

5.4 Energy Storage System

- Stacked energy storage system
- rack energy storage system
- Cabinet type energy storage system
- Container energy storage system



charge

electro-discharge



stored energy



emergency power supply



external discharge



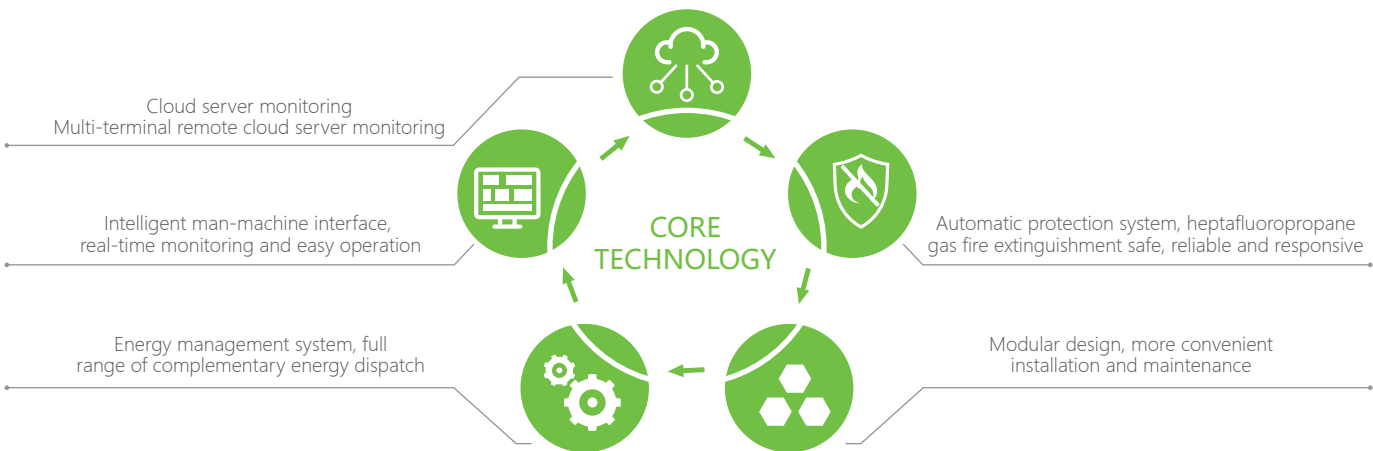
peak-load shifting

Application Field of Energy Storage System



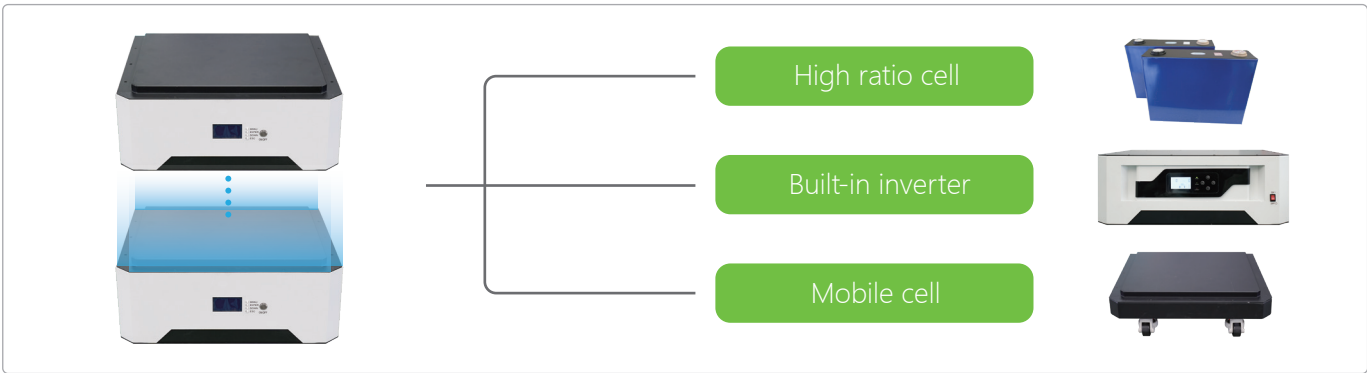
Advantages of Energy Storage System

Ferrous lithium phosphate (LiFePO4) is used as a positive electrode material, which has the characteristics of high safety, long service life and stability. The energy storage system is designed to store solar power and grid power in homes, enterprises, factories, and communication base stations, and supply it to household appliances, enterprise equipment, and communication base stations when needed, thereby reducing energy costs, improving energy efficiency, and achieving sustainable use of energy. The energy storage system can realize the movement, conversion and optimization of energy, and provide a variety of services and functions for the power system, such as smoothing the fluctuations of renewable energy, peak-load shifting, adjusting the frequency and voltage of the grid, improving the stability and reliability of the grid, reducing the cost of electricity and pollution emissions



