To better protect your rights and interests, please log in to the WattCycle website or scan the QR code to register for the warranty promptly !

www.wattcycle.com

service@wattcycle.com

USER MANUAL

LiFePO4 DEEP CYCLE BATTERY

HOME ENERGY STORAGE SERIES

- 48V 100Ah Smart Home Storage
- 48V 314Ah Smart Home Storage
- 48V 628Ah Smart Home Storage

CAUTION

- Flammable/explosive hazard avoid mechanical impact
- Do not short circuit
- Do not crush
- Do not disassemble
- Do not incinerate
- Battery temperature must be kept below 149°F/65°C
- Do not exceed the charging voltage of 58.4V
- Do not immerse the battery in water
- Do not reverse the polarity of the battery and charger
- Use the appropriate tools when handling the battery
- When connecting batteries in series/parallel, do not use batteries from other brands/types (BMS may not be compatible)
- This battery should be charged using a lithium iron phosphate battery charger with a charging voltage of 57.6±0.8V
- Keep the battery away from fire, hazardous materials, or substances

APP Introduction

This application is developed and designed by WattCycle®. It specializes in monitoring lithium batteries, providing real-time status readings such as the voltage, charging and discharging current, alarm prompts, protection status, etc. This allows users to clearly understand the status of lithium batteries and ensure safe use.

Download on the App Store

GET IT ON Google Play

You can search "WattCycle" in the App Store or Google Play Store to download and install.

*This app only supports for smart batteries.

Contents

Security Instructions

Please keep this manual in a safe place for future reference. It provides detailed instructions on the installation and operation of the product. Before installation or use, be sure tocarefully read all instructions and precautions.

1. Safety Warning

There are non-safe voltages inside the solar battery pack, and users are strictly prohibited from disassembling it. In case of equipment failure and need for maintenance, please contact professional maintenance personnel in time.

2. Precautions for Use

- Do not immerse the battery in water or allow it to get wet;
- Prohibit charging the battery in a fire source, high temperature environment, and avoid using or storing the battery near a fire source, heaters and other heat sources;
- If the battery is found to be leaking or emitting a strange odor, it should be immediately moved to an open, safe area;
- Please use the matching charging cable, and if it needs to be replaced, the connecting cable with the same wire diameter must be used;
- Pay attention to the direction of positive and negative poles when installing the battery,and the reverse is forbidden;
- It is forbidden to connect the battery directly to the wall socket or the cigarette lighter socket of the automobile;
- Do not put the battery into fire or heat it;

- Do not short-circuit the positive and negative terminals of the battery with wires or other metal objects, and prohibit the battery from being transported or stored with metal objects such as necklaces, hairpins, etc;

- Do not use nails, sharp objects to pierce the battery casing, and do not strike the battery with a hammer or step on the battery with your feet.

- Avoid the battery to be bumped, thrown or other mechanical shocks;

- Prohibit the direct welding of the battery terminals;

- Strictly prohibit the disassembly of the battery in any way;

- It is prohibited to mix this battery with original batteries (such as dry cell batteries) or batteries of different capacities, models and varieties;

- If the battery has been stored for more than 3 months without use, it is recommended to replenish the battery.

3. Abnormal Handling

- If leakage or odor is found, move the battery to an open and safe area immediately. If the electrolyte touches your eyes, please do not rub, flush with plenty of water and seek medical advice immediately;

- If the battery is hot, deformed, discolored or other abnormalities, please stop using it, and if it is charging/discharging, take it out immediately;

- If the battery is smoky or on fire, please make sure of your own safety, and move the battery to a fireproof open area quickly (e.g. sandy ground, metal containers).

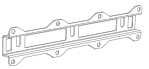
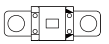
4. Environmental Protection Tips

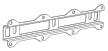
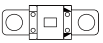
Discarded batteries should be recycled in accordance with local regulations.

Installation Instructions

1. Unpacking and Inspection

Inspect the unit before installation. Make sure there is no damage in the package. You should receive the following items in the package:

48V 100Ah Smart Home Storage		
①		Solar Battery Pack x 1
②		Wall-Mount Bracket x 1
③		L-Shaped Wall Bracket × 2
④		Bottom Support Bracket × 2
⑤		Wall-Mount Bracket Screws x 3
⑥		M6 Screws x 2
⑦		Expansion Screws x 8
⑧		Communication Cable x 1
⑨		Red battery power cable, 25 mm², 1.2 meters x 1
⑩		Black battery power cable, 25 mm², 1.2 meters x 1
⑪		150A Fuse × 1
⑫		M4 Screws x 8
⑬		User Manual x 1

48V 314Ah Smart Home Storage		
①		Solar Battery Pack x 1
②		Wall-Mount Bracket x 1
③		L-Shaped Wall Bracket × 2
④		Wall-Mount Bracket Screws x 3
⑤		M6 Screws x 2
⑥		Expansion Screws x 8
⑦		Communication Cable x 1
⑧		Red battery power cable, 70 mm², 1.2 meters x 1
⑨		Black battery power cable, 70 mm², 1.2 meters x 1
⑩		450A Fuse × 1
⑪		User Manual x 1

48V 628Ah Smart Home Storage		
①		Solar Battery Pack x 1
②		L-Shaped Wall Bracket × 2
③		M6 Screws x 2
④		Expansion Screws x 2
⑤		M12 Eyebolts x 4
⑥		M10 Screws x 6
⑦		Communication Cable x 1
⑧		Red battery power cable, 70 mm², 1.2 meters x 1
⑨		Black battery power cable, 70 mm², 1.2 meters x 1
⑩		User Manual x 1

Installation Instructions

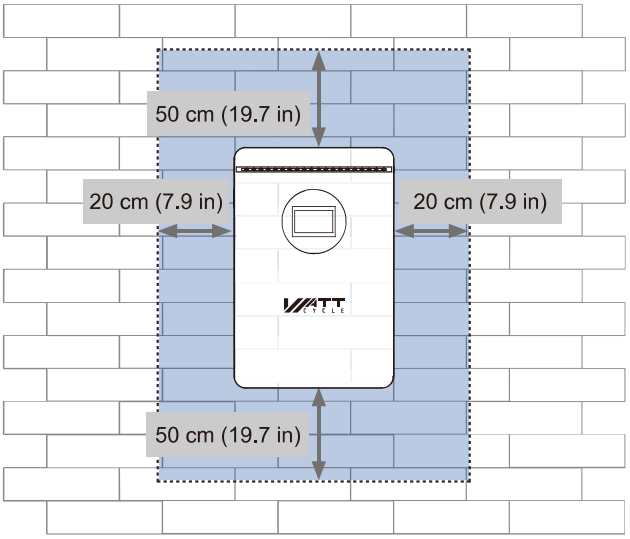
2. Preparation Work: It is recommended to have the equipment installed by a professional electrician.Ensure the product is powered off before installation.

