

尺寸：宽140*高210mm

User manual

LD48314 Lithium Iron Phosphate Battery

Residential Energy Storage System



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01

Product Data

Specification	Description
Battery Type	LiFePO4
Normal Voltage	51.2V
Total Energy	16KWh
Normal Capacity	314Ah
Max.Charge/Discharge Current	200A
Cycle Life	>6000cycle
Communication interface	CAN/RS232/RS485/Bluetooth
Dimension	560*235*700mm
Inverter	Match all hybrid and off grid inverter brands in the world
Installation	Portable power supply
Certificates	CE,ROHS,UN38.3,MSDS,ISO

02

Inspect

2.1 Pre-Installation check

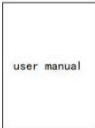
2.1.1 Outer packaging inspection

Packing materials and components may be damaged during transportation. Therefore, check the outer packing materials before installing the battery. Checking 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.

2.1.2 Checking Deliverables

After unpacking the battery, check whether deliverables are intact and complete. If any damage is found or any component is missed, contact the dealer.

Please verify the following items

			
Power line	PC cable (Optional)	Communication line	Ground wire
			
User manual	Desiccant		

2.1.3 Tool

Prepare tools				
				
knife	tape measure	socket wrench	rubber hammer	cross screwdriver
				
Percussion drill	Multimeter	Rubber gloves	goggles	mask
				
Safety shoes				

03

Product overview

3.1 Product brief

LD48314 is a lithium battery with a working voltage range of 44-58V. It is designed specifically for residential energy storage applications and is used in conjunction with a 48V battery hybrid inverter.

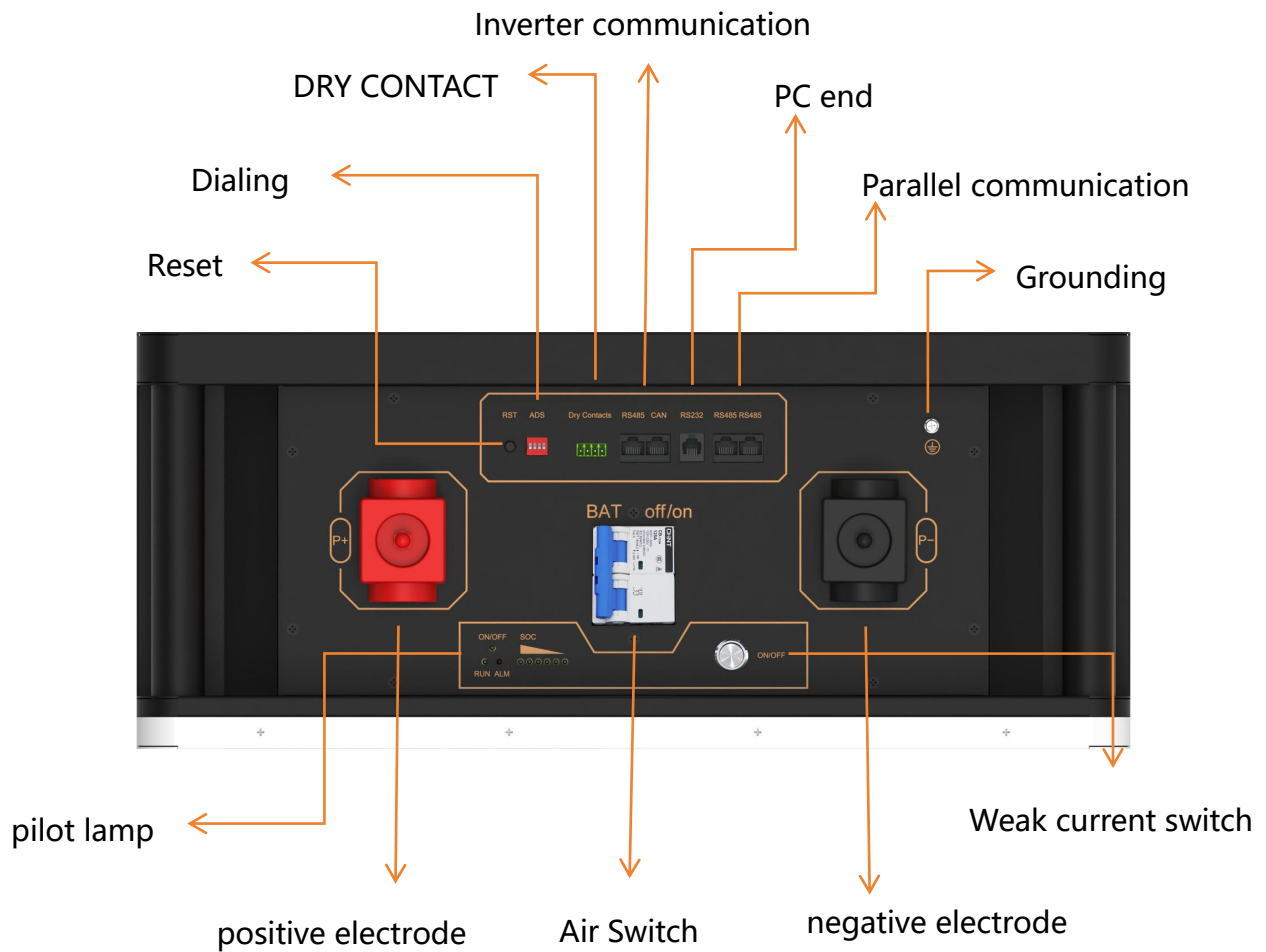
LD48314 has a built-in BMS (Battery Management System) that can manage and monitor battery information, including voltage, current, and temperature.

