

DATOUBOSS DT-LiFePO4 Battery

DATOUBOSS 12V 300Ah Lithium LiFePO4 Battery User Manual

Model: DT-LiFePO4 Battery

1. INTRODUCTION

This manual provides essential information for the safe and efficient use of your DATOUBOSS 12V 300Ah Lithium LiFePO4 Battery. Please read this manual thoroughly before installation and operation to ensure optimal performance and longevity of the battery.



Image 1.1: DATOUBOSS 12V 300Ah LiFePO4 Batteries. These batteries are designed for deep cycle applications in various systems.

2. SAFETY INSTRUCTIONS

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 positive and negative terminals. This can cause severe damage to the battery and pose a fire hazard.

- **Do not modify or disassemble** the battery. Unauthorized modifications can lead to malfunction and void the warranty.
- **Do not expose the battery to fire or water.** Extreme temperatures and moisture can damage the internal components and create safety risks.
- Always use a **standard charger** that matches the output voltage and chemistry of the lithium battery. Using an incompatible charger can lead to overcharging or undercharging, reducing battery life or causing damage.
- Ensure proper ventilation during charging and discharging to prevent heat buildup.
- Keep the battery away from children and pets.
- Wear appropriate personal protective equipment (PPE) such as gloves and eye protection when handling batteries.

