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Wattcycle WV12V100AH100-24

Wattcycle 12V 100Ah LiFePO4 Battery Instruction Manual

Model: WV12V100AH100-24

1. INTRODUCTION

This manual provides essential information for the safe and efficient use of your Wattcycle 12V 100Ah LiFePO4 Battery. Please read these instructions carefully before installation and operation to ensure optimal performance and longevity of your battery.

The Wattcycle 12V 100Ah LiFePO4 Battery is designed for various applications, including RVs, outdoor camping, home energy storage, and more. It features advanced LiFePO4 cell technology, a robust Battery Management System (BMS), and a durable casing for reliable power delivery.

2. WHAT'S IN THE Box

- 1 x Wattcycle 12V 100Ah LiFePO4 Battery (BCI Group 24)
- 4 x M8 Screws
- 2 x Insulated Caps
- 1 x Instruction Manual

Video: Unboxing the Wattcycle 12V 100Ah LiFePO4 Battery and its contents.

3. PRODUCT OVERVIEW

Key Features

- Environmentally friendly LiFePO4 chemistry with 100Ah capacity and 12.8V standard voltage.

- Utilizes A+ grade cells, offering up to 15,000 cycles for extended lifespan.
- Integrated 100A Battery Management System (BMS) for protection against over-charging, over-discharging, over-current, over-heating, short circuits, and low temperature.
- Compact and lightweight design: 10.2 x 6.6 x 8.2 inches (26 x 17 x 21 cm) and weighs 21 lbs (10.5 kg).
- Designed to fit standard BCI Group 24 battery boxes.
- Durable ABS plastic casing provides insulation, dustproof, and IP67 waterproof protection.
- Supports discharge in extreme temperatures from -4°F (-20°C) to 158°F (70°C).
- Capable of series and parallel connections, supporting up to 20.48 kWh with 4 batteries in series or 4 battery packs in parallel.



Image: Front view of the Wattcycle 12V 100Ah LiFePO4 Battery.

Product Dimension

10.23*6.61*8.23inch | 23 lbs



Image: Detailed dimensions of the Wattcycle 12V 100Ah LiFePO4 Battery.

