



Sunwoda Energy Technology Co., Ltd.

Striving to become the world's leading integrated energy service provider

CISS Series Product Maintenance Manual



Product maintenance guidance manual



CIESS Series

Purpose

This manual mainly introduces the maintenance guidelines when the CIESS series battery system is faulty, including fault maintenance transfer, fault confirmation, data acquisition, period replacement, etc. The CIESS series includes two installation methods: cabinet-type and simple bracket-type. This article will explain two installation methods and two wiring methods.

Scope

This document is suitable for the CIESS series of products involved in Xinwangda Energy Technology Co., Ltd. There are differences between the appearance and logo of different customer products. The methods of fault investigation and resolution are the same.



Instructions for security



Before maintenance

If the battery module occurs as follows, please do not store, boot, disassemble, and charge or discharge batteries for a long time. It should be scrapped immediately , according to the local lithium battery recycling specifications.

- A. The shell caused by the collision of the battery module shell deformation or damage;
- B. The battery module has obvious traces of burning;
- C. The electrolytic solution is leaked and corrosive in the battery module;
- D. The battery module emits pungent, irritating gases.

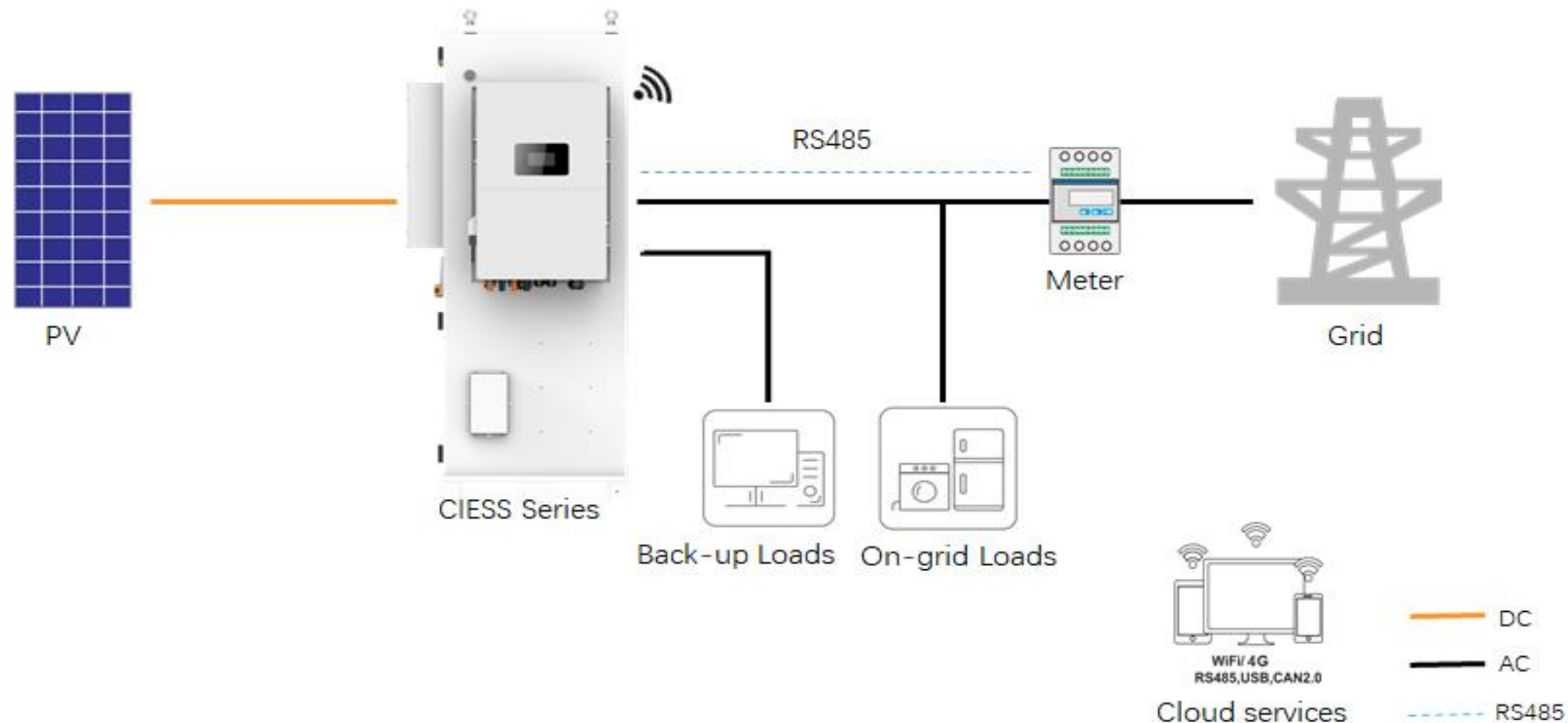
Maintenance requirements

- A. The battery module avoids maintenance at the source of fire, high temperature, and high humidity;
- B. The connection with other external equipment should be disconnected during battery maintenance;
- C. Maintenance personnel should be familiar with product specifications and user manuals first.



product description

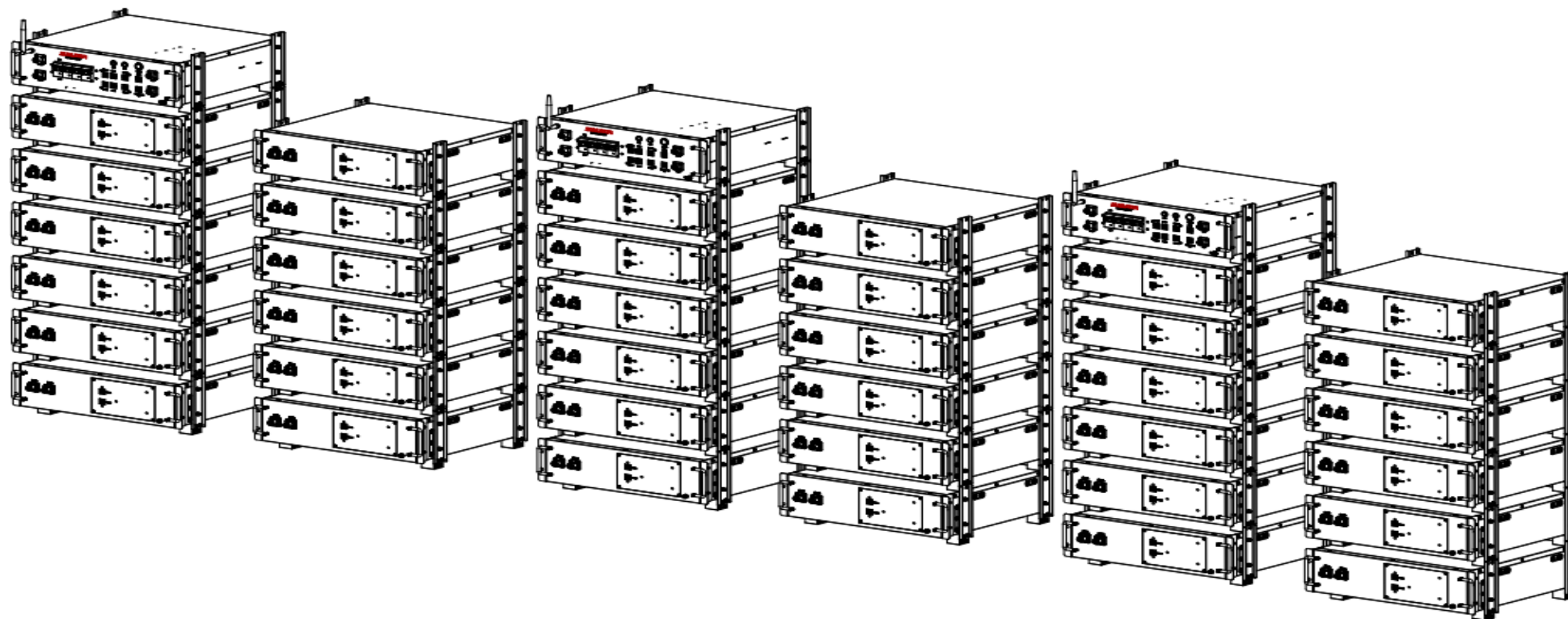
The CIESS cabinet -type small integrated outdoor energy reserve system uses a modular design, that is easy to integrate, deploy and expand, ensuring the security of the user system. It can be used to adjust peak reclamation, spontaneous use, demand management, separation of electricity reserves, optical storage and other application scenarios.





The CIESS simple bracket type uses a 1PCS control box and a 12PCS battery box to complete a set of 60kWh rack high -pressure systems, supporting up to 3 clusters of 60kWh system parallel, and energy can be extended to 180kWh.

