

Anern 12.8V 200Ah LiFePO4 Lithium Battery

Anern 12.8V 200Ah LiFePO4 Lithium Battery User Manual

1. INTRODUCTION

Welcome to the comprehensive user manual for your Anern 12.8V 200Ah LiFePO4 Lithium Battery. This document provides essential information regarding the safe handling, installation, operation, and maintenance of your battery. Please read this manual thoroughly before using the product to ensure optimal performance and longevity.

This battery is specifically designed for energy storage applications, including residential solar systems, recreational vehicle (RV) and marine power, and various off-grid installations. Its advanced LiFePO4 chemistry offers superior safety, efficiency, and a long cycle life.

2. SAFETY INFORMATION

WARNING: Failure to follow these safety instructions may result in fire, electric shock, injury, or damage to the battery and other property.

- Always wear appropriate personal protective equipment (PPE), such as safety glasses and insulated gloves, when handling batteries.
- Do not short-circuit the battery terminals. This can cause severe damage to the battery and pose a fire hazard.
- Do not expose the battery to fire, excessive heat, or direct sunlight for prolonged periods.
- Do not immerse the battery in water or other liquids.
- Keep the battery away from children and pets.
- Ensure proper ventilation when charging or discharging the battery.
- This 12.8V 200Ah lithium battery is designed for energy storage applications (e.g., solar systems, RV power, backup energy solutions). It is **not recommended** for use as a starter battery for vehicles or high-cranking power equipment.
- Do not attempt to open, disassemble, or modify the battery. There are no user-serviceable parts inside.
- In case of battery leakage, contact with skin or eyes, flush immediately with plenty of water and seek medical attention.

3. PRODUCT FEATURES

The Anern 12.8V 200Ah LiFePO4 Lithium Battery incorporates advanced technology to provide reliable and long-lasting power.

- **Eco-Friendly & Safe LiFePO4 Chemistry:** Utilizes lithium iron phosphate, eliminating toxic lead/acid components and offering superior thermal stability for a safe, environmentally responsible power solution.
- **Extended Cycle Life:** Engineered for maximum durability, delivering over 15,000 charge cycles, significantly outperforming traditional lead-acid batteries. This ensures decades of maintenance-free power with minimal capacity degradation.
- **Integrated 200A Battery Management System (BMS):** An advanced BMS provides comprehensive safeguards, including instant 200A overcurrent cutoff, cell voltage balancing, and temperature monitoring. This extends battery lifespan and prevents dangerous overloads.
- **Compact and Lightweight Design:** Measuring approximately 20.47 × 8.54 × 8.86 inches (520 × 217 × 225 mm) and weighing 48.5 lbs (22 kg), this battery offers a 30% higher energy density than conventional models. Its space-optimized design is ideal for tight installations in RVs, marine vessels, and solar cabinets.



Image: Front view of the Anern 12.8V 200Ah LiFePO4 Lithium Battery, displaying its model number, voltage, capacity, and key specifications on a label.

CLASS-A CELLS & BMS PLATES

BATTERY STABILITY



10 Year Life Span



Lighter Weight



Overcharge protection



Overload protection



Overcurrent protection



Short-circuit protection



Built-in protection from high Temperature shutdown



Image: Diagram highlighting the battery's 10-year lifespan, lighter weight, and BMS protection features including overcharge, overload, overcurrent, short-circuit, and high-temperature shutdown.

SMALLER AND LIGHTER

66%
Lighter*



20%
Smaller*



* Die Energiedichte von LiFePO₄-Batterien ist 3X höher als die von AGM-Batterien.

Image: A visual comparison demonstrating that the Anern LiFePO₄ battery is significantly lighter and smaller than a traditional AGM battery of similar capacity.

4. SETUP AND INSTALLATION

Proper setup and installation are crucial for the safe and efficient operation of your Anern LiFePO₄ battery.

4.1 Initial Inspection

Upon receiving your battery, inspect it for any signs of physical damage. If damage is found, do not proceed with installation and contact customer support immediately.

4.2 Connection Guidelines

1. Ensure all connections are secure and properly insulated to prevent short circuits.
2. Use appropriate gauge cables for your application to handle the expected current.
3. Connect the battery to a compatible charge controller (e.g., MPPT solar controller) and inverter for solar energy systems.

4. Observe correct polarity (+ to + and - to -) when making connections. Reversing polarity can cause severe damage.

4.3 Capacity Expansion

The Anern 12.8V 200Ah LiFePO4 battery supports connection of up to 4 units for capacity expansion. This allows for the creation of a 51.2V 800Ah battery system, providing up to 40.96 kWh of energy and supporting a maximum 800A continuous charging/discharging current and 40.96 kW load power.

