

## Talentcell LF120A1

# Talentcell LF120A1 12V 12Ah LiFePO4 Battery Pack User Manual

Model: LF120A1

## 1. INTRODUCTION

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This manual provides essential information for the safe and efficient use of your Talentcell LF120A1 12V 12Ah LiFePO4 Battery Pack. This deep cycle rechargeable lithium iron phosphate battery is designed for various applications including trolling motors, camping, solar systems, and power wheels. It offers a long cycle life and a lightweight design compared to traditional lead-acid batteries.

## 2. SAFETY INFORMATION

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Please read and understand all safety instructions before using the battery pack. Failure to follow these instructions may result in electric shock, fire, or serious injury.

- **Do not use this battery pack as a jump starter battery.**
- Do not use the battery pack in environments with high humidity or where it may be exposed to water.
- Do not modify or disassemble the battery pack.
- Do not throw the battery pack into fire or water.
- Ensure correct polarity when connecting the battery pack. Do not reverse the polarity.
- If the battery is not used for an extended period, charge it periodically to maintain its voltage between 12V and 13.8V to prevent over-discharging. Over-discharging can lead to loss of performance or battery function.



Image: The Talentcell LF120A1 battery pack, clearly stating it cannot be used as a jump starter battery.

### 3. PACKAGE CONTENTS

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Verify that all items are present in the package:

- 1x Talentcell 12V LiFePO4 Battery Pack (Model: LF120A1)
- 1x Positive Cable (Red)
- 1x Negative Cable (Black)
- 1x 14.6V LiFePO4 Battery Charger

# Package content

1x 12V LiFePO4 battery pack

1x Positive Cable (Red)

1x Negative Cable (Black)

1x 14.4V 1.5A charge



Image: A visual representation of the package contents, including the battery, red and black cables, and the 14.6V charger.

## 4. SPECIFICATIONS

<b>Model</b>	LF120A1
<b>Capacity</b>	12.8V 12Ah (153.6Wh)
<b>Input</b>	14.6V/6A Max
<b>Output (Nominal)</b>	12.8V (Range: 14.6V-9V) / 15A Max
<b>Output Voltage Characteristics</b>	Output voltage is direct from 4S Li-Ion battery via PCM, therefore not constant. Typically 12V to 13V during discharge.
<b>Operation Temperature Range</b>	0°C to +60°C
<b>Storage Temperature Range</b>	-10°C to +50°C (Recommended long-term: 15°C to 25°C)
<b>Product Dimensions (L x W x H)</b>	5.91 x 2.72 x 3.66 inches (15 x 6.92 x 9.32 cm)

<b>Item Weight</b>	3.47 pounds (1.57 kg)
<b>Battery Cell Composition</b>	Lithium Iron Phosphate (LiFePO4)
<b>Cycle Life</b>	2000+ Cycles

