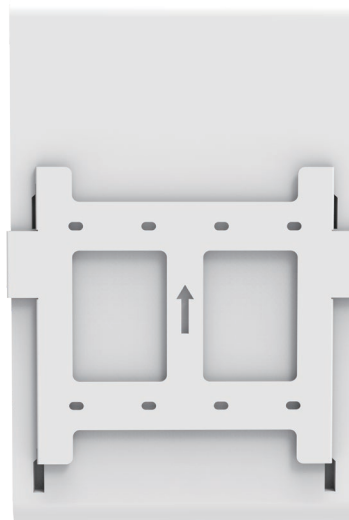
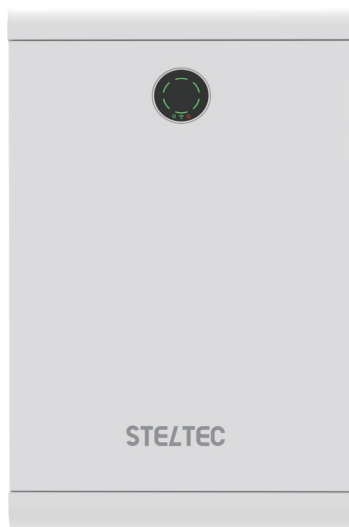


# STELTEC

V2.1-2026



**STE-BWO-10240**



## STE-BWO-10240 Operation Manual

### CONTENTS

|          |                                             |            |
|----------|---------------------------------------------|------------|
| <b>1</b> | <b>Technical Data</b>                       | <b>1-2</b> |
| <b>2</b> | <b>Safety Information</b>                   |            |
| 2.1      | General Safety                              | 3          |
| 2.2      | Personal Safety                             | 3-4        |
| 2.3      | Electrical Safety                           | 4-6        |
| 2.4      | Transportation Safety                       | 6          |
| <b>3</b> | <b>Product Interview</b>                    |            |
| 3.1      | Brief Introduction                          | 7          |
| 3.2      | Interface Introduction                      | 8          |
| 3.2.1    | Switch ON/OFF                               | 7-8        |
| 3.2.2    | CAN/RS485 Port                              | 8-10       |
| 3.2.3    | RS232 Port                                  | 10         |
| 3.2.4    | LED Indicator                               | 10         |
| <b>4</b> | <b>Installation Guide</b>                   |            |
| 4.1      | Checking Before Installation                | 11         |
| 4.1.1    | Check Packing Integrity                     | 11         |
| 4.1.2    | Verify Components                           | 10-12      |
| 4.2      | Tools                                       | 13         |
| 4.3      | Installation Requirements                   | 13         |
| 4.3.1    | Installation Environment Requirements       | 13         |
| 4.3.2    | Installation Carrier Requirements           | 13         |
| 4.4      | Installation Instructions                   | 14         |
| 4.4.1    | Dimensions                                  | 14         |
| 4.4.2    | Installation Procedure                      | 15-22      |
| <b>5</b> | <b>Commissioning Procedure</b>              | <b>23</b>  |
| <b>6</b> | <b>Maintenance</b>                          |            |
| 6.1      | Recharge Requirements During Normal Storage | 24         |
| 6.2      | Recharge Requirements When Over Discharged  | 24         |

## 01

### TECHNICAL DATA

#### NOTE

Operating current derating according to cell voltage and battery temperature.



|                                              |                                                                                                    |
|----------------------------------------------|----------------------------------------------------------------------------------------------------|
| <b>Product Type</b>                          | <b>Flex-L4</b>                                                                                     |
| <b>Battery Model</b>                         | STE-BWO-10240                                                                                      |
| <b>Battery System Capacity</b>               | 10.24kWh                                                                                           |
| <b>Cell Technology</b>                       | Li-ion(LFP)                                                                                        |
| <b>Battery Cell Capacity</b>                 | 200Ah                                                                                              |
| <b>Configuration</b>                         | 1P16S                                                                                              |
| <b>Nominal Voltage</b>                       | 51.2V                                                                                              |
| <b>Operating Voltage Range</b>               | 45.6~56.2V                                                                                         |
| <b>Dimension(W*D*H)</b>                      | 480*245*815(mm)                                                                                    |
| <b>Net Weight</b>                            | 105kg                                                                                              |
| <b>Scalability</b>                           | Max. 15 systems in parallel operation                                                              |
| <b>Installation</b>                          | Wall mounted or floor mounted                                                                      |
| <b>Depth of Discharge</b>                    | 90%                                                                                                |
| <b>Charge/Discharge Current(Recommended)</b> | 100A                                                                                               |
| <b>Charge/Discharge Current(Max)</b>         | 200A                                                                                               |
| <b>Cooling Method</b>                        | Natural convection                                                                                 |
| <b>Communication Port</b>                    | RS232, RS485, CAN                                                                                  |
| <b>Protection Class</b>                      | IP65                                                                                               |
| <b>Environment</b>                           | Indoor or Outdoor Eaves                                                                            |
| <b>Charging Temperature</b>                  | -20°C~55°C (with heating)<br>0°C~55°C (without heating)                                            |
| <b>Discharging Temperature</b>               | -20°C~55°C                                                                                         |
| <b>Humidity</b>                              | 5%-95%                                                                                             |
| <b>Max. Operating Altitude</b>               | 2,500m                                                                                             |
| <b>Cycle Life</b>                            | >6000 @25°C, 0.5C, 90% DOD                                                                         |
| <b>Wi-Fi Module</b>                          | Built in Wi-Fi module, APP OTA function                                                            |
| <b>Extended Functions</b>                    | Thermal aerosol fire extinguishing device(standard)<br>Heating system (optional), Wheels(optional) |
| <b>Certificates</b>                          | IEC62619 / IEC61000 / CE / UN38.3 / MSDS                                                           |

## 02

### SAFETY INFORMATION

#### 2.1 General Safety

Please carefully read the manual safety precautions and observe all the safety instructions on the equipment and in this document.