1. Stacked Energy Storage System

- Support a variety of communication protocols;
- Modular structure, easy to install, modular parallel, intelligent visual management;
- High-performance intelligent battery management system, more accurate data, more comprehensive protection;
- Long cycle life;
- Can be used with hybrid inverter, pure sinusoidal output, built-in mppt controller;



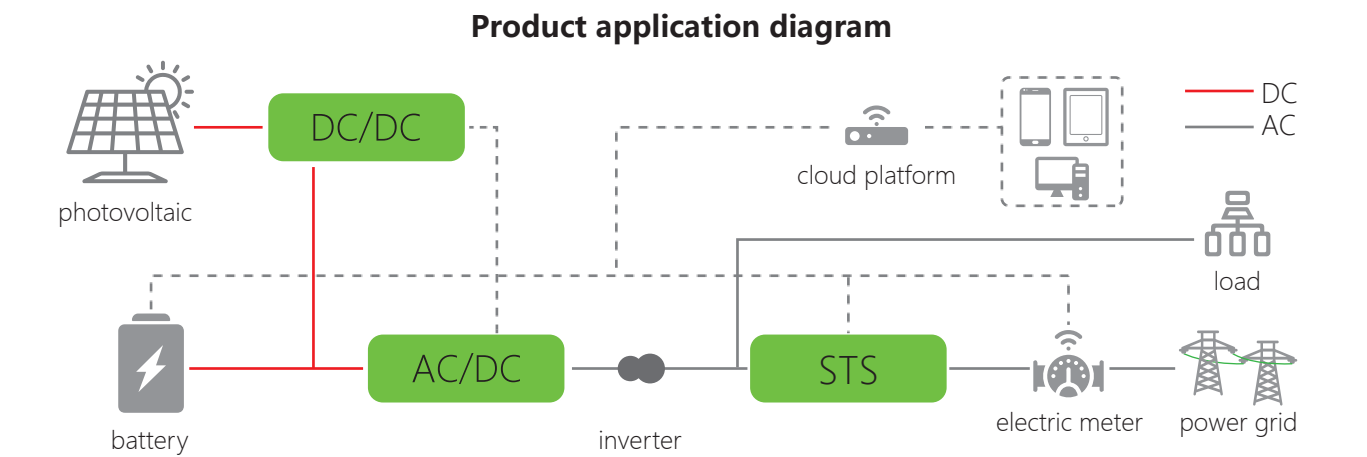
2. Rack Energy Storage System



3. Cabinet Energy Storage System

It can be used for household, finance, medical treatment, industrial equipment, power equipment, environmental monitoring, power instability, energy shortage, power and storage in areas without electricity, and energy-saving optimization of peak cutting and valley filling.

