

# **Steltec Battery (STE-BWO-10240) Instructions**

Website: [www.steltec-ess.com](http://www.steltec-ess.com)

## T A B L E O F C O N T E N T S

**01 Battery Features**

**02 Compatible Products List**

**03 Battery Installation**

**04 Wiring diagram**

**05 System starting Procedure**

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## 01 Battery Features

- IP65 protection grade
- Built-in heating system
- Built-in fire protection system
- Built-in WiFi , support APP OTA upgrade
- Compatible with main inverter brands



### KEY FEATURES



#### Ultra Safe

Intelligent fire extinguishing system



#### Long-term Warranty

10-year product warranty



#### Automatic Self-heating

-20°C-55°C operating temperature(optional)



#### Flexible Investing

Expandable to 10 24 153.6kWh  
Compatible with major brand inverters



#### Wi-fi Connectivity

Built-in Wi-Fi,  
supports APP OTA upgrade



#### IP65 Protection

Fearless of outdoor installation,  
strong environmental adaptability

### LV Series Flex-L4



Max. 15 modules in parallel

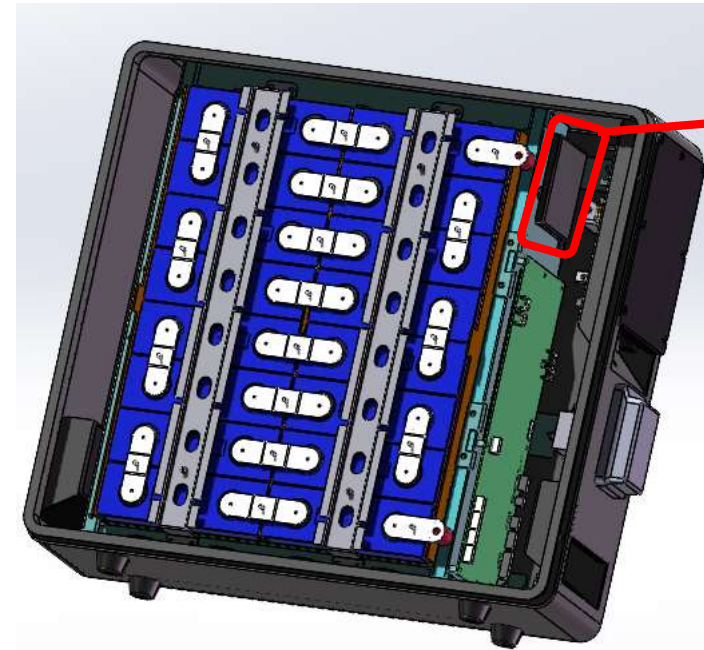
Maximum capacity of:

**153.6kWh**

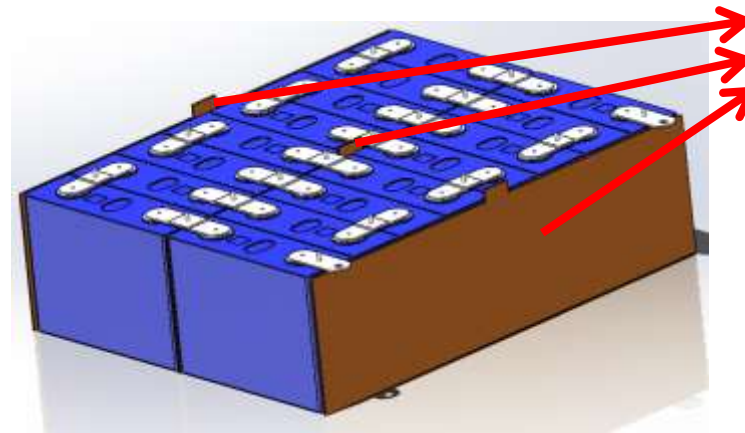
## 01 Battery Features



|                                       |   |
|---------------------------------------|---|
| Product Type                          | <b>Flex-L4</b>  |
| Battery Model                         | 5TE-BWO-1Q240   |
| Battery System Capacity               | 10.24kWh  |
| Cell Technology                       | Li-ion(LFP)   |
| Battery Cell Capacity                 | 200Ah   |
| Configuration                         | 1P16S   |
| Nominal Voltage                       | 51.2V   |
| Operating Voltage Range               | 45.6-56.2V  |
| Dimension(W*D*H)                      | 480*245*815(mm)   |
| Net Weight                            | 105kg   |
| Scalability                           | Max. 15 systems in parallel operation   |
| Installation                          | Wall mounted or floor mounted   |
| Depth of Discharge                    | 90%   |
| Charge/Discharge Current(Recommended) | 100A  |
| Charge/Discharge Current(Max)         | 200A  |
| Cooling Method                        | Natural convection  |
| Communication Port                    | RS232, RS485, CAN   |
| Protection Class                      | IP65  |
| Environment                           | Indoor or Outdoor Eaves   |
| Charging Temperature                  | -20°C~55°C (with heating)<br>0°C~55°C (without heating)   |
| Discharging Temperature               | -20°C~55°C  |
| Humidity                              | 5%-95%  |
| Max. Operating Altitude               | 2,500m  |
| Cycle Life                            | >6000 @29°C, 0.5C, 90% DOD  |
| Wi-Fi Module                          | Built in Wi-Fi module, APP OTA function   |
| Extended Functions                    | Thermal aerosol fire extinguishing device(standard)<br>Heating system (optional), Wheel(optional) |
| Certificates                          | IEC62619 / IEC61000 / CE / UN38.3 / MSDS  |



Fire protection module



Heating film

## 02 Compatible Products List

# STELTEC

JIANGSU STELTEC ENERGY TECHNOLOGY CO., LTD

Room 401, Building 7, No.2, Xinkaihe Road, Lujia Town, Kunshan City, Jiangsu Province - China











www.steltec-ess.com








## Compatible Products List V2.1

Release Date: 06 Feb 2024

| Inverter brand  | Model                        | Communication port | Application |
|---|------------------------------|--------------------|-------------|
| <b>LV series : Focus-L1 / Focus-L2 / Basic-L1 / Flex-L1 / Flex-L2 / Flex-L3 / Flex-L4</b> |                              |                    |             |
| Deye(Sunsynk)   | sun-(5-8) K-sg01LP1 series   | CAN                | on/off grid |
|   | sun-(3.6-6) K-sg03LP1 series | CAN                | on/off grid |
|   | sun-(3-6) K-sg04LP1 series   | CAN                | on/off grid |
|   | sun-(3.6-8) K-sg05LP1 series | CAN                | on/off grid |
|   | sun-(5-12) K-sg04LP3 series  | CAN                | on/off grid |
|   | sun-(12-16) K-sg01LP1 series | CAN                | on/off grid |
| Senergy   | SE(4.6-6) KHB-60/120         | CAN                | on/off grid |
|   | SE(4.6-6)KAC                 | CAN                | on/off grid |
| Solis   | S6-EH1P(3-6)K-L-PRO          | CAN                | on/off grid |
|   | S6-EH1P(3-6)K-L-EU           | CAN                | on/off grid |
|   | S6-EH1P8K-L-PRO              | CAN                | on/off grid |
|   | S6-EH1P(3-10)K-L-PLUS        | CAN                | on/off grid |
|   | S6-EH1P(9.9-18)K03-NV-YD-L   | CAN                | on/off grid |
|   | S6-EH3P(8-15)K02-NV-YD-L     | CAN                | on/off grid |
| Hoymiles  | HYS-(3.0-6.0)LV-EUG1         | CAN                | on/off grid |
| LUXPOWER  | LXP Hybrid 3-6K              | CAN                | on/off grid |
| Afore   | AF (3-6) K-SL                | CAN                | on/off grid |
| Solax   | X1-HYB-LV 3-6K               | CAN                | on/off grid |
|   | X3-LITE-LV 8-12K             | CAN                | on/off grid |
|   | X3-NEO-LV 5-15K              | CAN                | on/off grid |

