

磷酸铁锂电池规格书

LiFePO4 Battery Specification

Model: 38.4V105Ah



拟定 (Prepare)	审核 (Check)	批准 (Approval)
Andy	Jimmy	Jerry

目录

Contents

一、产品规格参数(**Normal performance**):

二、电池结构尺寸(**Picture of product**):

三、电气性能及测试条件(**Performance & Test Condition**)

四、贮存与运输(**Storage and Transportation**)

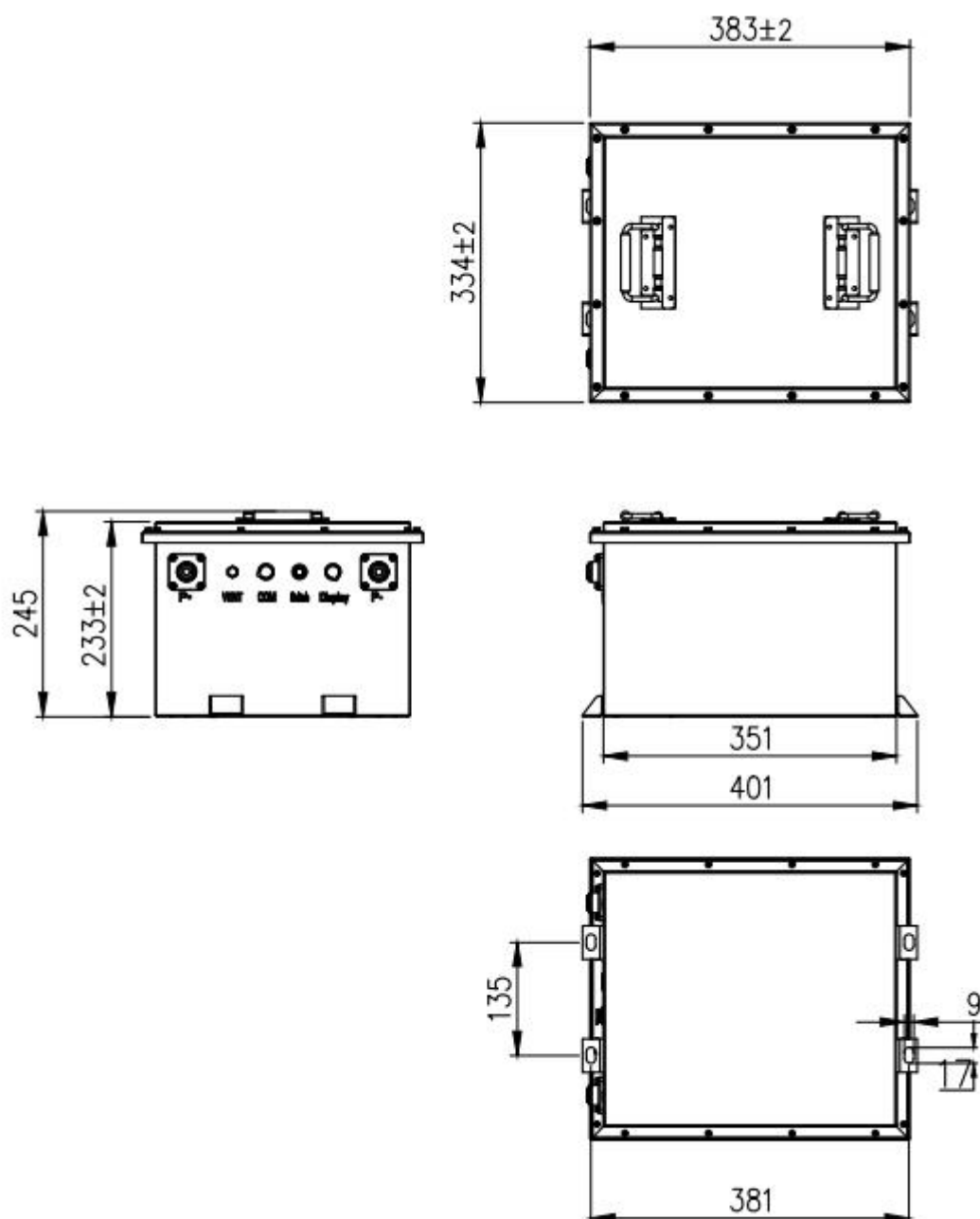
五、电池使用时警告及注意事项(**Warning and Tips**)

