



[Manuals.plus](#) /

› [DC HOUSE](#) /

› DC HOUSE 24V 100Ah LiFePO4 Bluetooth Lithium Battery User Manual

DC HOUSE ECO-LFP2410003

DC HOUSE 24V 100Ah LiFePO4 Bluetooth Lithium Battery User Manual

Model: ECO-LFP2410003

1. INTRODUCTION

This manual provides essential information for the safe and efficient use of your DC HOUSE 24V 100Ah LiFePO4 Bluetooth Lithium Battery. This battery features a Smart Battery Management System (BMS) with low-temperature cut-off protection, offering a long cycle life and lightweight design for various applications.



Image 1.1: DC HOUSE 24V 100Ah LiFePO4 Bluetooth Lithium Battery with a smartphone displaying the monitoring app.

2. SAFETY INFORMATION

Always prioritize safety when handling batteries. Failure to follow safety guidelines can result in injury or damage to the battery and connected equipment.

- Do not short-circuit the battery terminals.
- Do not expose the battery to fire or extreme heat.
- Do not immerse the battery in water.
- Use only compatible chargers designed for LiFePO4 batteries.
- Ensure proper ventilation during charging and discharging.

- Avoid dropping or subjecting the battery to severe impacts.
- Keep out of reach of children.

The integrated Smart BMS provides protection against overcharge, over-discharge, over-current, and short-circuiting, enhancing overall safety and battery longevity.



Image 2.1: Visual representation of the Smart BMS protection features including overcharge, over-discharge, short circuit, over current, and high-temperature protection.

3. SETUP

3.1 Unpacking and Inspection

Upon receiving your battery, carefully inspect the packaging and the battery for any signs of damage. If any damage is found, contact customer support immediately.

3.2 Connections

The battery is equipped with M8 terminals for secure connections. Ensure all connections are tight and properly insulated to prevent short circuits.

3.3 Parallel and Series Configuration

This 24V 100Ah battery can be expanded up to 2P2S (two in parallel, two in series) to create a 51.2V 200Ah LiFePO4 battery bank, capable of storing up to 10.24kWh of power. Consult a qualified technician for complex configurations.



Image 3.1: Illustration of the battery's expandability for solar panel systems, supporting up to 2P2S configuration.

3.4 Charging Methods

The battery can be charged using various methods:

- **Dedicated Li-ion Charger:** Connect to a 24V 20A Li-ion battery charger to fully charge the 24V 100Ah battery in approximately 5 hours.



Image 3.2: The DC HOUSE 24V 100Ah battery being charged by a dedicated 24V 20A Li-ion charger.

- **Solar Recharge:** An 800W solar panel with an MPPT controller can fully charge the 24V 100Ah battery in

approximately 5 hours.



SAFE & RELIABLE

Product Name	LiFePO4 Battery
Rated Capacity	100Ah/2560Wh(25°C,0.5C)
Rated Voltage	25.6V
Voltage Range	20~29.2V
Maximum Continuous Charging Current	100A
Maximum Continuous Discharging Current	100A
Charing Voltage	29.2V
Dimensions (LxWxH)	367*189*271mm/14.4*7.4*10.7in
Weight	20kg/44.1lbs
Charging Temperature	32~131°F/0~55°C
Discharging Temperature	-4~131°F/-20~55°C

25.6V 100Ah 2560Wh LiFePO4
Lithium Iron Phosphate
FEATURES
MORE THAN 10 YEARS LIFE SPAN HIGH ENERGY DENSITY LIGHTER WEIGHT
BUILT-IN BATTERY MANAGEMENT SYSTEM (BMS)
UN38.3 RoHS CE Deep Cycle Battery

189mm / 7.4in 271mm / 10.7in 367mm / 14.4in

Image 3.3: A house with solar panels, demonstrating the solar recharge capability for the battery.

- **Generator:** Add a 20A DC to DC charger to fully charge the 24V 100Ah LiFePO4 Battery in approximately 5 hours.



UP to 2P2S
for Solar Panel System

Max. Battery System: 51.2V/400Ah
Max. Dis/charge Current: 200A
Max. Load Power: 10.24KW
Max. Usable Energy: 10.24kWh

Image 3.4: A generator connected to the DC HOUSE 24V 100Ah battery for charging.

4. OPERATING INSTRUCTIONS

4.1 Bluetooth APP Monitoring

The DC HOUSE 24V 100AH battery includes built-in Bluetooth connectivity. Download the DC HOUSE APP to monitor battery information such as State of Charge (SOC), voltage, current, and temperature. The app provides data accurate to the specific cell and includes a dedicated fault display page for troubleshooting. The Bluetooth signal range is typically 5-10 meters.

