

## dumfume DFBattery-12V100A

# dumfume 12V 100Ah LiFePO4 Lithium Battery Instruction Manual

Model: DFBattery-12V100A

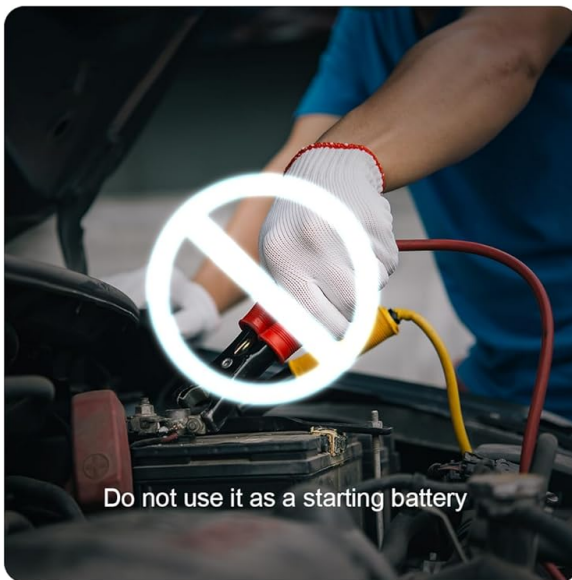
## 1. PRODUCT OVERVIEW

The dumfume 12V 100Ah LiFePO4 Lithium Battery is a compact yet powerful energy storage solution with a built-in 100A Battery Management System (BMS). It offers 1280Wh of energy capacity and is designed for a long lifespan of up to 6000+ cycles at 80% Depth of Discharge (DOD). This battery is ideal for various applications including RVs, solar off-grid systems, and home energy storage. It is significantly lighter and more compact than traditional lead-acid batteries, making it perfect for portable and space-saving needs.

## 2. SAFETY INFORMATION

Your safety is paramount. Please adhere to the following guidelines:

- The integrated 100A BMS provides comprehensive protection against overcharging, over-discharging, short circuits, overheating, and overcurrent.
- Do not use this battery as a starting battery for vehicles, golf carts, or jacks. It is not designed for high cranking current applications.
- Do not incinerate the battery or immerse it in water.
- Wear insulating gloves when handling the battery during installation and wiring.
- Ensure the battery performance is within the recommended temperature range of 5°C or higher for optimal function.



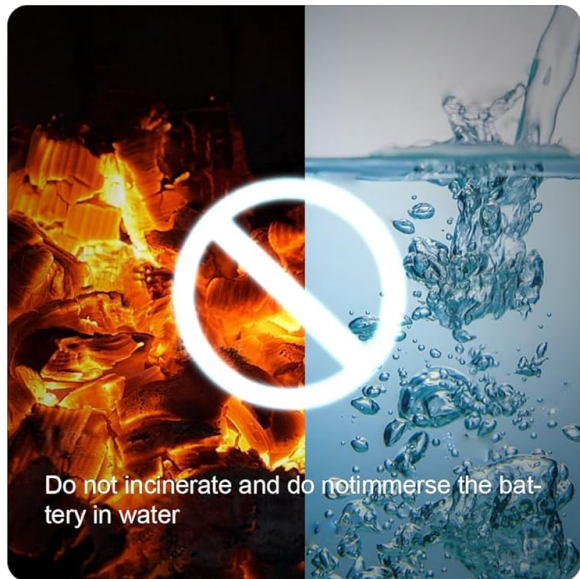
Do not use it as a starting battery



Do not use it for golf carts



To connect in series-parallel, batteries must be identical (same brand, type, voltage, capacity, and BMS) and purchased within 1 month.



Do not incinerate and do not immerse the battery in water

Image: Visual representation of usage restrictions, including warnings against using as a starting battery, in golf carts, incineration, or water immersion.

### 3. PRODUCT FEATURES

- **Compact & Powerful:** 25% size reduction compared to traditional batteries, offering 1.28kWh energy and 40% increased energy density.
- **Lightweight Design:** Weighs 22.05 lbs, which is 2/3 lighter than a conventional 100Ah AGM battery (63.9 lbs).
- **Advanced BMS Protection:** Integrated 100A Battery Management System (BMS) protects against overcharging, over-discharging, short circuits, overheating, and overcurrent.
- **Long Cycle Life:** Equipped with Grade A Lithium Iron Phosphate Battery Cells, supporting 4000+ cycles at 100% DOD, 6000+ cycles at 80% DOD, and 15000+ cycles at 60% DOD.
- **Durable Construction:** Made of high-strength, impact-resistant, heat-resistant, weather-resistant, and fire-resistant ABS casing. Offers dustproof and weather resistance (not waterproof).
- **Expandable System:** Supports series and parallel connections (up to 4S4P) to build 51.2V 400Ah systems, providing up to 20.48kWh.