一、产品规格参数(Normal performance):

序号 NO.	项目 Item	特性参数 General Parameter	
1	额定容量 Rated capacity	105Ah	
2	标称电压 Standard voltage	38.4V (12S)	
3	标准充电电压 StandardCharge voltage	43.8V	
4	充电方式 charging method	CC-CV	
5	充电电流 charge current	标准 normal	22A
		最大 Max	50A
6	放电截止电压 Cut-off voltage	30V	
7	标准持续放电电流 Standard Continuous discharge current	105A (1C)	
8	最大持续放电电流 Max,Continuous discharge current	200A (BMS)	
9	峰值放电电流 Peak discharge current	600A @1S (BMS) 300A @10S	
10	通讯 Communications for RS232/RS485/Bluetooth / CAN:	Bluetooth/CAN/RS485	
10	显示屏 Display screen	选配 (Optional)	
11	充电器 Charger	15A-50A	选配 (Optional)
12	电池总重量 Total weight	About 36.5 kg	
13	内阻 Impedance (Max, at 1000Hz.)	≤ 30 mΩ	
14	工作温度 Charge method	充电 charge	0~55°C
		放电 discharge	-20~60°C
15	存储环境 Storage environment	温度 temperature	10~45°C
		湿度 humidity	≤ 75%RH
16	循环寿命 Cycle life	1C @ DOD 100%	≥3500 cycles
		0.2C @ DOD 100%	≥6000 cycles

17	自放电率 Self-discharge rate	$\leq 3\%/Month(月)$
18	防护等级 levels of protection	IP67
19	电池尺寸 Battery dimension	长 $L=401\pm 2mm$
		宽 $W=334\pm 2mm$
		高 $H=245\pm 2mm$

二、电池外观结构和尺寸([Battery appearance structure and size](#))



三、电气性能及测试条件(Performance & Test Condition):

序号 No.	项目 Project	标准 Standard	测试方法 Testing method								
1	额定容量 Rated capacity	105Ah	电池经标准充电后,以 0.5C 电流放电至截止电压。循环三次,当有一次达到标准,即达到标准要求(下同); After standard charge, discharge @0.5C current to the end of discharge voltage. cycles for three times, One cycle capacity arrive standard, that's to say it is qualified.(The below as the same);								
2	常温荷电保持能力 Charging keep ability in normal temperature	剩余容量≥标称容量*97% Remain capacity≥standard capacity *97%	电池标准充电后,在 25°C±5°C贮存 1 个月,储存期满后,以 0.2C 恒流放电至截止电压,测量电池容量。 After standard charging, store at 25°C±5°C for 1 month, and then discharge capacity @0.2C current to the end of discharge voltage, Then measure the capacity of cell.								
3	循环寿命 Cycle life	0.2C @ DOD 100%	电池经标准充电后,以 0.2C 电流放电至截止电压,搁置 1h,以此模式循环 6000 次。 After standard charge, discharge @0.2C current to the end of discharge voltage. rest for 1h, cycles for 6000 times.								
4	初始内阻 Internal Impedance	≤30mΩ	在 50%SOC 条件下用 1kHz AC 的交流内阻测试仪。 @50% SOC @1kHz AC internal resistance test instrument.								
5	放电温度特性@0.2C Discharge temperature characteristic @0.2C	<table><tr><td>-20°C(6h)</td><td>≥70%</td></tr><tr><td>0°C(6h)</td><td>≥90%</td></tr><tr><td>25°C(4h)</td><td>≥100%</td></tr><tr><td>55°C(4h)</td><td>≥97%</td></tr></table>	-20°C(6h)	≥70%	0°C(6h)	≥90%	25°C(4h)	≥100%	55°C(4h)	≥97%	特定温度放电容量/25°C放电容量 Capacity @specified temperature/Capacity @ 25°C
-20°C(6h)	≥70%										
0°C(6h)	≥90%										
25°C(4h)	≥100%										
55°C(4h)	≥97%										

四、贮存与运输 (Storage and Transportation)

1 根据电池的特性,磷酸铁锂电池组在贮存运输过程应满足其贮存的环境条件,以最大的保护电池的性能。

1. Based on the character of cell, proper environment for transportation of LiFePO₄ battery pack need to be created to

protect the battery.