Before selecting a mounting location, consider the following points:

a. Do not install the all-in-one on fammable building materials.
b. Do not install the product in a harsh environment.
c. Mounted on a sturdy surface.
d. Install the All-in-One at eye level so that the LCD display can be read at all times.
e. The ambient temperature should be between 0°C and 55°C to ensure optimal operation.
f. Verical mounting on the wall is recommended
g. Be sure to maintain the clearance shown in the diagram to ensure adequate heat dissipation spacing and safe access for disassembly/wiring.

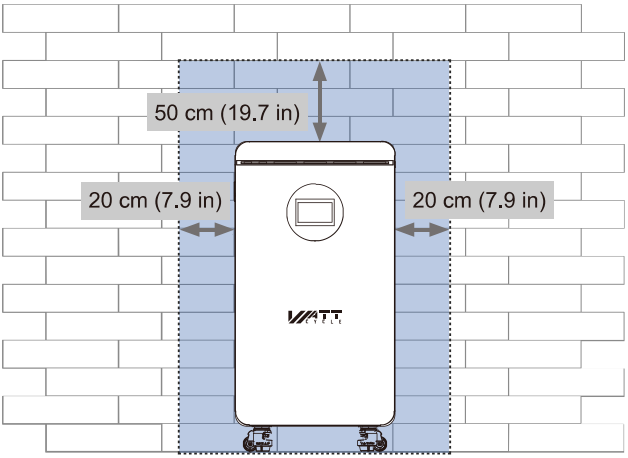
Note: Ensure the air switch is in the "ON" state, then press the key to turn on the product.

Wall-Mounted Installation



Installation Instructions

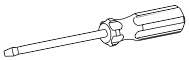
Environmental Protection Tips



WARNING !

- Requires the product to be installed with the power off and disconnected.
- All wiring work must be carried out by qualified personnel.

3. Installation Tool List

Impact drill		For drilling holes in walls to secure wall-mounted brackets
Flathead screwdriver		Slotted screws for mounting the product's back panel
Tape measure		Used to measure and position installation holes and confirm the installation height

Installation Instructions

4. Installation Steps

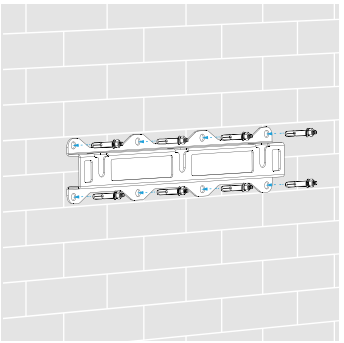
i. Wall-mounted installation method:

a. Securing the Wall-Mount Bracket: Use the provided anchor bolts to firmly secure the Wall-Mount Bracket to the wall, ensuring the bracket is level and stable without any looseness.

b. Installing the Backplate Screws: Take the three provided flathead screws and tighten them into the corresponding pre-drilled screw holes on the back of the product.

c. Mounting the Product: Align the three screws installed on the back of the product with the three U-shaped slots on the wall mount bracket. Insert the screws into the slots from the wider top section. Once properly positioned and adjusted, confirm the product is securely fixed to complete the installation.

48V 100Ah Smart Home Storage



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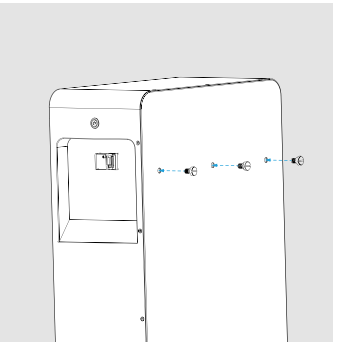

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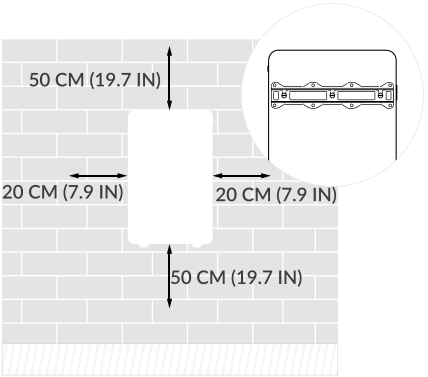

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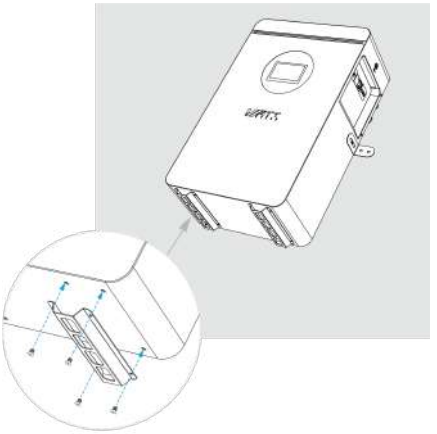
Installation Instructions

ii. Floor-mounted installation method

a. Install the bottom support bracket screws: Take the eight provided flat-head screws and tighten them into the corresponding pre-drilled screw holes on the bottom of the product.

b. Mount the Product: Align the screw holes on the L-shaped brackets with the pre-marked positions on the wall. Use anchor bolts to securely fasten the product to the wall through these holes.

