

## DATOUBOSS DT-48V 100AH

# DATOUBOSS 48V 100Ah LiFePO4 Golf Cart Battery User Manual

Model: DT-48V 100AH

## 1. IMPORTANT SAFETY INFORMATION

Please read and understand all safety instructions before installing or operating your DATOUBOSS LiFePO4 battery. Failure to follow these instructions may result in serious injury, property damage, or voiding of the warranty.

- Do not short-circuit the positive and negative poles of the battery.
- Do not modify or disassemble the battery without authorization.
- Do not throw the battery into fire or water.
- Use only the standard charger that matches the output voltage of the lithium battery.
- Ensure proper ventilation during charging and discharging.
- Wear appropriate personal protective equipment (PPE) when handling batteries.

## 2. PRODUCT OVERVIEW

The DATOUBOSS 48V 100Ah LiFePO4 battery is a high-performance, compact, and lightweight power solution designed for various applications including golf carts, RVs, solar systems, and off-grid power. It features advanced LiFePO4 cell technology and an integrated Battery Management System (BMS) for enhanced safety and longevity.



Figure 2.1: DATOUBOSS 48V 100Ah LiFePO4 Battery. This image shows the compact design of the battery with its terminals and handles.

### Key Features:

- **Compact Design:** Measures 53 x 27 x 22 cm and weighs 36.8 kg, making it easy to transport and install.
- **High Energy Density:** Utilizes Class A lithium-ion cells for superior performance and immediate power delivery.
- **Advanced BMS:** Integrated 100A Battery Management System protects against overvoltage, overload, overcharge, over-discharge, overcurrent, short circuits, and high temperatures. Includes an automatic balancing function for cell voltage consistency.
- **Long Cycle Life:** Designed for 15,000+ deep cycles, offering an exceptionally long lifespan.
- **DIY Capacity Expansion:** Supports 4P1S connection for creating a 51.2V 400Ah battery pack with 20.48kWh of energy.
- **Environmental Friendly:** LiFePO4 batteries are free from heavy metals.

## 3. UNBOXING AND PACKAGE CONTENTS

Upon receiving your DATOUBOSS battery, carefully inspect the packaging for any signs of damage. If damage is found, contact your supplier immediately.

### Package Contents:

- 1x DATOUBOSS 48V 100Ah LiFePO4 Golf Cart Battery
- 1x User Manual
- Buffering Foam (for protection)

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Video 3.1: Unboxing the DATOUBOSS 48V 100Ah LiFePO4 Battery. This video demonstrates the unboxing process and shows the included items.

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Video 3.2: Unboxing and Load Demonstration. This video shows the unboxing of the battery and a demonstration of it powering various appliances.

## 4. INSTALLATION AND SETUP

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The DATOUBOSS 48V 100Ah LiFePO4 battery is designed for easy installation. Follow these steps for a safe and proper setup.

### 4.1 Pre-Installation Checklist:

- Ensure the battery is fully charged before initial use.
- Verify that your charging system (charger, solar charge controller) is compatible with LiFePO4 batteries and the 48V voltage.
- Confirm that all cables and connectors are appropriately sized for the expected current draw.
- Prepare the installation area, ensuring it is clean, dry, and well-ventilated.

### 4.2 Physical Installation:

1. **Positioning:** Place the battery in a secure location that prevents movement during operation. The battery features double handles for easy carrying and positioning.
2. **Connections:** Connect the positive (+) terminal of the battery to the positive terminal of your system and the negative (-) terminal to the negative terminal of your system. Ensure all connections are tight and secure to prevent arcing or overheating.
3. **Cable Management:** Route all cables neatly and secure them to prevent damage or interference.



Figure 4.1: Battery dimensions and handles. The battery measures 53cm (20.9in) long, 27cm (10.6in) wide, and 22cm (8.7in) high, and includes double handles for easy transport.

#### 4.3 Capacity Expansion (4P1S Configuration):

The DATOUBOSS 48V 100Ah battery supports parallel connection for increased capacity. Up to four batteries can be connected in parallel (4P1S) to achieve a 51.2V 400Ah battery pack with 20.48kWh of energy.

