

LiTime 24V 100Ah Bluetooth Battery

LiTime 24V 100Ah Bluetooth LiFePO4 Battery User Manual

Model: 24V 100Ah Bluetooth Battery (L24V100-100-BASIC-BT-8-A160)

1. INTRODUCTION

This manual provides essential information for the safe and efficient use of your LiTime 24V 100Ah Bluetooth LiFePO4 Battery. This battery is designed for various applications including trolling motors, RVs, marine systems, off-grid setups, and home energy storage. It features Bluetooth 5.0 connectivity for real-time monitoring and low-temperature cutoff protection for enhanced safety and longevity.



Figure 1: LiTime 24V 100Ah Bluetooth LiFePO4 Battery with accompanying smartphone application interface.

2. SAFETY INFORMATION

Observe the following safety precautions to prevent injury or damage to the battery and connected equipment:

- **Do Not Short Circuit:** Avoid connecting the positive and negative terminals directly.
- **Do Not Disassemble:** Unauthorized disassembly voids warranty and can be hazardous.
- **Do Not Store Above 140°F (60°C):** High temperatures can damage the battery.
- **Do Not Mix-Wire:** Do not connect this LiFePO4 battery in series or parallel with lead-acid, gel, or AGM batteries.
- **Use Appropriate Charger:** Only use chargers designed for LiFePO4 batteries.
- **Ventilation:** Ensure adequate ventilation during charging and discharging.
- **Low-Temperature Protection:** The built-in BMS automatically stops discharging below -4°F (-20°C) and stops charging below 32°F (0°C).

3. PRODUCT OVERVIEW

3.1. Package Contents

Upon opening the package, verify that all components are present:

- LiTime 24V 100Ah Bluetooth LiFePO4 Battery
- User Manual
- M8 Terminal Bolts (2)

NEW UPGRADE
24V 100Ah BLUETOOTH LIFEP04 BATTERY



LiTime 24V 100Ah LiFePO4 Battery	LiTime 24V 100Ah Bluetooth LiFePO4 Battery	
✓	2560W Load Power	✓
✓	100A Smart BMS	✓
✓	4000-15000 Cycle Times	✓
✓	Lifespan:10 Years	✓
✗	Bluetooth 5.0	✓
✗	Low-Temperature Cut-Off Protection	✓

Figure 2: Contents of the LiTime battery package, including the battery, user manual, and M8 terminal bolts.

3.2. Physical Dimensions and Weight

The LiTime 24V 100Ah Bluetooth LiFePO4 Battery is designed to be compact and lightweight for ease of installation and portability.

- **Dimensions:** 8.2 x 21 x 8.5 inches (20.8 x 53.3 x 21.6 cm)
- **Weight:** Approximately 45.85 lbs (20.8 kg)

