

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 $\leq 4^{\circ}\text{C}$, and significantly extends battery lifespan while

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



High Safety

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



Reliable Design

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



High Energy Efficiency

>95% DC round-trip efficiency.



Long Lifespan

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



All-in-One Integration

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



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
AC Side	
Rated Power	1000kW
Max. Power	1100kW
THDi	$\leq 3\%$
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 \pm 5 $^{\circ}\text{C}$)
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 $^{\circ}\text{C}$ ~50 $^{\circ}\text{C}$
Humidity	5~90%RH (non-condensing)
Noise	$\leq 80\text{dB}$
Altitude	$\leq 2,000\text{m}$ (derating above 2,000m)
Fire Safety	Novec 1230
Dimensions (W*D*H)	6,058*2,438*2,896(mm)
Weight	$\leq 25\text{t}$
Compliance	IEC62619, IEC61000, IEC62477, EN50549, UN38.3

Usage scenario

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

