

NENGHUI ENERGY

N20HC5000

All-in-one Liquid-cooled
ESS Container
5MWh

Nenghui's N20HC5000 factory-assembled DC battery storage container ships with 12 battery racks on the 5.015MWh 20ft container, power distribution cabinet, fire suppression system and advanced liquid-cooling system. Each cell undergoes strict quality inspections to ensure high energy density, wide operating temperature range, extended battery life, as well as the highest protection and safety features.



High Safety

Liquid-Cooled modules with IP 67 protection level, intelligent fire protection system design, multi-point monitoring and warning. Temperature difference of the cell is less than 3°C, excellent temperature homogeneity.



High energy efficiency

Represents the most advanced design implemented by Nenghui to date, built on experience gained from over a hundred projects and multiple R&D iterations. The non-walk-in container features a modular design that facilitates fast project delivery while also reducing installation and maintenance costs.



High Life Cycle

Liquid-Cooled batteries with a cycle life of over 6000 cycles, high efficiency and a design life of up to 15 years. Offers high energy density and system integration, maximizing life cycle returns through reduced operational and maintenance costs.

Technical Specification

	Battery Module parameters	Battery cluster parameters	Container system parameters
Combination Model	1P104S	1P416S	12P416S
Standard charge-discharge rate		≤0.5C	
Rated energy	104.5kWh	418kWh	5015.96kWh
Nominal voltage	332.8V		1331.2V
Charge and discharge efficiency	≥93%@25±3°C, 0.5C	≥92%@25±3°C, 0.5C(excluding auxiliary power consumption)	
Thermal management mode		Liquid cooling	
Temperature difference of a single battery pack cell	≤3°C	/	/
Communication mode	/	cbe	CAN/RS485/Ethernet
IP rating	IP67	/	IP55
Battery charge operating temperature		0°C~55°C	-30°C~55°C
Battery discharge operating temperature	-20°C~55°C	-20°C~55°C	-30°C~55°C
Storage temperature		-10°C~50°C	
Dimensions (W*H*D)	2180*790*250mm	/	6058*2438*2896mm
Weight	670±5kg	/	<43T
Storage humidity		0~95% (no-condensing)	
Altitude		≤ 3000m (>2000m derating)	
Compliance	/	/	IEC 62477-1, IEC 61000-6-2/4, IEC62619, UN3536

Usage scenario

Large scale PV power station and centralized grid-connected energy storage system