48V 100Ah Smart Home Storage



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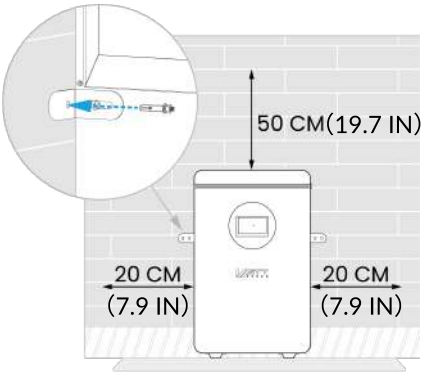

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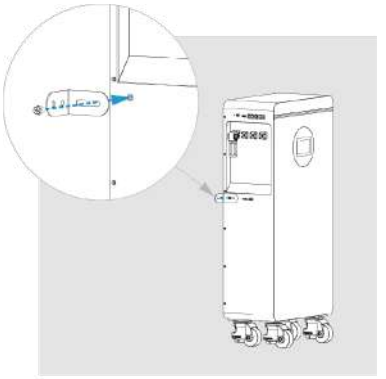
Installation Instructions

a. Install the L-Shaped Brackets: Take the provided flat-head screws and attach an L-shaped wall bracket to each side of the product.

b. Mount the Product: Align the screw holes on the L-shaped brackets with the pre-marked positions on the wall. Use anchor bolts to securely fasten the product to the wall through these holes.

48V 314Ah Smart Home Storage



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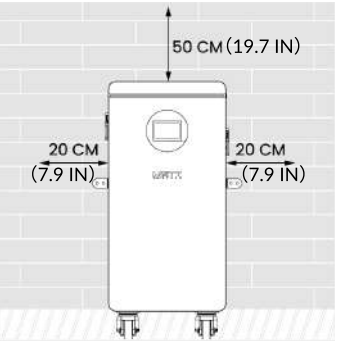

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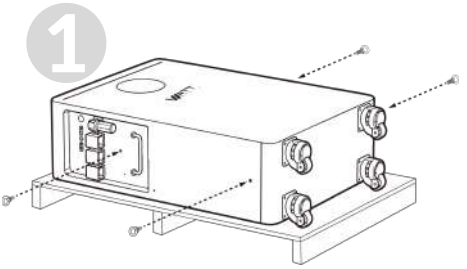
Installation Instructions

i. Product Lifting & Upright Installation

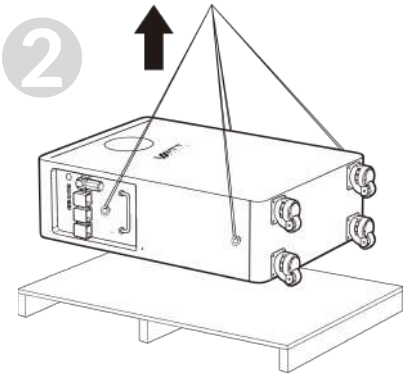
The unit is shipped horizontally. It has 2 × M12 lifting holes on each side (4 in total). Use matching M12 eyebolts for safe lifting and upright installation.

48V 628Ah Smart Home Storage



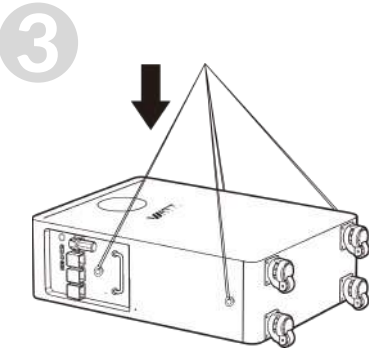
Step 1. Install Eyebolts

Fit and fully tighten M12 eyebolts into the mounting holes, then attach suitable lifting gear.



Step 2. Lift the Unit from Packaging

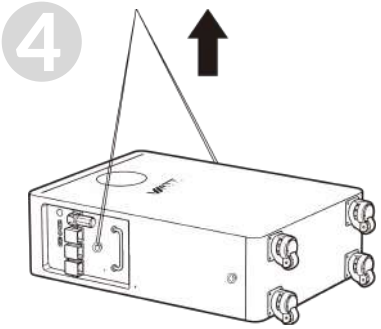
Keep the unit level and lift slowly and steadily out of the crate. Ensure even load distribution across all lifting points.



Step 3. Lower to the Ground

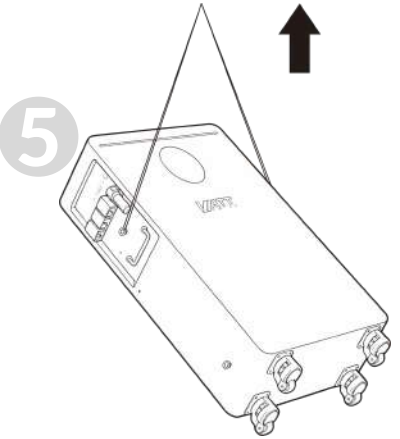
Lower the unit slowly and carefully onto the ground. Avoid sudden movements or impact.

Installation Instructions



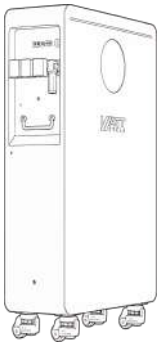
Step 4. Begin Lifting to Upright Position

Use two eyebolts to lift the unit slowly, beginning to raise one end toward the vertical position.



Step 5. Continue Lifting to Upright Position

Maintain controlled lifting to bring the unit smoothly to the upright orientation.



Step 6. Complete Upright Installation

Once the unit is fully upright and stable, remove the lifting gear and store all eyebolts properly.

Safety Precautions:

- Lifting operations shall only be performed by qualified personnel in accordance with applicable lifting regulations. Wear personal protective equipment at all times.
- Before lifting, confirm all lifting points are securely fastened and the lifting gear is in good condition.
- Avoid impacts or abrupt movements during lifting to prevent structural damage to the product.