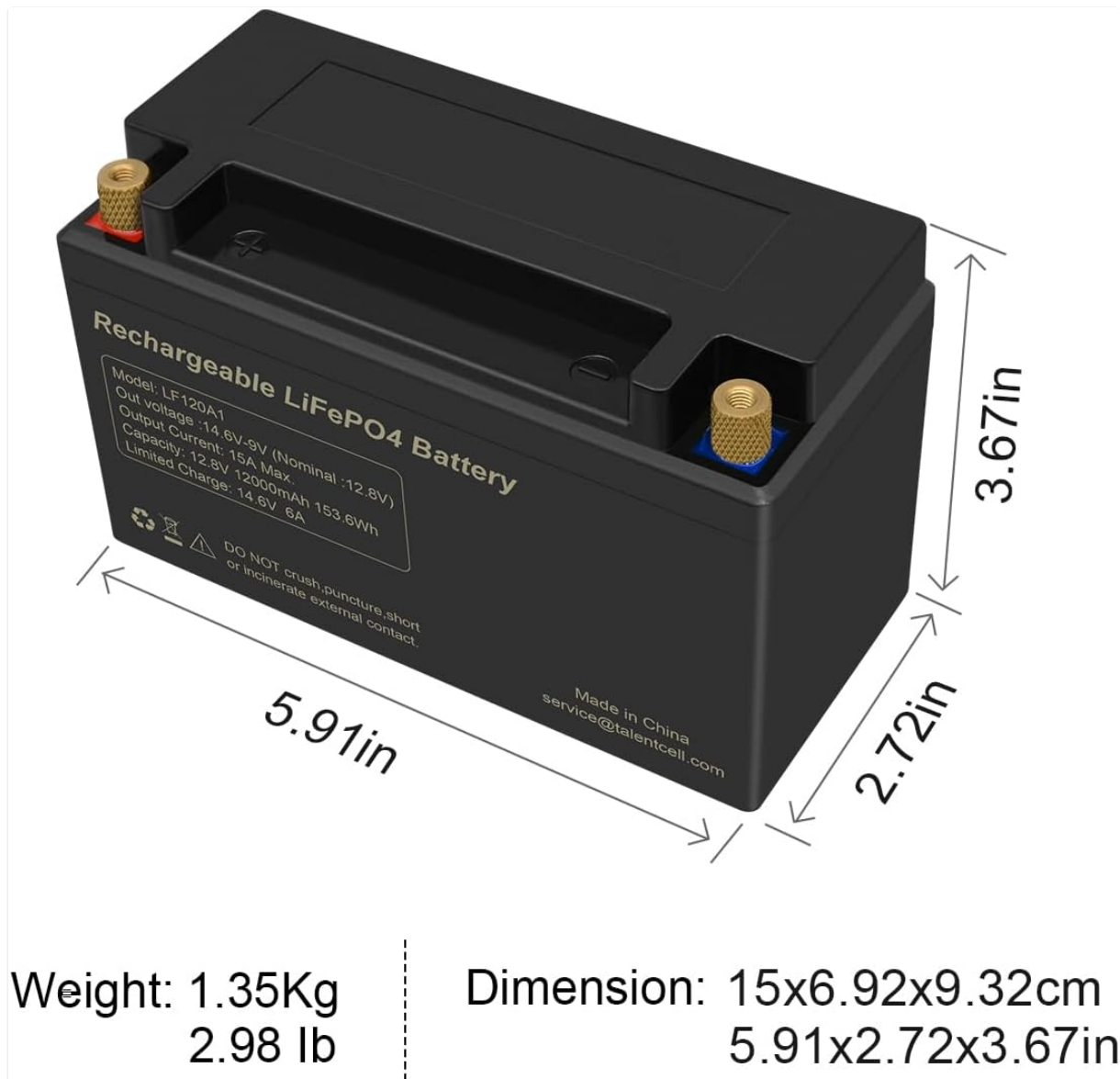


Image: Diagram showing the physical dimensions of the Talentcell LF120A1 battery pack.

Light weight, small size, easy to carry  
Lighter than the customary lead-acid battery



**Weight: 1.35kg/2.98lb**

Image: The Talentcell LF120A1 battery pack emphasizing its light weight and portability.

## 5. SETUP

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### 5.1 Initial Charging

Before first use, fully charge the battery pack using the included 14.6V LiFePO4 battery charger. It is crucial to use a charger specifically designed for LiFePO4 batteries to ensure proper cell balancing and longevity. While a 12V lead-acid battery charger can be used, the included 14.6V charger is recommended for optimal performance. For the very first charge, an extended charging period (e.g., 24 hours) may be beneficial to allow for initial cell balancing. After this, normal charging to full capacity is sufficient.

### 5.2 Connecting the Battery

1. Ensure the battery pack is turned off or disconnected from any load.
2. Connect the red positive cable to the positive (+) terminal of the battery.
3. Connect the black negative cable to the negative (-) terminal of the battery.
4. Connect the other end of the cables to your device, ensuring correct polarity.

## 6. OPERATING THE BATTERY PACK

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The Talentcell LF120A1 battery pack is designed for various deep cycle applications. Its output voltage is directly managed by the internal Protection Circuit Module (PCM) and is not constant, typically ranging from 12V to 13V during discharge for over 90% of its cycle.

## 6.1 Typical Applications

- Trolling Motors
- Camping Power Supply
- Solar Energy Storage Systems
- Power Wheels and other 12V DC devices

