

**Lithium battery for household energy storage**

# **USER Manual**

**Rack: NLFP-5K-R**

**Wall mounted: NLFP-5K-W    NLFP-5K-W**

# USER Manual



## Applicable series

**Wall mounted: NLFP-5K-W NLFP-10K-W**

**Rack: NLFP-5K-R**

**Version: 1.0**

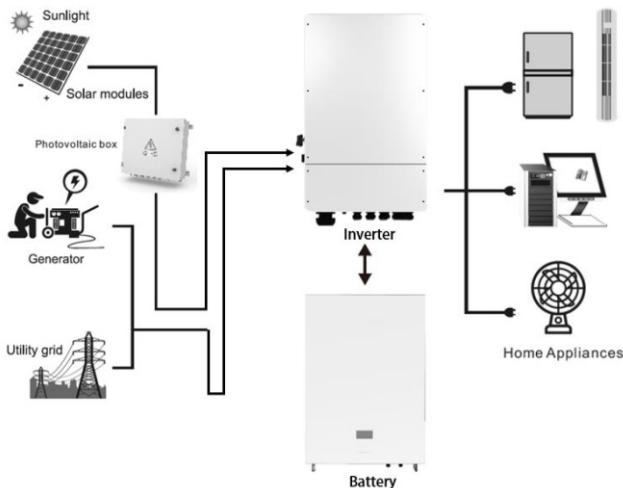
# Table of Contents

<b>1.Introduction</b>	2
<b>2.Product Series</b>	3
2.1 Wall mounted energy storage	3
2.2 Vertical energy storage	4
2.3 Rack energy storage	5
<b>3.Important safety warnings</b>	5
3.1 Packing list	6
3.2 Before connection	8
3.3 During operation	8
<b>4.Installation</b>	9
4.1 Installation position	10
4.2 Installation of products	11
Wall mounted energy storage	11
Vertical energy storage	14
Rack energy storage	16
<b>5.Product operation introduction</b>	18
5.1 Product overview	18
5.1.1 Wall mounted energy storage	18
5.1.2 Vertical energy storage	19
5.1.3 Rack energy storage	20
5.2 Host soft operation	21
5.2.1 Switch on/off	21
5.2.2 SOC	22
5.2.3 Description of display keys	24
5.2.4 Description of display screen	24
5.3 Description of optional functions	27
5.3.1 Bluetooth module description	27
<b>Appendix I: BMS Parameters</b>	31
Definition of BMS interface	31
BMS parameter description	33
<b>Appendix II: Host soft operation</b>	34
<b>Appendix III: Emergency Management</b>	35

# 1. Introduction

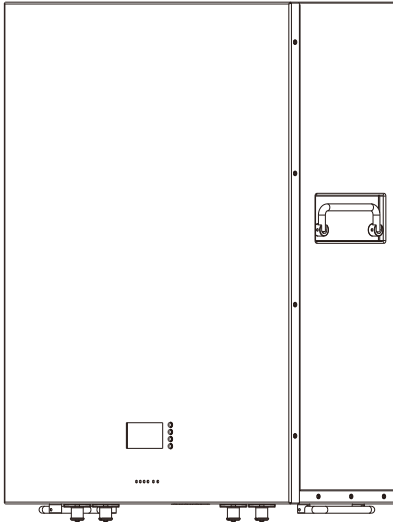
This series is a complete solution for the lithium iron phosphate battery system for the home energy storage field. There are three types of wall-mounted, vertical and rack. The system is safe and reliable. It can be used in home storage, industrial and commercial energy storage and other fields.

The Energy storage pack is an essential component of the photovoltaic power generation system. It can provide electricity for the connected load, and it can also store photovoltaic solar modules, fuel generators, or wind energy generators by charging the remaining energy in case of emergency. When the sun goes down, energy demand is high, or there is a power outage, you can use the energy stored in the system to meet your energy needs at no additional cost. In addition, the energy storage Pack can help you achieve energy selfconsumption and ultimately achieve the goal of energy independence.



## 2. Product Series

### 2.1 Wall mounted energy storage

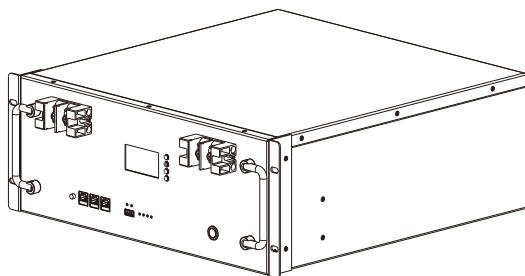


#### Characteristic

- Safe, reliable and long life
- Dynamic identification, automatic paralleling, no need for DIP switches
- Support Bluetooth, mobile APP switching PCS protocol
- CAN/RS485/LAN interface
- Visualization, LCD screen display
- Flexible expansion, the number of parallel machines supports up to 16
- Remote intelligent upgrade maintenance

Model	NLFP-5K-W	NLFP-10K-W
Nominal voltage	51.2	51.2V
Rated Capacity	100Ah(5.12KWh)	200Ah(10.24KWh)
Size(L*W*H)	415*150*580mm	525*195*650mm
weight	~45KG	~85KG
charging method		
recharging current	0.5C standard 1C maximum continuous charging current	
Charging cut-off voltage	58.4V(3.65V)	
discharge method	CC-CV	
Discharge current	0.5C standard 1C maximum continuous discharge current	
Discharge cut-off voltage	43.2V(2.7V)	
display screen	LCD	
Communication Interface	RS485/CAN	
Operating temperature	Charge:0~+50°C Discharge: -20~+55°C	
Storage temperature	Short-term storage: -10~+45°C (<3 months, SOC: 20%~60%) Long-term storage: -10~+40 °C (<1 year, SOC: 30%~60%) Recharge every three months	
storage humidity	5%~95%RH	
Shipping status	Voltage: 51.2~52.8V SOC:40%~60%	

## 2.3 Rack energy storage



### Characteristic

- Safe, reliable and long life
- Dynamic identification, automatic paralleling, no need for DIP switches
- Support Bluetooth, mobile APP switching PCS protocol
- CAN/RS485/LAN interface
- Visualization, LCD screen display
- Flexible expansion, the number of parallel machines supports up to 16
- Remote intelligent upgrade maintenance

Model		LFP 51.2-100R	
Nominal voltage		51.2V	
Rated Capacity		100Ah(5.12KWh)	
Size(L*W*H)		450*442*177mm	
weight		~45KG	
charging method	CC-CV		
recharging current	0.5C standard 1C maximum continuous charging current		
Charging cut-off voltage	58.4V(3.65V)		
discharge method	CC-CV		
Discharge current	0.5C standard 1C maximum continuous discharge current		
Discharge cut-off voltage	43.2V(2.7V)		
display screen	LCD		
Communication Interface	RS485/CAN		
Operating temperature	Charge:0~+50°C Discharge: -20~+55°C		
Storage temperature	Short-term storage: -10~+45°C (<3 months, SOC: 20%~60%) Long-term storage: -10~+40 °C (<1 year, SOC: 30%~60%) Recharge every three months		
storage humidity	5%~95%RH		
Shipping status	Voltage: 51.2~52.8V SOC:40%~60%		

## 3. Important safety warnings



**WARNING:** This chapter contains important safety and operating instructions. Read and keep this manual for future reference.