## 03 Battery installation

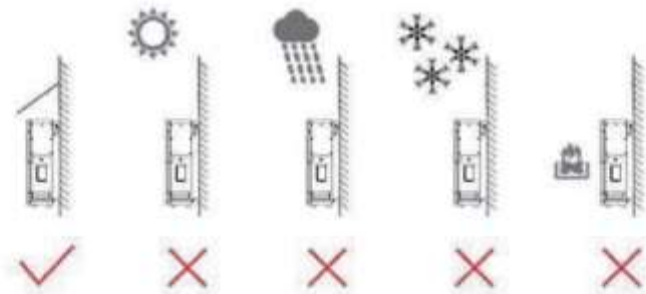
| STE-BWO-10240 packing List |           |   |          |   |   |
|----------------------------|-----------|---|----------|---|---|
| No                         | Part no.  | Part name/size  | Quantity | Photo   | Used for  |
| 1                          | 1.02.002  | Battery pack  | 1        |    | Battery box   |
| 2                          | 3.01.0105 | Fixed support SPCC<br>T=2.5mm,490*430*30(L*W*H), fine sand grain                              | 1        |    | Wall mounting bracket                               |
| 3                          | 3.01.0133 | Expansion bolt<br>M10*80mm/8.8 grade /304 stainless steel expansion screws                    | 8        |    | Lock wall pendant                                   |
| 4                          | 3.01.0034 | Screw<br>Cross outer hexagon three combination screws _M6*15mm_8.8 grade 304 stainless steel  | 1        |    | Grounding screw                                     |
| 5                          | 3.01.0137 | Yellow-green two-color grounding Cable  | 1        |    | Grounding Cable                                     |
| 6                          | 3.01.0138 | Power cord, SC70-8 at one end, SC70-10 at the other end, AWG0# PVC cord 11627, L=1500mm, Red  | 1        |    | Power cable +                                       |
| 7                          | 3.01.0139 | Power cord, SC70-8 at one end, SC70-10 at the other end, AWG0#PVC cord 11627, L=1500mm, Black | 1        |    | Power cable -                                       |
| 8                          | 3.01.0098 | Flat gasket<br>M8 * 20 * 1.5mm_8.8 grade 304 stainless steel                                  | 2        |  | Accessory gasket                                    |
| 9                          | 3.01.0004 | Waterproof Cable Gland M25(13-18) (Single Hole)   | 2        |  | Water intrusion prevention for equipment connectors |
| 10                         | 3.01.0005 | Waterproof Cable Gland M25(13-18) (Three Holes)   | 1        |  | Water intrusion prevention for equipment connectors |

| STE-BWO-10240 packing List |           |   |          |  |  |
|----------------------------|-----------|---|----------|--|--|
| No                         | Part no.  | Part name/size  | Quantity | Photo  | Used for   |
| 11                         | 3.01.0134 | SC70-8_Purple Copper Tinned Terminals                     | 2        |   | To parallel with multiple packs  |
| 12                         | 3.01.0064 | T568B Lan cable<br>_Line length 2000mm_ RJ45 crystal plug | 1        |   | Communication cable between master pack and inverter or for parallel of multiple packs |
| 13                         | 3.01.0089 | RJ45 Crystal head   | 2        |   | RJ45 Crystal head  |
| 14                         | 3.01.0094 | Desiccant<br>2g moisture-proof desiccant                  | 2        |   | Moisture-proof   |
| 15                         |           | Outgoing Inspection Report                                | 1        |   | Outgoing Inspection Report   |
| 16                         |           | Battery Networking Guide                                  | 1        |   | Battery Networking Guide   |
| 17                         |           | Quick Installation Guide                                  | 1        |  | Quick Installation Guide   |

| Caster Accessory Kit Packing List(optional) |           |  |          |   |                                  |
|---|-----------|--|----------|---|----------------------------------|
| No  | Part no.  | Part name/size   | Quantity | Photo   | Used for                         |
| 1   | 3.01.0034 | Screw<br>Cross outer hexagon three combination screws _M6*15mm_8.8 grade 304 stainless steel | 16       |  | To fix the wheels                |
| 2   | 3.01.0010 | Swivel wheel with brake  | 4        |  | 4 casters bearing capacity 800kg |

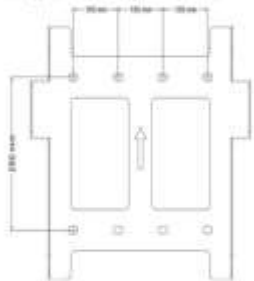
Check packing list

## 03 Battery installation



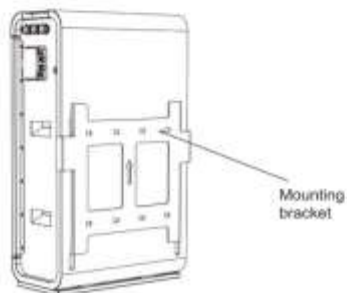
### STEP 1

Drill the hole with an 14mm drill bit as follows and fix the wall bracket to the wall.



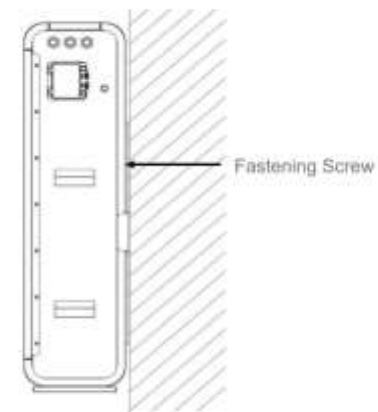
### STEP 2

Secure the mounting bracket.



### STEP 3

Hang the battery on the wall mounting bracket and secure it tightly.



### Wheel-mount installation (alternative to Step 1- 3)

#### STEP 1

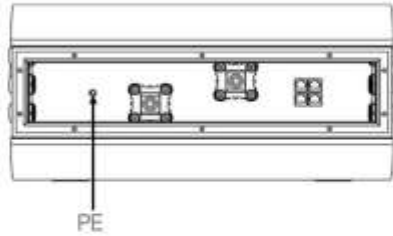
Install four lockable swivel wheels on the battery.  
Place the battery on flat and firm ground, and lock the swivel wheels after positioning.



## 03 Battery installation

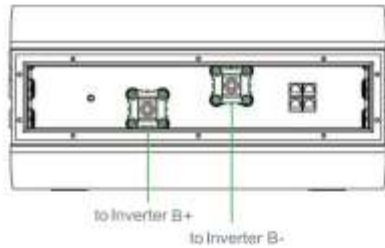
### STEP 4

Connect to ground.



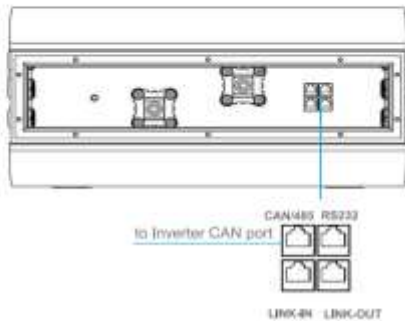
### STEP 5

Connect power cable.



### STEP 6

Connect communication cable.

