



USER MANUAL

LVTS-512200 LFP Battery

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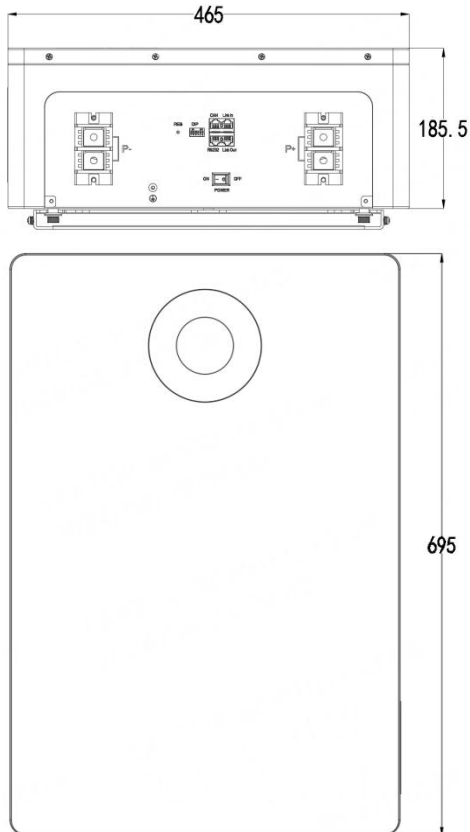
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1 Product Overview

LVTS-512200 is a 51.2V 200Ah Lithium battery that can be wall mounted or floor mounted.

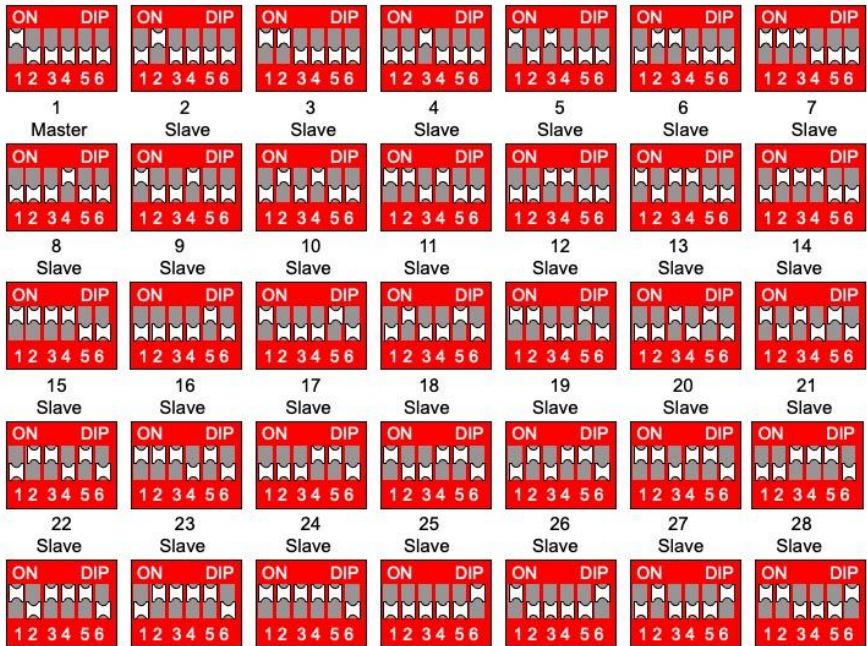
Note: LVTS-512200 is **NOT** suitable for life-sustaining medical devices.

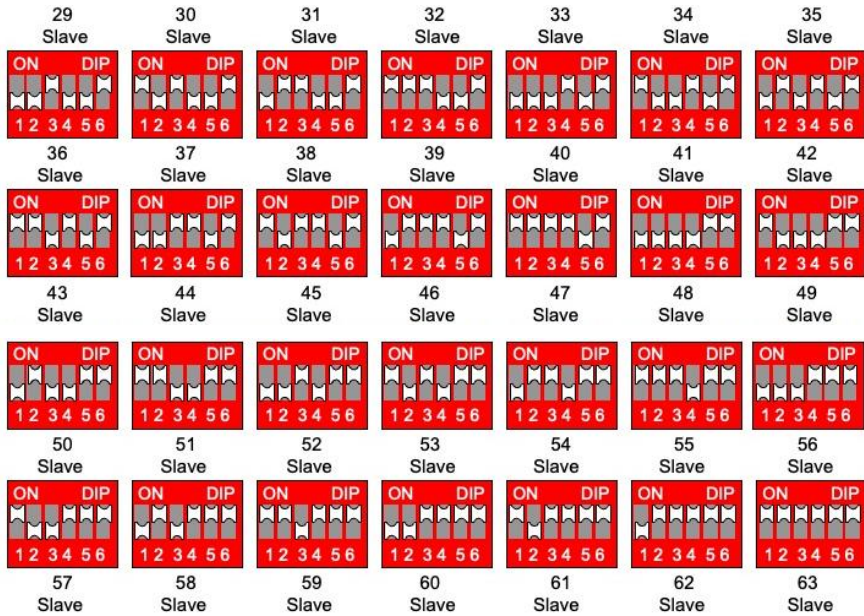
1.1 Appearance



1.2 Switch, LCD, LED & Communication Port

1.2.1 DIP Switch





1.2.2 Switch ON/OFF

1、Switch ON

For single LVTS-512200, set DIP switch to 1, then switch ON POWER button.

