

Module Introduction

25.6V100AH 2560WH



 ***All-time monitor***

 ***Safety for home***

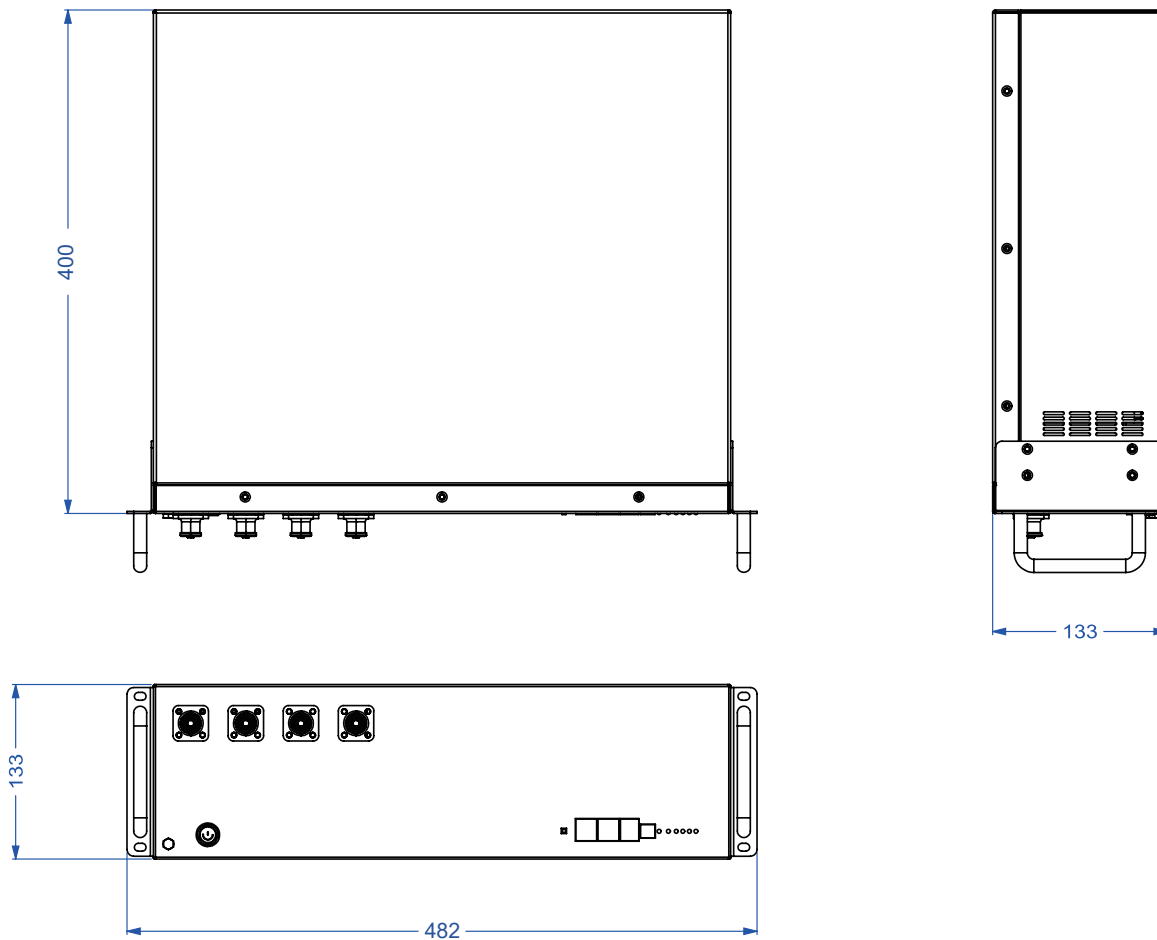
 ***Long Lifespan***

 ***Flexible capacity***

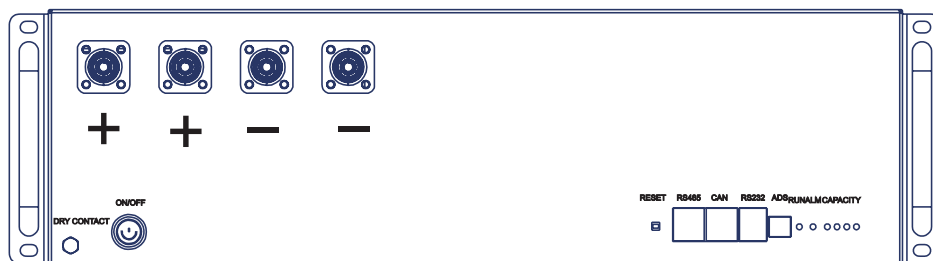
 ***Easy Installation***

| | |
|--|---|
| Normal | |
| Model | OT24100 |
| Battery Type | LifePO4(LFP) |
| Nominal Voltage(V) | 25.6V |
| Nominal Capacity(WH) | 2560WH |
| Usable Capacity(WH) | 2048WH |
| Design Life | 10+ Years (25°C/77F) |
| Physical | |
| Dimension(mm) | 482*400*133 |
| Weight(kg) | 27 |
| Electrical | |
| Cycle Life | >4500, 25°C |
| Discharge Voltage(V) | 20~29.2 |
| Charge Voltage(V) | 25.6~29.2 |
| Charge/Discharge Current(A) | 50A(Recommended) |
| | 100A(Max) |
| Internal Resistance | ≤30mΩ |
| BMS | |
| Power Consumption | <2W (Work) |
| | <100mW(Sleep) |
| Monitoring Parameters | System voltage, Current, cell voltage, cell temperature, module temperature |
| SOC | Intelligent algorithm |
| Communication | CAN/RS-485/RS-232 |
| Operation | |
| Operating Temperature Range | -10°C~50°C |
| Transport or Storage Temperature Range | -20°C~45°C |
| Humidity | 15%~85% (No Condensing) |

1.Specification



2.Equipment Interface Instruction



POWER SWITCH

Power Switch: to turn ON/OFF the whole battery BMS standby,power output ready.

SOC

SOC light: green LEDs to show the battery's current capacity.

RUN

RUN light: green LED flashing to show the battery is running.

ALM

Alarm light: red LED flashing to show the battery has alarm, and lighting to show the battery is under protection.