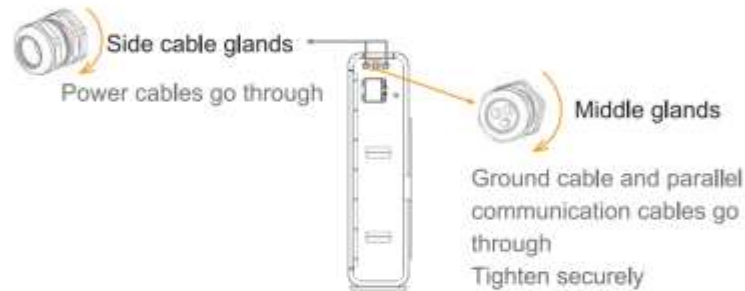


### STEP 7

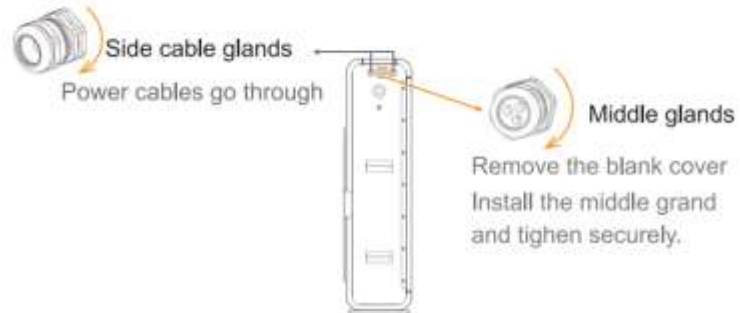
Route cables as follows:

1. Power cables go through the side cable glands.
2. Ground and communication cables go through the middle glands. (The remaining opening must be sealed with the provided plug and tightened.)
3. Tighten all glands after routing.

For parallel operation, remove the blank cover on the other side and install the gland from the accessory kit. Tighten securely after installation.



For Parallel Operation

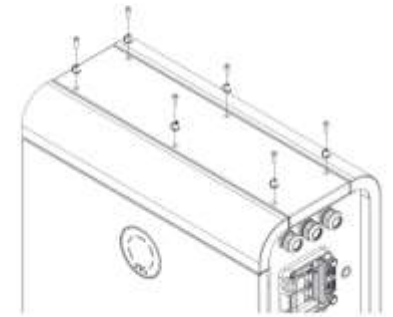


### Step 8

Connect in parallel with other batteries (Wiring diagram is in next page)

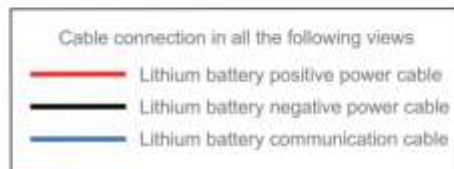
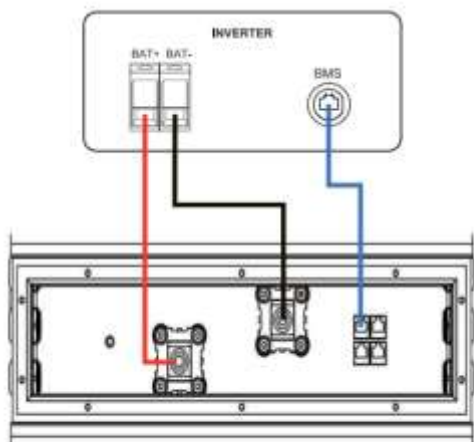
### STEP 9

Install the cover and fully tighten all screws.



## 04 Wiring diagram

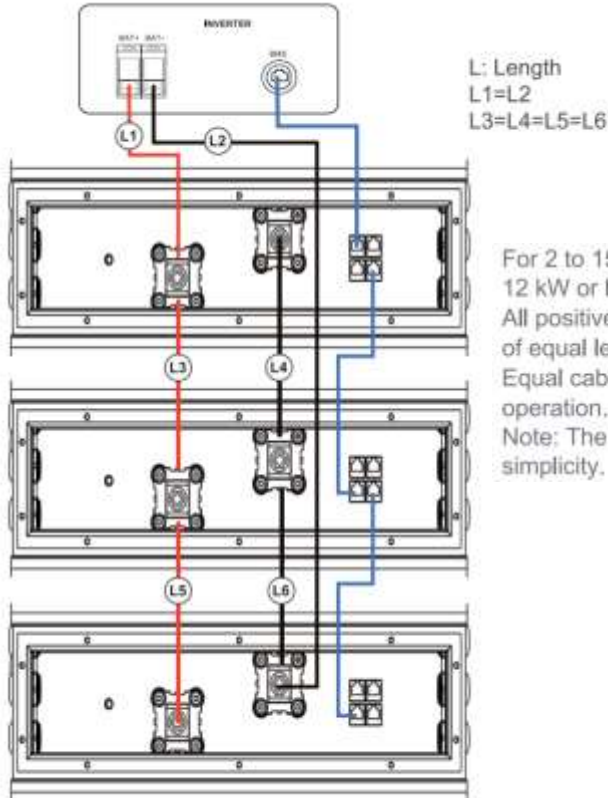
Wiring method of 1 units module  
with power below 10kW



| Battery Setting       |                          |
|-----------------------|--------------------------|
| Batt Type             | Lithium Battery >        |
| Batt Model            | Lithium battery LV >     |
| Max Charge Current    | 100A >                   |
| Max Discharge Current | 100A >                   |
| Over discharge        | 20% >                    |
| Recovery              | 35% >                    |
| Force Charge          | 10% >                    |
| Battery Saving        | <input type="checkbox"/> |
| Max Charge SOC        | 100% >                   |

Recommend setting Max Charge&Discharge current 100A by  
Inverter

## 04 Wiring diagram

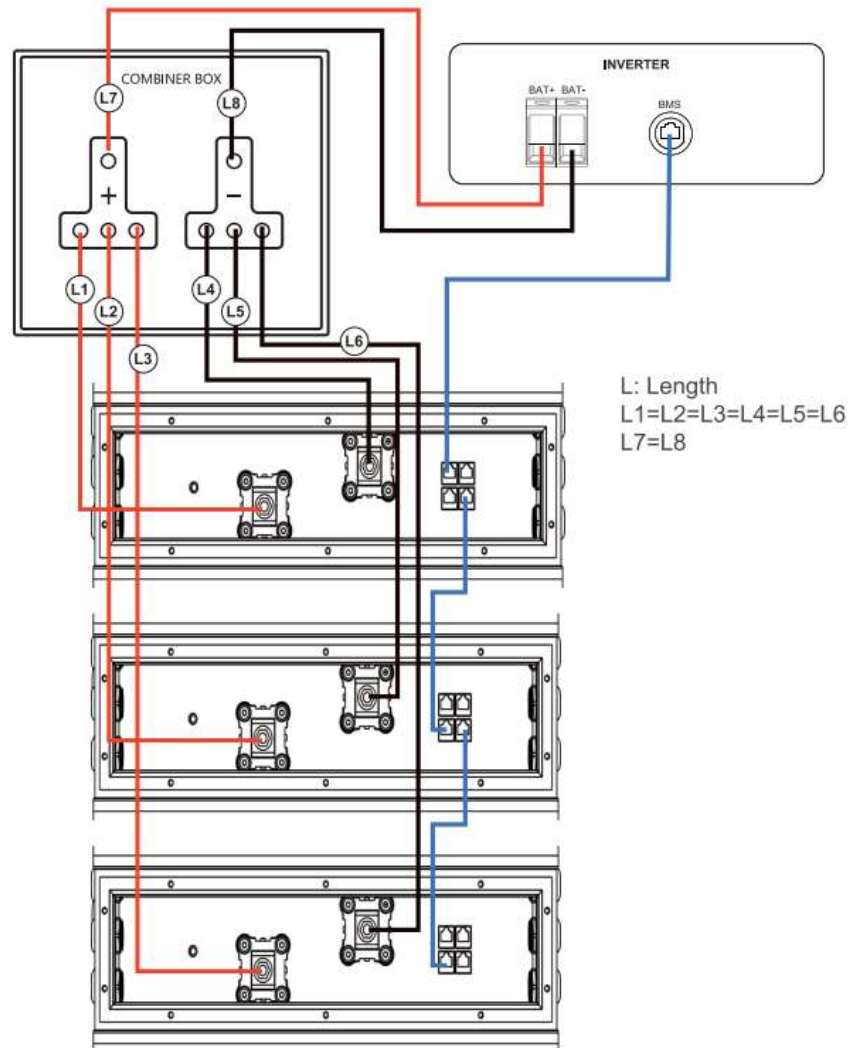


For 2 to 15 units: Use the single-layer module configuration with power of 12 kW or below.  
All positive and negative cables between the inverter and battery must be of equal length.  
Equal cable length is necessary for proper system balance and reliable operation.  
Note: The number of intermediate units is omitted in the diagram for simplicity.

