

Lithium Ion Batteries Specification

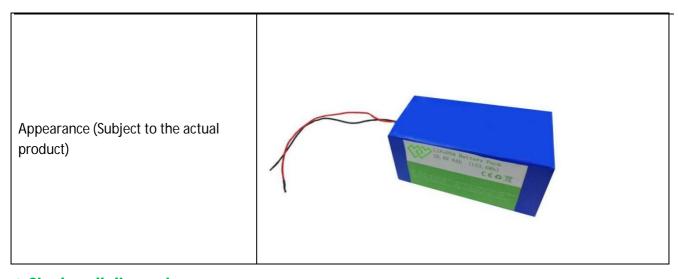
Product: Lithium Ion Batteries 25.6V 6Ah

Model: LFP24V6AH

1. Battery Pack Parameter

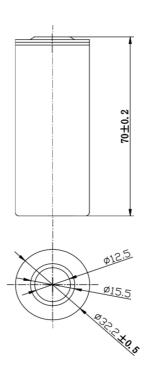
Item	Parameter	
Rated Voltage	25.6V	
Rated Capacity (at 0.5C, 25 °C)	6Ah Min capacity: 5.88Ah @0.2C	
Continuous Charging Current(A)	≤3A	
Continuous Discharging Current(A)	6A	
Max Continuous Discharging Current(A)	15A, last 3s	
Storage Temperature	Less than 1 month: $-20^{\circ}\text{C} \sim 35^{\circ}\text{C}$, $45\%\text{RH} \sim 75\%\text{RH}$	
	Less than 3 months: $-10^{\circ}\text{C} \sim 35^{\circ}\text{C}$, $45\%\text{RH} \sim 75\%\text{RH}$	
	Recommended storage environment: $15^{\circ}\text{C} \sim 35^{\circ}\text{C}$, $45\%\text{RH} \sim 75\%\text{RH}$	
Temperature	Charging: 0~45℃	
	Discharging: -20∼60°C	
	Recommended operating temperature: $15^{\circ}\text{C} \sim 35^{\circ}\text{C}$	
Max. Charge Voltage	28V-28.4V	
Cycle Life	>2000times, 0.5C, 80%DOD, at 25°C	
BMS Protection	Overcharge protection; Overdischarge protection; Overcurrent protection; short circuit protection; Temperature protection and balance function	
Series connection	Prohibit	
Parallel connection	Prohibit	
Dimension	147*76*75mm ± 2mm(L*W*H)	
Output	200mm 20AWG XLPE WIRES	
Self Discharge (Stored at 50%SOC)	<= 3%/month	
Assemble method	8S1P	
Weight(kg)	About 1.25kg	





2. Single cell dimensions





3.BMS Parameter

Item	Content	Criteria
Charge and discharge port		Shared
Normal current	Charge current	≤3A
	Discharge current	≤6A
Over charge Protection	Over charge protection voltage	3.75±0.03V
	Over charge protection delay time	≤1.5s
	Over charge release voltage	3.55±0.05V



Over discharge protection	Over discharge protection voltage	2.2V±0.08V
	Over discharge protection delay time	≤1.5s
	Over discharge release voltage	2.7V±0.1V
Discharge Over current protection	1 _{st} Discharge over current protection current	40± 10A
	${\sf 1}_{\sf st}$ Discharge over current protection delay time	≤1.5s
	1 _{st} Discharge over current release condition	Cut load
	2nd Discharge over current protection current	$80 \pm 20A$
	2nd Discharge over current protection delay time	≤200ms
	2nd Discharge over current release condition	Cut load
Charge over current protection	Charge the over current protection current	$10A \pm 2A$
	delay time	≤1.5s
	Charge over current release condition	Remove charger
Short circuit protection	yes, pls don't short-circuit the el	lectrodes
Short circuit release	Remove short circuit	
	Charge and discharge high temperature protection temperature	75℃±5℃
	Charge and discharge high temperature protection release	65°C ±5°C
Cell balance voltage	3.5V	
Balance current	35± 10mA	
Balanced opening condition	Charge, cell balance open voltage difference 30mV	

