

LiFePO4 Battery Instruction

1. Scope of application 适用范围

This specification describes the basic performance , technical requirement ,testing method, warning and caution of the XDLP LiFePO4 rechargeable battery .

本规格书规定了磷酸铁锂可充电电池的基本性能、技术要求、测试方法及注意事项。

2. Conditions of use 使用条件

Batteries can only be used under the following conditions, otherwise the performance of batteries will be reduced or the service life of batteries will be shortened. The use of batteries outside this temperature range may cause overheating, explosion or fire.

只能在下述条件下使用电池，否则将会降低电池的性能或缩短电池的使用寿命。在此温度范围外使用电池可能引起过热、爆炸或起火。

(1) Charging: 0 ~45, relative humidity 45%~85%;

充电: 0°C~45°C, 相对湿度 45%~85%;

(2) Discharge: - 10 ~55 C, relative humidity 45%~85%;

放电: -10°C~55°C, 相对湿度 45%~85%;

(3) The daily average relative humidity is not more than 80%, and the monthly average relative humidity is not more than 80%.

日平均相对湿度不大于 80%，月平均相对湿度不大于 80%;

(4) There is no strong vibration and impact, no strong electromagnetic interference, and the induction intensity of external magnetic field should not exceed 0.5mT.

安装使用地点无强烈振动和冲击，无强电磁干扰，外磁场感应强度均不得超过 0.5mT;

(5) Installation vertical inclination does not exceed 5%.

安装垂直倾斜度不超过 5%;

(6) There shall be no explosive dangerous medium in the place of use, no harmful gas or conductive medium that corrodes metals and destroys insulation, and no mildew shall be allowed in the surrounding medium.

使用地点不得有爆炸危险介质，周围介质不含有腐蚀金属和破坏绝缘的有害气体及导电介质，不允许有霉菌存在。

(7) Battery must charge every three months. Long time store, please charge the battery keep 40%~60% electricity.

电池在贮存期间每三个月充电一次。确保电池保持 40%~60%电量。

3. WARNINGS AND CAUTIONS IN HANDLING THE Lithium LiFePO₄ BATTERY 电池使用时警告事项及注意 事项

To prevent a possibility of the battery from leaking, heating or explosion please observe the following precautions:

为防止电池可能发生泄漏,发热、爆炸,请注意以下预防措施:

WARNINGS!

(1) Do not immerse the battery in water or seawater, and keep the battery in a cool dry surrounding if it stands by.

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

(2) Do not use or leave the battery near a heat source as fire or heater

禁止将电池在热高温源旁,如火、加热器等使用和留置

(3) When recharging, use the battery charger specifically for that purpose

充电时请选用锂离子电池专用充电器

(4) Do not reverse the positive (+) and negative (-) terminals

严禁颠倒正负极使用电池

(5) Do not connect the battery to an electrical outlet

严禁将电池直接接入电源插座

(6) Do not discard the battery in fire or heat it

禁止将电池丢于火或加热器中

(7) Do not let the battery terminals (+ and -) contact a wire or any metal with carried or stored together, may cause short-circuit.

禁止将电池的电极和导线或者其他金属物质接触及储存在一起, 以免发生短路。

(8) Do not drive a nail in, hit with a hammer, or stamp on the battery.

禁止钉刺、敲击、抛掷、脚踩电池。

(9) The physical structure of lithium batteries will be changed by high pressure, strong vibration and strong impact, and the battery will be damaged due to internal short circuit. The batteries with the above phenomena can not continue to use in operation, so they should be discarded in time.

强压、强振、强冲击都会造成锂电池内的物理结构变动, 出现内部短路现象造成电池损坏, 在操作中出现跌落及上述现象的电池不能在继续使用, 应及时做报废处理。

(10) Do not disassemble or alter the batteries' outside structure.

禁止私自拆卸电池或取出电池外包装。

(11) Do not charge the battery continue over 24 hour.

禁止连续充电超过 24 小时。

(12) Do not discharge the battery continuously when it is charges.

电池在充电的过程中不允许持续放电。

CAUTIONS!

