LiFePO$_4$ Battery

The higher the battery's capacity, the more solar energy it can store. When a solar battery installed as part of on-grid solar panel system, it can store excess solar electricity instead of sending it back to the grid. If solar panels are producing more electricity than it is needed, the excess energy goes towards charging the battery.

Battery System

Our **48V Battery System** supports solar energy storage of both commercial and industrial purposes. The system is built from integration of **Basic Storage Battery** in parallel connection with BMS (Battery Management System) for protection and communication.

Standard Lineup

- Operating voltage 48V and 51.2V
- Typical Basic Storage Battery 48V100Ah while more options from 48V10Ah/20Ah/30Ah/50Ah/70Ah.
- Optional capacity in cabinet size 200Ah ~ 600Ah

Features

- Multiple of basic storage battery of nominal voltage 48V in parallel connection
- Each basic storage battery with built-in intelligent BMS effectively prevent battery overcharge, over-discharge, overcurrent and over-temperature.
- Standard 19-inch rack-mount durable enclosure for plug & play replacement
- Equipped with RS485/RS232 communication
- Standard BMS with options for charging current limit in parallel connection (programmable ON/OFF)
- Efficient & long-lasting service life

Custom Manufacturing

- Custom Battery System is available through integration of more basic storage battery
- Battery Systems of different operating voltage, capacity etc.

48V Battery System

ESS48200

ESS48600

Model		ESS48200	ESS48400	ESS48600
General Characteristics				
Nominal voltage		51.2V	51.2V	51.2V
Nominal capacity@0.2C		200Ah	400Ah	600Ah
Min. capacity@0.2C		194Ah	388Ah	582Ah
Nominal energy		10.24kWh	20.48kWh	30.72kWh
Dimensions(W*D*H)		600*600*850mm	600*600*1400mm	600*600*1800mm
Approx. weight (exclude cabinet)		105Kg	210Kg	315Kg
Multiple Battery Model		ES48100 x 2	ES48100 x 4	ES48100 x 6
Battery connection		Parallel		
Electrical Characteristics				
Operating voltage range		42V~54V	44.8V~57.6V	42V~53.2V
Recommended charging voltage		52.5V~54V	56V~57.6V	52.5V~53.2V
Max. charging current		100A	200A	300A
Charging current limit in parallel connection (switched ON)		20A	40A	60A
Max. continuous discharging current		100A	200A	300A
Max. peak discharging current		120A, <3S	250A, <3S	360A, <3S
Discharging cut-off voltage		44.8V	44.8V	44.8V
Faraday charging efficiency		≥98%		
Energy charging efficiency		≥92%		
Operating Conditions				
Operating temperature	Charge	0℃~45℃		
	Discharge	-20℃~45℃		
Storage temperature		-10℃~45℃		
Storage duration		12 Months @20℃~25℃		
Safety standard		UL 1642 at cell level		
Water dust resistance		IP30		