



LiFePO4 Battery

User Manual

12.8V230Ah



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1. Safety Introduction

1.1 Important Safety Instructions

This manual contains important instructions for:

12.8V 230 Ah Lithium Battery energy storage product and this manual must be followed when installing and using this product.

To reduce the risk of personal injury and ensure the safe installation and operation of the product, you must carefully read and follow all instructions, cautions and warnings in this manual.

1.2 Warnings in This Document

A warning describes a hazard to equipment or personnel. It calls attention to a procedure or practice, which, if not correctly performed or adhered to, could result in damage to or destruction of part or all of the equipment and/or other equipment connected to the equipment or personal injury.

Symbol	Description
	Caution, risk of electric shock
	Heavy enough may cause severe injury
	Keep the battery away from open flame or ignition sources
	Keep the battery away from children
	Do not dispose of the product with household waste
	Recycling
	Read this manual before installation and operation

For safety reasons, installers are responsible for familiarizing themselves with the contents of this manual and all warnings before performing installation.

1.3 Battery Handling Guide

- Use the battery pack only as directed.
- If the battery defective, appears cracked, broken or otherwise damaged, or fails to operate, contact the distributor immediately.
- Do not attempt to open, disassemble, repair, tamper with, or modify the battery.

- To protect the battery and its components from damage when transporting, handle with care.
- Do not subject it to any strong force.
- Do not insert foreign objects into any part of the battery pack.
- Do not use cleaning solvents to clean the battery.

1.4 Response to Emergency Situations

The 12.8 V 230 Ah Lithium Battery is designed with multiple safety strategies to prevent hazards resulting from failures. However, we cannot guarantee their absolute safety for uncertain situations.

1.4.1 Leaking batteries

If the battery pack leaks electrolyte, avoid contact with the leaking liquid or gas. Electrolyte is corrosive and contact may cause skin irritation and chemical burns. If one is exposed to the leaked substance, do these actions:

Inhalation: Evacuate the contaminated area, and seek medical attention immediately. **Eyes contact:** Rinse eyes with flowing water for minutes, and seek medical attention immediately.

Skin contact: Wash the affected area thoroughly with soap and water, and seek medical attention immediately.

Ingestion: Induce vomiting as soon as possible, and seek medical attention immediately.

1.4.2 Fire

In case of a fire, make sure that an ABC or carbon dioxide extinguisher is nearby and does not use water to extinguish the fire.

WARNING

The battery pack may catch fire when heated above 130°C.
If a fire breaks out where the battery is installed, do these actions:

1. Extinguish the fire before the battery catches fire.
2. If the battery has caught fire, do not try to extinguish the fire. Evacuate people immediately.



WARNING

If the battery catches fire, it will produce poisonous gases. Do not approach

1.4.3 Wet battery

If the battery is wet or submerged in water, do not try to access it. Contact distributor or your distributor for technical assistance.

1.4.4 Damaged battery

If the battery damaged, please contract distributor or your distributor for help as soon as possible, because damaged battery is dangerous and must be handled with extreme caution. Damaged battery is not suit for use and may pose a danger to people or property. If the battery seems to be damaged, return it to your distributor.

CAUTION

Damaged battery might export electrolyte or flammable gas, so contact for advice and information immediately we will deal with it within 48h

1.5 Installers

The 12.8 V 230 Ah Lithium Battery is suggested installing by skilled worker or electrician. A skilled worker is defined as a people who had been trained and qualified electrician or had all of the following skills and experience:

- Knowledge of the dangers and risks associated with installing and using electrical devices and acceptable mitigation methods.
- Knowledge of the installation of electrical devices
- Knowledge of and adherence to this manual and all safety precautions and best practices.

1.6 Scrap Battery

For scrap battery(-ies), please treat with local laws or regulations to recycle or scrap.

2.Product Introduction

The picture is for reference only, please refer to the actual object.

OUTLINE DIMENSION



ELECTRICAL PERFORMANCE

Nominal Voltage	12. 8V
Nominal Capacity	230Ah
Energy	2944Wh
Communication	
Resistance	≤45 mΩ @ 50% SOC
Efficiency	>96%
Module Parallel	Up to 2 packs

MECHANICAL PERFORMANCE

Dimension (L x W x H)	522*242*220
Approx. Weight	20. 5Kg
Terminal Type	Quick connector
Terminal Torque	80 ~ 100 in-lbs (9 ~ 11 N-m)
Case Material	SPCC
Enclosure Protection	IP21

CHARGE PERFORMANCE

Recommended Charge Current	75A
Maximum Charge Current	100A
Recommended Charge Voltage	14.4V
BMS Charge Cut-Off Voltage	14.6V (3.65V/Cell)
Reconnect Voltage	>13.4V (3.35V/Cell)
Balancing Starting Voltage	3.4V/Cell

TEMPERATURE PERFORMANCE

Discharge Temperature	-4 ~ 140 °F (-20 ~ 60 °C)
Charge Temperature	-4 ~ 113 °F (0 ~ 45 °C)
Storage Temperature	50 ~ 95 °F (10 ~86 °C)
BMS High Temperature Cut-Off	149 °F (65 °C)
Reconnect Temperature	131 °F (55 °C)

DISCHARGE PERFORMANCE

Maximum Continuous Discharge Current	100A
Peak Discharge Current	250A (500ms)
BMS Discharge Cut-Off Current	155 A (100ms)
Recommended Low Voltage Disconnect	12V (3V/Cell)
BMS Discharge Cut- Off Voltage	10.8V (1s) (2.7V/Cell)
Reconnect Vol tage	>12V (3V/Cell)
Short Circuit Protection	>300A

COMPLIANCE

Certifications	CE (battery) UN38.3 (battery)
Shipping Classification	UN 38.3, MSDS, CLASS 9

Testing conditions based on temperature 25°C±2°C , humidity: 65±20%RH

3. Guidance for of Batteries During Shipment

3.1 Cartons that have been crushed, punctured, or torn in such a way that contents are revealed shall be set aside in an isolated area and inspected by a skilled person. If the package is deemed to be not shippable, the contents shall be promptly collected, segregated, and either the consignor or consignee contacted.

