



USER MANUAL

BIZ-512100-G3 LFP Battery

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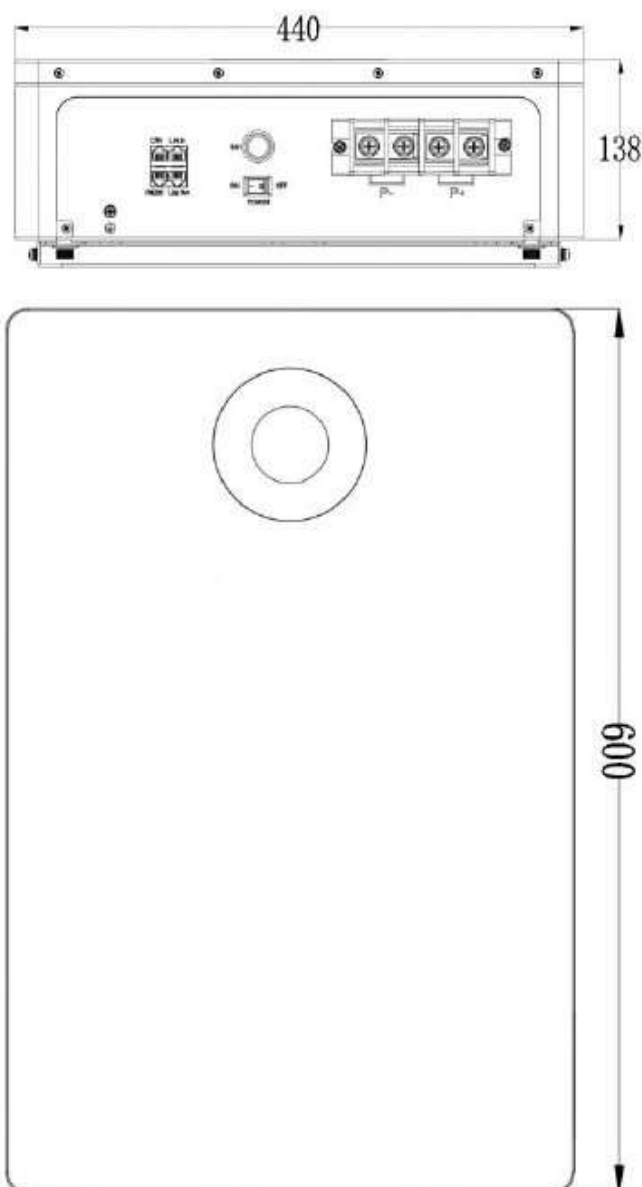
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1 Product Overview

BIZ-512100-G3 is a 51.2V 100Ah Lithium battery that can be wall mounted or floor mounted.

Note: LVTS-512100-G3 is **NOT** suitable for life-sustaining medical devices.

1.1 Appearance



1.2 Switch, LCD, LED & Communication Port

1.2.1 Switch ON/OFF

1、Switch ON

For single BIZ-512100-G3 switch ON POWER button, then long press (3 sec) SW button.

For multiple BIZ-512100-G3 connected in parallel, switch ON POWER buttons of all batteries, then long press (3 sec) SW button of master battery.

2、Switch OFF

Switch OFF POWER button(s) of all batteries.

1.2.2 Color touchscreen

1) Swipe the screen to see “SN Info”, “Capacity Info”, “Temp Info”, “Cell Voltage”, “Current Event”, “History Event”, “Set Protocol” & “Display Time”.

2) If current protocol is incorrect, tap “CAN” checkbox and select correct protocol.

3) If current time is incorrect, tap “Set Time” button and change time then tap “Save” button.