In addition, BMS can balance battery charging and extend cycle life. BMS has protection functions such as over discharge, over charge, over current, high and low temperature, etc; The system can automatically

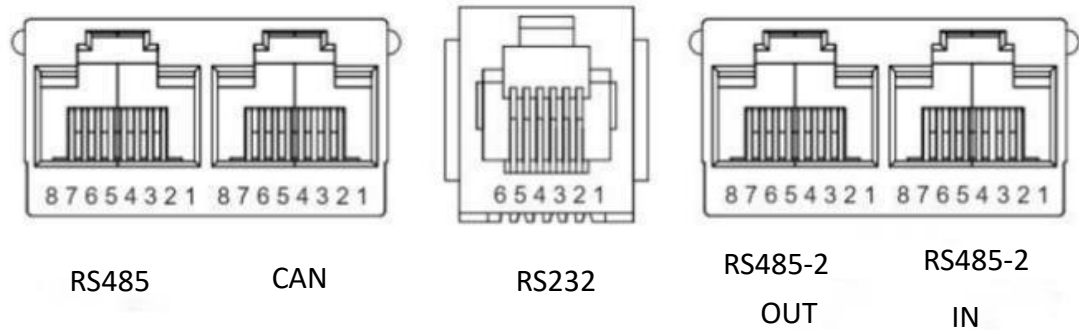
manage the charging status, discharging status, and balance status.

Multiple LD48314 can be connected in parallel to expand capacity and power, up to a maximum of 15 LD48314 can be connected in parallel.

