Battery-Pack Main Parameters:

Item		Parameter
Battery Pack	Nominal Capacity	200Ah
	Usable Capacity	200Ah
	Nominal Voltage	12.8V
	Energy	2560wh
	Charge Voltage	14.6V
	Discharge Cut-off Voltage	10V
	Charge Method	CC/CV
	Charger	14.6V40A
	Standard Discharge Current	100A
	Max.Continues Discharge Current	100A
	Max.Discharge Current 5 Sec.	200A
	Standard Charge Current	50A
	Max.Charge Current	100A
	Cycle Life	2000times
	Dimension	L532 x W207 x H215mm
	Working Temperature Range	Charge: 0°C to 45°C Discharge: -20°C to 60°C
	Storage Temperature	-10°C to 50°C

VoltX

LiFePO4 Lithium Battery

Product Manual

12V 200Ah
VoltX LiFePO4 Lithium Battery

Product Overview

1. Voltage: 12.8V200Ah
2. Dimensions: L 532 x W 207 x H 215 mm

Advantages:

- >2000 life-cycles, lowering your cost of ownership.
- Advanced Battery Management System protects against over-charge, over-discharge and short-circuiting.
- Produces up to two times the power of a lead-acid battery.
- Low self-discharge rate, requires little maintenance.
- Faster recharge (between 2-4 hours).
- Maintenance-free and no leak.

Charging:

- For 12.8V (4*3.2V Cell) LiFePO4 Battery, the charge protection voltage is 3.65v*4 in series =14.6v and the discharge protection voltage is 2.5V *4 in series =10V.
- Use a lithium battery charger to maximize usable capacity.
- A 2240V CC/cv charger is recommended.
- For optimum performance, you must charge at 14.6V, otherwise, you will not be able to reach the full usable capacity of the battery.
- A solar panel and a suitable regulator can also be used to charge under the regulator's B04 setting.
- When charging with a controller, and the controller output is used to connect load:
- It is recommended that the controller is set as below parameters to avoid the battery from failing to recover when the BMS cut off the battery for protection after a continuous small current discharge.
  ① Overcharge Protection Voltage: 14.4V
  ② Overcharge Recovery Voltage: 14V
  ③ Over-discharge Protection Voltage: 10.8V
  ④ Over-discharge Recovery Voltage: 11.2V
  The above settings can ensure that the controller triggers the protection first instead of the battery BMS, which can prolong the service life of the battery.
- When charging, don't set the charger to a voltage that is greater than the battery's nominal voltage. It could lead to permanent damage.
- Batteries should not be directly charged through an alternator.
- Based on the characteristics of Lithium Iron Phosphate (LiFePO4) batteries, the voltage measured by all LiFePO4 batteries during charging is not the real voltage of the battery. Therefore, after charging and disconnecting the battery from the power source, the voltage of the battery will gradually drop to its real voltage.
  If you need to test the real voltage of the battery, please charge and disconnect the power supply and test its voltage after putting it aside for over 15 mins.

Tips:

- Discontinue charging your battery if you see smoke or swelling.
- Never leave your battery unattended at any time when being charged or discharged.
- Never leave your battery near moisture or water.
- Never short circuit the positive and negative terminals.
- It is recommended to use a special lithium battery charger to fully charge the battery once received for a suitable capacity.
- If charging via solar energy, set the solar charger to lithium battery charging mode. For an ordinary lead-acid charger, you'll need to charge your lithium battery for more than10 hours ever if the battery is showing full charge) to obtain 80-90% capacity from your battery. If unplugged fo less than 10 hours,you will likely only reach 50% capacity

STATE OF CHARGE	
Battery %	VOLTAGE
100%	13.5Volt
99%	13.4Volt
90%	13.3Volt
70%	13.2Volt
40%	13.1Volt
30%	13.0Volt
20%	12.9Volt
10%	12.8Volt
1%	11.0Volt
0%	10.0Volt

How to activate the battery when BMS is cut off for protection?

- If the BMS has cut-off the battery for protection, you need to cut off the load of the battery and put the battery aside for 30mins. The battery will automatically recover itself to normal voltage and can be used after fully charged.
- If the battery is unable to recover by itself and its voltage is too low to hold a charge, you can activate it in two ways as shown below.

① Use the charger with 0V charging function (It can charge the battery starting from 0V) to charge the battery. After fully charged, the battery can be used normally.
② Use another 12V lithium battery to connect in parallel with the battery for a minute to activate the battery (lead-acid battery with voltage more than/equal to 12V and less than/equal to 14.6V will also work). After that, fully charge the battery and it can be used normally.

Attention:

Caution: Risk of Fire, Explosion or Burns

DO NOT Short circuit
DO NOT Reverse connections from charger to battery
DO NOT Disassemble
DO NOT Throw into fire or incinerate
DO NOT Heat above 60°C

Operating Voltage: 12.8V
Charging Voltage: 14.6V
Max Charging Current: 100A
Standard Discharge Current: 100A
Max Discharge Current: 200A

Application:

Can be used for:
1. Camping, caravanning and 4WD set-ups
2. Charging phones, laptops and tables
3. Led lights
4. Wireless power tools
5. Home power back-up
6. Medical devices
7. Fire alarm and security systems
8. Fridges, washing machines and electric lawn mowers
9. Toys and consumer electronics
10. Car audio systems

Long-term Storage:

- Your battery can operate in temperature of -20°C to 60°C, but for long-term storage -10°C to 35°C is ideal. Store in a fireproof container and away from children.
- For a longer-lasting product, it's best to store your battery at 100% charge level and recharge every three months if it's not going to be used for an extended period of time.