- Do not expose the battery to flammable or harsh chemicals or vapors.
- Do not paint any part of the battery, include any internal or external components.
- Do not connect battery with PV solar wiring directly.
- Any foreign object is prohibited to be inserted into any part of the battery.
- Do not disassemble the battery. Take it to a qualified service center when service or repair is required.
- Warning!! Only qualified service persons are able to service this device.
- Our company will not bear any warranty claims for direct or indirect damage caused by violation of the above items.

### 3.1 Packing list

You will receive the following parts(Not a full set),sample as follow picture.







For customized requirements, please place an order with the manufacturer.

#### Wall mounted energy storage

No.	PARTS	NAME	SPECIFICATION	PICTURE
1	Standard parts	Battery	Wall mounted energy storage	
2	Standard parts	Wall mount	Wall mount bracket	
3	Standard parts	Standard Communication line	Used for communication between battery and inverter	
4	Standard parts	Connection Line 1-2	Used for battery and inverter connection	
5	Standard parts	Screw	Mounting screw (M8*60 12PCS)	
6	Standard parts	User manual	User manual	
7	Options parts	Connection Line 3-4	Used for battery parallel connection	
8	Options parts	Standard Communication line	Used for parallel battery communication	
9	Options parts	Communication	Used for Communication	

\*NOTE : Options parts require additional ordering.\*

## Rack energy storage

No.	PARTS	NAME	SPECIFICATION	PICTURE
1	Standard parts	Battery	Rack energy storage	
2	Standard parts	Standard Communication line	Used for communication between battery and inverter	
3	Standard parts	Connection Line 1-2	Used for battery and inverter connection	
4	Standard parts	User manual	User manual	
5	Options parts	Standard Communication line	Used for parallel battery communication	
6	Options parts	Communication	Used for Communication	

\*NOTE : Options parts require additional ordering.\*



## **3.2 Before connection**




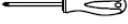



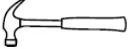
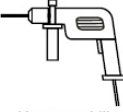




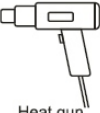

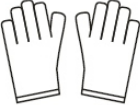
- After unpacking, please check the battery and pack list first, if the battery is damaged or spare parts are missing, Please contact the dealer.
- Before installation, be sure to cut off the grid power and make sure the battery is in the turned-off mode.
- Wiring must be correct, do not mix-connect the positive and negative cables, and ensure no short circuit with the external device.
- It is prohibited to connect the battery with AC power directly.
- The BMS in the battery is designed for 51.2VDC, DO NOT connect battery in series. It is prohibited to connect the battery with different type of battery.
- Battery should be installed indoor and kept away from water, high temperature mechanical force and flames.

## **3.3 During operation**

- If the battery system needs to be moved or repaired, the power must be cut off first and the battery is completely shutdown.
- It is prohibited to connect the battery with different type of battery.
- It is prohibited to put the batteries working with faulty or incompatible inverter.
- In case of fire, only dry powder fire extinguisher can be used, liquid fire extinguishers are prohibited.
- Please do not open, repair or disassemble the battery. We do not undertake any consequences or related responsibility due to violation of safety operation or violating of design, production and equipment safety standards.

## 4. Installation

### Necessary installation Tools

 Clamp meter	 Multi-meter	 Label paper	 Phillips screwdriver
 COAX crimping tool	 Diagonal pliers	 Wire stripper	 Claw hammer
 Hammer drill	 Insulation tape	 Cotton cloth	 Brush
 Heat shrink tubing	 Heat gun	 Electrician's knife	 Protective gloves

### Personal protective equipment

 Insulated Glove	 Safety Goggle	 Safety Shoes
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### Necessary installation environment

 No direct sunlight	 No rain exposure	 No snow lay up
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## **4.1 Installation position**

**Consider the following points to install the energy storage battery:**

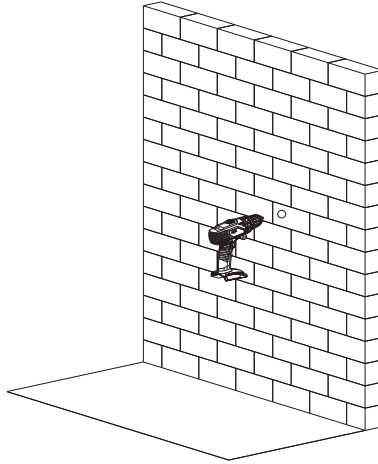
- Do not mount the battery on flammable construction materials. Please mount on a solid surface.
- Install this battery module at eye level in order to allow the readability of LCD display at all times.
- For proper air circulation to dissipate heat, please leave a gap of about >0.3 meter from the ground, 30 cm from the side of the device.
- The ambient temperature should be between 0°C and 40°C and relative humidity should be between 25% and 85% to ensure optimal operation.
- Install the battery module in a dry, protected area with no excessive dust and sufficient air circulation. Do not operate in locations where the temperature and humidity are outside the specified range.
- The installation method shall be subject to the local regulations.
- Installation must be vertical or tilted backwards by maximum 10° - avoid forward or sideways tilt.
- There is minimal dust and dirt in the area.

## 4.2 Installation of products

### ➤ Wall mounted energy storage

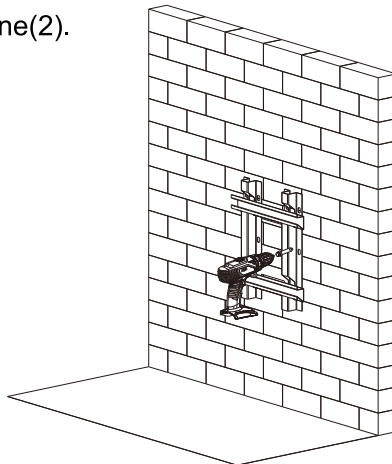
#### Installation instructions

Drill 12 holes suitable for M8X60 explosion screw according to Figure.one (1) on the installation wall, and install explosion screw properly.



1 (1)

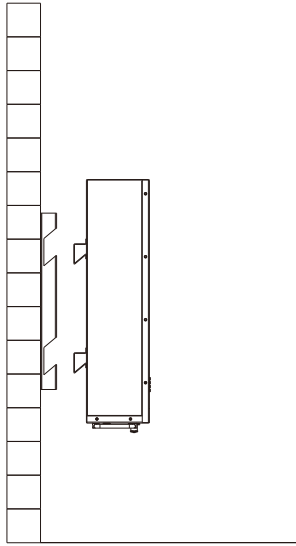
Insert bracket mounting hole into explosive screw (to fit wall) and lock with M8 nut, as shown in Figure. one(2).



