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> DC HOUSE 12V 50Ah 2.0 Trolling Motor LiFePO4 Battery Instruction Manual

DC HOUSE ECO-LFP125002

DC HOUSE 12V 50Ah 2.0 Trolling Motor LiFePO4 Battery Instruction Manual

Brand: DC HOUSE | Model: ECO-LFP125002

1. INTRODUCTION

This manual provides detailed instructions for the safe and efficient use of your DC HOUSE 12V 50Ah 2.0 Trolling Motor LiFePO4 Battery. Please read thoroughly before operation to ensure proper usage and longevity of your product.

2. KEY FEATURES

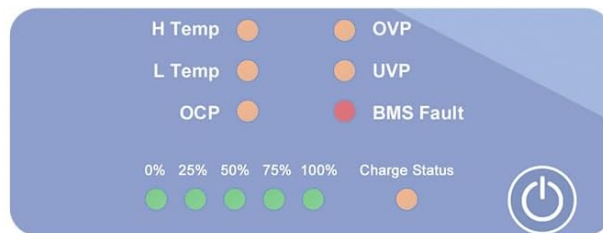
- **Trolling Motor Exclusive Battery:** 12V 50Ah 2.0 trolling LiFePO4 battery equipped with 2 output ports: DC and Type-C, supporting charging for mobile phones, computers, drones, cameras, car refrigerators, and a series of DC equipment charging. This 50Ah LiFePO4 battery is ideal for trolling motors, marine applications, outdoor camping, RVs, and golf carts. The fixed-hole design prevents battery drops and shocks caused by outdoor bumps.
- **SOC Status Indicator:** The upgraded 2.0 12V 50Ah trolling motor LiFePO4 battery features visual LED indicators for easy real-time monitoring. It displays the LiFePO4 battery's remaining SOC level, high and low temperature warnings, short circuit, overvoltage, undervoltage, BMS fault, and charging status. It also includes a one-button activation switch for convenient operation.
- **Maximum Continuous Discharge 1.5C:** Compared with other lithium batteries with a 1C discharge rate, the DC HOUSE 12V 50Ah 2.0 LiFePO4 battery offers a 1.5C discharge rate with a maximum continuous discharge current of 75A, providing higher efficiency and supporting more demanding loads. With 640Wh of energy, it delivers reliable and long-lasting power. Compared to traditional lead-acid batteries, this 12V 50Ah marine LiFePO4 battery offers a greater Depth of Discharge (DOD), allowing an 80W load to run continuously for 8 hours.
- **Bluetooth APP Monitoring:** The DC HOUSE 12V 50AH 2.0 LiFePO4 lithium battery has built-in Bluetooth, which can connect with the DC HOUSE APP (Bluetooth signal range 5-10 meters). It is convenient to monitor battery information such as SOC, voltage, current, etc., and the data is accurate to the specific cell of a battery. There is a special fault display page to help troubleshoot.
- **Low Temp Cut-Off:** The DC HOUSE 12V 50Ah 2.0 LiFePO4 battery has upgraded Low Temperature Cut-Off Protection. When the temperature sensor of the 50Ah lithium battery detects that the temperature is below 20°F, the BMS will cut off the charging function. It will cut off the discharge when it is below -4°F, and automatically recover after the temperature rises to 32°F. This effectively protects the battery and extends its life.

- **Lightweight Design:** The 12V 50Ah 2.0 LiFePO4 battery features a lightweight design, weighing only 13.23 lbs—just 26% of the weight of a typical 12V 50Ah lead-acid battery (around 50 lbs). This makes it easy to use outdoors and allows installation in places where lead-acid batteries cannot fit. It is compatible with most battery boxes on the market, saving valuable installation space.

3. PRODUCT OVERVIEW

3.1. Components

The DC HOUSE 12V 50Ah 2.0 LiFePO4 battery features a robust design with multiple ports and indicators for optimal performance and user convenience.



Description: The main product image shows the DC HOUSE 12V 50Ah 2.0 LiFePO4 battery with its top panel displaying various indicators and ports. The battery is blue and black, with a clear label indicating its specifications. A smartphone screen next to it shows the battery's SOC status via the Bluetooth app.

3.2. DC & USB-C Output Ports

The battery is equipped with versatile output ports for various devices.

DC & USB-C Output Port



DC Port: **5.5*2.1mm**

Rated Charging
(Discharging) Current
≤ 5A

USB-C Port:

Max Output: **45W**

Rated Charging Voltage: **14.6V**



Description: This image illustrates the DC (5.5*2.1mm) and USB-C (Max 45W) output ports on the battery. It shows how devices like tablets can be charged directly from the battery.

3.3. SOC & Status Indicators

The integrated LED indicators provide real-time status updates for the battery.

SOC & Status Indicator



Description: This image details the SOC (State of Charge) and various protection indicators on the battery's top panel, including High Temperature, Low Temperature, Over-voltage, Under-voltage, Over-current, and BMS Fault. It also shows the charge status and residual capacity.

