

Liquid-cooled Battery Container

ECO-B20FT4472LS



Brief

The 20-ft liquid-cooled ESS container product integrates PACK, EMS, BMS, HVAC, fire safety system into one container. Compared with the air cooling, the liquid cooling empowers the ESS product with higher power density and ensures the cell temperature difference less than 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.

Features



Higher Energy Density

The 20-foot liquid-cooled energy storage container has a maximum capacity of 4.472MWh, 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 cell temperature consistency extends the battery service life by 5% and enhances the safety of batteries, and increases returns.



Better Temperature Control

In comparison to air cooling, the liquid cooling scheme keeps cell temperature difference less than 3°C, which improves cell voltage consistency.



Higher Protection

The product utilizes the IP55 (PACK IP65) high protection level & C4 protection level and the high/low-temperature design.

Specifications

Item	Specification
Cell type	LFP280Ah
Configuration	12P416S
Rated Energy	4.472MWh
Rated Voltage	1331.2Vdc
Voltage Range	1165-1498Vdc
PACK Ingress Rating	IP65
Rated Charge/Discharge Rate	0.5P
Operating Temperature	-25°C~55°C
Fire Safety	Aerosol+water
Ingress Rating	IP55
Cooling	Chiller+liquid cooling
Altitude	≤2,000m (derating above 2,000m)
Dimensions (W*D*H)	6,058 mm x 2,550mm x 2,896 mm
Weight	42 t
Compliance	Pack: UN38.3, IEC62477, IEC61000, IEC62619, IEC63056 System: IEC62477, IEC61000, IEC62619, IEC63056, UL9540A, UN3536, EN50549