The "DANGER", "WARNING", and "NOTICE" statements in this document do not cover all the safety instructions. They are only supplements to the safety instructions.

For user safety and utilization efficiency of this manual, a list of symbols is designed to alert people from danger. You must understand and comply with the emphasized information to avoid personal injury and property damage. Relative safety symbols have been listed below.

|                                                                                                     |                                                                                                                       |
|-----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| <br><b>DANGER</b>  | DANGER indicates a hazardous situation which, if not avoided will result in serious injury and/or fire.               |
| <br><b>WARNING</b> | WARNING indicates a hazardous situation which, if not avoided, will result in property loss and/or void the warranty. |
| <br><b>NOTICE</b> | NOTICE indicates normal situation which, if not avoided, will result in damage to the battery.                        |

#### NOTICE

Follow local laws and regulations when installing, operating, or maintaining the equipment. The safety instructions in this document are only supplements to local laws and regulations.

#### 2.2 Personal Safety

##### Personal Requirements

People who plan to install or maintain battery equipment must be trained, understood all necessary safety precautions, and are able to correctly perform all operations.

Only qualified professionals or trained people are allowed to install, operate, and maintain the equipment.

#### DANGER

- Do not parallel connect with different batteries.
- Do not connect battery with AC power directly.
- Do not connect battery with PV wiring directly.
- Do not connect batteries in series.
- Do not connect battery to faulty or unqualified inverter or charger.
- Do not place battery near open flame or flammable material.
- Do not short-circuit the external connection.
- Do not place battery under direct sunlight.
- Do not disassemble or repair by yourself.
- Do not drop, deform, impact, cut or spearing with a sharp object.
- Do not put any objects onto the battery.
- Do not expose to liquids or moisture.

#### 2.3 Electrical Safety

##### Symbols on Battery

There are some electrical symbols on battery relate to electrical safety. Please make sure you have fully understood them before installation.

|                                                                                       |                                     |                                                                                                                            |
|---------------------------------------------------------------------------------------|-------------------------------------|----------------------------------------------------------------------------------------------------------------------------|
|    | Electrical danger                   | Voltage exists when the battery is powered on. Only qualified engineers are allowed to operate.                            |
|   | Earth connector                     | Earth connection.                                                                                                          |
|  | DC positive and negative connectors | Identify positive and negative connectors of DC power source.                                                              |
|  | CE mark                             | The product meets CE certification.                                                                                        |
|  | WEEEtag                             | Batteries must not be disposed with general waste. It must be appropriately recycled in accordance with local regulations. |
|  | Recycle                             | Batteries can be recycled, please refer to your local regulations regarding the correct disposal methods.                  |

## Electrical Safety

### DANGER

- Before installation, ensure that the equipment is intact. Otherwise, electric shocks or fire may occur.
- Do not connect or disconnect power cables when battery is power-on. Which may cause electric arcs and sparks more over fire or personal injury.
- Before connecting a power cable, check the positive or negative connectors are correct.
- Do not parallel connection with batteries of different models.
- Do not connect battery with AC directly.
- Do not connect battery with PV wiring directly.
- Do not connect battery to faulty or unqualified inverter or charger.
- Do not create short circuits with the external connection.
- Make sure the grid is cut off and the battery is powered off before maintenance.
- Make sure the earth cable is connected correctly before operation.

### WARNING

- Recharge battery in every six months if not in use.
- Recharge battery within 7 days after battery is fully discharged(SOC=0%).
- Ensure battery cable is installed correctly.
- When the battery is being installed or repaired, ensure the battery is powered off and isolated. Using a multimeter check to ensure there is no voltage in the positive and negative terminals.

### NOTICE

- Please use appropriately insulated tools for installation and maintenance.
- Please check the LED status when the battery is powered on.
- Please ensure the communication cable is connected correctly between the battery and the inverter.
- Please check for inverter alarms and the SOC reading once communication is established between the inverter and the battery.

## Environmental Safety

### WARNING

- Ensure the battery is installed in a dry and well-ventilated location.
  - The installation position must be away from direct sunlight and rain.
  - The installation position must be far away from potential sources of fire.
  - The installation position must be far away from all sources of water.
  - Do not install the equipment in locations that contain flammable gases and/or flammable liquids.
  - The operation and service life of the battery depends on the operating temperature. Operate the battery at a temperature equal to or better than the ambient temperature.
- The recommended operating temperature range is:
- With heating function: From -20°C to 55°C
- Without heating function: From 0°C to 55°C

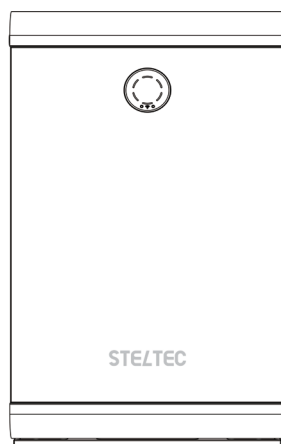
## 2.4 Transportation Safety

### WARNING

- The products have passed UN38.3 certification.
  - The products have MSDS documents available.
  - The products belong to class 9 dangerous goods.
- Please protect the packing case from the below situations:**
- Being dampened by rains, snows, or falling into water.
  - Falling down or mechanical impact.
  - Being upside-down or tilted.