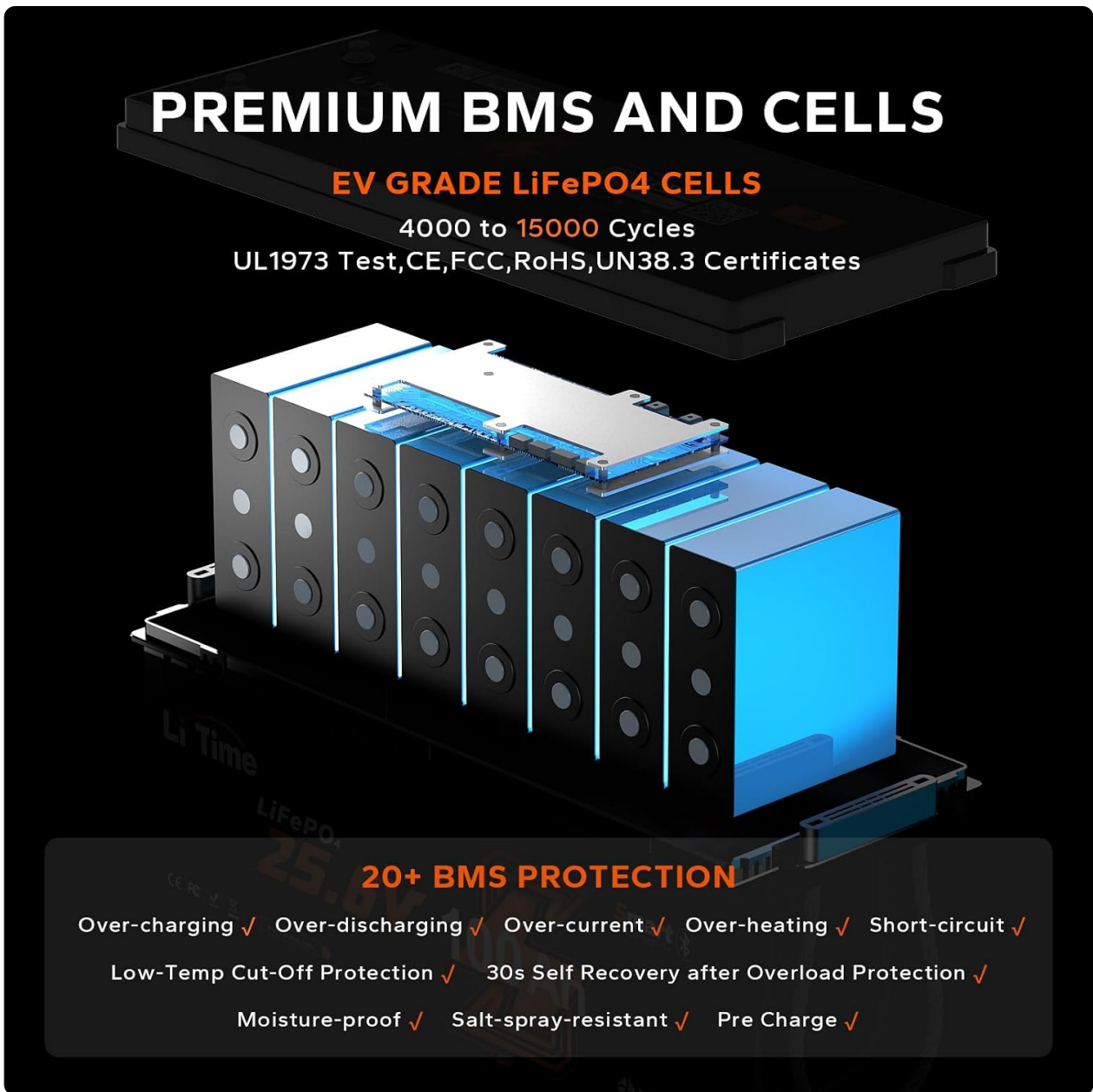


Figure 3: Detailed dimensions of the LiTime 24V 100Ah battery.

4. INITIAL SETUP AND ACTIVATION

Your LiTime LiFePO₄ battery may arrive in a dormant state for safety during shipping. It requires activation before first use.

4.1. Battery Activation

If the battery does not power on or charge, it may need activation. This typically occurs if the battery management system (BMS) has entered protection mode due to low voltage.

1. **Disconnect All Devices:** Ensure the battery is disconnected from all loads and charging sources.
2. **Rest Period:** Allow the battery to rest for approximately 30 minutes. The BMS may automatically reset if the voltage is above the minimum threshold.
3. **Charge with Activation Function:** Connect the battery to a LiFePO₄ charger that has a battery activation function. This type of charger can provide a brief pulse of current to wake up the BMS.

4. **Solar Activation (Alternative):** On a sunny day, connect a 24V LiFePO4 solar charge controller to the battery and charge for 3-10 seconds to wake it up.

Once activated, the battery should show a normal voltage (typically above 20V for a 24V battery) and accept a charge. Fully charge the battery before its first use.

Your browser does not support the video tag.

Video 1: Guide on how to activate a LiTime LiFePO4 battery if it is not working or charging.

5. BLUETOOTH CONNECTIVITY AND APP USAGE

The LiTime 24V 100Ah battery features Bluetooth 5.0 for convenient monitoring via a smartphone application.

5.1. Connecting to the App

1. Download the official LiTime app from your smartphone's app store (available for iOS and Android).
2. Ensure Bluetooth is enabled on your smartphone.
3. Open the LiTime app. The app will automatically search for nearby LiTime batteries.
4. Select your battery from the list to connect. Ensure you are within direct vicinity (16.4ft-32.8ft) of the battery for optimal connection.

