LiFePO4

51.2V/105AH

Please Read The Manual Carefully Before Using The Equipment.

CATALOGUE

01 / Safety Precautions

- It is very important and necessary to read the user manual carefully before installing or using the battery. Failure to follow any of the instructions or warnings in this document can result in electrical shock, serious injury, death, or may damage the battery and the whole system.
- The battery needs to be recharged within 12 hours after fully discharging.
- Do not expose cable outside.
- All battery terminals must be disconnected before maintenance.
- Do not use cleaning solvents to clean the battery.
- Do not expose the battery to flammable or harsh chemicals or vapors.
- Do not paint any part of the battery, include any internal or external components.
- Any foreign object is prohibited to be inserted into any part of the battery.
- Any warranty claims are excluded for direct or indirect damage due to items above.
- If the battery is stored for a prolonged time, it is requirement that they are charged every three months, and the SOC should be no less than 30%.

1.1 Note Before Installation

- When receiving, please check the battery and packing list first, if the battery is damaged or spare parts are missing, please contact the dealer.

- Before installation, be sure to make sure the battery is in the turned-off mode.
- Wiring must be correct, do not mix-connect the positive and neg-
- ative cables, and ensure no short circuit with the external device. It is prohibited to connect the battery with AC power directly.
- The embedded BMS in the battery is designed for 51.2 VDC, please do not connect battery in series.
- It is prohibited to connect the battery with different type of battery.
- Please ensure the electrical parameters of battery system are compatible to controller and motor.
- Keep the battery away from fire or water.

1.2 During Operation

- If the battery system needs to be moved or repaired, the power must be cut off first and the battery is completely shutdown. It is prohibited to connect the battery with different type of battery.
- It is prohibited to put the batteries working with faulty or incompatible controller and motor.
- In case of fire, only dry powder fire extinguisher can be used, liquid fire extinguishers are prohibited.
- Please do not open, repair or disassemble the battery. We do not undertake any consequences or related responsibility due to violation of safety operation or violating of design, production and equipment safety standards.

2. Specification

NO.	Item	Specification
01	Cell Model	LF3.2V/105Ah
02	Charge Voltage	58.4V(3.65V/Cell)
03	Discharge cut-off Voltage	40V(2.5V/Cell)
04	Nominal Voltage	51.2V(3.2V/Cell)
05	Minimum Capacity	100Ah @ 0.5C discharge
06	Nominal Capacity	105Ah @ 0.5C discharge
07	Nominal Energy	5376Wh @ 0.5C discharge
08	Continuous Charge Current	55A
09	Max Charge Current	100A
10	Max Cont Discharge Current	200A (Peak 400A 35s)
11	Pack Weight	About 102.5Lb(46.5 Kg)

3. Product Performance

NO.	Item	Test Method	Criteria
1	Capacity	After standard charging, discharge the battery at 0.3C to the capacity released by the 40V cut-off voltage.	⩾105Ah
2	Cycle Life	After standard charging, discharge the battery at 0.5C to 44.8V. Repeated the above test cycle till retained capacity is 80% of initial capacity.	Cycles ⩾4000times

