

## LiTime LiTime 12V 80A LiFePO4 Battery Charger

# LiTime 80-Amp 12V LiFePO4 Battery Charger Instruction Manual

**Brand:** LiTime

**Model:** 12V 80A LiFePO4 Battery Charger

## INTRODUCTION

This manual provides essential information for the safe and efficient operation of your LiTime 80-Amp 12V LiFePO4 Battery Charger. Please read all instructions carefully before use to ensure optimal performance and longevity of your battery and charger.

## Key Features

- **Powerful 80A Output:** Delivers up to 80 amps for ultra-fast charging of 12V LiFePO4 batteries, suitable for RVs, off-grid systems, homes, and solar storage.
- **0V Activation:** Features 0V activation to restore deeply discharged lithium batteries, safely waking up BMS-protected batteries.
- **Smart & Safe Charging:** Utilizes a 3-stage charging process (Pre-charge, CC, CV) with built-in safeguards against over-temperature, over-voltage, short-circuit, over-current, low-voltage, and reverse polarity. Tested for FCC/CE/RoHS standards.
- **Easy Monitoring & Control:** Equipped with an aluminum alloy housing for durability and heat dissipation, an efficient cooling fan, and LED charging indicators for clear monitoring and easy operation.

## SAFETY INFORMATION

Please observe the following safety warnings to prevent injury or damage:

- **Warning:** This 12 volt 80 amp lithium battery charger is not waterproof and is not suitable for marine environments such as boats, ships, yachts, or trolling motors.
- Do not open, dismantle, or modify the charger.
- Never use it in a thunderstorm.
- Keep the charger and battery away from water, heat sources, sparks, flames, flammable gas, and hazardous chemicals.
- Do not place rods or other metal objects in vents or other openings.
- Place the charger in a well-ventilated area with sufficient heat dissipation to prevent overheating and

damage.

- Do not puncture, drop, crush, burn, penetrate, shake, strike, or throw it with force.

## PRODUCT OVERVIEW

### Components



Figure 1: The LiTime 80-Amp Lithium Battery Charger, featuring a robust black casing, integrated handle, AC input cable, and DC output cables with Anderson connectors.

# CHARGER DISPLAY



Figure 2: Detailed view of the charger's front (DC-side) with charging and power indicators, and rear (AC-side) showing the AC input, on/off switch, and mounting holes.

## LED Indicators

## ■ POWER INDICATOR



**OFF**  
Power off



**ALWAYS ON RED**  
Power on



## ■ CHARGING INDICATOR



**ALWAYS ON RED**  
Battery is charging



**ALWAYS ON GREEN**  
Battery is fully charged  
Charger is on standby



**FLASHES RED**  
Charger fault or  
under protection

Figure 3: Visual guide to the charger's LED indicators. The power indicator is red when on. The charging indicator is red during charging, green when fully charged or in standby, and flashes red if a fault or protection mode is active.

## SETUP

### How to Connect

1. Ensure the charger's on/off switch is in the **OFF** position.
2. Connect the DC output cable (red to positive, black to negative) to your 12V LiFePO4 battery. Then connect the Anderson connector.
3. Connect the AC input cable to a standard 100V-120V AC outlet.
4. Turn the charger's switch to the **ON** position. The power indicator will turn red, and the charging indicator will turn red, signifying active charging.
5. Turn off the switch after charging is complete.



Figure 4: Connection diagram showing the LiTime charger connected to a LiFePO4 battery and an AC power source.

### Battery Activation (for deeply discharged batteries)

If your 12V LiFePO4 battery is deeply discharged (below 9V) and won't charge, follow these steps:

1. Disconnect the battery from all devices.
2. Allow the battery to rest for 30 minutes. It may automatically recover to above 10V.
3. If the battery voltage is still below 10V, use the LiTime charger's 0V activation function. Connect the charger as described above. The charger will attempt to activate and restore the battery.
4. Alternatively, on a sunny day, connect a 12V LiFePO4 solar charge controller to the battery and charge for 3-10 seconds to wake it up.
5. For 24V batteries, double all voltage values (e.g., if below 18V, protection mode kicks in).

*Video: This video demonstrates steps to revive a 12V LiFePO4 battery that is not working or charging, including disconnecting devices, resting the battery, and using a charger with activation function or a solar controller.*

## OPERATING INSTRUCTIONS

### 3-Stage Charging Mode

The LiTime charger employs an intelligent 3-stage charging algorithm to optimize battery performance and lifespan:



1. **Pre-Charge Stage (T1):** When the battery voltage is lower than its normal standard and cannot withstand high-current charging, the charger will initiate a limited current pre-charge. This mode activates and prepares the battery, extending its lifetime. When the output voltage reaches the normal value, the charger automatically switches to the next stage.
2. **Constant Current Charging Stage (T2):** When the battery is in the main charging time, the charger will charge the battery with an 80A current. When the battery voltage rises above the set value, the charger will automatically switch to the next stage.
3. **Constant Voltage Charging Stage (T3):** The charger switches to the Constant Voltage Charging Stage and the charging current gradually decreases. When the charging voltage or current reaches the set value, the charger automatically turns off the output voltage and the battery charging is completed.