180kWh system structure diagram:





Specifications

Type	CIESS 50	CIESS 55	CIESS 60	CIESS 65	CIESS 70	CIESS 75	CIESS 80
System Parameter							
Number of battery modules	10	11	12	13	14	15	16
Rated voltage	512V	563.2V	614.4V	665.6V	716.8V	768V	819.2V
Rated energy	51.2kWh	56.3kWh	61.4kWh	66.6 kWh	71.7 kWh	76.8 kWh	81.9 kWh
Operating voltage range	448~576 V	492.8~633.6V	537.6~691.2V	582.4~748.8 V	627.2~806.4V	672~864V	716.8~921.6V
Weight	740kg	790kg	840kg	1000kg	1050kg	1100kg	1150kg
Dimensions (L * W * H)	715*750*2140mm			1300*750*1700mm			
Extend	Supports up to 3 cluster battery cabinets for parallel operation						
Protection grade	IP55						
Temperature control method	air-conditioning						
Charging ambient temperature	0℃~50℃						

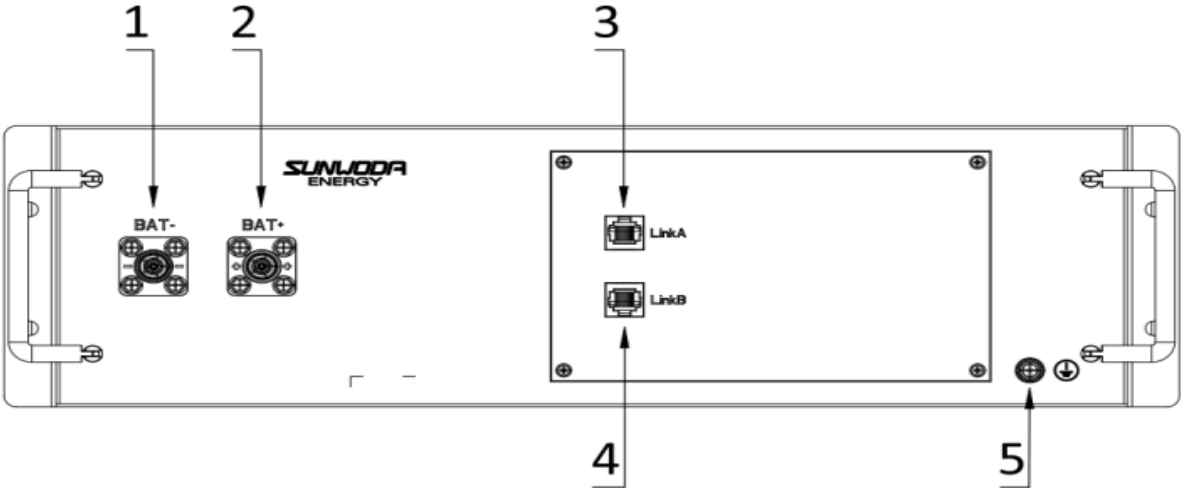
Discharge ambient temperature	-20℃~55℃
Working environment humidity	10%~95% RH (without condensation)
Recommended storage temperature	20℃ ~ 30℃
Communication	CAN/RS485
Maximum continuous charging current	100A
Maximum continuous discharge current	100A
Maximum working altitude	2000m
Cycle life	6000 times (25 ℃, 0.5C/0.5C, 90% DOD, EOL 70%)
Basic protection functions	Charging overvoltage, discharging under voltage, overcurrent, over temperature, short circuit protection, etc.
Authentication	IEC62619/CE/UN38.3
Packaging, transportation, and installation	
Package	Whole machine wooden box packaging
Transport	Sea and land transportation
Installation method	Hoisting and floor fixing



System wiring diagram



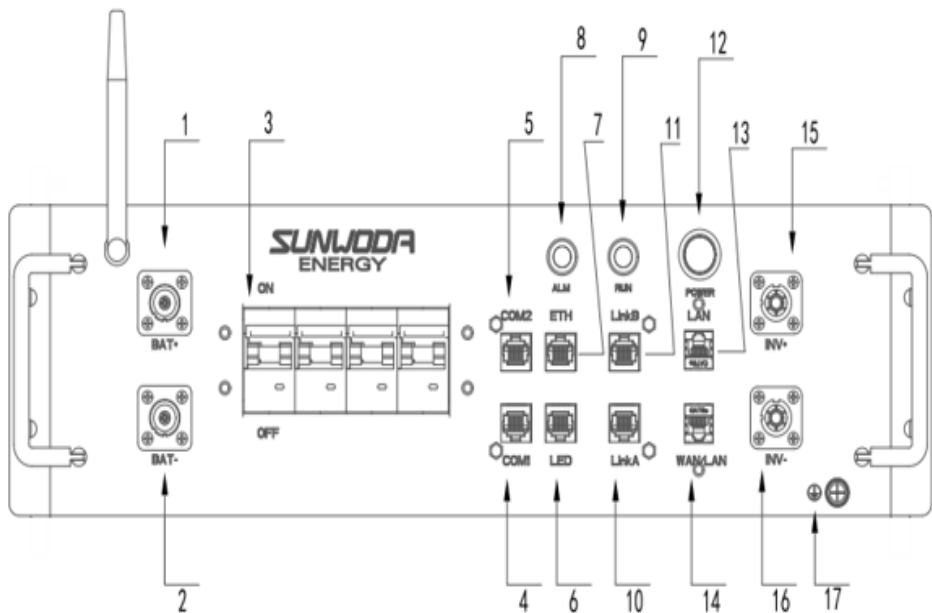
Battery box interface definition :



Number	Definition	illustrate
1	BAT-	Battery negative output end
2	BAT+	Battery positive output end
3	Link A	Chrysanthemum chain 1 communication port
4	Link B	Chrysanthemum chain 2 communication port
5	Ground	Grounding protection point



Definition of the main control box interface :



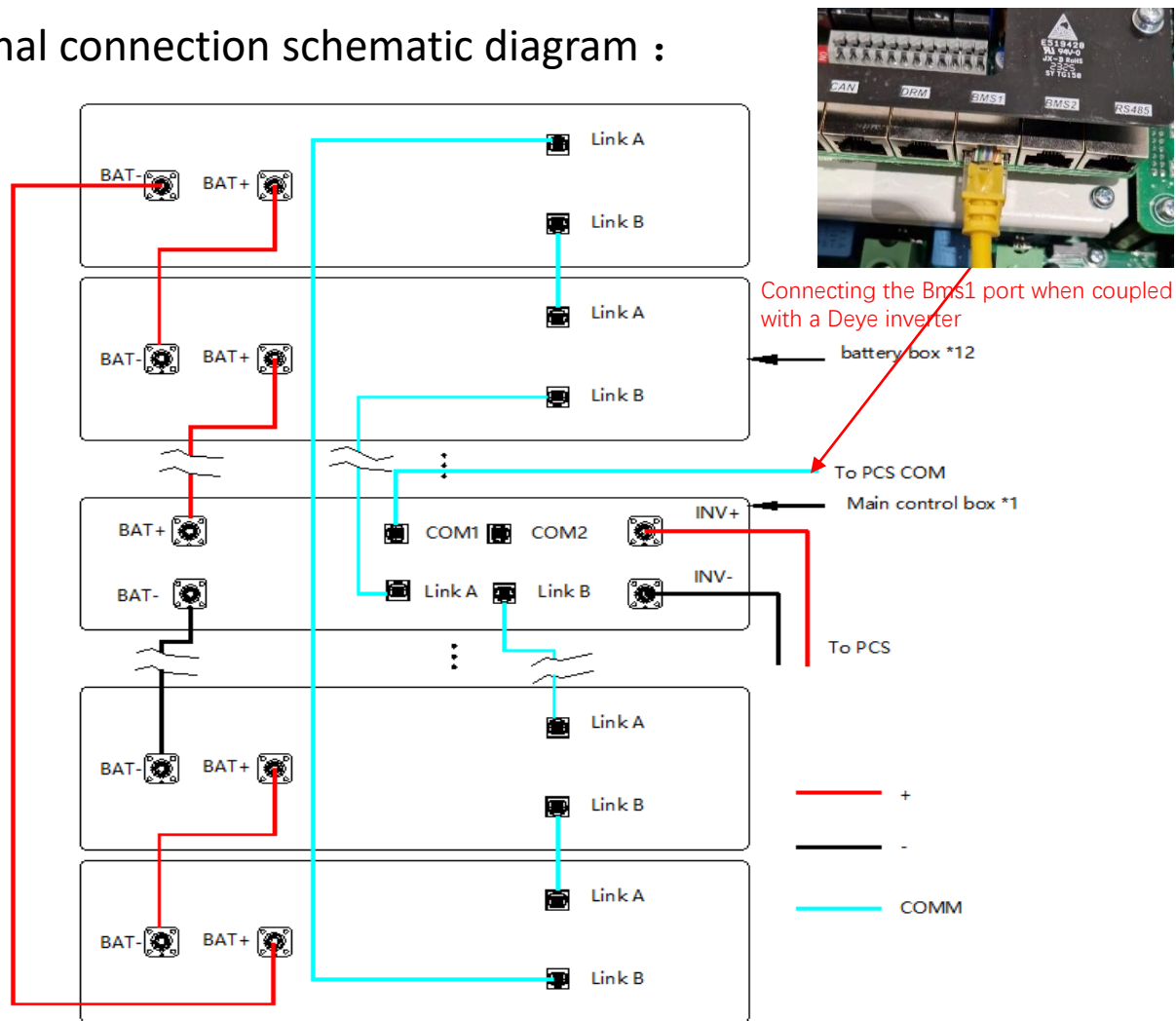
Number	Definition	illustrate
1	BAT+	Battery positive input terminal
2	BAT-	Battery negative input terminal
3	switch	Isolation and opening the DC main circuit
4	COM1	CAN communication cable and parallel weaving cable interface
5	COM2	CAN communication cable and parallel weaving cable interface
6	LED	Reserve the LED light board wiring port
7	ETH	Ethernet interface
8	ALM	Alarm lamp
9	RUN	Running light
10	Link A	Chrysanthemum chain 1 communication port
11	Link B	Chrysanthemum chain 2 communication port
12	POWER	Power button
13	LAN	Connect to the LAN
14	WAN/LAN	Connect the wide area network/local area network
15	INV+	Connect PCS positive pole
16	INV-	Connect PCS negative electrode
17	Ground	Grounding protection point