1 (2)

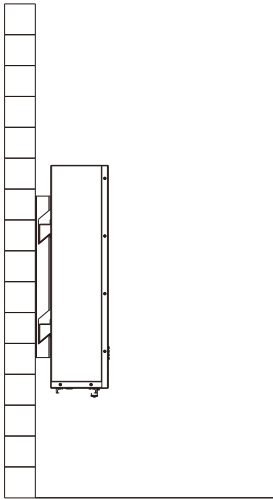
The main battery removal machine moves in the direction shown in Figure. one

(3) Below

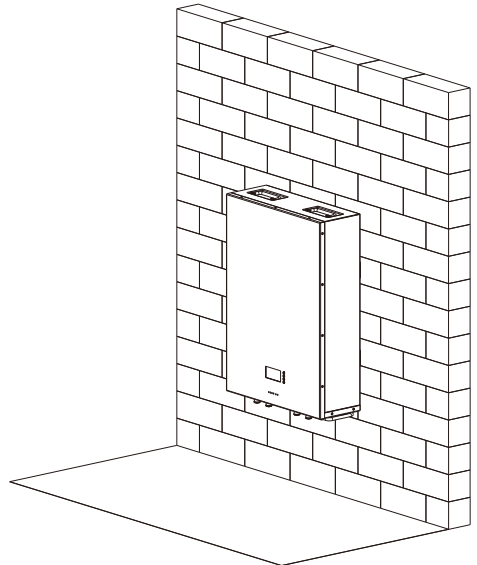


1 (3)

Continue to move in the direction shown in Figure. one (4) below and fit it well, as shown in Figure. one (5).



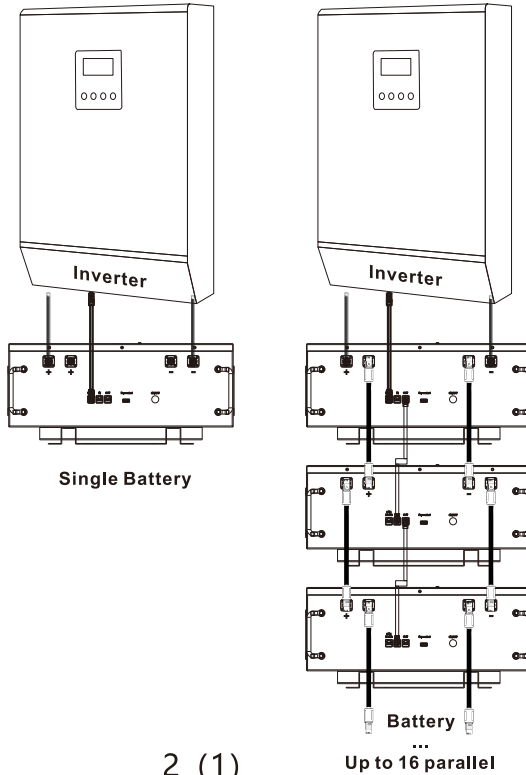
1 (4)



1 (5)

## Connection Description

Connect the connecting wires in the attachment package according to two (1) diagrams.



## Annex

2 (1)

Up to 16 parallel

Connection Line 1-2(1500mm/1500mm)Terminal(UES0631LCNR(B)A /SC25-10)



Connection Line 3-4(1000mm/1000mm) Terminal(UES0631LCNR(B)A \*2)



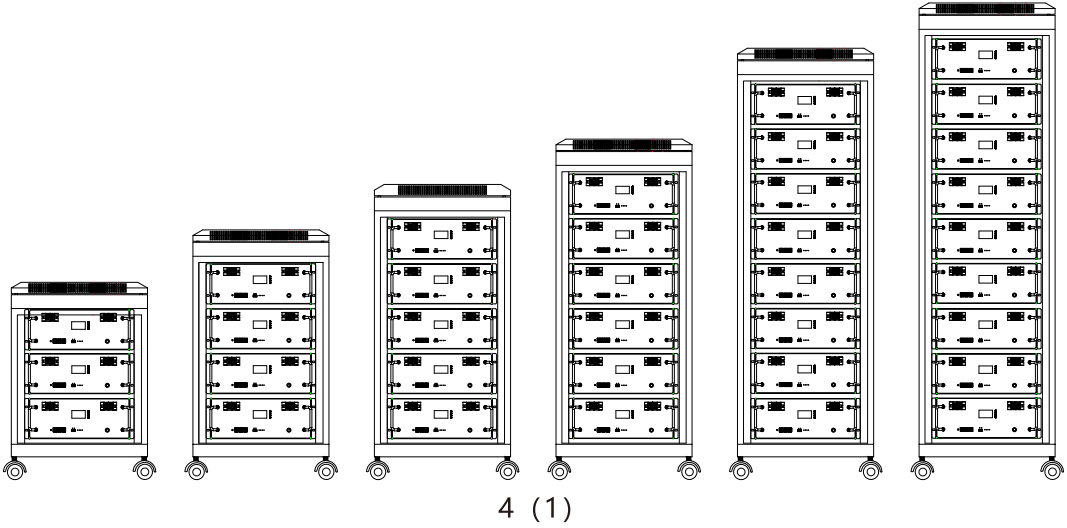
Communication line(1500mm) Default standard network cable



## ➤ Rack energy storage

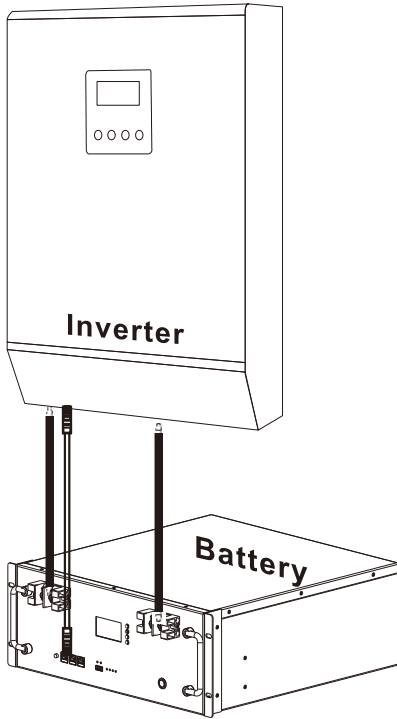
### Installation instructions

As shown in Figure. four (1), place the battery inside the standard cabinet.

