



慈溪市中能电池有限公司

产品规格书

LR6

碱性锌锰电池

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1. 概述 Summary

此规格书适用于慈溪市中能电池有限公司生产的LR6产品上。

This specification is suitable for LR6 alkaline battery of Cixi Zhongneng Battery Co. Ltd.

1.1 型号 Designation

IEC : LR6 Other : AA JIS : AM3 China: 5#

1.2 参考标准 Reference standard

IEC 60086-1 (2000-11) --- Primary Batteries - Part 1: General

IEC 60086-2 (2001-10) --- Primary Batteries - Part 2: Physical and electrical specification

1.3 执行标准 Execution standard

GB/T 8897.1-2013

GB/T 8897.2-2013

GB 8897.5-2013

2. 电化学体系 Chemistry composition

锌/氢氧化钾/电解二氧化锰 Zinc , Potassium hydroxide , EMD

不添加水银和镉 0.00% Mercury & Cadmium

3. 标称电压 Normal voltage: 1.5V

4. *

5. 标称容量 Nominal Capacity

2000mAh (条件:43Ω负载, 每天放电 4 小时, 终止电压 0.9V, 放电环境: 20+/-2° C)

2000mAh (condition: 43Ω load resistance, end-point voltage 0.9V, discharge 4 hours per day at 20+/-2° C)

6. 电性能 Electrical performance

(测试条件: 负载电阻 (±0.5%) 3.9Ω, 测试时间: 0.3 秒, 温度: 20±2° C。)

(Test condition: Load Resistance (±0.5%) 3.9Ω, Time: 0.3s, Temperature: 20±2°C。)

条件 Condition	开路电压 O.C.V (V)	负载电压 C.C.V (V)	接受水平 Accept Level
新电池 (交货 30 天内) ≤3 months after delivery	≥1.58	≥1.40	MIL-STD105E, II, AQL=0.4
常温储存 12 个月 Room temperature, Store for 12 months	≥1.55	≥1.35	

7. 放电性能 Service Life

(测试条件: 温度: $20 \pm 2^{\circ}\text{C}$ 相对湿度 $60 \pm 15\%RH$)

 (Test condition: Temperature: $20 \pm 2^{\circ}\text{C}$; Relative humidity: $65 \pm 15\%RH$)

放电项目 Discharge Item	放电条件 Discharge Method			最小平均放电时间 Minimum Average Duration	
	放电负载 Load Resistance	放电方式 Discharge mode	终止电压 Cutoff Voltage (V)	新电池 (30 天内) ≤ 3 months after delivery	室温储存 12 个月 Room temperature, Store for 12 months
IEC 项目 IEC Item	43 Ω	4h/d	0.9	$\geq 70\text{h}$	$\geq 64\text{h}$
	3.9 Ω	1h/d	0.8	$\geq 7\text{h}$	$\geq 6\text{h}$
	10 Ω	1h/d	0.9	$\geq 16\text{h}$	$\geq 14\text{h}$
参考项目 Reference Item	3.9 Ω	24h/d	0.9	$\geq 390\text{min}$	$\geq 380\text{min}$
参考项目 Reference Item	250mA	1h/d	0.9	$\geq 7.5\text{h}$	$\geq 6.5\text{h}$

验收方法 Inspection Method/Satisfaction Standard:

- 每一交货批, 每一放电项目, 抽 9 个电池作放电测试。
9 pieces of battery will be tested for each discharging standard.
- 放电平均结果大于或等于最小平均放电时间, 且个体放电时间低于最小平均值的 80% 的电池个数不大于 1, 则批次电池容量测试为合格。
The result of the Minimum Average Duration from each discharging standard shall be equal to or more than the Minimum Average Duration requirement; and no more than one battery has a service output less than 80% of the specified requirement.
- 如果第一次测试不合格, 则须重新抽样测试, 重测结果合格, 则整批货为合格。
One re-test is allowed to confirm the previous result.

