

WEIZE BAC-0110

WEIZE 12V 100Ah LiFePO4 Battery User Manual

Model: BAC-0110

INTRODUCTION

This manual provides essential information for the safe and efficient use of your WEIZE 12V 100Ah LiFePO4 Deep Cycle Lithium Battery. This battery is designed for energy storage applications, offering high performance and a long cycle life. It features a compact, lightweight design and includes a smart Battery Management System (BMS) for enhanced protection.

Please read this manual thoroughly before installation and operation to ensure proper usage and to maximize the lifespan of your battery.

SAFETY INFORMATION

WARNING: Failure to follow these safety instructions may result in fire, electric shock, injury, or damage to the battery and other property.


- Do not short circuit the battery terminals.
- Do not heat or incinerate the battery.
- Do not immerse the battery in any liquid.
- Do not disassemble the battery.
- Use only a dedicated LiFePO4 battery charger.
- Do not connect more than two batteries in series.
- This battery is intended for energy storage purposes only. **Do not use this battery as a car starting battery or a golf cart battery.**
- Ensure proper ventilation during charging and operation.
- Keep out of reach of children.

PRODUCT OVERVIEW

The WEIZE 12V 100Ah LiFePO4 battery is engineered for superior performance and durability. Key features include:

- **Excellent Performance:** Provides 1.28kWh of energy, supporting a maximum load of 1536W with a continuous discharge current of up to 100A (peak 500A for 3 seconds).
- **Long Lifespan:** Offers over 2000 cycles at 100% depth of discharge, or 8000 cycles at 50% depth of discharge.
- **Built-In 100A BMS:** Protects against overcharge, over-discharge, overcurrent, short-circuiting, and extreme temperatures (both low and high).
- **Lightweight and Compact:** Significantly lighter than lead-acid batteries, making it ideal for various applications.
- **Low Temperature Protection:** The BMS automatically cuts off charging when temperatures are below freezing (0°C / 32°F) to prevent damage.

SMALLER AND LIGHTER

 21.8lbs

25% SMALLER
Than a WEIZE Lithium 100 Ah Battery

75% LIGHTER
Than a 100 Ah SLA Battery



Image: The WEIZE 12V 100Ah LiFePO4 battery, highlighting its compact dimensions (10.24"W x 6.6"D x 8.27"H) and lightweight design (21.8 lbs). It is 25% smaller and 75% lighter than a comparable 100Ah SLA battery.

PORTABLE AND POWERFUL MINI LiFePO4 BATTERY



10W
appliance

128 hrs



100W
appliance

12.8 hrs



600W
appliance

2.1 hrs



1,200W
appliance

1 hrs



1280Wh
Energy

Image: The WEIZE 12V 100Ah LiFePO4 battery, illustrating its 1280Wh energy capacity and power delivery for various appliances, such as 10W for 12.8 hours, 100W for 12.8 hours, 600W for 2.1 hours, and 1200W for 1 hour.