For multiple LVTS-512200 connected in parallel, set DIP switch according to 1.2.1, then switch ON POWER buttons of all batteries.

2、Switch OFF

Switch OFF POWER button(s) of all batteries.

1.2.3 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 °C T3: 25.0 °C
 T2: 25.0 °C T4: 25.0 °C
 T_MOS: 25.0 °C
 T_ENV: 25.0 °C

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

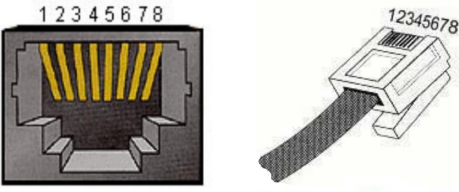
51.2V 0A



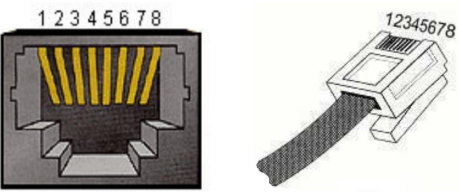
<h3>Current Event</h3> <p>Alarm: None Protect:None Fault:None</p>	<h3>History Event</h3> <p>001 04.29 12:00 p0VW</p> <p>▲ ▼</p>
<h3>Set Protocol</h3> <p>PYLON CAN <input checked="" type="checkbox"/></p> <p>RS485 <input checked="" type="checkbox"/></p>	<h3>Set Protocol</h3> <p>01:PYLON <input checked="" type="checkbox"/></p> <p>02:GROWATT <input type="checkbox"/></p> <p>03:VICTRON <input type="checkbox"/></p> <p>04:SMA <input type="checkbox"/></p> <p>05:MUST <input type="checkbox"/></p> <p>06:SO FAR <input type="checkbox"/></p>
<h3>Display Time</h3> <p>2024 - 4 - 29 12:00</p> <p>Set Time</p>	<h3>Set Time</h3> <p>2024 - 4 - 29 12:00</p> <p>Save Cancel</p>

1.2.4 Communication Port Definition

1.2.4.1 CAN/RS485 to PCS

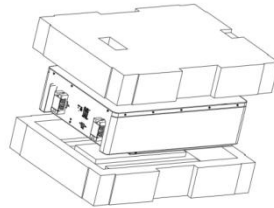
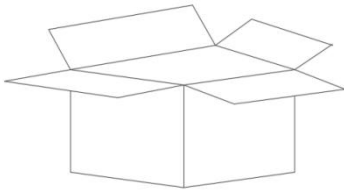
Port definitions	RJ45 Pin	Function
	1	RS485-B
	2	RS485-A
	3	GND
	4	CAN-H
	5	CAN-L
	6	NC
	7	RS485-A
	8	RS485-B




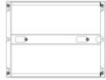


1.2.4.2 RS232 to PC



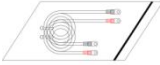


Port definitions	RJ45 Pin	Function
	1	RS232-TX
	2	GND
	3	RS232-RX
	4	NC
	5	NC
	6	NC
	7	NC
	8	NC

