

ESCS (Energy Storage Controller System)

The cabinet energy storage system consists of high-performance lithium battery, BMS battery management system, photovoltaic charging device, inverter device, and corresponding combination to form a multi-capacity, power, functional energy storage system.

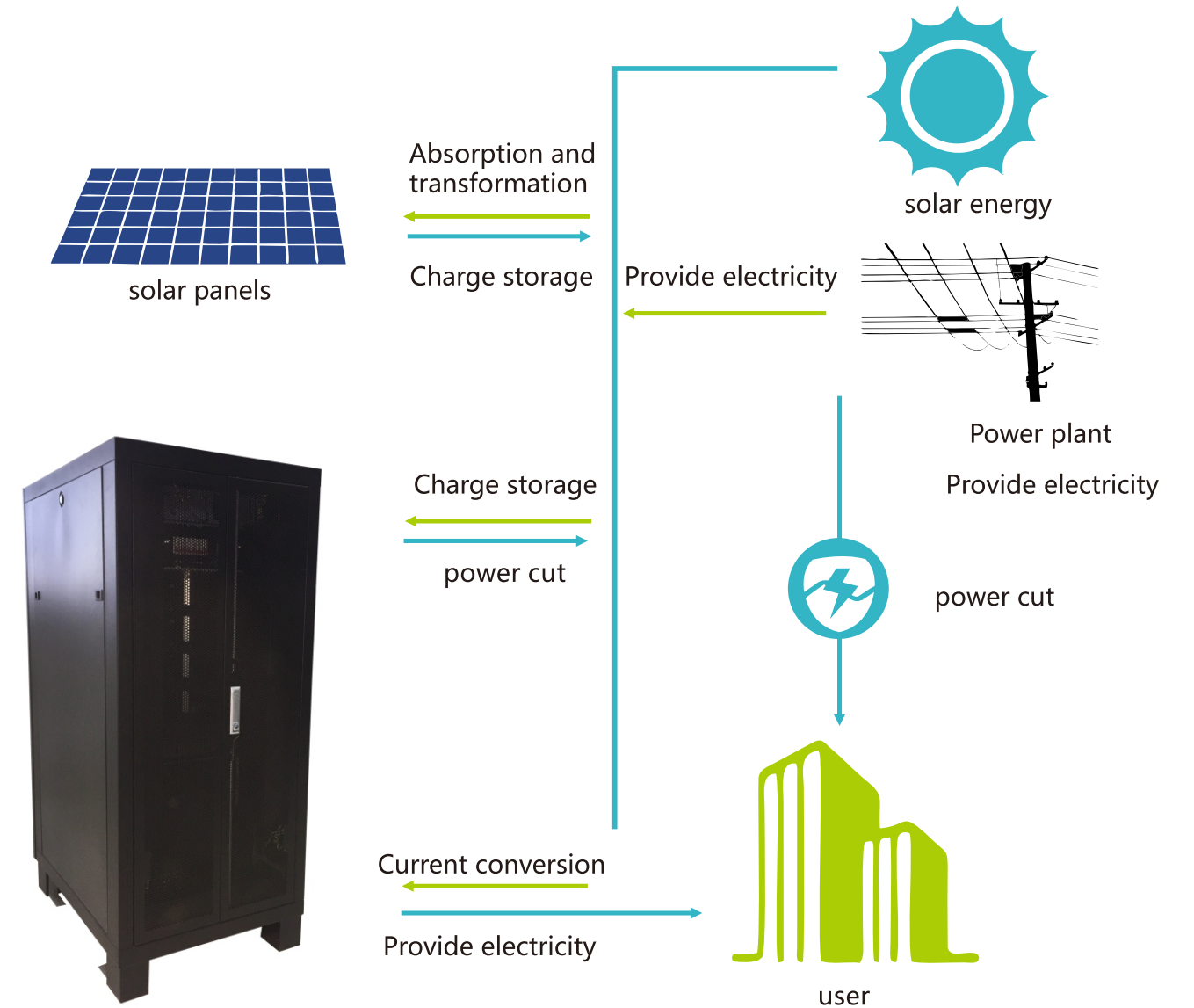


Features

- Modular design and it will be easy installation and maintenance.
- High performance and high safety lithium iron phosphate battery has long cycle life, safety, energy saving and environmental protection.
- Using intelligent management technology to extend battery life.
- According to customer customization, it can be connected to the grid and run off the network, supporting multi machine parallel operation.
- Micro grid control functions can be used as a micro grid control center to coordinate and match photovoltaic chargers, inverters and other power generation equipment according to load requirements
- With perfect overload protection, over temperature protection, output short circuit protection, input under-voltage protection, input over-voltage protection and other functions, stable performance, high product safety and reliability.
- It designed with the LCD display, easy to monitor and management.

