

All-in-One Off-Grid Solar Power Energy Storage System

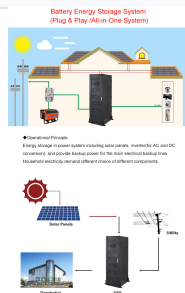
This all-in-one energy storage system is designed for off-grid solar power applications. It integrates battery storage, power conversion, and control functionalities into a single unit.



ADDITIONAL IMAGES



Overview



The system integrates solar panels, inverter conversion, and battery storage to provide reliable backup power.

All-in-One Solar Energy Storage Solution

This integrated ESS provides a seamless plug-and-play solution for off-grid power, combining a 15kW low-frequency pure sine wave inverter, MPPT solar controller, and high-safety LiFePO4 battery storage. Designed for residential, commercial, and industrial backup, it features a standard 19-inch rack design for modular scalability and optimal performance. The system supports real-time monitoring via a mobile app and features an active balancing BMS to ensure a long working life of over 3500 cycles.

Key Performance Metrics

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15 kW

Inverter Rated Power

40.96 kWh

Total Battery Energy

3500 cycles

Cycle Life (@80% DOD)

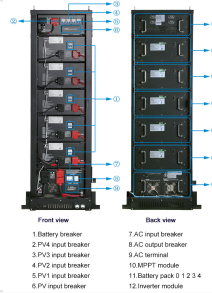
800 Ah

Rated Capacity

Battery Specifications

Battery Chemistry	Lithium Iron Phosphate (LiFePO4)
Rated Voltage	51.2 vDC
Rated Charge Current	400 A
Max Discharge Current	880 A

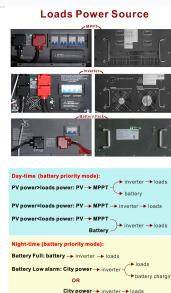
Inverter & Charger



Detailed view of the internal MPPT module, battery packs, and circuit breakers.

Output Waveform	Pure Sine Wave
Peak Efficiency	>88% (Inverter Mode) / >95% (Line Mode)
MPPT PV Input Range	60-145vDC

System Functions



Intelligent power management prioritizes solar usage during the day and battery discharge at night.

Primary Applications

- Areas without electricity supply
- Residential backup power
- Commercial and industrial backup
- Communications industry backup
- Data center energy storage

Core Features

Plug & Play, Mobile App Monitoring, Active Balancing BMS, 19" Standard Rack Design, Automatic Calibration

Safety & Compliance

Compliance Standards

ISO 9000 • ISO 14001 • CE • ROHS • UL • TUV • FCC

Physical Dimensions



Compact vertical rack design measuring 1760mm in height.

Unit Dimensions

Dimension	Value
Height	1760mm
Width	935mm
Depth	560mm

Operating Environment

Temperature Tolerances

Mode	Range
Charge Temperature	0~45
Discharge Temperature	-20~60