ATESS Y104R04C12

LEADING - EDGE TECHNOLOGY

Overview

ATESS 5.015MWh 20-ft liquid-cooled ESS container integrates PACK, EMS, BMS, HVAC, and fire safety system into one cabinet. Compared with air cooling, liquid cooling empowers the ESS product with higher power density and ensures the temperature difference between the cells within 3 ℃, which effectively extends battery service life and improves energy efficiency. The 20-ft liquid-cooled ESS container product can be applied to the power generation side, grid side, as well as C&I ESS scenarios that have strict requirements on power and capacity.

Features

Liquid cooling
Higher heat transfer coefficient than that of air cooling, remove heat more quickly and efficiently.

Higher Density
5.015MWh batteries in a 20ft container, providing higher energy density, and saving costs.

Lower Local Power Consumption
The variable-frequency compressor adjusts its operating status based on temperature conditions, thus reducing the equipment's power consumption.

Higher Protection
IP54(PACK IP65) high protection level & C4 protection level, and the high/low-temperature design. Can be used in harsh environments.

Longer Service Life
The temperature consistency of battery cell temperatures extends the service life and enhances the safety of batteries, and increases returns.

Better Temperature Control
The liquid cooling scheme reduces the battery cell temperature difference by 200% that of air cooling, keeping the temperature difference within 3℃

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Datasheet

	Y104R04C12
Configuration	416s12p
Rated Energy	5015.9kWh
Rated Voltage	1331.2V
Operating Voltage Range	1040~1500V
Rated charge/discharge rate	0.5C
Cycle life	≥6000@(0.5P 25℃)
Dimension(L×W×H)	6058×2438×2896mm
Weight	44000kg
Operating ambient temp	-30°~55℃
IP level	IP54
Efficiency	≥93.8%@0.5P ≥95.2%@0.25P
Cooling and heating type	Liquid cooling / heating
Refrigerating Power	60kW @ Ambient temp 35℃ 55kW @ Ambient temp 45℃
Heating Power	27kW
Auxiliary power supply	27kW@ Ambient temp 35℃ 33.5kW@ Ambient temp 45℃
Communication agreement	CAN, RS485, TCP/IP
Certificate	UN38,3, EU, UL9540, EN62477-1, NFPA68, NFPA69, IEC62933, EN629033