

深圳市联可新材料科技有限公司

充电器规格书

Specification of Battery Charger

型号: **MX1300A**

43.8V/25A 铁锂电池充电器

43.8V/25A LiFePO4 Battery Charger



1. 概述 General

此型号 MX1300A 的铝质外壳充电器能在输出 43.8Vdc/25A 的情况下工作，具有反接保护功能。
Battery Charger MX1300A can work normally under 43.8Vdc/25A and with reverse polarity protection.

2. 主要参数 Main product specification

最大输出功率 Max.output power	输入电压 Input voltage	最高输出电压 Output voltage	误差范围 Combined regulation	输出电流 Output current	误差范围 Combined regulation
1300W	100~240Vac	43.8V \pm 0.2Vdc	\pm 0.2V	25A	\pm 0.2A

3. 环境条件 Environmental condition

序号 No.	项目 Item	技术参数 Technical specification	备注 Remark
1	湿度 Humidity	5~95%	带包装 With package
2	海拔 Altitude	\leq 3000m	正常工作 Work normally

4. 技术特征 Electrical characteristics

4.1 输入特征:

Input characteristic

序号 No.	项目 Item	技术参数 Technical specification	备注 Remark
1	额定输入电压 Rated input voltage	120Vac ro 230Vac	
2	电压输入范围 Input voltage range	100~240Vac	
3	频率 AC input voltage frequency	50~60 Hz	

4.2 输出特征和充电模式:

Output characteristic or charge stages

序号 No.	项目 Item	技术参数 Technical specification	备注 Remark
1	恒流 CC(constant current)	\leq 43.8Vdc 25A	
2	恒压 CV(constant voltage)	43.8Vdc 25A \downarrow	
3	浮充 Float stage	42.5~43.8V	8A

4	效率 Power efficiency	$\geq 90\%$	输入电压=120Vac, 额定负载 Vin=120Vac, rated load
		$\geq 92\%$	输入电压=230Vac, 额定负载 Vin=230Vac, rated load

4.3 保护特征:

Protection characteristics

序号 No.	项目 Item	技术参数 Technical specification	备注 Remark
1	输入电压异常保护 Input voltage abnormal protection	当电源超出输入电压范围是充电器不工作, 电源正常后可自行恢复。 When the power supply exceeds the input voltage range, the charger does not work. The power supply can be restored after it is normal.	
2	硬件过压保护 Hardware Over Voltage Protection	当输出电压超过 45V 时, 充电器触发硬件过压保护。故障时充电器应进入锁死保护模式。当故障排除后, 充电器自动恢复。 When the output voltage exceeds 45V, the charger triggers the hardware overvoltage protection. In case of failure, the charger should enter the lock protection mode. When the fault is rectified, the charger automatically recovers.	
3	过温保护 Over Temperature Protection	充电器内部温度超过 45°C 时, 充电器输出降额至 70% 温度恢复后, 重新启动充电器恢复正常。 When the internal temperature of the charger exceeds 45°C, the charger output derates to 70% After the temperature returns, restart the charger to return to normal	
4	定时保护 Timing protection	当充电时间超过 14 小时, 充电器应停止工作。自动恢复 When the charging time exceeds 14 hours, the charger should stop working. Automatic recovery	
5	低电压保护 Under Voltage Protection	当充电器输出电压小于 21.9V, 进入低压保护模式, 当故障排除后, 充电器可自动恢复 When the output voltage of the charger is less than 21.9V, it enters the low-voltage protection mode. When the fault is removed, the charger can automatically recover	
6	电池反接保护 Anti Reverse Polarity Protection	当电池极性接反时, 充电器保护, 故障排除后, 自动恢复工作 When the battery polarity is reversed, the charger is protected and automatically resumes work after the fault is removed	

7	短路保护 Short Circuit Protection	当输出发生短路时,充电器保护, 电源可恢复。 故障排除后,自动恢复工作 When the output short-circuit occurs, the charger is protected and the power supply can be restored. After the fault is rectified, it automatically resumes work	
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4.4 充电指示

Charging indicator

S1≤2H	S2≤10H	S3≤4H	S4
V0=20V V1=30.5V	V2=30.5~42.5V	V3=42.5~43.8V	充满 Full
I1=3A	I2=25A	I3=8A I4≤3A	0A
红灯快闪 Red light flash	红灯慢闪 Red light flashing slowly	绿灯慢闪 Green light flashing slowly	绿灯亮 Green light on

5. 安全性 Safety & EMC

序号 No.	项目 Item	标准 (或测试条件) Standard (or test condition)	备注 Remark
1	耐压测试 Electric strength test	输入-输出 Input-output	1500Vac/10mA/1min 无故障 No breakdown
2	绝缘电阻 Isolation resistance	输入-接地 Input-ground	≥10Mohm@500Vdc
		输出-接地 Output-ground	≥10Mohm@500Vdc
3	泄漏电流 Leakage current	<3.5mA	Vin=264Vac
4	低电压测试 LVD	EN60335-1:2002+EN60335-2-29:2002	

