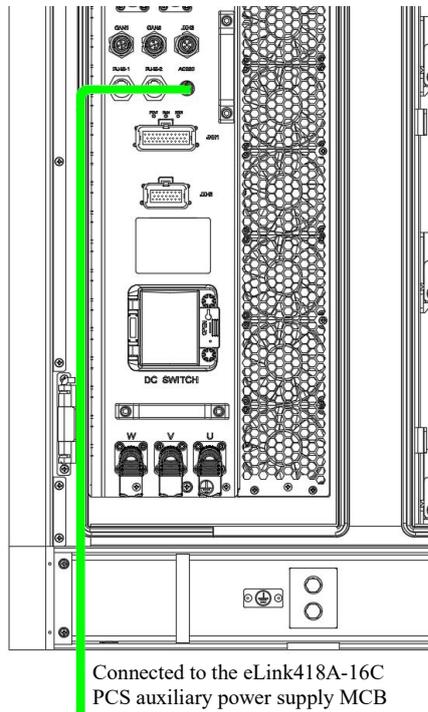


Fig. 4-11 Wiring Diagram of PCS Auxiliary Power Supply

Table 4-6 Connection Description of PCS Auxiliary Power Supply Interface

Starting point	Corresponding pin position	Meaning	Engineering connector model	Cable specification	Ending point
PCS auxiliary power supply interface	1	Single-phase power supply L	CHOGORI: 22003635-01-001	RVV 2*1.0mm ²	Communication cabinet PCS auxiliary power supply MCB
	2	Single-phase power supply N			
	3	Empty			