| Battery Setting       |                          |
|-----------------------|--------------------------|
| Batt Type             | Lithium Battery >        |
| Batt Model            | Lithium battery LV >     |
| Max Charge Current    | 240.0A >                 |
| Max Discharge Current | 240.0A >                 |
| Over discharge        | 20% >                    |
| Recovery              | 35% >                    |
| Force Charge          | 10% >                    |
| Battery Saving ?      | <input type="checkbox"/> |
| Max Charge SOC        | 100% >                   |

Setting Max Charge&Discharge current  $\leq 240A$  by Inverter

## 04 Wiring diagram



For 2 to 15 units where inverter power exceeds 12 kW:

Connect the positive and negative ports of each battery to the combiner cabinet as shown in the figure below.

All positive and negative connecting cables between each battery and the combiner cabinet must be of equal length.

Equal cable length is necessary to ensure equal current sharing and reliable operation.

Note: The number of intermediate units is omitted in the diagram for simplicity.

## 05 System starting Procedure

For system starting we recommend the following steps:

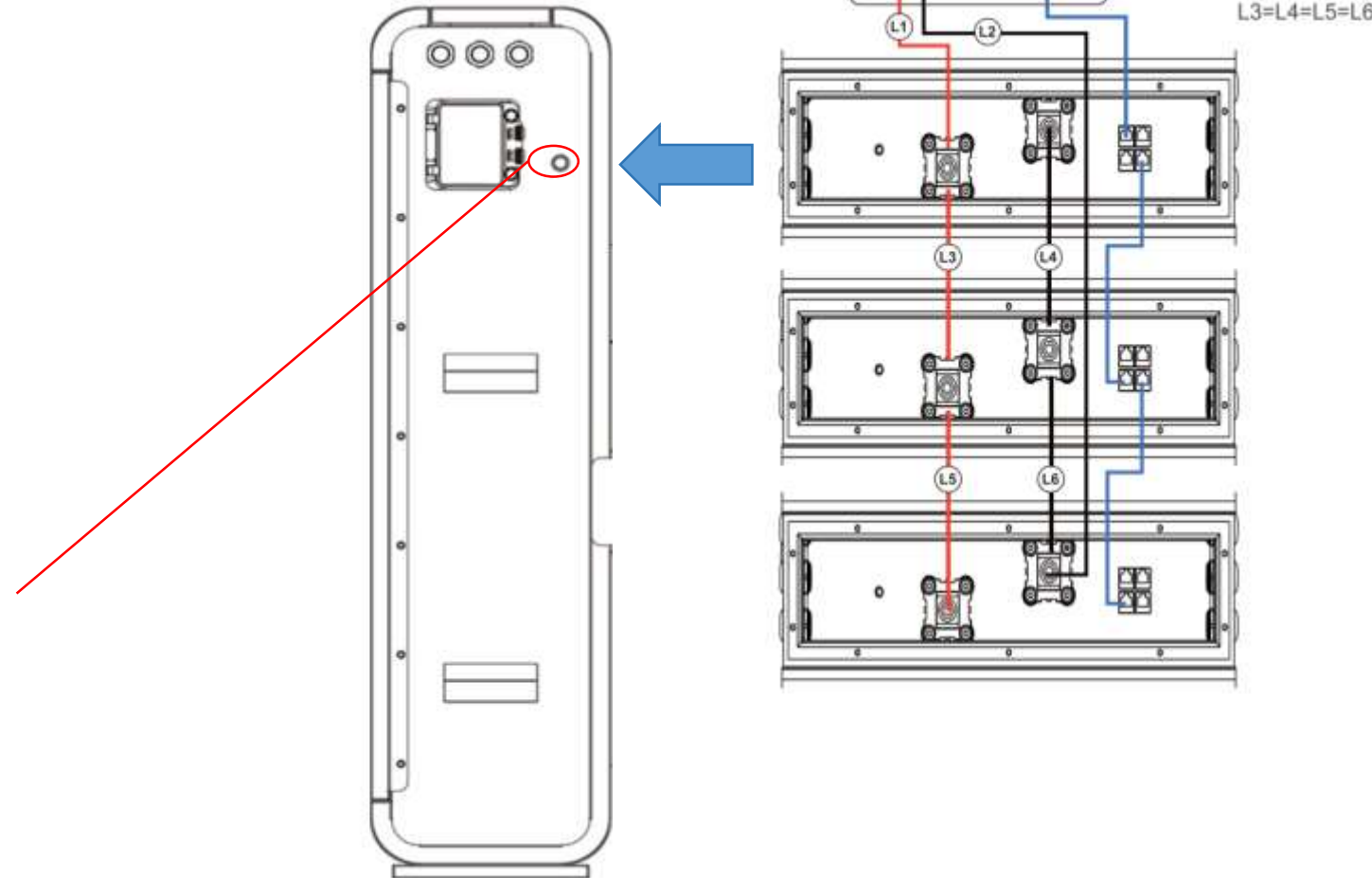
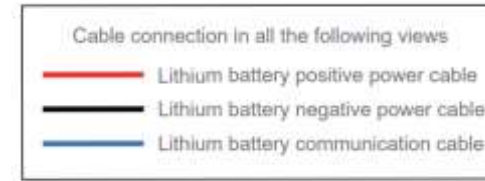
- ① Turn the Battery DC switch ON, and then power on the battery, wait until the battery LED is ON.
- ② Wait until the inverter LED is ON.
- ③ Turn the PV DC switch of the inverter ON
- ④ Turn the AC switch that is connected to the grid and EPS output of the inverter ON
- ⑤ Set-up the battery and the inverter using the App

## 05 Commissioning Procedure

### How to power on the battery

Note: For multiple batteries in parallel, only the Master battery SOC LED will be on to show the whole system SOC level, slave battery SOC LEDs are off, but the Normal&Alarm LED will show normally.