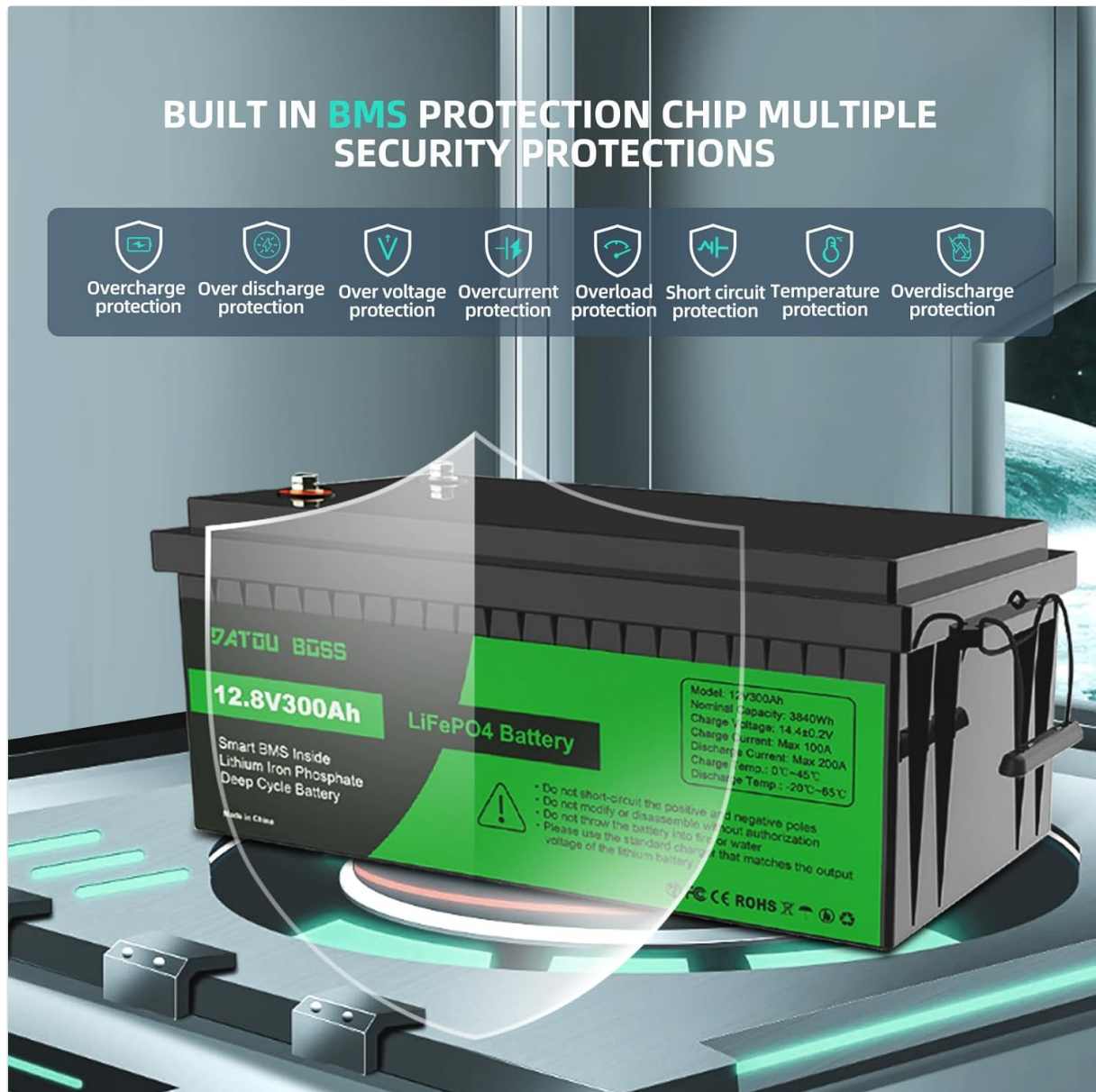


Image 2.1: Built-in BMS Protection. The battery features a 200A Battery Management System (BMS) for comprehensive safety.

3. PRODUCT FEATURES

- **Built-in 200A BMS Protection:** Equipped with a Battery Management System that protects against high temperature, over-voltage, overload, overcharge, over-discharge, overcurrent, and short circuit.
- **High Safety Standards:** Utilizes advanced battery technology with UL-tested and certified cells.

- **Expandable Capacity:** Supports both series and parallel connections (up to 4P4S) for a maximum of 48V (51.2V) 1200Ah Li-ion battery pack, delivering up to 61.44kWh energy.
- **Superior Performance:** Made of automotive-grade lithium iron phosphate cells with IP65 waterproof rating, offering higher energy density and stable performance.
- **Lightweight and Compact:** Weighs approximately 27.7kg (68lbs), which is significantly lighter and smaller than comparable lead-acid batteries, facilitating easier installation and portability.
- **Long Cycle Life:** Designed for 15,000+ deep cycles, offering extended lifespan compared to traditional batteries.



Image 3.1: LiFePO4 vs. Lead Acid Comparison. This battery offers advantages in weight, lifespan, and cycle life over traditional lead-acid batteries.