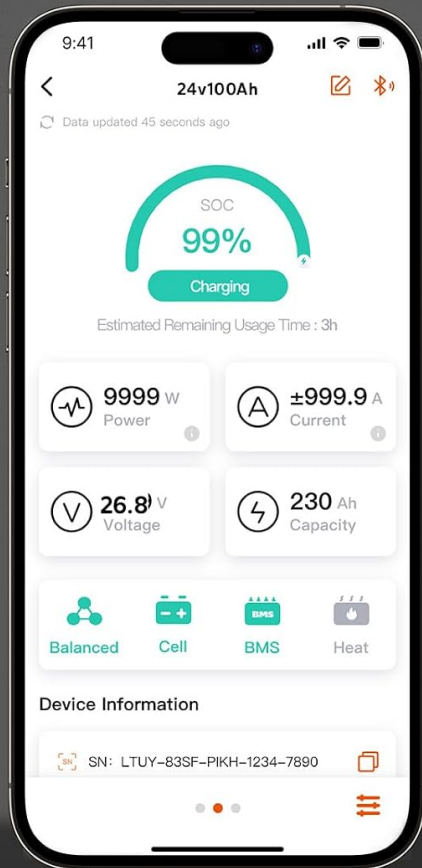
5.2. App Features

The LiTime app provides real-time data and control functionalities:

- **Single Battery Monitoring:** View individual battery status.
- **Battery System Monitoring:** Monitor multiple batteries in a system.
- **Real-time Data:** Check voltage, current, power, state of charge (SOC), and estimated remaining usage time.
- **Discharge Control:** Remotely control battery discharge.
- **Battery Fault Diagnosis:** Receive alerts and diagnostic information for any issues.

FUNCTIONS OF THE **LITIME APP**

Bluetooth enables access via smartphone, as long as you are in the direct vicinity of the battery (16.4FT-32.8FT).



- Single Battery Monitoring
- Battery System Monitoring
- Battery Fault Diagnosis



Figure 4: Screenshot of the LiTime smartphone application showing various battery monitoring features.

6. INSTALLATION AND WIRING

This 24V 100Ah battery is suitable for a wide range of applications. Ensure proper wiring and connection for optimal performance and safety.

6.1. General Applications

The battery is ideal for:

- 24V Trolling Motors (70-100lbs thrust)
- Marine Use
- RVs and Campers
- Off-Grid Solar Systems
- Home Energy Storage

Note: This battery is not designed for engine starting or high-surge devices.

UPGRADE TO SMART **BLUETOOTH**

The image features a black LiTime battery with the following text: "Li Time", "LiFePO₄", "25.6V 100Ah", "Smart BLUETOOTH", and "LTCP". A smartphone is connected to the battery, displaying a monitoring app with a 50% charge indicator and various data points. The battery is placed on a circular black base. In the background, a black boat is on a body of water.

 Control discharge remotely

 View battery's data/status

 Auto-connection

Figure 5: LiTime 24V 100Ah battery powering a trolling motor on a boat.

SAVING SPACE, LESS WIRING

One-step 24V Solution

- ✓ Lower Internal Resistance
- ✓ More Compact Space
- ✓ Reduced Battery Connections
- ✓ More Convenient and Economical



Figure 6: LiTime 24V 100Ah battery integrated into an RV power system.



Figure 7: LiTime 24V 100Ah battery providing power for a home solar system.

6.2. System Expansion

The battery supports up to 4P2S configuration, allowing for a total capacity of 10.24kWh. Consult a qualified electrician or refer to detailed wiring diagrams for complex setups.

7. CHARGING AND MAINTENANCE

7.1. Charging Methods

The LiTime 24V 100Ah battery can be recharged using several methods:

- **Solar Panels + MPPT Controller:** Efficient charging using solar energy.
- **LiFePO4 Charger:** Dedicated 29.2V 20A AC-DC charger.
- **Generator + AC-DC Charger:** For charging when grid power or solar is unavailable.
- **Alternator + DC-DC Charger:** For charging from a vehicle's alternator.



Figure 8: Various charging methods for the LiTime LiFePO₄ battery.

7.2. Low-Temperature Protection

The battery's advanced BMS includes low-temperature protection to safeguard its lifespan and performance:

- **Charging Cutoff:** Charging automatically stops below 32°F (0°C).
- **Discharging Cutoff:** Discharging automatically stops below -4°F (-20°C).
- **Charging Recovery:** Charging resumes when the temperature rises above 41°F (5°C).