3.2 A precautionary label had been affixed to the shipping carton to alert individuals as to the battery

3.3 We have conducted comprehensive tests to ensure the equipment they distribute around the world is safe for shipping transport. These products shall be handled with care and immediately inspected if visibly damaged. If the cartoon visibly damaged, please contract with distributor to confirm whether the battery could be used safely or not.



4. Installation Prerequisites

4.1 Installation Location

Make sure that the installation location meets the following conditions:

- The building is designed to withstand earthquakes, and the floor is flat and level.
- Far away from the sea to avoid salt water and humidity.
- The installed location should not be access by pet and children.
- No flammable or explosive materials nearby, at least 2.5 m far away from combustible.
- Minimal dust and dirt in the area.
- No corrosive gases present, including ammonia and acid vapor.

The battery optimal operate temperature is 15°C to 30°C. Frequent exposure to severe operating condition would exacerbate the performance and lifetime of the battery.

4.2 Installation Requirements

For safety used of battery, please notice following notes when install:

- The installation shall be in a restricted access location/ room or in a cabinet where provides a barriers for the battery terminal.
- DVC class specification: DVC-C for battery terminal .

4.3 Installation Process

The battery should be installed according to the following steps

- 1.Check the transportation damage, if no damage, follow step 2. if had damage, please contact the shipping courier.
- 2.Read this Manual.
- 3.Install the battery.
- 4.Check if it is running well, if yes. Accept the battery. If the battery doesn't work. Please contact us.

5. Battery Installation

5.1 Checks Before Installation

There are a few things to check before installing the battery to ensure that it has no defects.

Check item 1: Check the battery voltage.

WARNING

If this checking process is executed for any reason after the battery is fully installed, make sure that the inverter is turned off or break the connection between battery and inverter while checking the battery.

measure the voltage at the terminal interface with a voltmeter. If the voltage is lower than 10 V, do not use the battery and contact distributor or your distributor.

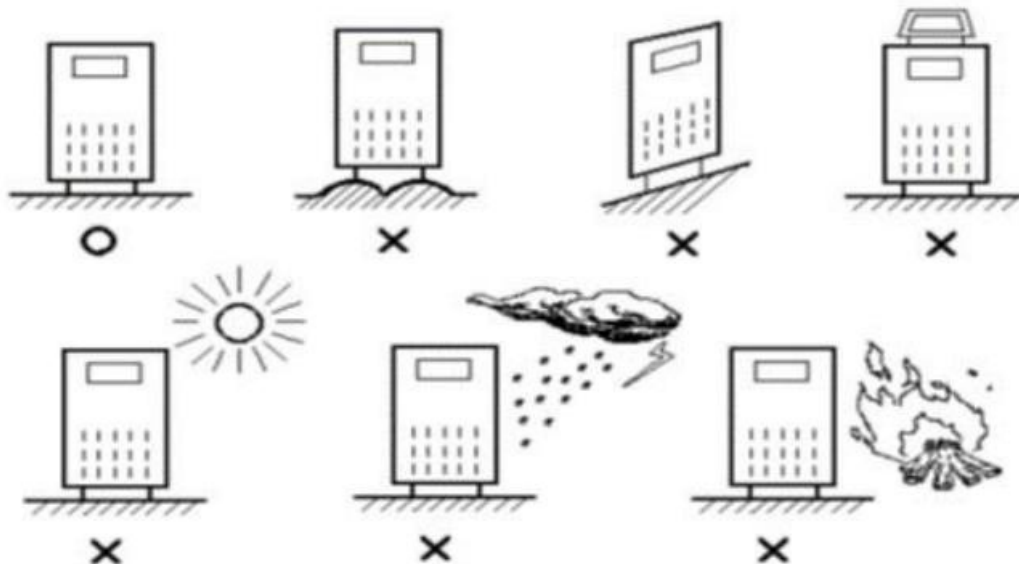
5.2 Installation the Battery

NOTICE

If the battery is installed above the floor or on a platform, make sure that the wall or platform is capable of supporting the battery's weight.

5.2.1 Installation requirements

Installation should be carried out as shown below in order to avoid possible risks. Put the lithium battery on the ground (to avoid tilt, uneven ground). Avoid placing in the sunlight, rain or wet surfaces. Avoid placing in the sunlight, rain or wet surfaces.



6 Commissioning

6.1 Commissioning Battery

If there is only one battery installed, use the following steps to put it in operation:

Turn the inverter on, and wait for the start-up sequence to complete fully.

When there are two or more batteries connected with parallel mode, the cable has been connected correctly, follow these steps to put them in operation:

- ①. Check battery voltage level is above 14.6V
 - a) If battery voltage is under 10.8V contact your distributor for help.
- ②. Before Commission the system, please pay attention on following tips:
 - a) For batteries, make sure that the Run display screen is The displayed power parameters meet the requirements
 - b) Make sure the maximum voltage different between batteries less than 0.3 V.
 - c) If not, the installer should balance the battery voltage and then parallel connect batteries together.
- ③. Turn the inverter on, and wait for the start-up sequence to complete fully.

7 Contact us

We hope that this user manual has clearly demonstrated the product. If you still have any doubts or something not clear about it in the specifications, feel free contact to us please. we will do our best to support you!

8 Bluetooth link

First step

Scan to download Xiaoxiang Electrin APP



Second step

Xiaoxiang Electrin APP scan to add device