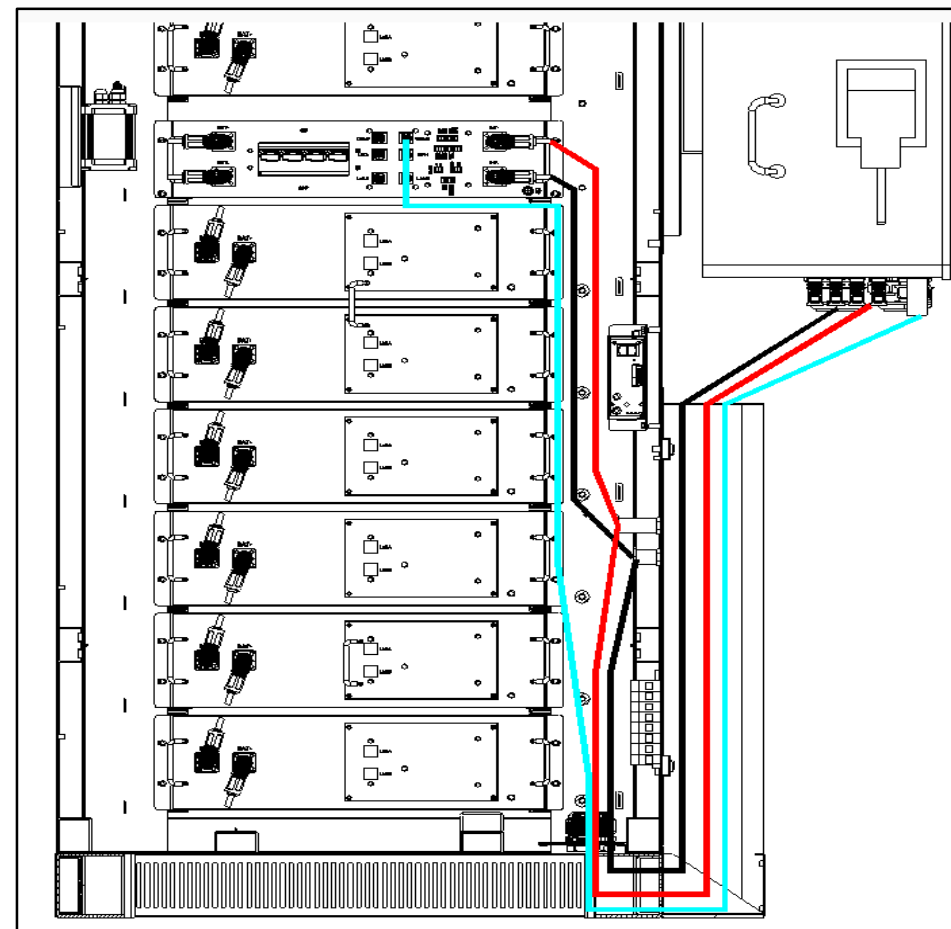
Wiring connection

Cabinet wiring connection schematic diagram

Internal connection schematic diagram :

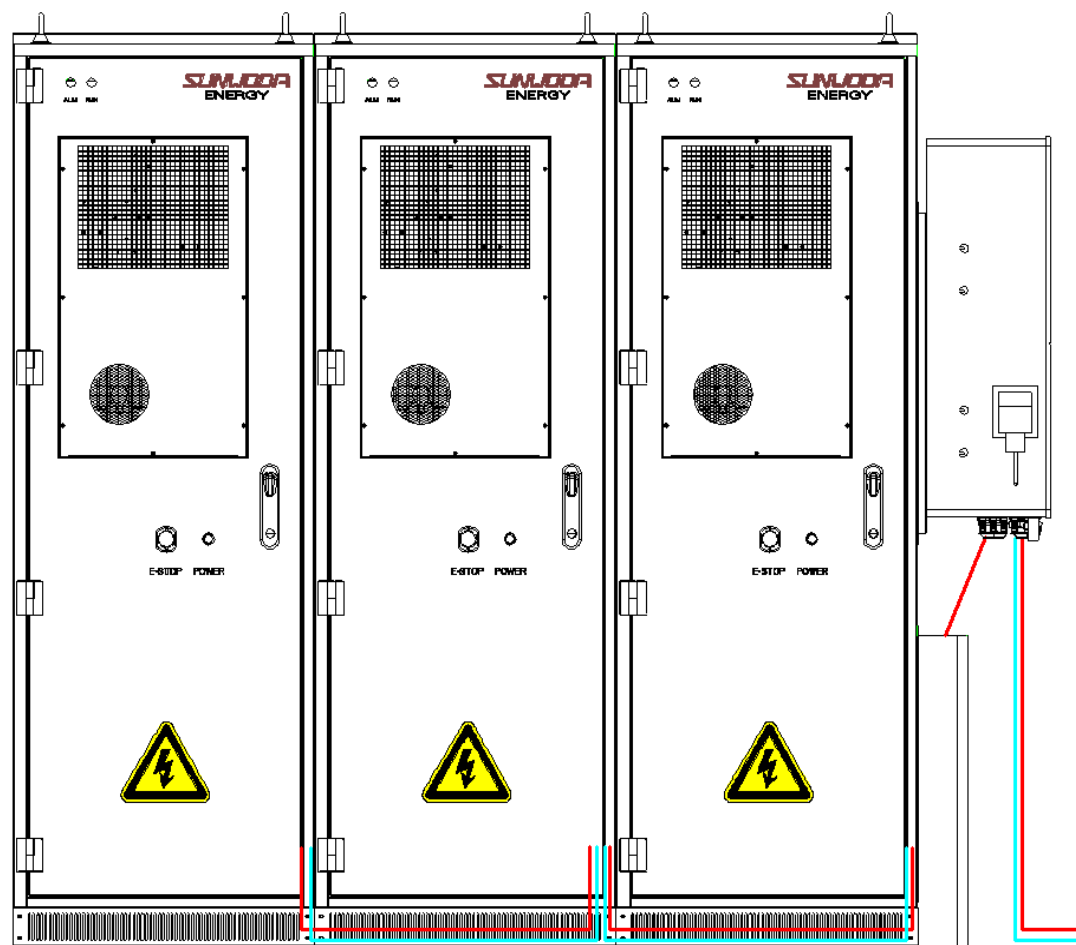


DC cable connection schematic diagram :

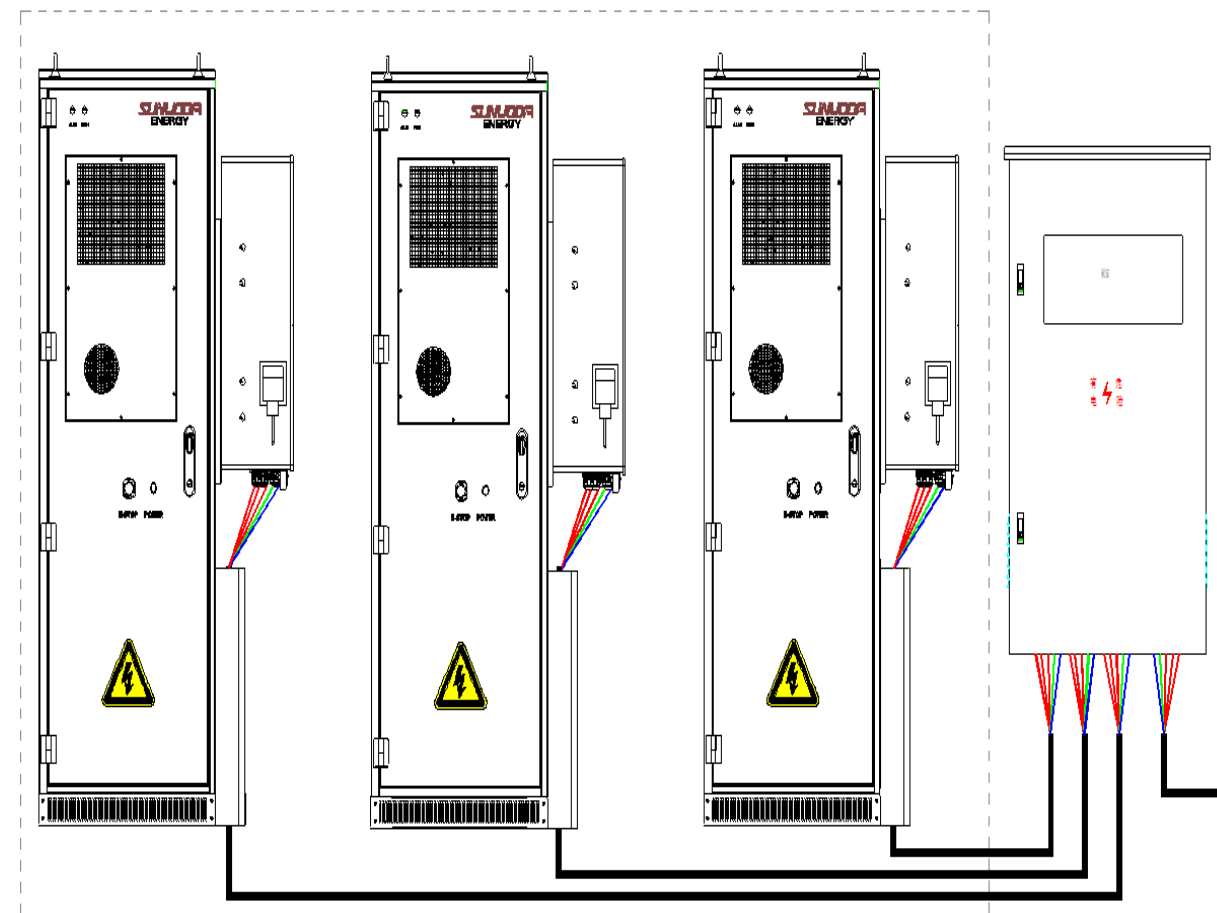




System and machine DC diagram :