Real-time Monitoring by App



Image 4.1: A smartphone screen showing the DC HOUSE app interface, displaying real-time battery monitoring data like battery level, voltage, and current.

4.2 Low Temperature Cut-Off Protection

The battery features an upgraded Low Temperature Cut-Off Protection. The BMS will automatically cut off the charging function if the temperature drops below 19.4°F (-7°C). Discharge will be cut off if the temperature falls below -4°F (-20°C). The battery will automatically resume normal operation once the temperature rises to 32°F (0°C). This feature protects the battery and extends its lifespan.



Image 4.2: An RV in a winter setting, highlighting the battery's low-temperature cut-off protection for charging and recovery.

4.3 Applications

The DC HOUSE 24V 100AH LiFePO4 battery is suitable for a wide range of applications due to its stable performance and robust design:

- Trolling Motors (e.g., 70-80 lb thrust motors)
- Marine and Boat applications
- Recreational Vehicles (RVs) and Campers
- Home Energy Storage systems
- Golf Carts
- Off-grid power solutions

24V 100AH FOR 70-80 TROLLING MOTOR



High-Speed
2-3H



Mid-Speed
5-7H



Low-Speed
12-20H



Image 4.3: An inflatable boat equipped with a trolling motor, demonstrating the battery's use in marine applications.

24V100AH High Energy RV Battery



Image 4.4: A collage showing the versatility of the 24V 100Ah battery across different uses like RVs, marine vessels, solar setups, and home energy storage.

5. MAINTENANCE

To ensure optimal performance and longevity of your DC HOUSE LiFePO4 battery, follow these general maintenance guidelines:

- Regularly check battery terminals for cleanliness and tightness.
- Keep the battery in a cool, dry, and well-ventilated area.

- Avoid prolonged storage in a fully discharged state.
- If storing for extended periods, ensure the battery is charged to approximately 50% State of Charge (SOC) and periodically check its voltage.
- The integrated BMS helps manage the battery's health, but visual inspections are still recommended.

6. TROUBLESHOOTING

The DC HOUSE APP provides a special fault display page to assist in identifying and resolving potential issues. For common problems, refer to the app's diagnostic information.

If the battery automatically cuts off, check the following:

- **Low Temperature:** If the ambient temperature is below 19.4°F (-7°C) for charging or -4°F (-20°C) for discharging, the BMS will activate the low-temperature cut-off. The battery will resume operation when temperatures rise.
- **Over-Discharge:** The BMS will cut off discharge if the voltage drops below 1V to protect the battery. Recharge the battery as soon as possible.
- **Other Faults:** Consult the DC HOUSE APP's fault display page for specific error codes or messages.

For persistent issues or complex problems, contact DC HOUSE customer support.

7. SPECIFICATIONS

Detailed specifications for the DC HOUSE 24V 100Ah LiFePO4 Bluetooth Lithium Battery:



Image 7.1: A visual summary of the battery's key specifications and dimensions.

Specification	Value
Product Name	LiFePO4 Battery
Rated Capacity	100Ah / 2560Wh (25°C, 0.5C)
Rated Voltage	25.6V
Voltage Range	20-29.2V
Maximum Continuous Charging Current	100A

Specification	Value
Maximum Continuous Discharging Current	100A
Charging Voltage	29.2V
Dimensions (LxWxH)	367*189*271 mm / 14.4"D x 7.4"W x 10.7"H
Weight	20kg / 44.1 lbs
Charging Temperature	32-131°F / 0-55°C
Discharging Temperature	-4-131°F / -20-55°C
Terminal	M8
Model Number	ECO-LFP2410003

8. WARRANTY AND SUPPORT

DC HOUSE is committed to providing 3 years of service for every battery sold. If you require assistance with battery connection, charging, discharging, or any other product-related inquiries, please contact us through Amazon or the after-sales address provided in the original product packaging.

9. QUALITY ASSURANCE AND MANUFACTURING

DC HOUSE maintains high standards in manufacturing and product development. Our facilities cover approximately 1,400 acres and employ over 400 people, ensuring meticulous attention to every detail from production to customer service.

Video 9.1: A tour of the DC HOUSE factory, showcasing the production lines, R&D testing center, and customer service operations. This video highlights the scale and processes involved in manufacturing DC HOUSE batteries.

Our batteries incorporate innovative metal fixtures to enhance lifespan and protect cell safety. These fixtures prevent premature wear caused by repeated charge and discharge cycles, and effectively prevent internal expansion and deformation, thereby reducing capacity degradation.

Video 9.2: An explanation of why batteries need fixtures, detailing how metal fixtures contribute to battery stability, safety, and longevity by preventing internal expansion and deformation during charging and discharging cycles.