



尺寸: 210*140MM

User manual

**LD48100 Lithium Iron Phosphate Battery Residential
Energy Storage System**



LD48100 Operation Manual

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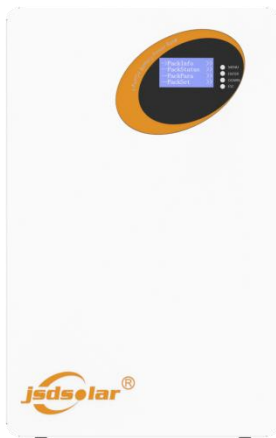
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TECHNICAL DATA

Be careful

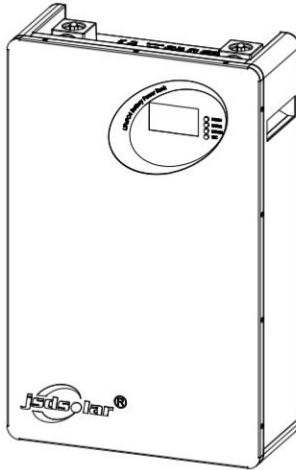
Reduce operating current based on battery voltage and temperature



Specification	Description
Total Energy	5KWh
Battery Type	LiFePO4
Normal Voltage	51.2V
Normal Capacity	100Ah
Max.Charge/ Discharge Current	100A
Cycle Life	>6000cycle
Communication interface	CAN/RS232/RS485
Dimension	574*363*165mm
Inverter	Match all hybrid and off grid inverter brands in the world
Installation	Power Wall mounted
Certificates	CE,ROHS,UN38.3,MSDS,ISO

PRODUCT OVERVIEW

2.1 Brief introduction



LD48100 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.

LD48100 has a built-in BMS (Battery Management System) that can manage and monitor battery information, including voltage, current, and temperature.

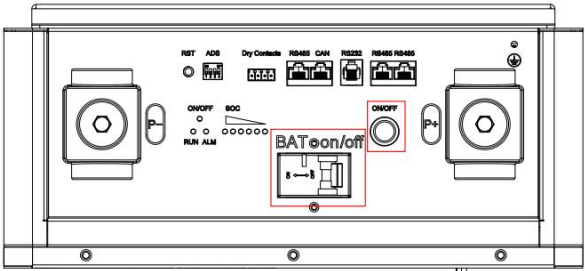
In addition, BMS can balance battery charging and extend cycle life. BMS has protection functions such as over discharge, over charge, over current, high and low temperature, etc; The system can automatically

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

Multiple LD48100 can be connected in parallel to expand capacity and power, up to a maximum of 15 LD48100 can be connected in parallel.

2.2 Interface Introduction

2.2.1 Switch



Air switch : Before using the battery, check if the air switch is turned on

Power switch : After turning on the air switch, turn on the power switch and observe whether the LED lights and display screen are lit up normally

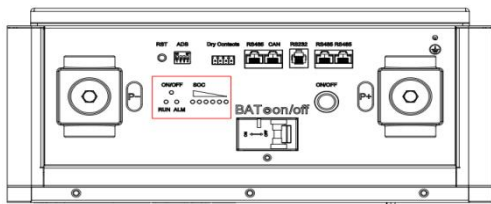
2.2.2 LED lamp

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



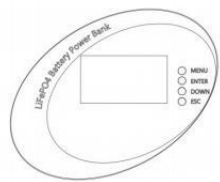
State of system	Event	Mos (LED9)	Run (LED8)	Alarm (LED7)	SOC(LED6-1)						describe	
					LED6	LED5	LED4	LED3	LED2	LED1		
												
Power off	Sleep	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ALL LEDs turn off	
Static state	Normal	OFF	Flash1	OFF	Refer to the battery SOC display instructions						/	
	Alarm	OFF	Flash1	Flash1							/	
Charging	Normal	OFF	ON	OFF							/	
	Alarm	OFF	ON	Flash3							The over-voltage alarm does not flash	
	OV protect	ON	ON	OFF							ON	ON
	Temperature, Over-current, fail-safe	ON	OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF	/	
DisCharging	Normal	OFF	Flash3	OFF	Refer to the battery SOC display instructions							
	Alarm	OFF	Flash3	Flash3								
	Temperature, Over-current, fail-safe, Short circuit	ON	Flash2	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	/
		ON	OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	/

Refer to the battery SOC display instructions

State		Charging						DisChargning					
LED		LED6	LED5	LED4	LED3	LED2	LED1	LED6	LED5	LED4	LED3	LED2	LED1
SOC(%)	0~16.6%	OFF	OFF	OFF	OFF	OFF	FlaSh2	OFF	OFF	OFF	OFF	OFF	ON
	16.6~33.2%	OFF	OFF	OFF	OFF	Flash2	ON	OFF	OFF	OFF	OFF	ON	ON
	33.2~49.8%	OFF	OFF	OFF	Flash2	ON	ON	OFF	OFF	OFF	ON	ON	ON
	49.8~66.4%	OFF	OFF	Flash2	ON	ON	ON	OFF	OFF	ON	ON	ON	ON
	66.4~83.0%	OFF	Flash2	ON	ON	ON	ON	OFF	ON	ON	ON	ON	ON
	83.0~100%	Flash2	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
RUN LED		ON						Flash3					