3.2 Panel Introduction



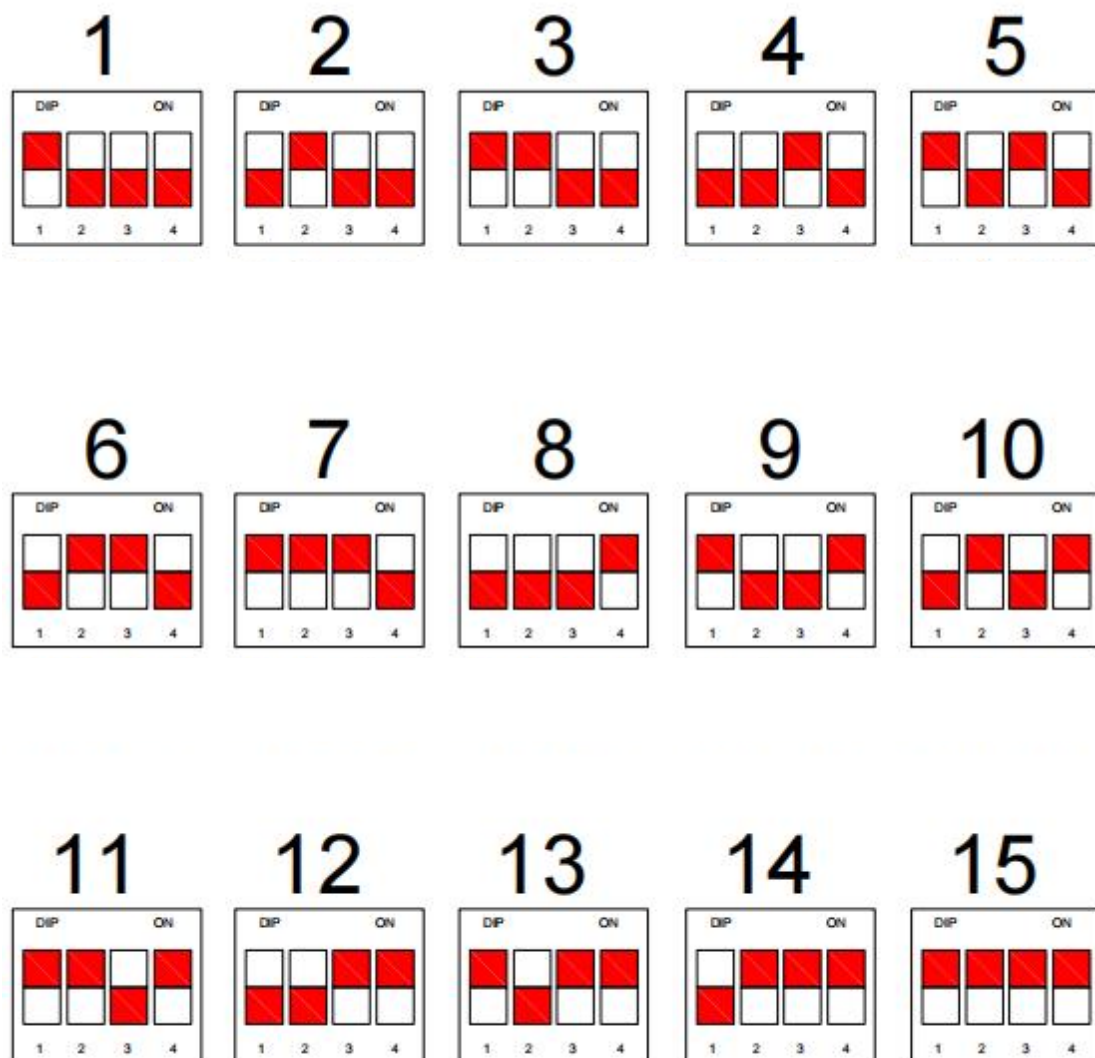
3.3 Communication port line sequence



Connector	RS485-1		CAN		RS232		RS485-2*2	
Function	Connected PC or PCS		Connected PC or PCS		Connected PC		Parallel communication*2	
Pin specification	PIN	Description	PIN	Description	PIN	Description	PIN	Description
	1、 8	RS485-B1	1、 3、 6、 7、 8	NC	1、 2、 6	NC	1、 8	RS485-B2
	2、 7	RS485-A1			3	TX	2、 7	RS485-A2
	4	NC	4	CANH1	4	RX	4、 5	NC
	5	NC	5	CANL1	5	GND	3	IN(L)/OUT(R)
	3、 6	GND	2	GND			6	GND

3.4 Dial code setting

Users can dial according to the chart based on the number of batteries. Incorrect dialing may cause communication failure between battery packs. This battery supports up to 15 parallel units.