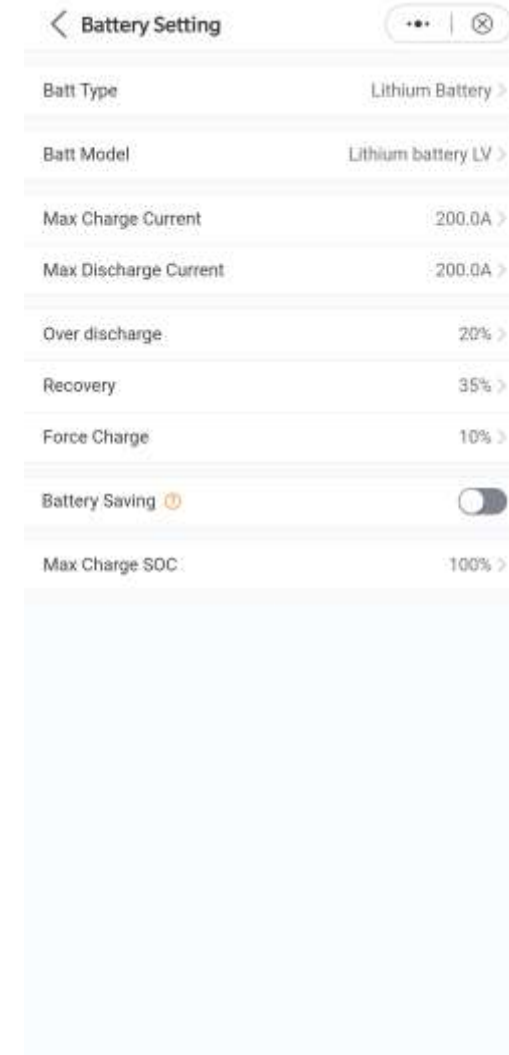
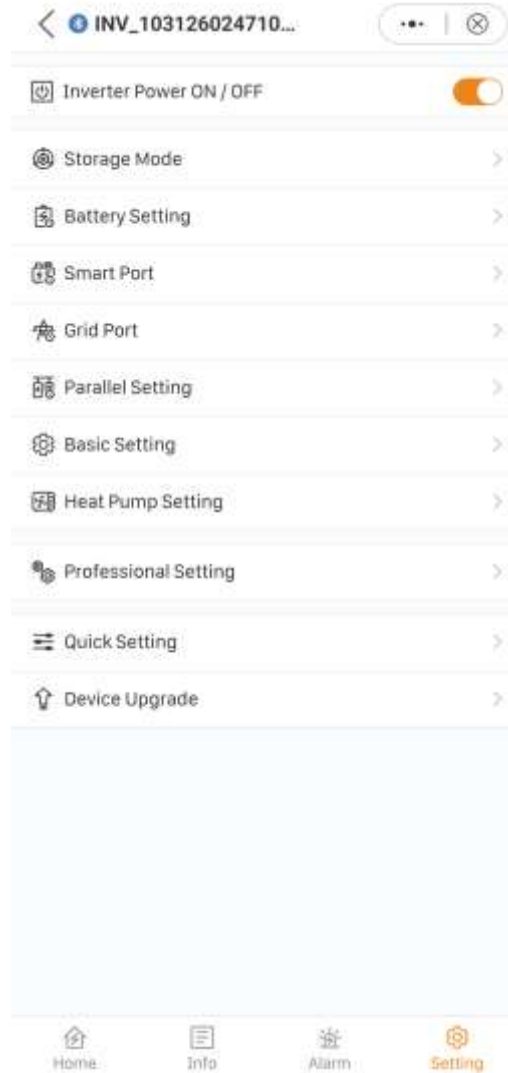
Long press the master battery button to control the battery system on and off.



06 System debugging

Set the battery model

Setting->Battery Setting

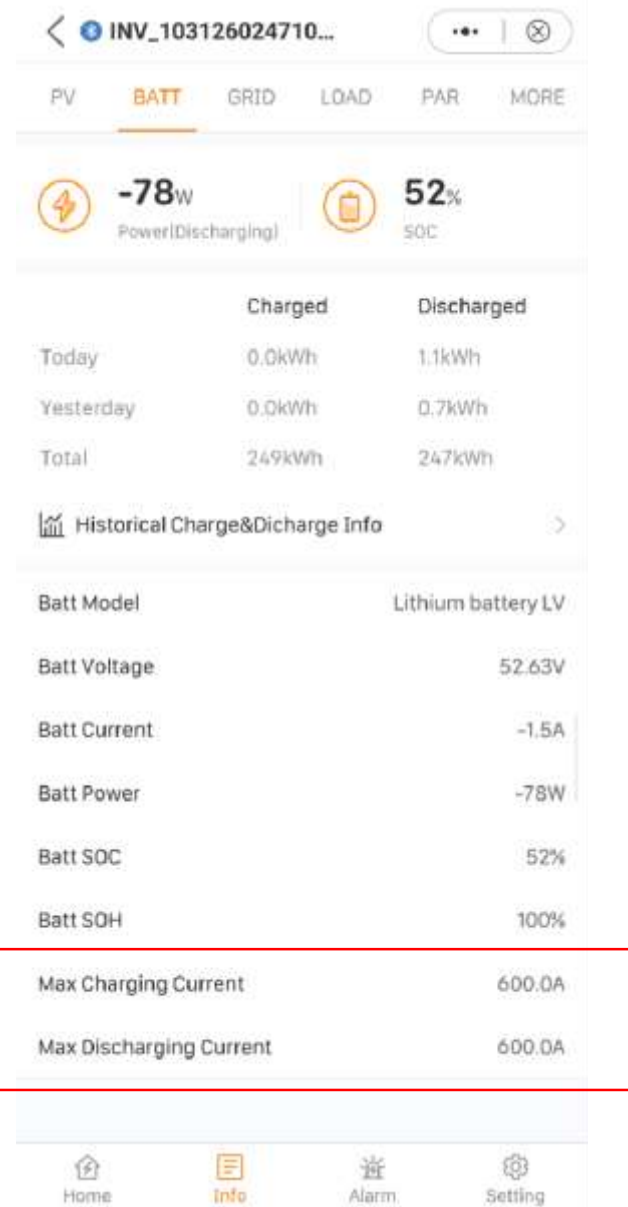


06 System debugging

Where to check the status on APP

Info->BATT

Charging current limit value :  $200A * N$   
 Discharge current limit :  $200A * N$