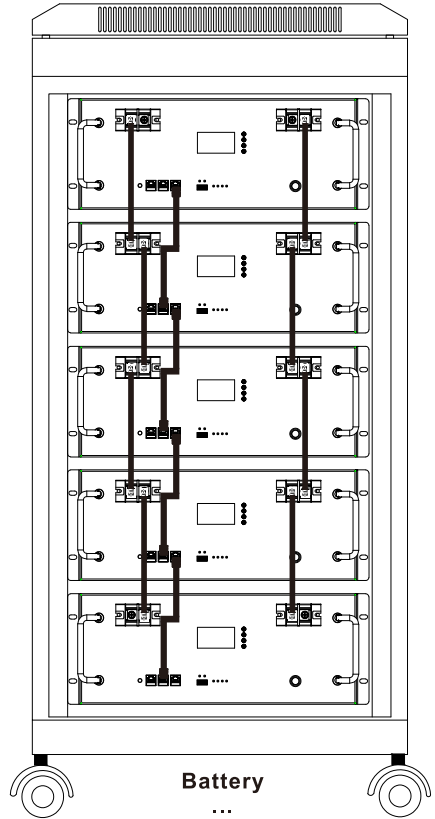


## Connection Description

Connect the connecting wires in the attachment package according to four (2) diagrams.



**Single Battery**

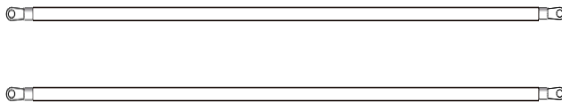


**Battery  
...  
Up to 16 parallel**

4 (2)

## Annex

Connection Line (Red1500mm/Black1500mm) Terminal \*2PCS



Communication line(1500mm) Default standard network cable

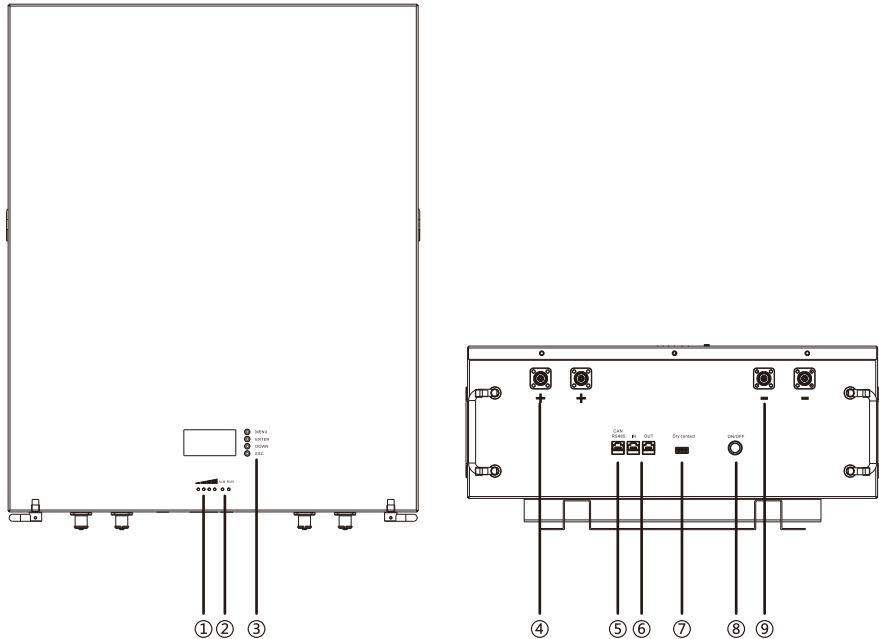




# 5. Product operation introduction

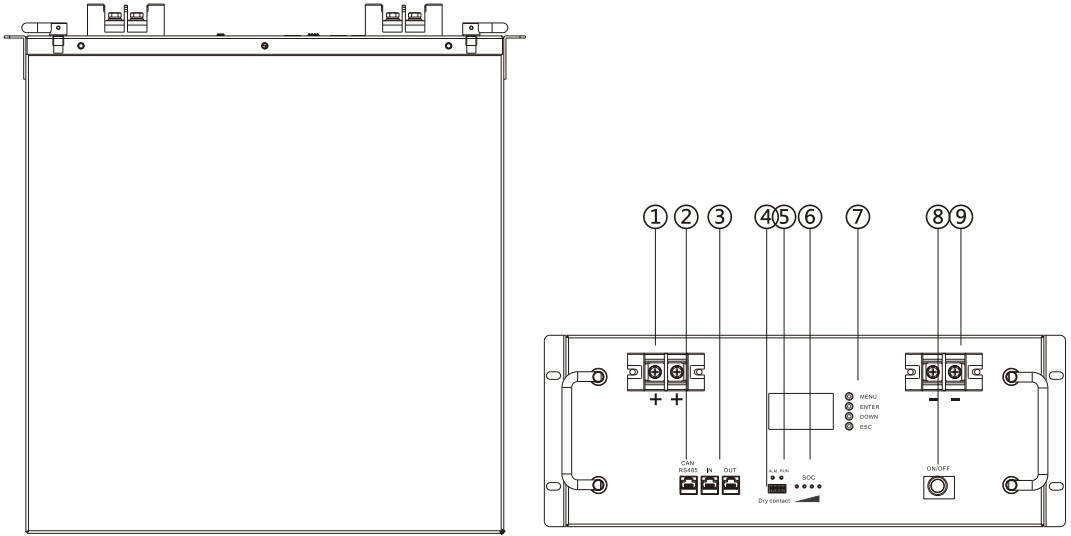
## 5.1 Product overview

### 5.1.1 Wall mounted energy storage



No.	Description	Silk-screen	Remark
1	SOC		
2	Running status light	ALM/RUN	
3	Screen button	Menu/Enter/Down/Esc	
4	Slave battery positive	“+”	Output terminal
5	Communication port	RS485/CAN	Connect to inverter
6	Parallel port	IN/OUT	Parallel use
7	Dry Contact	Dry Contact	
8	Weak current switch	ON/OFF	
9	Slave battery negative	“-”	Output terminal

