

Wattcycle 12V100Ah

WattCycle 12V 100Ah LiFePO4 Deep Cycle Battery Instruction Manual

MODEL: 12V100AH | BRAND: WATTCYCLE

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Box	Setup	Operating	Maintenance	Troubleshooting	Specifications	Warranty & Support

1. Introduction

The WattCycle 12V 100Ah LiFePO4 Deep Cycle Battery is designed for reliable power in various applications, including RV boondocking, golf carts, marine use, and home energy storage. This battery features a BCI Group 24 size, ensuring compatibility with standard battery compartments. It offers an impressive cycle life of up to 15,000 cycles and includes a robust 100A Battery Management System (BMS) for comprehensive protection. The battery is engineered to operate across a wide temperature range, from -4°F (-20°C) to 158°F (70°C), providing consistent performance in diverse environmental conditions. A 12V 20A charger is included for optimal charging of the LiFePO4 chemistry.

2. Safety Information

Your WattCycle LiFePO4 battery is equipped with an advanced 100A Intelligent Battery Management System (BMS) that provides multiple layers of protection to ensure safe and reliable operation. This includes safeguards against overcharge, over-discharge, short circuits, over-current, and automatic disconnection if discharge exceeds 300±50A. It also features low-temperature protection, preventing charging below -4°F (-20°C) and discharging below 158°F (70°C). Always ensure proper connections and use the included dedicated charger for optimal battery health and safety.