SN Info

VER : P16S200A-41123-1.01G
PACK:AS001007080424010001
BMS : 315301540300781D

Capacity Info

Capacity:200AH
SOH:100%
SOC:50%
Cycle:0

Temp Info

T1:25.0℃ T3:25.0℃
T2:25.0℃ T4:25.0℃
T_MOS:25.0℃
T_ENV:25.0℃

Cell Volatge

01:3200mV	09:3200mV
02:3200mV	10:3200mV
03:3200mV	11:3200mV
04:3200mV	12:3200mV
05:3200mV	13:3200mV
06:3200mV	14:3200mV
07:3200mV	15:3200mV
08:3200mV	16:3200mV

51.2V 0A

Current Event

Alarm: None
Protect:None
Fault:None

History Event

001 04.29 12:00 p0VW

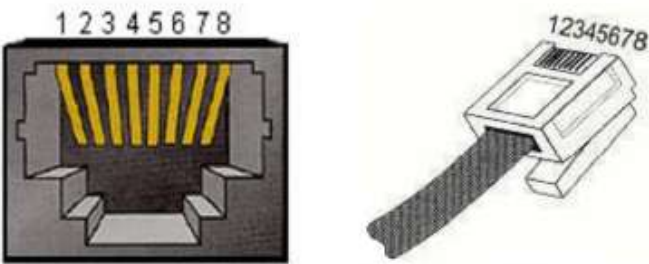




Set Protocol PYLON CAN ☒ RS485 ☒	Set Protocol 01:PYLON ☒ 02:GROWATT ☐ 03:VICTRON ☐ 04:SMA ☐ 05:MUST ☐ 06:SO FAR ☐
Display Time 2024 - 4 - 29 12:00 Set Time	Set Time 2024 - 4 - 29 12:00 Save Cancel

1.2.3 Communication Port Definition

1.2.3.1 CAN/RS485 to PCS

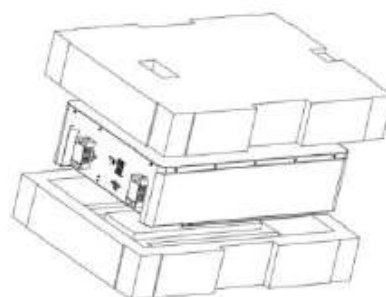
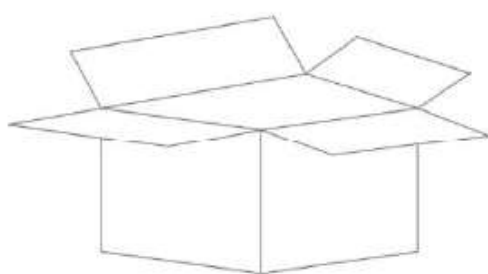
Port definitions	RJ45 Pin	Function
	1	RS485-B
	2	RS485-A
	3	GND
	4	CAN-H
	5	CAN-L
	6	NC
	7	RS485-A
	8	RS485-B

1.2.3.2 RS232 to PC

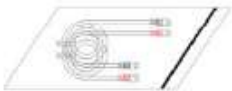
Port definitions	RJ45 Pin	Function
	1	RS232-TX
	2	GND
	3	RS232-RX
	4	NC
	5	NC
	6	NC
	7	NC
	8	NC

2 Installation Guide

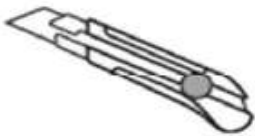
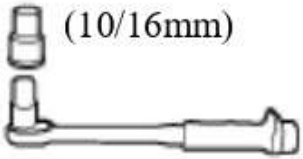
2.1 Checking Deliverables

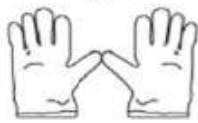


NO.	Pictures	Quantity	Description
1		1 pc	Battery
2		6 pcs	Battery hanging bolt
3		6 pcs	Battery hanger
4		1 pc	Wall Mount
5		2 pcs	Wall Mount Bottom Bolt
6		6 pcs	Expansion Bolt

7		1 pc	cover
8		2 pcs	Cover bolt
9		1 pair	Power cable
10		1 pc	Comm cable
11		1 pc	User Manual