Use Grade A+ Cell

**10 years
lifespan**

**Up to
15000 cycles**

**63% increase
in efficiency**

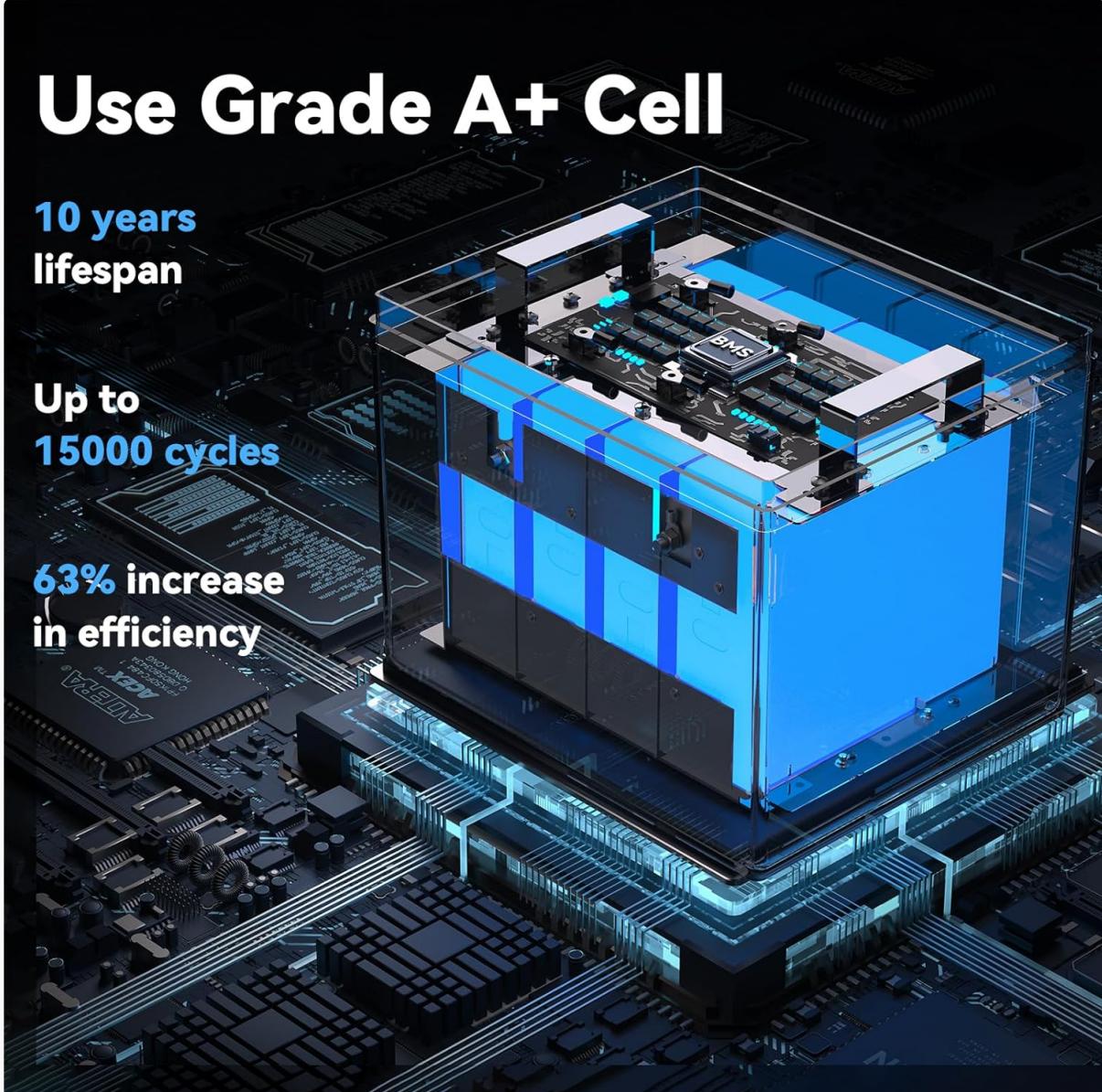


Image: Illustration of the A+ grade cells used in the Wattcycle LiFePO4 Battery.