LED INDICAORS INSTRUCTIONS

| State | Normal/Warning/Protection | RUN | ALM | Power indicator LED | | | | Instruction |
|-----------|--|---------|---------|---|-----|-----|-----|---|
| | | ● | ● | ● | ● | ● | ● | |
| Shut down | Dormancy | OFF | OFF | OFF | OFF | OFF | OFF | All OFF |
| Standby | Normal | Flash 1 | OFF | Follow module capacity | | | | Standby |
| | Warning | Flash 1 | Flash 3 | | | | | Module at low voltage |
| Charge | Normal | ON | OFF | Follow module capacity (Flash 2 at full capacity) | | | | LED flash2 at full capacity,ALM doesn't flash at overcharge warning |
| | Warning | ON | Flash 3 | | | | | |
| | Overcharge protection | ON | OFF | ON | ON | ON | ON | if no grid supply, LED turn to standby. |
| | Temperature,overcurrent,disabled protection | OFF | ON | OFF | OFF | OFF | OFF | Stop charging |
| Discharge | Normal | Flash 3 | OFF | Follow module capacity | | | | |
| | Warning | Flash 3 | Flash 3 | | | | | |
| | Under voltage protection | OFF | OFF | OFF | OFF | OFF | OFF | Stop discharging |
| | Temperature,overcurrent, short circuit, reverse connect, disabled protection | OFF | OFF | OFF | OFF | OFF | OFF | Stop discharging |
| Disabled | | OFF | OFF | OFF | OFF | OFF | OFF | Stop charging and discharge |

NOTE: The flashing instructions, flash1 - light 0.25s / off 3.75 seconds; flash 2 - 0.5s light / 0.5s off;flash 3 - 0.5s light / 1.5s off

RS232

RS232 Communication Terminal: (RJ11 port) follow RS232 protocol, for output batteries information.