## PRODUCT OVERVIEW

### 3.1 Brief Introduction



PRODUCT OVERVIEW

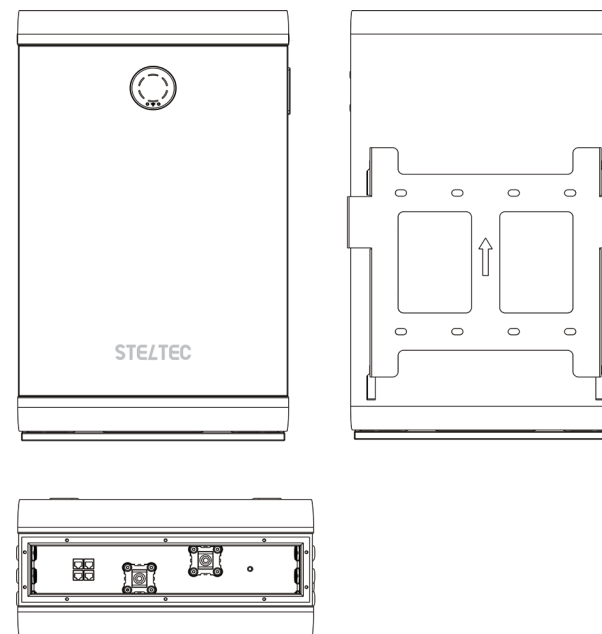
STE-BWO-10240 is a lithium battery with an operating voltage range between 45.6~56.16V. It is designed for residential energy storage applications and works together with a 48V battery hybrid inverter. **STE-BWO-10240 is not suitable for supporting life-sustaining medical devices.**

STE-BWO-10240 has built-in BMS (Battery Management System), which can manage and monitor cells information including voltage, current and temperature. Besides that, BMS can balance cells charging to extend cycle life. BMS has protection functions including over-discharge, over-charge, over-current and high/low temperature; the system can automatically manage charge state, discharge state and balance state.

Multiple STE-BWO-10240 can be connected in parallel to expand capacity and power, 15 pcs STE-BWO-10240 can be connected in parallel at most.

**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.

### 3.2 Interface Introduction



#### 3.2.1 Switch ON/OFF

##### 1. Switch ON

For single Battery Module, turn on the air switch, Long press (more than 3 seconds) Switch button, Normal LED will be lighted in the front panel then battery will operate normally. L1 to L6 shows battery SOC, L7/L8 shows battery status, L9 shows Wifi connection status.

For multiple Battery Modules in parallel, turn on the air switch of all batteries, long press (more than 3 seconds) Switch button of master battery (Which connect with inverter), normal LED will be lighted, battery system will automatically encode and assign ID to each slave battery, then battery system will operate normally.

## 2. Switch OFF

For multiple Battery Modules in parallel, turn off the air switch of all batteries, press Switch button of master battery (which connect with inverter) more than 3s, and then release the button, LED will flash in the front panel, the master battery will shut down after all slave batteries shut down (Sleep mode).

For single Battery Module, turn off the air switch, Long press (more than 3 seconds) Switch button, and then release the button, LED will flash in the front panel, the battery will shut down.

### 3.2.2 LED Indicator Definition

Note:

flash 1 - 0.25s light / 3.75s off

flash 2 - 0.5s light / 0.5s off

flash 3 - 0.5s light / 1.5s off

### LED Indicators Instructions

| Status      |                                                             | RUN     | ALM     | Battery Level Indicator        |       |       |       |       |       | Descriptions                                                                                         |
|-------------|-------------------------------------------------------------|---------|---------|--------------------------------|-------|-------|-------|-------|-------|------------------------------------------------------------------------------------------------------|
|             |                                                             |         |         | L6                             | L5    | L4    | L3    | L2    | L1    |                                                                                                      |
| Shut down   | Sleep Mode                                                  | OFF     | OFF     | OFF                            | OFF   | OFF   | OFF   | OFF   | OFF   | All OFF                                                                                              |
|             | Normal                                                      | Flash 1 | OFF     | OFF                            | OFF   | OFF   | OFF   | OFF   | OFF   | Indicates Standby                                                                                    |
| Standby     | Alarm                                                       | Flash 1 | Flash 3 | According to the battery level |       |       |       |       |       | Indicates Module Undervoltage Alarm                                                                  |
|             | Normal                                                      | Light   | OFF     | According to the battery level |       |       |       |       |       | The highest capacity indicator LED flashes (flash 2), ALM LED does not flash during overcharge alarm |
| Charging    | Alarm                                                       | Light   | Flash 3 | According to the battery level |       |       |       |       |       |                                                                                                      |
|             | Full Charged Protection                                     | Light   | OFF     | Light                          | Light | Light | Light | Light | Light | Turn to standby status when charger off                                                              |
|             | Temperature, Overcurrent, Fault Protection                  | OFF     | Light   | OFF                            | OFF   | OFF   | OFF   | OFF   | OFF   | Stop charging                                                                                        |
| Discharging | Normal                                                      | Flash 3 | OFF     | According to the battery level |       |       |       |       |       |                                                                                                      |
|             | Alarm                                                       | Flash 3 | Flash 3 | According to the battery level |       |       |       |       |       |                                                                                                      |
|             | Under Voltage Protection                                    | OFF     | OFF     | OFF                            | OFF   | OFF   | OFF   | OFF   | OFF   | Stop discharging                                                                                     |
| Fault       | Temperature, Overcurrent, Short Circuit, Failure Protection | OFF     | Light   | OFF                            | OFF   | OFF   | OFF   | OFF   | OFF   | Stop discharging                                                                                     |
|             |                                                             | OFF     | Light   | OFF                            | OFF   | OFF   | OFF   | OFF   | OFF   | Stop charging and discharging                                                                        |

L9 ON: Wifi connected successfully/ L9 OFF: Wifi connection failed or power OFF.