4.2.7. Electrical Connection of Water Cooling Unit

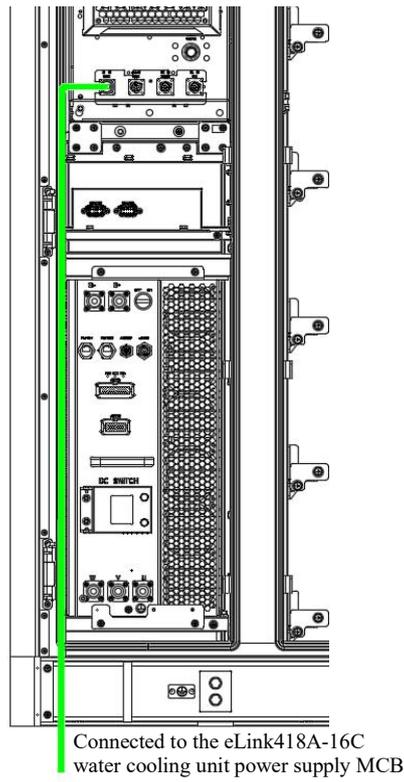


Fig. 4-12 Wiring Diagram of Water Cooling Unit

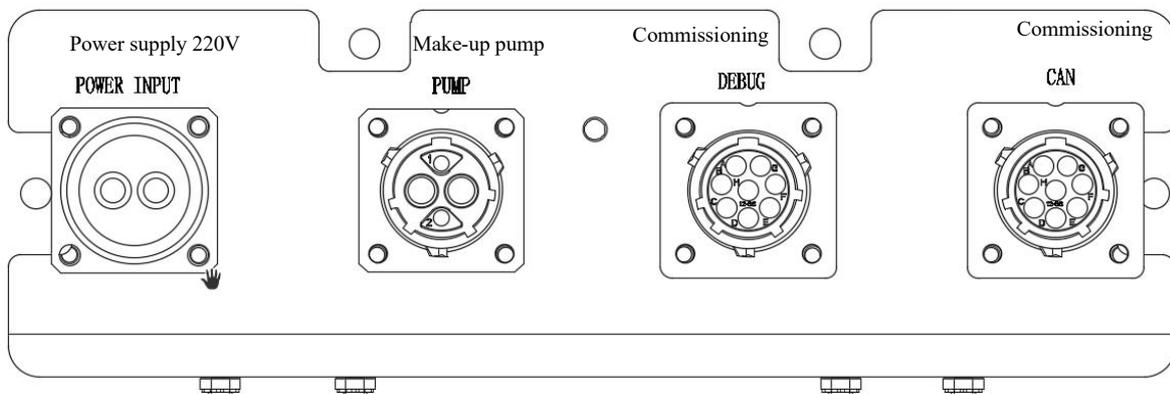


Fig. 4-13 Schematic Diagram of Panel Interface of Water Cooling Unit

Table 4-7 Connection Description of Water Cooling Unit Interface

Starting point	Corresponding pin position	Meaning	Engineering connector model	Cable specification	Ending point
Power interface	A	Single-phase power supply L	Gvtong: GR61604PNHEC-U	RVV 2*6mm ²	Communication cabinet water cooling unit power supply MCB
	B	Single-phase power supply N			
Make-up pump power interface	1	Single-phase power supply L	Gvtong: GR61202PNHEC	RVV 2*2.5 mm ²	This interface can be used to supply power to the make-up pump when the on-site water cooling unit needs to be refilled
	2	Single-phase power supply N			
Commissioning interface	A	CAN+	Gvtong: GR61208PNHEC	RVVSP 2*2.5 mm ²	The manual operator can be connected to this interface when the on-site water cooling unit needs to be commissioned
	B	CAN-			
	C	RS485-A			
	D	RS485-B			

4.2.8. Wiring Requirements

- 1) Follow the User Manual and Electrical Diagram for correct on-site wiring.
- 2) The power line, power cord, and communication line should be firmly and reliably connected at both ends.
- 3) The power cord routing should meet the requirements for strong and weak current routing, and complies with the system routing plan. The power cord and signal cable are tied separately.
- 4) The cable tie should have no sharp corners, uniform spacing, and moderate elasticity, with the knot facing in one direction.
- 5) The tied cables should be tightly packed together, straight and neat.
- 6) Excess cables should be neatly coiled and easy to locate.
- 7) The cable should not be excessively bent at turns to avoid damaging the wire core.

4.2.9. Communication Address Setting

When performing on-site commissioning and installation, the communication address should be set by the installation engineer.

4.3. Check after Installation

After installing the equipment, please refer to the table below to re-check it. Power on and startup are only allowed after all checks are passed

Table 4-8 Description Table for Installation Check Requirements

S/N	Check Items	Check standard
1	Equipment appearance	1. The equipment is intact, free of damage, rust or paint peeling. In case of paint peeling, please repaint it 2. The equipment label is clear and visible, and damaged label should be replaced in a timely manner
2	Cable appearance	1. The cable protective layer is intact without obvious damage 2. The conduit cable is intact
3	Cable connection	1. The cable connection position is the same as the design 2. The terminal manufacturing meets the standards, and the connection is firm and reliable 3. Labels on both ends of each cable are clear, with consistent orientation
4	Cable routing	1. The routing meets the principle of separation of strong and weak current 2. The cables are neat and beautiful 3. The cable has a margin at the turning point and should not be tightened 4. The routing is straight and smooth, without crossing
5	Cabinet cleaning	1. The cabinet is clean and tidy inside, without excess cables, wire ends, terminals, tools, and other debris, and there is no obvious garbage outside the equipment

5. Function Description and Operation Flow

5.1. Working Mode

✓Standby status

The status that the system has stopped working and is waiting for the startup conditions to be met.

✓Self-checking status

The status that the energy storage system detects its hardware before starting grid-connected operation, which needs to detect key variables such as DC insulation impedance, DC voltage sampling, AC voltage sampling, and battery level.

✓Running status

In this status, the PCS is in grid-connected operation, converting direct current of the battery into alternating current and integrating it into the grid, or converting alternating current of the grid into direct current to charge the battery.

5.2. Operating Instructions of Smart eBlock

The instructions for installing, operating and maintaining the smart eBlock as shown in Table 5-1:

Table 5-1 Instructions of Process

Operation	Operation instruction
Preparation for grid-connection	●Connect the input and output lines according to the wiring instructions;
	●Turn on the DC switch, and AC switch between the PCS and the power grid
	●Set up running strategies through the eMind monitoring platform.
Grid connection	The system is charged and discharged according to the scheduling instructions of the EMS energy management system
Shutdown	If the system needs to be shut down during normal operation, there are two ways to shut down: ●Shut down through the EMS; ●Shut down by pressing the panel emergency stop button in case of emergency.
Troubleshooting	●Troubleshooting is carried out by professionals

6. System Maintenance

6.1. Routine Maintenance

In order to ensure the long-term good operation of the smart eBlock, it is recommended to carry out routine maintenance as specified in this chapter.





Attention!
When performing maintenance such as system cleaning, electrical connection and grounding reliability, please first disconnect the protection switch connecting the AC side to the power grid, and then disconnect the switch on DC side inside the smart eBlock. After the power is off, please wait for at least 30 minutes before proceeding with the operation.