CAN

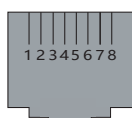
CAN Communication Terminal: (RJ45 port) follow CAN protocol, for output batteries information.

RS485

RS485 Communication Terminal: (RJ45 port) follow RS485 protocol, for communication between multiple parallel batteries.

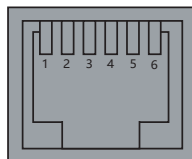
Definition of RJ45 Port Pin

| NO | RJ45 PIN |
|-----|----------|
| 1、8 | RS485-B |
| 2、7 | RS485-A |
| 3、6 | GND |
| 4 | CAN-H |
| 5 | CAN-L |



Definition of RJ11 Port Pin

| NO | RJ45 PIN |
|-------|------------------|
| 1、2、6 | NC |
| 3 | TX (Single face) |
| 4 | RX (Single face) |
| 5 | GND |



ADD

| | Dial code switch position | | | | Instruction |
|----|---------------------------|-----|-----|-----|------------------------|
| | #1 | #2 | #3 | #4 | |
| 0 | OFF | OFF | OFF | OFF | No cascade, use single |
| 1 | ON | OFF | OFF | OFF | Set to Pack1(Host) |
| 2 | OFF | ON | OFF | OFF | Set to Pack2 |
| 3 | ON | ON | OFF | OFF | Set to Pack3 |
| 4 | OFF | OFF | ON | OFF | Set to Pack4 |
| 5 | ON | OFF | ON | OFF | Set to Pack5 |
| 6 | OFF | ON | ON | OFF | Set to Pack6 |
| 7 | ON | ON | ON | OFF | Set to Pack7 |
| 8 | OFF | OFF | OFF | ON | Set to Pack8 |
| 9 | ON | OFF | OFF | ON | Set to Pack9 |
| 10 | OFF | ON | OFF | ON | Set to Pack10 |
| 11 | ON | ON | OFF | ON | Set to Pack11 |
| 12 | OFF | OFF | ON | ON | Set to Pack12 |
| 13 | ON | OFF | ON | ON | Set to Pack13 |
| 14 | OFF | ON | ON | ON | Set to Pack14 |
| 15 | ON | ON | ON | ON | Set to Pack15 |



RESET

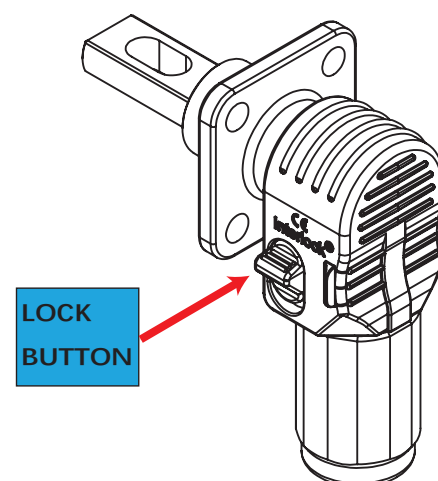
RESET: Press more than 3 seconds to restart battery module.

DRY CONTACT

Dry Contact Terminal: provided 1 way input and 1 way output dry contact signal.