8. 耐漏性能 Leakage Resistance

项目 Item	条件 Condition	测试时长 Test Duration	结果 Result	接收水平 Accept Level
过放电测试 Over discharge	在 $20 \pm 2^{\circ}\text{C}$ 和 $60 \pm 15\%RH$ 的环境下, 用 $10\ \Omega$ 电阻连续放电 $20 \pm 2^{\circ}\text{C}$; $65 \pm 15\%RH$, Discharge continuously with $10\ \Omega$ resistance	连续放电 48 小时 Continuous discharge for 48 hours	电池的形变不能超过尺寸规格值的上限及不能发生肉眼可辨别的漏液现象 The deformation of the battery should not exceed the upper limit of the size value and the phenomenon of liquid leakage which can be seen by naked eyes should not occur.	N=30, Ac=1, Re=2
恒温恒湿测试 High heat and humidity storage test	$60 \pm 2^{\circ}\text{C}$ 相对湿度低于 90% RH $60 \pm 2^{\circ}\text{C}$ Low 90% RH	30 天 30 Days		N=30, Ac=1, Re=2

9. 安全性能 Safety performance

项目 Item	条件 Conditions	测试时长 Test Duration	要求 Request	接收水平 Accept Level
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短路试验 Short circuit test	在标准环境条件下,对电池的两极进行短路。 Short-circuit the battery poles under standard environmental conditions.	6 小时 6 hours	电池允许产生漏液,但不 应发生爆炸。 Batteries are allowed to leak, but should not explode.	N=8, Ac=0,Re=1
不正确安装 Wrong Installation	4 个相同型号电池串联,其中 1 个反接。 4 batteries connect in series with 1 battery reversed.	—		N=8, Ac=0,Re=1

10. 标识 *Marking*

标签上印有以下内容 The label is printed with the following information:

- (1) 型号 Type: LR6
- (2) 标称电压 Normal voltage: 1.5V
- (3) 电池极向 Polarity: “+” or “-”
- (4) 警告字眼 CAUTION: Battery may explode or leak if recharged or disposed of in fire.

11. 使用注意事项 *Caution for use:*

- (1) 碱性锌锰电池是不可充电的,如果对电池充电有可能发生漏液和爆炸的危险。
Since the battery is not manufactured for recharging, there are risks of electrolyte leakage or causing damage to the device if the battery is charged.
- (2) 请按+/-极的标示,正确安装电池。
The battery shall be installed with its "+" and "-" polarity in correct position, otherwise may cause short-circuit.
- (3) 禁止对电池短路、加热、投入火中或试图拆解电池。
Short-circuiting, heating, disposing of into fire and disassembling the battery are prohibited.
- (4) 不要对电池过度放电,这会引起电池泄漏而损坏用电器具。
Battery cannot be forced discharged, which lead to excess gassing and, may result in bulging, Leakage and de-crimping of cap.
- (5) 新旧电池,不同型号或品牌的电池,不能同时使用。如果更换电池时,请确认使用同一品牌且全部更换。
New and used batteries cannot be used at the same time, when replaced batteries recommend to replace all and with the same brand type.
- (6) 用完的电池请及时更换,以防止电池过度放电。否则有可能引起电池泄漏而损坏用电器具。
Exhausted batteries should be removed from compartment to prevent over-discharge, which Cause leakage damage to the device.
- (7) 禁止直接在电池上焊接,这样有可能损坏电池。
Direct soldering is not allowed, which will damage the battery.
- (8) 电池应放在儿童不可触及的地方,以防止儿童误吞。如果儿童误吞,请立即联系医生。
Battery should be kept out of the reach of children to prevent swallow, in case of accident should contact physician at once.

12. 保质期 *Period of validity:*

在合适的储存条件下储存 5 年。Store for 3 years under suitable storage conditions.

(在温度 20+/-2°C,相对湿度 65+/-20%RH 条件下)

(Temperature: 20+/-2° C; Relative humidity: 65+/-20%RH)

13. 尺寸 Dimensions