Multipact Protections BMS



Over-charging
Protection



Over-discharging
Protection



Over current
Protection



Over heating
Protection



Short circuits
Protection



High & Low
Temp Cutoff

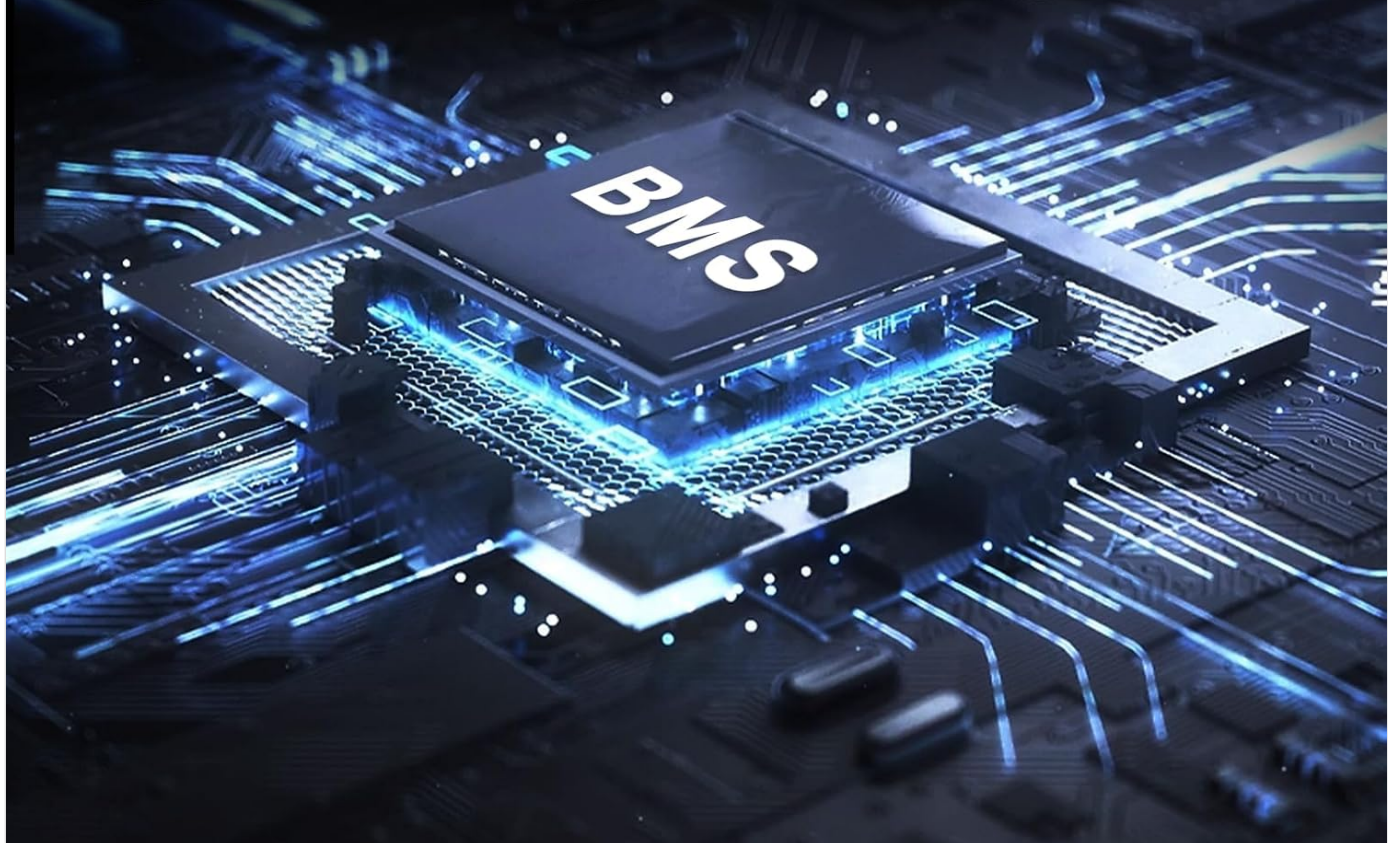


Image: The internal Battery Management System (BMS) provides critical protections for the battery.

3. What's in the Box

- WattCycle 12V 100Ah LiFePO4 Battery × 1
- WattCycle 12V 20A Charger × 1

Your browser does not support the video tag.

Video: Unboxing the WattCycle 100Ah LiFePO4 battery and its contents.

4. Setup

4.1 Initial Voltage Check and Charging

Upon receiving your battery, it is recommended to check its initial voltage. A healthy LiFePO4 battery should typically show between 13.1V and 13.2V, indicating approximately 50% capacity. Use the included 12V 20A charger, specifically

designed for LiFePO4 batteries, to fully charge the battery before its first use. Ensure positive and negative terminals are connected accurately.

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

4.2 Connecting Batteries (Series/Parallel)

The WattCycle 12V 100Ah battery supports both series and parallel connections for increased voltage or capacity. For series connections, link the positive terminal of one battery to the negative terminal of the next. For parallel connections, connect positive terminals together and negative terminals together. Always ensure proper wiring and use appropriate cables for your desired configuration. The BMS allows for configurations up to 4S4P, providing up to 20.48kWh of energy.

