



12V LiFePO4 Battery Instructions



12V 50AH Battery Specification

Before using this battery, please read this specification carefully for correct use.

1. Conventional technical parameters:

No.	Item	General parameters	Remark
1	Total Energy	640 Wh	
2	Cycle Life	≥4000 Times	Standard Conditions
3	Rated Capacity	Nominal Capacity: 50Ah	0.2C Capacity≥100 0.5C Capacity≥95% 1C Capacity≥90%
		Minimum according to the discharge rate	
4	Rate Voltage	12.8V	Working Voltage
5	End-off Voltage	10.8V	End-of-discharge
6	Charging Cut-off Voltage	14.6V	Upper Battery Voltage
7	IR	≤6mΩ	Test in AC 1KHZ
8	Standard Charge	10-25A	
9	Max. Discharge Continuous Current	50A	Max output power: 640W
10	Max. Instantaneous Discharge Current	100A(3S)	Max output power: 1280W (3S)
11	Operating Temperature	Charge: 0~60°C	
		Discharge: -20~60°C	
12	Size/mm	257*132*200 ±3mm	
13	Weight	5.5kg±0.3 kg	

2. Battery BMS basic parameters

Charging Voltage	14.4V
Continuous charging/discharging current	50A
Operating Temperature	-20°C~75°C
Main Function	
Overvoltage and Undervoltage Protection	Overcurrent Charge
Overcurrent Discharge	Short Circuit Discharge
Overtemperature Charge	Undertemperature Charge
Overtemperature Discharge	Undertemperature Discharge
High Temperature Protection of FET(Built-in)	Balance Function



12V 100AH Battery Specification

Before using this battery, please read this specification carefully for correct use.

1. Conventional technical parameters:

No.	Item	General parameters	Remark
1	Total Energy	1280 Wh	
2	Cycle Life	≥4000 Times	Standard Conditions
3	Rated Capacity	Nominal Capacity: 100Ah	0.2C Capacity≥100 0.5C Capacity≥95% 1C Capacity≥90%
		Minimum according to the discharge rate	
4	Rare Voltage	12.8V	Working Voltage
5	End-off Voltage	10.8V	End-of-discharge
6	Charging Cut-off Voltage	14.6V	Upper Battery Voltage
7	IR	≤6mΩ	Test in AC 1KHZ
8	Standard Charge	10-50A	
9	Max. Discharge Continuous Current	100A	Max output power: 1280W
10	Max. Instantaneous Discharge Current	200A(3S)	Max output power: 2560W (3S)
11	Operating Temperature	Charge: 0~60°C	
		Discharge: -20~60°C	
12	Size/mm	330*172*215 ±3mm	
13	Weight	10kg±0.3 kg	

2. Battery BMS basic parameters

Charging Voltage	14.4V
Continuous charging/discharging current	50~120A
Operating Temperature	-20°C~75°C
Main Function	
Overvoltage and Undervoltage Protection	Overcurrent Charge
Overcurrent Discharge	Short Circuit Discharge
Overtemperature Charge	Undertemperature Charge
Overtemperature Discharge	Undertemperature Discharge
High Temperature Protection of FET(Built-in)	Balance Function



12V 200AH Battery Specification

Before using this battery, please read this specification carefully for correct use.

1. Conventional technical parameters:

No.	Item	General parameters	Remark
1	Total Energy	2560 Wh	
2	Cycle Life	≥4000 Times	Standard Conditions
3	Rated Capacity	Nominal Capacity: 200Ah	0.2C Capacity≥100 0.5C Capacity≥95% 1C Capacity≥90%
		Minimum according to the discharge rate	
4	Rate Voltage	12.8V	Working Voltage
5	End-off Voltage	10.8V	End-of-discharge
6	Charging Cut-off Voltage	14.6V	Upper Battery Voltage
7	IR	≤6mΩ	Test in AC 1KHZ
8	Standard Charge	10-100A	
9	Max. Discharge Continuous Current	200A	Max output power: 2560W
10	Max. Instantaneous Discharge Current	400A(3S)	Max output power: 5120W (3S)
11	Operating Temperature	Charge: 0~60°C	
		Discharge: -20~60°C	
12	Size/mm	522*240*218 ±3mm	
13	Weight	19.7kg±0.3 kg	