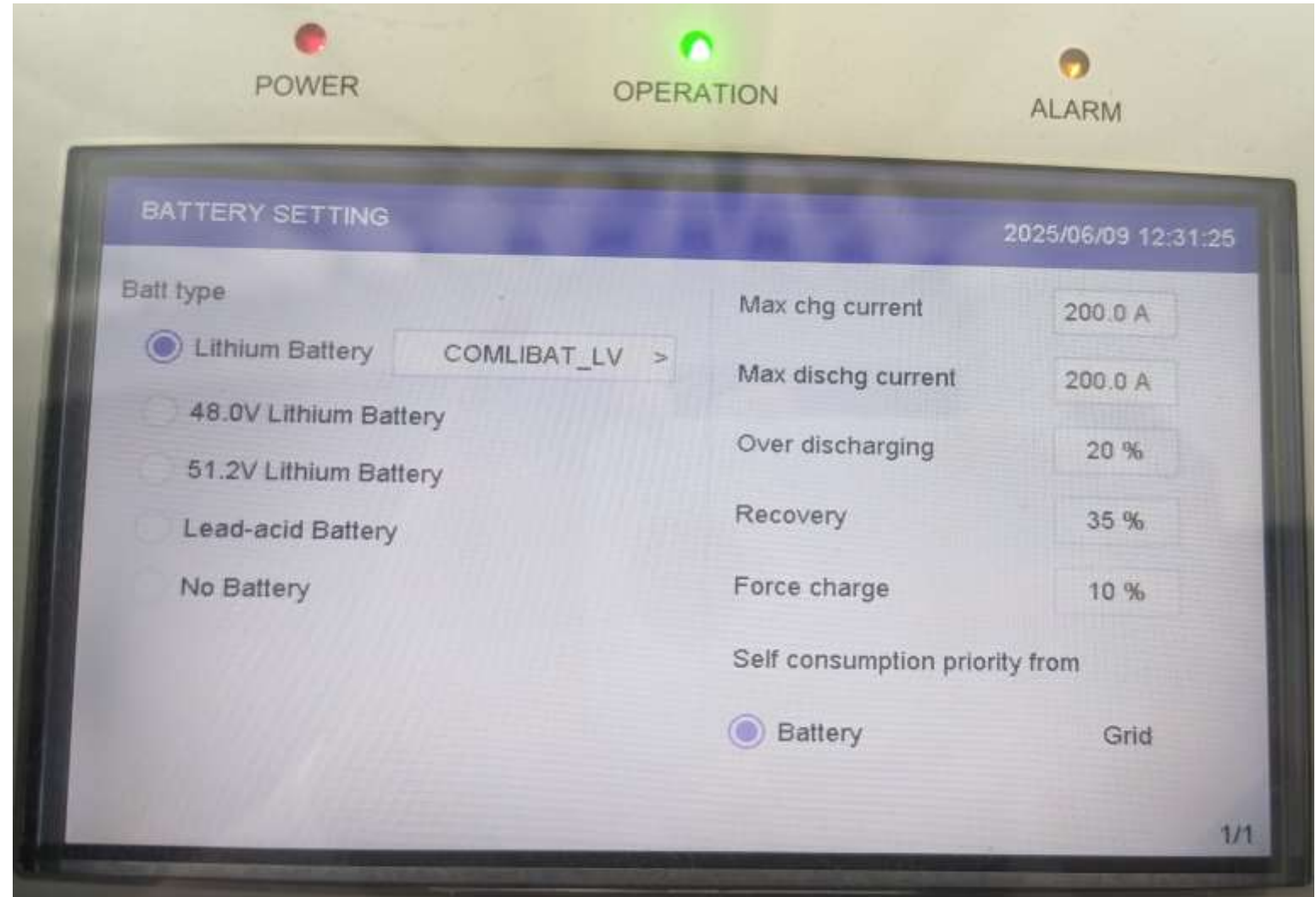


06 System debugging

Set the battery model

Enter ->System setting ->Battery setting

(The COMLIBAT\_LV is in page 2!)

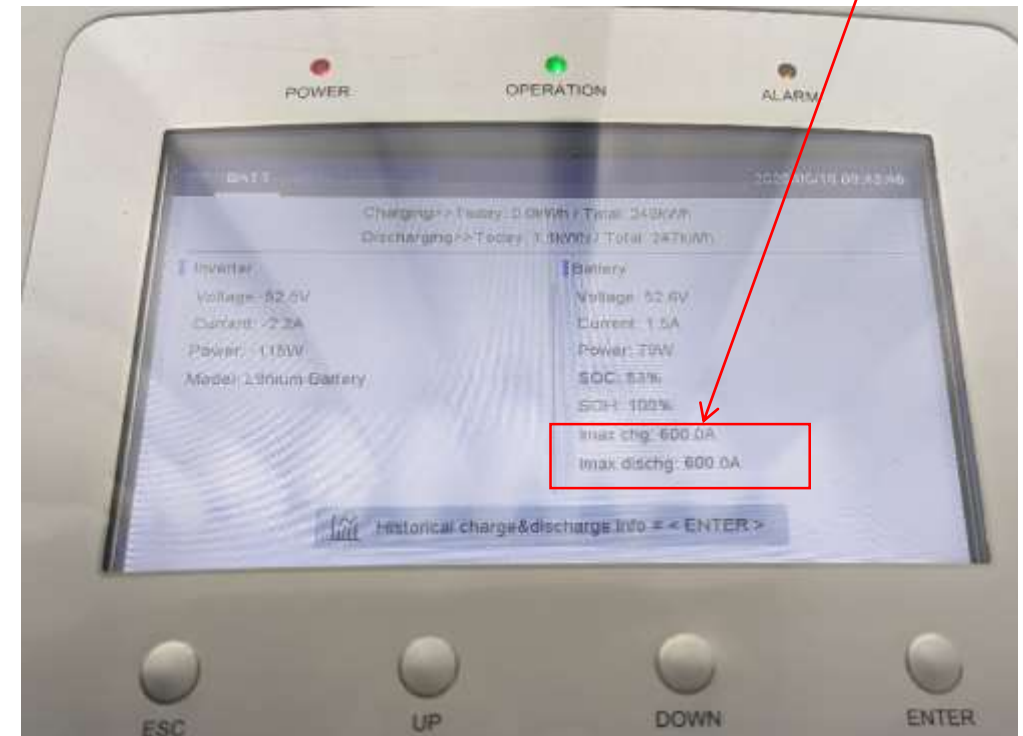


## 06 System debugging

### Where to check the status on Inverter

Enter->PLANT INFORMATION->DOWN(page 2)->BATT

Charging current limit value : 200A \* N  
Discharge current limit : 200A \* N



## 06 System debugging

Set the battery model

Click the inverter control and find the battery setting

**Inverter Details**  
Inverter Plant ID: 170167  
Data Reporting Time: 10/06/2025 09:44:38 (UTC+08:00)

**Real-time information:**  
 State: Alarm  
 Current Power: 0kW  
 Today Yield: 0kWh  
 Monthly Yield: 0kWh  
 Annual Yield: 0kWh  
 Total Yield: 0kWh  
 Inverter Internal Operating Ambient temperature: 44.4°C (up to 115°C)

**System Diagram:**  
 PV → Inverter → Grid  
 PV → Inverter → Battery  
 Inverter → Battery → Grid

**Table:**

| Inverter    | View        | Grid           | View           | DC   | Voltage | Current | Power | Voltage | Current |
|-------------|-------------|----------------|----------------|------|---------|---------|-------|---------|---------|
| Power       |             | Total Power    |                |      |         |         |       |         |         |
| 0kW         |             | 0kW            |                | MPP1 | 0V      | 0A      | 0W    | 0V      | 0A      |
| Today Yield | Total Yield | Total Imported | Total Exported | MPP2 | 0V      | 0A      | 0W    |         |         |
| 0kWh        | 0kWh        | 278.361kWh     | 215.676kWh     |      |         |         |       |         |         |