3.5 LED lamp

State	Normal/alar m/protectio n	POWER	RUN	ALM	SOC(power indicator LED)						Instruction
											
Shut down	Sleep	off	off	off	off	off	off	off	off	off	All off
Standby	Normal	on	flash2	off	According to battery indicator						Standby state
	Alarm	on	flash2	flash1							Module of low voltage
Charging	Normal	ON	on	off	According to battery indicator(Battery indicator maximum LED flash 2)						Maximum power LED flash 2, ALM does not flash when the overcharge alarm is generated
	Alarm	on	on	flash1							
	Overcharge protection	on	flash3	flash1	on	on	on	on	on	on	If there is no mains supply, the indicator is in standby state
	Temperature, over current, fail-safe protection	on	off	flash1	off	off	off	off	off	off	Stop charging
Discharging	Normal	on	flash1	off	According to battery indicator						
	Alarm	on	flash1	flash1							
	Under-voltage protection	on	off	flash1	off	off	off	off	off	off	Stop discharging
	Under-voltage protection Temperature, over current, short-circuit, reverse connection, fail-safe protection	on	off	flash1	off	off	off	off	off	off	Stop discharging
Failure		off	off	on	off	off	off	off	off	off	Stop charging and discharging

Capacity indications

State		Charge						Discharge					
Capacity indicator		L1 ●	L2 ●	L3 ●	L4 ●	L5 ●	L6 ●	L1 ●	L2 ●	L3 ●	L4 ●	L5 ●	L6 ●
Power(%)	0~16.6%	flash	off	off	off	off	off	on	off	off	off	off	off
	16.6~33.2%	on	flash	off	off	off	off	on	on	off	off	off	off
	33.2~49.8%	on	on	flash	off	off	off	on	on	on	off	off	off
	49.8~66.4%	on	on	on	flash	off	off	on	on	on	on	off	off
	66.4~83.0%	on	on	on	on	flash	off	on	on	on	on	on	off
	83.0~100%	on	on	on	on	on	flash	on	on	on	on	on	on

Flashing instructions

Flash mode	On	Off
Flash1	0.25S	3.75S
Flash2	0.5S	0.5S
Flash3	0.5S	1.5S

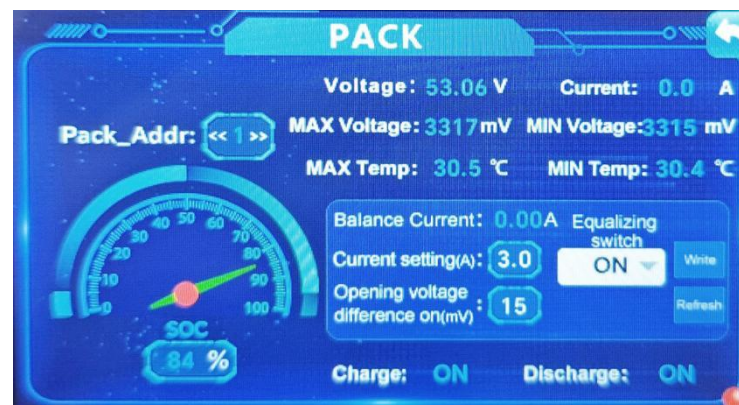
04

Screen and APP usage



Pack	Real time display of battery information
Chart	Real time chart function
Cells	Real time display of battery cell information
Set	Communication protocol switching
Alarm	Alarm status, protection status, fault status
Product	Software version, serial number, and manufacturer information

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



Cells: Real time display of battery cell information: cell voltage, cell temperature

The screenshot displays the 'CELLS' interface with a table of cell information:

Cell ID	Voltage (mV)	Cell ID	Voltage (mV)	Cell ID	Voltage (mV)
C_001: 3316	mv	C_009: 3316	mv	C_017:	mv
C_002: 3317	mv	C_010: 3315	mv	C_018:	mv
C_003: 3317	mv	C_011: 3317	mv	C_019:	mv
C_004: 3316	mv	C_012: 3316	mv	C_020:	mv
C_005: 3317	mv	C_013: 3316	mv	C_021:	mv
C_006: 3317	mv	C_014: 3316	mv	C_022:	mv
C_007: 3317	mv	C_015: 3315	mv	C_023:	mv
C_008: 3316	mv	C_016: 3315	mv	C_024:	mv

Set: BMS CAN/RS485 communication protocol switching, battery communication address switching, LCD language switching, touch calibration, screen brightness.