3.4. One-Touch Activation Switch

The battery features a simple one-touch switch for activation and protection release.

Low-temperature Cut-Off Protection



Description: This image explains the functionality of the one-touch switch: one press turns on the light board, two presses turn it off, and a long press (more than 2 seconds) releases all current BMS protections (excluding MOS failure, NTC failure).

4. SETUP

4.1. Initial Inspection

- Unpack the battery and inspect for any physical damage.
- Verify all included accessories are present.

4.2. Terminal Connection

Securely connect your devices to the battery terminals. Ensure proper polarity (red for positive, black for negative).

75A BMS

Expand Your Trolling Motors Option

1.5C Discharge Rate Can Power Up to **65lb** Trolling Motors



The image shows an exploded view of a battery pack. At the top is a black BMS (Battery Management System) labeled '75A BMS' and 'LiFePO4'. Below it is a blue battery pack with '12.8V 50Ah' and '1.5C' printed on it. The battery pack is shown in an exploded view, revealing the internal cells and the BMS board. The BMS board has several terminals and a small display. The battery pack is shown in an exploded view, revealing the internal cells and the BMS board. The BMS board has several terminals and a small display. The battery pack is shown in an exploded view, revealing the internal cells and the BMS board. The BMS board has several terminals and a small display.

***Regular 12V 50AH battery 50A BMS can only drive 30-50lb trolling motors**

Description: This image provides an exploded view of the battery, highlighting the 75A BMS, Grade A cells, and M6 terminals. Ensure all connections are tight and secure.

Video Description: This video demonstrates the process of connecting cables to the battery terminals, ensuring a secure and proper connection for operation.

5. OPERATING INSTRUCTIONS

5.1. Charging the Battery

The battery can be charged via its DC port or USB-C port. Always use a compatible charger.

Video Description: This video illustrates how to charge the DC HOUSE battery using a 12V DC to Type-C charger, demonstrating the connection points and indicator lights for charging status.

5.2. Discharging and Powering Devices

Utilize the DC and USB-C ports to power various electronic devices. Ensure the total power draw does not exceed the battery's maximum continuous discharge current of 75A.

One-touch Switch to Activate Battery



Press 1 time: light board turns on



Press 2 times: light board turns off.



Long press more than 2s: release all current protection of BMS (excluding MOS failure, NTC failure)



*No operation after 3 minutes, the light board automatically shuts down and enters a sleep state to reduce self-consumption.

Description: This image demonstrates the battery's capability to charge multiple devices simultaneously, such as mini-fridges, fans,

LED lights, phones, laptops, and drones, with estimated run times or charge counts.

5.3. Bluetooth App Monitoring

Monitor your battery's status in real-time using the DC HOUSE app. The app provides detailed information on SOC, voltage, current, and fault diagnostics.

Portable for Outdoor

M6

11mm

6mm

Fixed Hole

7.64 inch

6 inch

9.4 inch

KG

6kg/13.23lbs

DCHOUSE

LiFePO4

12.8V 1 50Ah

Lithium Iron Phosphate Battery

DEEP CYCLE BATTERY

Trolling Motor

Bluetooth

SOC & Protection Indicator

Max Power of Type-C Port

Bidirectional Charging (Type-C & DC Ports)

Max Continuous Discharging Current 75A

www.dchouse.com

Description: This image displays a smartphone running the DC HOUSE app, showing various screens for real-time battery monitoring, including SOC, voltage, current, and fault notifications.

6. MAINTENANCE

6.1. General Care

- Keep the battery clean and dry.
- Avoid exposing the battery to extreme temperatures outside its operating range.
- Ensure terminals are always clean and free of corrosion.

6.2. Low Temperature Protection

The battery features built-in low-temperature cut-off protection to prevent damage during cold conditions.

Real-time Monitoring by APP

Home page Control Page Data page

Notification page

DC HOUSE
12.8V 50Ah
Lithium Iron Phosphate DEEP CYCLE BATTERY

Description: This image visually explains the low-temperature cut-off protection, indicating that charging stops below 20°F (-7°C),

discharge stops below -4°F (-20°C), and recovery occurs at 32°F (0°C).

7. TROUBLESHOOTING

If your battery is not functioning as expected, consider the following steps:

Video Description: This video provides a guide on how to troubleshoot common issues with the battery, including steps to check if the battery pack is not working and how to activate it.

7.1. Common Issues

- **Battery not charging:** Check charger connection, power source, and ensure the battery temperature is above 20°F (-7°C).
- **Battery not discharging:** Ensure the battery is activated via the one-touch switch. Check for BMS fault indicators. Ensure the battery temperature is above -4°F (-20°C).
- **Bluetooth connectivity issues:** Ensure your device is within 5-10 meters range. Restart the app and battery.