- Ensure all batteries are at a similar state of charge before connecting in parallel.
- Use appropriate bus bars and cables for parallel connections to handle the increased current.
- Connect positive terminals together and negative terminals together.



# 51.2V 400AH BATTERY SYSTEM WITH UP TO 4P CONFIGURATION



Figure 4.2: Diagram illustrating a 4P1S battery system configuration with solar panels and an inverter, suitable for backup power.

## 5. OPERATING INSTRUCTIONS

### 5.1 Charging:

- Use a compatible LiFePO4 charger with a 48V output.
- Standard charging current: 50A. Maximum continuous charging current: 80A.
- Charging temperature range: 0°C to 45°C (32°F to 113°F).
- Ensure the charger is properly connected to the battery terminals before plugging it into a power source.

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Video 5.1: MEYULMOL 48V 100AH Lithium Golf Cart Battery Unboxing. This video demonstrates the unboxing and initial setup, including how to connect the charger.

### 5.2 Discharging:

- Maximum continuous discharge current: 100A.
- Peak discharge current: 500A (duration less than 3 seconds).

- Discharging temperature range: -20°C to 65°C (-4°F to 149°F).
- The BMS will automatically protect the battery from over-discharge.



Figure 5.1: The DATOUBOSS battery powering various household appliances, demonstrating its versatility for RVs, camping, and off-grid systems.

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Video 5.2: 48V100AH-One-Stop Golf Cart Power Solution. This video highlights the battery's application as a comprehensive power solution for golf carts and other uses.

## 6. MAINTENANCE

DATOUBOSS LiFePO4 batteries require minimal maintenance compared to lead-acid batteries. However, following these guidelines will ensure optimal performance and longevity:

- **Regular Inspection:** Periodically check the battery terminals for corrosion or loose connections. Clean terminals with a wire brush if necessary and ensure they are tightened.
- **Cleaning:** Keep the battery surface clean and dry. Use a damp cloth to wipe away any dust or debris. Do not use harsh chemicals.

- **Storage:** If storing the battery for an extended period, ensure it is charged to approximately 50-70% State of Charge (SoC) and stored in a cool, dry place. Recharge every 3-6 months to prevent deep discharge.
- **Temperature:** Avoid exposing the battery to extreme temperatures outside its operating range (-20°C to 65°C for discharge, 0°C to 45°C for charge).

## 7. TROUBLESHOOTING

If you encounter any issues with your DATOUBOSS battery, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
Battery not charging	Incompatible charger, loose connections, BMS protection activated.	Ensure charger is LiFePO4 compatible (48V). Check all cable connections. If BMS is active, disconnect load/charger and allow it to reset.
No power output	Battery discharged, BMS protection activated (over-discharge, overcurrent, short circuit).	Charge the battery. Check for short circuits or excessive load. Allow BMS to reset after removing fault condition.
Reduced capacity/runtime	Aging battery, extreme operating temperatures, improper charging.	Ensure proper charging practices. Operate within recommended temperature ranges. If battery is old, consider replacement.

If the problem persists after attempting these solutions, please contact DATOUBOSS customer service for further assistance.

## 8. SPECIFICATIONS

Feature	Value
Brand	DATOUBOSS
Model	DT-48V 100AH
Voltage	51.2 Volts (DC)
Rated Capacity	100Ah
Energy	5120Wh
BMS	100A (Built-in Battery Management System)
Max. Continuous Charging Current	80A
Max. Continuous Discharge Current	100A
Peak Discharge Current	500A (duration less than 3 seconds)
Charging Temperature	0°C to 45°C (32°F to 113°F)
Discharging Temperature	-20°C to 65°C (-4°F to 149°F)
Dimensions (L x W x H)	53 x 27 x 22 cm (20.9 x 10.6 x 8.7 inches)
Weight	36.8 kg (77.16 lbs)
Cycle Life	15,000+ Deep Cycles

Feature	Value
UPC	740684063433

## 9. WARRANTY AND SUPPORT

DATOUBOSS provides a **5-year customer service guarantee** for this product. We are committed to your complete satisfaction and offer professional technical support.

- For technical assistance or warranty claims, please contact DATOUBOSS customer service.
- Expect prompt feedback within 24 hours.
- Please have your product model (DT-48V 100AH) and purchase date available when contacting support.