

CL-006 ESS 835Kwh Commercial & Industrial

The 835kWh outdoor battery cabinet, model SMT-ESS-CUBE8 35CE, 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.

Precise thermal management strategies reduce auxiliary power consumption and improve system efficiency.

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.

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

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 50°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	1425 *2595*2516
Weight (t)	Approximately 8
Color	RAL7035
Noise	<75dB(A) @1m
Reference standard	IEC62619,IEC63056,IEC62477-1,IEC61000-6-2/-4,IEC60730,UN38.3,EU1542 (Design satification), UL9540A
Number of parallel	1*BCP with 6*835kWh cabinet as standard or customized

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



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