



Manuals.plus /

- › DATOUBOSS /
- › DATOUBOSS 12V 100Ah Group 24 LiFePO4 Battery User Manual

DATOUBOSS 12V100AH-Group24-2PC

DATOUBOSS 12V 100Ah Group 24 LiFePO4 Battery User Manual

1. INTRODUCTION

Thank you for choosing the DATOUBOSS 12V 100Ah Group 24 LiFePO4 Battery. This deep cycle lithium battery is designed for superior performance and longevity, making it ideal for a wide range of applications including RVs, camping, solar energy systems, off-grid setups, and marine use. This manual provides essential information for the safe and efficient use of your battery, covering installation, operation, maintenance, and troubleshooting.



Image: Two DATOUBOSS 12V 100Ah LiFePO4 batteries, showcasing their compact design.

2. PRODUCT OVERVIEW

2.1 Key Features

- **Excellent Performance & Safety Upgrade:** High energy density, half the weight of lead-acid batteries, with built-in intelligent BMS (Battery Management System) for comprehensive protection (short circuit, overvoltage, overheating, overcharge).
- **Extremely Long Life & Up to 15,000 Cycles:** Over 10 times the life of lead-acid batteries, with a service life of up to 10 years and 4,000-15,000 cycles.
- **Free Expansion & Series and Parallel Support:** Supports connecting up to 16 batteries in a 4-series 4-parallel (4S4P) configuration for expanded capacity and voltage (12.8V to 51.2V, 1.28kW to 20.48kW).
- **Wide Application Scenarios:** Suitable for RVs, trailers, boats, off-grid systems, camping, electric carts, backup power, and more.

2.2 Package Contents

- 12V 100Ah LiFePO4 Battery (Quantity as per purchase)

DEDICATED G24 LIFEPO4 BATTERY



Image: Detailed view of the battery showing its dimensions (10.2in / 25.8cm length, 6.6in / 16.7cm width, 8.5in / 21.5cm height) and weight (10.92kg / 24LB).

3. IMPORTANT SAFETY INSTRUCTIONS

Please read and understand all safety warnings before operating the battery. Failure to follow these instructions may result in serious injury, property damage, or battery failure.

- ✗ Do not reverse the positive and negative terminals of the battery!
- ✗ Do not hit or throw objects at the battery or step on it!
- ✗ Do not use metal to connect the positive and negative terminals of the battery directly!
- ✗ Do not weld the battery directly and do not pierce the battery with nails or other sharp objects!
- ✗ Do not immerse the battery in seawater or water!
- ✗ Do not use as a car starter battery, trip starter battery, or engine starter battery!
- ✗ Do not use the battery at high temperatures, otherwise it may overheat, catch fire, or become defective, which will shorten its service life!



Image: Visual representation of the battery's built-in safety features, including 4000+ cycles, 10+ years lifespan, and 100A BMS protection.

4. SETUP

4.1 Series and Parallel Connections

The DATOU BOSS LiFePO₄ battery supports flexible expansion by connecting multiple batteries in series and/or parallel to achieve desired voltage and capacity. Up to 16 batteries can be connected to form a 4-series 4-parallel (4S4P) system, providing an output capacity from 12.8V to 51.2V and a power output from 1.28kW to 20.48kW.

- **Series Connection:** Connect batteries in series to increase the total voltage. Ensure all batteries have the same capacity and are fully charged before connecting.
- **Parallel Connection:** Connect batteries in parallel to increase the total capacity (Ah). Ensure all batteries have the same voltage and are fully charged before connecting.
- Always use appropriate cables and connectors rated for the expected current.

- Consult a qualified electrician if you are unsure about wiring configurations.