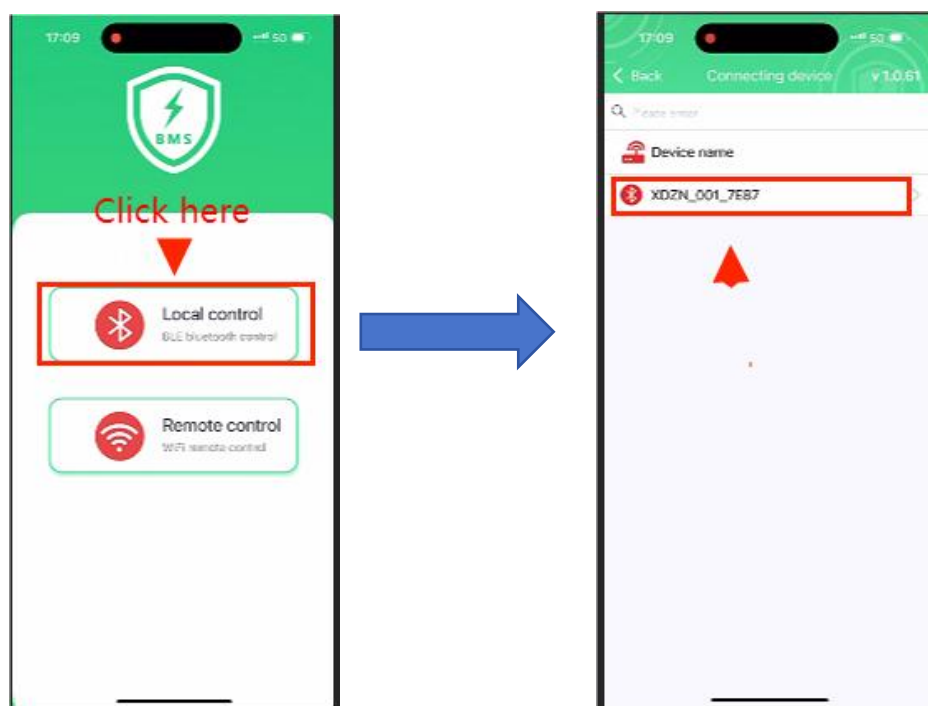
Select RS485/CAN for communication based on the communication interface corresponding to the inverter, switch the communication protocol according to the diagram, and choose the corresponding communication protocol and option

4.1 Bluetooth module

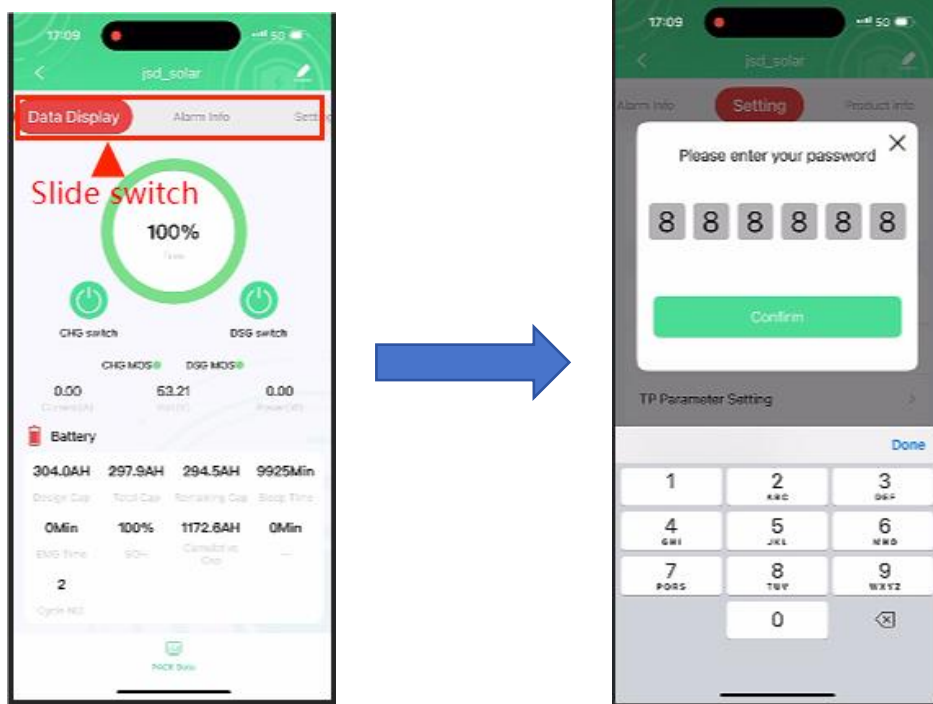
Scan the QR code to download the Bluetooth app
"BMS META" or search and download from the app
store