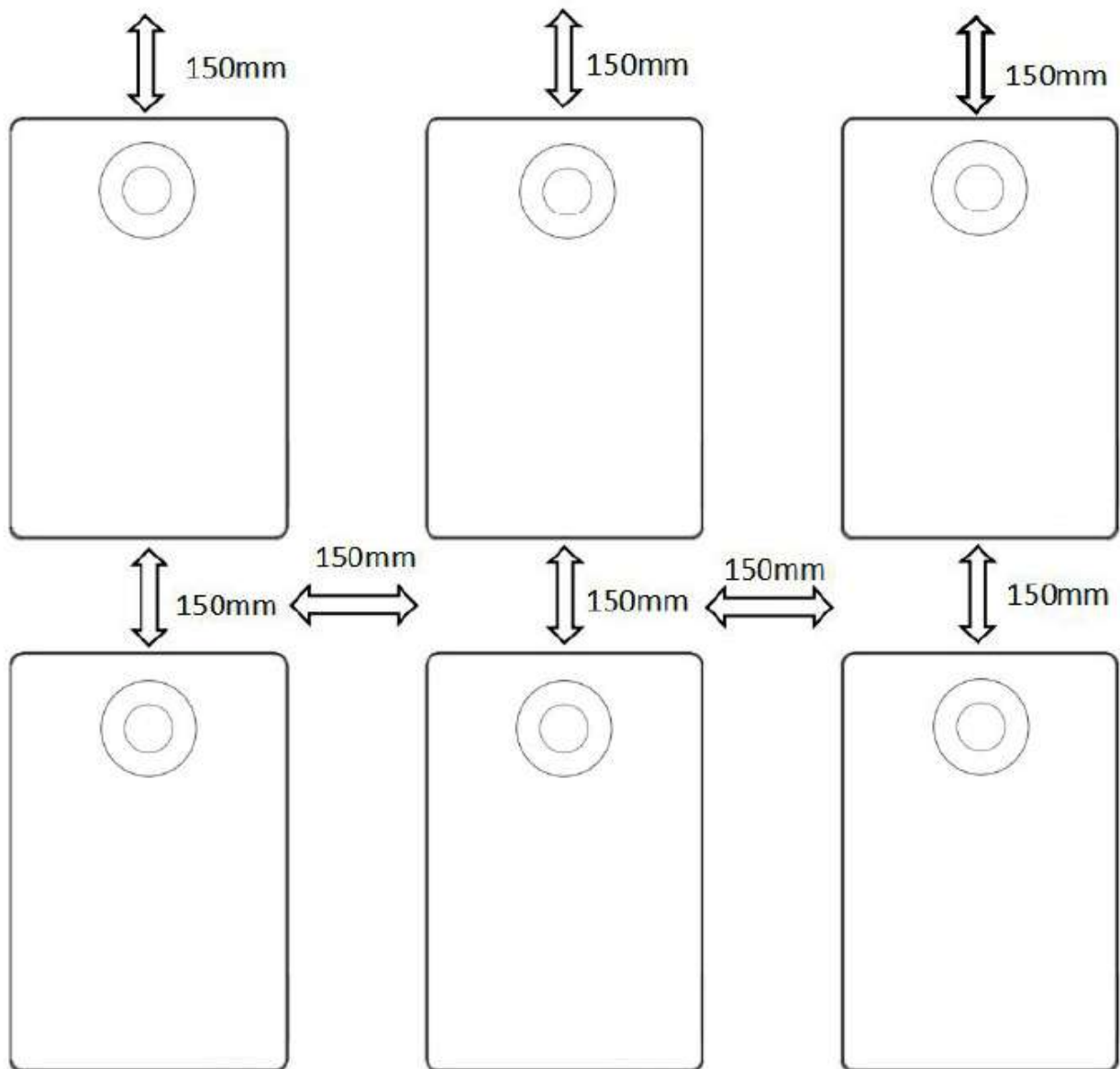
2.2 Tools

Tools			
Installation	Knife 	Measuring tape 	Socket wrench (10/16mm) 
	Hammer 	Cross Screwdriver 	Hammer drill 