POWER TERMIANL

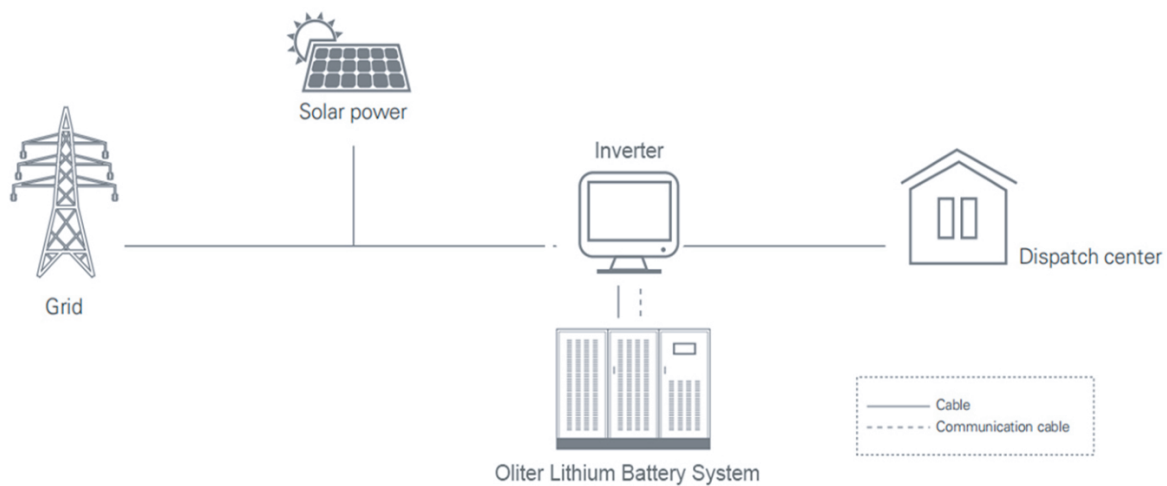
Power cable terminals: there are two pair of terminals with same function, one connect equipment, the other one paralleling to other battery module for capacity expending. For each single module, each terminal can achieve charging and discharging function. For power cables uses water-proofed AMPHENOL connectors. It must keep pressing this Lock Button during pulling out the power plug..



3.BMS Function

| Protection and Alarm | Management and Monitor |
|-------------------------------|--------------------------------|
| Charge/Discharge | Cells Balance |
| Charge Over Voltage | Intelligent Charge Model |
| Charge/Discharge Over Current | Charge/Discharge Current Limit |
| High/Low Temperature | Capacity Retention Calculate |
| Short Circuit | Administrator Monitor |
| Power Cable Reverse | Operation Record |