2. Battery BMS basic parameters

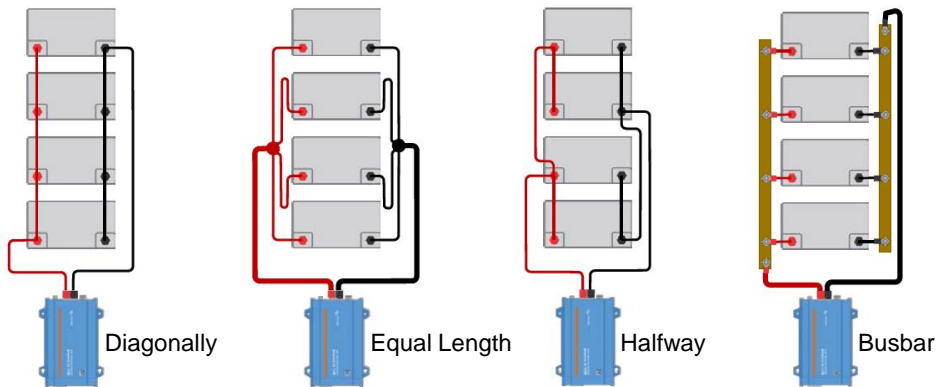
Charging Voltage	14.4V
Continuous charging/discharging current	50~120A
Operating Temperature	-20°C~75°C
Main Function	
Overvoltage and Undervoltage Protection	Overcurrent Charge
Overcurrent Discharge	Short Circuit Discharge
Overtemperature Charge	Undertemperature Charge
Overtemperature Discharge	Undertemperature Discharge
High Temperature Protection of FET(Built-in)	Balance Function

3. Battery series/parallel method

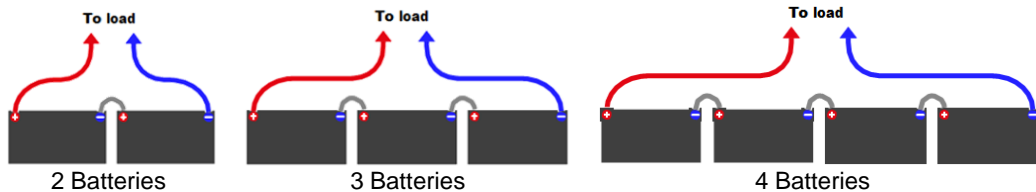
The correct way to connect multiple cells in series/parallel is to ensure that the total path of current in and out of each cell is equal. There are 4 ways to do this:

1. Diagonal connection.
2. the length of the cable from the inverter to each battery must be equal.
3. center diagonal connection, ensure that the length of all cables are the same.
4. Use bus bars.

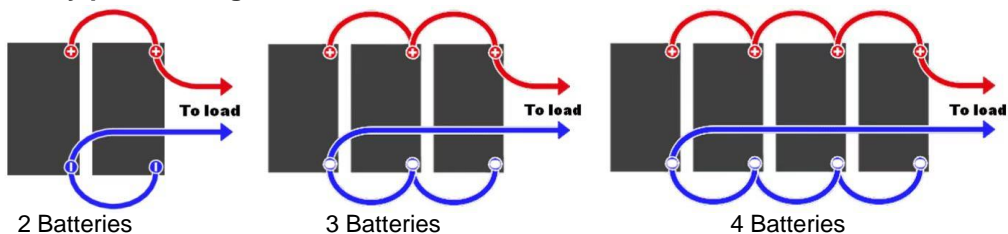
Note: Before the batteries are connected in series/parallel, please charge the individual battery first, and then connect them in parallel for 24 hours, so that the batteries are automatically balanced between themselves.



4. Battery series diagram



5. Battery parallel diagram



6. Battery use precautions

- 1) Never drop the battery into the water. Do not put the battery pack into the fire or heat it.
- 2) It is forbidden to charge and use the battery outside the temperature range specified by us. Do not store, charge or use this product near fire and heat sources.
- 3) When the battery pack gives off odor or leaks, it should immediately stop using or stop charging, and move to an open and ventilated place, away from the fire source, and contact us in time.
- 4) When using the load, do not reverse the positive and negative terminals.
- 5) Do not short-circuit the positive and negative electrodes of the battery with metal conductors.
- 6) The best use temperature of the product is $25 \pm 5^\circ\text{C}$, if the product is not in this temperature range during use, the discharge capacity will be reduced.
- 7) In case of failure or abnormality during use, please contact us, do not remove the battery pack without authorization