Operational principle

Energy storage in power system including solar panels, inverter (for AC and DC conversion), and provide backup power for the main electrical backup lines. Household electricity demand different choice of different components.



BMS INTERFACE



Parameter

Battery cell			
Rated capacity	50kW	75kW	100kW
Battery type	LiFePO4 battery		
Model of cell	3.2V 70A Square aluminum shell		
Battery group array	16S16P	16S22P	16S30P
Voltage range of battery group	44V ~ 57.6V		
Cycle life	4000 cycles at 80% DOD		
BMS Protection	Short Circuit Protection, Over Charge Protection, Over Discharge Protection, Reverse Polarity Protection, Cell Over Voltage, Cell Under Voltage and Over Temperature, Low Voltage Cut Off (automatic Reconnect)		
Charge			
Battery charge temperature	0 ~ 50°C		
Maximum charge voltage	59±0.5V		
Rated charge voltage	58.4±0.4V		
Nominal charge current	200A	300A	380A
Discharge			
Battery working temperature	-20°C ~ 60°C		
Allowable maximum discharge current	250A 1min	250A 1min	250A 1min
Rated allowable maximum discharge current	200A		
Discharge termination voltage	40		
Self Discharge Rate	Less than 3% per month(nominal temperature)		
Inverter			
Type	Stand-alone Inverter (Off Grid Inverter) Single phase output transformer		
Rated power	AC output power continuously 5.0KW/7.5KW/10kW at electrical load type : Unity power factor (pf=1)		
Nominal Input Voltage	48VDC		
Output voltage	110V-220VAC		
Output voltage regulation	±5% at steady state load		
Total harmonic distortion (THDv)	Less than 4% when the electrical load is 0.8 lagging power factor		
Maximum surge power	200% of nominal power		
Maximum running current	75		
Overload ability(10min)	110%		
AC input frequency	50HZ/60HZ (automatic tracking)		
Output frequency range	50HZ/60HZ±0.3HZ		
Output efficiency	≥90%		
Wave form	Pure sine wave form		
Protection	Over Load, Short Circuit, Over Input Voltage, DC Reverse Polarity, Battery Low Voltage Cut Off (automatic reconnect)		
Communication	RS232/RS485		
Solar Charge Controller			
DC start voltage (VDC)	70V	70V	70V
Minimum DC start voltage (VDC)	70V	70V	70V
Maximum DC voltage (VDC)	145V	145V	145V
Max PV input power at STC (Standard Test Condition)	5KW	7.5KW	10KW
Output voltage charger to battery	48VDC	48VDC	48VDC
MPPT charger at STC	2 MPPT 7.68 KW	3 MPPT 14.4 KW	4 MPPT 19.2 KW
Charge and Discharge controller as SOC (Stage of Charge)			
Overcharge Protection, Reverse Polarity Protection, Anti Reverse Diode Protection			
Loading			
Loading power	Backup time 10 hours with loading 5KW	Backup time 10 hours with loading 7.5KW	Backup time 10 hours with loading 10KW

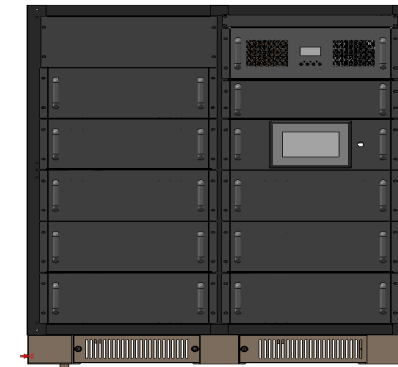
Model: JYH4850

Dimension (W x D x H) mm:

1060 x 905 x 1250

Net Weight:

570 kgs



Front View



Rear View

Model: JYH4875

Dimension (W x D x H) mm:

1557 x 941 x 1510

Net Weight:

800 kgs



Front View



Rear View

Model: JYH48100

Dimension (W x D x H) mm:

1557 x 941 x 1510

Net Weight:

1150 kgs



Front View



Rear View