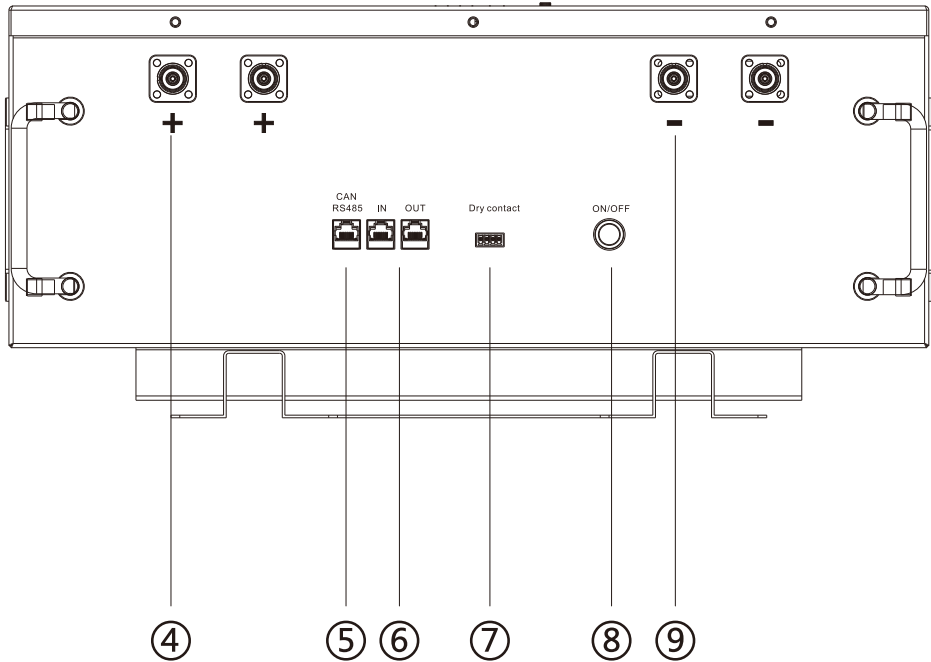
### 5.1.3 Rack energy storage



No.	Description	Silk-screen	Remark
1	Slave battery positive	“+”	Output terminal
2	Communication port	RS485/CAN	Connect to inverter
3	Parallel port	IN/OUT	Parallel use
4	Dry Contact	Dry Contact	
5	Running status light	ALM/RUN	
6	SOC		
7	Screen button	Menu/Enter/Down/Esc	
8	Weak current switch	ON/OFF	
9	Slave battery negative	“-”	Output terminal

## 5.2 Host soft operation

### 5.2.1 Switch on/off



\*Take wall mounted energy storage products as an example,  
Vertical and rack type refer to this power on/off mode.\*

- ✧ When the BMS is in the sleep state, press the weak current switch (⑧) for 2~5 seconds and release it. The BMS is activated and the LED indicator lights are turned on in turn.
- ✧ When the BMS is active, press the weak current switch (⑧) for 2~5 seconds and release it. The BMS is dormant. The LED indicator flashes for 5~10 seconds and then goes out

## 5.2.2 SOC

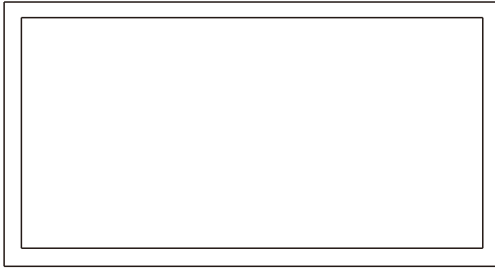
### LED Indicator light Status Description





LED Indicator light Status Description								
PACK Status	PACK Information	Display Logic				Bi-colour LED5 (BLUE/RED)	Remark	Duration
		LED1	LED2	LED3	LED4			
		Remote		/	/	/		
Bootload		★	★	★	★	★	2HZ	1S~2S
Starting	master-slave definition	★	★	★	★	●	Master	3S~30S
		/	/	/	★	●	Slave 1	
		/	/	★	/	●	Slave 2	
		/	/	★	★	●	Slave 3	
		/	★	/	/	●	Slave 4	
		/	★	/	★	●	Slave 5	
		/	★	★	/	●	Slave 6	
		/	★	★	★	●	Slave7	
Application Mode checking	Parallel or single application mode checking success	Display according to actual SOC				★	Blink 5 times	2S
	Wait for the power loop to dynamically incorporate PACK	Display according to actual SOC				★	1Hz	
charge	0%-25.0% SOC	■				●	Flash LED (Water light) 1HZ	
	25%-50.0% SOC	■	■			●		
	50%-75.0% SOC	■	■	■		●		
	75%-99.9% SOC	■	■	■	■	●		
	100% SOC	●	●	●	●	●		

Note: LED indicator alarm can be enabled or disabled through the upper computer. It is enabled by factory default.

Discharge & Standby	100%-75%	●	●	●	●	●		
	75.0%-50%	●	●	●		●		
	50.0%-25%	●	●			●		
	25.0%-0%	●				●		
Fault	Three -Level Cell Over Voltage	/	/	/	●	●		
	Three -Level Cell Under Voltage	/	/	●	/	●		
	Three -Level Over Temperature	/	/	●	●	●		
	Three -Level Under Temperature	/	●	/	/	●		
	Three -Level Over Current (charge or discharge)	/	●	/	●	●		
	Three -Level Under SOH	/	●	●	/	●		
	Internal communication	/	●	●	●	●		
	External communication	●	/	/	/	●		
	Parallel ID addressing failure	●	/	/	●	●		
	FUSE Fault	●	/	●	/	●		
	reserved	●	/	●	●	●		
	reserved	●	●	/	/	●		
	reserved	●	●	/	●	●		
	other All	●	●	●	/	●		
BMS fault (Classification of internal faults such as relay adhesion)	●	●	●	●	●			
Shutdown	/	★	★	★	★	★ or ★ or ●	LED5 depending on the previous status, blink 2 times, then shutdown	
Click	Display PACK ID	Display PACK ID			off	Return after 10s		
Remark:	<p>★ : Blue LED Blink          ● : Blue LED On          ■ : Blue LED flash display          ★ : Red LED Blink          ● : Red LED On</p> <p>*The LEDS switch can be controlled by soft key</p>							

### 5.2.3 Description of display keys



-  MENU
-  ENTER
-  DOWN
-  ESC

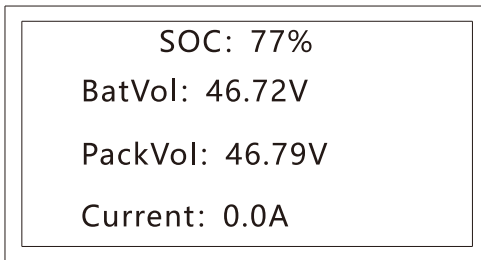
“**MENU**” : Menu key





“**ENTER**” : Enter key

“**DOWN**” : Down key

“**ESC**” : Esc key

### 5.2.4 Description of display screen

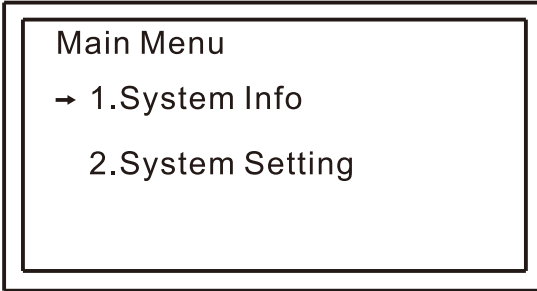






-  MENU
-  ENTER
-  DOWN
-  ESC

Main interface:

“BatVol” : Battery voltage

“PackVol” : Output voltage

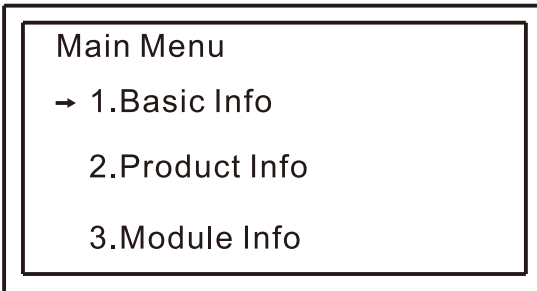






-  MENU
-  ENTER
-  DOWN
-  ESC

Main Menu:

“System Info” : System information

“System Setting” : System setting



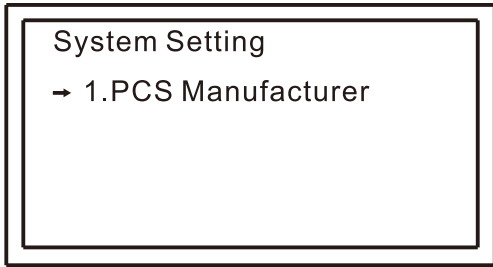
-  MENU
-  ENTER
-  DOWN
-  ESC





Battery Info :

“Basic Info” : View basic battery information

“Product Info” : Check the battery barcode and version

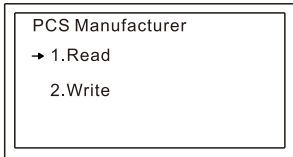
“Module Info” : Check the voltage of single electric core




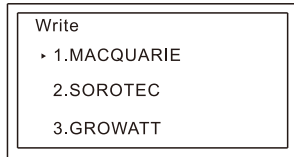
-  MENU
-  ENTER
-  DOWN
-  ESC

**System Setting :**

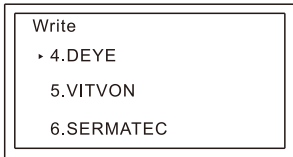
**“PCS Manufacturer” : List of supported inverters**



-  MENU
-  ENTER
-  DOWN
-  ESC



-  MENU
-  ENTER
-  DOWN
-  ESC



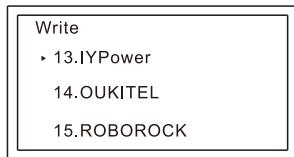
-  MENU
-  ENTER
-  DOWN
-  ESC



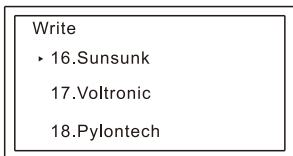
-  MENU
-  ENTER
-  DOWN
-  ESC



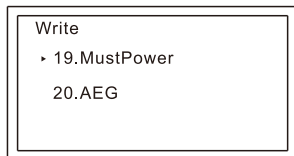
-  MENU
-  ENTER
-  DOWN
-  ESC



-  MENU
-  ENTER
-  DOWN
-  ESC



-  MENU
-  ENTER
-  DOWN
-  ESC



-  MENU
-  ENTER
-  DOWN
-  ESC

**PCS Manufacturer:**

“Read” : Read inverter brand selected by BMS

“Write” : Select inverter communication protocols of different brands

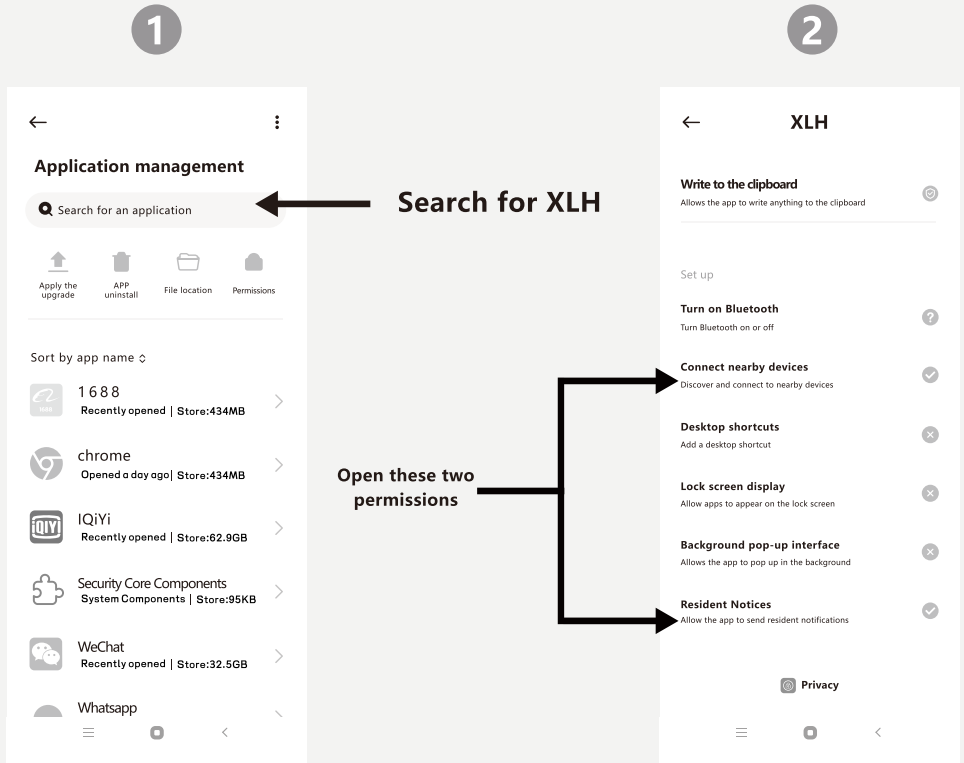


## 5.3 Description of optional functions

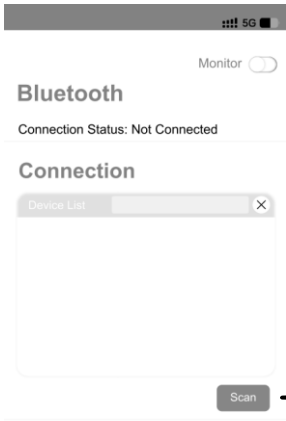
\*The following optional modules need to be ordered\*

### 5.3.1 Bluetooth module description

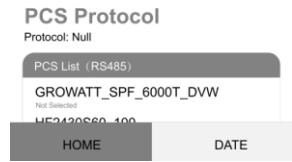
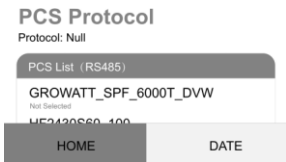
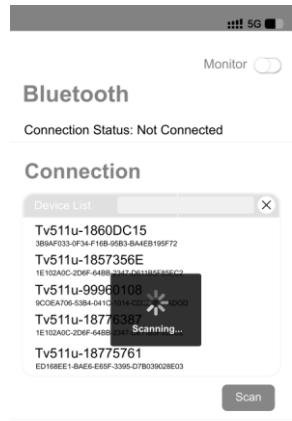
\*Please search for "XLH" in the app store on your phone to download.



- ✧ Download mobile APP and open relevant APP permissions.
- ✧ Open the mobile phone Bluetooth and select the Bluetooth name of the product's external logo

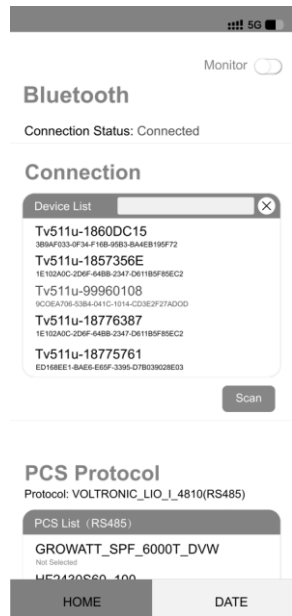


Click on "scan" to search for the Bluetooth serial number.



