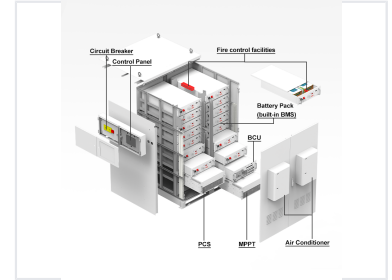


60kW/150kWh All-In-One Microgrid Energy Storage System

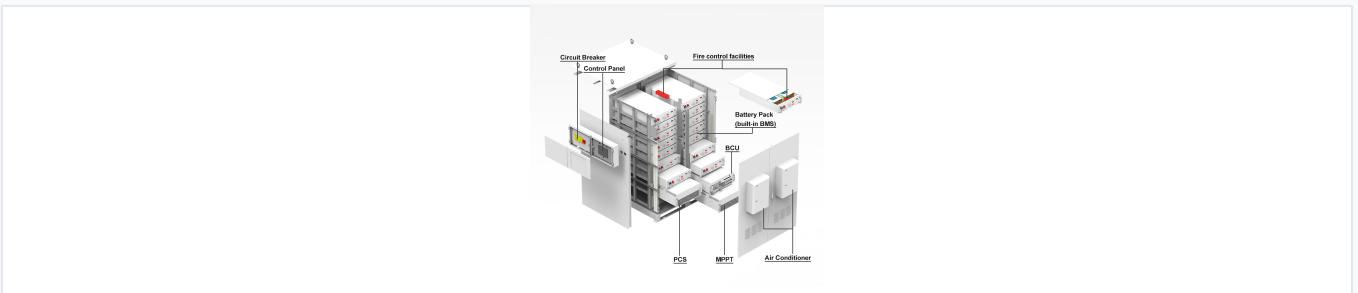
This microgrid energy storage system improves energy supply reliability. It reduces power reserve needs and transmission losses.



ADDITIONAL IMAGES



Overview



Internal layout showing integrated PCS, MPPT, Battery Packs, and Fire Control facilities.

All-In-One Microgrid Solution

The ESS-60-150-50 is a comprehensive, modular energy storage system designed for industrial and commercial applications. It integrates a 60kW bi-directional power conversion system with a 150kWh battery capacity to provide reliable backup power, peak shaving, and renewable energy integration. This all-in-one unit simplifies installation and maintenance while reducing electricity costs through peak-valley price arbitrage.

Performance Metrics

Key Performance Metrics

60 kW

Rated Output Power

150 kWh

Battery Energy Capacity

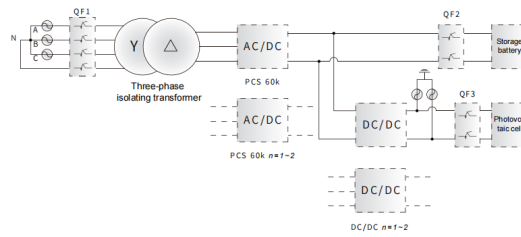
97.3 %

Machine Efficiency

50 kW

PV Input Power

Technical Parameters



Technical schematic showing the integration of AC input, transformer, PCS, and DC/DC conversion stages.

DC Side Parameters

Parameter	Value
DC Voltage Range	550V - 850V
Maximum DC Current	120A / 200A
Maximum DC Power	66kW / 110kW

AC Grid-Connected Parameters

Parameter	Value
Rated Grid Voltage	400V \pm 15%
Grid Frequency	50Hz / 60Hz \pm 2.5Hz
AC Rated Current	86A / 143A
Output THDi	d3%
Power Factor	-1 to +1

Battery System

Battery Specifications

Component	Specification
Cell Type	3.2V 105AH LFP
Battery Pack	51.2Vdc 10.8kWh / 210AH
Total Battery Configuration	14 Racks (716.8VDC total)
Management System	Built-in BMS per pack + BCU
Balancing	Passive cell balance & Active module balance

System Features

Core System Features

- Modular design for flexible installation
- Unlimited parallel combinations for MW-scale expansion
- Built-in Dual Fire Protection Module (S-type Aerosol)
- Integrated 1000W Cooling / 500W Heating Air Conditioning
- 7-inch color touch screen interface
- ModBus TCP/IP, LAN, RS485, and CAN communication

Physical & Environmental



Robust IP54-rated outdoor cabinet housing the complete energy storage solution.

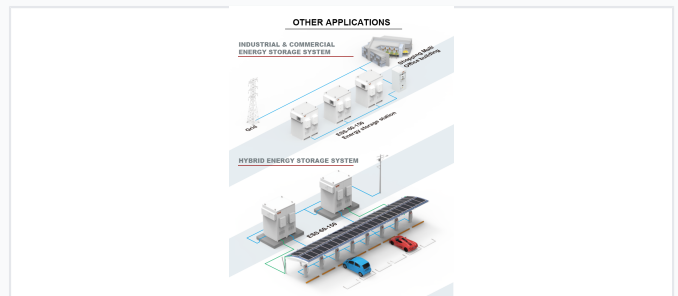
Environmental & Physical

Property	Specification
Protection Level	IP54
Operating Temperature	-20 to 50
Maximum Altitude	3000m
Humidity Range	0% to 95%
Cabinet Dimensions	1900 x 1300 x 1200 mm
Unit Weight	1800 kg
Noise Level	70dB

Applications



The system is suitable for diverse environments including factories, hotels, and remote island microgrids.



Implementation examples for shopping malls, office buildings, and hybrid energy storage stations.

Operational Capabilities

Backup Power • Demand Charge Reduction • Renewables Integration • Demand Response • Energy Time Shifting • Peak Shaving

Primary Applications

Hotels, Factories, Island Microgrids, Shopping Malls, Office Buildings, EV Charging Stations, Industrial Parks