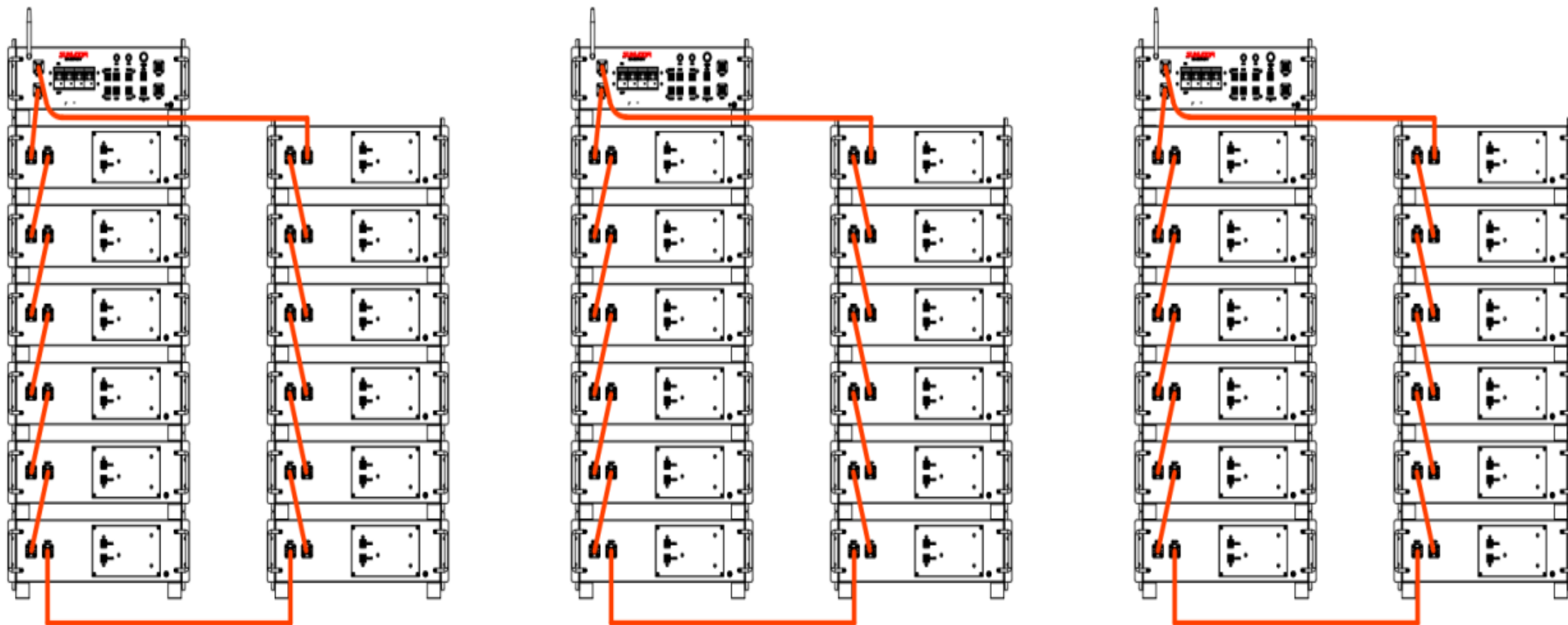
System parallel communication schematic diagram :





Simple bracket wiring connection schematic diagram :

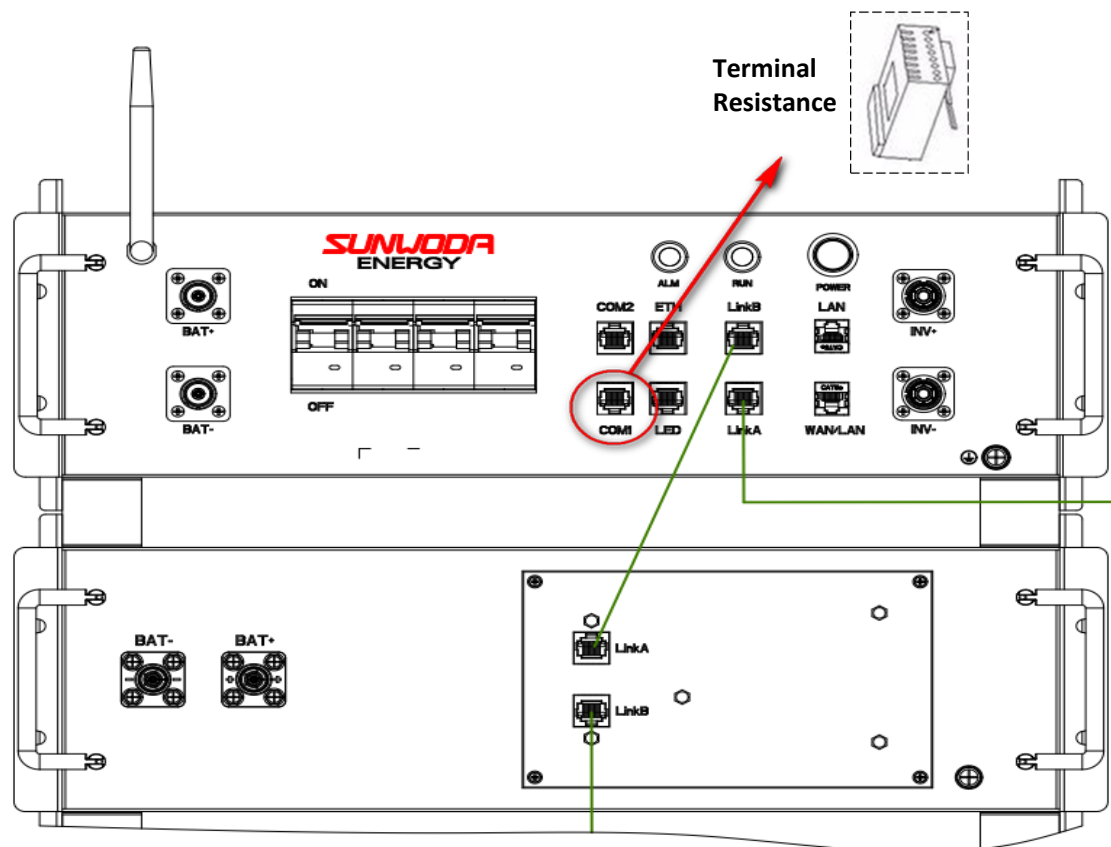
The 180kWh system power line connection completion effect chart is as follows :





Document connection diagram :

Plug in a terminal with a resistor plug on the COM1 port on the leftmost control box, as shown in the figure:





The 180kWh system communication cable connection completion effect chart is as follows:

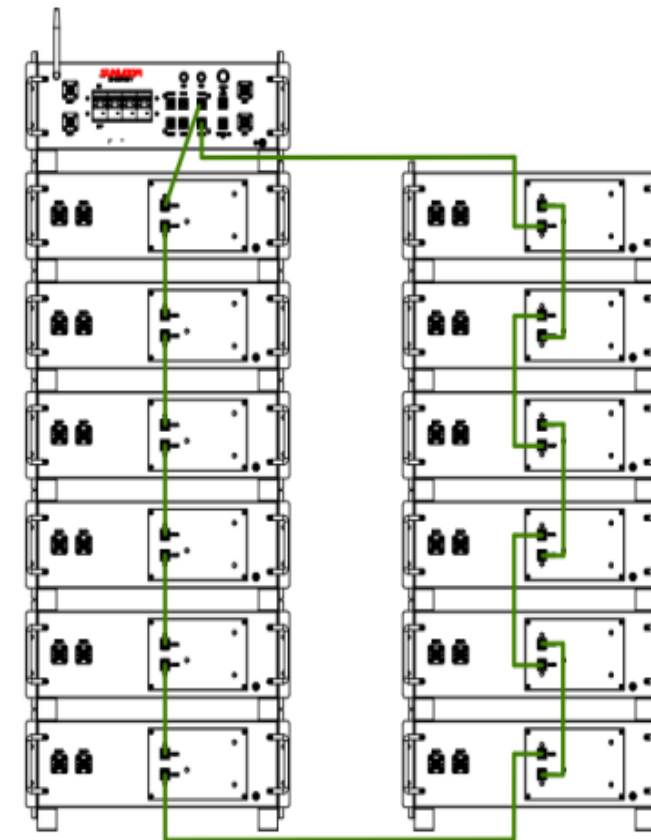
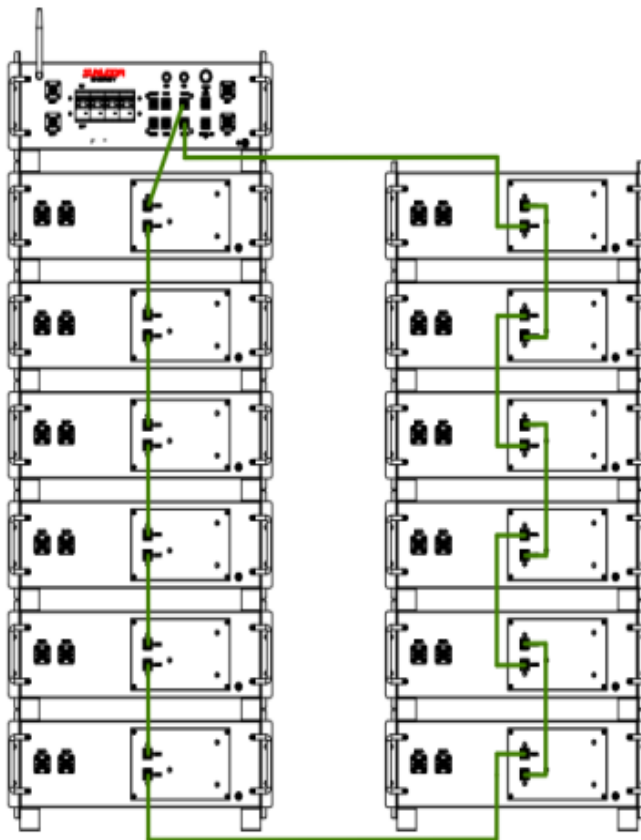
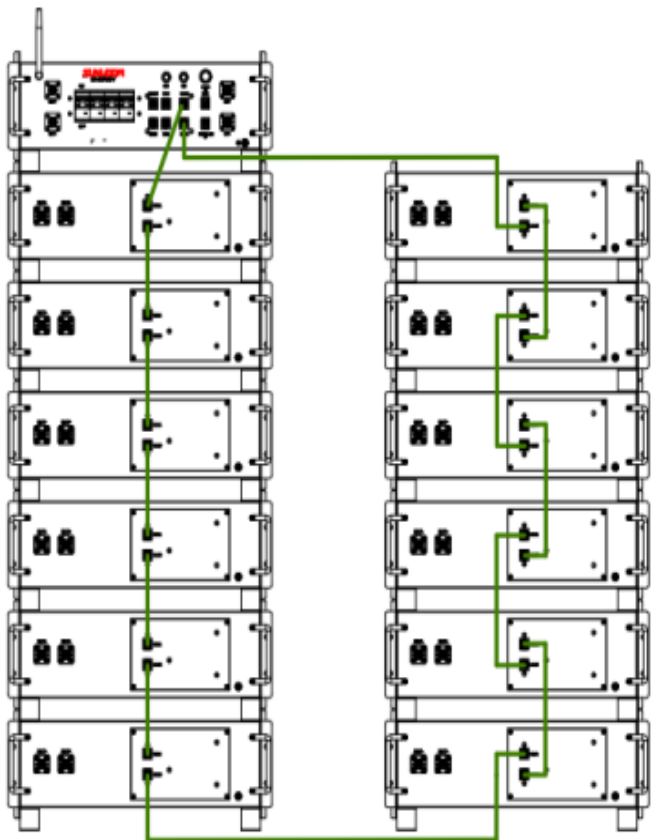
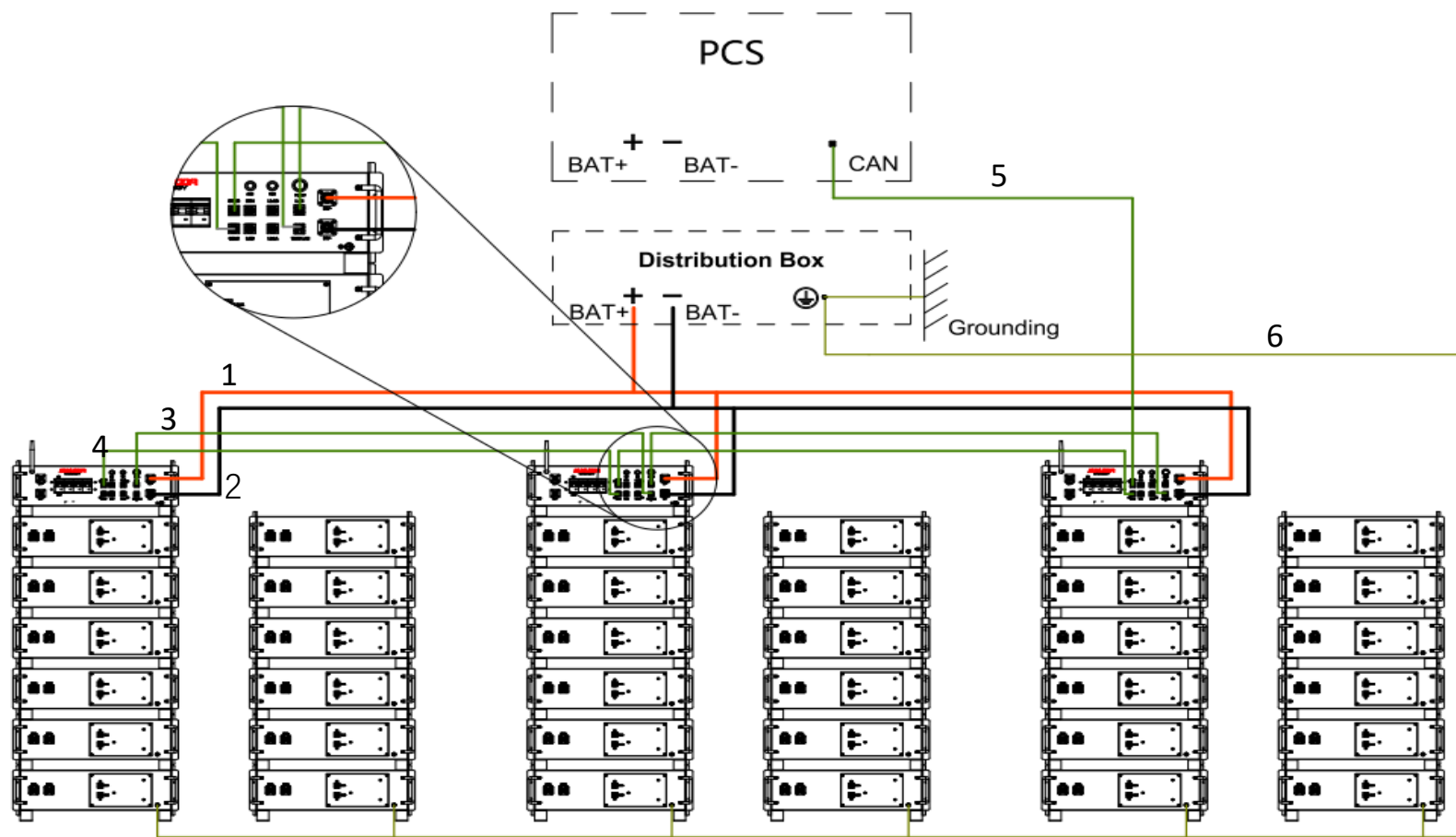




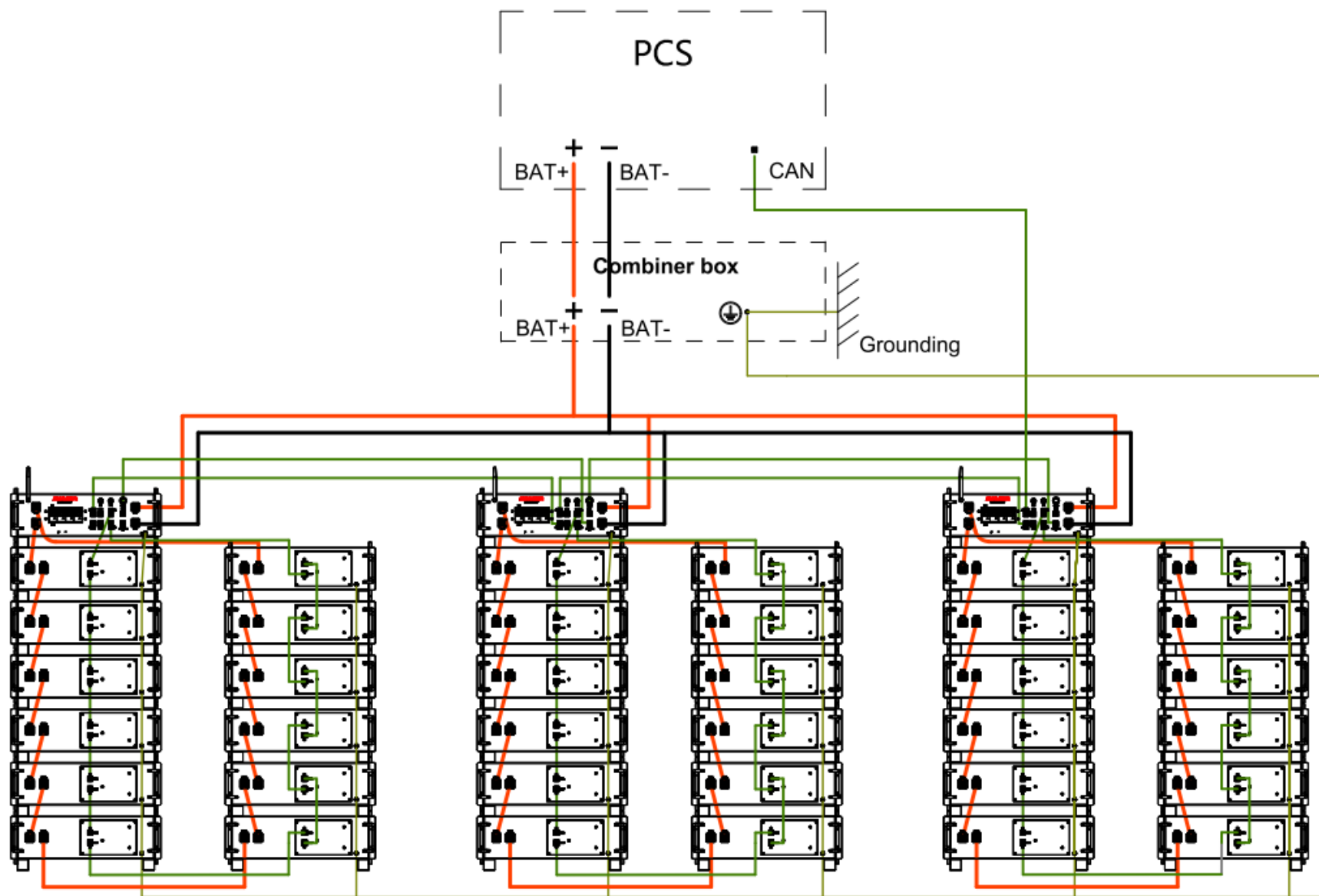
Diagram of the connection of the parallel machine:



- 1 Control box to DC Converter Box Positive Dynamic Line
- 2 Control box to the negative power line of the DC Converter Box
- 3 Data module parallel communication line
- 4 Control box parallel communication line
- 5 control box to PCS communication line
- 6 Long ground wire beam



The general wiring diagram of the 180KWH rack high-voltage system is as follows:





Number	inverter	Protocol	Communication Line Definition	Battery inverter settings
1		CAN	CANH:4 CANL:5	INV-01
2	ESO	CAN	CANH:4 CANL:5	INV-02
3		CAN	CANH:4 CANL:5	INV-03
4		CAN	CANH:4 CANL:5	INV-05



Maintenance steps

Maintenance preparation



- 1) Maintenance and disassembly tools can be found in the user manual, mainly including sleeves, screwdrivers, etc;
- 2) Debug tool

Tool name	Specification Model/Version	picture
CAN Communication & Ethernet online machine	Yidong v1.500/v1.499	
Lan	192.168.5.5	
CAN box	ZLG USB CAN-II	
Bin program upgrade the upper machine	CANLoaderv1.66	
Operation and maintenance platform	http://sunwoda.vidagrid.com/#/login	
computer	Win10	Install the upper machine software and driver in advance



collect message



When the failure needs to be reported, please collect the following information to give up to our company after -sales