4. Certifications:

■ UL1642 (Cell) ■ IEC62133 (Cell) ■ IEC62619 (Cell) ■ ROHS (Cell)

■ CB(Cell) ■ REACH (Cell) ■ UN38.3 (Cell and Pack) ■ CE (Cell)





5. Features

- Higher qualified cylindrical cell:
 UL1642, IEC62133, CB listed with Cycle life more than 3000 times and excellent consistency.
 Cell and pack are produced by ourselves. We can control quality from cell to pack.
- Stronger BMS:
 Can protect battery from overcharge, overdischarge, overcurrent, high temperature, short-circuit and have balance passive function.
- 100% Cycle test: All battery packs are 100% cycle tested (Fully Discharged→Fully Charged→Fully Discharged→ 50% Charged) before package.
- Unique tracking number:
 All battery packs print an unique number in the case side for quality tracking.

6. Storage and Transportation

- 1. Based on the character of cell, proper environment for transportation of LiFePO4 battery pack need to be created to protect the battery.
- 2. During transportation, 50% SOC must be kept to ensure that short circuit, appearance of liquid in the battery or immersion of battery in liquid never occur.
- 3. Battery should be kept at $-20^{\circ}\text{C} \sim 45^{\circ}\text{C}$ in warehouse where it's dry, clean and well-ventilated.
- 4. During loading of battery, attention must be paid against dropping, turning over and serious stacking.

7. Warning and tips

In order to prevent the battery leaking, getting hot and exploding, please pay attention to preventing measure as following:



Warning!

- Never throw the battery into water, keep it under dry, shady and cool circumstance when notuse.
- Never upside down the positive and negative.
- Never connect the positive and negative of battery with metal.
- Never ship or store the battery together with metal
- Never knock, throw or trample the battery.
- Never cut through the battery with nail or other edge tool.

Tips!

- Never use or keep the battery under the high temperature. Otherwise it will cause battery
 heat, get into fire or lose some function and reduce the life. The proposed temperature for
 long-term storage is 10-45℃.
- Never throw the battery into fire or heating machine to avoid fire, explosion and environment pollution; Scrap battery should be handled by the recycle station.
- Never use the battery under strong static and strong magnetic field, otherwise it will destroy
 the protecting device.
- If battery leaked, the electrolyte get into eyes, please don't knead, please wash eyes by water and send to hospital. Otherwise it will hurt eyes.
- If battery emit peculiar smell, heating, distortion or appear any unconventionality during using, storage or charging process, please take it out from device or charge and stop using.
- Never cut the battery in socket directly; please use the stated charger when charging.
- Check the voltage of battery and relevant connectors before using the battery. It can't be



used until everything turns out to be normal.

- Prior to charging, fully check the insulativity, physical condition and ageing status, since
 breakage and ageing are never allowed; the pack voltage must not be less than the cutoff
 voltage, if not, it's abnormal and that battery needs to be labeled. The user should contact
 our Customer Service Dept and it can't be charged until repaired by our staff.
- The battery should be stored in 50% SOC. If the battery is stored for a long time, the battery should be conducted a cycle of charge and discharge every 3 months, then charge to 50% SOC.
- Clean the dirty electrode, please use a clean dry cloth, otherwise poor contact or operation failure may occur.
- Series connection of this battery pack is prohibited.
- Parallel connection of this battery pack is prohibited.

8. Other Chemical Reaction

Because batteries utilize a chemical reaction, battery performance will deteriorate over time even if stored for a long period of time without being used. In addition, if the various usage conditions such as charge, discharge, ambient temperature, etc. are not maintained within the specified ranges, the life expectancy of the battery may be shortened or the device in which the battery is used may be damaged by electrolyte leakage. If the discharge time is much shorter than the normal after full charged, even battery is charged correctly, and this may indicate it is time to change the battery.