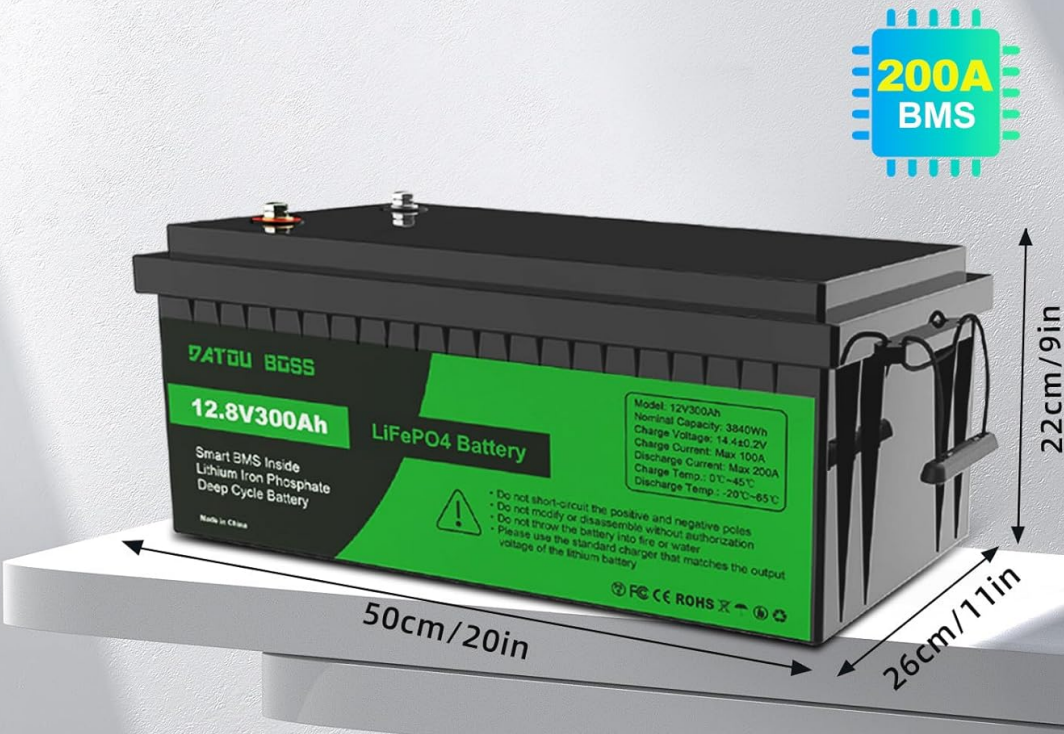
4. SPECIFICATIONS

DATOUBOSS 12V 300Ah LiFePO4 Battery Specifications

Parameter	Value
Model	DT-LiFePO4 Battery
Nominal Voltage	12.8V

Parameter	Value
Nominal Capacity	300Ah
Energy	3840Wh
Built-in BMS	200A
Max Charge Current	100A
Max Discharge Current	200A
Cycle Life	15,000+ (Deep Cycle)
Weight	27.7kg (68lbs)
Waterproof Rating	IP65
Terminal Type	M8 Terminal Bolts
Dimensions (Approx.)	50cm (20in) x 26cm (11in) x 22cm (9in)

TERMINALSPECIFICATIONS: **M8** TERMINAL BOLTS



12.8V 300AH
Battery Capacity



3840Wh
Storage capacity



100A
Maximum chargingcurrent



200A
Maximum dischargecurrent

Image 4.1: Battery Dimensions and Key Specifications. The battery features M8 terminal bolts for secure connections.

5. SETUP & INSTALLATION

5.1 Unboxing and Initial Inspection

Upon receiving your battery, carefully unbox it and inspect for any visible damage. Ensure all components listed in the packaging are present. The package typically includes the LiFePO₄ Battery and any necessary connection accessories.

Your browser does not support the video tag.

Video 5.1: Unboxing and Testing (Note: This video demonstrates a 12V 100Ah LiFePO₄ battery, which is similar in design but different in capacity from your 12V 300Ah model. The general unboxing and testing principles apply).

5.2 Connection Guidelines

- **Terminal Connections:** Use the provided M8 terminal bolts to securely connect your battery to your system. Ensure all connections are tight to prevent resistance and overheating.
- **Series Connection:** The battery supports series connection up to 4S (four batteries in series) to achieve higher voltage (e.g., 48V). When connecting in series, ensure all batteries have similar state of charge before connecting.
- **Parallel Connection:** The battery supports parallel connection up to 4P (four batteries in parallel) to achieve higher capacity (e.g., 1200Ah for 4P). When connecting in parallel, ensure all batteries have similar voltage before connecting.
- **Combined Series-Parallel:** For maximum capacity and voltage, the battery supports configurations up to 4P4S, creating a 48V (51.2V) 1200Ah system.
- Always connect the positive terminal to positive and negative to negative.
- Use appropriate gauge wiring for your application to handle the expected current.

SUPPORT 4S4P



15.36KWH

48V(51.2V) 300AH

15.36KWH

12V(12.8V) 1200AH

Image 5.1: Series and Parallel Connection Examples. The battery can be configured for various voltage and capacity requirements.