Protection	ESD gloves	Safety goggles	Safety Shoes
			

2.3 Installation Instructions

Minimum mounting distance requirement: (Wall Mounted)



2.3.1 Installation Step (Floor Mounted)

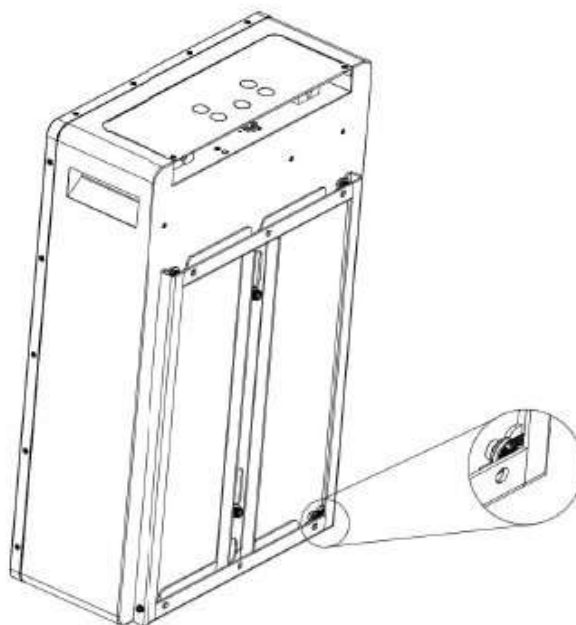
Step 1

put BIZ-512100-G3 on floor then start from Step 7

2.3.2 Installation Step (Wall Mounted)

Step 1

Remove 2 pcs wall mount bottom bolts,
remove wall mount from battery.



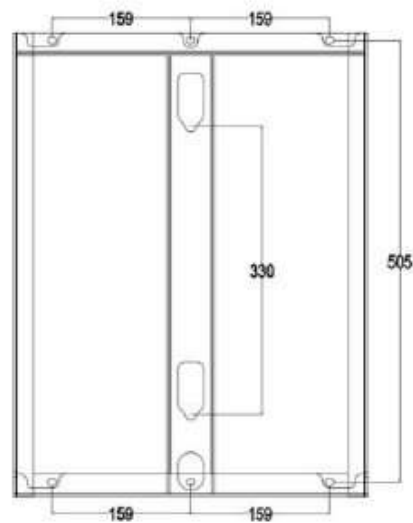
Step 2

Drill holes in the wall
according to wall mount.

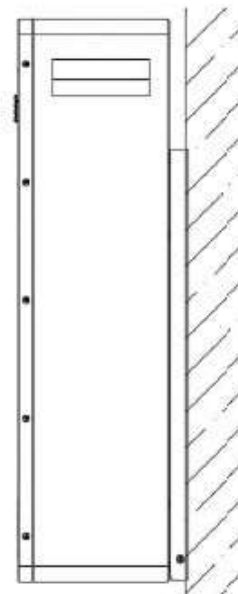


Step 3

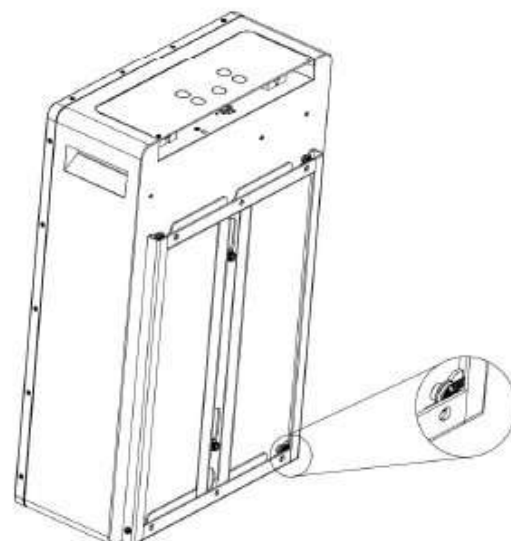
Fix wall mount to the wall
using expansion bolt.