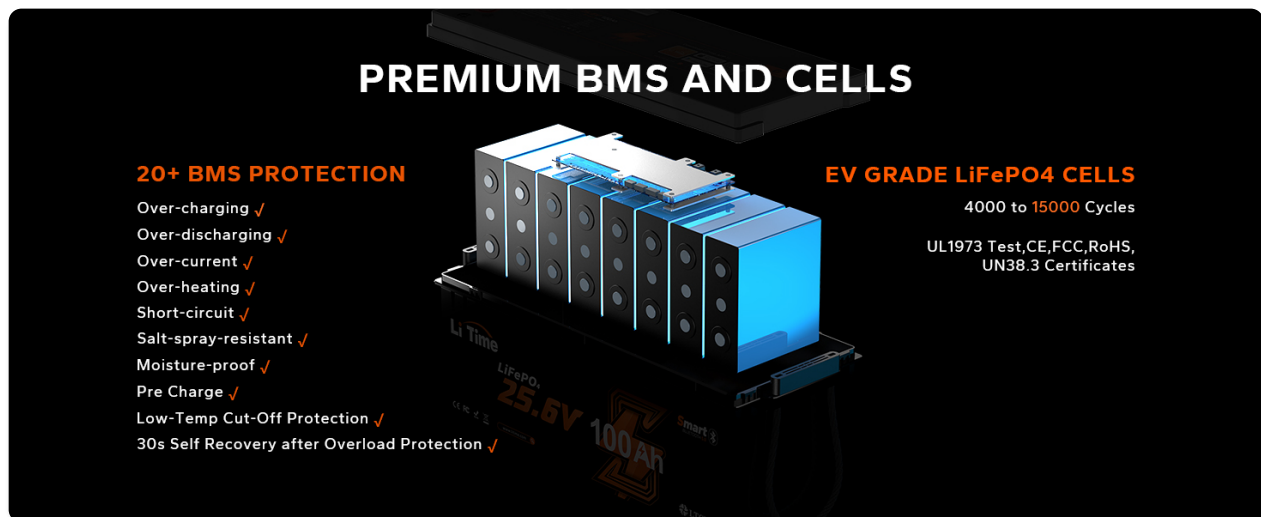


Figure 9: Illustration of the battery's low-temperature charging and discharging cutoff points.

7.3. Battery Management System (BMS)

The integrated 100A BMS provides comprehensive protection and ensures optimal battery performance and longevity. It offers over 20 types of protection, including:

- Over-charging protection
- Over-discharging protection
- Over-current protection
- Over-heating protection
- Short-circuit protection
- Low-Temp Cut-Off Protection
- 30s Self-Recovery after Overload Protection
- Moisture-proof and Salt-spray resistant design
- Pre-charge function

24V 100Ah BLUETOOTH LIFEPO4 BATTERY

Designed for 24V 70-100lb Trolling Motor

Bluetooth 5.0, Real-time Monitor
Your Battery or System



Figure 10: Internal view highlighting the premium BMS and EV-grade LiFePO4 cells, ensuring robust protection and long cycle life.

8. TROUBLESHOOTING

If you encounter issues with your battery, consider the following common scenarios:

- **Battery Not Working/Charging:** Refer to Section 4.1 for battery activation steps. The BMS may have entered protection mode.
- **Bluetooth Connectivity Issues:** Ensure your smartphone's Bluetooth is on and you are within range of the battery. Restarting the app or your phone may resolve minor connection problems.
- **Low Voltage Readings:** If the battery voltage is consistently low, ensure it is fully charged. If it drops below the BMS cutoff, follow the activation steps.
- **Charging Stops Unexpectedly:** Check the ambient temperature. If it's below 32°F (0°C), the low-temperature charging cutoff may be active.

For persistent issues, contact LiTime customer support.

9. SPECIFICATIONS

Specification	Value
Brand	LiTime
Model	24V 100Ah Bluetooth Battery
Item Model Number	L24V100-100-BASIC-BT-8-A160
Nominal Voltage	25.6V
Rated Capacity	100Ah
Energy	2560Wh
Cycle Life	4,000+ cycles at 100% DOD, 6,000 cycles at 80% DOD, 15,000 cycles at 60% DOD
BMS	Built-in 100A BMS with 20+ protections
Low-Temperature Protection	Discharge cutoff below -4°F (-20°C), Charge cutoff below 32°F (0°C)
Bluetooth	Bluetooth 5.0
Dimensions	8.2 x 21 x 8.5 inches
Weight	45.85 lbs
Terminal Type	M8 Terminal
Max Series/Parallel Connection	4P2S (for 10.24kWh capacity)

10. WARRANTY AND SUPPORT

LiTime provides a warranty for its products. Please refer to the official LiTime website or your purchase documentation for specific warranty terms and conditions.

For technical support, troubleshooting assistance, or warranty claims, please contact LiTime customer service through the following channels:

- **Website:** www.litime.com
- **Email:** Refer to your product packaging or the official website for support email addresses.

When contacting support, please have your product model number (L24V100-100-BASIC-BT-8-A160) and purchase details ready.

© 2024 LiTime. All rights reserved.