Multipact Protections BMS



Over-charging
Protection



Over-discharging
Protection



Over current
Protection



Over heating
Protection



Short circuits
Protection



High & Low
Temp Cutoff

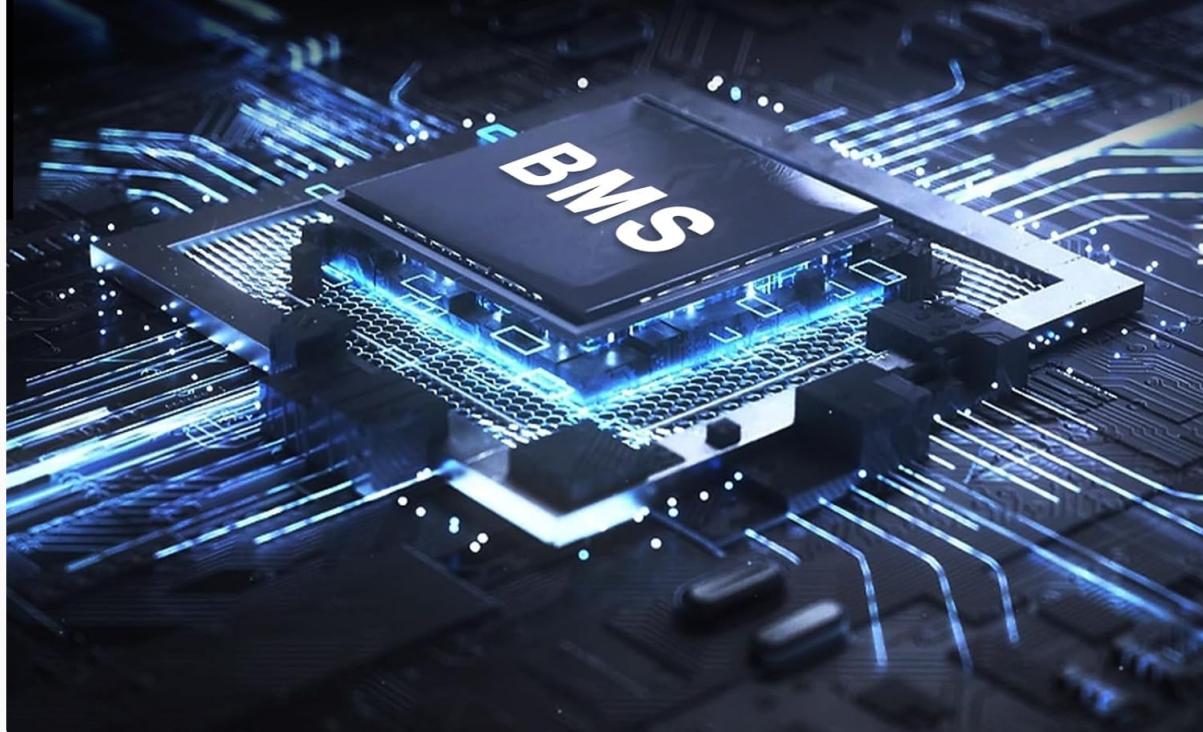


Image: Diagram illustrating the multiple protection features of the integrated BMS.

Low Temperature Protection

Min. Discharge Temperature:

-4°F (-20°C)

Max. Discharge Temperature:

158°F (70°C)



Image: Visual representation of the battery's low temperature discharge capabilities.

Image: Comparison highlighting the advantages of Wattcycle LiFePO4 over traditional lead-acid batteries.

Video: An overview of the Wattcycle 12V 100Ah LiFePO4 Battery's features.

4. SAFETY INFORMATION

Always handle the battery with care. Ensure proper ventilation during charging and discharging. Do not short-circuit the terminals. Avoid exposing the battery to extreme temperatures outside its operating range or direct sunlight for prolonged periods. Use only compatible chargers designed for LiFePO4 batteries. Do not disassemble or modify the battery.

5. SETUP

Initial Charging

Before first use, fully charge the battery using a compatible LiFePO4 charger. Ensure the charger's voltage and current settings are appropriate for a 12V LiFePO4 battery (recommended charging voltage: $14.6V \pm 0.2V$, maximum continuous charging current: 100A).

Terminal Connection

Connect the positive (+) terminal of the battery to the positive lead of your system and the negative (-) terminal to the negative lead. Use the provided M8 screws and insulated caps to ensure secure and safe connections. Tighten connections to the recommended torque specifications to prevent loose connections and potential hazards.

Video: Instructions on how to charge and connect batteries in series and parallel.

6. OPERATING INSTRUCTIONS

Series and Parallel Connection

The Wattcycle 12V 100Ah LiFePO4 Battery supports both series and parallel connections to achieve higher voltage or capacity. For series connection, link the positive terminal of one battery to the negative terminal of the next. For parallel connection, connect positive terminals together and negative terminals together. Ensure all batteries are of the same voltage and capacity when connecting in series or parallel. The system can support up to 20.48 kWh with 4 batteries in series or 4 battery packs in parallel.

Recommended Uses

This battery is suitable for a wide range of applications, including:

- Recreational Vehicles (RVs)
- Outdoor Camping
- Trolling Motors
- Golf Carts
- Home Energy Storage Systems
- Lighting Equipment

