

YiLiNK



100kW/215kWh

Solar Lithium Energy Storage System Brochure

- V1.0 -

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01 | Product Function

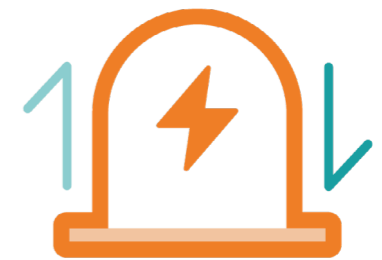
The XPower Series outdoor energy storage cabinet integrates energy storage batteries, modular PCS, energy management monitoring system, power distribution system, environmental control system, and fire control system. It adopts modular PCS for easy maintenance and expansion. The outdoor cabinet adopts front maintenance to reduce the occupied area and maintenance channel. It has the characteristics of safe and reliable operation, fast deployment, low cost, high energy efficiency, and intelligent management.

The operating strategy of the energy storage system in common application scenarios is as follows:

• Load Shifting

Load shifting is an electricity load management technique in which load demand is shifted from peak hours to off-peak hours of the day. Or in other words, load shifting simply means moving electricity consumption to a different interval of time, but total consumption remains constant.

To provide a complete description of load shifting, it would be beneficial to define electrical loads and explain the benefits of shifting electricity consumption to a different time interval.



• Peak Shaving

In the energy industry, peak shaving refers to leveling out peaks in electricity use by industrial and commercial power consumers. Power consumption peaks are important in terms of grid stability, but they also affect power procurement costs:

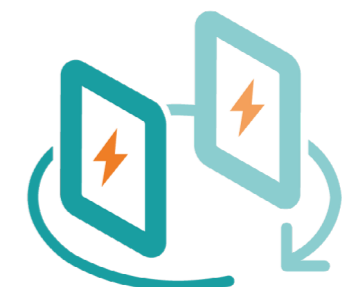
In many countries, electricity prices for large-scale consumers are set with reference to their maximum peak-load. The reason is simple: the grid load and the necessary amount of power production need to be designed to accommodate these peak loads.



• Energy Backup

When the energy storage system needs to provide backup power for important loads, the energy storage system needs to be equipped with STS to disconnect the energy storage system and important loads from the grid when the grid is powered off.

In this way, energy storage can provide uninterrupted backup power for critical loads.



• Off-grid Site Backup by Solar

Real-time acquisition of local load power, photovoltaic power generation priority is self-generation and self-use, and surplus electricity storage.

When the power generated by photovoltaic power generation is insufficient to provide local load, the battery storage is prioritized.



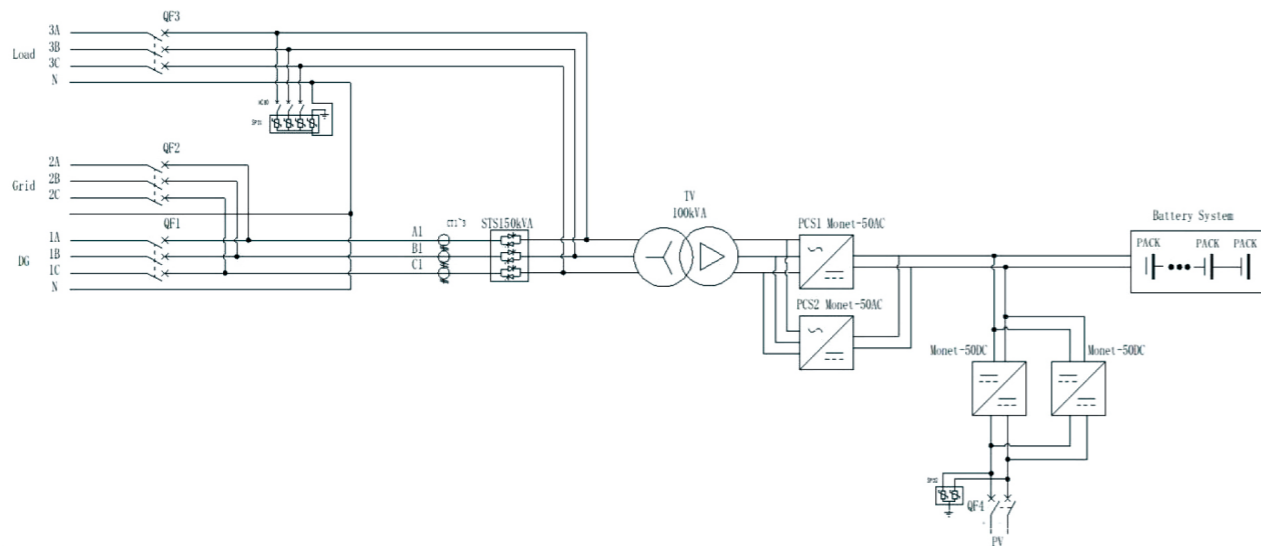
• Margine from Peak-Valley Time-of-Use Tariff

When the time-of-use tariff is at its valley segment: The energy storage cabinet automatically charges, and then remains idle after full charging;

When the time-of-use tariff is at its peak segment: The energy storage cabinet automatically discharges, realizing the arbitrage of price difference and improving the economic efficiency of the photovoltaic-energy storage-charging system.



02 | Electrical Wiring Diagram



Description

The system scheme with grid-connected and off-grid capabilities, isolated transformer, and photovoltaic input has different wiring configurations for different projects, and the actual wiring may vary slightly. Actual wiring should be based on the drawings provided with the product shipment.