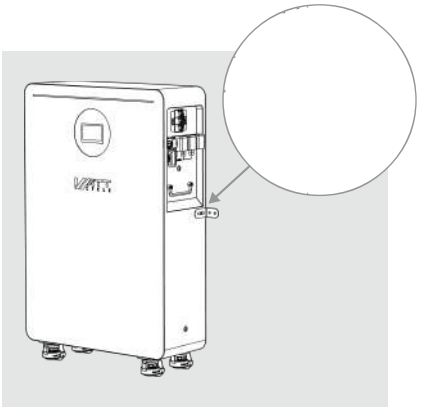
Installation Instructions

ii. Wall Mounting Instructions

a. Install the L-Shaped Brackets: Take the provided flat-head screws and attach an L-shaped wall bracket to each side of the product.

b. Mount the Product: Align the screw holes on the L-shaped brackets with the pre-marked positions on the wall. Use anchor bolts to securely fasten the product to the wall through these holes.

48V 628Ah Smart Home Storage



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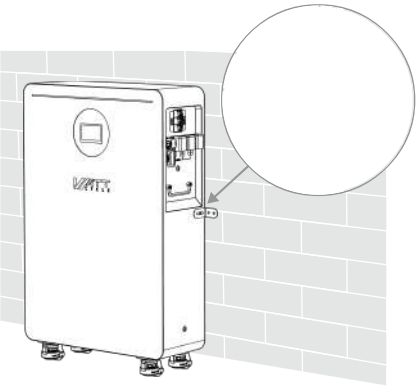

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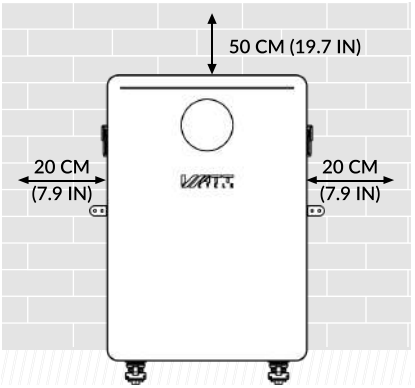


③

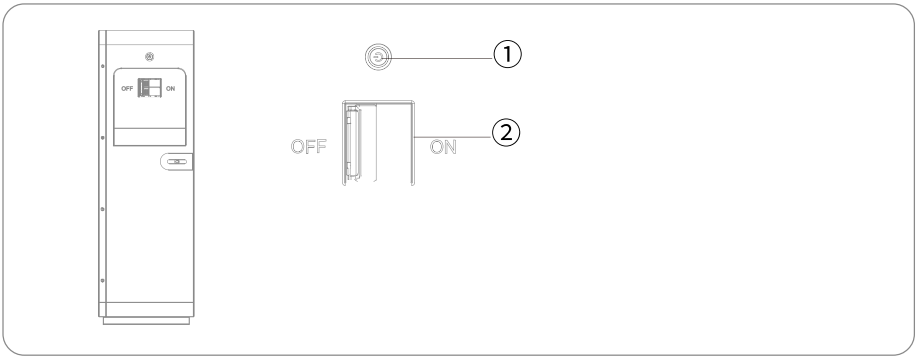
Specification

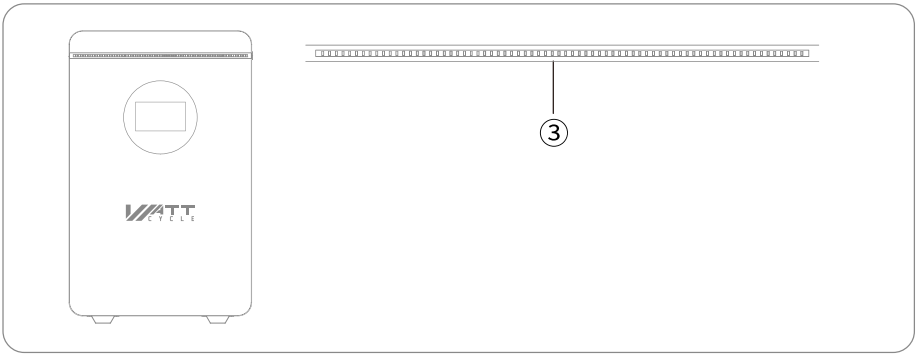
Model	48V 100Ah Smart Home Storage	48V 314Ah Smart Home Storage	48V 628Ah Smart Home Storage
Battery Mode	LiFePO4 Battery		
Battery Capacity	5.12kWh	16.07kWh	32.15kWh
Internal Resistance	≤ 13.9mΩ		
Single Cell Capacity	100Ah	314Ah	628Ah
Rated Operating Voltage	51.2V		
Standard Input Current	50A (Max.100A)	150A (Max.300A)	150A (Max.300A)
Standard Output Current	50A (Max.100A)	150A (Max.300A)	150A (Max.300A)
Overcharge Protection	58.4V		
Overcharge Protection Recovery	53.6V		
Overdischarge Protection	40V		
Overdischarge Protection Recovery	47.2V		