GRADE A CELLS & SMART BMS

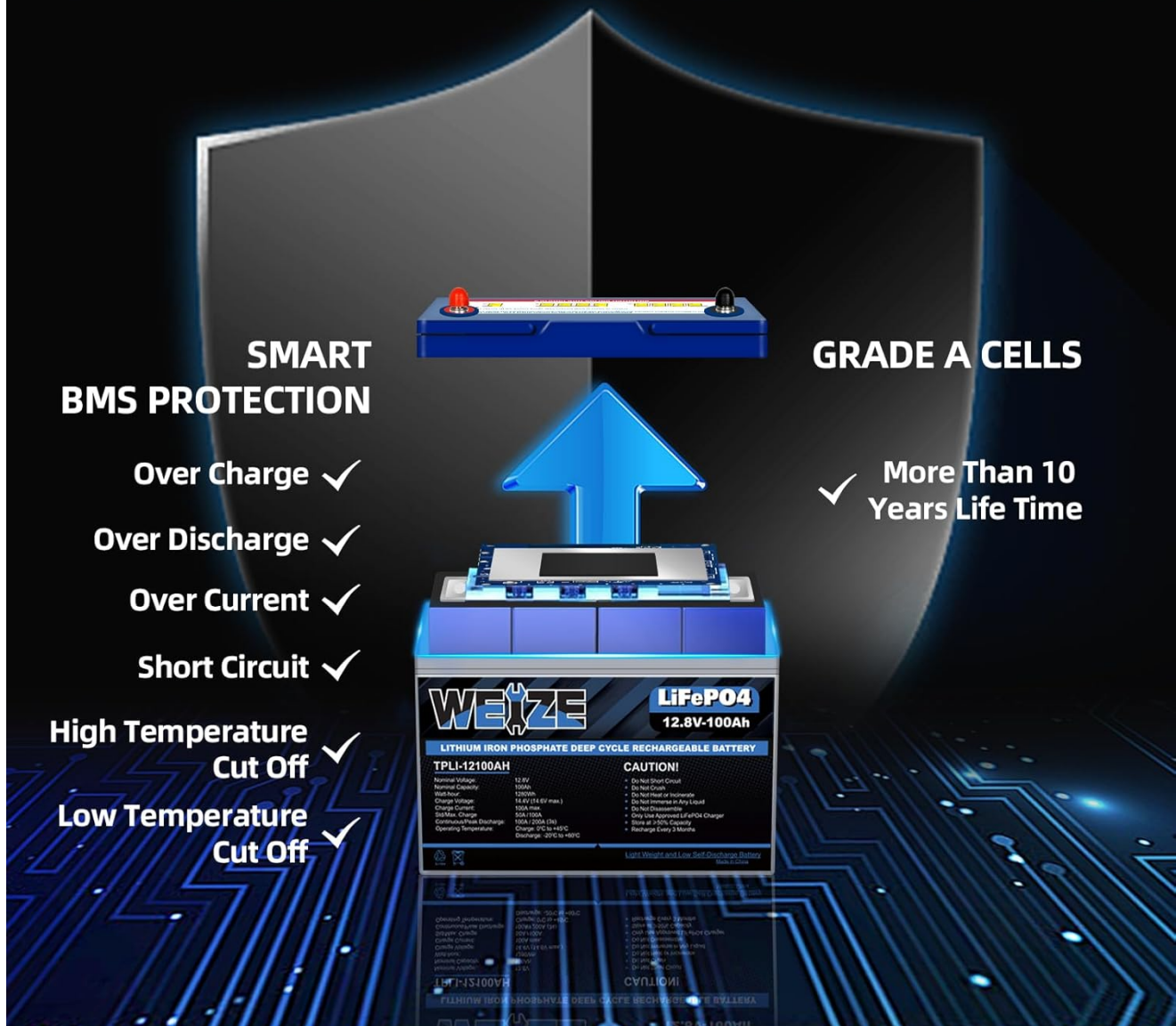


Image: Diagram showing the internal structure of the WEIZE LiFePO4 battery with Grade A cells and Smart BMS protection. The BMS provides protection against overcharge, over-discharge, overcurrent, short circuit, high temperature cut-off, and low temperature cut-off.

SETUP

Initial Charging

Before first use, it is recommended to fully charge your WEIZE LiFePO4 battery. Use a dedicated LiFePO4 compatible charger. Ensure the charger settings are appropriate for lithium iron phosphate batteries (typically 14.4V to 14.6V). Avoid chargers with "equalizing" or "desulfation" modes, as these are for lead-acid batteries and can damage your LiFePO4 battery.

Connecting Batteries

For parallel connections, ensure all batteries are at a similar state of charge before connecting. Do not connect more than two batteries in series. Always use appropriate gauge wiring and secure connections to prevent arcing or overheating.

The battery is equipped with Marine Terminals for secure connections.

OPERATING GUIDELINES

The WEIZE 12V 100Ah LiFePO4 battery is versatile and suitable for various deep cycle applications:

- **RV and Camping:** Powering appliances, lights, and electronics in recreational vehicles and during camping trips.
- **Solar Systems:** Storing energy generated by solar panels for off-grid or backup power.
- **Marine Applications:** Ideal for fish finders, ice fishing, and boating electronics.
- **Trolling Motors:** Provides reliable and long-lasting power for electric trolling motors.

Always ensure your application's power requirements do not exceed the battery's maximum continuous discharge current of 100A or peak discharge current of 500A (for 3 seconds).



Image: Collage showing common applications for the WEIZE LiFePO4 battery, including powering an RV, a house with solar panels, a boat, and providing energy for camping.

Your browser does not support the video tag.

Video: An official video from WEIZE showcasing the versatility and applications of their Deep Cycle Lithium Batteries, including use in RVs, solar systems, and for various power needs.

MAINTENANCE

Charging

Always use a LiFePO4 compatible charger. The recommended charging voltage is between 14.4V and 14.6V. Avoid charging the battery when its internal temperature is below 0°C (32°F). The built-in BMS will automatically prevent charging in freezing conditions to protect the battery.

Storage

For long-term storage, discharge the battery to approximately 50% of its capacity. Store the battery in a cool, dry place, away from direct sunlight and extreme temperatures. It is recommended to check and charge the battery every 3 months during storage to maintain its health.