FLEXIBLE CAPACITY EXPANSION support connecting up to 4s4p

Max.400A continuous
charge/discharge current
Max. 20.48kW load power

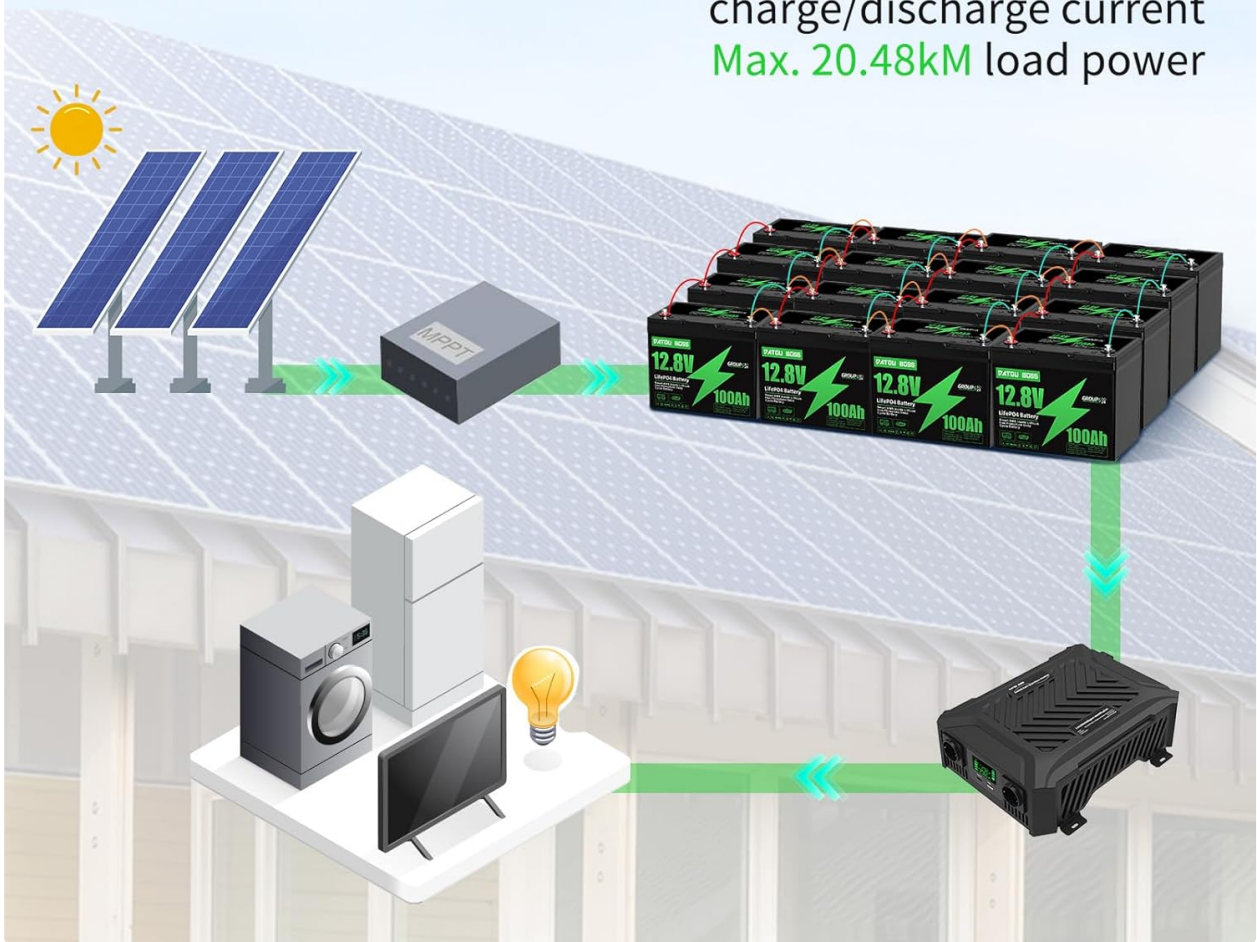


Image: Diagram illustrating flexible capacity expansion, showing solar panels connected to an MPPT controller, which charges a bank of batteries, then connected to an inverter powering household loads.



SUPPORTS UP TO 4 SERIES AND 4 PARALLEL CONNECTIONS

Perfect for solar projects



Image: A detailed diagram showing how up to 4 series and 4 parallel connections can be made, suitable for solar projects, illustrating a complete energy system from solar panels to an inverter and various loads.

5. OPERATING INSTRUCTIONS

5.1 Charging the Battery

Your DATOUBOSS LiFePO4 battery can be charged using various methods:

- **Solar Panel:** Connect to a compatible solar charge controller (MPPT recommended) for efficient charging from solar panels.
- **LiFePO4 Battery Charger:** Use a dedicated LiFePO4 battery charger. Do not use chargers designed for lead-acid batteries unless they have a specific LiFePO4 charging mode.
- **Generator:** Connect to a generator via a suitable charger or inverter system.