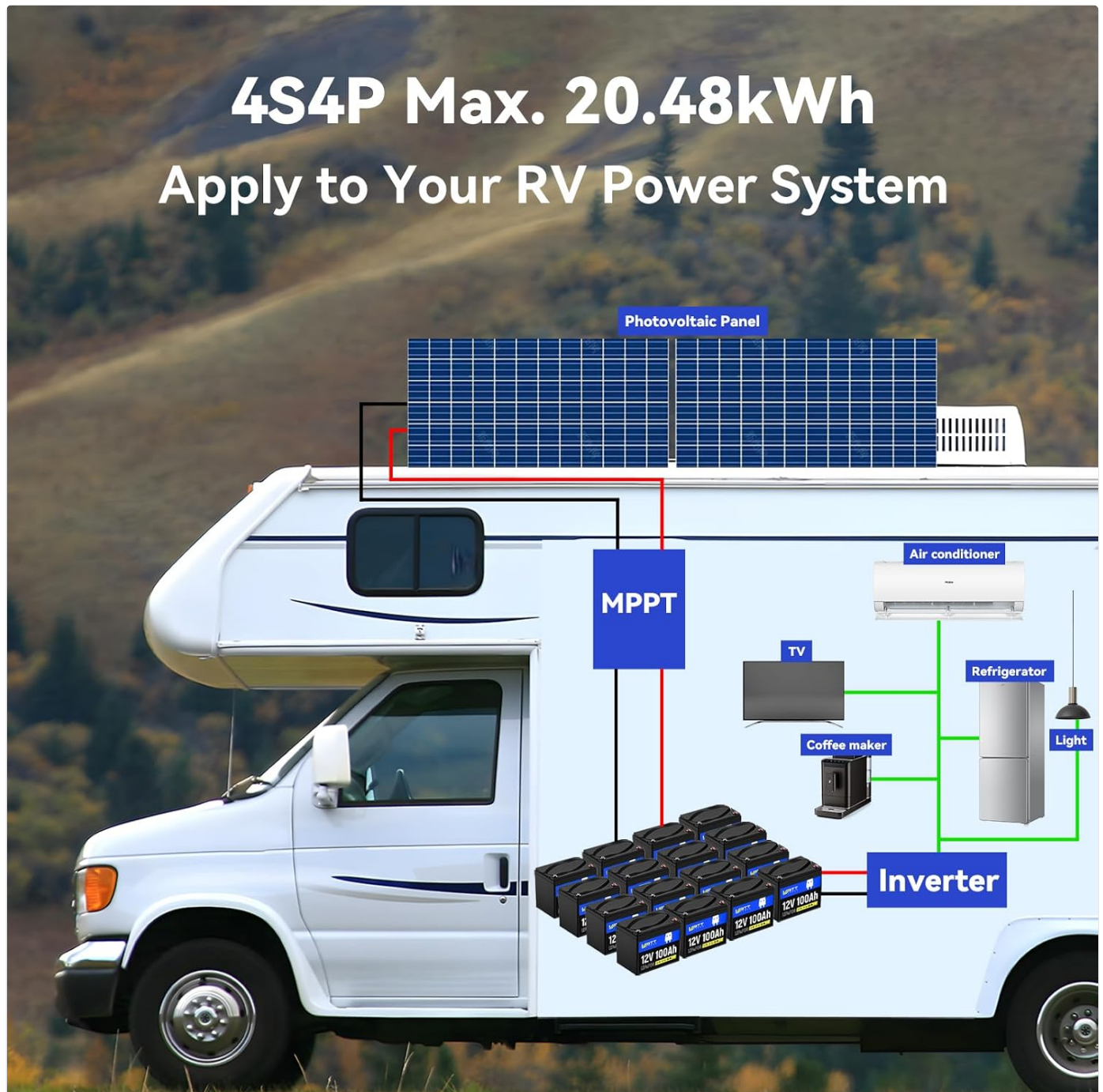


Image: Example of a 4S4P battery configuration for an RV power system.

4.3 Bluetooth App Setup

The battery features a smart edition with Bluetooth connectivity. Download the "BMS Meta" app to monitor battery status, voltage, current, temperature, and individual cell voltages. Ensure your device's location services are enabled for the app.

to recognize the battery. If the app prompts for an incorrect download, manually search for "BMS Meta" or scroll down to find the correct download link. If the battery appears "asleep" (showing very low voltage), a brief connection to a 12V source can "wake up" the BMS.

Your browser does not support the video tag.

Video: A detailed test of the WattCycle LiFePO4 100Ah battery, including app functionality.

5. Operating

5.1 Temperature Range

The WattCycle LiFePO4 battery is built for all-season adventures, operating reliably in temperatures from -4°F (-20°C) to 158°F (70°C). The integrated BMS provides low-temperature charging protection, preventing damage by halting charging if the battery temperature drops too low. This ensures safe operation whether you are in cold mountains or under the summer sun.



Image: Low temperature protection ensures reliable operation in cold conditions.

5.2 Discharge Capacity

The battery offers a continuous discharge current of 100A and can handle peak discharge currents of 300 ± 50 A. This robust capacity allows it to power a variety of devices. For example, it can power a 20W lamp for 64 hours, a 150W refrigerator for 8.5 hours, an 80W TV for 16 hours, a 50W fan for 25.5 hours, an 800W cooker for 1.6 hours, or a 1000W AC unit for 1.2 hours.

