



LY- Freezer power

The LY-Freezer Power offers industrial customers a wide range of energy storage solutions from 100kWh to 1MWh.



LY-ESS100 energy storage system adopts high-safety and long-LiFePO4 cells, built-in PCS with integrated inverter and boost, and has a well-designed and beautiful appearance. It can intelligently monitor, query and manage information in real time through networking, it is easy to layout and covers a small area. It provides an economical, flexible and efficient solution for applications with high requirements on grid continuity, peak shaving and valley filling and backup power supply, etc

Integrated modular design

Convenient expansion according to needs

Reduce user-side capacity expansion costs

Leading features and high security

Safety protection - grid over-current, over-temperature, over-voltage, short circuit

Automatically switch on-grid, charging and off-grid discharge

On-grid to off-grid time is less than 30ms

Made in China, complete and rich industrial chain and supporting facilities

Modular design, fast installation and arrangement

Peak shaving and valley filling, no need for expansion costs, and lower electricity costs

High protection level and weather resistance, perfect for outdoor layout

Large-capacity standardized battery box, reducing parallel connection of battery packs and improving battery life

Can be expand to 1MWH, multiple unit modules in series and parallel



INVERTER

Standardized design: reduces user installation costs, infrastructure and component costs;

Efficient and stable: modular and N+1 redundant, the system online rate is 99%;

Safe and reliable: support linkage with BMS and EMS systems; provide multiple protections on and off the grid;

On-load and off-grid seamless switching, response time within 30ms;

Can be connected to solar energy, wind energy and other energy sources;

BATTERY SYSTEM

The battery adopts the mass-produced new LiFePO4, standard PACK, easy to expand and install, plug and play, factory-scale production and testing;

The thermally insulated and durable housing provides an ideal working environment for the energy storage system. The water-cooled converter and thermal management system minimize the internal resistance and greatly improve the performance.

ENERGY STORAGE SYSTEM

1. Long life design of components and whole machine;
2. Battery 25°C cycle life > 5000 Cycles ;
3. The whole system provides a 10 years warranty;
4. High safety, important parts are certified by UL & TUV international;
5. Modules can be added or removed according to demand, and energy storage parameters can be adjusted flexibly;
6. Ultra low small area - 2.3m x 2.3m x 1.5m (HxWxD), easy to transport to site by forklift;
7. Factory mass production and testing;
8. Flexible layout, multiple options;
9. Easy installation and short time from delivery to commissioning;
10. The protection level of the whole machine is IP54