**Inverter Control**  
Basic Information  
Name: Inverter Model: 128  
State: Alarm

**Search Controls:**

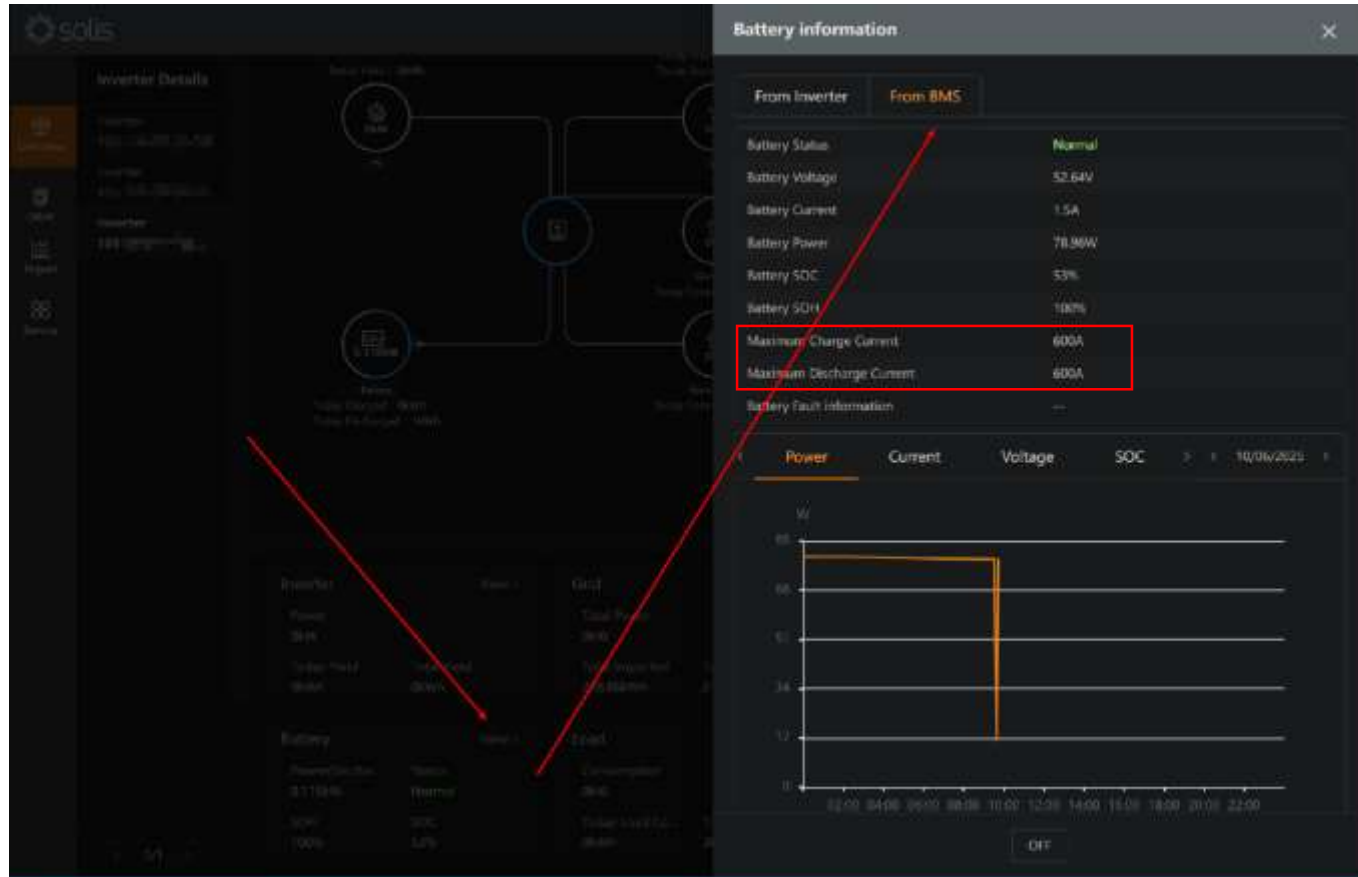
- Inverter Power ON/OFF
- Storage Mode
- Battery Setting
- Battery1 Setting**
- Smart Port
- Grid Port
- Parallel setting
- Basic Setting
- Professional Setting

| S... | Parameter Name        | Current Value      | Set Value | Range   | U...            |
|------|-----------------------|--------------------|-----------|---------|-----------------|
| 0    | Battery Type          | Lithium Battery    | Read      | Setting | Save            |
| 1    | Battery Model         | Lithium Battery DV | Read      | Setting | Save            |
| 2    | Max Charge Current    | 50                 | Read      | Input   | Save 1 - 100 A  |
| 3    | Max Discharge Current | 50                 | Read      | Input   | Save 1 - 100 A  |
| 4    | Over Discharge        | 20                 | Read      | Input   | Save 5 - 40 %   |
| 5    | Recovery              | 35                 | Read      | Input   | Spec 21 - 40 %  |
| 6    | Force Charge          | 10                 | Read      | Input   | Save 4 - 30 %   |
| 7    | Battery Swing         | Disable            | Read      | Setting | Save            |
| 8    | Max Charge SOC        | 100                | Read      | Input   | Save 80 - 100 % |

Switch Route

## 06 System debugging

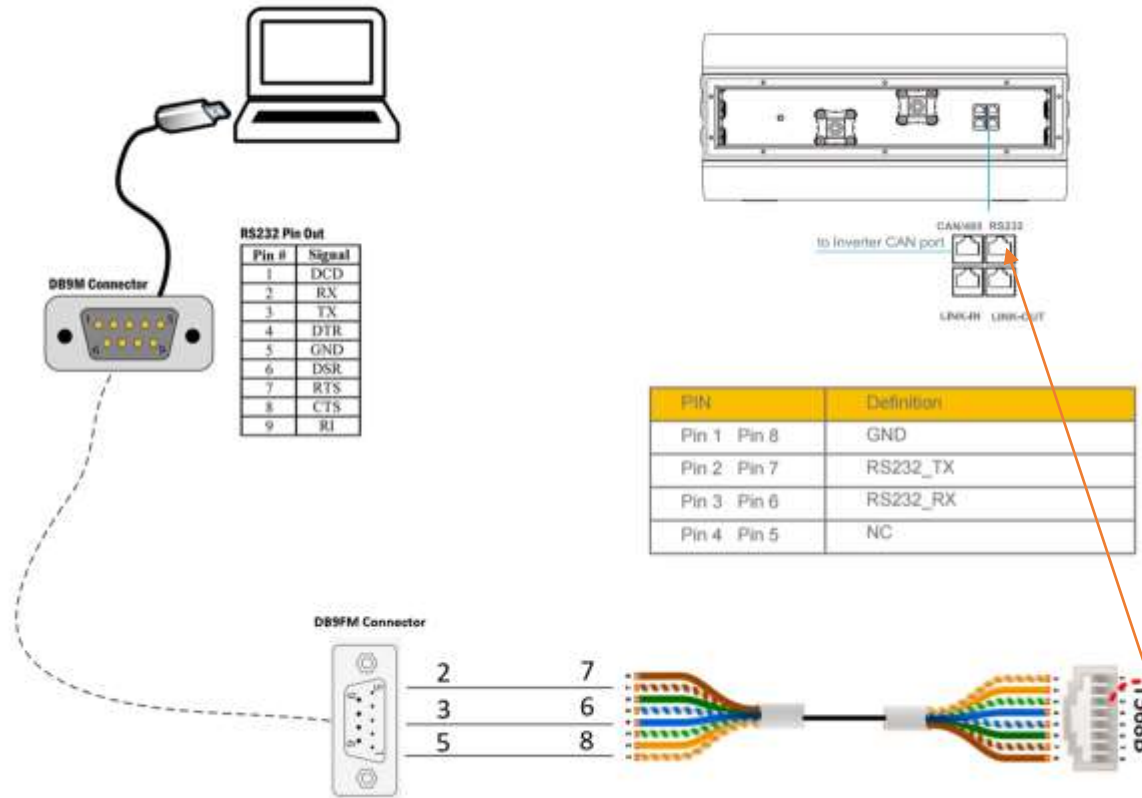
In the device overview panel, click the view button in the battery area and click the 'From BMS' you can see the current info of the battery



Charging current limit value : 200A \* N  
Discharge current limit : 200A \* N

## 06 System debugging

-----Mornitor the BMS detail information on Computer



1. Connect the communication cable according to the picture

## 06 System debugging

-----Monitor the BMS detail information on Computer



2. Open the software 'PBmsLVTools'

RealTimeMonitor | ParallerMonitor | SaveRecord | ExportRecord | ParamSetting | SystemSetting | WirelessModule | Setting | Tools | LanguageSetting

BatteryInfo

|               |   |     |
|---------------|---|-----|
| TotalVoltage: | 0 | V   |
| Current       | 0 | A   |
| SOC           | 0 | %   |
| SOH           | 0 | %   |
| RemainCap...  | 0 | mAh |
| FullCapacity  | 0 | mAh |
| CycleTimes    | 0 |     |
| AllRemainC:   | 0 | mAh |
| ARC...:       | 0 | mAh |

CurrentPACK

PACK: 1

Host: 0

Serial: COM1

CloseSerial StartMonitor Poll

Temperatures

| Title  | Temperature(°C) |
|--------|-----------------|
| TCell1 | 0.0             |
| TCell2 | 0.0             |
| TCell3 | 0.0             |
| TCell4 | 0.0             |
| MOS_T  | 0.0             |
| ENV_T  | 0.0             |

SystemStatus(Only read)

