

SPECIFICATION	
Nominal Capacity:	50Ah
Usable Capacity:	50Ah
Nominal Voltage:	12.8V
Energy:	640Wh
Max. Continuous Load Power:	640W
BMS:	Daly 50A
Charge Voltage:	14.6V
Charge Method:	CC/CV
Preferred Charger:	14.6V10A
Standard Charge Current:	10A
Max. Charge Current:::	50A
Discharge Cut-Off Voltage:	10V
Standard Discharge Current:	10A
Max. Continuous Discharge Current:	50A
Max. Discharge Current(5Seconds):	100A
Cycle Life:	4000-8000times
Internal Impedance:	≤40mΩ
Dimension(in):	9.02*5.43*8.46in
Weight:Approx.	13.67lb/6.2kg
Working Temp. with Auto-Heating(Charge):	-4°F-122°F/-20°C~50°C
Working Temp. No Auto-Heating(Charge):	32°F-122°F/0°C~50°C
Working Temp. with Auto-Heating (Discharge):	-4°F-140°F/-20°C~60°C
Working Temp. No Auto-Heating(Discharge):	-4°F-140°F/-20°C~60°C
Storage Temperature:	14°F-122°F/-10°C-50°C
CHARGING	
Charging Limit Voltage:	14.6V
Over Voltage Disconnect:	15.0V
Over Voltage Reconnect:	14.2V
Balance Charging Voltage:	14V
Float Charging Voltage:	13.8V
Boost Charging Voltage:	13.8V
Boost Reconnect Charging Voltage:	13.2V
DISCHARGING	
Low Voltage Disconnect:	10.8V
Low Voltage Reconnect:	12.4V
Under Voltage Warning:	11.6V
Under Voltage Warning Reconnect:	12.0V
Discharging Limit Voltage:	10.4V
Over Discharge Disconnect:	10.4V
Over Discharge Reconnect:	11.6V
Over Discharge Delay Time:	0.8S

## \*Two Ways to Activate

If the battery is unable to recover by itself and its voltage is too low to hold a charge, then you can activate it by two ways as 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 (SLA 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.

## \*APPLICATION

### ENERGY STORAGE

Backup Power, Solar/Wind-Powered System, Off-Grid Living, Emergency Lighting System, Fire Alarm&Security System, Telecommunication System, .....

### TRANSPORTATION

Electrical Vehicle, Marine Electrical System/Propulsion, Portable Motor-Driven Equipment, .....

### RECREATION

Amateur Radio Equipment, Radio-Controlled Toys, Recreational Vehicle(RV), Car Audio System, Kayak, .....

## \*LIFETIME SERVICE WARRANTY

Response Time within 18 hours  
100% Satisfying Customer Service

### 7-Year Battery Warranty

Start Date(Date of Purchase): \_\_\_\_\_  
Amazon Order ID: \_\_\_\_\_

Take a while to leave a FRIENDLY REVIEW on Amazon and get your FREE GIFT by contacting us.



# PRODUCT MANUAL

## 12.8V 50Ah LiFePO4

## Lithium Iron Phosphate Battery

Carefully Read Through Product Manual Before Use

Shenzhen SoecEnergy Co.,Ltd.

Web: <https://www.soecenergy.com>

Email: [info@soecenergy.com](mailto:info@soecenergy.com)

## \*GUIDE FOR BEGINNERS

1. After unboxing, recommended to wear insulating gloves for battery wiring and installation.

2. Recommended to wrap the wire terminals with insulating tape during wiring process.

3. This battery carries about 30%-50% capacity when shipped due to shipping-related regulations.

4. Before connecting to load, make sure the power supported by the battery can meet the load power demand.

5. The battery is recommended to be stored between 10°C and 35°C at 50% capacity and recharge every three months for long term storage.

## \*CHARGING

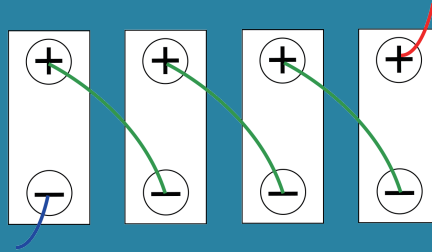
BATTERY CHARGER:  
14.6V Lithium Battery Charger

**\*Follow Two Steps as Below Before Connecting:**

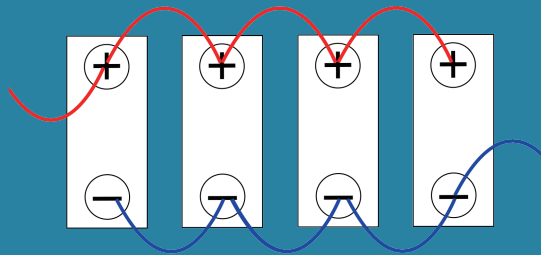
1, Fully charge your batteries individually before connecting in series or/and parallel.

2, Connect your batteries one by one in parallel and leave them together for 12-24hours before connecting in series or/and parallel.

## Diagram in Series as Below:



## Diagram in Parallel as Below:



## \*CONNECTION

1, Practically the LiFePO4 battery can be connected in series for larger voltage, in parallel for larger capacity(Ah), or in series and parallel for larger voltage and capacity(Ah).

2, Max. connection in series is 4 batteries connected to get 48V voltage.

3, When 4 batteries connected in parallel, you will get 4 times of capacity(Ah) of a single battery. Max. connection in parallel are less than 10 batteries recommended.

4, Batteries, which from different manufacturers, cannot be connected together in series or/and parallel.

5, Only batteries with identical capacity(Ah), identical brand and approx. purchase time frame(within 1 month), can they be well connected together.

## \*ATTENTION

DO NOT DISASSEMBLE!

DO NOT SHORT CIRCUIT!

DO NOT SOAK IN WATER!

DO NOT THROW INTO FIRE!

DO NOT HEAT ABOVE 140°F(60°C)!

DO NOT DIRECTLY SOLDER BATTERY!

DO NOT USE AS A STARTER BATTERY!

DO NOT TOUCH WITH SHARP OBJECT!

DO NOT REVERSE POSITIVE TO NEGATIVE!

DO NOT CONNECT WITH ELECTRICAL OUTLET!

## CAUTION:

**RISK OF FIRE, BURN OR EXPLOSION!!!**

## \*How to Activate?

How to activate battery after BMS cut off for protection?

If the BMS has cut off battery for protection, you need to cut off the load of battery and put the battery aside for 30mins. Then the battery will auto recover to normal voltage and can be used after fully charged.