

BESS

Commercial and Industrial Energy Storage System Solution



Product description

The standard product is **500kW/1MWh**, which adopts the integrated design of the container. The system is highly integrated, including battery, PCS, energy management system, temperature control system, door access control system, etc. It can be used for user-side microgrid system. It can realize peak shaving function, smooth fluctuation, dynamic capacity increase, and provide backup power in off-grid mode.

Container type energy storage



- A. Customizable design to meet the different needs of customers;
- B. Three-level BMS system architecture, safe and reliable;
- C. High system integration, integrated battery system, PCS, energy management system, temperature control system, fire protection system, access control system, etc.;
- D. Including isolated type and non-isolated type;
- E. Millisecond switching can be used as a backup power supply for important equipment;
- F. It has complete communication, monitoring, management, control, early warning and protection functions, long-term continuous and safe operation, detection of system operation status through the host computer, complete data analysis capabilities, and emergency power supply functions.

Optical Storage Integrated Machine

- A. The integrated solution supports simultaneous access of loads, batteries, power grids, diesel generators, and photovoltaics;
- B. Integrated EMS function, power supply is safe and stable, and the utilization rate of new energy is maximized;
- C. Seamless switching between on-grid and off-grid states, uninterrupted supply of load;
- D. Complete protection function to protect the all-in-one machine and battery;
- E. Flexible support for lithium batteries and lead-acid batteries
- F. The photovoltaic controller can be expanded to facilitate flexible configuration of photovoltaic capacity



Features

- A. Ability to be customized according to user requirements.
- B. Have complete data collection and monitoring functions.
- C. Ability to seamlessly connect to the dispatch center system and accept dispatch commands issued from the dispatch center
- D. Ability to realize friendly data transmission between BMS and PCS devices
- E. Adopt advanced control strategies to achieve multiple functions such as peak shaving and frequency modulation, peak shaving and valley filling, reduction of maximum demand, etc.
- F. Support local monitoring and cloud monitoring linkage

Energy storage converter



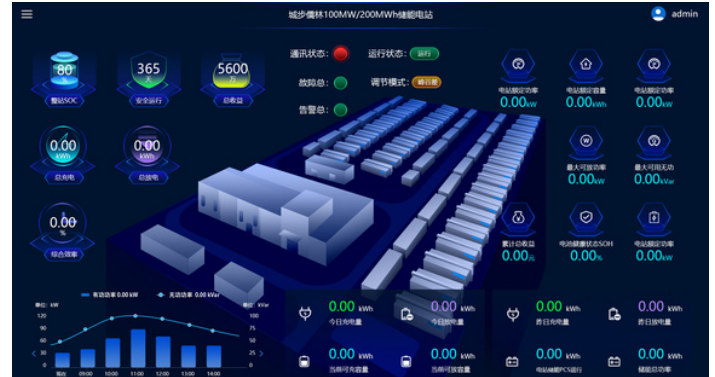
- A. With intelligent reactive power compensation and harmonic compensation functions, effectively improve the quality of the power grid;
- B. With island protection and low voltage ride through function (can be set);
- C. Intelligent forward and reverse operation to improve system reliability;
- D. DSP design realizes the fully digital control of the energy storage converter module;
- E. Multiple safety protections, AC and DC over and under voltage protection, short circuit protection;
- F. Adopt advanced active power factor correction technology to reduce the interference of harmonics to the power grid;
- G. It has half-wave load capacity and good load adaptability.

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HZ3000-EMS Energy Management System can optimize the configuration of microgrids, energy storage systems, power generation units, load equipment, charging pile equipment, reactive power compensation equipment, etc., and has energy storage charging and discharging control and power balance control to ensure the safe and stable operation of the system, on-off-grid switching control, off-grid energy balance control, anti-reverse power reverse control and system black start and other functions.

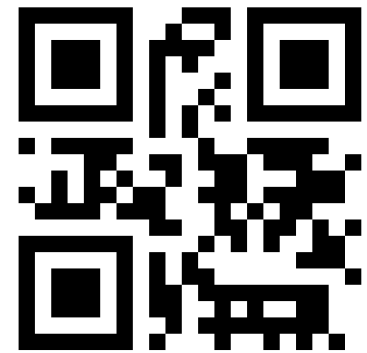


Specifications

Features	Unit	Parameter
Model	/	HZ-CES-HJ-500kW-1000kWh
Curb weight	T	25
Size	HC	30
Rated output power	kW	500
Rated grid voltage	V	400Vac
Allowable grid frequency range	Hz	49.5~50.2Hz
Isolation transformer	/	yes
Cooling method	/	Temperature control intelligent air cooling
BMS communication interface	/	RS485/CAN
Battery Type	/	Lithium iron phosphate battery
Battery rated capacity	Ah	120
Total battery energy	kWh	1050.624
Nominal voltage	V	729.6
Working voltage range	V	638.4~809.4
Battery charge and discharge cycle times	circle	6000
Battery PACK box	/	2P12S
Insulation properties	(Ω/V)	>1000

Equipment List

Name	Model	Unit
Energy storage battery stack	1050.624kWh	1
System cabinet		2
Temperature Control System		1
Fire control system	Heptafluoropropane	1
Camera		1
Electrical box temperature and humidity regulator (air conditioner)	1.EC.0131ATBU402	2
Cabinet and accessories	9125(W)x2438(D)x2896(H)mm	1
EMS		1
PCS	HZ-PCS500JLHT	1
Auxiliary material		1



In partnership with:

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