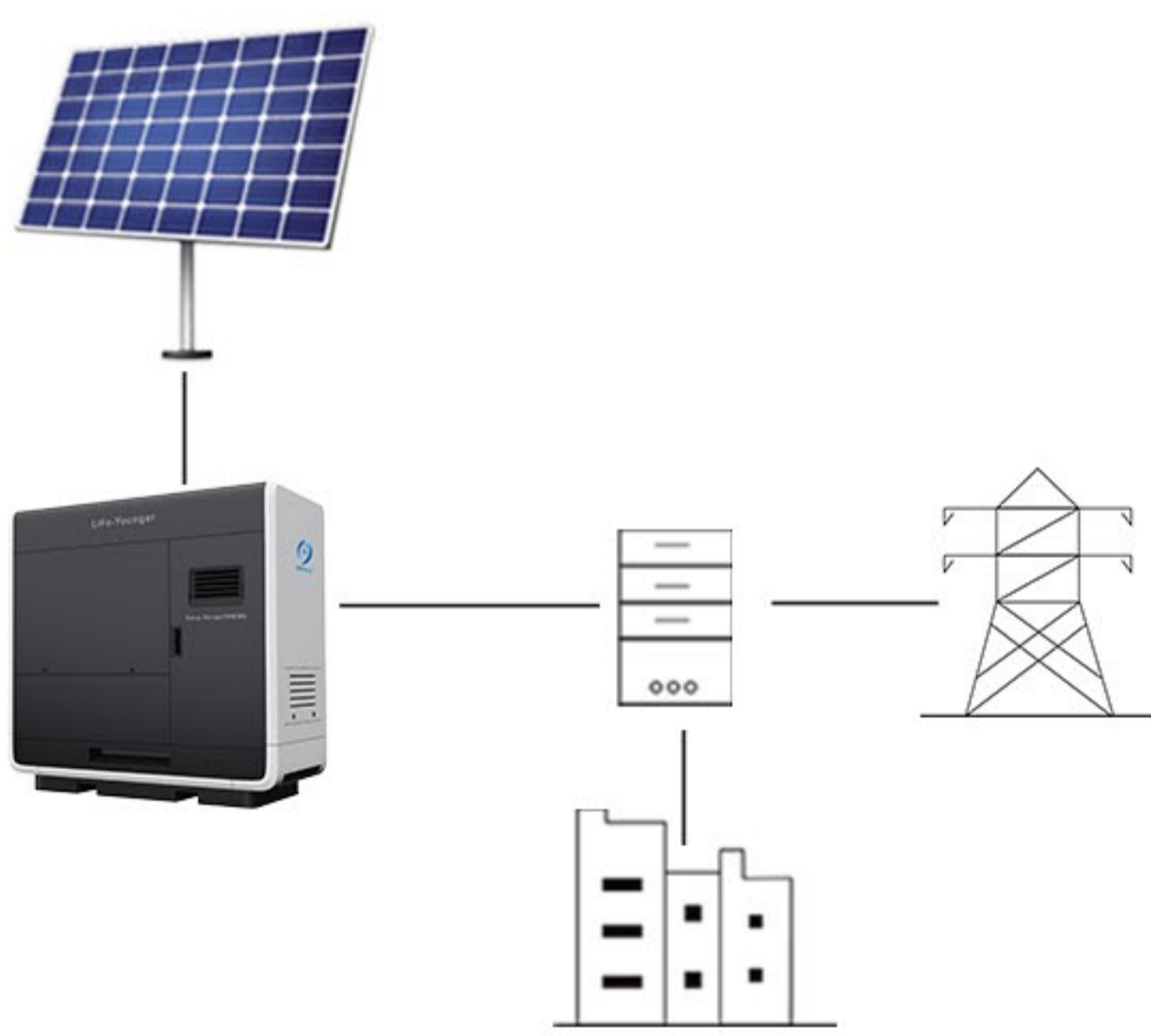
SYSTEM LAYOUT

The battery storage capacity and output power can be doubled, and the system can be expanded to the MW level. The floor space is small, and multiple LY-ESS100 systems can be arranged in areas with limited space by means of space stacking, up to 1MW

Multiple operating modes to meet

1 On-grid discharge

Convert DC power to AC power required by the grid department of the installation area and feed back the energy to the grid.