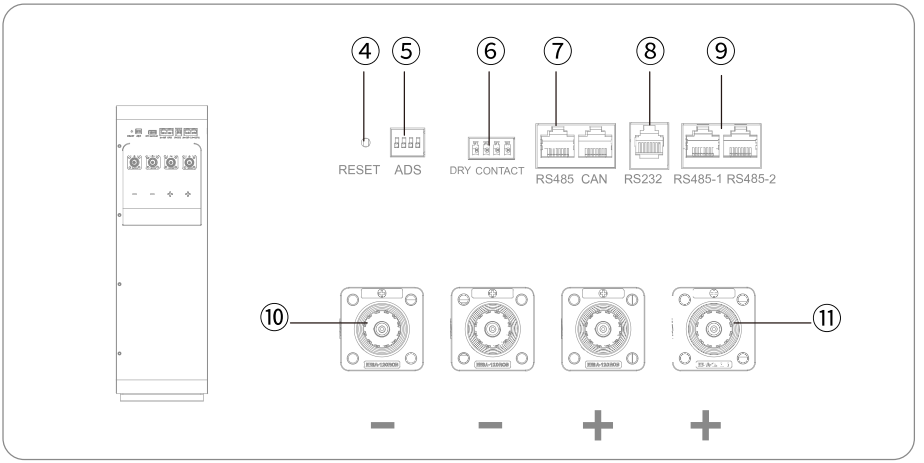
Specification

Model	48V 100Ah Smart Home Storage	48V 314Ah Smart Home Storage	48V 628Ah Smart Home Storage
Charging Overcurrent Protection	110±10A/1±0.5s	310±10A/1±0.5s	310±10A/1±0.5s
Discharging Overcurrent Protection	110±10A/9~12s	310±10A/9~12s	310±10A/9~12s
Internal Resistance	Recovery Methods: a. Remove the Charger; b. Remove Loads		
Power Delivery	60%		
Equalization	Active Balance		
Parallel Quantity	Manual DIP Switch Setting: ⩽15 units/ Automatic Addressing: ⩽20 units		
Power Failure Self-Consumption	⩽300uA		
Battery Life	6000@DOD80%		
Communication Protoco	RS485, CAN, RS232		
Recommend Charging Temperature	0°C to 55°C/32°F to 131°F		
Recommend Discharging Temperature	-20°C to 60°C/-4°F to 140°F		
Dimensions (L×W×H)	15.67 x 7.87 x 24.61(inch) 398 x 200 x 625(mm)	17.72 x 9.45 x 38.94(inch) 450 x 240 x 989(mm)	27.56 x 9.84 x 42.60(inch) 700 x 250 x 1082(mm)
Weight	99.21lbs±3%/ 45kg±3%	268.96lbs±5%/ 122kg±5%	485.02lbs±5%/ 220kg±5%

Function Introduction







Function Introduction

①	Mains Switch	Control switch ON/OFF
②	Air Switch	Disconnect input and output
③	Battery Indicator	Remaining capacity display
④	Reset Switch	Reboot or shutdown when pressed
⑤	ADS	Address selection for parallel or communication
⑥	Dry Contact	Normally open or normally closed signal drive relay
⑦	RS485 /CAN	External communication
⑧	RS232	Connect to host computer
⑨	RS485-1/RS485-2	Internal communication or battery parallel use
⑩	Battery Negative	Negative battery terminal
⑪	Battery Positive	Positive battery terminal

1. Overcharge Protection and Recovery

a. Cell Overcharge Protection and Recovery
When the voltage of any cell is higher than the set value of the cell overcharge voltage, and the duration reaches the cell overcharge delay time, the system enters the overcharge protection state, the charging MOS will turn off, and the battery cannot be charged. After the cell overcharge protection, when the voltage of all cells drops below the cell overcharge recovery value, the overcharge protection state is released. It can also be released by discharge.

Function Introduction

b. Overall Overcharge Protection and Recovery
When the overall voltage is higher than the overall over-voltage set value, and the duration reaches the cell overcharge delay time, the system enters the overcharge protection state, turns off the charging MOS, and cannot charge the battery.When the overall voltage drops below the recovery value of the overall voltage over voltage protection, the overcharge protection state is released, and it can also be released by discharge.

2. Over-Discharge Protection and Recovery

a. Cell Over-Discharge Protection and Recovery
When the minimum cell voltage is lower than the set value of the over-discharge voltage of the cell, and the duration reaches the cell over-discharge delay time, the system enters the over-discharge protection state, turns off the discharge MOS, and cannot discharge the battery. After the cell over-discharge protection occurs, charging the battery pack can release the over-discharge protection state.

b. Overall Over-Discharge Protection and Recovery
When the overall voltage is lower than the overall over-discharge voltage set value, and the duration reaches the overall over-discharge delay time, the system enters the over discharge protection state, turns off the discharge MOS, and cannot discharge the battery. After the overall over-discharge protection occurs, charging the battery pack can release
the over-discharge protection state

3. Over-Current Protection and Recovery in Charging

When the charging current exceeds the charging protection current and the duration reaches the over-current detection delay time, the system enters the charging over-current protection state and cannot charge the battery. After the charging over current protection occurs, it will automatically recover after a delay. If you want to automatically recover or not, you can set the corresponding release time to be longer; the charging over-current state can also be released by discharging.

Function Introduction

4. Over-Current Protection and Recovery in Discharging

When the discharge current exceeds the discharge over-current protection current and the duration reaches the over-current detection delay time, the system enters the discharge over-current protection state and turns off the discharge MOS. Delayed automatic recovery after discharge over-current occurs, and the corresponding release time can be set longer if automatic recovery is required. Charging can also release the discharge over-current protect condition. Discharge has two-level over-current protection function, which has different response speeds for different current values, and protects the battery more reliably.

5. Temperature Protection and Recovery

a. High Temperature Protection and Recovery in Charging and Discharging
When the NTC detects that the temperature of the battery cell surface is higher than the setting of high temperature protection value during charging and discharging, the management system enters the high temperature protection state, the charging or discharging MOS is turned off, and the battery pack cannot be charged or discharged in this state. When the temperature of the surface of the cell drops to the high temperature recovery set value, the management system recovers from the high temperature state and turns on the charge and discharge MOS again.

b. Low Temperature Protection and Recovery in Charging and Discharging
When the NTC detects that the temperature of the cell surface is lower than the setting of low temperature protection value during charging and discharging, the management system enters the low temperature protection state,the charging or discharging MOS is turned off, and the battery pack cannot be charged or discharged in this state. When the temperature of the cell surface rises to the low temperature recovery set value, the management system recovers from the low temperature state and turns on the charge and discharge MOS again.

Function Introduction

6. Balance Function

If the balance switch is turned on, when the maximum single cell voltage difference of the battery pack is greater than this value, balance starts. And balance ends when the single cell voltage difference is lower than this value. For example, setting the balance opening voltage difference on 10mV and the balance closing voltage difference on 5mV. When voltage difference of the battery pack is greater than 10mV, balance starts. And balance ends when it is lower than 5mV. (It is recommended to set the balance opening voltage difference on 0.005V for above 50AH batteries and 0.01V for below 50AH batteries). When the lowest cell voltage is lower than the set value of 2000mV, active balance will not be turned on even if the cell voltage difference is greater than the set value. The balance current indicates the continuous current of the high-voltage battery discharging and the low-voltage battery charging during the energy transfer process. The maximum balance current indicates the maximum current during the energy transfer process, and the maximum balance current does not exceed 3A.