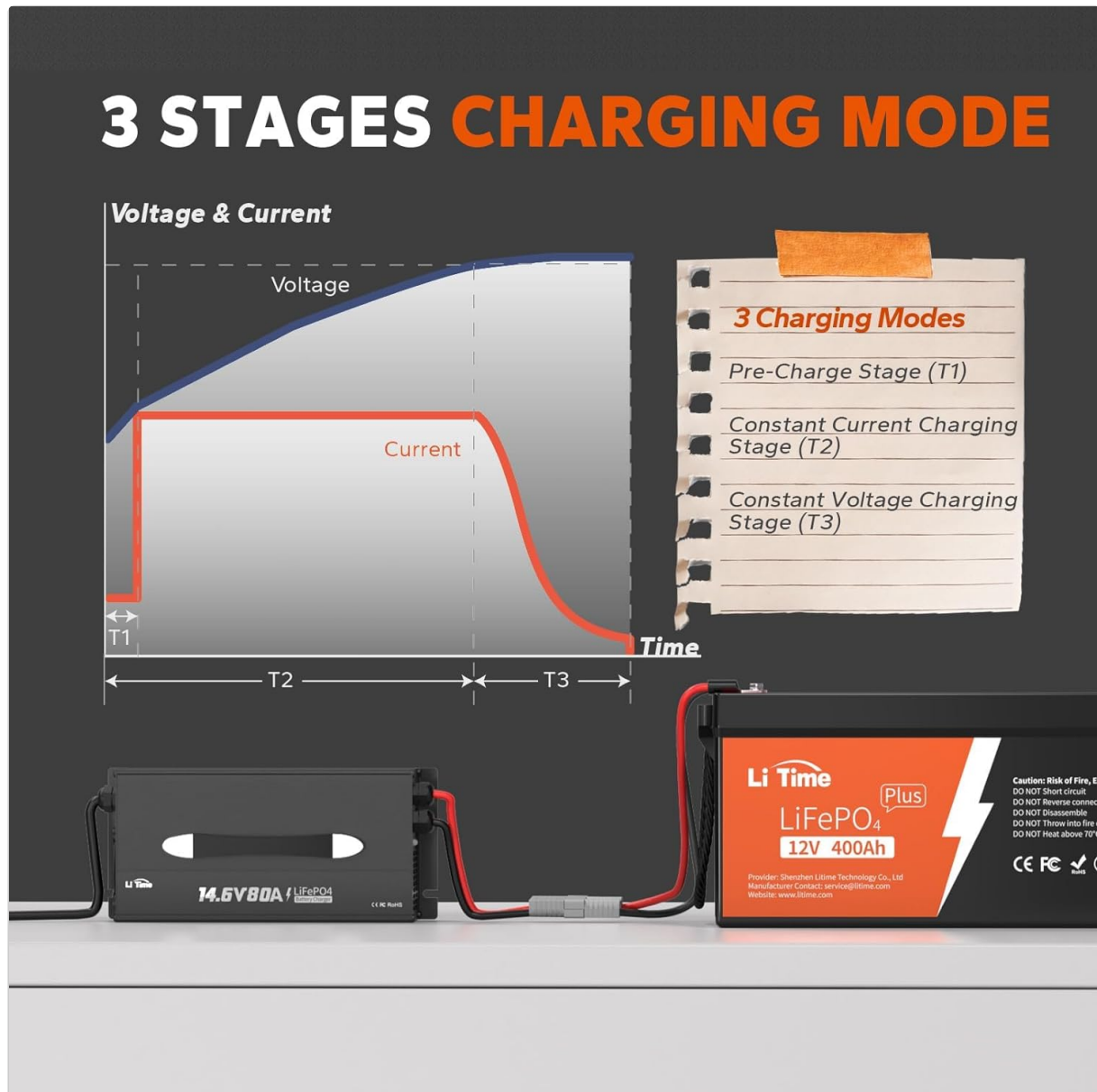


Figure 5: Graph showing the voltage and current curves during the 3-stage charging process.

Video: An animated video explaining the internal charging process of a LiFePO4 battery from 0% to 100%, detailing the three stages of charging.

## MAINTENANCE

To ensure optimal performance and longevity of your LiTime charger, follow these maintenance guidelines:

- Keep the charger clean and free from dust and debris. Use a soft, dry cloth for cleaning.
- Ensure proper ventilation around the charger during operation to prevent overheating.