### Charging/Discharging Battery Level Indicators Instructions

| Status                  |          | Charging |         |         |         |         |         | Discharging |       |       |       |       |       |
|-------------------------|----------|----------|---------|---------|---------|---------|---------|-------------|-------|-------|-------|-------|-------|
| Battery Level Indicator |          | L6       | L5      | L4      | L3      | L2      | L1      | L6          | L5    | L4    | L3    | L2    | L1    |
| Battery Level(%)        | 0%~17%   | OFF      | OFF     | OFF     | OFF     | OFF     | Flash 2 | OFF         | OFF   | OFF   | OFF   | OFF   | Light |
|                         | 18%~33%  | OFF      | OFF     | OFF     | OFF     | Flash 2 | Light   | OFF         | OFF   | OFF   | OFF   | Light | Light |
|                         | 34%~50%  | OFF      | OFF     | OFF     | Flash 2 | Light   | Light   | OFF         | OFF   | OFF   | Light | Light | Light |
|                         | 51%~66%  | OFF      | OFF     | Flash 2 | Light   | Light   | Light   | OFF         | OFF   | Light | Light | Light | Light |
|                         | 67%~83%  | OFF      | Flash 2 | Light   | Light   | Light   | Light   | OFF         | Light | Light | Light | Light | Light |
|                         | 84%~100% | Flash 2  | Light   | Light   | Light   | Light   | Light   | Light       | Light | Light | Light | Light | Light |
| Running Indicator       |          | Light    |         |         |         |         |         | Flash 3     |       |       |       |       |       |

### 3.2.3 CAN / RS485 Port

CAN / RS485 Communication Terminal (RJ45 port), connect to inverter, follow CAN / RS485 protocol.

| PIN         | Definition                   |
|-------------|------------------------------|
| Pin 1、Pin 8 | RS485-B ( to PCS, reserved ) |
| Pin 2、Pin 7 | RS485-A ( to PCS, reserved ) |
| Pin 3       | NC                           |
| Pin 4       | CANH ( to PCS )              |
| Pin 5       | CANL ( to PCS )              |
| Pin 6       | GND                          |

### 3.2.4 RS232 Port

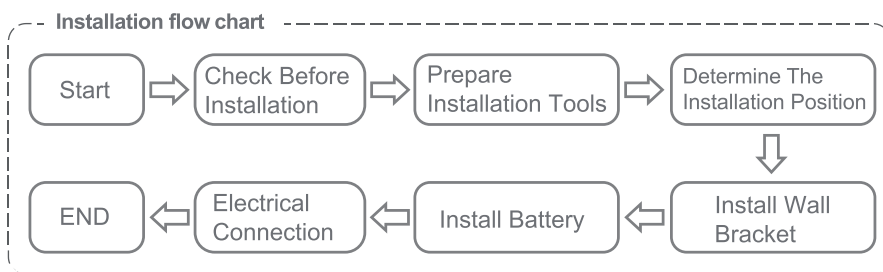
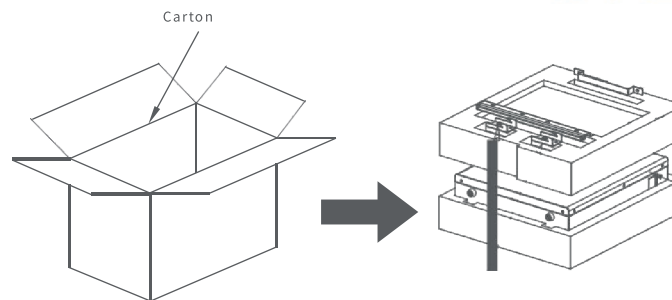
RS232 Communication Terminal (RJ45 port) follow RS232 protocol, for manufacturer or professional engineer to debug or service.

| PIN         | Definition |
|-------------|------------|
| Pin 1、Pin 8 | GND        |
| Pin 2、Pin 7 | RS232_TX   |
| Pin 3、Pin 6 | RS232_RX   |
| Pin 4、Pin 5 | NC         |

# 04

## INSTALLATION GUIDE

STELTEC



### 4.1 Check Before Installation

#### 4.1.1 Check Packing Integrity

Packing materials and components may be damaged during transportation. Therefore, check the outer packing materials before installing the battery. Check the surface of packing materials for damage, such as holes and cracks. If any damage is found, do not unpack the battery and contact the dealer as soon as possible. It is recommended to remove packing materials only after confirming no damage.

#### 4.1.2 Verify Components

After unpacking the battery, check whether components are intact and complete. If any component is missing or damaged, contact the dealer. The below table shows the components and mechanical parts that should be delivered.

| 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 T=2.5mm,490*430*30(L*W*H), fine sand grain                                  | 1        |       | Wall mounting bracket                               |
| 3  | 3.01.0133 | Expansion bolt M10*80mm/8.8 grade/304 stainless steel expansion screws                         | 8        |       | Lock wall pendant                                   |
| 4  | 3.01.0034 | Screw 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, AWG30# 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, AWG30#PVC cord 11627, L=1500mm, Black | 1        |       | Power cable -                                       |
| 8  | 3.01.0098 | Flat gasket 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 |

| 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 _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 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                                                               |

| No | Part no.  | Part name/size                                                                            | Quantity | Photo | Used for                         |
|----|-----------|-------------------------------------------------------------------------------------------|----------|-------|----------------------------------|
| 1  | 3.01.0034 | Screw 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 |