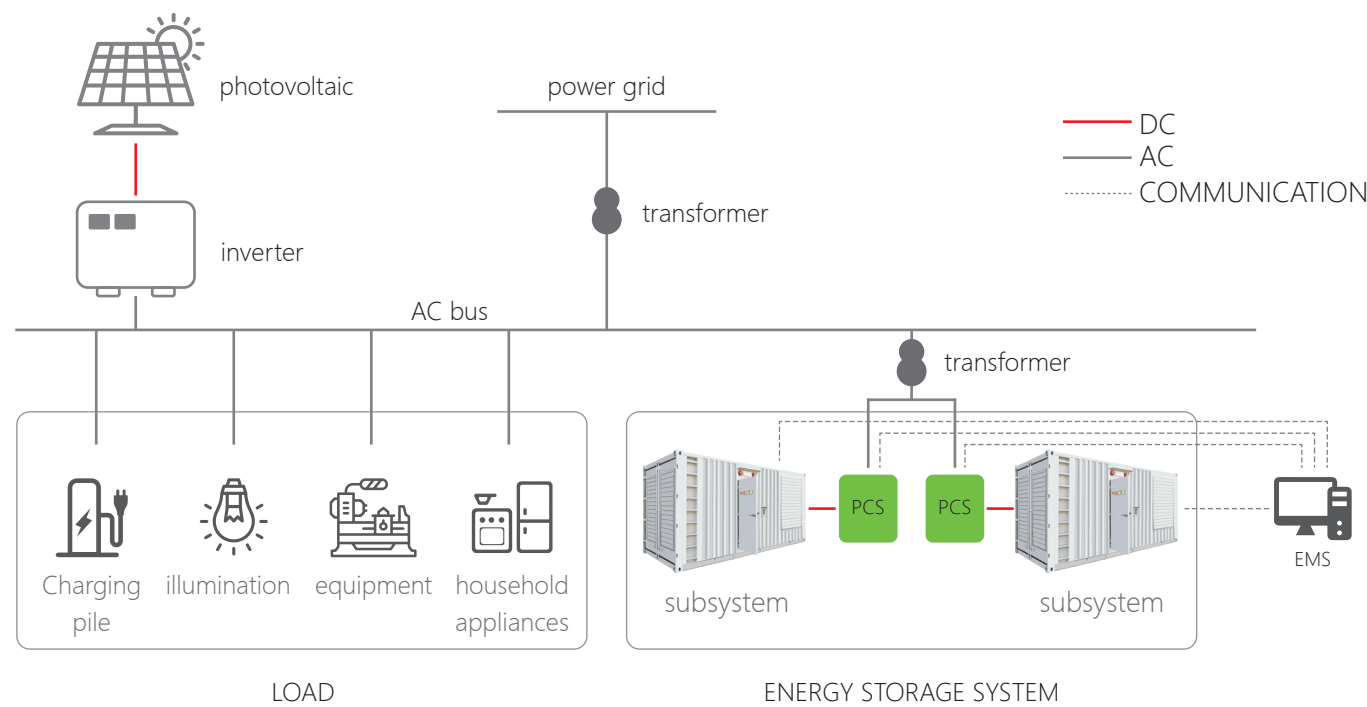
- Man-machine control interface, simple user operation;
- Adopt safe and environmentally friendly ferrous lithium phosphate battery, long cycle life, service life ≥ 10 years;
- Humanized alarm function and perfect online protection function, with high reliability;
- Modular parallel, intelligent visual management, system integration and shipment, on-site access to the load can be used;



4. Container Energy Storage System

It can be used in microgrid systems, commercial complexes, frontier sentry, financial systems, hospitals, data centers and other fields. High product integration, reliability, size customization, long service life.

- Intelligent man-machine interface, clear system information at a glance, simple user operation;
- Adopt safe and environmentally friendly ferrous lithium phosphate battery, long cycle life ≥10 years, safer use;
- Humanized alarm function and perfect online protection function, with high reliability;



product parameter project				
	1.Stacked energy storage system	2.rack energy storage system	3.Cabinet type energy storage system	4.Container energy storage system
model	HQDY-5-15	HQDY-10-20	HQDY-100-215	HQDY-500-1075
Battery Type	Lithium Iron Phosphate	Lithium Iron Phosphate	Lithium Iron Phosphate	Lithium Iron Phosphate
Number of battery modules	3	4	15	5*15
Battery rated voltage (V)	51.2	51.2	768	768
Battery rated capacity (Ah)	300	400	280	1400
Battery voltage range (V)	40 ~ 58.4	40 ~ 58.4	648 ~ 864	648 ~ 864
Battery rated energy (Wh)	15360	20,480	215,040	1,075,000
Battery standard discharge current (A)	150	200	140	700
Inverter power (W)	5,000	10,000	100,000	500,000
AC output voltage (V)	220	220	400	400
AC output frequency (Hz)	50	50	50	50
PV maximum power (W)	4000	8000	100000	500000
MPPT voltage range (V)	60 ~ 130	60 ~ 130	180 ~ 800	180 ~ 800
Display	LCD	LCD	touchscreen	touchscreen
Size: L*W*H(mm)	555*495*1315	600*700*1510	2360*1600*1000	6100*2500*2900
Weight(kg)	158	276	2500	19000
Charging temperature range (°C)	0 ~ 45	0 ~ 45	0 ~ 45	0 ~ 45
Discharge temperature range (°C)	-20 ~ 60	-20 ~ 60	-20 ~ 60	-20 ~ 60
cycle life	3000次	3000次	6000次	6000次
safety certificate	CE,FCC,ROHS, RCM	CE,FCC,ROHS,RCM	CE,FCC,ROHS,RCM	CE,FCC,ROHS,RCM
shipping report	UN38.3,MSDS	UN38.3, MSDS	UN38.3, MSDS	UN38.3, MSDS