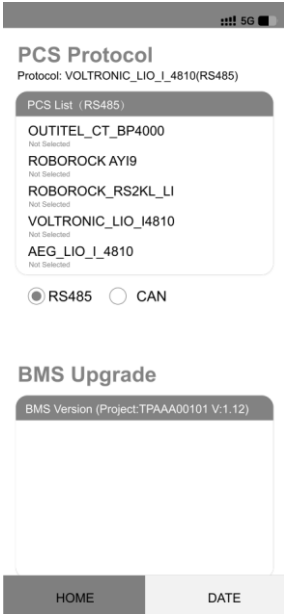
1.APP initialization interface

2. Bluetooth serial number search in progress

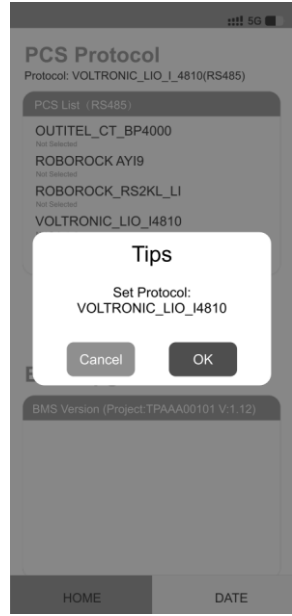


3. Access to the Bluetooth module

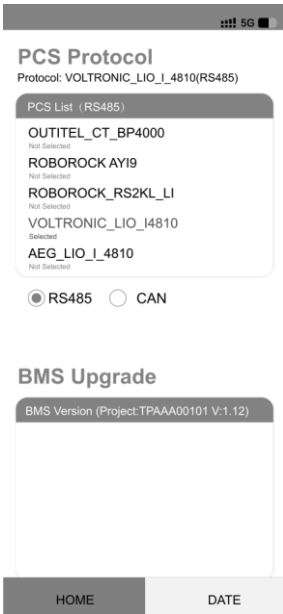
3. 4. Bluetooth serial number shows green that is connected successfully



5. Slide down to select PCS protocol



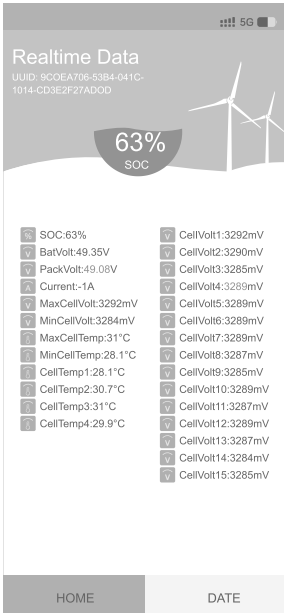
6. Connect the corresponding PCD serial number



7. PCD protocol link success



8. Viewing battery information after successful connection of Bluetooth sequence and PCD sequence.

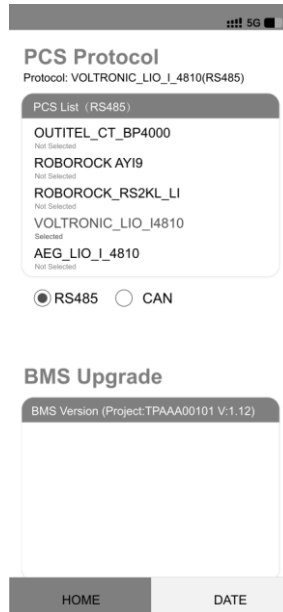


9. Click "Connected" to view the real-time parameters of the battery module (when the windmill is rotating in the picture, it means the battery data is updated in real time).

## Append



•BMS Update Board

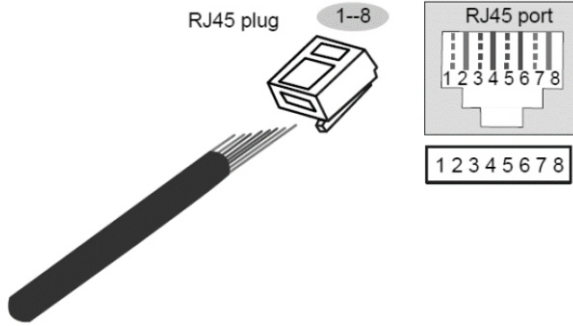


The PCS and BMS upgrade boards are not operable after the battery data real-time update is turned on.

## Appendix I: BMS Parameters

### ● Definition of BMS interface

- Communication port Definition



**RJ45 Port**

#### CAN/RS485 Communication port

Pin	Function description	Describe	Remark
1	CAN2-H/inside	CAN-H	
2	CAN2-L/inside	CAH-L	
3	EXIT_12V-	The external dry contact assists in activating the negative terminal of the power interface	
4	CAN1-H	PCS CAN-H	External device communication
5	CAN1-L	PCS CAN-L	External device communication
6	EXIT_12V+	The external dry contact assists in activating the positive electrode of the power interface	
7	RS485_B	PCS RS485 B	
8	RS485_A	PCS RS485 A	

## “IN” Parallel port

Pin	Function description	Describe	Remark
1	CAN2_H	CAN2-H/inside	CAN Communication
2	CAN2_L	CAN2-L/inside	
3	GND_ISO	ISO_GND	
4	GND_ISO	ISO_GND	
5	Master	Master pack select	
6	GND_ISO	ISO_GND	
7	Encode_out	Program address function ,output	
8	SW_wakeout	Synchronization power on	

## “OUT” Parallel port

Pin	Function description	Describe	Remark
1	CAN2_H	CAN2-H/inside	CAN Communication
2	CAN2_L	CAN2-L/inside	
3	GND_ISO	ISO_GND	
4	Slave IN	Slave Pack select	
5	ISO_GND	SO_GND	
6	GND_ISO	ISO_GND	
7	Encode_IN	Program address function ,input	
8	SW_wakeout	Synchronization power on	

## ● BMS parameter description














No.	Item	General Parameter	
1	Combination method	25.6V(8S)	51.2V(16S)
2	Rated Capacity(Ah)*Parallel	PACK*Parallel	PACK*Parallel
3	Factory Voltage(V)	24-26.4V	51-53V
4	Charging Voltage(V)recommend/max	28.8V/29.2V	57.6V/58.4V
5	Charging Current(A)recommend/max	0.2C/0.5C(total)	0.2C/0.5C(total)
6	Float charge Voltage(V)	27V	54V
7	Discharge Cut-off Voltage(V)	≤ 24V	≤ 48V
8	Max Discharging current(A)	100A* Parallel	100A* Parallel
9	Max Charging current(A)	100A* Parallel	100A* Parallel
10	Charge over Current protect(A)	110A* Parallel	110A* Parallel
11	Discharge over Current protect(A)	110A* Parallel	110A* Parallel
12	Internal Impedance	≤100mΩ	≤100mΩ
13	Communication mode	CAN or 485	CAN or 485
14	Host software and Communication mode	RS485	RS485
15	Operation Temperature Range	Charge:0~50℃	Charge:0~50℃
		Discharge: -20~55℃	Discharge: -20~55℃
16	Storage Temperature Range	0℃~25℃	0℃~25℃

Notes: Running the device, set the external charger or inverter parameters, please set according to the corresponding operation manual. Can not exceed the rated parameter requirements. If you need to order products with higher current value, please consult the agent.

