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Wattcycle 12V100AH100

Wattcycle 12V 100Ah LiFePO4 Lithium Mini Battery User Manual

Model: 12V100AH100

1. INTRODUCTION

This manual provides essential information for the safe and efficient operation of your Wattcycle 12V 100Ah LiFePO4 Lithium Mini Battery. Please read this manual thoroughly before installation or use to ensure proper handling and to maximize battery performance and longevity.



Image: The Wattcycle 12V 100Ah LiFePO4 Lithium Mini Battery, a compact black battery with blue and yellow branding, featuring a built-in handle and visible terminals.

2. WHAT'S IN THE Box

Upon unpacking, verify that all items listed below are included:

- 1 x Wattcycle 12V 100Ah LiFePO4 Lithium Mini Battery
- 4 x M8 Screws
- 2 x Insulated Terminal Caps (Red and Black)
- 1 x Instruction Manual

WHAT'S IN THE BOX

- ✓ Bluetooth Battery*1
- ✓ Quick Start Guide x1
- ✓ Product Manual x1
- ✓ Terminals Posts x 4 (M8)
- ✓ Isolation Caps x 2



Image: A visual representation of the battery, M8 screws, insulated caps, and instruction manual, illustrating the contents of the product packaging.

Your browser does not support the video tag.

Video: An unboxing demonstration of the Wattcycle 100Ah LiFePO4 battery, showing the included items and packaging.

3. SPECIFICATIONS

Specification	Value
Manufacturer	Wattcycle
Model	12 volt lithium battery group 24
Item Weight	23.2 pounds
Product Dimensions	9 x 5.4 x 8.2 inches
Batteries Required	1 x 12V battery

Specification	Value
Rated Voltage	12.8V
Rated Capacity	100Ah / 1280Wh
Max Continuous Charging Current	100A
Max Continuous Discharging Current	100A
Cycle Life	Up to 15,000 cycles
Lifespan	10 years
Operating Temperature Range	-4°F to 158°F (-20°C to 70°C)
Low Temperature Cut-Off (Discharge)	-4°F (-20°C)
Low Temperature Charge Recovery	>32°F (>0°C)
Waterproof Rating	IP65

4. KEY FEATURES

- Compact Design:** This 12V 100Ah lithium battery is 11% lighter and 39% smaller than previous generations, offering a 63Wh/lbs energy density. It is designed to fit BCI Group 24 battery boxes.
- Smart Bluetooth Monitoring:** Utilize the WattCycle app to monitor battery voltage, current, and other parameters via Bluetooth for efficient and safe operation.
- Premium A+ Cells:** Constructed with Grade A+ EV cells, this battery offers a 10-year lifespan and up to 15,000 cycles. It supports configurations up to 4S4P for a total of 20.48kWh.
- Robust BMS Protection:** Operates effectively from -4°F to 158°F, featuring automatic shut-off at low temperatures. The integrated Battery Management System (BMS) provides safeguards against overcharge, over-discharge, over-current, short circuit, and high/low temperature conditions.
- Reliability:** Backed by a 5-year assurance.

Upgraded To LiFePO4 Battery



Image: A visual comparison highlighting the Wattcycle LiFePO4 battery's advantages in weight, size, capacity, cycles, and lifespan over a traditional lead-acid battery.

5. SETUP AND INSTALLATION

Follow these steps for proper installation and connection of your Wattcycle battery:

- Unpack and Inspect:** Carefully remove the battery and all accessories from the packaging. Inspect for any signs of damage.
- Terminal Connection:** Use the provided M8 screws and insulated caps to securely connect your cables to the battery terminals. Ensure correct polarity (red for positive, black for negative).
- Placement:** Position the battery in a secure, well-ventilated area. The LiFePO4 battery can be installed in various orientations (upright, on its side) without affecting performance.
- System Integration:** Connect the battery to your RV, marine, boat, or trailer system according to your system's wiring diagram. Ensure all connections are tight and secure.

Lighter & Smaller Than You Think



200% Energy
(235.72Wh/L Energy Density)

60% Lighter
(20.94lb)

30% Smaller
(9*5.4*8.2 in)

*Based on lead-acid batteries

Image: A visual representation of the battery's compact dimensions (9 x 5.4 x 8.2 inches) and weight (20.94 lbs).

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Video: A demonstration of installing a Wattcycle Mini Bluetooth battery in a boat, showcasing the connection process and system integration.