2 Installation Guide

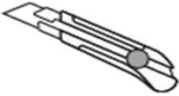

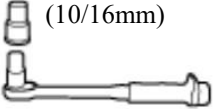



2.1 Checking Deliverables



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	Instruction book

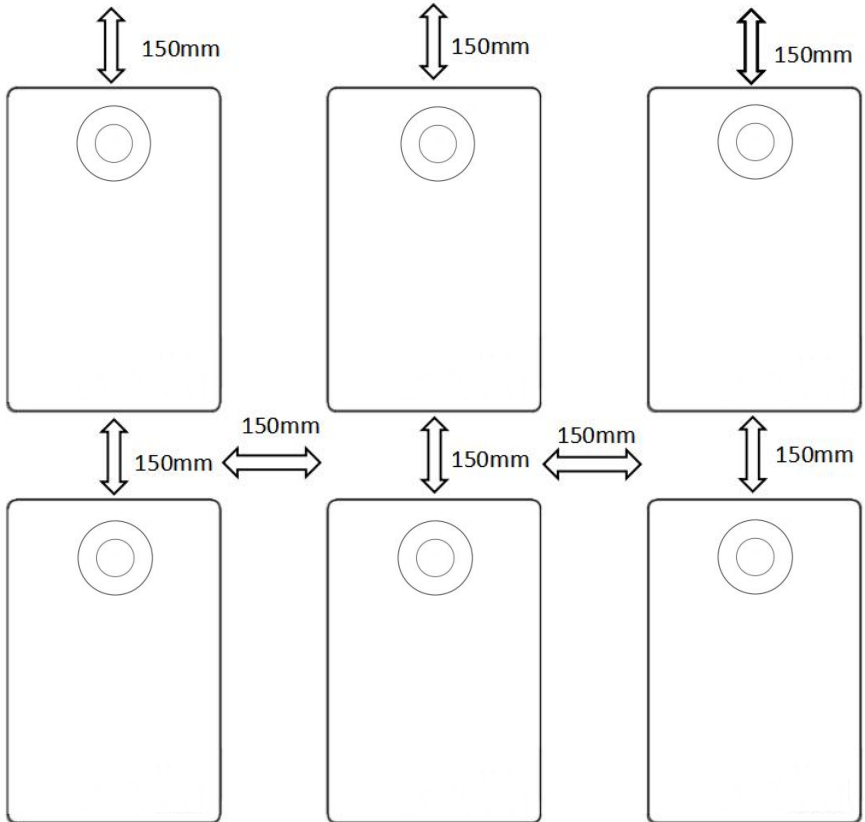
2.2 Tools

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

Protection	ESD gloves 	Safety goggles 	Safety Shoes 
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2.3 Installation Instructions

Minimum mounting distance requirement: (Wall Mounted)



2.3.1 Installation Step (Floor Mounted)

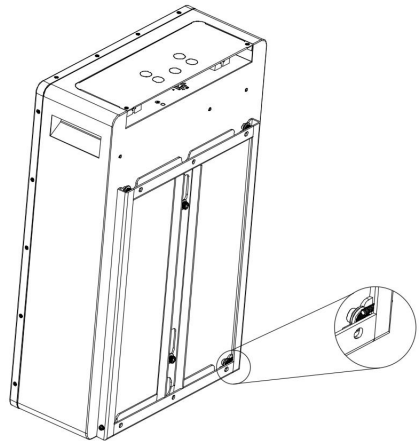
Step 1

put LVTS-512200 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.



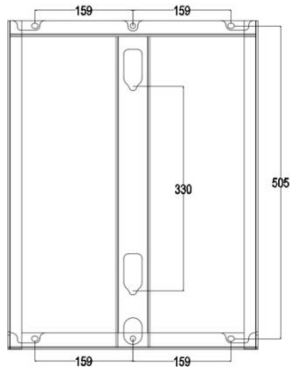
Step 2

Drill holes in the wall
according to wall mount.

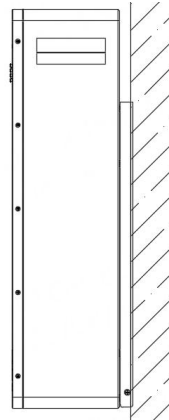


Step 3

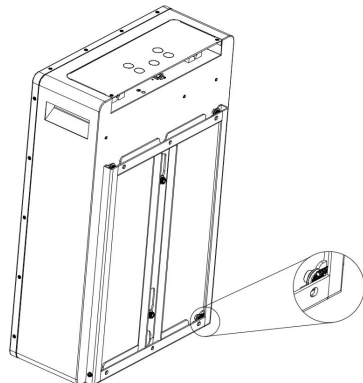
Fix wall mount to the wall using expansion bolt.

**Step 4**

Hang LVTS-512200 battery on wall mount.

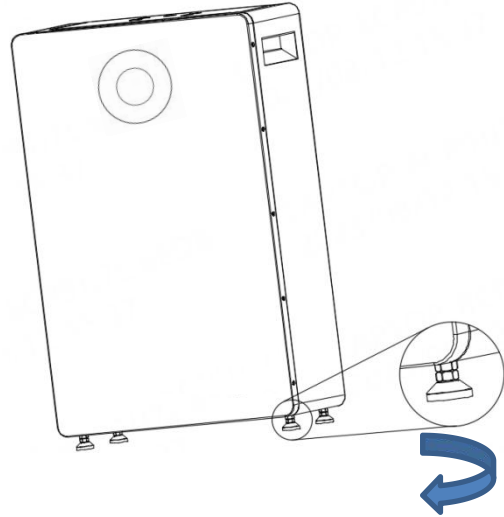
**Step 5**

Install 2 pcs wall mount bottom bolts.