No.	Information item	information
1	Is there a photovoltaic input?	
2	How many battery packs are there in the system?	
3	When to find a problem?	
4	Can the battery system continue to work after the problem is found?	
5	LED light status photo	
6	Battery SN	
7	battery voltage	
8	Whether the device is connected to the Internet, monitoring software screenshots	



Fault Confirmation



According to the fault performance to determine the type of failure, it usually includes the following types of faults:

- (A) A serious failure of the product parts is damaged, resulting in the battery not being able to switch, charge, or discharge normally. Such failures need to replace the damaged parts or the entire battery to be solved.
- (B) When normal protection is manifested in the process of product operation, the operating value exceeds the maximum permissible value allowed by the product, which belongs to the normal protection of the battery, which does not guarantee the safety of operation; such failures can be restored to normal through the adjustment of the system operating parameters or working conditions.
- (C) communication abnormalities Communication class abnormalities generally appear in the product installation and commissioning stage or later replacement of new batteries, including battery and inverter communication abnormalities, battery and battery communication abnormalities, and remote data monitoring abnormalities.



serious malfunction category



Fault Name	Failure phenomenon	Cause of Failure	Solution.
Abnormal switching	No response when pressing the on/off button	Damaged or poorly contacted one-touch start wiring harness	Opening the side door and turning off the power button on any battery will enable one-touch energization of all battery packs.
			Contact supplier
Battery switching button abnormality	Battery is in an off state; long pressing the battery button cannot be turned on; the button lamp light is bad; or the battery on the button lamp does not light up.	Button damaged	Replace buttons, contact supplier
	Battery on state, long press the button battery can not shut down, button light does not go out		
Cell voltage imbalance	Fault light is on, the O&M platform suggests that the voltage of the battery cell is out of balance.	Internal malfunction: Abnormal electric core	1.Reboot;
Temperature sampling fault		1. Temperature sampling wire NTC is damaged or loose;	2.Replace the battery pack
	Fault light is on, O&M platform suggests battery cell temperature sampling fault.		
Voltage sampling fault	Fault light on, O&M platform suggests battery cell voltage sampling fault.	2. BMS board damage	1.reboot



Normal protection class



Fault Name	Fault phenomenon	Cause of Failure	cure
Parameter configuration fault	Fault light on, O&M platform prompts parameter configuration faults	1. Communication is not stable; 2. Not properly parameterized	1. Check that the communication cables are plugged in according to the correct wiring sequence 2. Use the host computer to rewrite the parameters in batch.
Unitary undervoltage protection	At the end of discharging the battery or leaving it for a long time, the fault lamp lights up, and the O&M platform suggests single-unit under-voltage protection.	1. Discharged in lead-acid mode with discharge cut-off voltage set too low; 2. Long grid dropout time, battery packs have not been recharged after anti-emptying	1. Reboot; 2. Charging the battery system
Monoblock overvoltage protection	At the end of charging, the fault lamp lights up, and the O&M platform suggests single-unit over-voltage protection.	Excessive current at the end of the charge, rapid rise of the voltage of the single unit	Discharge or restart recovery
Charging high temperature protection	Fault light on, O&M platform suggests charging high temperature protection.	1. Battery operation external ambient temperature is too high; 2. Internal failure: BMS board abnormality	1. Reduce the external ambient temperature for battery operation; 2. Replacement of BMS boards or battery packs
Charging low temperature protection	Fault light on, O&M platform prompts charging low-temperature protection	1. Battery operation external ambient temperature is too low; 2. Internal failure: BMS board abnormality	Increasing the external ambient temperature for battery operation; External continuously charged batteries are heated by turning on the heating film; Replacement of BMS boards or battery packs
Discharge high temperature protection	Fault light on, O&M platform prompts discharge high temperature protection	1. Battery operation external ambient temperature is too high; 2. Internal failure: BMS board abnormality	Reduce the external ambient temperature for battery operation; Replacement of BMS boards or battery packs
Discharge low temperature protection	Fault light on, O&M platform prompts discharge low-temperature protection	1. Battery operation external ambient temperature is too low; 2. Internal failure: BMS board abnormality	1. Increase the external ambient temperature for battery operation; 2. Replacement of BMS boards or battery packs



Normal protection class



Fault Name	Fault phenomenon	Cause of Failure	cure
Temperature imbalance protection	Battery power on or charging and discharging process, fault light on, O&M platform suggests temperature imbalance protection.	1. The battery is locally exposed to external high or low temperatures, resulting in excessive internal temperature detection deviation; 2. Internal faults: excessive NTC or BMS board temperature	1. Adjust so that the battery runs the same external ambient temperature; 2. Replacement of BMS boards or battery packs
MOS high temperature protection	Charging and discharging process, fault light on, O&M platform suggests MOS high temperature protection.	1. Battery operation external ambient temperature is too high; 2. Internal failure: BMS board abnormality	1. Reduce the external ambient temperature for battery operation; 2. Replacement of BMS boards or battery packs
Prevent power failure	Battery power on, fault light on, O&M platform suggests pre-discharge failure.	1. Pre-discharge parameter configuration is abnormal; 2. Internal fault: failure of the pre-discharge circuit	1. Rewrite the parameters; 2. Replacing the BMS board or battery pack
Charge overcurrent protection	Battery charging process, fault light on, O&M platform suggests charging overcurrent protection.	1. The charging current exceeds the maximum allowable charging current value of the battery; 2. Inconsistency in SOC between battery packs leads to unbalanced current in each pack, and high charging current in individual packs	1. Reduce charging power to the maximum allowable charge current range of the battery; 2. Full charge, calibrated SOC
Discharge overcurrent protection	Battery discharge process, fault light on, O&M platform suggests charging overcurrent protection.	1. The discharge current exceeds the maximum permissible discharge current value of the battery; 2. Inconsistency in SOC between battery packs leads to unbalanced currents in each pack, and high charging currents in individual battery packs	1. Reduce charging power to the maximum allowable charge current range of the battery; 2. Full charge, calibrated SOC
Total current overcurrent protection	Battery charging and discharging process, fault light on, O&M platform suggests total current overcurrent protection.	Charge/discharge current exceeds the maximum allowable charge/discharge current value of the system	Reduce system charge/discharge power to the maximum allowable charge/discharge current range of the battery system



Normal protection class



Fault Name	Fault phenomenon	Cause of Failure	cure
Charging short circuit protection	Battery charging process, fault light on, O&M platform suggests charging short-circuit protection.	Short-circuiting of internal battery components	1. Reboot; 2. Ensure that the battery charging current is within the operating range; 3. Reducing charging power
Discharge short circuit protection	Battery discharge process, fault light on, O&M platform suggests charging short-circuit protection.	Short-circuiting of internal battery components	1. Reboot; 2. Ensure that the battery discharge current is within the operating range; 3. Reducing the charging power
Short discharge time	Fast discharge	1. Low battery power; 2. Overload; 3. Battery aging, battery capacity decay	1. Continuous charging for at least 2 hours; 2. Check the load condition and reduce unnecessary loads; 3. Contact supplier for battery replacement
Cannot charge/discharge normally	Cannot charge/discharge normally, SOC changes abnormally.	1. Internal failure; 2. Battery charge/discharge protection failure; 3. Battery discharged to SOC protection value, need to charge to recover before discharging	1. Contact the supplier; 2. Identify the cause of the fault based on the indicator fault table; 3. Recharge the battery to the restart value (default restart SOC value is 50%)
The inverter is connected to the battery for the first time to start, and the battery reports short-circuit discharge protection.	When the inverter is connected to the battery pack to start the machine, the fault lamp lights up, and the O&M platform indicates that the battery is short-circuited and discharged.	Relatively high value of shunt capacitance at the battery side input terminals of the inverter setting	Restart Recovery
Inverter does not work	The inverter does not respond, the screen does not light up	Battery voltage is too low or SOC is lower than the low voltage shutdown protection value.	Charge the battery by starting the machine over the power grid
Battery can't be charged by grid	Battery cannot be charged by the grid	Allow grid charging is not selected in the battery setting screen or in the "Forced charging" screen.	1. Check the LCD interface, whether Grid Charging for Battery Setting is selected or not; 2. Check the system working mode interface, whether use grid charging is selected for the forced charging interface



communications anomaly class

Fault Name	Fault phenomenon	Cause of Failure	cure
Node number duplication	After the batteries are connected in parallel and turned on, the number of batteries recognized by the system software is inconsistent with the actual number installed. The fault light is on, and the operation and maintenance platform suggests that the node number is duplicated.	1. Parallel batteries are inconsistent when turned on; 2. Unreliable contact of the battery pack parallel blind plug communication connector	1. Turn the battery packs all the way off and then turn them on at the same time by pushing the buttons; 2. Check if the battery blind linker is loose or deformed and damaged, if damaged then replace the blind communication connector
Battery and inverter communication failure	In the communication mode of lithium battery, the inverter reports abnormal communication with the battery.	1. Protocol mismatch; 2. Communication cable connection error; 3. Damage to the communication network port	1. Change the battery options on the inverter to match the inverter manufacturer within the battery parameters; 2. Checking the communication port wire sequence on the inverter and battery side; 3. Replacing the network port communication cable
ETH connection abnormality	Connecting to the computer through the Ethernet port, the device data cannot be read.	1. ETH port abnormality; 2. Abnormality of the communication cable connecting to the ETH port; 3. The data module LAN cable is not connected or the connection cable is loose	1. Contact the vendor; 2. Replace the communication cable; 3. Check whether the LAN port cable of the data module is connected, and confirm that the 2 green lights on the lower right side of the data module are always on



System operation and maintenance settings



Recommended Google Chrome, version 113.0.5672.93 (official version) or higher (64-bit), Win10 PC.