- Regularly inspect cables and connectors for any signs of wear or damage. Replace if necessary.
- Store the charger in a cool, dry, and well-ventilated area when not in use.

## TROUBLESHOOTING

If the charger does not work properly, the following methods can help you solve the general problem quickly. If you still cannot rule out the possibility of failure, please contact [service@litime.com](mailto:service@litime.com) to get some advice.

| Problem   | Possible Cause  | Solution  |
|---|---|---|
| Charging indicator flashes red when charging.                                       | Under Over Temperature Protection                                   | Cool down the charger to normal temperature.  |
| Charging indicator flashes red after connected.                                     | Under Reverse Polarity Connection / Output Short Circuit Protection | Connect the charger to the battery correctly.   |
| Charging indicator flashes red after connected.                                     | Under Output Over-Voltage Protection                                | Make sure the connected battery is a 12.8V LiFePO4 battery.                                     |
| The charger does not charge and the LED is off after being connected to grid power. | Poor connection   | Make sure all connections are correct and tight.  |
| The charger does not charge and the LED is off after being connected to grid power. | Charger Internal Damage   | Contact us at <a href="mailto:service@litime.com">service@litime.com</a> for further solutions. |

*Video: A brief overview video showcasing the LiTime 12V 80A Lithium Battery Charger, highlighting its fast charging capabilities and features.*

## SPECIFICATIONS




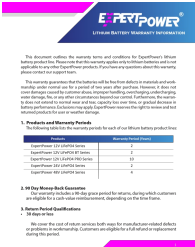

| Feature                     | Value   |
|-----------------------------|---|
| Input Voltage               | 100V to 120V AC, 47Hz to 63Hz                       |
| Output Voltage              | 14.6 Volts (DC)                                     |
| Output Current              | 80A   |
| Operating Temperature Range | -20°C to 40°C / -4°F to 104°F                       |
| Storage Temperature Range   | -40°C to 70°C / -40°F to 158°F                      |
| Product Dimensions          | 12.99 x 5.94 x 3.56 inches (L330 x W151 x H90.5 mm) |
| Item Weight                 | 7.72 pounds (3.5 kg)                                |

## WARRANTY & SUPPORT

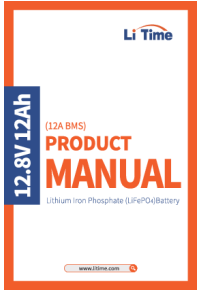
LiTime Battery Charger comes with a 2-year quality warranty. For professional technical support and customer service, including phone support or online services with quick feedback, please contact LiTime directly.

- **Email:** [service@litime.com](mailto:service@litime.com)
- **Website:** [www.litime.com](http://www.litime.com)

Related Documents - LiTime 12V 80A LiFePO4 Battery Charger

|   |   |
|---|---|
|    | <p><a href="#">LiTime 24V 50Ah TM Bluetooth Lithium Iron Phosphate Ion Battery User Manual</a></p> <p>Comprehensive user manual for the LiTime 24V 50Ah TM Bluetooth Lithium Iron Phosphate Ion Battery, covering specifications, features, operation, and safety instructions.</p>       |
|    | <p><a href="#">LiTime 12.8V 100Ah Mini LiFePO4 Battery User Manual</a></p> <p>User manual for the LiTime 12.8V 100Ah Mini LiFePO4 battery, detailing specifications, safety precautions, installation, operation, and maintenance for deep cycle applications.</p>                        |
|   | <p><a href="#">KickAss PowerBoss KAPB2K1280 Quick Start Guide</a></p> <p>A comprehensive quick start guide for the KickAss PowerBoss KAPB2K1280 2000W All-in-One Power System, detailing electrical connections, wiring, and initial configuration via Bluetooth app or LCD display.</p>  |
|  | <p><a href="#">ExpertPower Lithium Battery Warranty Information and Terms</a></p> <p>Detailed warranty terms and conditions for ExpertPower's lithium battery product line, including warranty periods, return policies, RMA guidelines, and exclusions.</p>                              |
|  | <p><a href="#">KickAss PowerBoss KAPB2K1280 Owner's Manual</a></p> <p>Comprehensive owner's manual for the KickAss PowerBoss KAPB2K1280, detailing safety, specifications, features, installation, configuration, and troubleshooting for this 2000W pure sine wave inverter charger.</p> |





[Li Time 12.8V 12Ah LiFePO4 Battery Product Manual](#)

Comprehensive product manual for the Li Time 12.8V 12Ah Lithium Iron Phosphate (LiFePO4) battery, covering specifications, safety instructions, storage, capacity estimation, and series/parallel connection guidelines.