



# Energy Storage Battery

PRODUCT DATASHEET

51.2V 100Ah 5.12kWh  
153.6V 100Ah 15.36kWh  
256V 100Ah 25.6kWh

Stacked



## Intelligent

LiFePO4 battery, Safe, Longer life span.  
Each battery with independent BMS system.



## Perfect Compatibility

Compatible with most of the available  
Hybrid inverters.



## Easy to install and use

Modular design, Easy to stack, Quick installation.  
Natural cooling with optional heat/fan configuration



## Long life and safety

Flexible in series to achieve higher voltage.



Single module battery 5kwh, 15-25Kwh free  
combination, support battery series boost,  
parallel expansion, small footprint, flexible  
movement.

## Application scenarios



Family



Small store



Hospital



School

## Technical Specifications-Stacked Energy Storage Battery

Model	YL-ES-S05	YL-ES-S15	YL-ES-S25
Rated Voltage	51.2V	153.6V	256V
Rated Capacity	100Ah	100Ah	100Ah
Rated Energy	5.12KWh	15.36KWh	25.6KWh
Internal Resistance	≤30mΩ	≤80mΩ	≤120mΩ
Cycle Life	≥5000 cycles @ 80% DOD, 25°C, 0.5C ≥4000 cycles @ 80% DOD, 40°C, 0.5C		
Design Life	≥5 years		
Charge Cut-off Voltage	57.6V ± 0.5V	172.8V ± 0.5V	288.0V ± 0.5V
Max. Continuous Work Current	100A		
Discharge Cut-off Voltage	45.0V ± 0.2V	134.5V ± 0.2V	224.0V ± 0.2V
Charge Temperature	0°C~60°C (Under 0°C extra heating mechanism)		
Discharge Temperature	-20°C~60°C (Under 0°C Work with reduced capacity)		
Storage Temperature	-40°C~55°C @60% ± 25% relative humidity		
Dimensions	590*415*375mm / 23.23"x16.34"x14.76"	590*415*745mm / 23.23"x16.34"x29.33"	590*415*1120mm / 23.23"x16.34"x44.09"
Weight	65kg	195kg	310kg
Protocol (optional)	RS232-PC, RS485(B)-PC RS485(A)-Inverter, Canbus-Inverter		

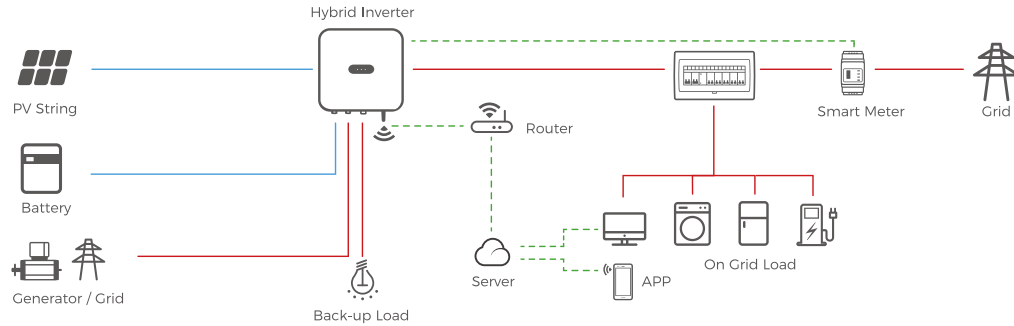
## Installation

Stack the modular batteries where they need to be installed.  
Connect the cables between battery modules Connect  
the cables to inverter.

- **Power On** Double check all the power cable and communication cable.
- **ON / OFF** Switch on all the battery modules and the green LED light below will be on:
- **Set ADD** Set ADD follow ADD instruction, pack 1 will be host, others are slaves.



## Schematic Diagram of Solution



## Trouble Shooting Steps

Problem determination based on: Whether the battery can be turned on. If battery is turned on, check the red light is off, flashing or lighting; If the red light is off, check whether the battery can be charged/ discharged.

Preliminary determination steps: Battery cannot be turned on, switch on the lights are all no lighting or flashing. If the battery external switch is ON, the RUN light is flashing, and the external power supply voltage is 51.2V or more, the battery still unable to turn on, please contact distributor.

- The battery can be turned on, but red light is lighting, and cannot be charged or discharged, red light is lighting, that means system is abnormal, please check values as following.
  - Temperature: Above 50°C or under -10°C, the battery could not work. Solution: to move battery to the normal operating temperature range between -10°C and 50°C. Current: If current is larger than 100A, battery protection will turn on. Solution: Check whether current is too large or not, if it is, to change the settings on power supply side.
  - High Voltage: If charging voltage above 58.4V battery protection will turn on. Solution: Check whether voltage is too high or not, if it is, to change the settings on power supply side. Low Voltage: When the battery discharges to 40V or less, battery protection will turn on. Solution: Charge the battery for some time, the red light will turn off. Excluding the four points above, if the faulty is still cannot be located, turn off battery and repair.
  - The battery cannot be charged or discharged. Cannot be charged: Disconnect the power cables, measure voltage on power side. If the voltage is 56.5-57.6V, rest the battery, connect the power cable and try again. If still not work, turn off battery and contact distributor. Unable to discharge: Disconnect the power cables and measure voltage on battery side. If it is under 40V, please charge the battery. If voltage is above 51.2V and still cannot discharge, turn off battery and contact distributor.
- Emergency Situations.

## Matters Need Attention

- Do not immerse the battery in water or allow it to get wet.
- Do not use or store the battery near sources of heat such as a fire or heater.
- Do not reverse the positive(+) and negative(-) terminals.
- Do not connect the battery directly to wall outlets or car cigarette-lighter sockets.
- Do not put the battery into a fire or apply direct heat to it.
- Do not short-circuit the battery by connecting wires or other metal objects to the positive(+) and negative(-) terminals.
- Do not pierce the battery casing with a nail or other sharp object, break it open with a hammer, or step on it.
- Do not strike, throw or subject the battery to severe physical shock.
- Do not directly solder the battery terminals.
- Do not attempt to disassemble or modify the battery in any way.
- Do not place the battery in a microwave oven or pressurized container.
- Do not use the battery in combination with primary batteries (such as dry-cell batteries) or batteries of different capacity, type or brand.
- Do not use the battery if it gives off an odor, generates heat, becomes discolored or deformed, or appears abnormal in any way. If the battery is in use or being recharged, remove it from the device or charger immediately and discontinue use.
- If the battery leaks and electrolyte gets in your eyes, do not rub them. Instead, rinse them with clean running water and immediately seek medical attention. If left as is, electrolyte can cause eye injury.