4S4P Max. 20.48kWh

Apply to Your RV Power System

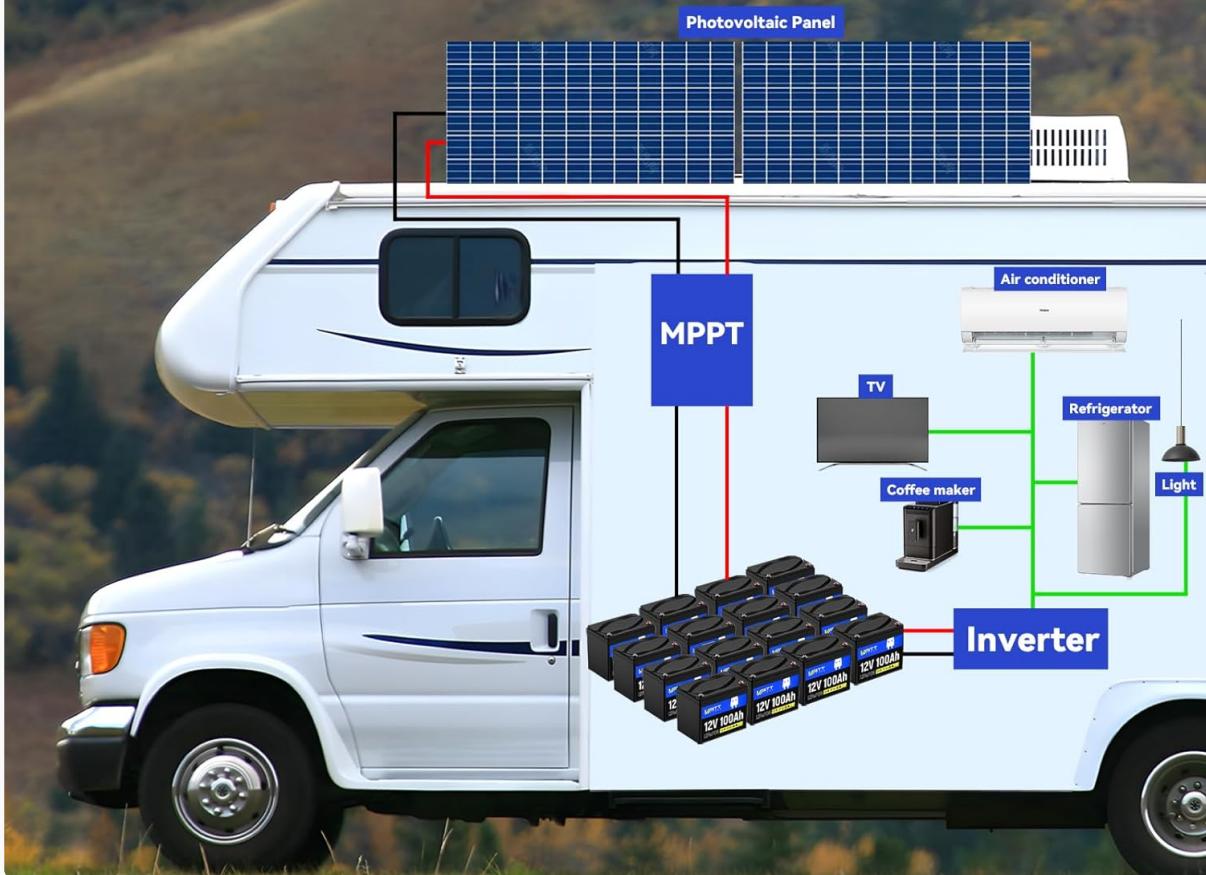


Image: Diagram showing the Wattcycle LiFePO4 Battery integrated into an RV power system.

Power Infinite Anywhere, Anytime

HOME SOLAR SYSTEM



RV



Trolling Motors



Golf Carts



Image: Various applications for the Wattcycle LiFePO4 Battery, including home solar, RV, trolling motors, and golf carts.

7. MAINTENANCE

Regularly inspect battery terminals for cleanliness and tightness. Ensure the battery is stored and operated within its specified temperature ranges. Avoid deep discharges below the BMS cutoff voltage to prolong battery life. For long-term storage, charge the battery to approximately 50% State of Charge (SOC) and store in a cool, dry place.

8. TROUBLESHOOTING

If the battery is not charging or discharging, check all connections for proper contact and ensure they are tightened. Verify that the charger is compatible with LiFePO4 batteries and is functioning correctly. If the battery enters protection mode (e.g., due to over-discharge or over-current), disconnect the load and/or

charger, wait a few minutes, and then attempt to reconnect. If issues persist, contact customer support.

9. SPECIFICATIONS

Specification	Value
Product Dimensions	10.2 x 6.6 x 8.2 inches
Item Weight	21 lbs (10.5 kg)
Item Model Number	WV12V100AH100-24
Battery Type	LiFePO4 (Lithium Iron Phosphate)
Nominal Voltage	12.8V
Capacity	100Ah
Max Continuous Charging Current	100A
Max Continuous Discharging Current	100A
Operating Temperature (Discharge)	-4°F (-20°C) to 158°F (70°C)
Operating Temperature (Charge)	32°F (0°C) to 122°F (50°C)
Waterproof Rating	IP67
Cycle Life	Up to 15,000 cycles

10. WARRANTY & SUPPORT

The Wattcycle 12V 100Ah LiFePO4 Battery comes with a 5-Year Worry-Free Warranty, covering manufacturing defects. For any questions, problems, or support needs regarding your product, please reach out to Wattcycle customer service through our Amazon store page. Our Nevada-based team is available to assist with returns, troubleshooting, or setup help.

	<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 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 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 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 48V 100Ah Server Rack 3U Battery Operation Manual and Installation Guide</p> <p>Comprehensive operation manual and installation guide for the WattCycle 48V 100Ah Server Rack 3U Battery, a low-voltage LiFePO4 energy storage system. Covers safety, product overview, technical specifications, installation, commissioning, and maintenance procedures.</p>