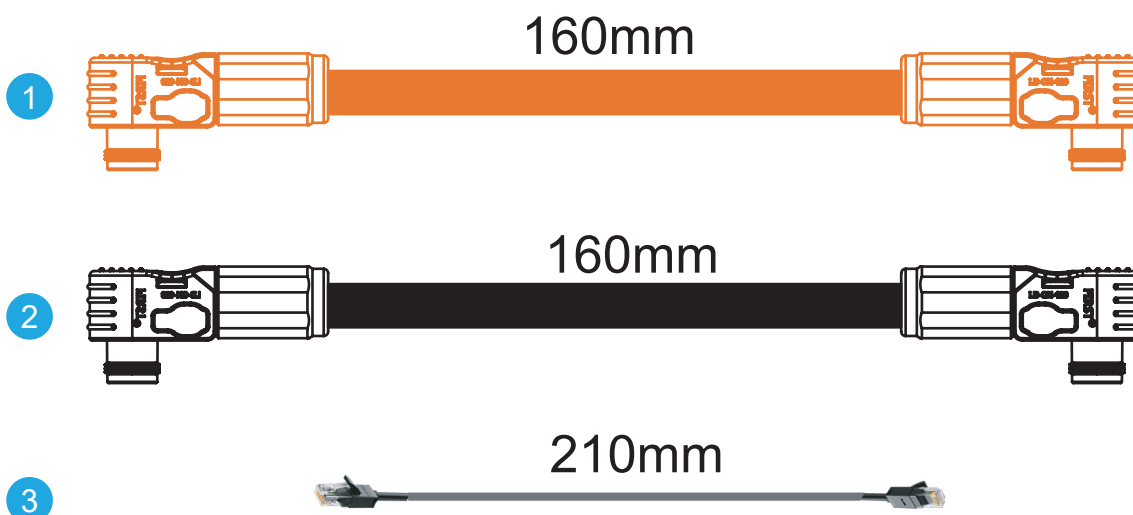
4.Schematic Diagram of Solution



5.Package Items

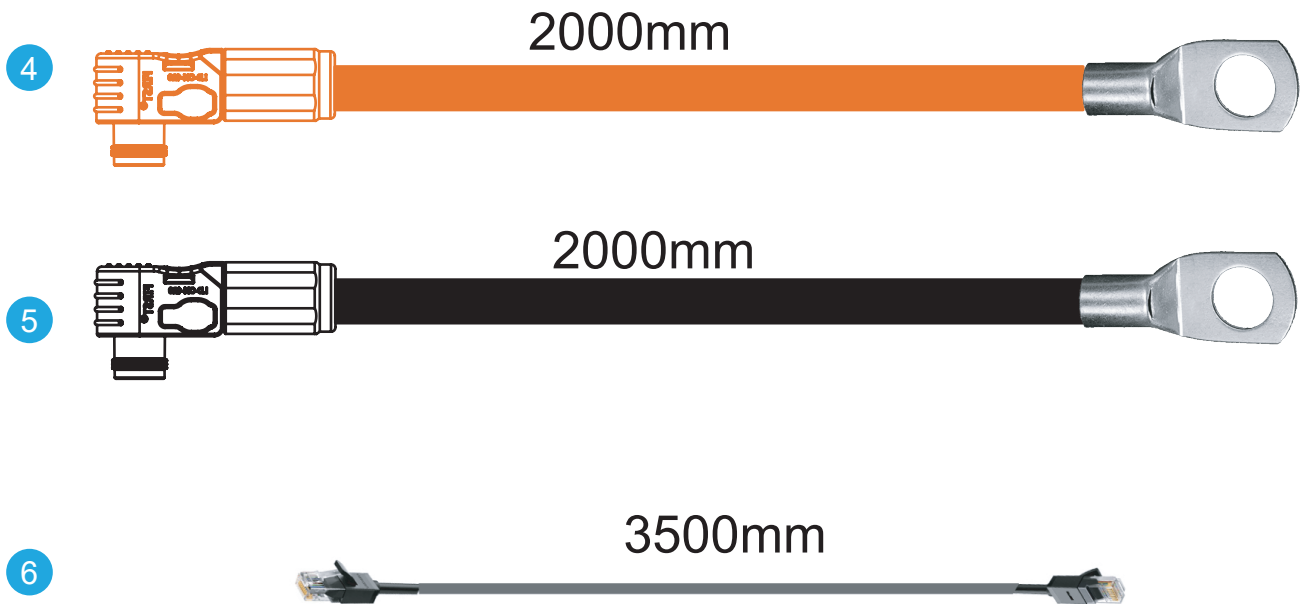
5.1 For battery module package:

Two power cables and one communication cable for each battery package:



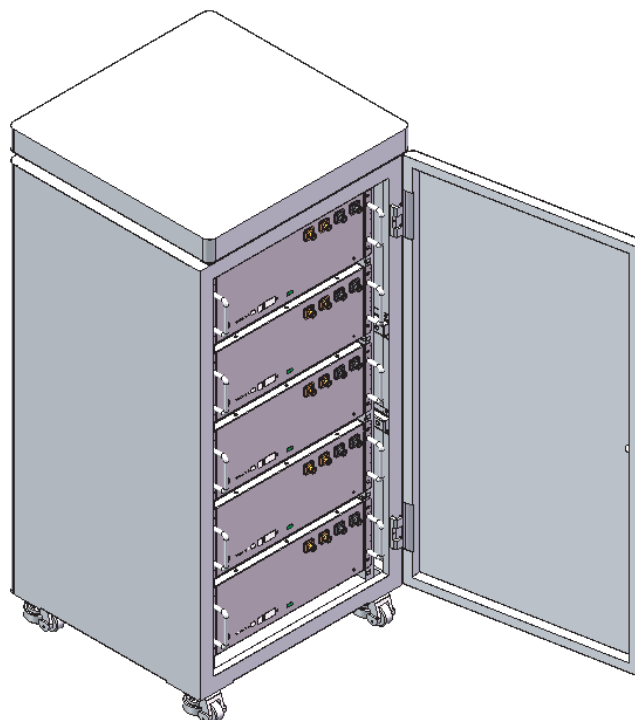
5.2 For battery system connects to inverter:

Two long power cables (current capacity 120A) and one communication cable for each energy storage system:

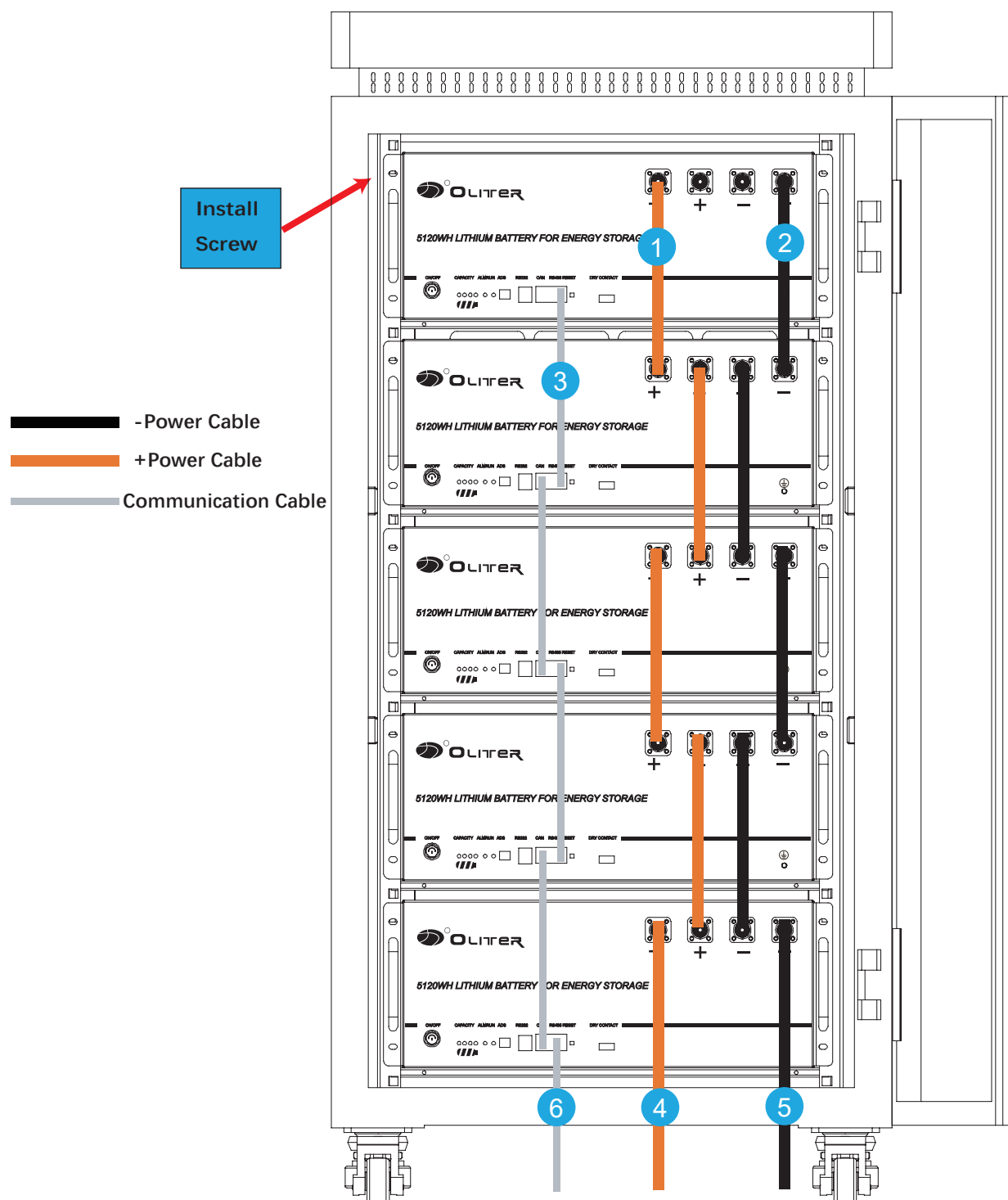


6. Installation

6.1 Put battery modules into cabinet and connect the cables:



Note: If customer needs cabinet, please contact our salers



- (1) Put the battery into the cabinet;
- (2) Drive the 4 pcs screws;
- (3) Connect the cables between battery modules;
- (4) Connect the cables to inverter
- (5) Connect the negative power cable
- (6) Connect the communication cable

6.2 Power On

Double check all the power cable and communication cable.

(1) ON/OFF

Switch on all the battery modules and the green LED light below will be on;

(2) Set ADD

Set ADD follow ADD instruction, pack 1 will be host, others are slaves.

7. Trouble Shooting Steps

7.1 Problem determination based on:

(1) Whether the battery can be truned on.

(2) If battery is turned on, check the red light is off, flashing or lighting:

(3) If the red light is off, check whether the battery can be charged/discharged.

7.2 Preliminary determination steps:

1) Battery cannot be turned on, switch on the lights are all no lighting or flashing. If the battery external switch is ON, the RUN light is flashing, and the external power supply voltage is 25.6V or more, the battery still unable to turn on, please contact distributor.

2) The battery can be turned on, but red light is lighting, and cannot be charged or discharged, red light is lighting, that means system is abnormal, please check values as following:

3) Temperature: Above 50°C or under -10°C, the battery could not work.

Solution: to move battery to the normal operating temperature range between -10°C and 50°C.

4) Current: If current is larger than 200A, battery protection will turn on.

Solution: Check whether current is too large or not, if it is, to change the settings on power supply side.

5) High Voltage: If charging voltage above 29.2V, battery protection will turn on.

Solution: Check whether voltage is too high or not, if it is, to change the settings on power supply side.