**Step 4**

Hang BIZ-512100-G3 battery on wall mount.

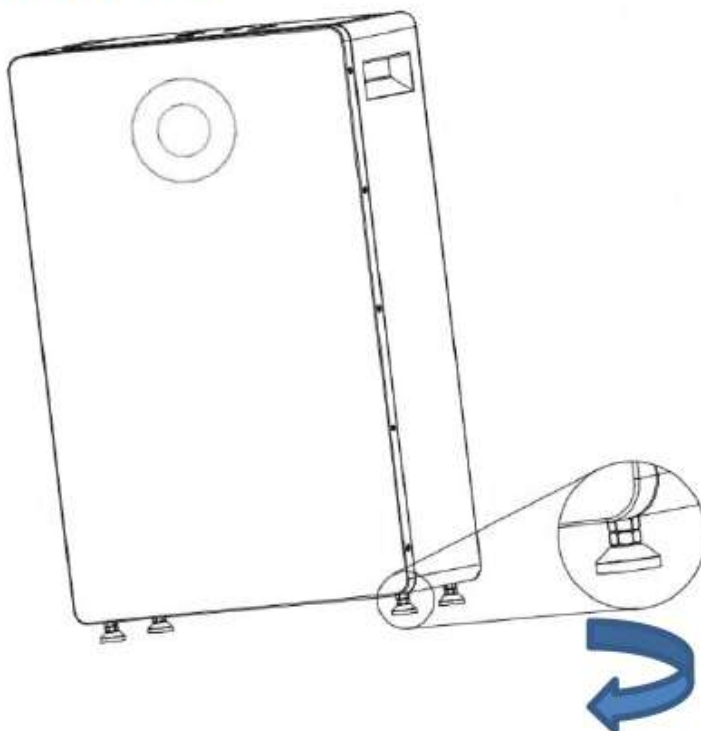
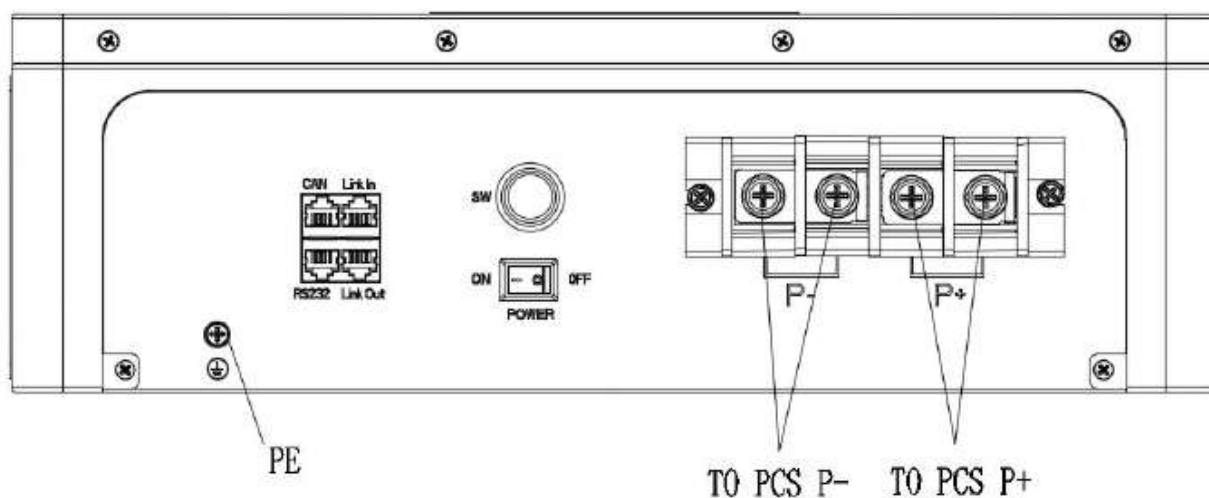
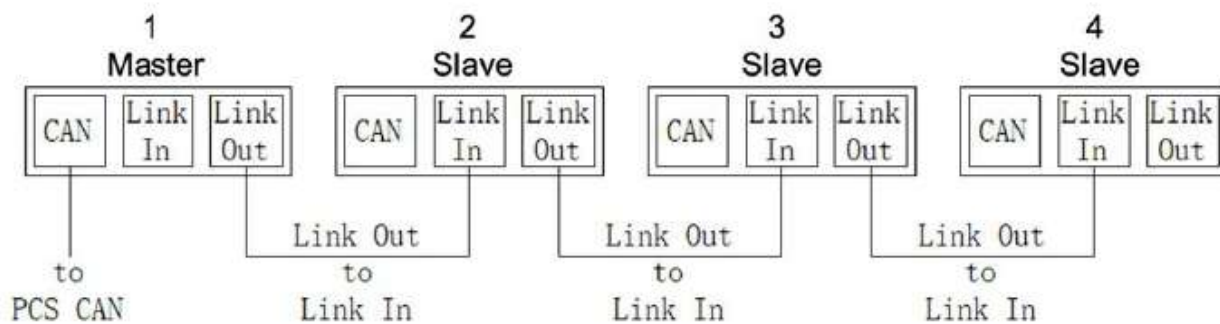
**Step 5**