7. Current Limiting Function

When the overcurrent condition is reached, the current limiting function is activated. Thecurrent limiting function is deactivated when any of the following conditions is met:

- Thedifference between the charging voltage and the battery voltage is less than 0.3V.
- The charging current is lower than 9.5A.
- The charging mode is switched to the discharge mode.
- The battery restarts.

8. Capacity Calculation

The SOC calculation of the battery pack can be accurately performed by integrating current and time. The full capacity and cycle capacity of the battery pack can be set through the host computer, and the capacity can be automatically updated after a complete charge and discharge cycle. It has the function of calculating the number of charge and discharge cycles. When the cumulative discharge capacity of the battery pack reaches the set cycle capacity, the number of cycles increases once.

Function Introduction

9. Sleep and Arousal

Sleep: When any of the following conditions is met, the system is in low-power consumption mode.

- Monomer or overall over-discharge protection does not release within 30 minutes.
- When the on/off switch is off, it will be in the sleep mode after 3 seconds.
- The lowest monomer voltage is lower than the sleep voltage, and the duration reaches the sleep delay time (while meeting the condition of no communication, no protection, no balance, no current).
- The standby time is more than 1440 minutes (no communication, no charge and
- discharge).
- It closes down compulsively through the software of the upper computer.
- Before it is in the sleep mode, you need to ensure that the input port is not connected to external voltage. Otherwise, it can not be in the low-power mode.

Arousal: when the system is in low-power consumption mode and meets any of the following conditions, the system exits the low-power consumption mode. And then it will be in the normal running mode:

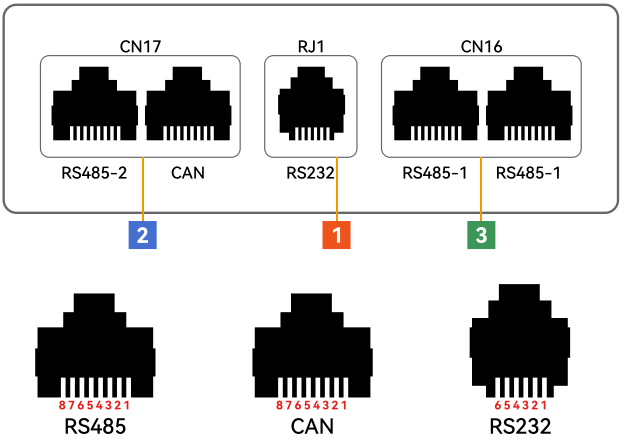
- Connecting to the charger, and the output voltage of the charger should be more than 0.4V of the battery voltage.
- The on/off switch is on.

Function Introduction

10. Communication

a. Serial Communication
The connection method: After installing the special driver for our communication tool on the computer, insert the USB end of the communication tool into the USB port of the computer, and connect the other end to the corresponding interface of the BMS that has been connected to the battery pack. Open the upper computer, click the communication port settings, select the COM port corresponding to the communication tool, and do not change other options. After confirming, click start to read the data in the protection.

b. CAN/RS485/RS232 Communication
CAN communication: the default communication rate is 500K. Please contact the sales to obtain the communication protocol.
RS485 communication: the BMS can use view various information of the battery pack through RS485 communication interface, including battery voltage, current, temperature, state, etc., The default baud rate is 9600bps. Please contact the sales to obtain the communication protocol.
RS232 communication: the BMS can communicate with the upper computer though the RS232 communication tool and bluetooth interface, thereby you can monitor various battery information on the upper computer, including battery voltage, current, temperature, state, and information of battery production, etc., The default baud rate is 9600 bps.
Note: Please refer to the configuration table to check whether the above communication has functions.



Function Introduction

1	RS232 - Using 6P6C Vertical RJ11 Sockets
RJ11 pin	Definition Description
2	NC
3	TX (Veneer)
4	RX (Veneer)
5	GNDI

2	RS485 - Using 8P8C Vertical RJ45 Sockets	CAN - Using 8P8C Vertical RJ45 Sockets	
RJ45 pin	Definition Description	RJ45 pin	Definition Description
1, 8	RS485-B1	1, 2, 3, 6, 8	NC
2, 7	RS485-A1	4	CANH
3, 6	GND	5	CANL
4, 5	NC	7	GND

3	RS485 - Using 8P8C Vertical RJ45 Sockets	CAN - Using 8P8C Vertical RJ45 Sockets	
RJ45 pin	Definition Description	RJ45 pin	Definition Description
1, 8	RS485-B	1, 8	RS485-B
2, 7	RS485-A	2, 7	RS485-A
3, 6	GND	3, 6	GND
4, 5	NC	4, 5	NC

Function Introduction

11. The Instructions of Buzzer

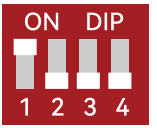
It buzzes for 0.25s in every 1 second when there is a fault. It buzzes for 0.25s in every 2 seconds while protecting. It buzzes for 0.25s in every 3 seconds while alarming.
The buzzer function can be run or closed by the upper computer. And the buzzer is closed by factory default.

12. The Instructions of On/Off Switch

When the on/off switch is on, then the charge and discharge of MOS is turned on, and the BMS is in normal working state. When the on/off switch is off, then the charge and discharge of MOS is turned off, and the BMS is in the protection state. It is in deep sleep state at the same time, and it can not charge or discharge.

13. Dial Switch

Several battery PACKs in parallel, you can distinguish different PACKs by setting the address through the dial switch on the BMS. It is necessary to avoid setting the same Address.
Following is the dial switch definition.



14. The Instruction of Dry Contact and Reset Switch

MAIN CONTACT

Dry contact 1-PIN1 to PIN2 is off normally, and on during under voltage protection.
Dry contact 2 to PIN3 to PIN4 is off normally and on during fault protection.

