

Shanghai Sermatec Energy Technology Co., Ltd., established in 2017, is a leading "energy storage-oriented" energy digitalization operator and energy storage equipment solution provider in China. It is a TIER 1 enterprise of global energy storage systems. The company's business covers commercial and industrial, utility energy storage solutions and digital intelligent energy operations (energy asset management and operation, virtual power plant, power trading, green certificate, carbon asset development and trading, etc.) so as to contribute to the realization of the "dual carbon" goal and new power system architecture.

- Core Team – Years of Experience: 20+
- Proprietary Intellectual Property Rights: 100+
- Countries and Regions of Customers: 30+
- R&D Personnel Around: 55%

EASYCUBE Series 835kWh outdoor battery cabinet

SMT-ESS-CUBE835CE

The 835kWh outdoor battery cabinet, model SMT-ESS-CUBE835CE, is equipped with high-safety, long-life 314Ah lithium iron phosphate (LFP) cells. The cells are arranged in a 1P104S configuration to form standardized – battery packs, with four packs in series forming a battery cluster. The outdoor cabinet contains two parallel battery clusters. The battery pack features a plate-type liquid cooling design, with the liquid cooling plate integrated into the lower part of the pack and connected to the liquid cooling unit via external piping. The optimized cooling plate and piping design enable efficient battery thermal management under various operating conditions. The cabinet's structural waterproof and dustproof design, multiple electrical protection designs, multi-level BMS architecture, and independent fire detection and extinguishing devices ensure long-term safe operation of the outdoor cabinet from mechanical, electrical, and fire protection aspects.



Product Features

- High-capacity cells and large pack design enhance energy density and reduce cost per Wh.
- Multi-level electrical protection, including: Pack-level fuses for overcurrent and short-circuit protection; Cluster-level fault identification and active safety protection; Overcurrent and short-circuit protection on the collection cabinet side; Active protection from the PCS in response to BMS fault reports.
- Precise thermal management strategies reduce auxiliary power consumption and improve system efficiency.
- The battery cabinet can be flexibly matched with either a DC-coupled or AC-coupled solution.



Data Centers



Commercial
Premises



Industrial Parks



Area Expansion



Power Generation
Side



Grid Side

Technical Data

Product Type	SMT-ESS-CUBE835CE
Nominal energy (kWh)	835.9
Nominal power (kW)	417.9
Nominal voltage (V)	1331.2
Charge/discharge rate	0.5P
Cell type (Ah)	LFP, 314
Grouping method	1P104S×4S×2P
Voltage range (V)	1164.8 to 1497.6
DC-side RTE efficiency	≥94% (@25±3°C, 0.5P, BOL, with at least 1h interval between charge and discharge, excluding auxiliary power consumption)
Cooling method	Liquid cooling with 50% ethylene glycol water solution
Fire protection	Combustible gas detection, smoke detector, temperature sensor, intake and exhaust fans + water fire extinguishing + aerosol fire extinguishing (gas suppressant: aerosol)
BMS balancing method	Passive balancing
IP rating	IP55 (battery compartment)
Corrosion resistance rating	C4-M (cabinet meets C4-M, liquid cooling unit standard C3-M, optional C4-M)
Design life	20 years (main structure)
Operating temperature (°C)	-30 to 55°C (derating above 45°C)
Storage temperature (°C)	-30 to 60°C
Operating humidity	≤95% RH (non-condensing)
Altitude (m)	4000m (no derating below 2000m)
Dimensions (W×D×H)mm	1400×2438×2350
Weight (t)	Approximately 8
Color	RAL7035
Noise	<75dB(A) @1m
Reference standard	IEC62619,IEC63056,IEC62477-1,IEC61000-6-2/-4,ISO13849,UN38.3,EUI542 (Design satification), UL9540A

Disclaimer: The content of the Manual is for reference only. In case of any change, please refer to the actual product.