3.2 Mechanical and Environmental Test

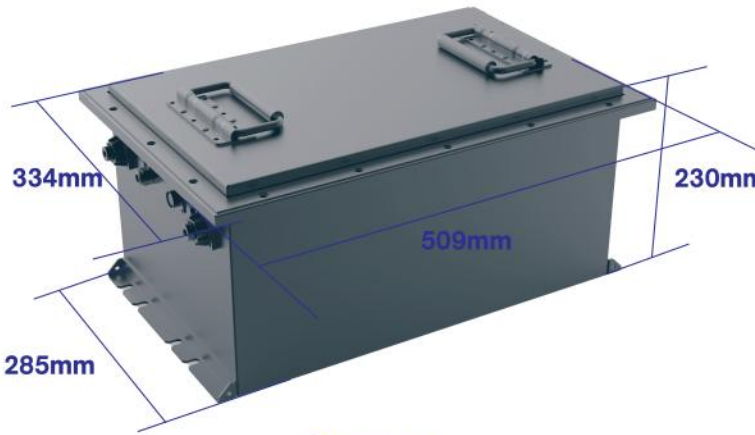
NO.	Item	Test Method	Criteria
1	Vibration	After standard charging, fixed the battery to vibration table and subjected to vibration cycling that the frequency is to be varied from 7HZ to 200HZ ,then return to 7HZ , the excursion of the vibration is 0.8mm. The battery shall be vibrated for 3 hrs.	No leak, no smoke, no fire, no explosion
2	Drop	After standard charging, the battery is to be dropped from a height of 1 meter onto concrete board, dropped once in the positive and negative directions of three mutually perpendicular X, Y, Z axes	No leak, no smoke, no fire, no explosion
3	Heating	After standard charging, put battery in the baking oven and start to rise the temperature to 130°C, remain for 10minutes at that temperature.	No fire, no explosion

3.3 Safety Test

NO.	Item	Test Method	Criteria
1	Short Circuit	After standard charging, the battery shall be subjected to a short-circuit condition with a wire of resistance 80±20mΩ, until it has reached a completely discharged state of less than 0.2V and the battery case temperature has returned to ±10 ° C of ambient temperature.	No fire, no explosion

4. Battery Drawing

Dimension: 509*334*230±3mm



Structure

Picture

5. Packing List

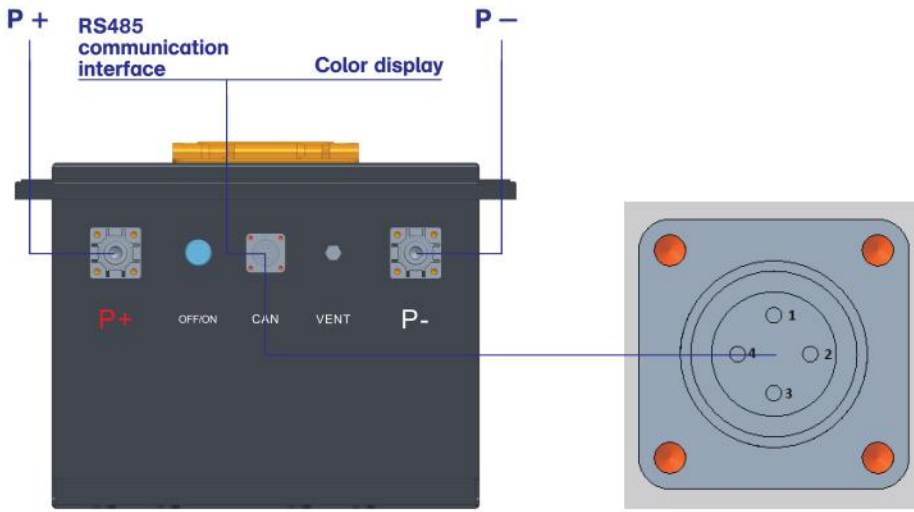
NO.	Item	Specification	Qty	Unit
01	Battery Pack	51.2V/105Ah	1	PCS
02	Communication Cable	DS16/4 cores/Plug UL1007/20AWG Length 500mm	1	PCS
03	Display Screen	2.8 "TFT 262K color display	1	PCS

01.Battery Pack

02.Communication Cable

03.Display Screen

6. Interface Description



Item	PIN Definition
PIN 1	RS485 A
PIN 2	RS485 B
PIN 3	GND
P +	Battery Positive
P –	Battery Negative

8. Display Screen Function Introduction

The battery comes with a 2.8-inch touch screen.You can view battery information in real time on the LCD.

100% Capacity/SOC	**0.00 A** Charge / Discharge Current
51.92V Total Voltage	**31.30℃** Temperature
999H-48M Charging Full/Discharge Empty Time	

DSG Discharge State	**CHG** Charge State
99.1AH Surplus Capacity	**0000** Cycle Index Counter
31.2℃/30.6℃ Temperature	**NOMAL** Protection State

1~16 Voltage of each cell