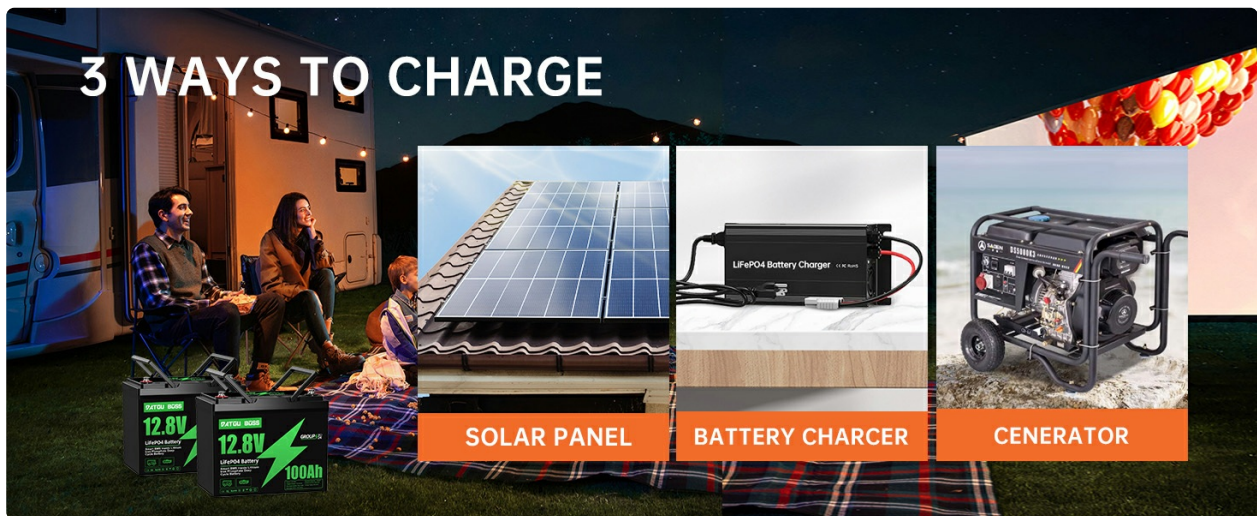


Image: Visual guide showing three common methods for charging the battery: via solar panels, a dedicated battery charger, and a generator.

5.2 Discharge and Application

The battery offers a stable discharge curve and up to 95% capacity utilization, compatible with most inverters and solar systems. It performs excellently across a wide temperature range.

- **Temperature Range:** The battery is designed to adapt to extreme temperatures, with excellent discharge performance ranging from -4°F to 140°F (-20°C to 60°C).
- **Versatile Use:** Power various appliances and systems for extended periods.

Adapt Better to Extreme Temperatures

Excellent discharge performance ranging from -4°F to 140°F

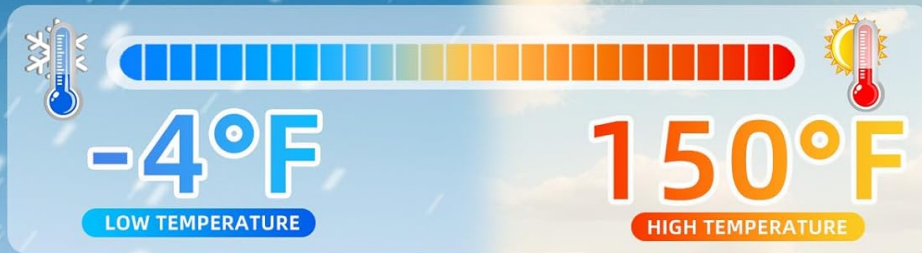


Image: The battery displayed against a backdrop illustrating its ability to perform in both low (-4°F) and high (150°F) temperatures.

Long Lasting and Durable Battery
1280Wh energy for efficient daily living and RV traveling

Appliance	Power (W)	Runtime (Hrs)
Fan	100W	12.8Hrs
Refrigerator	300W	4.2Hrs
Coffee Maker	500W	2.56Hrs
Microwave	1000W	1.28Hrs

DATOU BQSS
12.8V
100Ah
LiFePO4 Battery
Smart BMS Inside Lithium Iron Phosphate Deep Cycle Battery

GROUP 24

CE, RoHS, and other safety icons are visible on the battery label.

Image: An RV setting with the battery shown powering common appliances like a fan (100W, 12.8Hrs), refrigerator (300W, 4.2Hrs), coffee maker (500W, 2.56Hrs), and microwave (1000W, 1.28Hrs).

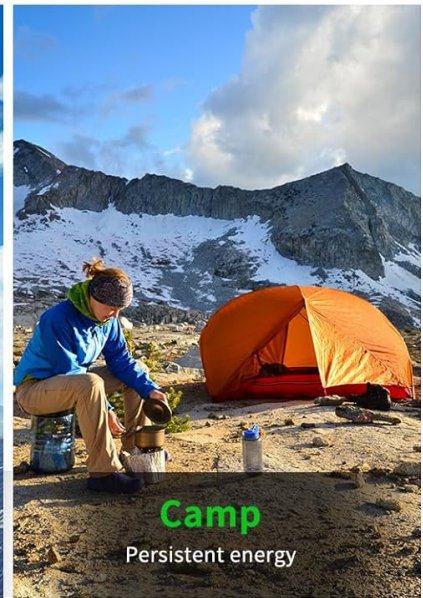
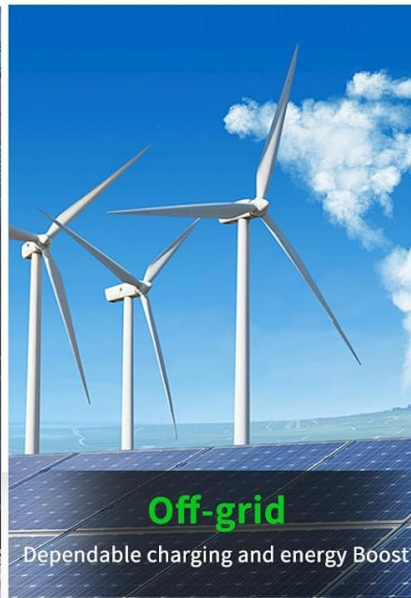