6) Low Voltage: When the battery discharges to 20V or less, battery protection will turn on.

Solution: Charge the battery for some time, the red light will turn off.

Excluding the four points above, if the faulty is still cannot be located, turn off battery and contact distributor.

7.3 The battery cannot be charged or discharged

(1) Cannot be charged:

Disconnect the power cables, measure voltage on power side, if the voltage is 28.25~28.8V, restart the battery, connect the power cable and try again, if still not work, turn off battery and contact distributor.

(2) Unable to discharge:

Disconnect the power cables and measure voltage on battery side, if it is under 20V, please charge the battery; if voltage is above 25.6V and still cannot discharge, turn off battery and contact distributor.

8. Emergency Situations

8.1 Leaking Batteries

If the battery pack leaks electrolyte, avoid contact with the leaking liquid or gas. If one is exposed to the leaked substance, immediately perform the actions described below.

Inhalation: Evacuate the contaminated area, and seek medical attention.

Contact with eyes: Rinse eyes with flowing water for 15 minutes, and seek medical attention.

Contact with skin: Wash the affected area thoroughly with soap and water, and seek medical attention.

Ingestion: Induce vomiting, and seek medical attention.

8.2 Fire

NO WATER! Only Hfc-227ea fire extinguisher can be used; if possible, move the battery pack to a safe area before it catches fire.

8.3 Wet Batteries

If the battery pack is wet or submerged in water, do not let people access it, and then contact distributor or an authorized dealer for technical support.

8.4 Damaged Batteries

Damaged batteries are dangerous and must be handled with the utmost care. They are not fit for use and may pose a danger to people or property. If the battery pack seems to be damaged, pack it in its original container, and return it to the authorized dealer.

NOTE

Damaged batteries may leak electrolyte or produce flammable gas. If such damage occurs, please contact OLITER: info@oliterbattery.co



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