## 4.2 Tools

| Tools        |                                                                                                    |                                                                                                        |                                                                                                              |
|--------------|----------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|
| Installation | Knife<br>         | Measuring tape<br>    | Socket wrench (10/16mm)<br> |
|              | Rubber mallet<br> | Cross Screwdriver<br> | Hammer drill (14mm)<br>     |
| Protection   | ESD gloves<br>    | Safety goggles<br>    | Anti-dust respirator<br>    |
|              | Safety shoes<br>  |                                                                                                        |                                                                                                              |

## 4.3 Installation requirements

### 4.3.1 Installation environment requirements

Charging temperature range: -20°C - +55°C(Products with heating function)

Charging temperature range: 0°C - +55°C(Products without heating function)

Discharging temperature range: -20°C - +55°C

Relative humidity: 5%-85%RH

Elevation: no more than 2500m

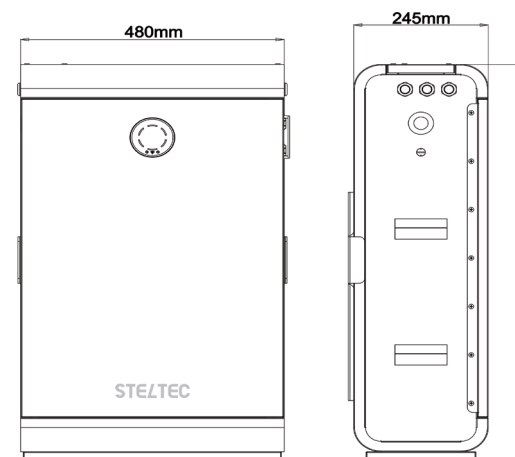
- Lithium battery may be installed indoors or outdoors. But please avoid direct sunlight, rain exposure or snow cover.
- Place battery under a roof or cover.
- Place battery in secure location away from children and animals.
- The ground for product arrangement shall be flat and level.
- Do not place battery near open flame or flammable material.
- Do not place battery near heat sources or fire sources.
- Keep away from dust and messy zones.
- The floor and walls are completely waterproof.

### 4.3.2 Installation carrier requirements

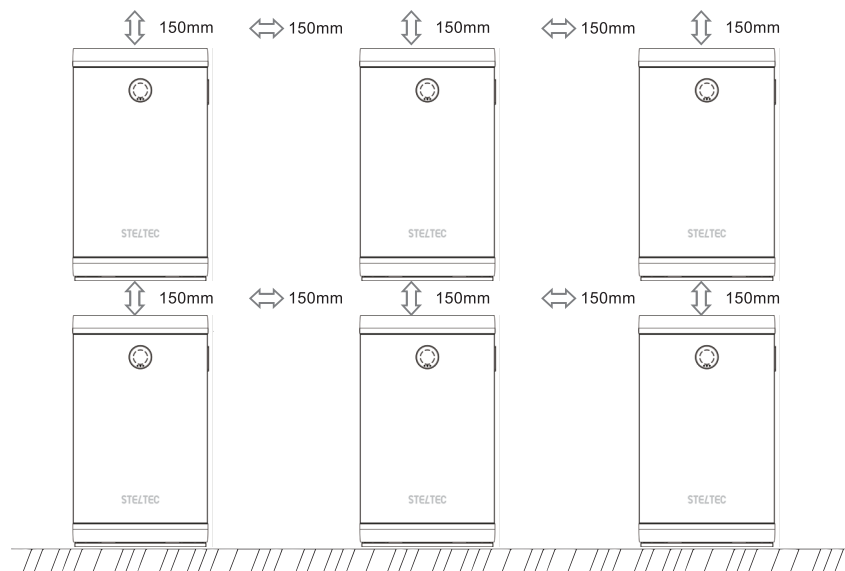
- Only mount battery on fire resistant building. Do not install batteries on flammable buildings.
- Battery is quite heavy, make sure the wall/ground can meet the load bearing requirements.

## 4.4 Installation Instructions

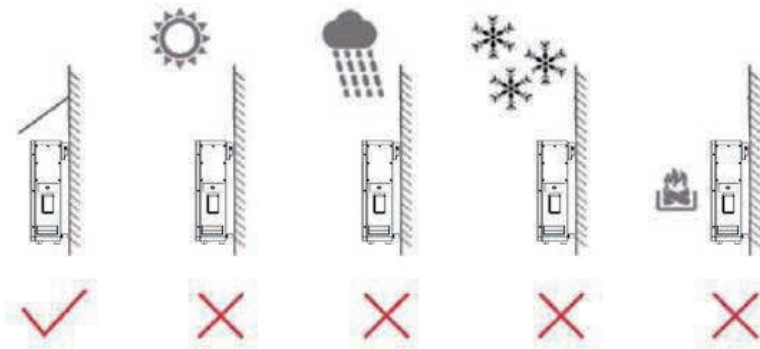
### 4.4.1 Dimensions



Minimum mounting distance between battery pack and equipment:

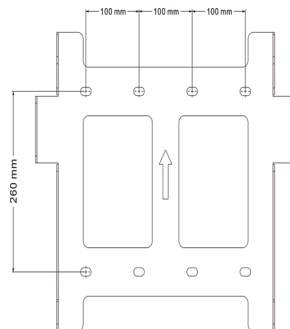


## 4.4.2 Installation Procedure



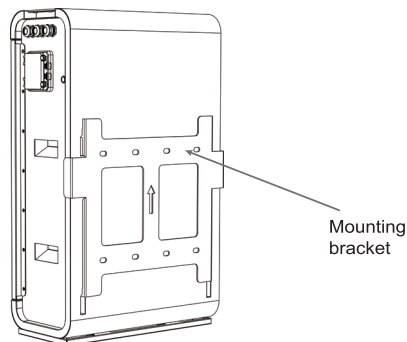
### STEP 1

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



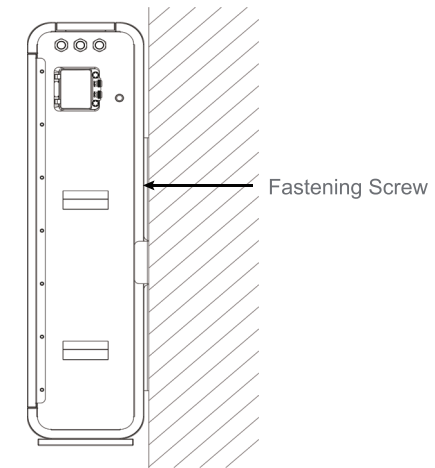
### STEP 2

Secure the mounting bracket.



### STEP 3

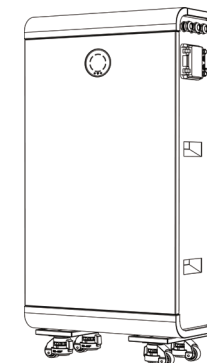
Hang the battery on the wall mounting bracket and secure it tightly.



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

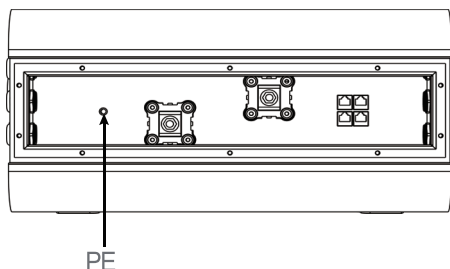
### STEP 1

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



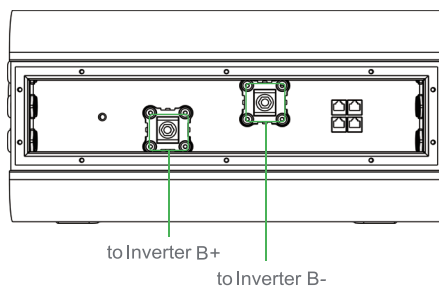
## STEP 4

Connect to ground.



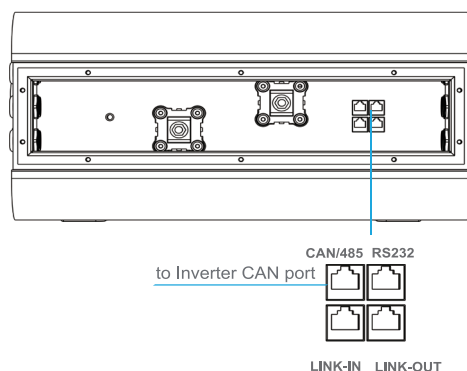
## STEP 5

Connect power cable.



## STEP 6

Connect communication cable.

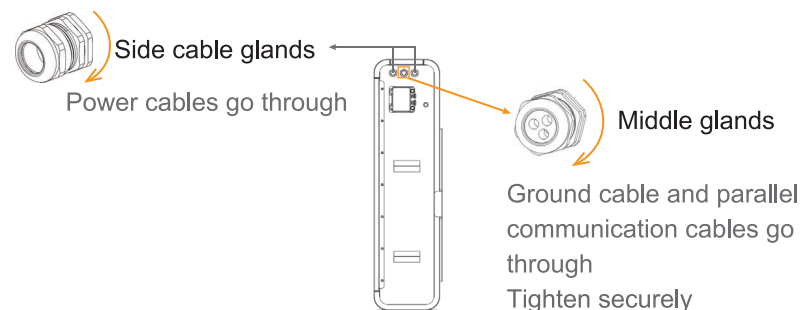


## STEP 7

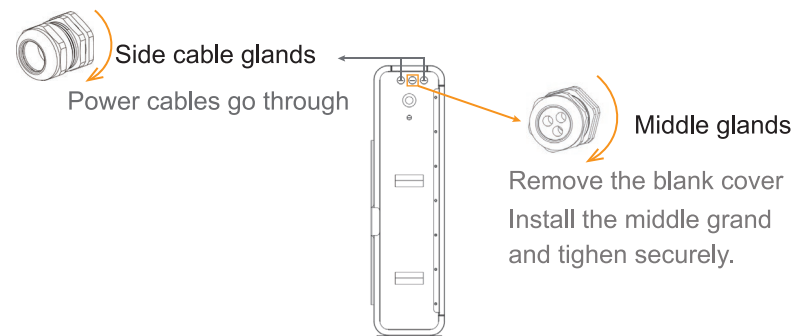
Route cables as follows:

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

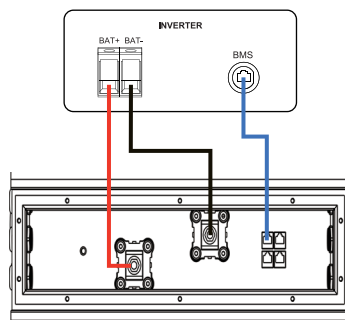
The wiring methods listed below are **recommended configurations**.  
For specific conditions, please refer to the manual of the inverter. Please contact the vendor if you have any questions.