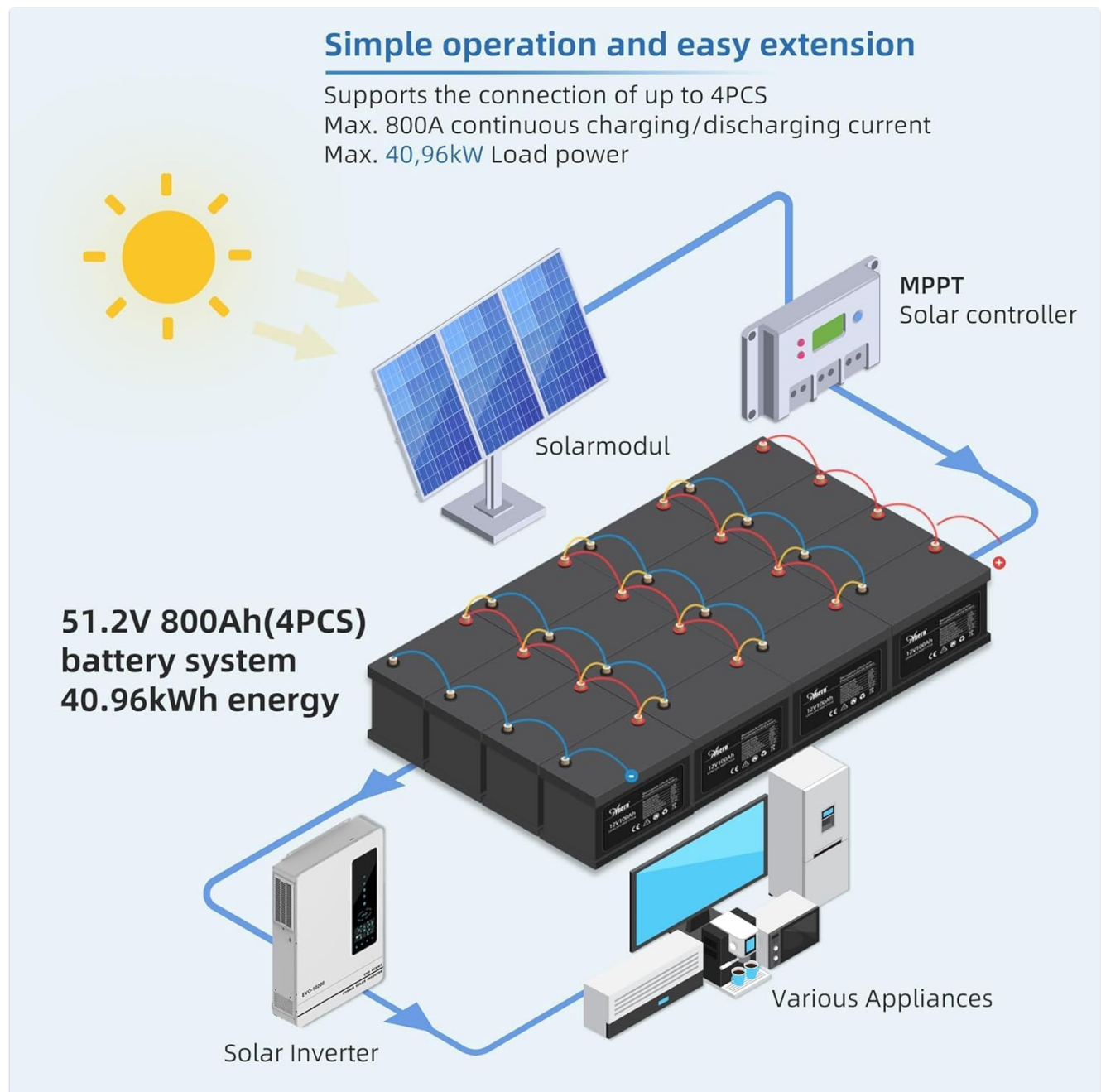


Image: An illustration of a solar power system, demonstrating how multiple Anern batteries can be connected in series and parallel to a solar module, MPPT solar controller, and solar inverter to power various appliances.



Lithium Battery Specifications

Terminal-9/6 inch

Silver-plated copper

Terminal slower internal

Ensures high current discharge performance



Image: Side view of the Anern 12.8V 200Ah LiFePO4 Lithium Battery, indicating its dimensions (520mm length, 217mm width, 225mm height) and terminal specifications.

5. OPERATING INSTRUCTIONS

The Anern LiFePO4 battery is designed for deep cycle applications, providing stable and consistent power for various uses.

5.1 Recommended Applications

This battery is ideal for:

- Solar Energy Storage Systems
- Off-Grid Power Systems
- Recreational Vehicles (RVs) and Campers
- Marine Applications (e.g., Trolling Motors)
- Home Backup Power
- Surveillance and Security Systems

ELECTRICITY

FOR LONGER MOTORHOME TRIPS



Image: An Anern battery placed outside a motorhome, illustrating its use for providing electricity during extended trips.



Suitable for Various Appliances



Image: A collage depicting various suitable applications for the Anern battery, including solar systems, battery backup systems, caravans, trolling motors, and monitoring/security systems.

5.2 Usage Notes

The LiFePO₄ battery may exhibit a 1-5% voltage/current variance across different measurement conditions. This is normal and does not indicate a defect. For optimal performance, ensure the battery is used exclusively for energy storage applications as intended.