FLEXIBLE CAPACITY EXPANSION SUPPORT CONNECTING UP TO 4S4P

Max. 1200A continuous
charge/discharge current

Max. 61.44kwh load power

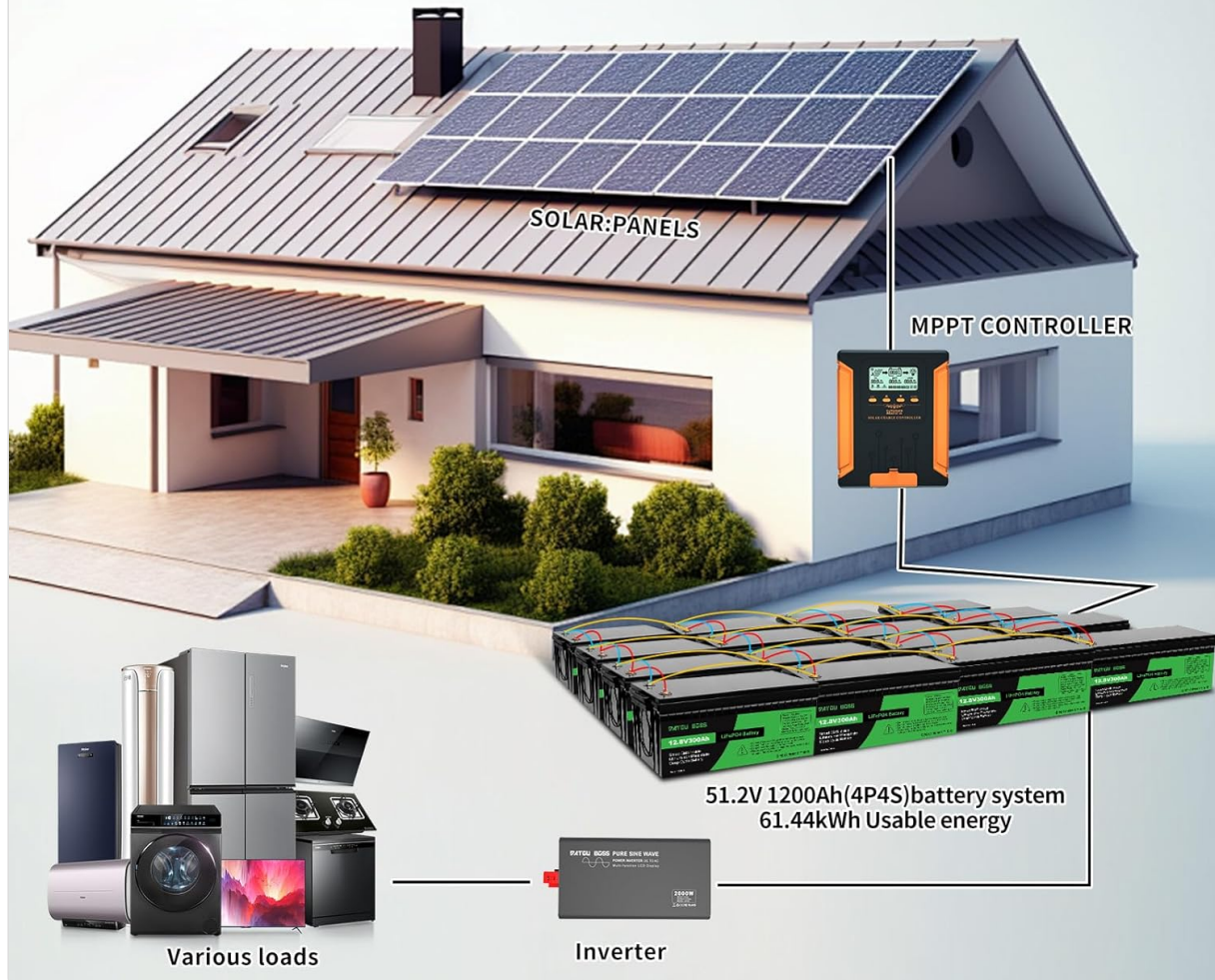


Image 5.2: Flexible Capacity Expansion. An example of a 4P4S battery system integrated into a home solar setup.

6. OPERATING INSTRUCTIONS

6.1 Charging

- **Recommended Charge Voltage:** $14.4V \pm 0.2V$.
- **Maximum Charge Current:** 100A. Do not exceed this current to prevent damage to the battery and BMS.
- **Charging Temperature Range:** $0^{\circ}C$ to $65^{\circ}C$ ($32^{\circ}F$ to $149^{\circ}F$). Avoid charging outside this range.
- Use a dedicated LiFePO4 compatible charger.

6.2 Discharging

- **Maximum Continuous Discharge Current:** 200A.
- **Discharging Temperature Range:** $-20^{\circ}C$ to $65^{\circ}C$ ($-4^{\circ}F$ to $149^{\circ}F$).
- The built-in BMS will protect the battery from over-discharge.

MORE EFFECTIVELY COPE WITH EXTREME TEMPERATURE VARIATIONS

Excellent continuous discharge Work from **-4°F to 150°F**



Image 6.1: Operating Temperature Range. The battery is designed to operate effectively across a wide temperature spectrum.

7. MAINTENANCE

- **Regular Inspection:** Periodically check the battery terminals for corrosion or loose connections. Clean terminals as needed.
- **Storage:** If storing the battery for an extended period, ensure it is charged to approximately 50% State of Charge (SOC) and stored in a cool, dry place away from direct sunlight. Recharge every 3-6 months to prevent deep discharge.
- **Cleaning:** Use a dry cloth to clean the battery casing. Do not use solvents or abrasive cleaners.
- **Avoid Physical Damage:** Protect the battery from impacts or punctures.

8. TROUBLESHOOTING

This section addresses common issues you might encounter with your LiFePO4 battery. The built-in BMS is designed to prevent most critical failures.

- **Battery Not Charging:**
 - Check charger connections and ensure the charger is compatible with LiFePO4 batteries.