Table 6-1 Maintenance List

Check Contents	Check Methods	Maintenance Interval
Check the cabinet indicator	Observe the indicator brightness. If the indicator is not on or dim, shut down and replace it with a new indicator	Once a month
Appearance check	Check if the smart eBlock has rust, peeling, or deformation of the paint outside.	Once a month
System cleaning	Regularly check the air inlet and outlet for obstructions, dust, and dirt.	Once half a year
System running status	Check if there are any abnormal sounds when the smart eBlock is running. When the smart eBlock is running, check if all parameters are correctly set.	Once half a year
Electrical connection	Check if the cable connections are loose. Check if there is any damage to the cable, with a focus on checking if there are cut marks on the surface of the cable in contact with the metal surface.	Once half a year
Grounding reliability	Check if all grounding cables are reliably grounded	Once a year
Check the oxidation of metal components in the eBlock	Visually check the metal components for rust. If there is severe oxidation, remove the rust or replace the component in a timely manner	Once a year

6.2. Fault Diagnosis

The general diagnostic methods for various faults arised during system operation are as follows:

Table 6-2 Fault Comparison Table

S/N	Fault Information	Fault Type	Fault Cause	Treatment Method
1	Abnormal DC running voltage	High DC running voltage	The DC running voltage is higher than the limit of PCS	Waiting for normal recovery or contacting the manufacturer
		Low DC running voltage	The DC running voltage is lower than the limit of PCS	Waiting for normal recovery or contacting the manufacturer
2	AC overcurrent	Abnormal AC	Short circuit / excessive load on the AC side	Contact the manufacturer
3	Abnormal grid line	High grid line	The grid voltage is higher	Check the power grid or contact the

	voltage AB/BC/CA	voltage	than the standard requirement	manufacturer
		Low grid line voltage	The grid voltage is lower than the standard requirement	Check the power grid or contact the manufacturer
4	Abnormal phase sequence of grid voltage	Abnormal phase sequence of grid voltage	Reverse power grid wiring	Arbitrary exchange of two phases in three-phase connections
5	Abnormal PCS communication	Abnormal PCS communication	Communication interference / communication cable not properly connected	Check if the communication line between the eLink and the PCS is properly connected
6	Abnormal power grid frequency	High power grid frequency	The grid frequency is higher than the standard requirement	Check the power grid or contact the manufacturer
		Low power grid frequency	The grid frequency is lower than the standard requirement	Check the power grid or contact the manufacturer
7	PCS communication fault	Abnormal PCS communication	Communication interference / communication cable not properly connected	Check if the communication line between the eLink and the PCS is properly connected
8	Water cooling unit communication fault	Abnormal water cooling unit communication	Communication interference / communication cable not properly connected	Check if the communication line between the PCS and the water cooling unit is properly connected
9	Excessive ambient temperature	Excessive ambient temperature	The running environment temperature of the PCS exceeds the limit / fan failure	Check the fan / temperature sensor for normal running
10	Input insulation impedance protection	Abnormal input insulation impedance	The input insulation impedance is lower than the standard requirement	Check the battery grounding or contact the manufacturer

7. Technical Parameters

Model	eBlock-418A
Rated power (kW)	209
Rated current (A)	175
Rated grid voltage (Vac)	3W+PE /690
Grid voltage range (Vac)	586.5~759
Rated grid frequency (Hz)	50
Grid frequency range (Hz)	±5
Rated system energy (kWh)	418
Power Factor	0.99
Total distortion rate of current THD (%)	<3
System Parameters	
Running temperature range (°C)	-35-55 (derating starts at 45°C)
Running humidity range (%)	5-95 (no condensation)
Running altitude range	≤2000m
Overall protection grade	IP55
Battery cooling mode	Liquid cooling
Noise (dB)	<75
Protection function	
Anti-islanding protection	Available
Low voltage ride through	Available
High voltage ride through	Available
DC insulation impedance detection protection	Available
Surge over-current protection	Available
Grid voltage frequency protection	Available
Lightning protection failure detection	Available
Mechanical Parameters	
(width x depth x height) mm	1400*1300*2350
Weight (kg)	3900
Installation mode	Floor mounted
Communication and Display	
Communication interface	LAN
Display	LED indicator
Communication protocol	ModulBUS TCP

8. Contact US

If you have any questions about this product, please contact us. The detailed contact information is as follows:

Company name: Xi'an JD Energy Co., Ltd.

Add.: No. 25, First Biyuan Road, High-tech Zone, Xi'an City, Shaanxi Province

Tel.: 400-1336580/029-84845916