Change the IP address by the steps below, so that the data module can obtain the system status

1

2

3



Use the RJ45 (8P) network cable to connect the LAN port of the data module, and the other end connect the computer. Open the Google browser and enter the URL : 192.168.5.5

User name :user

Password: password



The image shows a login interface for a device labeled VR180. It features a title 'VR180' at the top, followed by a horizontal line. Below the line are two input fields: 'User Name' and 'Password'. A blue 'LOGIN' button is positioned to the right of the password field.

VR180

User Name

Password

LOGIN



Set the network access method and mainstoror status of the battery cabinet on the current page. After the settings are completed, if the device is prompted, please wait patiently

Note : that after setting up the slave's system, the default access address will become 192.168.6.5

SUNWODA

HOME

DATA

NETWORK

SYSTEM

Over View

Setup Wizard

The current time of device 2023-06-07 15:51:09

Local PC Time

2023-06-07 15:51:09

☒ obtain PC date ☒ obtain PC timezone

Connection Mode

☒ Wireless Connection ☐ Wired Connection

Router Role

☒ Master Battery Cabinet ☐ Slave Battery Cabinet

WAN Configurations

Connection Mode

DHCP

IP Allocation Method

Dynamic

Packet MTU

1500 (Don't change the settings unless really need to)

Retrieve DNS Address By:

Dynamic

Basic Configuration

SSID

PASSWORD

Setting



Matching the device, SSID: The name of the router Password: The router network connection password. After the connection is successful, the two indicators of the data module are often on.

SUNWODA

HOME

DATA

NETWORK

SYSTEM

Over View

Setup Wizard

The current time of device 2023-06-07 15:51:09

Local PC Time2023-06-07 15:51:09☒ obtain PC date☒ obtain PC timezone

Connection Mode

☒ Wireless Connection

☐ Wired Connection

Router Role

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WAN Configurations

Connection Mode

DHCP

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Dynamic

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1500

(Don't change the settings unless really need to)

Retrieve DNS Address By:

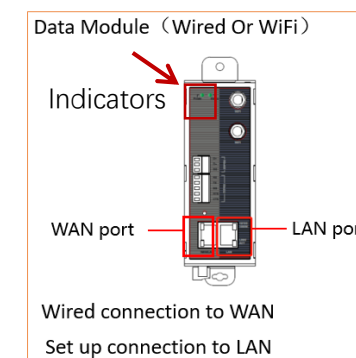
Dynamic

Basic Configuration

SSID

PASSWORD

Setting





View local data

You can see the real-time data of the device, configuration parameters,

SUNWODA

HOME

DATA

NETWORK

SYSTEM

+Total Info

-Detailed Inform

Realtime Data

Parameters Cfg

DataDownload

+DataMoudleCfg

Realtime Data

🏠 Data Module > Realtime Data

☰ Battery Cabinet Detail Info

Battery cluster master-slave status: Slave Cluster

Battery temperature Quantity: 48

Data module SN code: VR18000223018001

Battery Cluster voltage: 317.6V

Rated Capacity: 100000mAH

Cycles: 0

Air Conditioner temperature value: 0°C

Charging remaining time: 65535min

Max single cell voltage/serial number: 3331mV/4

Max single cell temperature/serial number: 28°C/46

Charging voltage limit: 650V

Discharge current limit: 104.8A

Cumulative discharging energy: 0AH

Total voltage sampling value: 316.6V

External Alarm 2: 0x8000

Internal Alarm 2: 0x0

External Fault 2: 0x0

Internal Fault 2: 0x0

Input IO status: 0x3①

Cluster mode: Normal,Remote

BCMU software version: 3.42

Battery Packs Quantity: 6

Battery cabinet SN code: SUNWODA000000002

Battery Cluster SOC: 48.0%

Total Cluster current: 0.0A

Residual Capacity: 48000mAH

Air Conditioner switch status: Turn OFF

Air Conditioner alarm status: 0

Discharge remaining time: 65535min

Battery voltage Quantity: 96

Control box SN code: SUNWODA1111122235S

Battery Cluster SOH: 100.0%

Rated power: 0.0KW

FCC: 100000mAH

Air Conditioner Operating status: Standby

Alarm external/internal 1/2: 0x0/0x8000/0x4000/0x0

Min single cell voltage/serial number: 3296mV/48

Min single cell temperature/serial number: 26°C/1

Charging current limit: 89.1A

Cumulative charging energy: 48AH

Battery cluster SIR Rp/Rn: 1000/1024

External Alarm 1: 0x0

Internal Alarm 1: 0x4000

External Fault 1: 0x0

Internal Fault 1: 0x0

Output IO status: 0x3①

Cluster status: Running,Idle,Normal,Normal

BCMU hardware version: 2.0



Local Upgrade

SUNWODA

HOME

DATA

NETWORK

SYSTEM

English

EXIT

+Total Info

+Detailed Inform

-DataMoudleCfg

System Switch

3 BCMU Upgrade

Comm Param

Management Cfg

BCMU Upgrade

SYSTEM > BCMU Upgrade

System Upgrade

DO NOT turn off the power supply or reboot the device during the upgrade process. Please select the correct firmware package which is consistent with the device model,otherwise the device may be damaged !

Select Firmware

选择文件

未选择任何文件

Upgrade

Cancel

4

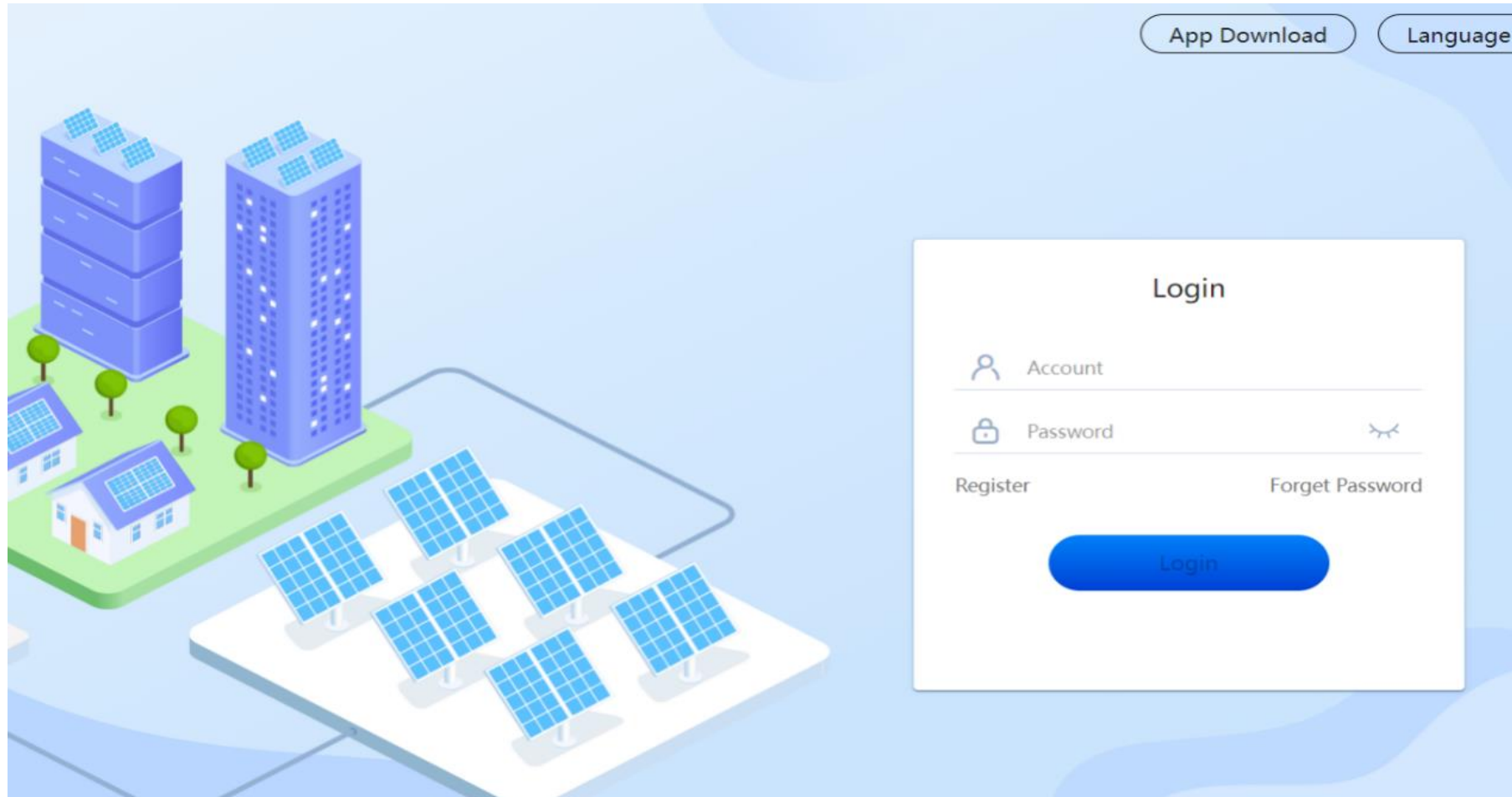
Sunwoda Energy Solution Co.,Ltd.



Remote Web Operations



Log on to the website <https://sunwoda.vidagrid.com> and register for an account.





Adding sites and devices

BCMU ▾ 00001 ▾

Dashboard

Plants

Reports

Operation

Settings

🏠

1

📄

🌐 English

👤 sunwoda01

⌵

2023/05/29 湖南省邵阳市

33°C

24°C-35°C Cloudy

Monday

23°C-31°C

22°C-28°C

23°C-30°C

24°C-32°C

Tuesday 05/30

Wednesday 05/31

Thursday 06/01

Friday 06/02

Moderate rain

Overcast day

Light rain

Moderate rain

📅 Install Date: 2023-05-23

🏢 Category: bcmu

📍 Address: 湖南省邵阳市洞口县

Curve Overview

Power Flow

System Data

Plant ▾

Total voltage: -V Current: -A SOC: -%

No data!