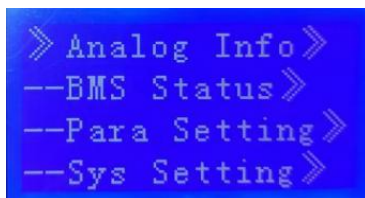
2.2.3 Buttons and Display Screen

Button usage



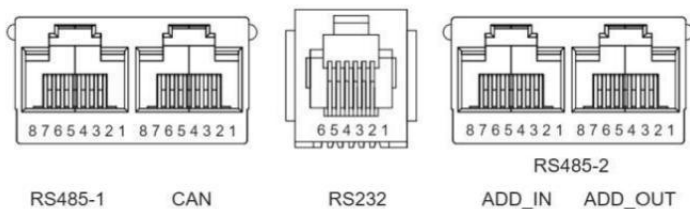
Number	Function	Notes
1	Main menu	Start the screen or get back into the main page
2	Enter	Select and get into the page
3	Down	Move the selection down
4	Esc	Escape from current page

Display



Name	Definition
Analog Info	This page allows you to view voltage,current,temperature,and other data
BMS Status	This page allows you to view the protection status
Para Setting	This page can set some protection parameters and is currently not open
Sys Setting	This page allows viewing the baud rate

2.2.4 Communication port



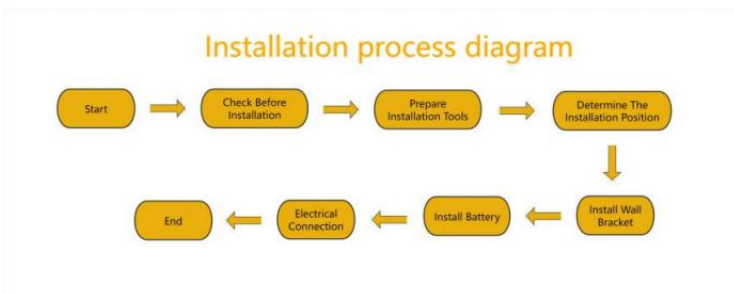
Connector	RS485-1		CAN		RS232		RS485-2*2	
Function	Connected PC or PCS		Connected PC or PCS		Connected PC		Parallel communication*2	
Pin specification	PIN	Description	PIN	Description	PIN	Description	PIN	Description
	1、 8	RS485-B1	1、 3、 6、 7、 8	NC	1、 2、 6	NC	1、 8	RS485-B2
	2、 7	RS485-A1			3	TX	2、 7	RS485-A2
	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

2.2.5 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.

ON Channel 1 DIP 1 0 0 0	ON Channel 6 DIP 0 1 1 0	ON Channel 11 DIP 1 1 0 1	Channel 1 : 0001 Channel 2 : 0010 Channel 3 : 0011 Channel 4 : 0100 Channel 5 : 0101
ON Channel 2 DIP 0 1 0 0	ON Channel 7 DIP 1 1 1 0	ON Channel 12 DIP 0 0 1 1	Channel 6 : 0110 Channel 7 : 0111
ON Channel 3 DIP 1 1 0 0	ON Channel 8 DIP 0 0 0 1	ON Channel 13 DIP 1 0 1 1	Channel 8 : 1000 Channel 9 : 1001 Channel 10 : 1010
ON Channel 4 DIP 0 0 1 0	ON Channel 9 DIP 1 0 0 1	ON Channel 14 DIP 0 1 1 1	Channel 11 : 1011 Channel 12 : 1100
ON Channel 5 DIP 1 0 1 0	ON Channel 10 DIP 0 1 0 1	ON Channel 15 DIP 1 1 1 1	Channel 13 : 1101 Channel 14 : 1110 Channel 15 : 1111

INSTALLATION GUIDE



3.1 PRE-INSTALLATION CHECK

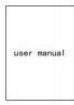
3.1.1 Outer packaging inspection

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.