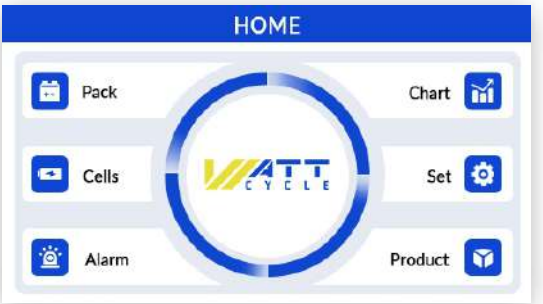
RESET

When the BMS is in the active state, press the button (3~6s) and release it, the BMS is hibernated (no charge), and the LED indicator lights are on successively for 0.5 seconds from the lowest power indicator.
When the BMS is in the activated state, press the button (6-10s) and release it, the BMS is reset, and all LED lights are on at the same time until the reset is complete.
After the BMS is reset, the parameters and functions set by the upper computer are still retained. If the initial parameters need to be restored, it can be achieved by "restoring default values" of the upper computer, but the relevant running records and stored data remain unchanged (such as power, cycle times, protection records, etc.).

Display Description

1. Display - Main Interface

Display six functions: system parameters, cell information, system status, chart information, system settings, and product information..

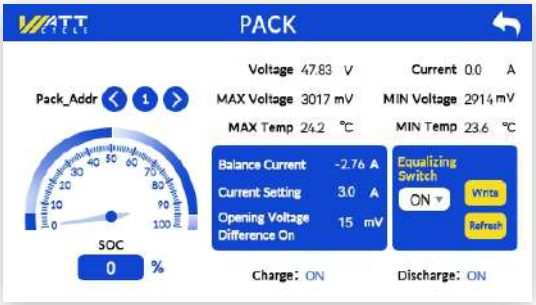


2. Display - system parameters (built-in active equalization customized version)

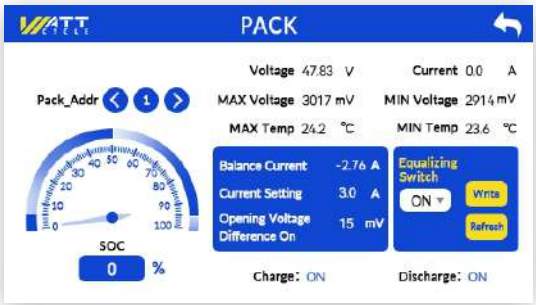
Real-time display of battery information: SOC, total voltage, current, maximum (low) cell voltage, maximum (low) cell temperature, charging (discharging) MOS status, system information, communication address switching, active equalization function setting, equalization current.

Display Description

Active Equalization Setting:
a. Pull down to select -OFF: indicates to turn off the active equalization function;
b. ON: indicates that the active equalization function is forced to be turned on; default equalization is ON ➡ press or long press the number, set the equalization current (maximum current 3A), set the equalization open pressure difference (maximum 50mV) ➡ write to take effect ➡ click refresh (to confirm whether the setting is successful).
Note: Setting the active equalization function after switching other battery communication addresses is not supported.



Battery address communication switching: When batteries are connected in parallel, click on the address number to switch the address and view the data of batteries with different addresses.



Display Description

3. Display - Unit Parameters.

Real-time display of battery cell information: single cell voltage, single cell temperature.When the cell data exceeds the 24S data displayed on the page, you can switch the page by tapping the arrow keys to view all the cell data.
At the bottom left of the screen, select the corresponding battery cell and temperature icon to switch the page of single cell voltage and temperature data.

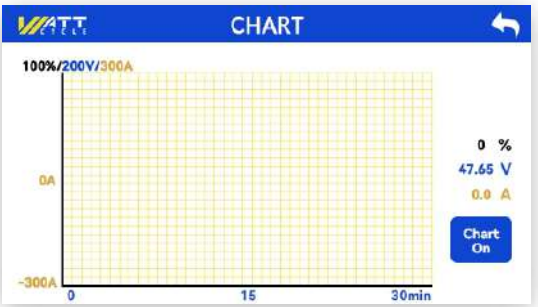
4. Display - System Status

Real-time display of battery status: warning status, protection status, fault status. When the battery has a warning, the corresponding item column will display the warning name.

Display Description

5. Display - Chart Curves (This function is for reference only)

Function: Chart Off - Real-time chart function on Chart ON - Real-time chart function off Generate real-time curve charts with 30min as x-axis and SOC, voltage and current as y-axis.



6. Display - System Settings

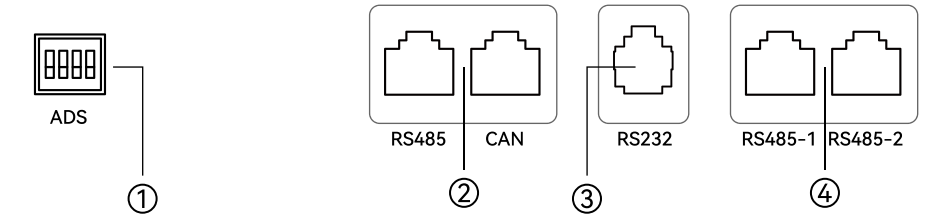
Set the communication protocol between battery pack and inverter and display language.

Display Description

7. Display - Product Information

Displays battery information: software version, serial number, and vendor information.

Parallel Description



① Dip switch
② Communicate with the inverter
③ Connect to host computer
④ Parallel communication

Parallel Description

1. Manual DIP Switch Setting

When connecting several battery packs in parallel, you can distinguish different packs by setting the address through the dip switch on the BMS. It is necessary to avoid setting the same address. Following is the dip switch definition.

