



JM-25.6V200Ah-5KWH Lithium Battery: Powerhouse for Modern Energy Storage

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Understanding the Technical Specs

Let's break down what this model number really means. The JM-25.6V200Ah-5KWH battery isn't just random numbers - it's a precise energy recipe. The 25.6V nominal voltage comes from 8 LiFePO₄ cells in series (3.2V each), while the 200Ah capacity delivers 5.12kWh theoretical energy. Why does the label say 5kWh then? Smart battery management systems typically reserve about 2-3% buffer for safety, making the actual usable capacity align perfectly with the 5kWh claim.

Key Advantages Over Traditional Batteries

- 3,000+ deep cycles at 80% DoD (vs. 500 cycles in lead-acid)
- Maintenance-free operation with built-in BMS protection
- 50% weight reduction compared to equivalent lead-acid systems

Real-World Applications

This battery shines in scenarios requiring high-density energy storage. A recent solar installation in Arizona used 8 JM-25.6V200Ah units to power a 3-bedroom home off-grid for 72 hours during grid outages. For marine applications, its vibration resistance makes it 40% more reliable than standard AGM batteries in rough sea conditions.

Capacity Conversion Demystified

Using the formula $kWh = (V \times Ah) / 1000$:

$$25.6V \times 200Ah = 5,120Wh (5.12kWh)$$

The 0.12kWh difference accounts for real-world efficiency losses - about what your microwave consumes in 7 minutes.

Industry Trends & Compatibility

With the rise of bi-directional EV charging, this battery's 25.6V architecture integrates seamlessly with most residential solar inverters. Its CAN communication protocol supports real-time monitoring through platforms like SolarEdge and Tesla Powerwall interfaces.

Safety First Approach

- Thermal runaway protection up to 60°C
- IP65 waterproof rating withstands tropical storms
- Automatic cell balancing every 8 charging cycles



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While we can't share exact pricing here, market data shows similar LiFePO4 systems cost 25-35% less per kWh cycle than nickel-based alternatives. For custom configuration quotes, direct manufacturer consultation is recommended.

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