

Liquid-cooled Battery Container

ECO-E20FT4472LS



Product Introduction

The 20-ft liquid-cooled ESS container product integrates PACK, EMS, BMS, HVAC, fire safety system into one cabinet. Compared with the air cooling, the 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 power generation side, grid side, as well as C&I ESS scenarios which has strict requirements on power and capacity.

Product Features



Higher Energy Density

The 20-foot liquid-cooled energy storage container has a maximum capacity of 3.72MWh, 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.



Lower Operating Noise

The product significantly reduces the use of fans, resulting in lower noise compared to air-cooled products.



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

In comparison to air cooling, the liquid cooling scheme reduces the battery cell temperature difference by 200%, keeping the temperature difference within 3° C.



Higher Protection

The product utilizes the IP54 (PACK IP65) high protection level & C4 protection level and the high/low-temperature design.

Specifications

Item	Specification
Configuration	12P416S
Rated Energy	4.472MWh
Rated Voltage	1331.2Vdc
Voltage Range	1165~1498Vdc
PACK Ingress Rating	IP65
Nominal Charge/Discharge Rate	0.5C
Maximum Charge/Discharge Rate	-25 °C~55 °C
Operating Temperature	NOVEC1230/aerosol+water
Fire Safety	IP55
Ingress Rating	Chiller+liquid cooling
Cooling	≤2,000m (derating above 2,000m)
Altitude	6,058x2,550x2,896 (mm)
Dimensions (W*D*H)	Cell: IEC 62619, UL9540A, UN38.3, UL1973
Compliance	Pack: UN38.3, IEC62477, IEC61000, IEC62619, IEC63056 System: IEC62477, IEC61000, IEC62619, IEC63056, UL9540A, UN3536, EN50549