6. 环境测试要求 Environmental testing requirements

序号 No.	项目 Item	技术参数 Technical specification	备注 Remark
1	最高工作温度	+45℃	性能正常

	High temperature ambient operating		Features OK
2	最低工作温度 Low temperature ambient operating	-10°C	性能正常 Features OK
3	最高存储温度 High temperature storage	+70°C	在恢复正常温度 2 小时后，充电器能正常工作。 Work normally after recovery under normal temperature for 2 hours
4	最低存储温度 Low temperature storage	-40°C	在恢复正常温度 2 小时后，充电器能正常工作。 Work normally after recovery under normal temperature for 2 hours
5	随机振动 Random vibration	20Hz to 2000Hz 3Grms 20hours per axis	
6	重复震动 Repetitive shock	40g peak 3 orthogonal axes, 3+ and 3- in each axis, 11ms pulse width	
7	热冲击 Thermal shock	-35°C to 75°C, <3min transition, 2.5hours dwell, 200cycle	
8	跌落测试 Drop test	BS EN60068-2-32:1993 TEST ED: free fall appendix B	

7. 机械特征 Mechanical characteristic:

外壳材质：铝

Shell material: Aluminum

防水等级 waterproof rating: IP65

外壳尺寸: L232*W136.5*H76(115.5)mm

Outline dimension: L*W*H=210×120×70mm

输入接口: 通过 IEC 标准

Input socket: meets IEC standard

电源线: 1.2

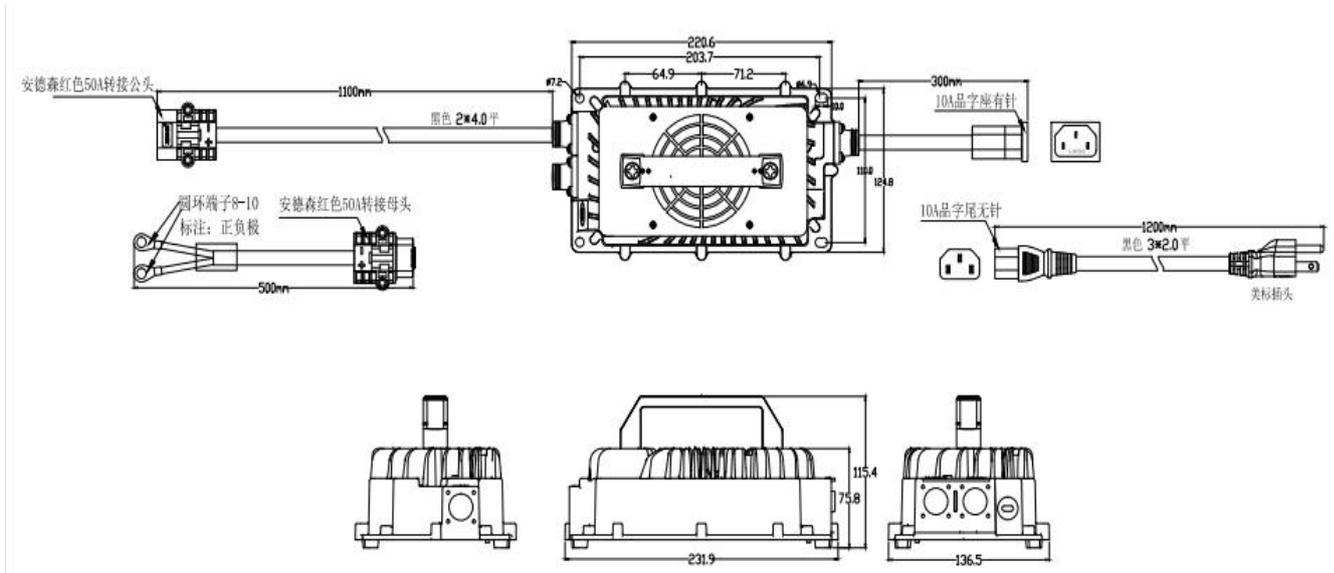
AC wires: 1.2m

输出线: 1.5 米

DC wire: 1.2m

净重: 2.8 千克

Net Weight: 2.8Kg



8. 包装，运输方式和存储方式 Package, transportation & storage

8.1 包装 Package:

包装盒内有产品名称，型号，生产厂家名称，安全标准，序号，使用说明书以及装箱单。

There is product name, model, name of manufacturer, safety approval, serial number, User Manual and packing list in the package box.

8.2 运输方式 Transportation:

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适用于货车装运，产品需放在阴处，装卸时请小心。

Suit for transportation by truck, the products should be shielded by tent from sunshine, and loaded and unloaded carefully.

8.3 存储方式 Storage:

当产品不使用时，应放在包装盒内。仓库温度应在 $-40\sim 70^{\circ}\text{C}$ ，相对湿度为 $5\sim 95\%$ ，并且仓库内不能有有害气体，易燃品，爆炸品，腐蚀性等化学物品及强有力的机械震动、冲击和磁场影响。包装盒需放在距离地面至少 20cm 高，距离墙，热源，和通风口 50cm 远。充电器在此种存储条件下可以放两年，超过两年须重新检测。充电器必须每三个月通电一次，通电时间应不少于 0.5 小时。

Products should be stored in package box when it is not used. And warehouse temperature should be $-40\sim 70^{\circ}\text{C}$, and relative humidity is $5\sim 95\%$. In the warehouse, there should not be harmful gas, inflammable, explosive products, and corrosive chemical products, and strong mechanical vibration, shock and strong magnetic field affection. The package box should be above ground at least 20cm height, and 50cm away from wall, thermal source, and vent. Under this requirement, product has 2 years of storage period, and should be rechecked when over 2 years.

9.可靠度需求 Reliability requirements

MTBF (标准, 环境温度, 负载要求) $\geq 50\text{K}$ 小时;

MTBF (standard, environmental temperature, load requirement) $\geq 50\text{K}$ hours;

测试条件: 25°C , 满载, 测试通过值。

testing condition: 25°C , full load, testing proved value.

10. 充电曲线 Charging Curve