Install 2 pcs wall mount bottom bolts.

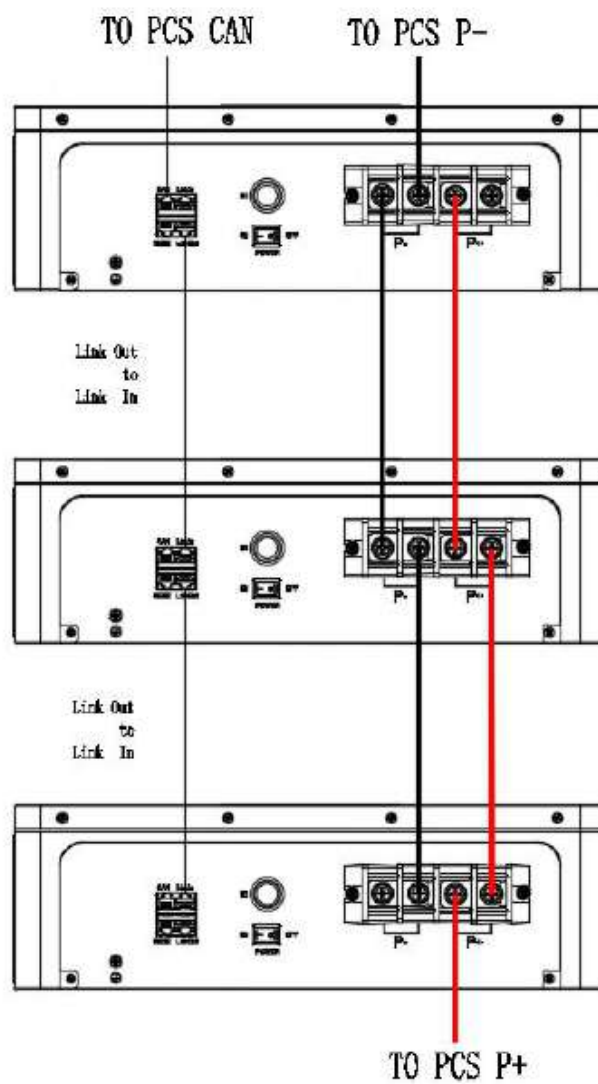


Step 6

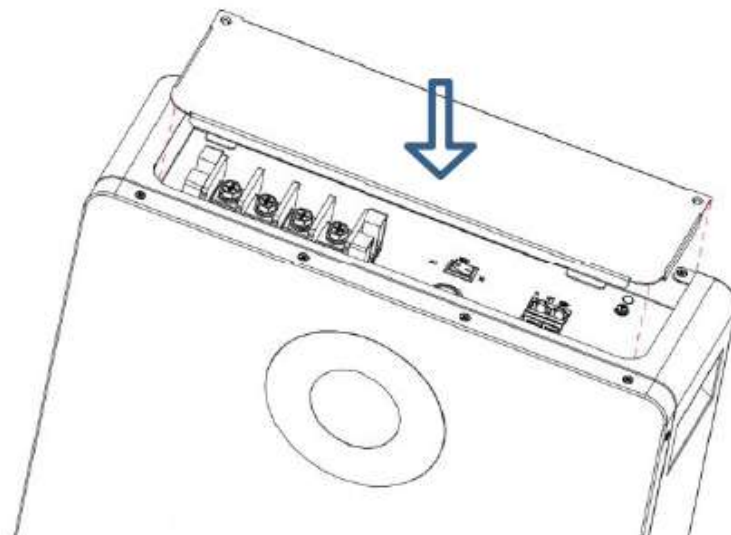
remove levelling feet.

**Step 7** Connect PE cable & power cable.**Step 8** Connect communication cable.

Step 9 Refer to the following diagram when multiple batteries are connected in parallel:



Step 10 Install cover using cover bolts.



3 Technical Specifications

Basic Project		Parameter
Nominal Voltage		51.2V
Nominal Capacity		100Ah
Nominal Energy		5120Wh
Charge Voltage		56.16V
Charge Current		50A
Discharge Voltage Range		45.6V~56.16V
Discharge Current		100A
Communication Mode		CAN/RS485
Working	Charge	0°C ~ 55°C
Temperature	Discharge	-20°C ~ 55°C
Storage	Short Term (within 1 month)	-10°C ~ 45°C
Temperature	Long Term (within 1 year)	0°C ~ 35°C
Storage Humidity		<95% RH
Cell Type		LiFePO ₄ , Lithium Iron Phosphate
Size		H600*W440*D138(mm)
Weight		47.2KG (Wall Bracket Included)
IP Level		IP21

4 Maintenance

4.1 Recharge Requirements During Storage