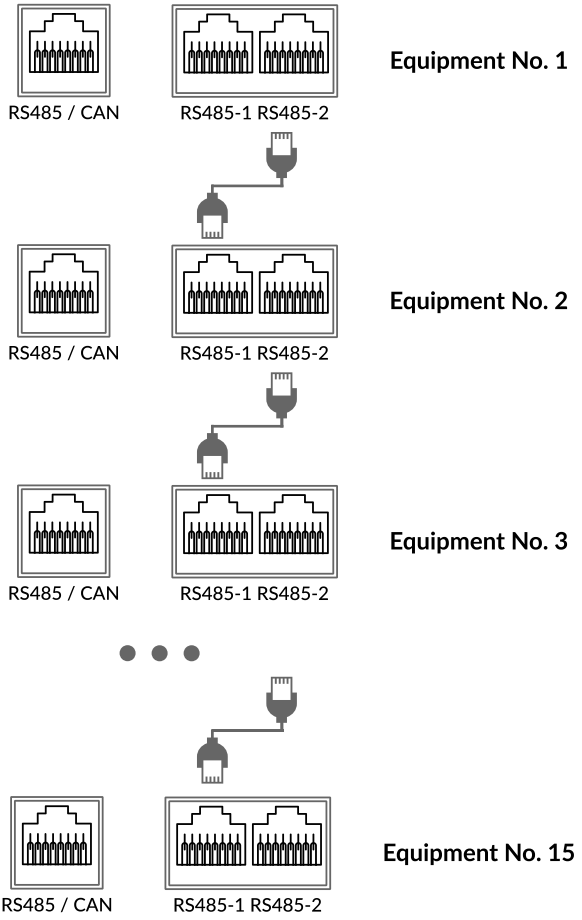
Address NO.	Dip Switch Picture	Position of Dip Switch			
		#1	#2	#3	#4
1		ON	OFF	OFF	OFF
2		OFF	ON	OFF	OFF
3		ON	ON	OFF	OFF
4		OFF	OFF	ON	OFF
5		ON	OFF	ON	OFF
6		OFF	ON	ON	OFF
7		ON	ON	ON	OFF
8		OFF	OFF	OFF	ON
9		ON	OFF	OFF	ON
10		OFF	ON	OFF	ON
11		ON	ON	OFF	ON
12		OFF	OFF	ON	ON
13		ON	OFF	ON	ON
14		OFF	ON	ON	ON
15		ON	ON	ON	ON

2. Parallel Communication Specification

Connect correctly the RS485 in parallel. Connect one end of the main BMS network cable to the link port OUT network port and the other end to the link port IN to the second parallel network port. Connect one end of the second parallel network cable to the link port OUT network port and the other end to the link port IN to the 3rd parallel network port. And connect parallel communication cables one by one.
Note: Please do not connect the cable to the wrong position; otherwise, the address assignment fails.

Parallel Description

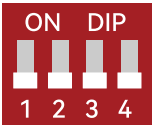
Note: RS485-1 denotes LINK-IN and RS485-2 denotes LINK-OUT.



Parallel Description

3. Automatic Addressing

Automatic DIP switches: All parallel BMS DIP switches must be in the "OFF" position, as shown in the figure.



a. Connect correctly the RS485 in parallel. Connect one end of the main BMS network cable to the link port OUT network port and the other end to the link port IN to the second parallel network port. Connect one end of the second parallel network cable to the link port OUT network port and the other end to the link port IN to the 3rd parallel network port. And connect parallel communication cables one by one.

b. After connecting all machines, turn off the Mains Switch. If the parallel connection is normal, all machines will power off. Turn on the Mains Switch. At this time, all slave machines will power on simultaneously, and all lights on the indicator boards of all machines will begin to flash. Wait approximately 20 seconds. The main unit will display the average SOC of all machines, while only the running light on the slave machines will flash. If any lights are found to be flashing abnormally, check if the parallel communication cable is OK. Then repeat the above steps.

c. After automatic DIP switching, when the main unit uses the manual DIP switch, other slave machines can use the manual DIP function normally. When both the main unit and slave machine DIP switches are in the OFF state, the BMS address will return to the address where automatic DIP switching was successful.

Warranty Description

Please read the instructions carefully and keep them in a safe place.

Please Scan the QR Code to Register for the 5-Year Warranty

www.wattcycle.com

1. This product will be repaired if it malfunctions during the warranty period for normal use in accordance with the operating instructions. The parts replaced during the warranty period are the property of our company.
2. No free repairs will be made during the warranty period if any of the following conditions apply.
   a. Damage caused by failure to comply with the requirements of the instruction manual for use, maintenance and repair, or the use of non-original parts.
   b. Failure or damage caused by improper storage and custody (product battery failure due to not recharging the product for a long period of time);
   c. Failure or damage caused by the use of power supply equipment and load rated equipment that are not within the specified voltage range.
   d. Failure or damage caused by private repair, dismantling or modification.
   e. Damage to the surface coating and exterior is not covered by the warranty.
   f. Product outer packaging and product accessories are not covered by the warranty.
   g. Torn, altered or unrecognizable product labels, seals and serial numbers (SN).
3. Failure or damage due to force majeure. Force majeure refers to an objective event that cannot be foreseen, avoided or overcome.
   This includes natural disasters such as floods, fires, explosions, lightning, earthquakes and storms, as well as social events such as wars and disturbances.
4. This manual is for use only in (this sales area), the final interpretation right belongs to the company.
5. Please keep this manual in a safe place as it will not be distributed separately to users.
6. If the name of the distributor is not written or stamped, ask the distributor from whom you purchased the product for proof of the date of purchase and the name of the distributor, and issue a receipt to the distributor. If you do not have such proof, please contact your dealer or the company from which you purchased the product. If you purchased the product from our online store, please be sure to provide proof of the date of purchase, such as an invoice, order number, or a screenshot of your order history.

Dear Valued Customer,

Thank you for choosing WattCycle lithium batteries! We sincerely appreciate your support and warmly welcome your feedback.

At WattCycle, we are dedicated to a user-centric and innovative approach, providing high-performance and eco-friendly lithium battery solutions to meet energy needs across various applications. We offer unique competitive advantages in materials, craftsmanship, technology, design, safety, after-sales service, warranty periods, and pricing. Your choice is our greatest support and encouragement.

With infinite energy and a commitment to sustainability, WattCycle is committed to creating a cleaner, bluer sky. We hope we can work together to contribute to a greener planet in the future.

Thank you once again for your trust in WattCycle. We always welcome you to share your experiences or any feedback with us.

Wishing you a pleasant experience!

The WattCycle Team

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