6. MAINTENANCE

The Anern LiFePO₄ battery is largely maintenance-free due to its robust design and integrated BMS. However, following these guidelines will help ensure its long lifespan:

- **Storage:** If storing the battery for extended periods, maintain bi-annual charge cycles. This helps preserve cell health and prevents deep discharge.
- **Cleaning:** Periodically inspect and clean the battery terminals to ensure good electrical contact and prevent corrosion. Use a dry cloth for cleaning.

- **Temperature:** Operate and store the battery within its specified temperature ranges to maximize performance and lifespan.

7. TROUBLESHOOTING

Should you encounter any issues with your Anern LiFePO4 battery, consider the following basic troubleshooting steps:

- **No Power Output:** Check all cable connections for tightness and correct polarity. Verify that the battery's BMS has not triggered a protection mode (e.g., due to over-discharge, over-current, or extreme temperature). Allow the battery to rest or connect to a charger if deeply discharged.
- **Charging Issues:** Ensure your charger is compatible with LiFePO4 batteries and is functioning correctly. Check charger connections and input power.
- **Unusual Odors or Sounds:** Immediately disconnect the battery from all loads and charging sources. Contact customer support.

For more complex issues or if basic troubleshooting does not resolve the problem, please refer to the Warranty and Support section for assistance.

8. SPECIFICATIONS




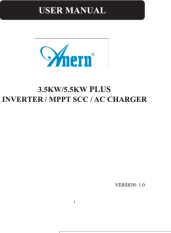

Specification	Value
Model Number	12.8V 200Ah LiFePO4 Lithium Battery
Nominal Voltage	12.8 Volts
Nominal Capacity	200Ah
Energy Storage	2560Wh
Item Weight	22 pounds (9.98 kg)
Package Dimensions	12.5 x 8.5 x 6.5 inches (31.75 x 21.59 x 16.51 cm)
Recommended Uses	Off-Grid Camping, Solar Energy Storage, Trolling Motor, RV
Reusability	Rechargeable
Manufacturer	Anern
What's in the Box	12.8V 200Ah LiFePO4 Lithium Battery x 1

9. WARRANTY AND SUPPORT

Anern is committed to providing high-quality products and excellent customer service. Your Anern 12.8V 200Ah LiFePO4 Lithium Battery comes with dedicated support to ensure your satisfaction.

Anern provides professional technical support and customer service, guaranteeing a fast response within 24 hours. Our expert team offers troubleshooting assistance, product optimization guidance, and lifetime maintenance advice to ensure your complete satisfaction. For any inquiries or support needs, please contact Anern customer service through the official channels.

Related Documents - 12.8V 200Ah LiFePO4 Lithium Battery

 12V LiFePO4 Battery Instructions	Anern 12V LiFePO4 Battery Instructions and Specifications Comprehensive guide to Anern 12V LiFePO4 deep cycle rechargeable batteries, detailing technical specifications for 50AH, 100AH, and 200AH models, BMS functions, series/parallel connection methods, and essential safety precautions.
 Wall Mounted Lithium Battery Series Introduction	Anern Wall Mounted Lithium Battery Series User Manual Comprehensive user manual for Anern's Wall Mounted Lithium Battery Series (IVY2560-W). Details safety precautions, product features, appearance, dimensions, operation, communication ports, and detailed specifications for 24V (25F100T, 25F200T) and 48V (48100T, 48200T) models. Ideal for home energy storage systems.
 2.0KVA/3.2KVA INVERTER / MPPT SCC / AC CHARGER VERSION 1.0	2.0KVA/3.2KVA Inverter MPPT SCC AC Charger User Manual Comprehensive user manual for the 2.0KVA/3.2KVA Inverter with MPPT SCC and AC Charger. Covers installation, operation, features, specifications, and troubleshooting. Includes safety instructions, system architecture, and detailed settings for optimal performance.
 3.5KW/5.5KW PLUS INVERTER / MPPT SCC / AC CHARGER VERSION 1.0	Anern 3.5KW/5.5KW PLUS Inverter/MPPT SCC/AC Charger User Manual Comprehensive user manual for the Anern 3.5KW/5.5KW PLUS Inverter/MPPT SCC/AC Charger, covering installation, operation, specifications, and troubleshooting. Includes detailed instructions, safety guidelines, and operational modes.
 HYBRID INVERTER 3.6KW/4.2KW/6.2KW VERSION 1.0	Hybrid Inverter 3.6KW/4.2KW/6.2KW User Manual Comprehensive user manual for the Hybrid Inverter 3.6KW, 4.2KW, and 6.2KW models. Covers installation, operation, safety instructions, specifications, and troubleshooting.

USER MANUAL

HYBRID INVERTER
3.6KW/4.2KW/6.2KW

VERSION: 1.0

[User Manual: Hybrid Inverter 3.6KW/4.2KW/6.2KW](#)

Comprehensive user manual for the Anern Hybrid Inverter models 3.6KW, 4.2KW, and 6.2KW. Covers installation, operation, specifications, troubleshooting, and system architecture for reliable power solutions.