## Appendix II: Host soft operation

### ❖ Host soft operation

When the equipment manufacturer confirms that it is necessary, it can authorize to provide the customer with the host software and operating instructions.

	Monitor.View.dll	2022/11/23 19:21	Application extension	435 KB
	Newtonsoft.Json.dll	2021/3/17 20:03	Application extension	563 KB
	Newtonsoft.Json	2021/3/17 19:58	XML document	551 KB
	Nlog.config	2022/7/2 22:40	CONFIG file	3 KB
	Nlog.dll	2021/10/24 18:23	Application extension	847 KB
	Nlog	2021/10/24 18:23	XML document	1,607 KB
	NPOI.dll	2017/3/21 15:53	Application extension	1,640 KB
	NPOI.OOXML.dll	2017/3/21 15:53	Application extension	524 KB
	NPOI.OpenXml4Net.dll	2017/3/21 15:53	Application extension	89 KB
	NPOI.OpenXmlFormats.dll	2017/3/21 15:53	Application extension	2,072 KB
	NPOI	2017/3/21 15:53	XML document	2,202 KB
	PCANBasic.dll	2021/12/26 0:26	Application extension	465 KB
	<b>XLH_Monitor</b>	2022/11/24 19:22	Application	193 KB

 Monitor V1.1.16

Setting Debug Tools Help

Disconnect

Monitor

KeepAhead



Rack	Name	Value	Unit	Name	Value	Unit	Name	Value	Unit	Name	Value	Unit	Name	Value	Unit
BCU1	NumOfBcu	1	channels	SoxSoh	100.0	%	FitBatOv2	0	NA	FitUsoc2	0	NA	FitComSbcu	0	NA
	NumOfDsgBcu	1	channels	SoxRsoc	96.7	%	FitBatOv3	0	NA	FitChgerOv	0	NA	FitPrlAddrFail	0	NA
	NumOfChgBcu	1	channels	MaxRsoc	96.7	%	FitBatUv2	0	NA	FitChgerUv	0	NA	FitVWirDisconnect	0	NA
	SystemState	4	NA	MinRsoc	96.7	%	FitBatUv3	0	NA	FitLmtOcc2	0	NA	FitHwChgCurrLmt	0	NA
	PrlPwrOnState	0	NA	AllDeltaSumV	0.00	V	FitDeltaOv2	0	NA	FitLmtOcc3	0	NA	FitUsoc	0	NA
	WorkCurrMode	1	NA	MinCellTNum	0.00	V	FitDeltaOv3	0	NA	FitLmtOcd2	0	NA			
	MaxAllowDsgCurr	85.0	A	MaxCellTNum	0	channels	FitOcc2	0	NA	FitLmtOcd3	0	NA			
	MaxAllowChgCurr	0.0	A	MinCellTNum	1	channels	FitOcc3	0	NA	FitCellUv4	0	NA			
	DsgCutOffVol	300.0	V	MaxIntSumV	49.40	V	FitOcd2	0	NA	FitCellUv4	0	NA			
	ChgCutOffVol	345.0	V	MinIntSumV	49.40	V	FitOcd3	0	NA	FitNtcOpen	0	NA			
	FitLv1Warning	0	NA	MaxCellV1	3287	mV	FitOp2	0	NA	FitNtcSc	0	NA			
	FitLv2Warning	0	NA	MinCellV1	3270	mV	FitOp3	0	NA	FitOsoc	0	NA			
	FitLv3Protection	0	NA	MaxSocBatNum	1	channels	FitOpd2	0	NA	FitHeaterUv	0	NA			
	FitLv4Failure	0	NA	MinSocBatNum	1	channels	FitOpd3	0	NA	FitHwScc	0	NA			
	FitDsg	0	NA	MaxCellT	21.3	DegC	FitOtc2	0	NA	FitHwOcc	0	NA			
	FitChg	0	NA	MinCellT	21.1	DegC	FitOtc3	0	NA	FitHwScd	0	NA			
	PackCurrent	-33773	mA	RemainCap	90317	mAh	FitUtc2	0	NA	FitHwOcd	0	NA			
	PackPower	0	W	TotalDsgCap	1109.5	Ah	FitUtc3	0	NA	FitHwOv	0	NA			
	IntSumV	49.40	V	TotalChgCap	1318.8	Ah	FitOtd2	0	NA	FitHwUv	0	NA			
	ExtSumV	49.64	V	TotalDsgEnergy	53	kWh	FitOtd3	0	NA	FitPrechgFail	0	NA			
	MaxSumVBcuNum	1	channels	TotalChgEnergy	66	kWh	FitUtd2	0	NA	FitComAfe	0	NA			
	MinSumVBcuNum	1	channels	FitCellOv2	0	NA	FitUtd3	0	NA	FitComWireless	0	NA			
	MaxCellV1Num	11	channels	FitCellOv3	0	NA	FitDeltaOtd2	0	NA	FitComCharger	0	NA			
	MinCellV1Num	1	channels	FitCellUv2	0	NA	FitDeltaOtd3	0	NA	FitComExt	0	NA			
	CycleCount	14	NA	FitCellUv3	0	NA	FitUsoc1	0	NA	FitComMbcu	0	NA			



## **Appendix III: Emergency Management**

### **Emergency process:**

1.The external device catches fire and explodes:

A: Under the condition of ensuring safety, non-operating personnel immediately move to a safe location;

B: Under the condition of ensuring safety, the operator immediately cut off the external power supply of the equipment and the internal power supply.

C: Use fire-fighting equipment for fire-fighting treatment (the use of fire-fighting sand, fire-fighting blankets, fire-fighting water pipes)

D: If you cannot completely extinguish the fire, please call the local fire department for help.

E: Keep the accident site data so that the source of the accident can be traced.

2.The battery catches fire and explodes:

A: Under the condition of ensuring safety, non-operating personnel immediately move to a safe location;

B: Under the condition of ensuring safety, the operator immediately cut off the external power supply of the equipment and the internal power supply.

C: Use fire-fighting equipment for fire-fighting treatment (first the use of fire-fighting sand, fire-fighting blankets, then fire-fighting water pipes for cool the Pack)

D: If you cannot completely extinguish the fire, please call the local fire department for help.

E: Keep the accident site data so that the source of the accident can be traced.

✧ **This emergency procedure is a reference operation mode, which shall be determined according to the actual situation.**

# Home Energy Storage System



**NASTECH**  
HOME OF CLEAN ENERGY

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