8. SPECIFICATIONS

Specification	Value
Product Dimensions	9.4 x 6 x 7.64 inches
Item Weight	12.65 pounds
Item Model Number	ECO-LFP125002
Battery Type	Lithium Iron Phosphate (LiFePO4)
Battery Capacity	50 Amp Hours
Energy	640 Wh
Maximum Continuous Discharge Current	75A
Recommended Uses	Trolling motor, marine, outdoor camping, RVs, golf carts

640WH High Energy

Charge Multiple Devices Simultaneously for Long Time



Mini Fridge 45W
(15Hours)



Fan 30W
(20Hours)



LED Light 30W
(20Hours)



Sound 40W
(17Hours)



Laptops 42W
(37Times)



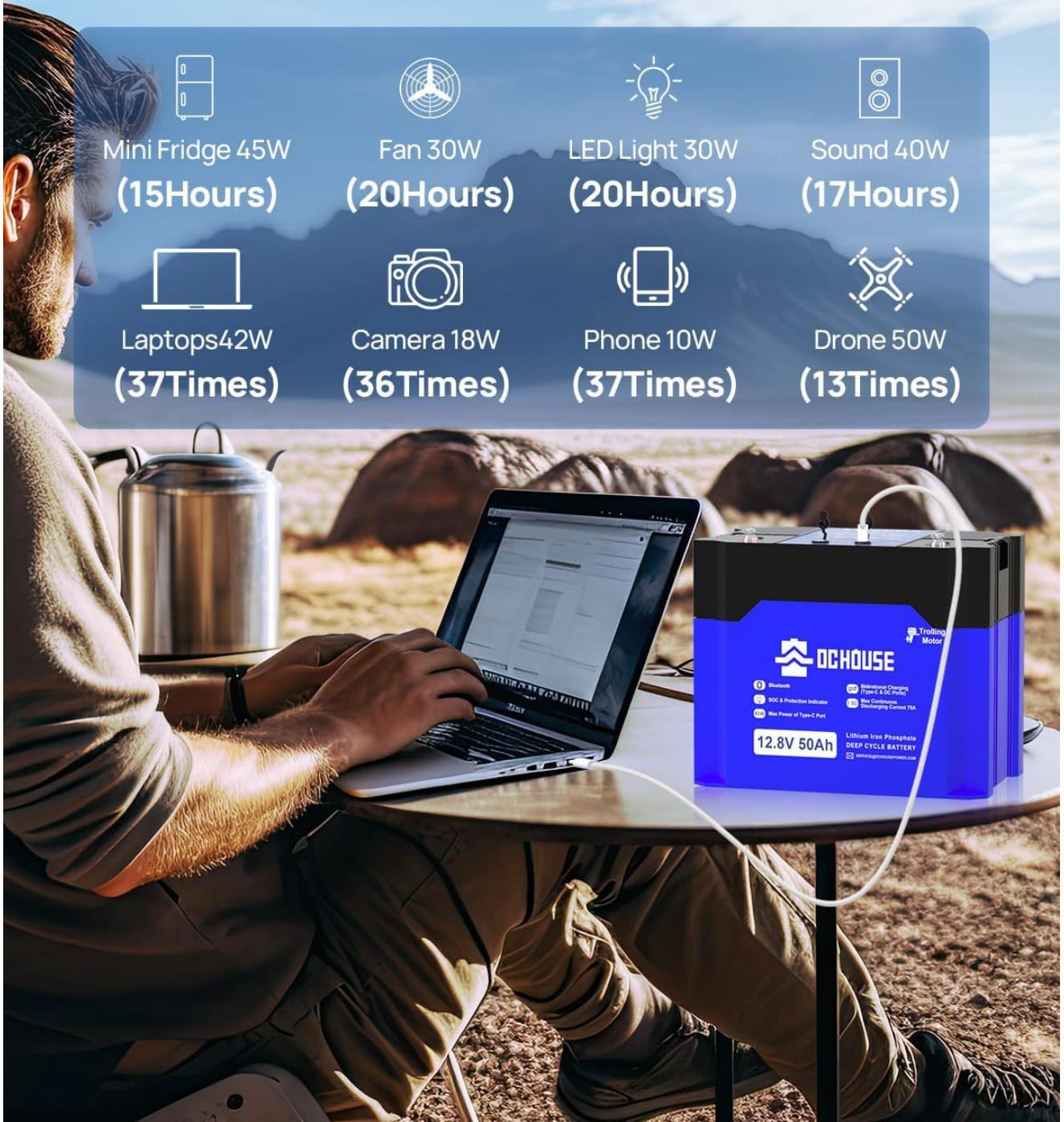
Camera 18W
(36Times)



Phone 10W
(37Times)



Drone 50W
(13Times)



Description: This image displays the physical dimensions of the battery (9.4 inches length, 6 inches width, 7.64 inches height) and its weight (13.23 lbs), emphasizing its portability and fixed-hole design.

9. WARRANTY AND SUPPORT

DC HOUSE is committed to providing 3 years of reported service for every battery sold. If you need help, please get in touch with us through Amazon or the after-sales address in the manual. We will provide professional and complete advice on battery connection, charging, and discharging.

For further assistance, please visit the official DC HOUSE store: [DC HOUSE Store](#).

