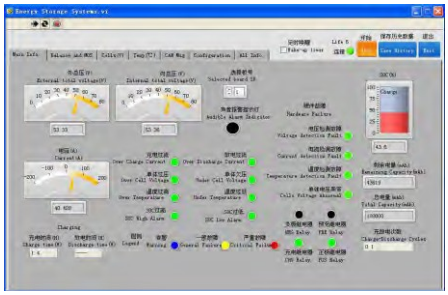
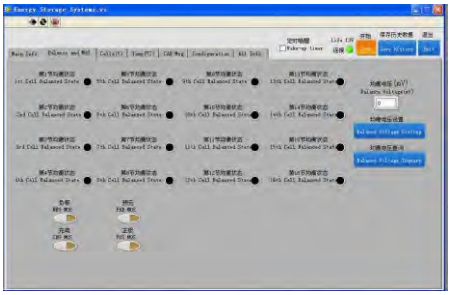
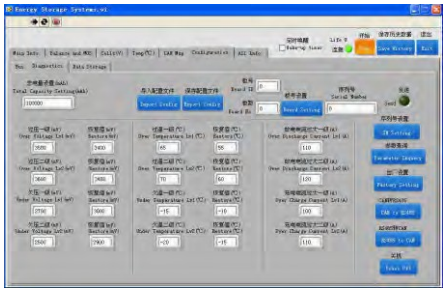
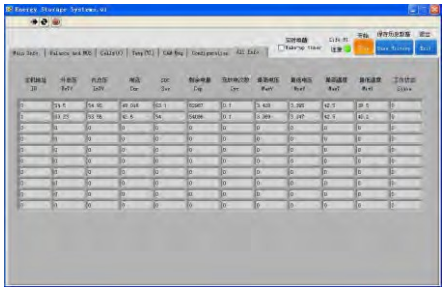
5.2KWH Battery Energy Storage System (ESS)

- 32pcs 50Ah LiFePO4 battery.
- 25.6Vdc / 51.2Vdc 5.2 KWh rated capacity.
- Long cycle life, 3500 times at least on 80% DOD
- Customized charger make system life maximisation
- High reliability intelligent BMS
- Unique automatic calibration active balancing technology BMS system
- 25.6V '& 51.2V DC voltage output, suitable for home energy storage system, communication stations and other application
- Standard CAN & RS485 communication port, can meet the requirement of several packages to connect in parallel, Master & Slave relationship, Monitor and other prolongation functions.



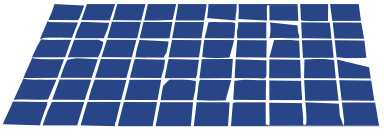






Operational Principle

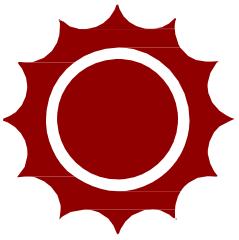
Energy storage in power system including solar panels, inverter (for AC and DC conversion), and provide backup power for the main electrical backup lines. Household electricity demand different choice of different components.



solar panels

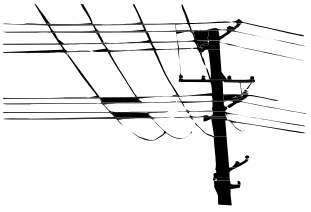
Absorption and transformation

Charge storage



solar energy

Provide electricity



Power plant

Provide electricity

Charge storage

power cut

power cut

Energy storage battery pack

Current conversion

Provide electricity

user

Inverter with AC charger and MPPT solar charger built in

General information

This specification defines the performance of rechargeable LiFeP04 battery pack describes the type, performance, technical characteristics, warning and caution of the battery pack.

Basic Specification

NO	Items	Description	
Normal specification			
1	Rated Voltage	25.6V	51.2V
2	Rated capacity	200Ah	100Ah
3	Rated Energy	5.2 kWh	5.2 kWh
4	Battery Configuration	8S 4P	16S 2P
5	Battery Cell	32cells, 50Ah 3.2V	
Standard Charge			
1	Battery operation temperature range @charging	0~45°C	
2	Max charge voltage	29.2 ±0.2V	58.4 ±0.4V
3	Rated charge voltage	28.0 ±0.2V	56.0 ±0.4V
4	Allowed MAX charge current	60A	60A
5	Rated charge current	50A	50A
Standard discharge			
1	Battery operation temperature range @discharging	-20~60°C	
2	Output Voltage Range	20~29.2V	40~58.4V
3	Allowed MAX discharge current	110A 1min	110A 1 min
4	Peak discharge current	120A 5s	120A 5s
5	Rated discharge current	100A	100A
6	Discharge Cut-off voltage	20V	40V
Operation and Indicator			
1	Power Switch	ON: all function start OFF: all function shut down	
2	Run LED (green)	Lighting: System working normal Flash: System standby	
3	Alarm LED (red)	Lighting: System fault Flash: System warning	
4	SOC LED (4pcs green)	**Charging:** SOC<25% LED1, LED2, LED3, **LED4 flash** in turn 25% <SOC <50% **LED1 lighting**, LED2, LED3, **LED4 flash in turn**	

			50%<SOC<75% LED1、**LED2 light-on**, LED3、**LED4 flashing** in turn 75%<SOC<95% LED1、**LED2 Light-on**, LED3、**LED4 flashing** in turn LED1、LED2、**LED3 light-on**, **LED4 flashing** **Discharging:** SOC>75% LED1、LED2、LED3、**LED4 light-on** 50%<SOC<75% LED1、LED2、**LED3 light-on**, **LED4 off** 25%<SOC<50% LED1、**LED2 light-on**, LED3、**LED4 off** 10%<SOC<25% **LED1 light-on**, LED2、LED3、**LED4 off** SOC<10% **LED1 flashing**, LED2、LED3、**LED4 off**
Communication			
1	RS485		For LCD remote control（option）
2	CAN		PC control and monitor（one communication CAN card support ten packs parallel）
Mechanical Characteristics			
1	Dimension		L*W*H (unit)=680x400x238mm
			L*W*H (shipping)=815x425x515mm
2	Weight		N.W. 64kg; G.W. 78kg
Storage and Transportation requirements			
1	Storage Temperature	Less than 1 month	-20~35℃
		Less than 6 month	-10~30℃
2	Storage Humidity		45~75% RH
3	SOC	Storage	60~75% SOC
		Transport	45~55% SOC