TROUBLESHOOTING

Battery Appears Dead (BMS Cutoff)

If the battery appears completely dead, it is likely that the built-in Battery Management System (BMS) has triggered a protective shutdown due to conditions such as over-discharge, overcurrent, or short-circuiting. The BMS will automatically cut off the battery, and the voltage may drop below 1V.

To reactivate the battery:

1. Disconnect the battery from any load.
2. Connect a LiFePO4-compatible charger to the battery. The BMS will automatically reactivate after approximately 1 second once the circuit is cut off and a charging voltage is applied.
3. If the battery does not reactivate immediately, try connecting one charger cable to its respective terminal and gently tapping the other charger cable to its terminal several times. This can sometimes help "wake up" the BMS.

Ensure that the cause of the BMS shutdown (e.g., short circuit, excessive load) is resolved before attempting to reactivate and use the battery.

SPECIFICATIONS

Parameter

MODEL	12V 18Ah	12V 20Ah	12V 36Ah	12V 50Ah	12V 100Ah	12V 200Ah	12V 200Ah PLUS	12V 230Ah	12V 300Ah	12V 400Ah	24V 100Ah	24V 200Ah	48V 100Ah
Nominal voltage	12.8V										25.6V		48.0V
Nominal capacity	18Ah	20Ah	36Ah	50Ah	100Ah	200Ah	200Ah	230Ah	300Ah	400Ah	100Ah	200Ah	100Ah
Nominal energy	230.4 Wh	256 Wh	460.8 Wh	640 Wh	1280 Wh	2560 Wh	2560 Wh	2944 Wh	3840 Wh	5120 Wh	2560 Wh	5120 Wh	4800 Wh
Standard charge voltage	14.4V (14.6V Max)										28.8 (29.2V Max.)		54.6V
Discharge cut-off voltage	10V										21.6V		40.5V
Standard charge current	5A	5A	6A	10A	20A	40A	40A	40A	60A	80A	20A	40A	20A
Allowed Max. charge current	18A	20A	30A	50A	100A	100A	150A	100A	200A	200A	100A	200A	100A
Allowed Max. Discharge current	30A	30A	40A	50A	100A	100A	150A	100A	200A	200A	100A	200A	100A
Peak discharge current	50A	50A	80A	100A	200A	200A	300A	200A	400A	400A	200A	400A	200A
Terminal	F13 (M5)	F13 (M5)	F12 (M8)	F11 (M6)	F12 (M8)	F12 (M8)	F12 (M8)	F12 (M8)	F12 (M8)	F12 (M8)	F12 (M8)	F12 (M8)	F11 (M6)
temperature	Charge temperature:0°C~+45°C / Discharge temperature -20°C~+60°C												
Cycle Life	>2000 cycles @1C 100%DOD / > 8000 cycles @0.5C 50%DOD												

Image: A detailed parameter table for various WEIZE LiFePO4 battery models, including nominal voltage, nominal capacity, energy, standard charge voltage, discharge cut-off voltage, standard charge current, allowed max charge current, allowed max discharge current, peak discharge current, terminal type, temperature ranges, and cycle life.

WEIZE 12V 100Ah LiFePO4 Battery (Model BAC-0110) Specifications

Feature	Value
Brand	WEIZE
Model Number	BAC-0110
Voltage	12.8 Volts
Nominal Capacity	100Ah
Energy	1.28 kWh (1280 Wh)
Continuous Discharge Current	Up to 100A
Peak Discharge Current	500A (for 3 seconds)
Item Weight	23.5 Pounds
Product Dimensions (D x W x H)	6.6"D x 10.24"W x 8.27"H
Terminal Type	Marine Terminal
Cycle Life	>2000 cycles @100% DOD / >8000 cycles @50% DOD

Feature	Value
Charge Temperature	0°C ~ 45°C (32°F ~ 113°F)
Discharge Temperature	-20°C ~ 60°C (-4°F ~ 140°F)
Included Components	Battery Only

WARRANTY

The WEIZE 12V 100Ah LiFePO4 Battery (Model BAC-0110) comes with a **10-year warranty**. This warranty covers defects in materials and workmanship under normal use and service. Please retain your proof of purchase for warranty claims.

For detailed warranty terms and conditions, please refer to the official WEIZE website or contact customer support.

SUPPORT

For technical assistance, troubleshooting, or warranty inquiries, please contact WEIZE customer support through the following channels:

- **Website:** Visit the official WEIZE website for FAQs and support resources.
- **Email:** Refer to your product packaging or the WEIZE website for customer service email addresses.
- **Phone:** Contact numbers may be available on the WEIZE website for direct support.

When contacting support, please have your battery model number (BAC-0110) and proof of purchase readily available.