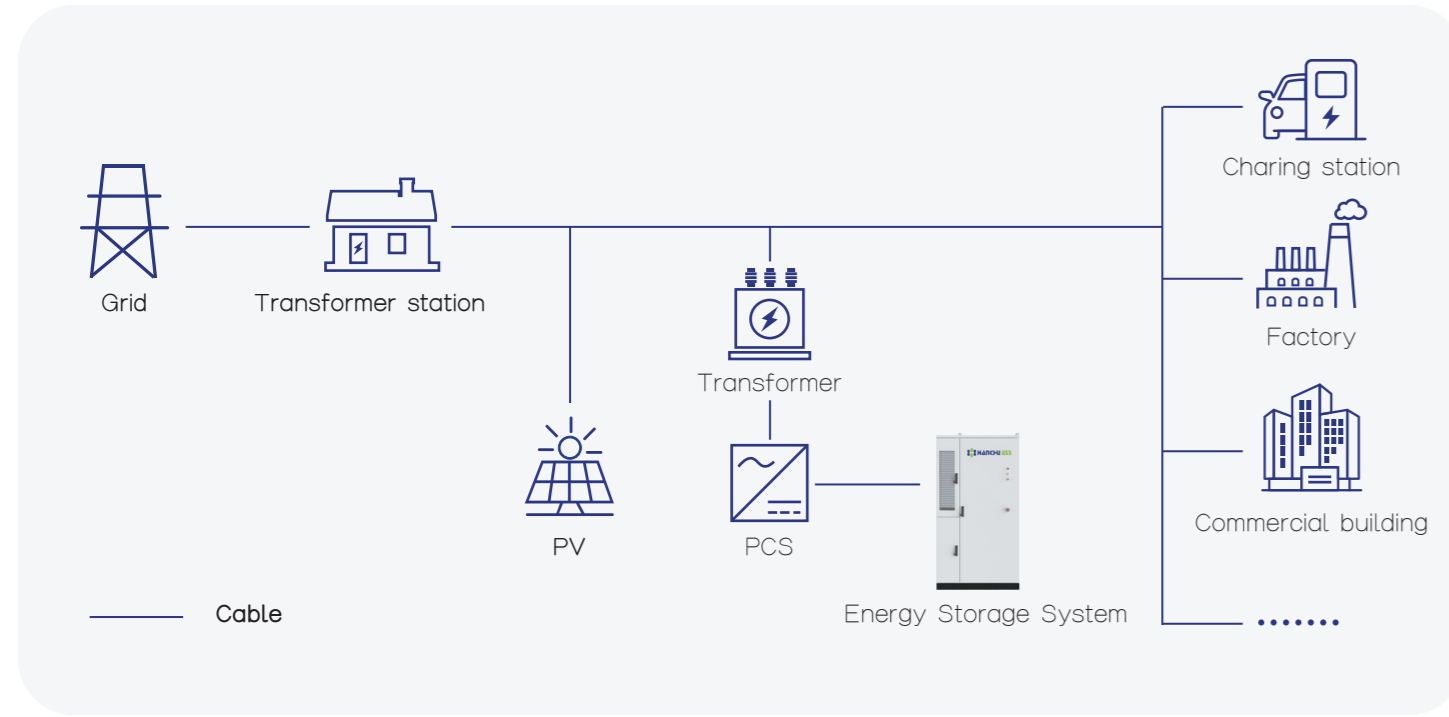


► System Topology



► About HANCHU ESS

” CASE STUDY

500kw/1MWh Hangzhou

3.7MWh Hungary Ganz

7.5MW/20.1MWh Suzhou Shixiang

18.975MW/37.646MWh Hubei



HANCHU ESS is one of the global leaders in energy storage and smart digital energy industry with complete systems all over the world and yearly capacity exceeds 8GWh. HANCHU ESS was established in 2018 by experienced experts in different industries including solar PV, energy storage and smart digital energy. Since the establishment, HANCHU ESS has been offering unique and reliable products and solutions in energy storage products, smart charging and digital energy sectors, etc.



C & I ESS

Leading C&I Energy Storage Solutions Provider

► **CESS-418K-S**

Innovate · Enjoy
Smart Energy, Sustainable Solutions

Multiple C&I energy storage scenarios applicable

The CESS-418k-s integrates a high-performance, long-life liquid-cooled battery pack (PACK), a new BMS control system, an intelligent liquid-cooled temperature control system, and an intelligent active fire-fighting system. The modular, liquid-cooled outdoor cabinets offer high security, cost-efficiency, and versatility. They are suitable for large-capacity energy storage projects on the grid side, as well as small and medium-sized storage systems on the user side and in microgrids, providing essential support for the new power system.



CESS-418K-S

Key Benefits



Peak Shaving and Valley Filling:

During off-peak hours with lower electricity prices, the energy storage system automatically charges and remains on standby once fully charged. During peak hours with higher electricity prices, it discharges automatically, enabling energy arbitrage and improving overall electricity cost efficiency.



Microgrid Integration:

By integrating with photovoltaic systems, charging systems, diesel generators, and other microgrid components, the system balances energy through protocol coordination. This improves renewable energy utilization and enhances the economic efficiency of microgrid systems.



Dynamic Capacity Expansion:

The system charges the battery during periods of light load and discharges during heavy load, enhancing load-carrying capacity during peak periods and effectively increasing the capacity of the power distribution system.



Liquid Cooling:

Hanchu's liquid cooling system provides precise thermal management for the battery system, optimizing performance and significantly extending the lifespan of key components.

Technical Specifications

Model	CESS-418K-S
DC Side	
Rated Battery Energy Storage Capacity	418kWh
System Rated Voltage	1331.2V
System Voltage Range	1164.8V~1497.6V
Battery Type	LFP(LiFePO4)
Battery String in Series Parallel Mode	1P*52S*8S
Max Charge & Discharge Current	157A
Conventional Parameter	
Ingress Protection Level	IP54
Relative Humidity	5%-95%(No Condensation)
Operating Temperature	-30°C~55°C
Cooling Mode	Liquid-cooling
Altitude	2000m
BMS Communication Interface	Ethernet/RS485/CAN
Dimension (W*D*H)	1250*1350*2335mm
Weight	3400kg



Key Features

High Performance

The liquid cooling system ensures efficient heat dissipation, enhancing system circulation efficiency, resulting in superior overall system efficiency.

High Integration

The 418kWh Liquid-Cooled Energy Storage Outdoor Cabinet features a modular design, allowing for easy expansion and supporting parallel connection of the DC side across multiple cabinets.

High safety

Fine control of single cluster, independent between storage cabinets, realizing electrical and fire safety isolation.



Footprint per cabinet **1.69m²**



5MW with **12 units**



More energy than 215kWh **94.3%**