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› Timeusb 12V 200Ah Plus LiFePO4 Battery Instruction Manual

Timeusb 12V200Ah Plus

Timeusb 12V 200Ah Plus LiFePO4 Battery Instruction Manual

Model: 12V200Ah Plus

1. INTRODUCTION

This manual provides essential information for the safe and efficient use of your Timeusb 12V 200Ah Plus LiFePO4 Battery. This deep cycle lithium iron phosphate battery is designed for various applications including RVs, camper vans, solar systems, off-grid setups, and travel trailers. It features a built-in 200A Battery Management System (BMS) for enhanced performance and safety.



Figure 1: Timeusb 12V 200Ah Plus LiFePO4 Battery

2. SAFETY INFORMATION

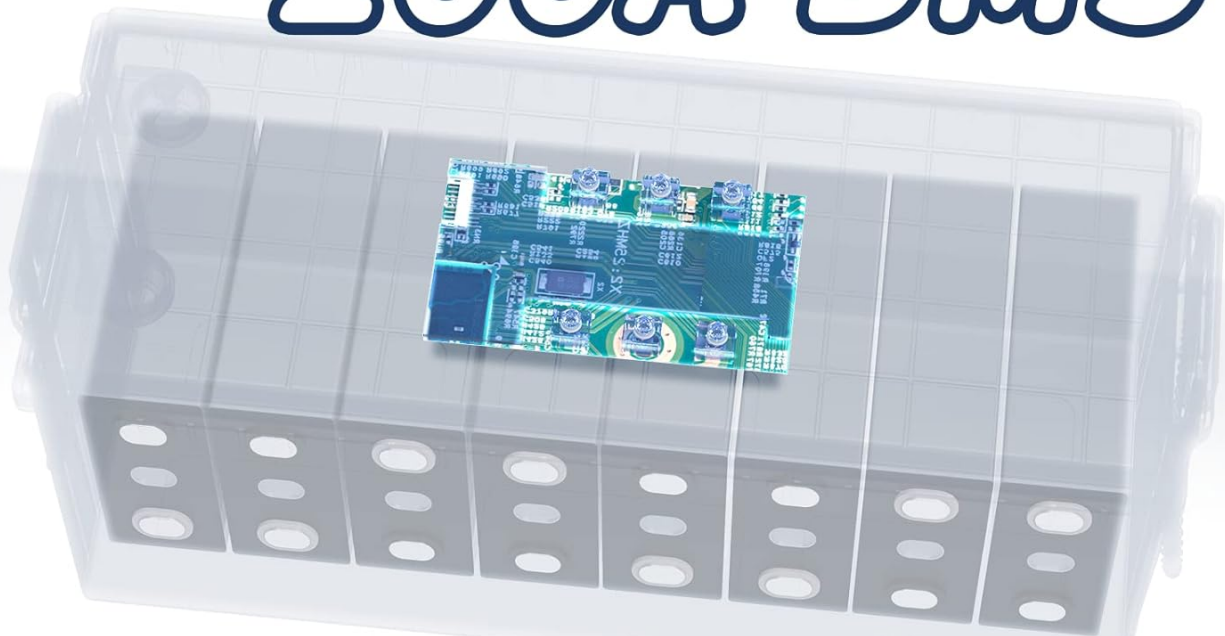
Your Timeusb LiFePO4 battery is equipped with multiple safety features. Always adhere to the following guidelines to ensure safe operation and longevity of the battery:

- **Overcharging Protection:** The built-in 200A BMS prevents overcharging, safeguarding the battery cells.

- **Over-discharging Protection:** The BMS also protects against excessive discharge, which can damage battery life.
- **Over-current Protection:** Prevents damage from current exceeding safe limits.
- **Short Circuit Protection:** Automatically disconnects the battery in case of a short circuit.
- **High-Temperature Protection:** The battery is protected in environments above 60°C (140°F).
- **Low-Temperature Protection:** The battery is protected from discharging below -20°C (-4°F) and charging below 0°C (32°F).
- **Anti-Swelling Fixture:** An internal fixture helps prevent cell swelling due to overcharging, aging, or high temperatures, improving battery performance and lifespan.
- This battery is designed for energy storage, not as a starting battery for cars or golf carts.
- Ensure proper ventilation when installing the battery.
- Do not disassemble, modify, or expose the battery to fire or water.

LiFePO4 Battery Born for RVs

UPGRADED 200A BMS



Over Charge



Over Discharge



Over Current



Short Circuit



High Temp.

5 PROTECTION

Figure 2: Upgraded 200A BMS with Over Charge, Over Discharge, Over Current, Short Circuit, and High Temperature Protection.

