



Home Energy Storage Battery Series

W20-E5 51.2V 410Ah 20.992kWh

Version: V1.1



The W20-E5 is a comprehensive home wall-mounted solar lithium battery. It features built-in high-quality, high-capacity LiFePO4 batteries, ensuring a long system lifespan for the battery. The independently designed Battery Management System (BMS) has been verified to be compatible with inverters from different brands, supporting hybrid grid-tied and off-grid operation modes.

FEATURES



Multi-Scenario

Full-Scenario Coverage, Empowering Household Energy Freedom

- PV Consumption + Peak-Valley Arbitrage Enhances solar efficiency, generates electricity price gap earnings.
- Emergency Backup + Grid Interaction Seamless power backup, supports Bluetooth APP control.
- Space Optimization + Eco Carbon Reduction Compact design for small homes, visual carbon emission tracking.



Longer Life and Safer

Core Defense Line: A Decade of Worry-Free Home Protection

- Cell-Level Safety Fortress: Safe LFP material system with high thermal stability, eliminating thermal runaway risks.
- The BMS Smart Protection Network features triple safeguards: millisecond-level cutoff for overcharge, over-discharge, and short circuit; automatic shutdown at abnormal temperatures (>60°C); and wide-temperature operation that maintains 70% discharge efficiency in environments from -20°C to 60°C.
- Ultra-Long Lifespan Economic Model.



Efficient Maintenance

Smart, Predictive Maintenance: Cuts Costs by 70%

- AI Lifespan Prediction: 6-month early warning for battery aging, 92% accuracy
- Remote Diagnostics: Real-time voltage, temperature, capacity fade tracking via app; fault codes pushed instantly for repair
- Self-Maintenance Strategy: Auto-sleep when idle long-term; monthly self-charge to 60%; damp-triggered anti-humidity mode extends circuit life



Flexible and Expandable

Smart Scalability: Flexible Architecture, Adapts On-Demand

- Supports up to 20 units in parallel | 419.84 kWh max capacity.
- Energy Ecosystem Integration.



Certification

Global Safety Passport, Authoritative Quality Endorsement

- UN38.3, MSDS, Marine Report

Dimensions



Product Name

W20-E5

Electrical Characteristics

Nominal Voltage	51.2V
Rated Capacity	410Ah
Energy	20992Wh
Cell Technology	Lithium Iron Phosphate (LFP)
Cycle Life	6,000 cycles @ 70%DOD, 25°C/0.5C
Operating Voltage	44.8~57.6V
Communication Interfaces	RS232 / CAN / RS485
Scalability	Up to 20 units
Expansion Function	Bluetooth

Charge & Discharge

Standard Charging/Discharging Current	100A
Max continuous charge/discharge current	200A
Conversion Efficiency	99% , 25°C/0.5C

Environmental

Working Environment	indoors/Under the outdoors eaves
Charging Temperature	0~55°C (32° F~131° F)
Discharging Temperature	-20~60°C (-4° F~140° F)
Storage Temperature	20°C to 45°C (68 ° F to 113 ° F) with in three months; 25±3°C (77° F±5.4° F) for more than three months
Storage Humidity	65+20%RH
Cooling	Natural Convection
IP Rating	IP21

Mechanical

Dimension(L*W*H)	917*525*246mm
Weight(approximately)	167.2kg
Installation	Wall-mounted / Floor-standing

Certification

UN38.3, MSDS, Marine Report

*The actual product may have slight differences from some promotional videos or pictures. Please refer to the actual product. Unless otherwise specified the data on this page are all from our company's laboratory. The data may have errors due to changes in the objective environment.

*The specifications are subject to change without prior notice.