



## Intelligent Energy Storage System

Flyfine customized largescale ESS solutions, Integrated with Lithium battery pack,BMS,PCS,and EMS products for industrial and commercial use. Using high-quality lithium batteries as energy storage devices and utilizing the local and remote EMS management system,these products would complete the balance and optimization of power supply and demand between the grid, battery, and load, convenient access to photovoltaic and other new energy equipment, in peak and valley power, distribution network capacity, power security and other aspects to bring users a safe, efficient and flexible power experience.

### Features:

- ▶ Cycle life: 6500 times under charge/discharge @ 0.3C once per day @ DOD 80% for 5 consecutive years, total capacity of the battery system  $\geq$  80% of default initial capacity.
- ▶ Excellent lithium-ion battery consistency.
- ▶ Standard protocol to realize reliable external communication and scheduling.
- ▶ Stable performance, high safety with gaseous fire suppression system.
- ▶ Built-in air conditioner to manage in-box temperature.Exceptional heat dissipation.

### Advantage:

- ▶ Reduce the cost of electricity for enterprises or parks and save the cost of electricity for customers by charging and storing energy in the valley time and discharging and storing energy in the peak time.
- ▶ When the short-term electricity consumption exceeds the transformer capacity, the energy storage system carries out rapid discharge to meet the load demand for electricity.
- ▶ Dynamic capacity increase, the use of energy storage equipment to replace the capacity of the voltage transformer during peapower consumption, to help customers reduce the cost of transformer use, reduce transformer investment and expansion cycle.
- ▶ Off-grid standby power supply provides uninterrupted short-term power supply to essential loads during power interruptions.

Battery Model	FC-1025000	FC-2010600	FC-3153900
Rated Power		500KW	
Rated Voltage		400VAC	
Frequency		50/60Hz	
Phase		3	
System Energy Capacity	1025kWh	2010.6kWh	3153.9kWh
Battery Type		LiFePO4	
Discharge Depth		80%	
Pack Qty	52	102	160
Cooling System		Air Conditioner	
Cycle Life		6500	
Altitude(m)		≤1000	
Operating Temperature		-20°C ~ 50°C	
Container Size	20'GP	40'GP	40'GP

500KW/1MWh BESS Parameters	
Battery Parameter	
Cell Type	LFP 3.2V/280Ah
Battery Pack Capacity	14.3kWh
Cluster Capacity	200kWh
Battery Voltage Range	627V ~ 806V
Battery Cluster Number	5
AC Parameter	
Rated AC Power	500KW
Max. Power	550KW
THDI	3%
DC Component	<0.5% I <sub>pn</sub>
Rated Grid Voltage	380V
Power Factor	>0.99
Power Factor Range	-1 ~ 1
Rated Frequency	50Hz
AC Parameter	
Max. Efficiency	≥96%
Charge/Discharge Speed	0.5C
Discharge Depth	95%DOD
Cycle Times	6000
Charge/Discharge Switching Time	<100ms
Comm. Port	RS485
Protection Level	IP54
Cooling	force fan cooling
Temperature	-25°C ~ 55°C
BESS Mechanical Structure	
Container Size	6058*2591*2438mm
Battery Cluster	200kWh; Total 5 cluster 1MWh
PCS Capacity	5*100KW
Transformer	500KVA