

Industrial Energy Storage System

SmartESS500
500kW/1 000kWh

Smart ESS 500 is an All-in-one, Containerized ESS designed for small C&I loads. The system integrates Battery, BMS PCS, HVAC, fire extinguishing system and EMS systems. It can meet the battery storage requirements up to 1013kWh.



Integrated

- Modular Hybrid PCS
- 7.68kWh (1C) Safest LiFePO4 Battery modules
- Intelligent BMS
- Energy Management System and MasterSite Controller
- IP54 outdoor cabinet with fire suppression and HVAC system

Flexible

- Wide Battery DC Voltage Range
- Modular design easy expansion up to 10 units in parallel
- Optimized for both on-grid and off-grid (island mode) applications
- Easy installation and maintenance
- Various applications such as peak shaving, frequency regulation, EV Charging, Solar + Storage, Micro-Grid, self Consumption Optimization

Reliable

- Antiseismic and more than 25 years design life
- Maximum safety utilizing Tier 1 lithium battery cells
- Long lifespan with over 10000 cycles and 15 years design life

Technical Specifications

SmartESS500 Parameters	
System Cabinet	
Rated Output Power	500 kW
Battery Capacity of the ESS	1013 kWh
Battery Configuration	22S6P
Dimensions (WxHxD)	2440 x 2590 x 6058 mm
Weight Including Battery Modules	<2100 Kg
Operating Range / Storage Temperature	-30°C to +55°C / -40°C to +60°C
Operating Humidity Range	0 - 100 %
Maximum Operating Altitude	4000m
IP Degree	IP54, Outdoor
Communication Ports and Protocols	RS485 / CAN / TCP, IP
Cooling Method	Industrial Air Conditioning
DC Lighting Protection	Type II
Battery Pack	
Cell Material	LFP
Nominal Capacity	7,68 kWh
Nominal Voltage	25.6 V
Rated Capacity	300A
Maximum Charging/Discharging Current	≤ 1.0 C
Power Conversion System	
Rated Output Voltage	230/400 V
Maximum PV Input	720 kWp
Maximum Current	722A
Rated Grid Frequency	50/60 Hz
Maximum Efficiency	99.00%
Protections	AC Overcurrent Protection, AC Overvoltage Protection, AC Surge Protection, AC Short Circuit Protection, Antiisland Protection, DC Reverse Connection Protection, Straight Surge Protection
Compliances	EN 62477 ,EN IEC 61000, G99
Grid Support	L/HVRT, Active and Reactive Power Control
Certified	CE/TUV

Highlights



HIGH FLEXIBILITY



EASY INSTALLATION



SMART MONITORING



STRONG LOAD ADAPTABILITY