



LiFePO4

PRODUCT MANUAL

Lithium Iron Phosphate Battery

25.6V
100Ah (100A BMS)



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PRODUCT OVERVIEW

25.6V 100Ah Battery

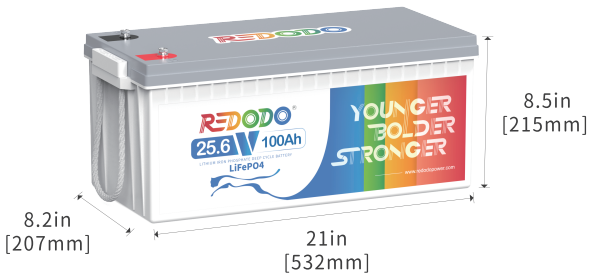
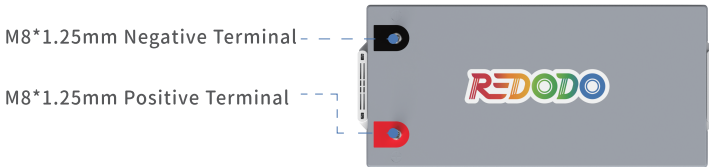
Operating Voltage: 25.6V

Charging Voltage: $28.8 \pm 0.4V$

Recommended Charge Current: 20A (0.2C)

Max Continuous Discharge Current: 100A

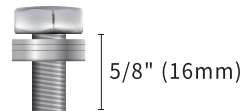
Max Continuous Load Power: 2560W



Additional Components

M8- 5/8" (16mm) Terminal Bolts

The terminal bolts are used to secure multiple cable lugs to a single battery terminal. The bolts can be replaced with [M8](#) bolts of other lengths based on actual needs.



Insulating Caps for Bolts

5/16" (8mm)



BATTERY-PACK MAIN PARAMETERS

Item	Parameter
Cell Type	LiFePO4
Nominal Voltage	25.6V
Rated Capacity	100Ah
Energy	2560Wh
Internal Resistance	$\leq 40\text{m}\Omega$
Cycle Life	≥ 4000 times
Battery Management System (BMS)Board	100A
Charge Method	CC/CV
Charge Voltage	$28.8 \pm 0.4\text{V}$
Recommended Charge Current	20A (0.2C)
Max. Continuous Charge Current	100A
Max. Continuous Discharge Current	100A
Surge Discharge Current	500A@1 second
Max. Continuous Output Power	2560W

Item	Parameter
Dimension	L21*W8.2*H8.5 inch L532*W207*H215 mm
Housing Material	ABS (Flame Retardant Plastic)
Protection Class	IP65
Recommended Terminal Torque	106.2 to 123.9 inch · lbs/12 to 14 N.m
Temperature Range	Charge: 0°C to 50°C / 32°F to 122°F
	Discharge: -20°C to 60°C / -4°F to 140°F
	Storage: -10°C to 50°C / 14°F to 122°F





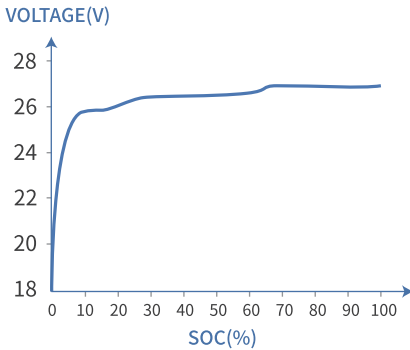
HOW TO ESTIMATE THE BATTERY CAPACITY

STATE OF CHARGE (SOC)

The battery capacity could be roughly estimated by its [resting voltage \(not charging/discharging voltage\)](#)^①.

Since the voltage of each battery is slightly different, and the voltage measurement is affected by the measuring instrument, ambient temperature, etc., [the following parameters are for reference only](#). The actual SOC of the battery is based on the discharge capacity under load.

Resting Voltage: The voltage is measured after the battery has been disconnected from the charger and loads with zero current, and left alone for 3 hours.



SOC (%)	VOLTAGE (V)
0	20 to 24
25	26 to 26.3
50	26.3 to 26.4
75	26.6 to 26.66
100	≥26.66

① Based on the characteristics of LiFePO₄ batteries, the voltage measured by all LiFePO₄ batteries during charging/discharging is not the real voltage of the battery. Therefore, after charging/discharging and disconnecting the battery from the power source, the voltage of the battery will gradually drop/increase to its real voltage.



SERIES / PARALLEL CONNECTION

THE PREMISE OF CONNECTION

To connect in series or /and parallel, batteries should meet the below conditions:

- identical batteries with the same battery capacity (Ah) and BMS (A);
- from the same brand (as lithium battery from different brands has their special BMS);
- purchased in near time (within one month).

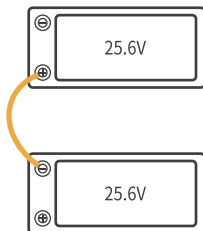
LIMITATION FOR SERIES/PARALLEL CONNECTION

Support connecting up to 8 identical batteries for up to:

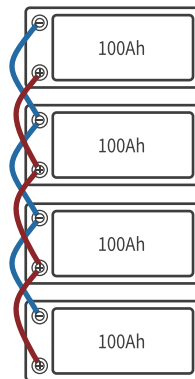
2 in series as 48V (51.2V) battery system/

4 in parallel as 400Ah battery system.

Series Connection
48V(51.2V) 100Ah



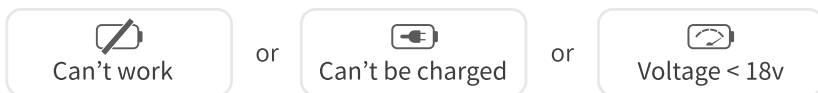
Parallel Connection
24V(25.6V) 400Ah





WHAT TO DO WHEN THE BATTERY STOPS WORKING?

When the battery



It has 85% chances that BMS has shut it off for protection, and you could try one of below ways to activate the battery.

General Steps

If the BMS has cut off the battery for protection, follow the below steps to activate it.

Step
1

[Cut off](#) all the connections from the battery.

Step
2

[Leave the battery aside for 30mins](#)

Then the battery will automatically recover itself to normal voltage (>20V) and can be used after fully charged.

If the battery is unable to recover itself after the above steps, please try activating by **ONE OF BELOW TWO METHODS.**

After activated (voltage > 20V) and fully charged by the normal charging method, it can be used normally.

Method ①

Use a [charger with lithium battery activation function](#) to fully charge the battery.

Method ②

Connect a [controller](#) that supports 24V LiFePO4 battery charging to charge the battery for 3~10s in sunny daytime.



PROVIDER

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MANUFACTURER CONTACT

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