- Verify the charger is functioning correctly.
- Ensure the battery temperature is within the recommended charging range (0°C to 65°C).
- The BMS might have activated a protection mode (e.g., over-discharge). Try connecting to a compatible charger for a few minutes to reset the BMS.
- **Battery Not Discharging/No Power Output:**
 - Check all load connections for looseness or corrosion.
 - Ensure the load is not exceeding the maximum continuous discharge current (200A). The BMS will cut off power if overloaded.
 - Verify the battery voltage is above the minimum discharge voltage.
 - Check if the battery temperature is within the recommended discharging range (-20°C to 65°C).
- **Unusual Odor or Swelling:**
 - Immediately disconnect the battery from all loads and chargers.
 - Move the battery to a safe, well-ventilated area.
 - **Do not attempt to use or repair the battery.** Contact the manufacturer or seller for assistance.

9. APPLICATIONS

The DATOUBOSS 12V 300Ah LiFePO4 battery is versatile and suitable for a wide range of applications due to its robust design and high performance:

- **Recreational Vehicles (RVs) & Campers:** Provides reliable power for onboard appliances and systems.
- **Marine Applications:** Ideal for boats, trolling motors, and other marine electrical needs.
- **Solar Energy Systems:** Excellent for home solar battery storage and off-grid power solutions.
- **Backup Power:** Suitable for UPS backup systems and general home backup power.
- **Electric Vehicles:** Can be used in golf carts and other low-speed electric vehicles.
- **Other Uses:** Lighting, fish finders, lawnmowers, and various other deep cycle applications.

PERFECT FOR MANY APPLICATIONS



Image 9.1: Diverse Applications. The battery is designed for use in RVs, camping, marine, and other off-grid scenarios.

10. WARRANTY & SUPPORT

For specific warranty details and support, please refer to the documentation provided with your purchase or contact the seller directly. Protection plans may be available for extended coverage.

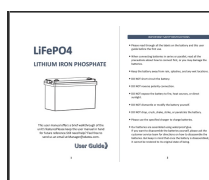
Manufacturer: DATOUBOSS

Model Number: DT-LiFePO4 Battery

UPC: 751591223391



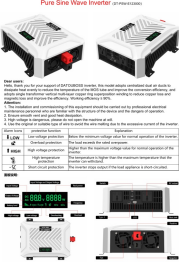
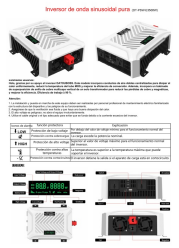

For further assistance, please visit the official DATOUBOSS store or contact their customer service.

Related Documents - DT-LiFePO4 Battery



[DATOUBOSS LiFePO4 Battery User Manual: Safety, Specs. and Usage](#)

Comprehensive user manual for DATOUBOSS LiFePO4 batteries. Find safety instructions, detailed specifications for models like 12V100Ah, connection guides, storage tips, and warranty information.

	<p>DATOUBOSS Lithium Iron Phosphate Battery User Guide & Specifications</p> <p>Comprehensive instructions and specifications for DATOUBOSS 12V Lithium Iron Phosphate (LiFePO4) batteries, including models 100Ah, 200Ah, and 300Ah. Covers important caveats, operational details, and frequently asked questions.</p>
	<p>DATOUBOSS Rechargeable LiFePO4 Batteries and Voltage Converters - User Manual</p> <p>Comprehensive user manual for DATOUBOSS rechargeable LiFePO4 batteries and voltage converters, including model DT4811B. Covers features, specifications, and usage guidelines.</p>
	<p>DATOUBOSS DT-PSW-E123000 Pure Sine Wave Inverter - Specifications and Manual</p> <p>Detailed specifications, features, and troubleshooting guide for the DATOUBOSS DT-PSW-E123000 Pure Sine Wave Inverter. Learn about its power output, voltage range, protection functions, and common issues.</p>
	<p>DATOUBOSS DT-PSW-E3500W Inversor de Onda Sinusoidal Pura: Manual y Especificaciones</p> <p>Manual de usuario detallado y especificaciones técnicas para el inversor DATOUBOSS DT-PSW-E3500W de onda sinusoidal pura. Cubre instalación, seguridad, descripción de paneles, solución de problemas y características.</p>
	<p>DATOUBOSS DT4862 Inverter/Charger User Manual - Installation & Operation Guide</p> <p>Comprehensive user manual for the DATOUBOSS DT4862 inverter/charger. Learn about installation, operation, safety, parallel function, solar charging, and technical specifications for reliable power solutions.</p>