6. OPERATING INSTRUCTIONS

Your Wattcycle battery is designed for ease of use with smart monitoring capabilities:

- Initial Charge:** For optimal performance, fully charge the battery before its first use.
- Bluetooth App:** Download the WattCycle app from your device's app store. Connect to your battery via Bluetooth to monitor its status in real-time. The app provides data on voltage, current, temperature, and state of charge.
- Charging:** The battery supports various charging methods including LiFePO4 chargers, solar panels (with appropriate controller), and alternators. Ensure your charging source is compatible with LiFePO4 batteries.
- Discharging:** The battery is suitable for powering a wide range of applications such as RVs, marine equipment, and general power backup. The integrated BMS protects against over-discharge.

Bluetooth 5.2 Make Your Energy Reliable



Image: A smartphone displaying the Wattcycle app interface, showing real-time battery monitoring data including voltage, current, and temperature.

Your browser does not support the video tag.

Video: A brief overview of the Wattcycle Bluetooth 12V 100Ah LiFePO4 Lithium Battery, highlighting its features and smart capabilities.

7. MAINTENANCE AND STORAGE

Proper maintenance ensures the longevity and performance of your battery:

- Regular Inspection:** Periodically check battery terminals for corrosion and ensure connections are tight.
- Cleaning:** Keep the battery clean and dry. Use a soft, dry cloth to wipe down the battery casing.
- Storage:** If storing the battery for an extended period, ensure it is charged to approximately 50% State of Charge (SOC) and stored in a cool, dry place. The BMS will protect against low-temperature damage.
- Temperature Considerations:** Avoid operating or storing the battery in extreme temperatures outside the specified range (-4°F to 158°F). The battery's low-temperature cut-off feature will prevent charging below 32°F.

Low-Temp Cut-Off Protection



< -4 °F
Discharge OFF



> 32 °F
Charge Recover

Image: The Wattcycle battery shown in a snowy setting, emphasizing its low-temperature cut-off protection feature for safe operation in cold conditions.

8. TROUBLESHOOTING

The Smart BMS provides comprehensive protection. If you experience issues, check the following:

- No Power Output:** Check battery connections for tightness and correct polarity. Verify the battery's state of charge via the app. The BMS may have activated a protection mode (e.g., over-discharge, low temperature).
- Charging Issues:** Ensure your charger is compatible with LiFePO4 batteries and operating correctly. Check for low-temperature cut-off if charging in cold conditions.
- App Connectivity:** Ensure Bluetooth is enabled on your device and the battery is within range. Restart the app or battery if connection issues persist.
- BMS Fault:** If the battery enters a fault state, the BMS will typically shut down to protect the cells. Refer to the app for specific fault codes or contact support.

9. WARRANTY AND SUPPORT

Your Wattcycle battery is backed by a 5-year assurance against manufacturing defects. For any inquiries, technical assistance, or warranty claims, please contact our support team. We aim to respond within 24 hours.

- **Manufacturer:** Wattcycle
- **Support Contact:** Please refer to the contact information provided in your product manual or on the official Wattcycle website.

Related Documents - 12V100AH100

	<p>WattCycle 12V LiFePO4 Batteries: Specifications and Usage Guide</p> <p>Detailed specifications, safety guidelines, and connection information for WattCycle's 12V LiFePO4 battery series, including models from 50Ah to 400Ah.</p>
	<p>WattCycle 12V LiFePO4 Deep Cycle Battery User Manual</p> <p>Comprehensive user manual for WattCycle 12V LiFePO4 deep cycle batteries, covering features, specifications, installation, charging, BMS functions, warranty, and troubleshooting. Includes detailed product information and best practices.</p>
	<p>WattCycle 12V Series LiFePO4 Deep Cycle Battery User Manual</p> <p>Comprehensive user manual for WattCycle 12V Series LiFePO4 Deep Cycle Batteries, covering features, specifications, installation, charging, BMS functions, applications, FAQs, and warranty. Includes detailed technical data and safety guidelines.</p>
	<p>WattCycle 12V 100Ah LiFePO4 Battery with Bluetooth App User Manual</p> <p>User manual for the WattCycle 12V 100Ah LiFePO4 battery, covering its features, operation, and management via the integrated Bluetooth application. Provides guidance on installation, usage, and troubleshooting for optimal performance.</p>
	<p>WattCycle LiFePO4 Deep Cycle Battery User Manual for Golf Carts</p> <p>Comprehensive user manual for WattCycle LiFePO4 deep cycle batteries, including features, specifications, installation, charging, and best practices for golf carts and other applications.</p>
	<p>WattCycle 24V Series LiFePO4 Deep Cycle Battery User Manual</p> <p>Comprehensive user manual for WattCycle's 24V Series LiFePO4 Deep Cycle Batteries. Covers key features, product specifications, charging instructions, installation guide, BMS functions, and warranty information for models like 24V 50Ah, 100Ah, 200Ah, and 314Ah.</p>