12V50Ah Pro



Figure 3: Battery operating temperature ranges for charging and discharging.

3. PRODUCT OVERVIEW

The Timeusb 12V 200Ah Plus LiFePO₄ Battery offers a lightweight and compact design with high energy density. It is built with Grade A cells and a robust Battery Management System (BMS) to ensure reliability and safety.

- **Usable Capacity:** 200 Ah
- **Power Output:** 2560 W (Max. continuous load power)
- **Max. Energy:** 2.56 kWh
- **Weight:** 20.68 kg (45.6 lbs)
- **Dimensions (LxWxH):** 21" x 8.2" x 8.5"
- **Cycle Life:** 4000+ cycles @100% DOD

WHY TIMEUSB?

Time USB[®] **200**
Ah



Usable Capacity
200 Ah



Power Output
2560 W



Max. Energy
2560 Wh

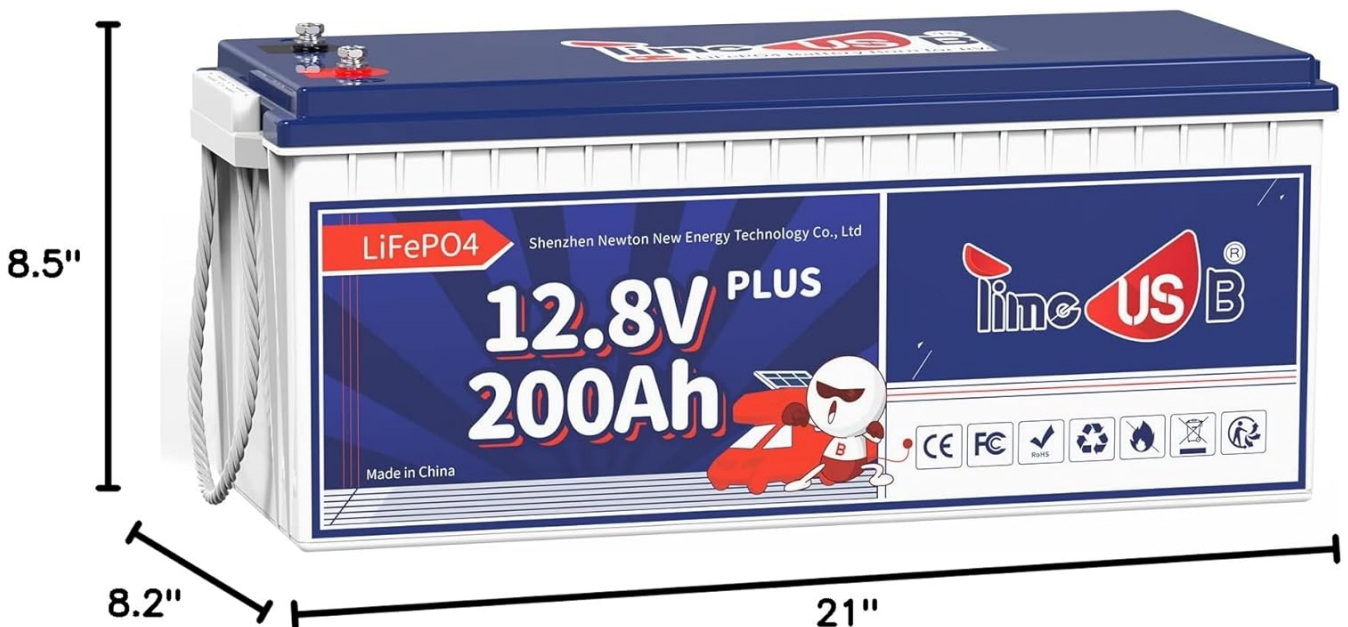
Weight
20.68
Kg

Size
L**21***W**8.2**
*H**8.5** in

200A
BMS



Figure 4: Key features including usable capacity, power output, max energy, weight, and size.



4. SETUP

4.1 Unboxing and Initial Inspection

Upon receiving your Timeusb 12V 200Ah Plus battery, carefully unbox it and inspect for any signs of damage. The package should contain one Timeusb 12V200Ah Plus LiFePO4 battery and terminal bolts. Wiring cables are not included and must be purchased separately based on your specific application needs.

Video 1: Unboxing the Timeusb 12.8V 200Ah Plus LiFePO4 Battery.

4.2 Connecting Terminals

The battery features M8 terminals. Remove the plastic protective caps from the terminals. Use the provided bolts to securely connect your wiring cables to the positive (red) and negative (black) terminals. Ensure all connections are tight to prevent arcing and ensure optimal performance.

