

ATESS 20HCL 4MJ 20HCL 5MJ



LEADING - EDGE TECHNOLOGY

Overview

ATESS 3.993/5.015MWh 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 °C, 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.

► Lower Local Power Consumption

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

► Longer Service Life

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

► Higher Density

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

► Higher Protection

IP55(PACK IP65) high protection level & C4 protection level, and the high/low-temperature design. Can be used in harsh environments.

► 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°C

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Datasheet

	20HCL 4MJ	20HCL 5MJ
Configuration	416s10p	416s12p
Rated Energy	3993kWh	5015kWh
Rated Voltage	1331.2V	1331.2V
Operating Voltage Range	1164.8~1497.6V	1164.8~1497.6V
Rated charge/discharge rate	0.5C	0.5C
Cycle life	≥6000@(0.5P 25°C)	≥6000@(0.5P 25°C)
Dimension(L×W×H)	6058×2438×2896mm	6058×2438×2896mm
Weight	36500kg	42500kg
Operating ambient temp	-30°~55°C(discharge) -30°~55°C(charge)	-30°~55°C(discharge) -30°~55°C(charge)
IP level	IP55	IP55
Efficiency	≥93.8%@0.5P, ≥95.2%@0.25P	≥93.8%@0.5P, ≥95.2%@0.25P
Cooling and heating type	Liquid cooling / heating	Liquid cooling / heating
Refrigerating Power	40kW	60kW
Heating Power	15kW	24kW
Auxiliary power supply	24kW@ Ambient temp 35°C 30kW@ Ambient temp 45°C	27kW@ Ambient temp 35°C 33.5kW@ Ambient temp 45°C
Communication agreement	CAN, RS485, TCP/IP	CAN, RS485, TCP/IP
Certificate	IEC 62619/ EN 61000-6-2/4 EN 62477-1 / UN 38.3/ NFPA 68/ IEEE 693/ UL 9540A/ UL 1973/ IEC 62933/ ANSI C63.4 & 47 CFR/ PART 15B	