Image: Collage of images depicting diverse applications: Home Storage, RV, Enjoyable Fishing, Off-grid, and Camp, highlighting the battery's versatility.



Image: Illustrates the battery's capability for outdoor power supply (e.g., RV camping) and home energy storage, showing how it can power devices like cameras, drones, projectors, desktops, kettles, coffee makers, and printers with a Max 4S4P 20.48kWh setup.

6. MAINTENANCE

The DATOUBOSS LiFePO4 battery is designed for minimal maintenance and long-term reliability. Its advanced chemistry and BMS contribute to its extended lifespan.

- **Long Service Life:** With a cycle life of 4,000-15,000 times and a service life of up to 10 years, this battery significantly outperforms traditional lead-acid batteries.
- **Low Self-Discharge:** The battery maintains its charge efficiently when not in use, requiring less frequent recharging during storage.
- **Regular Inspection:** Periodically check battery terminals for cleanliness and secure connections. Ensure the battery is stored in a cool, dry place if not in active use.

DROP-IN REPLACEMENT FOR GROUP 24

12V 100AH LEAD ACID BATTERY

- 504Wh Usable Energy
- 63Lb Weight
- 60% Deep of Discharge
- <33% Self Discharge Rate (Per Month)
- 500 Cycles (60% DOD)
- 3-5 Year Service Life



12V 100AH

LIFEPO4 BATTERY

- 1280Wh Usable Energy
- 24.75 Lb Weight
- 100% Deep of Discharge
- <3% Self Discharge Rate (Per Month)
- 4000-15000 Cycles
- 10 Year Service Life



Image: A comparative chart highlighting the superior features of the 12V 100Ah LiFePO4 battery over a 12V 100Ah Lead Acid battery, including 1280Wh Usable Energy, 24.75 Lb Weight, 100% Deep of Discharge, <3% Self Discharge Rate, 4000-15000 Cycles, and 10 Year Service Life.

7. TROUBLESHOOTING

While DATOUBOSS LiFePO4 batteries are highly reliable, should you encounter any issues, please refer to the following general advice. For specific technical problems, it is recommended to contact customer support.

- **Battery Not Charging:** Ensure all connections are secure and correct. Verify that your charger is compatible with LiFePO4 batteries and is functioning properly. Check for any tripped circuit breakers or blown fuses in your system.
- **Low Power Output:** Check the battery's state of charge. Ensure the load is within the battery's continuous discharge current limits. Verify that all connections are clean and tight to minimize resistance.
- **Battery Management System (BMS) Activation:** The built-in BMS may temporarily shut down the battery to protect it from overcharge, over-discharge, over-current, or extreme temperatures. If this occurs, remove the load or charging source, allow the battery to rest, and then attempt to restart.

If problems persist after checking these points, please contact DATOUBOSS customer support for assistance.

8. SPECIFICATIONS

Specification	Value
Brand	DATOUBOSS
Model	DT-12V 100AH
Item Model Number	12V100AH-Group24-2PC
Nominal Voltage	12.8V
Nominal Capacity	100Ah
Energy	1280Wh
Cycle Life	4,000-15,000 cycles
BMS	Built-in 100A BMS with Low-Temp Protection
Max. Continuous Discharge Current	100A
Operating Temperature Range	-4°F to 140°F (-20°C to 60°C)
Weight	10.92kg (24 lbs)
Dimensions (L x W x H)	25.8cm x 16.7cm x 21.5cm (10.2in x 6.6in x 8.5in)
UPC	758209538496

9. WARRANTY AND CUSTOMER SUPPORT

DATOUBOSS is committed to providing high-quality products and excellent customer service.

- **Warranty:** We provide a 5-year warranty service for your DATOUBOSS LiFePO4 battery.
- **Technical Support:** Enjoy 24-hour online technical support. For any pre-sales inquiries or after-sales issues, our team is ready to assist you promptly.

For support, please visit the official DATOUBOSS store on Amazon or contact us through the platform where you purchased the product.