4.3 Initial Charging

It is recommended to fully charge the battery before its first use. Refer to the Operating section for detailed charging options.

5. OPERATING INSTRUCTIONS

5.1 Load Capacity

The 12V 200Ah Plus battery supports a maximum continuous load power of 2560W, allowing it to power a variety of appliances. Examples include:

- Portable Fridge (80W): ~32 hours
- Stove (600W): ~4.3 hours
- Microwave (800W): ~3.2 hours
- Air Conditioner (1000W): ~2.56 hours

A LIGHTER BATTERY CAN RUN LARGER LOADS



2560W
Max.Load Power



80W

Portable Fridge
32hrs



600W

Stove
4.3hrs



800W

Microwave
3.2hrs



1000W

Air Conditioner
2.56hrs

Figure 6: Examples of appliances and their approximate run times with the battery.

5.2 Recharging Options

The battery offers flexible recharging options:

- **Dedicated LiFePO4 Battery Charger:** A 14.6V 40A charger can fully charge the battery in approximately 5 hours.
- **Solar Panels:** With solar panels generating $\geq 600W$, the battery can be charged in about 5 hours (assuming 4-5 hours of effective sunlight per day).
- **Generator:** Connect a 14.6V 40A DC charger to a generator for approximately 5 hours of charging.



Figure 7: Charging with a dedicated battery charger.



Figure 8: Charging with solar panels.



Figure 9: Charging with a generator.

5.3 Parallel/Series Connection

Multiple Timeusb 12V 200Ah Plus batteries can be connected in series or parallel to achieve higher voltage or capacity. For example, a 4P4S connection (4 parallel, 4 series) can achieve a Max. Load Power of 40.96kW and Max. Energy Output of 40.96kWh.

12V230Ah



Figure 10: Example of a 4P4S battery connection for increased power.

5.4 Bluetooth App Monitoring

The battery features Bluetooth connectivity, allowing you to monitor its status via a dedicated smartphone application. The app provides real-time data on battery level, voltage, current, power, and temperature, as well as notifications if the BMS triggers any protection.

Video 2: Demonstration of the Bluetooth app for monitoring battery status.

6. MAINTENANCE

The Timeusb LiFePO4 battery is designed for minimal maintenance. Its sealed construction and internal BMS eliminate the need for electrolyte checks or terminal cleaning under normal operating conditions.

- **Regular Inspection:** Periodically check battery terminals for any signs of corrosion or loose connections.
- **Storage:** For long-term storage, ensure the battery is charged to approximately 50% State of Charge (SOC) and stored in a cool, dry place. Disconnect all loads and charging sources.
- **Cleaning:** Keep the battery casing clean and free from dust and debris. Use a dry cloth for cleaning.

12V100Ah Pro



Figure 11: The battery's internal temperature protection ensures safe operation.

7. TROUBLESHOOTING

If you encounter issues with your Timeusb LiFePO4 battery, consider the following general troubleshooting steps:

- **No Power Output:** Check all cable connections for tightness and proper polarity. Verify that the battery is sufficiently charged using the Bluetooth app. The BMS may have activated a protection mode (e.g., over-discharge, short circuit).
- **Charging Issues:** Ensure your charger is compatible with LiFePO4 batteries and provides the correct charging voltage (14.6V). Check charging temperature; the BMS will prevent charging if the temperature is below 0°C (32°F).
- **Unusual Behavior:** Use the Bluetooth app to check real-time data and notifications from the BMS. This can help identify specific faults or conditions.

For persistent issues, contact Timeusb customer support.

8. SPECIFICATIONS

Feature	Specification
Brand	Timeusb
Model	12V200Ah Plus
Rated Capacity	200 Ah (280Ah/3584Wh @25°C, 0.5C)
Rated Voltage	12.8V
Voltage Range	10 - 14.6V
Max Continuous Charging Current	160A
Max Continuous Discharging Current	200A
Charging Voltage	14.6V
Dimensions (LxWxH)	21"D x 8.2"W x 8.5"H
Item Weight	45.6 pounds (20.68 kg)
Charging Temperature	32-131°F / 0-55°C
Discharging Temperature	-4-131°F / -20-55°C
Terminal Type	M8

9. WARRANTY AND SUPPORT

Your Timeusb 12V 200Ah Plus LiFePO4 Battery comes with a **5-year warranty**. Timeusb provides a responsive and professional customer service team to assist with any questions or targeted battery solutions.

For support, please refer to the contact information provided in your product packaging or visit the official Timeusb website.