After installation, click to enter the app

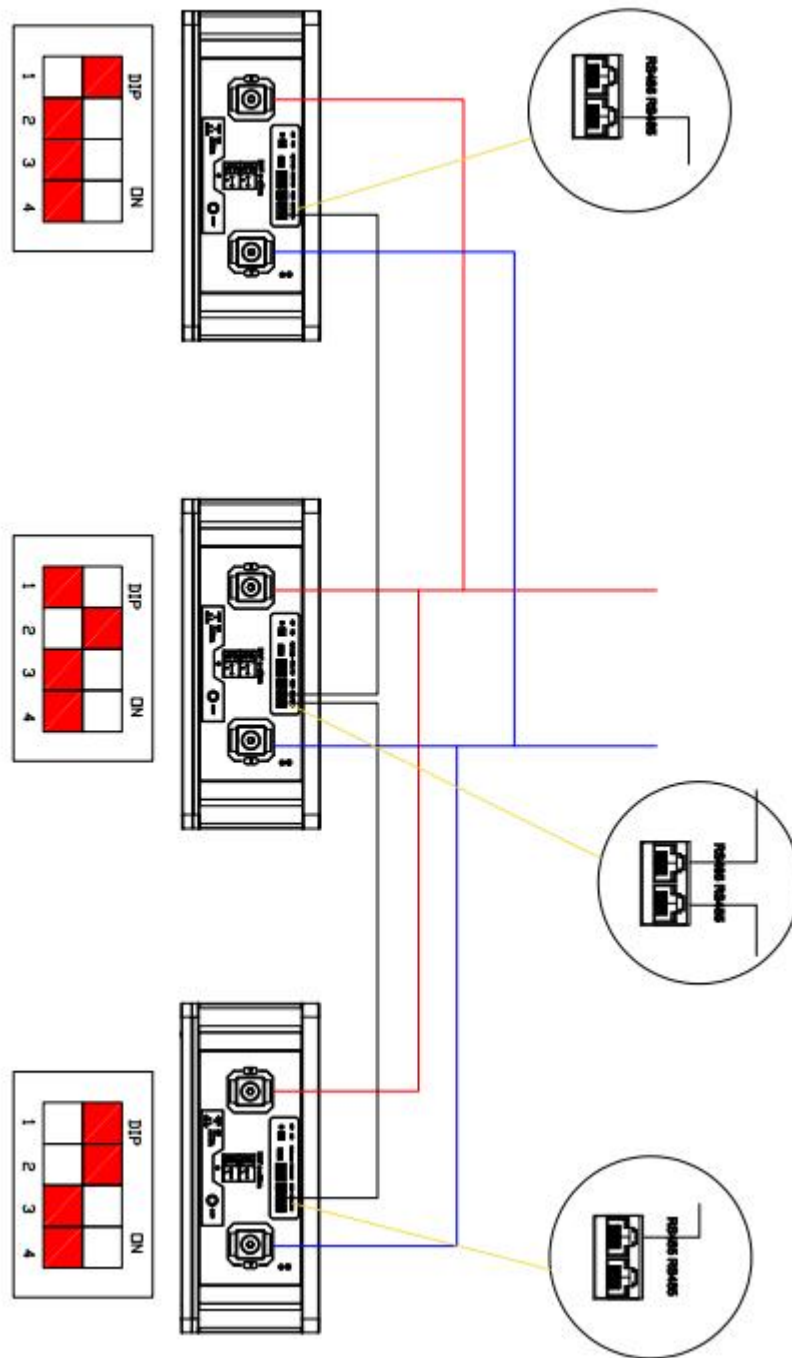


After displaying normal data, it indicates successful communication. Swipe the red area to select the interface you want to view, change the parameter password to "888888", and modify the communication protocol in the settings interface; Tip: Do not easily modify parameters. Please make changes after consultation.



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Parallel schematic diagram



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