CHGMOS: DSGMOS

CHGCurValid: Heating

DSGCurValid: LimitCurrent

ACIn: Fully

WarningStatus: None

ProtectStatus: None

MalfunctionStatus: None

SingleBatteryVoltages

| Number | Voltage(mV) | Balanced |
|--------|-------------|----------|
| 1      | 0           |          |
| 2      | 0           |          |
| 3      | 0           |          |
| 4      | 0           |          |
| 5      | 0           |          |
| 6      | 0           |          |
| 7      | 0           |          |
| 8      | 0           |          |
| 9      | 0           |          |
| 10     | 0           |          |
| 11     | 0           |          |
| 12     | 0           |          |
| 13     | 0           |          |
| 14     | 0           |          |
| 15     | 0           |          |
| 16     | 0           |          |

MaxVolt: 0 mV VoltDiff: 0 mV

MinVolt: 0 mV TempDif: 0 °C

SwitchControl

5/21/2026 2:24:28 PM Firmware: BMS S/N: PACK S/N: No Communication

3. Select serial port ,open serial and tart monitor

RealTimeMonitor | ParallerMonitor | SaveRecord | ExportRecord | ParamSetting | SystemSetting | WirelessModule | Setting | Tools | LanguageSetting

BatteryInfo

|               |        |     |
|---------------|--------|-----|
| TotalVoltage: | 52.82  | V   |
| Current       | 0      | A   |
| SOC           | 49     | %   |
| SOH           | 100    | %   |
| RemainCap...  | 154890 | mAh |
| FullCapacity  | 314000 | mAh |
| CycleTimes    | 1      |     |
| AllRemainC:   | 0      | mAh |
| ARC...:       | 0      | mAh |

CurrentPACK

PACK: 1

Host: 1

Serial: COM1

CloseSerial StopMonitor Poll

Temperatures

| Title  | Temperature(°C) |
|--------|-----------------|
| TCell1 | 32.3            |
| TCell2 | 32.1            |
| TCell3 | 31.8            |
| TCell4 | 32.0            |
| MOS_T  | 30.9            |
| ENV_T  | 33.5            |

SystemStatus(Only read)

CHGMOS: DSGMOS

CHGCurValid: Heating

DSGCurValid: LimitCurrent

ACIn: Fully

WarningStatus: None

ProtectStatus: None

MalfunctionStatus: None

SingleBatteryVoltages

| Number | Voltage(mV) | Balanced |
|--------|-------------|----------|
| 1      | 3298        |          |
| 2      | 3298        |          |
| 3      | 3298        |          |
| 4      | 3298        |          |
| 5      | 3298        |          |
| 6      | 3298        |          |
| 7      | 3298        |          |
| 8      | 3298        |          |
| 9      | 3298        |          |
| 10     | 3298        |          |
| 11     | 3298        |          |
| 12     | 3298        |          |
| 13     | 3298        |          |
| 14     | 3298        |          |
| 15     | 3298        |          |
| 16     | 3296        |          |

MaxVolt: 3298 mV VoltDiff: 2 mV

MinVolt: 3296 mV TempDif: 0.3 °C

SwitchControl

5/21/2026 2:24:39 PM Firmware: P16S200A-52037H-1.30 BMS S/N: 520371361600236D PACK S/N: STEBW016000R26040424 Running

4. Connection successful

## 06 System debugging

### 1 Download & Install App

Step 1: Download the APP "BMS-TOOL"

① Android  
Search for BMS-TOOL in the play store.

iOS  
Search for "BMS-TOOL" in the App Store.



② Store or scan the QR code in P1/P2 to download.



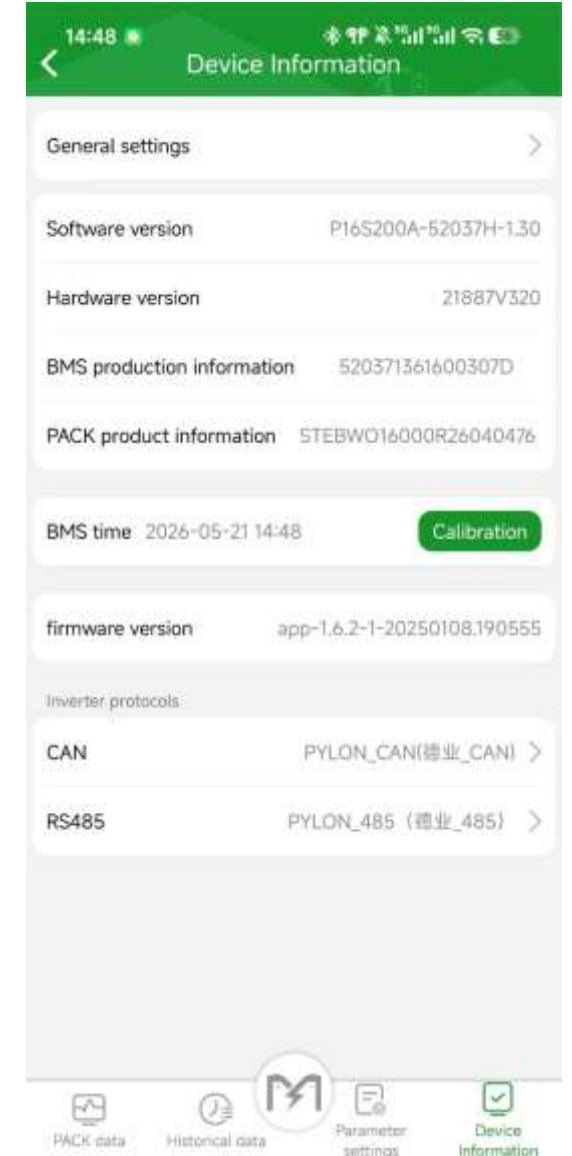
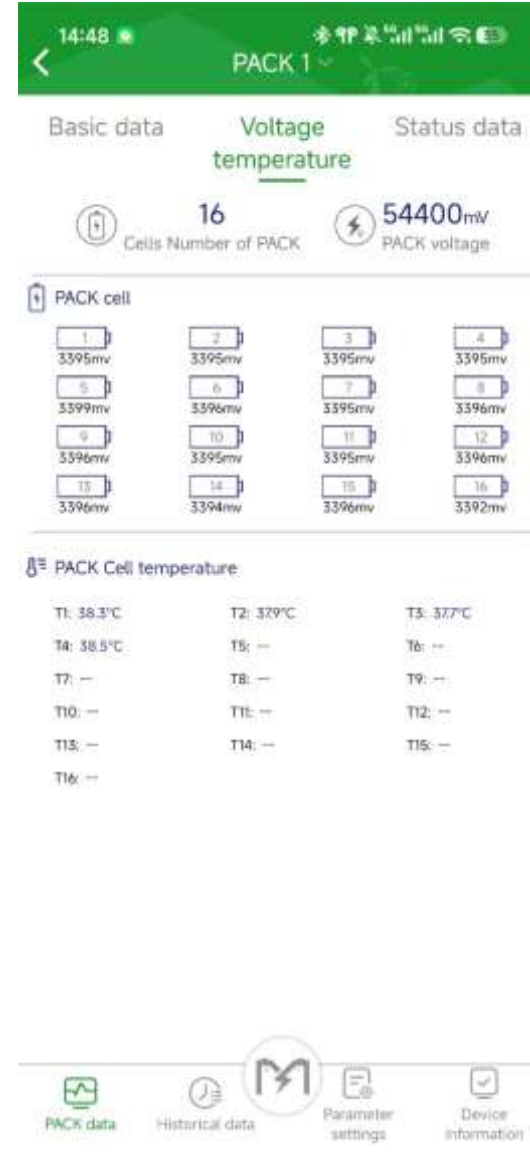
For iOS devices  
P1



For Android devices  
P2

Step 2: Install the downloaded app "BMS Tool" on your phone.

-----Monitor the BMS detail information on APP



thanks