NENGHUI ENERGY

NH1000K0.5C-1.86 All-in-one Liquid-cooled

ESS Container

1MW / 1.86MWh

The NH1000K0.5C-1.86 is a fully integrated 0.5C-rated energy storage solution, combining PACK, PCS, EMS, BMS, HVAC, and a fire safety system in a single 20ft liquid-cooled container. Compared with air cooling, liquid cooling enables higher power density, maintains cell temperature differences within \leq 4°C, and significantly extends battery lifespan while

improving round-trip efficiency. Ideal for power generation, grid-side, and C&l applications requiring both high power and large capacity.





High Safety

UL9540A compliant; LFP battery cells with advanced liquid-cooling thermal control.



Long Lifespan

15-year design life; up to 30% longer battery life.



Reliable Design

Isolated battery/electrical compartments; active ventilation; comprehensive fire safety.



All-in-One Integration

Includes PCS for AC output, eliminating the need for separate power conversion equipment.



High Energy Efficiency

>95% DC round-trip efficiency.



Flexible Deployment

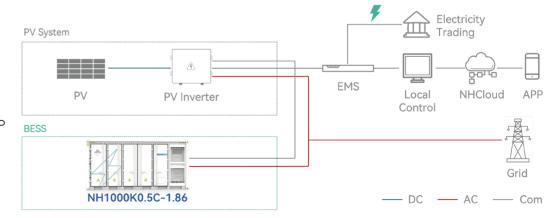
Easy installation, scalable design; supports third-party SCADA and cloud-based EMS.

Technical Specification

DC Side	
Cell Type	LFP280Ah
PACK	46.592kWh/1P52S
Battery System	1863.68kWh/5P416S
Rated voltage	1331,2Vdc
Voltage Range	1165-1498Vdc
Pack Ingress Rating	IP65
	11 03
AC Side	40001111
Rated Power	1000kW
Max. Power	1100kW
THDi	<3%
Output Voltage	690(-15%-10%)Vac
Mode of connection	3P3W+PE
Power Factor	0.99/-1lagging~1leading
Nominal Frequency	50Hz/60Hz
General	
Max. System Efficiency	90%
Charge/Discharge Rate	0.5P
DoD	95% (25±5℃)
SOC Accuracy	3%
Cycle Life	6,000 times
Switching Time	<100ms
Connectivity	Modbus TCP/RTU, CAN2.0
Ingress Rating	IP55
Cooling	Liquid cooling
Operating Temperature	-20°C~50°C
Humidity	5~90%RH (non-condensing)
Noise	<80dB
Altitude	≤2,000m (derating above 2,000m)
Fire Safety	Novec 1230
Dimensions (W*D*H)	6,058*2,438*2,896(mm)
Weight	≤25t
VVCIGITE	1200

Usage scenario

Peak Shaving, Load Shifting, Frequency Regulation, Demand Response, Energy Arbitrage, Trading, VPP



NENGHUI ENERGY 2025 CATALOGUE

NH1000K0.5C-1.86 Liquid-cooled ESS Container