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› CHINS LiFePO4 Battery 12V 100AH User Manual

CHINS 12V 100AH LiFePO4 Battery

CHINS LiFePO4 Battery 12V 100AH User Manual

Model: 12V 100AH LiFePO4 Deep Cycle Battery with 12V 10A Charger

INTRODUCTION

This manual provides essential information for the safe and efficient operation, installation, and maintenance of your CHINS 12V 100AH LiFePO4 Deep Cycle Battery and its accompanying 12V 10A Lithium Battery Charger. This battery system is designed for various applications including golf carts, trolling motors, and marine use, featuring a low-temperature cut-off function for enhanced safety and longevity.

SAFETY INFORMATION

Please read all safety warnings and instructions carefully before installing or operating the battery and charger. Failure to follow these instructions may result in electric shock, fire, serious injury, or property damage.

- Always wear appropriate personal protective equipment (PPE), including safety glasses and insulated gloves, when handling batteries.
- Do not short-circuit the battery terminals. This can cause severe arcing, fire, and damage to the battery.
- Ensure proper ventilation when charging or discharging the battery.
- Do not expose the battery or charger to water, excessive heat, or direct sunlight for prolonged periods.
- Only use the provided CHINS 12V 10A Lithium Battery Charger with this battery. Using incompatible chargers may damage the battery or pose a safety risk.
- The battery features a low-temperature cut-off function to prevent charging below 0°C (32°F), protecting the battery cells.
- The charger includes multiple safety protections: output short-circuit protection, temperature protection, output over-voltage protection, and reverse polarity connection protection.
- Keep out of reach of children.

PACKAGE CONTENTS

Verify that all items are present and undamaged upon unpacking:

- 1 x CHINS 12V 100AH LiFePO4 Deep Cycle Battery
- 1 x CHINS 12V 10A Lithium Battery Charger
- 1 x AC Power Cord for Charger
- 1 x DC Output Cable with Ring Terminals for Charger
- 1 x Carrying Strap for Battery (pre-attached or included separately)



terminal of the charger connects to the positive (+) terminal of the battery, and the negative (-) terminal of the charger connects to the negative (-) terminal of the battery. Incorrect polarity can damage the battery and charger.

2. Plug the AC power cord into the charger's AC input port.
3. Plug the AC power cord into a standard wall outlet (100-240VAC).



Image: Detailed view of the 12V 10A battery charger, showing its input and output connections, including the AC plug and DC ring terminals.

OPERATING INSTRUCTIONS

Charging the Battery

The included 12V 10A charger is specifically designed for LiFePO4 batteries. It features LED indicators for charging status:

- **LED1 (Red):** Power On. Indicates the charger is connected to AC power.
- **LED2 (Red):** Charging. Indicates the battery is currently charging.
- **LED2 (Green):** Charged. Indicates the battery is fully charged.

Once the battery is fully charged (LED2 turns green), disconnect the charger from the AC outlet first, then disconnect the DC cables from the battery terminals.

Connecting to Applications

Connect the battery to your application (e.g., golf cart, trolling motor, marine system) ensuring correct polarity. The battery is equipped with marine terminals for secure connections. Always ensure connections are tight to prevent arcing and power loss.



Image: The CHINS LiFePO4 battery positioned in an outdoor camping setting, demonstrating its portability and suitability for RV or off-grid applications.



**Good Partner
for Your Roof Solar!**

Image: The CHINS LiFePO4 battery shown with solar panels on a residential roof in the background, illustrating its potential use in home solar energy storage systems.

MAINTENANCE

- **Cleaning:** Keep the battery and charger clean and dry. Use a soft, dry cloth to wipe down surfaces. Do not use harsh chemicals or abrasive cleaners.
- **Terminal Inspection:** Periodically check battery terminals for corrosion or loose connections. Clean terminals with a wire brush if necessary and ensure all connections are secure.
- **Storage:** If storing the battery for an extended period, ensure it is charged to approximately 50-70% capacity. Store in a cool, dry place, away from direct sunlight and extreme temperatures. Recharge every 3-6 months to maintain battery health.
- **Temperature:** The battery is designed with a low-temperature cut-off to prevent charging below 0°C (32°F). Avoid operating or charging the battery in temperatures outside its specified range.

TROUBLESHOOTING

Problem	Possible Cause	Solution
Battery not charging (Charger LED2 remains red or off)	Charger not plugged in. Loose connection to battery. Battery voltage too low. Charger fault. Temperature too low (below 0°C).	Ensure AC power cord is securely plugged into outlet and charger. Check DC connections to battery terminals for tightness and correct polarity. If battery is deeply discharged, it may require a specialized LiFePO4 charger with a pre-charge function or a brief connection to a higher voltage source (consult professional). Contact customer support if charger appears faulty. Move battery to a warmer environment (above 0°C) for charging.
Battery not providing power to application	Battery discharged. Loose or corroded connections. Application fault. Battery Management System (BMS) protection activated.	Recharge the battery. Inspect and clean all connections, ensuring they are tight. Verify the application is functioning correctly. If BMS protection (e.g., over-discharge, over-current) is activated, disconnect the load, wait a few minutes, and then try reconnecting or charging.
Charger gets hot during charging	Normal operation. Poor ventilation.	Some heat is normal. Ensure the charger is in a well-ventilated area. If excessively hot or emitting smoke/smell, immediately disconnect from power and battery, then contact support.

4 SAFETY PROTECTIONS SAFEGUARDING YOUR BATTERY SECURITY

Output short-circuit
protection



Temperature
protection



Output over-voltage
protection



Reverse polarity connection
protection



Image: Visual representation of the four safety protections integrated into the CHINS battery charger: output short-circuit, temperature, output over-voltage, and reverse polarity connection protection.

SPECIFICATIONS

CHINS 12V 100AH LiFePO4 Battery

- **Nominal Voltage:** 12.8V
- **Nominal Capacity:** 100AH
- **Energy:** 1280WH
- **Battery Cell Composition:** Lithium Iron Phosphate (LiFePO4)
- **Terminal Type:** Marine Terminal
- **Low-Temperature Cut-Off:** Yes (prevents charging below 0°C / 32°F)
- **Dimensions (L x W x H):** 330mm (12.99in) x 173mm (6.81in) x 215mm (8.58in)
- **Weight:** 10.8 KG (23.8 LBS)

PRODUCT SIZE

WEIGHT: 23.8 LBS (10.8KG)



Image: The CHINS 12V 100AH LiFePO4 battery with its physical dimensions (length, width, height) clearly indicated in both millimeters and inches.

CHINS 12V 10A Lithium Battery Charger

- **Input Voltage:** 100-240VAC, 50/60Hz
- **Output Voltage:** 14.6V
- **Output Current:** 10A
- **Battery Type:** LiFePO4
- **Dimensions (L x W x H):** 6.69in x 1.96in x 3.54in
- **Weight:** 2.6 LBS
- **Safety Protections:** Output short-circuit, Temperature, Output over-voltage, Reverse polarity connection

WARRANTY AND SUPPORT

CHINS products are manufactured to high-quality standards. For warranty information, technical support, or service inquiries, please contact CHINS customer support through the retailer where the product was purchased or visit the official CHINS website.

Please have your product model number (12V 100AH LiFePO4 Battery) and UPC (755621492801) available when contacting support.

For additional resources, you may visit the [CHINS Store on Amazon](#).