2.磷酸铁锂电池存贮及运输过程中，应有适当的保护，保持 30%-50%左右的 SOC 水平，确保不会短路及液体进入磷酸铁锂电池组或浸泡在液体中（如水、油等）

2.During transportation,30%-50% SOC must be kept; Avoid short circuit, prevent the liquid from entering the battery pack or immersing in the liquid (such as water, oil, etc.)

3.如果暂不使用，电池应贮存在 0℃~45℃干燥、清洁及通风良好的仓库内。

3.Battery should be kept at 0℃~45℃ in warehouse where it's dry, clean and well-ventilated.

4 电池在装卸过程中，应轻搬轻放，严防摔掷、翻滚、重压。

4. During loading of battery, attention must be paid against dropping, turning over and serious stacking.

五、电池使用时警告及注意事项（Warnings and Tips）

为防止电池可能发生泄漏、发热、爆炸，请注意以下预防措施：

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

警告！（Warning!）

- 严禁将电池浸入海水或水中,保存不用时,应放置于阴凉干燥的环境中;
- Never throw the battery into water, keep it under dry, shady and cool circumstance when not use.
- 严禁颠倒正负极使用电池;
- Never upside down the positive and negative.
- 禁止用金属直接连接电池正负极短路;
- Never connect the positive and negative of battery with metal.
- 禁止将电池与金属,如发夹、项链等一起运输或贮存;
- Never ship or store the battery together with metal
- 禁止敲击或抛掷、踩踏电池等;
- Never knock, throw or trample the battery.
- 禁止直接焊接电池和用钉子或其它利器刺穿电池;
- Never cut through the battery with nail or other edge tool.

注意!(NOTICE!)

- 禁止在高温下使用或放置电池，否则可能会引起电池过热、起火或功能失效、寿命减短；电池长期储存建议最佳温度为 0-45℃。
- 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 0-45℃.
- 禁止将电池丢于火或加热器中以防起火、爆炸及污染环境；报废电池应退回供应商或电池回收点处理。

- Never throw the battery into fire or heating machine to avoid fire, explosion and environment pollution; scrap battery should be returned to the supplier and handled by the recycle station.
- 禁止在强静电和强磁场的地方使用，否则易破坏电池安全保护装置，带来不安全的隐患。
- Never use the battery under strong static and strong magnetic field, otherwise it will destroy the protecting device.
- 若电池发生泄露，电解液进入眼睛，千万不可揉擦，应立即用清水冲洗眼睛，并立即送医院治疗，否则会伤害眼睛。
- 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.
- 如果电池发出异味，发热、变色、变形或使用、贮存、充电过程中出现任何异常，应立即将电池从装置或充电器中移离并停用。
- 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.
- 禁止将电池正负极直接插入电源插座中，必须选用锂离子电池专用充电器。
- Never cut the battery in socket directly; please use the stated charger when charging.
- 安装前需检查电池电压和连接件，一切正常后方可使用。
- Check the voltage of battery and relevant connectors before using the battery. It can't be used until everything turns out to be normal.
- 充电前需认真检查所有电线的绝缘性及破损和老化情况，所有导线决不能有破损和老化；另组合电池的电压必须大于等于 30V 为正常，若电压低于 30V 为异常，此时需要对此出现异常的箱子进行标识并与我司售后服务部联系，暂不充电，待我司派人检修后方可进行充电。
- Prior to charging, fully check the insulation, physical condition and ageing status, since breakage and ageing are never allowed; the pack voltage must not be less than 30V, 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.
- 电池半电存贮，若电池半年没有用过，需进行补充电一次。
- The battery should be stored in half SOC. It needs to be charged once if out of use for as long as half a year.
- 若电极弄脏，使用前应用干布抹净，否则可能会导致接触不良、功能失效。
- Clean the dirty electrode, if any, with a clean dry cloth, or poor contact or operation failure may occur.
- 若将电池组进行并联使用，必须确保电池组带电量一致，压差在 50mV 以内。
- If the battery pack is used in parallel, it must be ensured that the battery pack has the same charge and the pressure difference is within 50mV.