Batteries should be stored in temperature between $-10^{\circ}\text{C} \sim +45^{\circ}\text{C}$, and recharged regularly according to the following table with 0.2C (20A) current to 50% SOC after long time storage.

Recharge requirement during storage

Storage Temperature	Storage Relative Humidity	Storage Time	SOC
Below -10°C	/	Not Allowed	/
$-10 \sim 0^{\circ}\text{C}$	5%~70%	≤ 1 months	$30\% \leq \text{SOC} \leq 60\%$
$0 \sim 25^{\circ}\text{C}$	5%~70%	≤ 12 months	$30\% \leq \text{SOC} \leq 60\%$
$25 \sim 35^{\circ}\text{C}$	5%~70%	≤ 6 months	$30\% \leq \text{SOC} \leq 60\%$
$35 \sim 45^{\circ}\text{C}$	5%~70%	≤ 1 months	$30\% \leq \text{SOC} \leq 60\%$
Above 45°C	/	Not Allowed	/

4.2 Recharge Requirements When Over Discharged

Please recharge over discharged (90% DOD) batteries according to the following table, otherwise over discharged battery will be damaged.

Recharge requirement when battery is over discharged

Storage Temperature	Storage Time	Note
$-10 \sim 25^{\circ}\text{C}$	≤ 15 days	Battery disconnected from PCS
$25 \sim 45^{\circ}\text{C}$	≤ 7 days	
$-10 \sim 45^{\circ}\text{C}$	< 12 hours	Battery connected to PCS

Attention: Disposal of batteries should follow local regulations.