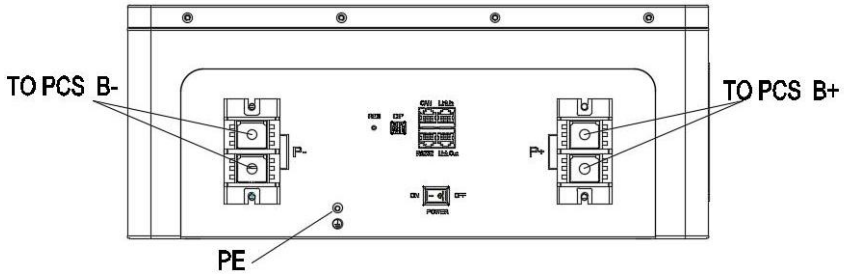


Step 6

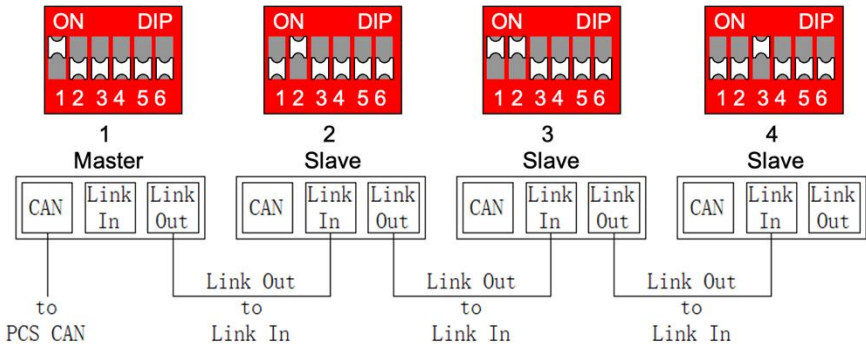
remove levelling feet.



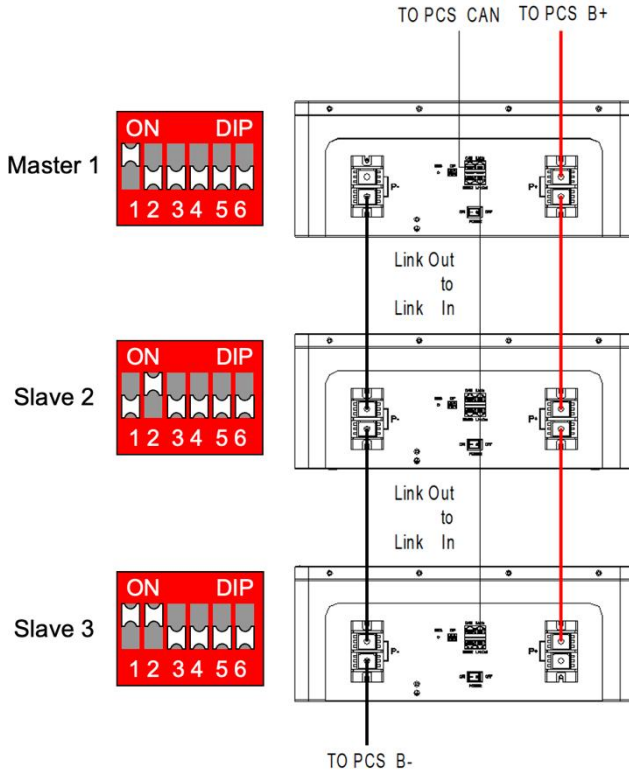
Step 7 Connect PE cable & power cable.



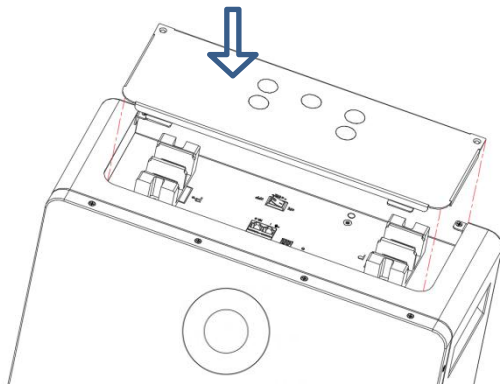
Step 8 Connect communication cable.



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		200Ah
Nominal Energy		10240Wh
Charge Voltage		56.16V
Charge Current		100A
Discharge Voltage Range		45.6V~56.16V
Discharge Current		160A
Communication Mode		CAN/RS485
Working Temperature	Charge	0°C ~ 55°C
	Discharge	-20°C ~ 55°C
Storage Temperature	Short Term (within 1 month)	-10°C ~ 45°C
	Long Term (within 1 year)	0°C ~ 35°C
Storage Humidity		< 95% RH
Cell Type		LiFePO ₄ , Lithium Iron Phosphate
Size		H695*W465*D185.5(mm)
Weight		92KG (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 (40A) 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.