Installation Information

Plant Name*Installation Date2023/05/29Plant Type

BCMU

BMS
BSS
BCMU

Location Information

Q

哈萨克斯坦

蒙古

土库曼斯坦

乌兹别克斯坦

伊朗

阿富汗

巴基斯坦

阿曼

印度

孟加拉国

缅甸

老挝

中华人民共和国

日本

鄂霍次克海

太平洋

Address*

Longitude*-180 ~ 180Latitude*-90 ~ 90

激活 Windows

转到“设置”以激活 Windows。

ConfirmCancel



Dashboard

Plants

Reports

Operation

Settings

English

admin123

Plants>Plant Management

Plant Management

Device Management

#	Plant Name	Plant Type
1	yayale	BMS
2	yayale123	BMS
3	yayale123456	BMS

Authorization Plant

Add device(Enter the Device SN which belong to the plant. It is not required. You can operate it again in Add Device which at th top.)

6 Add device

Add device

Device SN⁷

8 Confirm Cancel

Authorization Old User

9 Confirm Cancel

Search

Add

reator	Operation
yayale	
yayale123	
dmin123	

1

Next

Go To

Page

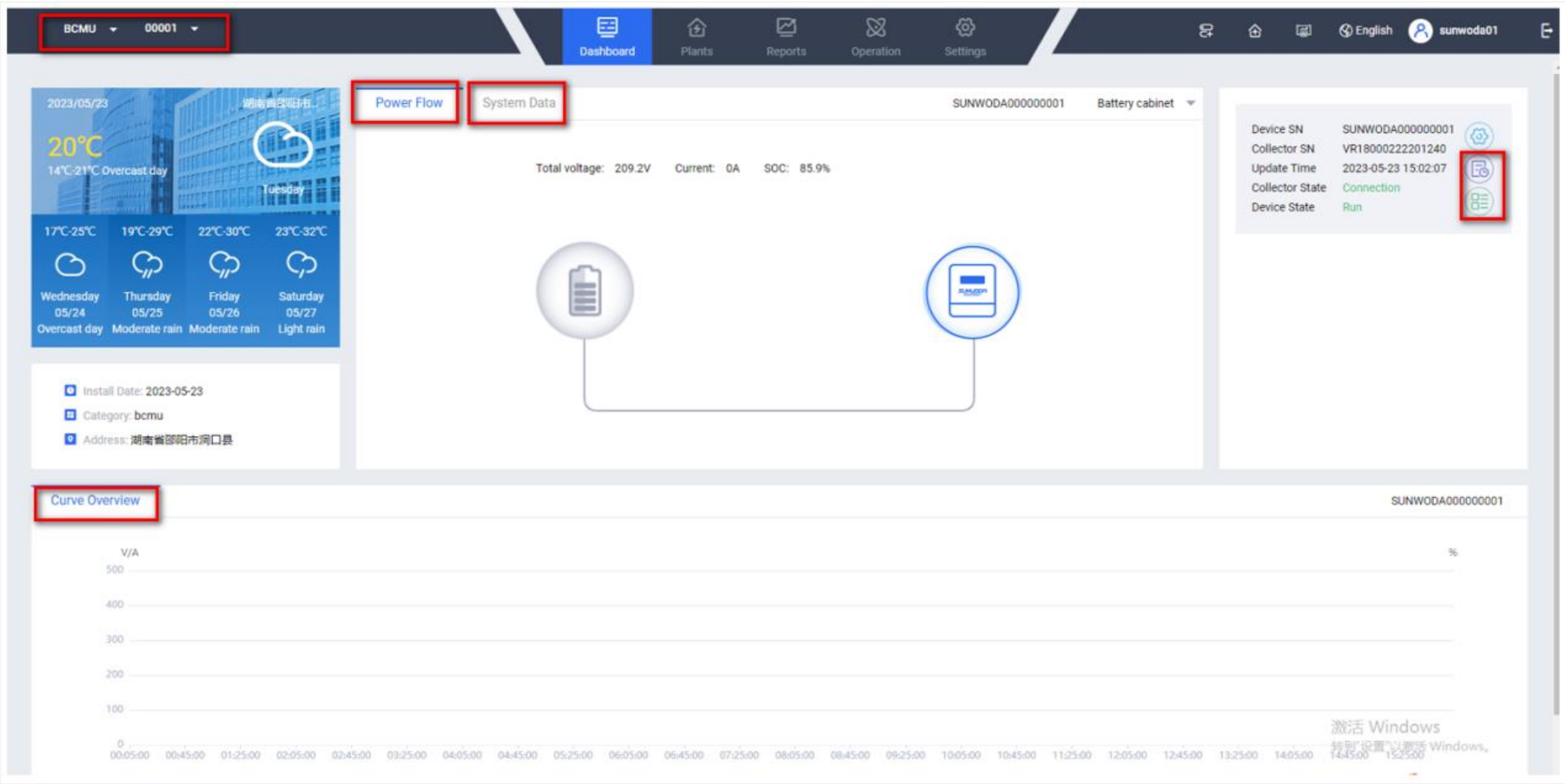
OK

Note: Please enter the correct last 16 digits of the battery cabinet SN code and make sure you have completed the system O&M setup. The battery cabinet SN code can be found on the battery cabinet nameplate.



Viewing Device Data

You can view device details, historical data, etc. on the cloud platform.





Upgrade equipment

Enter the site name as follows, find the site to be upgraded, check the site, and click "Upgrade."

Operation>Plant Device Upgrade

Alarm Debug Firmware Management SN Manage Device Upgrade 2 **Plant Device Upgrade** Data Recording Event Record Upgrade Log Help

6 **Upgrade** 2 device(s) selected (up to 20 can be selected) Plant Type: All 3 4 **Search**

	#	Plant Name	Device Model	Collector SN	Device SN	Gateway Version	ARM Version	DSP Version	Device State	Install Time	
5	☒	11	SWD TEST 0925	SunESS-H	VC51050122411074	1D000SWM092250067	1.0.0.8	0.00	0.00	Normal	2023-09-25 18:29:29
	☐	12	WB-Factory	SunESS	VC51050122268106	1D020SWL317260021	0.18.2.2	0.00	0.00	Normal	2023-08-07 16:38:22
	☐	13	swd test 1009	SunESS-H	VC51050122410466	RD02Z00023400001	1.0.0.8	0.00	0.00	Normal	2023-10-09 19:07:32

Operation>Plant Device Upgrade

Alarm Debug Firmware Management SN Manage Device Upgrade **Plant Device Upgrade** Data Recording Event Record Upgrade Log Help

Upgrade 2 device(s) selected (up to 20 can be selected)

● Device Upgrade

Device(s) selected: 2

Device Type: 7 Battery

Device Model: HS60S30B3-E01

Firmware Type: 8 BCMU

Firmware Version: 9 4.9.3

There are devices in the selected devices that do not match the model!

10 **Upgrade** Cancel

#	Plant Name	Device Model	Collector SN	Device SN	Gateway Version	ARM Version	DSP Version	Device State	Install Time
☒	11	SWD TEST 0925	SunESS-H	VC51050122411074	1D000SWM092250067	1.0.0.8	0.00	Normal	2023-09-25 18:29:29
☐	12	WB-Factory	SunESS	VC51050122268106	1D020SWL317260021	0.18.2.2	0.00	Normal	2023-08-07 16:38:22
☐	13	swd test 1009	SunESS-H	VC51050122410466	RD02Z00023400001	1.0.0.8	0.00	Normal	2023-10-09 19:07:32
☐	14	sala MRV	SunESS	VC51050122268106	1D020SWL317260021	0.18.2.2	0.00	Normal	2023-05-11 16:10:43
☐	15	test23456	SunESS-H	VC51050122411074	1D000SWM092250067	1.0.0.8	0.00	Normal	2023-09-13 18:11:34
☐	16	WB-Factory	SunESS	VC51050122268106	1D020SWL317260021	0.18.2.2	0.00	Normal	2023-08-07 16:38:10
☐	17	井机test-sunwoda	HS60S30B3-E01	VF51050122411074	1D000SWM092250067	1.0.0.8	/	Run	2023-11-09 09:06:01
☐	18	井机test-sunwoda	HS60S30B3-E01	VF51050122411074	1D000SWM092250067	1.0.0.8	/	Run	2023-11-09 09:06:15



Storage requirements



caveat

The battery is stored indoors. No direct sunlight or rain; dry and well ventilated; clean surroundings; no large amounts of infrared and other radiation; no organic solvents or corrosive gases; no metallic conductive dust, etc.; and away from heat and ignition sources.

If the battery is bulging, deformed, damaged or leaking, it must be scrapped regardless of the storage time.

When storing the battery, it should be placed correctly according to the box marking. It is strictly prohibited to place them upside down, sideways or tilted. Stacking should be in accordance with the stacking requirements on the outer packaging.

The site must be equipped with fire fighting facilities that meet the requirements, such as fire sand and fire extinguishers.

Precautions

It is recommended to use the batteries in time. For batteries that have been stored for a long time, please charge them regularly; otherwise, it may lead to battery damage.

The ambient air should not contain corrosive or flammable gases, and should not be tilted or stored upside down.

Warnings

During storage, it is necessary to keep relevant certificates that meet the storage requirements of the product, such as temperature and humidity log data, photos of the storage environment, and inspection reports.

Store in a clean and dry place to prevent dust and moisture erosion. Erosion by rain or surface water is prohibited.

Storage environment requirements:

Recommended storage temperature: 20°C to 30°C.

Relative humidity: 5%RH to 80%RH.

Dry, ventilated and clean. Avoid contact with corrosive organic solvents, gases and other substances.

Avoid direct sunlight. The distance from the heat source should not be less than two meters.

Batteries require maintenance for a maximum of 6 months from the date of shipment from the manufacturer. The recharge intervals required after battery depletion are as follows:

If the ambient temperature is 30–40 °C, the power supply shall be replenished within 15 days;

if the ambient temperature is $\leq 30^{\circ}\text{C}$, the power supply should be replenished within 30 days. It is recommended to store at a state of charge of 45% to 55% SOC.



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Thank You!