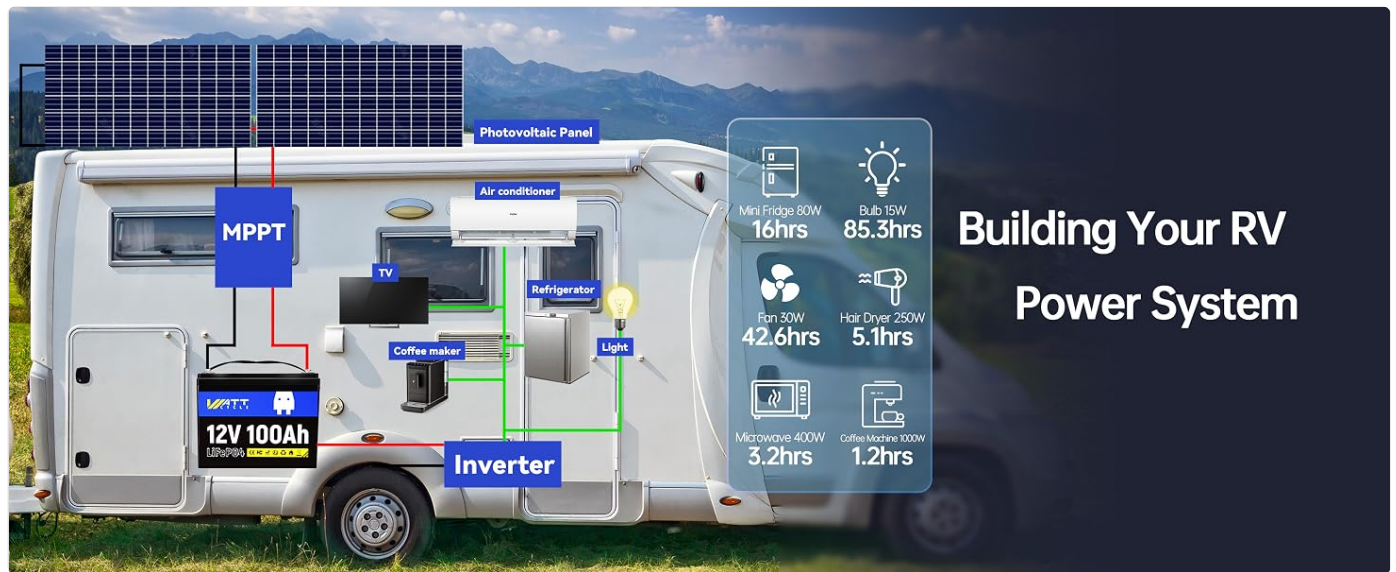


Image: Typical runtimes for common appliances powered by the 12V 100Ah battery.

5.3 Typical Applications

This versatile battery is suitable for a wide range of applications due to its compact size, light weight, and high energy density. It is an ideal power source for RVs, marine boats, trolling motors, golf carts, home solar systems, ham radios, sump pumps, and trailers. Its BCI Group 24 size ensures it fits perfectly into standard RV battery compartments without modifications.

Power Infinite Anywhere, Anytime

HOME SOLAR SYSTEM



RV



Trolling Motors



Golf Carts



Image: The WattCycle battery provides power for diverse applications.

6. Maintenance

To ensure the longevity and optimal performance of your WattCycle LiFePO4 battery, always use the provided 12V 20A charger. Avoid over-discharging the battery beyond the BMS's protection limits. For long-term storage, it is recommended to store the battery at approximately 50% State of Charge (SOC) in a cool, dry place. Regularly inspect terminals for corrosion and ensure connections are secure.

7. Troubleshooting

- **Battery App Connection Issues:** If the Bluetooth app fails to connect or display correct information, ensure your device's location services are enabled. If the app prompts for an incorrect download, manually search for "BMS Meta" or scroll down to find the correct download link.
- **BMS Shutdown:** If the battery unexpectedly shuts off, the BMS may have triggered a protection event (e.g., over-

- current, low voltage, temperature extreme). Disconnect the load, allow the battery to rest, and then attempt to reconnect. A brief connection to a 12V source can "wake up" a sleeping BMS.
- **Low Temperature Charging:** If attempting to charge in sub-zero temperatures, the BMS will prevent charging to protect the cells. Allow the battery temperature to rise above -4°F (-20°C) before attempting to charge again.

8. Specifications

Feature	Value
Brand	Wattcycle
Model	12V100Ah
Product Dimensions	10.2"D x 6.62"W x 8.2"H
Item Weight	23.2 pounds
Battery Cell Composition	Lithium Iron Phosphate (LiFePO4)
Voltage	12V
Capacity	100Ah
BMS	100A Intelligent BMS
Cycle Life	Up to 15,000 cycles
Operating Temperature	-4°F (-20°C) to 158°F (70°C)
Terminal Type	M8
Included Charger	12V 20A LiFePO4 Charger

9. Warranty and Support

WattCycle offers a 5-year worry-free warranty for this LiFePO4 battery, covering manufacturing defects. For any inquiries, troubleshooting, or setup assistance, 24/7 US-based customer support is available. Please refer to the contact information provided in your product manual for direct assistance.

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question