03 | Product Features

- The system has been commercialized, integrating energy storage batteries, energy storage converters, photovoltaic converters, energy management monitoring systems, power distribution systems, environmental control systems, and fire control systems. It can fully control the operation status and risks of the system.
- Real-time acquisition of local load power, photovoltaic power generation priority is self-generation and self-use, and surplus electricity storage; When the power generated by photovoltaic power generation is insufficient to provide local load, the battery storage is prioritized.
- The protection level is IP54, which can perfectly cope with various types of weather in the outdoor environment.
- It adopts door-mounted embedded integrated air conditioning, which does not occupy cabinet space, improves the available space of outdoor cabinets, has better structural integrity at the top, and has good waterproof performance.
- The local control screen can achieve diversified functions such as system operation monitoring, energy management strategy development, equipment remote upgrading, etc

04 | Product Parameters

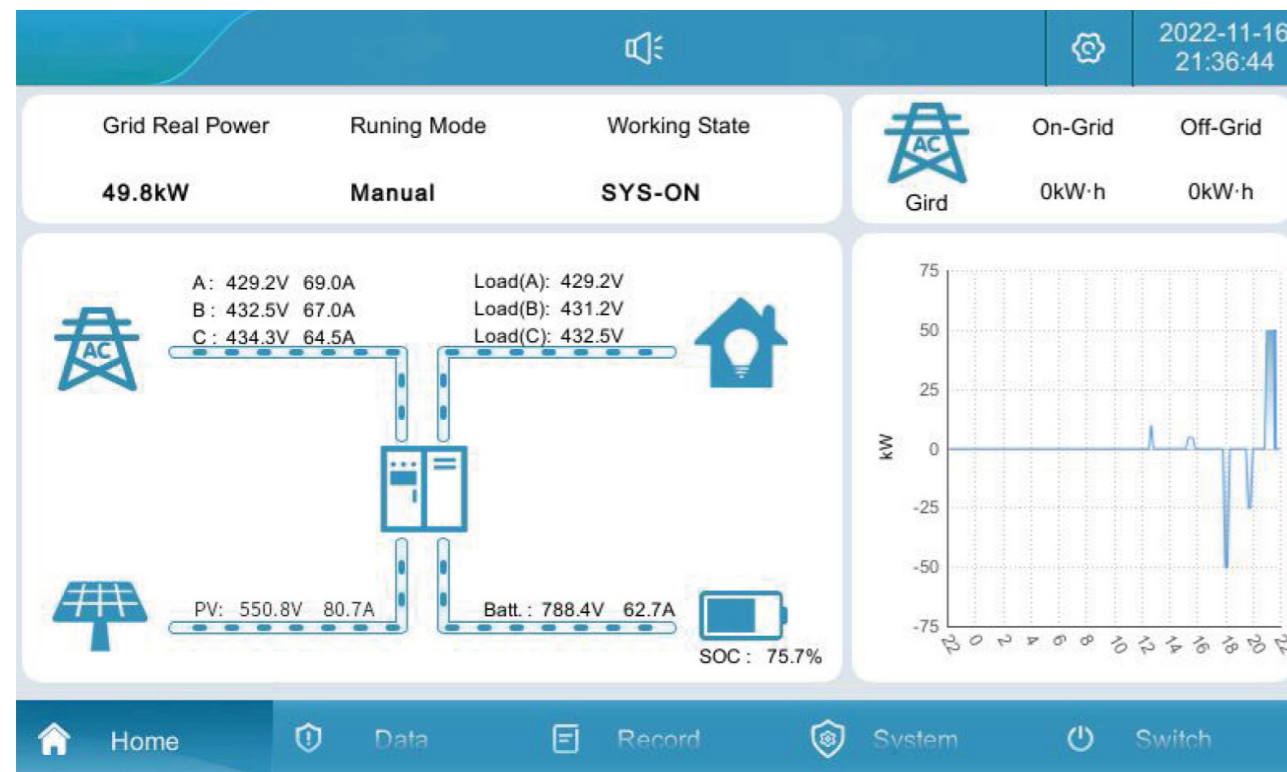
The following are typical configuration parameters of the XPower Series outdoor cabinet-type photovoltaic-energy storage system. Actual delivery shall be subject to the technical agreeme.

Model	YL-XP100kW/215kWh
Battery Rated Capacity	215kWh
Battery Rated Voltage	768V
Battery Voltage Range	672~864V
Battery Type	Lithium Iron Phosphate Battery(LFP)
Battery Cell Capacity	280Ah
Series of Battery	1P*20S*12S
Maximum Charge and Discharge Current	140A
Photovoltaic Rated Capacity	100kW
Photovoltaic Voltage Range	200~450V
Rated AC Power	100kW
Rated AC Current	144A
Rated Ac Voltage	400V, 3W+N+PE/3W+PE
Rated AC Frequency	50/60Hz
THDI	<3% (Rated Power)
Power Factor	-1 Leading to +1 Lagging
THDU	<3% (Linear Load)

Model	YL-XP100kW/215kWh
Protective Level	IP54
Protective Level	/
Isolation Mode	No-Isolation(Adding Isolation Transformer is Optional)
Shutdown Self-discharge	<100W(Without Transformer)
Display	LCD
Relative Humidity	0~95%(No Condensation)
Noise	<78dB
Ambient Temperature	-25℃ to+60℃ (With Derating at Temperatures Above 45℃)
Cooling Mode	Intelligent Air-cooled
Altitude	3000m(>3000m Reduction)
Communication Interface	CAN/Ethernet/485
Size (W*D*H)	1800*1200*2300mm
Weight (approx.)	3100kg
Parallel Capability	4*Clusters(400kW/860kWh,Off grid connection, if it is pure grid connection, there is no limit to the number of parallel connections)

05 Human-machine Interface Introduction

The home page interface displays real-time power, voltage, current, generated energy, operation mode, working status and other information of the system.



06 Appearance Diagram



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