1. For load power exceeding 10 kW, at least 2 units must operate in parallel.
  2. The maximum number of units that can operate in parallel is 15.
- For the battery module, the selected inverter's power rating must be less than the battery module's maximum output power.

| Parallel operation | Load power    | Connection mode |
|--------------------|---------------|-----------------|
| 1unit              | Below 10kW    | 8.1             |
| 2-15units          | 12kW or Below | 8.2             |
| 2-15units          | Over 12kW     | 8.3             |

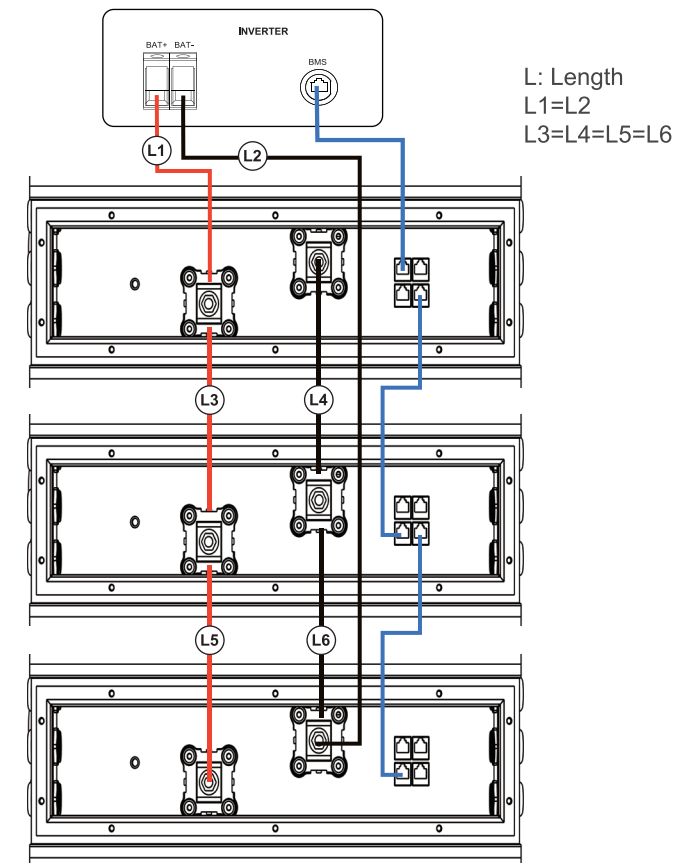
|                                                                                                     |                                                                                                                                                  |
|-----------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| <br><b>Danger</b>  | Ensure power cables are installed with the correct polarity.<br>A dangerous situation may arise if the polarities are reversed.                  |
| <br><b>Danger</b>  | Do not create a short circuit between the positive and negative terminals of the battery.<br>Ensure the polarity is correct during installation. |
| <br><b>Warning</b> | Incorrect communication cable connection will cause the battery system to operate in unexpected ways which may lead to system failure.           |

|     |                                                                                                                                                        |
|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 8.1 |  <b>Warning</b><br>For a single unit module with power below 10 kW. |
|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------|



|                                             |                                      |
|---------------------------------------------|--------------------------------------|
| Cable connection in all the following views |                                      |
| <span style="color: red;">—</span>          | Lithium battery positive power cable |
| <span style="color: black;">—</span>        | Lithium battery negative power cable |
| <span style="color: blue;">—</span>         | Lithium battery communication cable  |

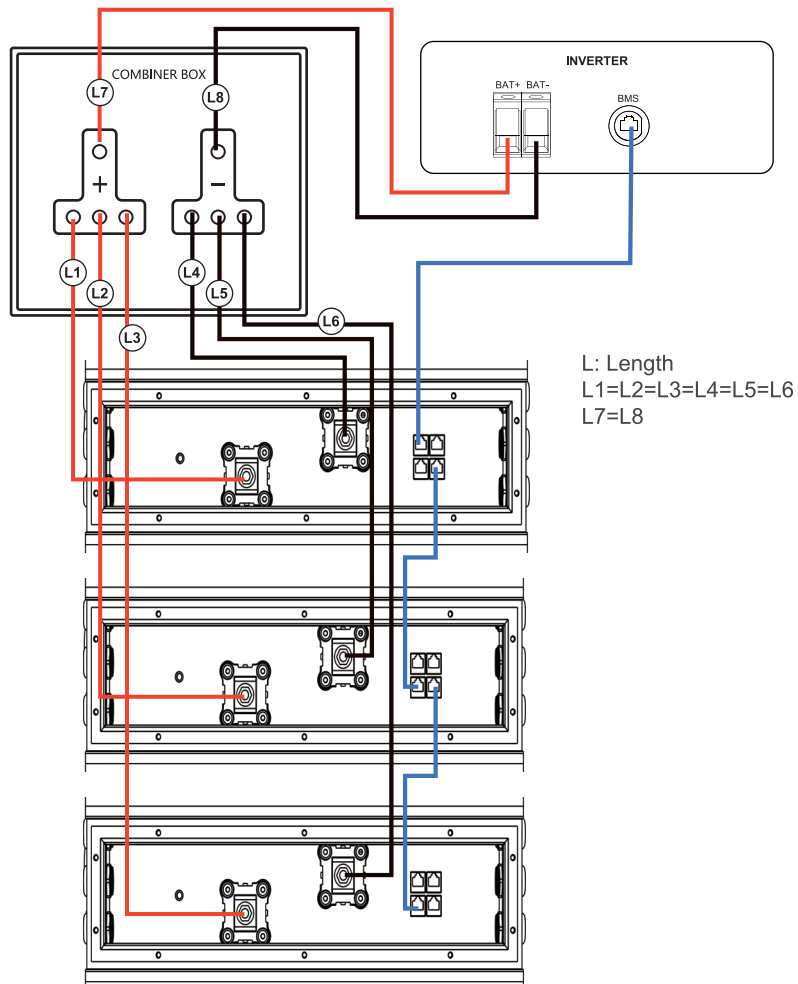
|     |                                                                                                                                                                                                                                                                                                                                                                   |
|-----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 8.2 |  <b>Warning</b>                                                                                                                                                                                                                                                                |
|     | For 2 to 15 units: Use the single-layer module configuration with power of 12 kW or below.<br>All positive and negative cables between the inverter and battery must be of equal length.<br>Equal cable length is necessary for proper system balance and reliable operation.<br>Note: The number of intermediate units is omitted in the diagram for simplicity. |