# Long Cycle Life, **2000+** Cycles.

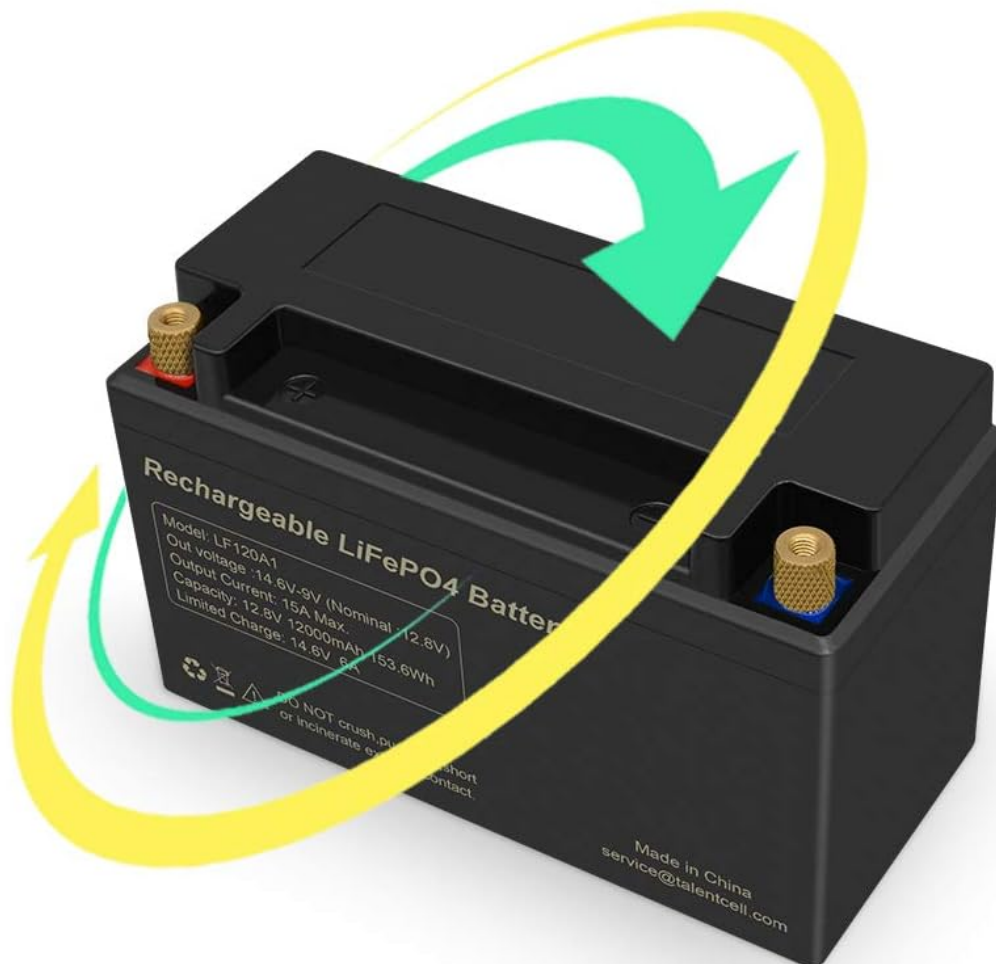


Image: The Talentcell LF120A1 battery pack highlighting its long cycle life of over 2000 cycles.

## 7. MAINTENANCE

Proper maintenance ensures the longevity and optimal performance of your LiFePO4 battery pack.

- **Periodic Charging:** If the battery pack is not in use for an extended period, charge it periodically to

maintain its voltage between 12V and 13.8V. This prevents over-discharging, which can permanently damage the battery cells and reduce performance.

- **Storage Conditions:** Store the battery pack in a cool, dry place. The recommended long-term storage temperature is between 15°C and 25°C (59°F to 77°F). Avoid extreme temperatures.
- **Cleaning:** Keep the battery terminals clean and free from corrosion. Use a dry cloth to wipe the battery exterior.

## 8. TROUBLESHOOTING

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If you encounter issues with your Talentcell LF120A1 battery pack, consider the following:

- **Battery Not Charging:** Ensure the charger is correctly connected to both the battery and a power outlet. Verify that the charger is specifically designed for LiFePO4 batteries (14.6V output). Check for any visible damage to the charger or battery terminals.
- **Battery Not Providing Power:** Check all cable connections for secure contact and correct polarity. Ensure the battery is sufficiently charged. If the battery has been stored for a long time without periodic charging, it might be in an over-discharged state.
- **Reduced Capacity/Run Time:** Over time, all batteries experience some degradation. However, ensure proper charging and storage practices are followed. An initial extended charge can help balance cells and optimize capacity.
- **Unusual Behavior:** If the battery exhibits unusual heat, swelling, or odor, immediately disconnect it from any load and charger, and contact customer support.

## 9. SUPPORT

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For technical assistance, warranty inquiries, or further information, please contact Talentcell Technology customer support. Refer to the product packaging or the official Talentcell website for the most current contact details.

Manufacturer: Talentcell Technology

Website: [Visit the Talentcell Store on Amazon](#)