# SMART BMS Protection

Protect battery from damage

☼ Low/high temp

⚡ Overcharge

⚡ Over-discharge

⚡ Over-current

⚡ Short circuit



Image: Diagram illustrating the Smart BMS protection against low/high temperature, overcharge, over-discharge, over-current, and short circuit.

## 4. WHAT'S IN THE BOX

Upon unpacking, you will find the following items:

- 1 x dumfume 12.8V 100Ah LiFePO4 Battery
- 2 x M8 Terminal Bolts
- 2 x Insulating Caps for Bolts
- 1 x Product Manual





Image: Contents of the box, including the 12.8V 100Ah LiFePO4 battery, M8 terminal bolts, insulating caps, and product manual.

## 5. SETUP AND INSTALLATION

Follow these steps for proper setup and installation:

1. Before connecting, ensure the voltage difference between each battery is controlled within 0.1V for optimal performance and safety.
2. Wear insulating gloves during installation and wiring to prevent accidental short circuits.
3. For series and parallel connections, batteries must be identical (same brand, type, voltage, capacity, and BMS) and purchased within 1 month.
4. Securely attach the terminal bolts to ensure a tight connection.

Video: A seller-provided video demonstrating the setup and connection of a LiFePO4 Lithium Battery, including terminal connections and basic usage scenarios.

## 6. OPERATING INSTRUCTIONS

This battery is designed for deep cycle applications. Ensure the operating environment is suitable for the battery's performance.

- Ideal for RVs, solar off-grid systems, home energy storage, trolling motors, camping, street lights, backup power supplies, e-bikes, and monitoring systems.
- Avoid using the battery in temperatures below 5°C for optimal performance.
- Do not use for starting engines or in applications requiring high cranking amps.



Image: Collage showing various applications like RVs, solar panels, camping, street lights, backup power, e-bikes, monitoring systems, and trolling motors.

## 7. CHARGING

Proper charging is crucial for battery longevity:

- Use a suitable LiFePO4 charger that matches the output voltage of the battery.
- Recommended charging current: 20-50A.
- Charging Limit Voltage: 14.6V.



- Charging Temperature Range: 0°C to 45°C (32°F to 113°F).
- Ensure the battery is fully charged before its first use.



Image: Diagram showing recommended controller/inverter settings for a single battery, including charging voltage, float voltage, charging current, and temperature ranges.

## 8. MAINTENANCE

To ensure the long life and optimal performance of your dumfume LiFePO4 battery:

- Charge and discharge the battery once every 6 months to prevent damage from disuse.
- Store the battery in a cool, dry place with a temperature range of -10°C to 45°C.
- Regularly inspect terminals for corrosion and ensure connections are tight.

## 9. TROUBLESHOOTING

If you encounter any issues with your battery, please refer to the following general troubleshooting tips:

- **Battery Not Charging:** Ensure the charger is compatible with LiFePO4 batteries and is properly connected. Check the charging temperature is within the recommended range.
- **Low Power Output:** Verify all connections are secure and clean. Check the battery's state of charge. Ensure the load is within the battery's continuous discharge current limits.
- **BMS Cut-Off:** The BMS may activate due to overcharge, over-discharge, overcurrent, or extreme temperatures. Disconnect the load/charger and allow the battery to recover.
- **Voltage/Current Deviation:** Note that under various temperature/humidity measurement methods and instruments, voltage and current may deviate by 1%~5%.

For further assistance, please contact dumfume customer support.

## 10. SPECIFICATIONS

Manufacturer	dumfume
Brand	dumfume

Model	DFBattery-12V100A
Item Weight	24.2 pounds
Item model number	S95346
Voltage	12.8 Volts
Battery Cell Composition	LiFePO4
Recommended Uses	Indoor/Outdoor (RV, Solar Off-Grid, Home Energy Storage)
Unit Count	1.0 Count
ASIN	B0DQ1573P3
Date First Available	December 10, 2024



Image: Product dimensions (L13.07\*W6.77\*H8.66in) and M8 terminal specifications.

11. WARRANTY & SUPPORT

dumfume batteries are certified to ensure safety and reliability. The dumfume Support Team is available 24/7 for any safety concerns or technical questions. You can contact dumfume to extend your warranty for up to 5 years.

Note: Return shipping for low-temperature charging issues is not covered if suitability was not verified before purchase.