3.1.2 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

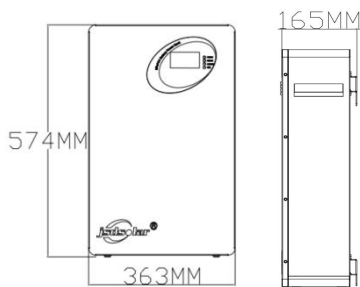
			
Power line	Expansion bolt, cross screw	Communication line	Ground wire
			
PC cable (Optional)	Desiccant	User manual	

3.2 Tool

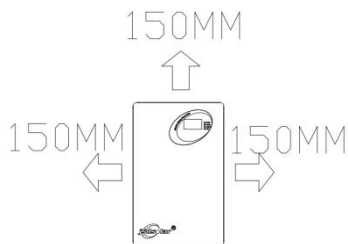
prepare tools				
				
knife	tape measure	socket wrench	rubber hammer	cross screwdriver
				
Percussion drill	multimeter	Rubber gloves	goggles	mask
				
Safety shoes				

3.3 size

Single battery size



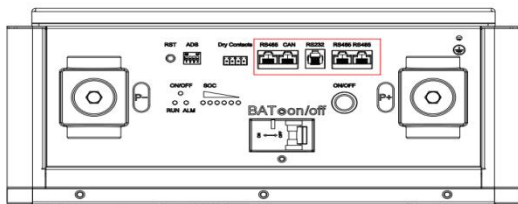
Installation distance



3.4 Installation steps

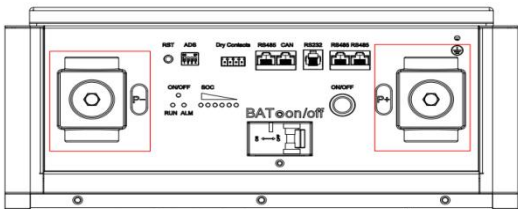
Step 1

Connect communication cables



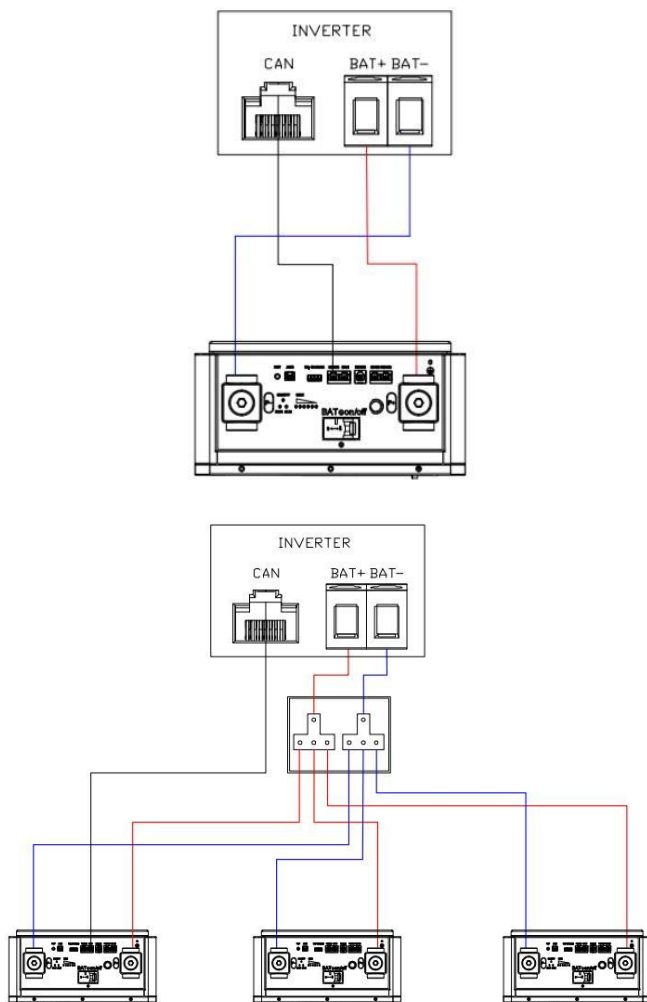
Step 2

Connect the power cord

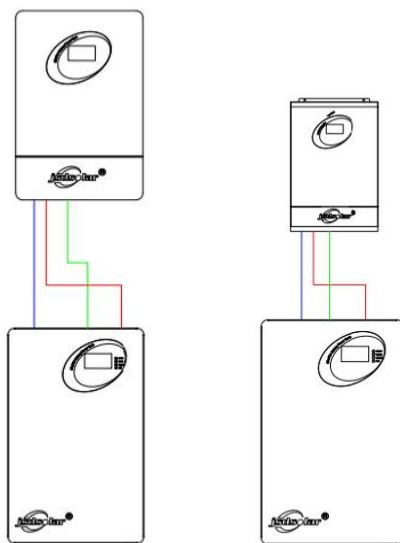


Step 3

Single or multiple connection



Simplified diagram for connecting inverters



Tip: Please select RS485/CAN communication port to communicate with the battery according to the actual needs of the inverter

Shenzhen Jinsdon Lighting Technology CO.,LTD

**Address : NO:68, Bai Gong Ao Industrial Zone,XiKeng Community,
GuanLan Town , LongHua District,ShenZhen City,
518110,China.**

Tel : 86-0755-89918655

E-mail: sales@jinsdonsolar.com

Website: <http://www.jsdsolar.com>