(1) Do not use or leave the battery at very high temperature (for example, at strong direct sunlight or in a vehicle in extremely hot weather). Otherwise, it can overheat or fire or its performance will be degenerated and its service life will be decreased.

禁止在高温下（炙热的阳光下或很热的汽车中）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

(2) Do not use it in a location where static electricity is great, otherwise, the safety devices may be damaged, causing hidden trouble of safety.

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

(3) If the battery leaks, and the electrolyte get into the eyes. Do not rub eyes, instead, rinse the eyes with clean running water, and immediately seek medical attention. Otherwise, it may injure eyes or cause a loss of sight.

如果电池发生泄露,电解液进入眼睛,请不要揉擦,应用清水冲洗眼睛,并立即送医院治疗,否则会伤害眼睛

(4) If the battery gives off an odor, generates heat, becomes discolored or deformed, or in any way appear abnormal during use, recharging or storage, immediately remove it from the device or battery charger and stop using it.

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,立即将电池从装置或充电器中移离并停用

(5) In case the battery terminals are dirty, clean the terminals with a dry cloth before use. Otherwise power failure or charge failure may occur due to the poor connection with the instrument.

如果电极弄脏,使用前应用干布抹净,否则可能会导致接触不良功能失效

(6) Be aware discarded batteries may cause fire, tape the battery terminals to insulate them

废弃之电池应用绝缘纸包住电极,以防起火、爆炸

4.Attention 注意事项

(1) Lithium batteries can not be used in short connection (all kinds of batteries can be used in short connection), the phenomenon of direct short connection between positive and negative electrodes of batteries can not occur. The consequence is that the explosion-proof valve opens and will burst in serious cases.

锂电池不能短接使用（任何种类电池都不能短接使用），不能出现电池正极与负极直接短接现象。后果是防爆阀开启，严重时爆裂。

(2) Can not be used over discharge, discharge voltage should not be lower than the lower limit voltage of the battery, affecting the battery cycle life (inflation).

不能过放使用，放电电压不能低于电池下限限压，影响到电池循环寿命（胀

气)。

(3) Can not be overcharged, charging voltage can not be higher than the battery upper limit voltage, explosion-proof valve open, serious will burst.

不能过充使用，充电电压不能高于电池上限限压，防爆阀开启，严重时爆裂。

(4) Different types of products can not be mixed use, battery structure, chemical composition, battery performance deviation is large, there are serious security risks.

不同型号的产品不能混合使用，电池结构、化学成份、电池性能偏差较大有严重安全隐患。

(5) Different batches of products should not be mixed to affect the consistency of battery monomers. The products of the same batch are the products of the same mixing process, the chemical composition is the same, and the consistency between the cell monomers is the closest. (Mixed use is not recommended for different batches of products)

不同批次产品不应混合使用，影响电池单体间的一致性。相同批次的产品是同一拌料过程中的产品，化学成份相同，电池单体之间的一致性最接近。(不同批次产品不建议混合使用)

(6) Fire prevention, improper use of high capacity lithium batteries will cause fire (should be operated according to the relevant national standards for the use of electrical appliances), with special fire extinguishing equipment and fire disposal channels. Keep away from flammable and explosive materials.

防火灾，高容量锂电池使用不当会引发电火（应按相关的国家电器使用标准操作），需配专用灭火器材和火灭处置通道。应远离易燃、易爆物品。

(7) Electrical appliances with lithium batteries (all kinds of secondary batteries) must be regularly charged and maintained. Long-term storage will drain the battery energy, resulting in battery damage. Such phenomena as shell expanding and non-charging. Because of impurities such as moisture in the air, all batteries placed in the air are in a continuous discharge state due to certain conductive conditions. Discharge varies greatly in different environments and seasons

有锂电池（所有种类的二次电池）电器产品都必须定期充电维护。长时间放置会放空电池能量，出现电池损坏现象。如胀壳、不能充电等现象。因空气中因水份等杂质，都具有一定的导电条件，导致所有在空气中放置的电池处于连续的放电状态。不同环境、不同季节放电差异较大

(8) Lithium iron phosphate batteries can be connected in parallel,磷酸铁锂电池组可以并联