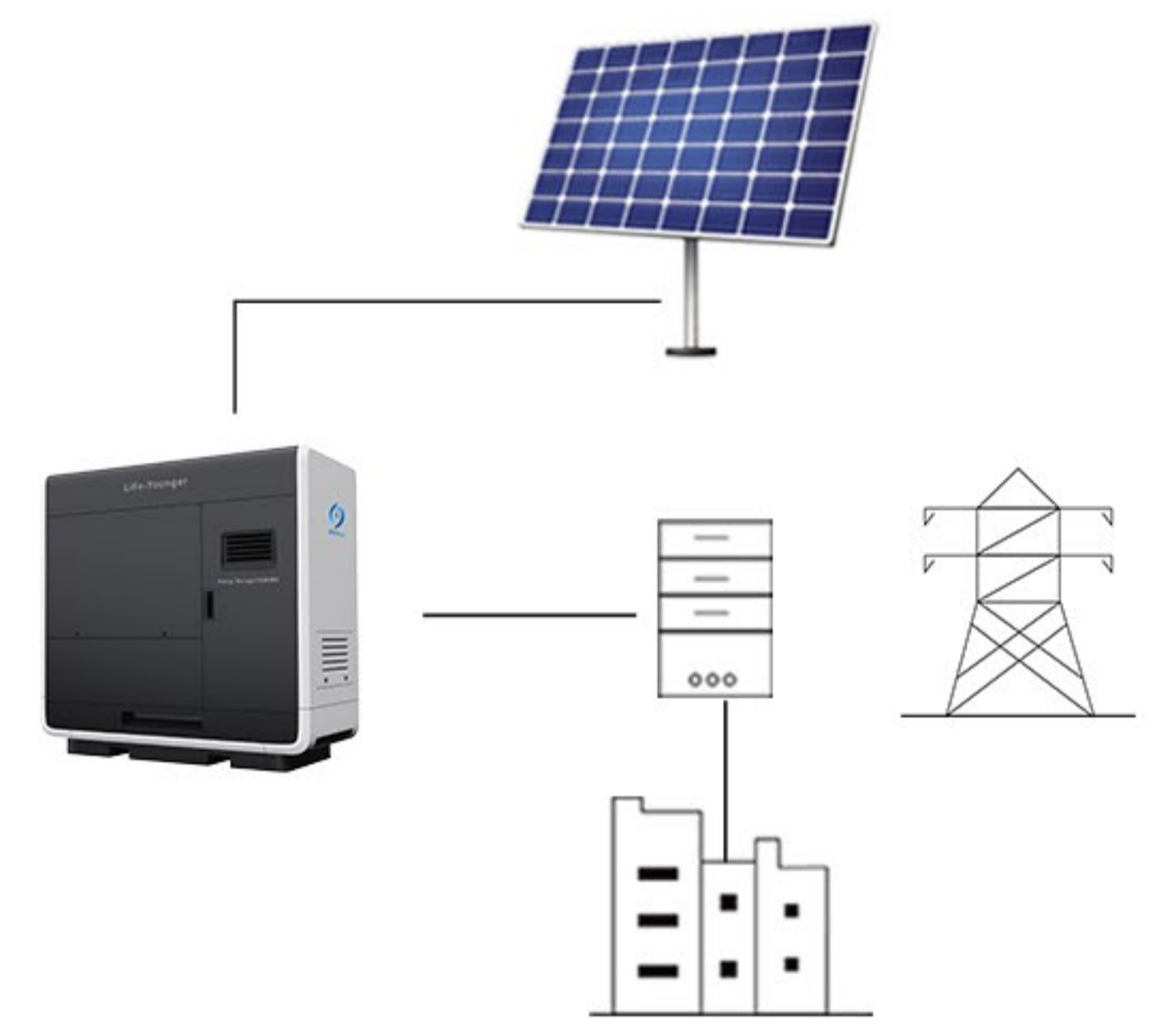
2 On-grid charge

The inverter is in the rectification state, and transmits three-phase AC power to charge the battery (group) in the set charging mode.



3 Off-grid discharge

The inverter is in the inverting state, and converts the electricity from DC into AC to meet the grid requirement of installation area to supply power to the three-phase loads in the microgrid.



Category	Item	Technical parameter
BES	Battery system energy	115 kWh
	Voltage range	400~750V
	Max continuous charge/discharge current	120/ADC
	Cell	LiFePO4
	Cycle life	> 5000@ 25°C 0.5C/0.5C
AC	AC out put voltage	400V/AC
	AC current	65A
	Rated power	50KW(max60KW)
	AC frequency	50/60Hz
	AC wiring	3-phase 3-wire+PE
	Over load	105%~115%10min, 115%~125%1min, 125%~150%200ms

Category	Item	Technical parameter
SYS	Cooling	Air cooling and heat exchanger
	Noise	< 70dB
	Protection degree	IP54
	Communication interface	RS485 CAN ethernet
	Communication protocol	Modbus TCP/IP
	Operating temperature	-20°C~60°C
	Size	2100 x 2000 x 1000mm
Fire control	Weight	≈ 1.5 metric tons
	Fire smoke	Smoke sensor
Certification	Oxidant	FM200 or NC 1230
	Certification	IEC62619, CE, UL9540A, UL1973 UN38.3, CE LVD, IEC62477, CE EMC, G99, VDE4110