## 8.3

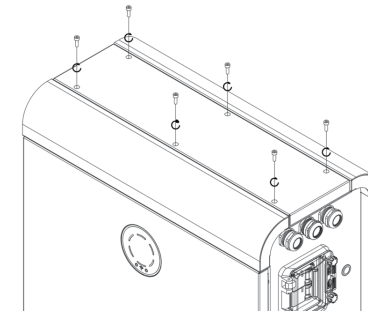
### ⚠ Warning

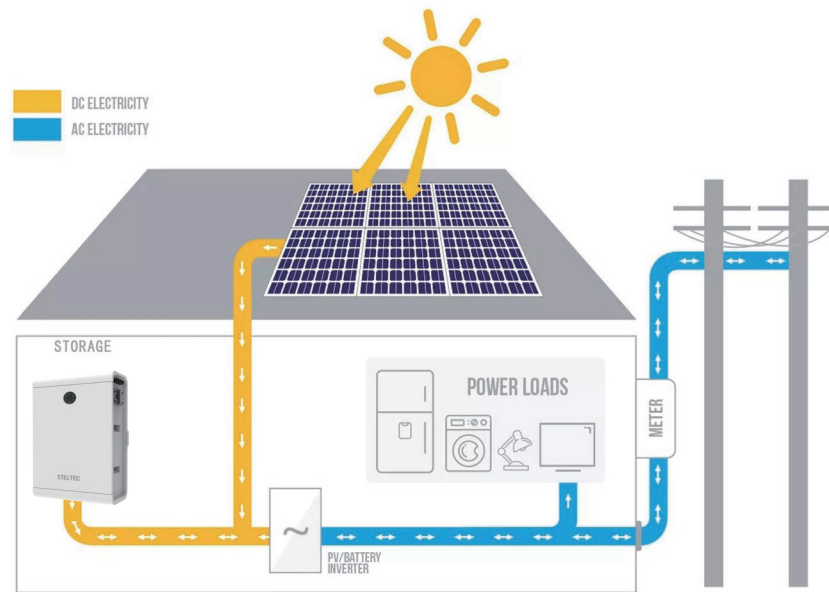
For 2 to 15 units where inverter power exceeds 12 kW:  
Connect the positive and negative ports of each battery to the combiner cabinet as shown in the figure below.  
All positive and negative connecting cables between each battery and the combiner cabinet must be of equal length.  
Equal cable length is necessary to ensure equal current sharing and reliable operation.  
Note: The number of intermediate units is omitted in the diagram for simplicity.



## STEP 9

Install the cover and fully tighten all screws.





## 05 COMMISSIONING PROCEDURE

After all the cable (power and communication) connections are completed, please ensure the following:

- Ensure the DC switch on the inverter is OFF
- Ensure the AC switch that is connected to the grid and EPS output (if used) of the inverter is OFF
- Ensure the DC switch is OFF

For commissioning we recommend the following steps:

- Refer to section 3.2.1 Start for turning on the battery
- Wait until the LED's on
- Wait until the inverter LED's on
- Turn the DC switch on the inverter ON
- Turn the AC switch that is connected to the grid and EPS output of the inverter ON
- Connect the battery to Wi-Fi following the App instructions, ensure L9 LED is ON to confirm successful connection.
- Set-up the battery and the inverter using the App.

## 06 MAINTENANCE

### 5.1 Recharge Requirements During Normal Storage

Battery should be stored in an environment with temperature range between  $-10^{\circ}\text{C}$   $\sim +45^{\circ}\text{C}$ , and maintained regularly according to following table with 0.5C (100A) current till 50% SOC after long storage time.

#### Recharge Conditions When In Storage

| Storage Environment Temperature | Relative Humidity of storage Environment | Storage Time     | SOC                            |
|---------------------------------|------------------------------------------|------------------|--------------------------------|
| Below $-10^{\circ}\text{C}$     | /                                        | prohibit         | /                              |
| $-10\sim 25^{\circ}\text{C}$    | 5%-70%                                   | $\leq 12$ months | $30\%\leq \text{SOC}\leq 60\%$ |
| $25\sim 35^{\circ}\text{C}$     | 5%-70%                                   | $\leq 6$ months  | $30\%\leq \text{SOC}\leq 60\%$ |
| $35\sim 45^{\circ}\text{C}$     | 5%-70%                                   | $\leq 3$ months  | $30\%\leq \text{SOC}\leq 60\%$ |
| Above $45^{\circ}\text{C}$      | /                                        | prohibit         | /                              |

### 5.2 Recharge Requirements When Over Discharged

Over discharged (90% DOD) battery should be recharged according to following table, otherwise over discharged battery will be damaged.

#### Recharge conditions when battery is over discharged

| Storage Environment Temperature | Storage Time    | Note                                        |
|---------------------------------|-----------------|---------------------------------------------|
| $-10\sim 25^{\circ}\text{C}$    | $\leq 7$ days   | Battery Pack Disconnected from the Inverter |
| $25\sim 35^{\circ}\text{C}$     | $\leq 5$ days   |                                             |
| $-10\sim 45^{\circ}\text{C}$    | $\leq 48$ hours | Battery Pack connected to Inverter          |