

LITHIUM COIN BATTERY
鋰 錳 扣 式 电 池
CR 2025
Technical Specification Sheet
技术规格书

MMD Hong Kong Holding Limited
Add: Units 1006-1007, 10th Floor, C-Bons International Center, 108 Wai Yip Street,
Kwun Tong, Kowloon, Hong Kong
Tel: 0086-755-3635 8914

Any Change of this Specification sheet are without prior notice

本公司对本产品技术规格如有更改，不另行通知。

CR2025 Technical Specification 技术规格

1、 Scope Of this Specification 适用范围

This Specification is suite for Philips CR Lithium coin Battery.本规格书适用于飞利浦CR2025 锂锰扣式电池。

1.1 Model No.型号

| Model | IEC | JIS | ANSI |
|--------|--------|--------|------|
| CR2025 | CR2025 | CR2025 | / |

1.2 Reference Standard 参考标准

GB/T 8897.1–2013 《原电池 第1 部分：总则》 Primary Battery Part 1: General

GB/T 8897.2–2013 《原电池 第2 部分：外形尺寸和电性能要求》 Primary Battery Part 2
Physical and Electrical Specification

GB/T 8897.4–2008 《原电池 第4 部分：锂电池的安全要求》 Primary Battery Part 4: Safety Of
Lithium Battery

2、 Chemical System 化学体系

Lithium - Manganese (With Organic Lithium Compound Electrolyte)

锂-二氧化锰（含锂盐类有机电解液）

3、 Nominal Voltage 标称电压： 3.0V

4、 Reference Average Weight 平均参考重量： 2.50 g

5、 Average Discharge Capacity 平均放电容量

165 mAh (20±2℃, RH: 45%~75%, 15KΩ 负载连续放电至终止电压 2.0V)

Rating at 20±2℃, RH: 45%~75%, 15KΩ, Continuous discharge to 2.0 V cutoff

6、 Electrical Characteristic 电性能（20±2℃，RH：45%~75%）

| Test Item 测试项目 | Criteria 技术指标 | Testing condition 测试条件 |
|---------------------------------|------------------|------------------------------------------------------------|
| O.C.V 开路电压 | ≥3.20V | ---- |
| C.C.V 闭路电压 | ≥3.10V | 15KΩ Load, measure within 0.8 Second 15KΩ 负载，检测时间 0.8 秒 |
| S.C.C 短路电流 | ≥400mA | Measure duration 时间≤0.2 秒 |
| Suggested drainage 建議工作电流 | ≤0.2mA | ---- |
| Woring Temp. 工作温度 | -20℃~60℃ | ---- |

CR2025 Technical Specification 技术规格

| | | |
|---------------------------|----------------------------------|---------------------------------------------------------------------------------------------|
| Shelf Discharge Rate 自放电率 | ≤2%/ Year (年) | 电池储存条件符合本技术规格书要求 Battery Storage conditions are meet with this Specification Requirement |
| Impedance 内阻 | Initial(初始期) ≤13Ω | AC 1kHz |
| | After 12 Months (储存 12 个月) ≤ 20Ω | AC 1kHz |

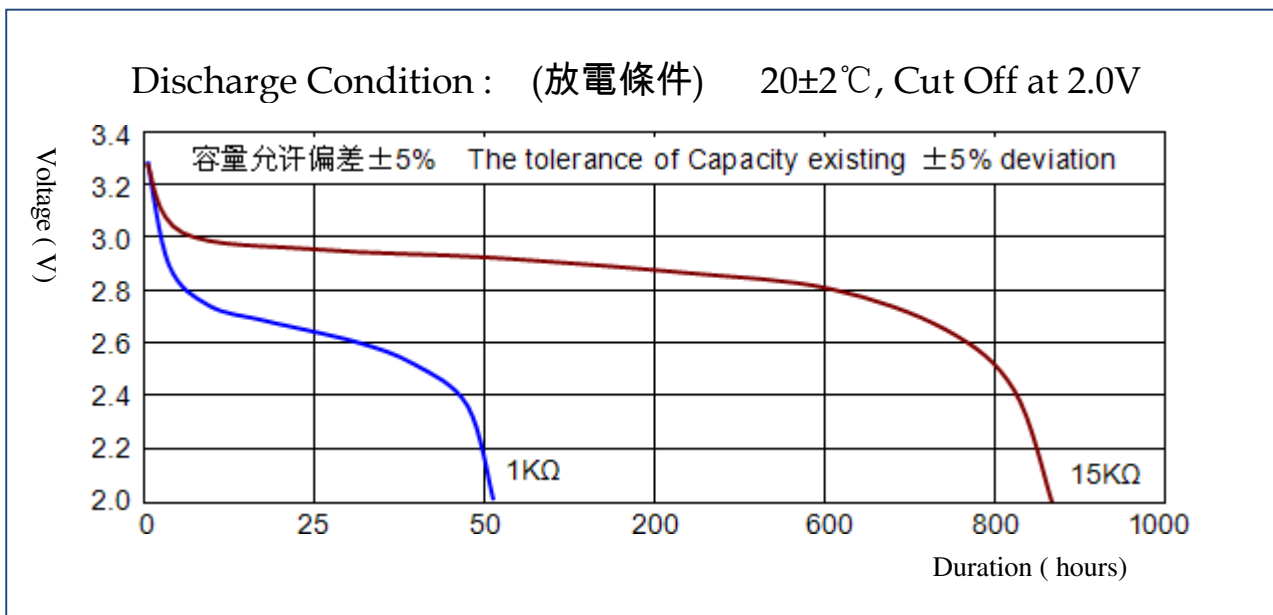
7、Discharge Characteristic 放电性能 (20±2℃, RH: 45%~75%)

| Test Item 测试项目 | Initial 初始期 | After 12 Months 贮存期 | Test Condition 测试条件 |
|-------------------------|----------------|---------------------|-----------------------------------------------------------------------------|
| Average discharge 平均放电量 | ≥850 Hours(小时) | ≥840 Hours(小时) | 15KΩ Loading, continuous discharge to 2.0V cut off 15KΩ 负载连续放电至终止电压 2.0V |

Remark: [Initial] means sampling within 30 of customer's receive.

注：“初始期”表示电池交货 30 天内；“贮存期”表示电池交货后 12 个月内。

8、Discharge Curve 放电曲线



9、Warranty Period

5 Years (subjected to Section 14 [caution for use])

保质期：5年（在遵循第 14 条款“注意事项”情况下）

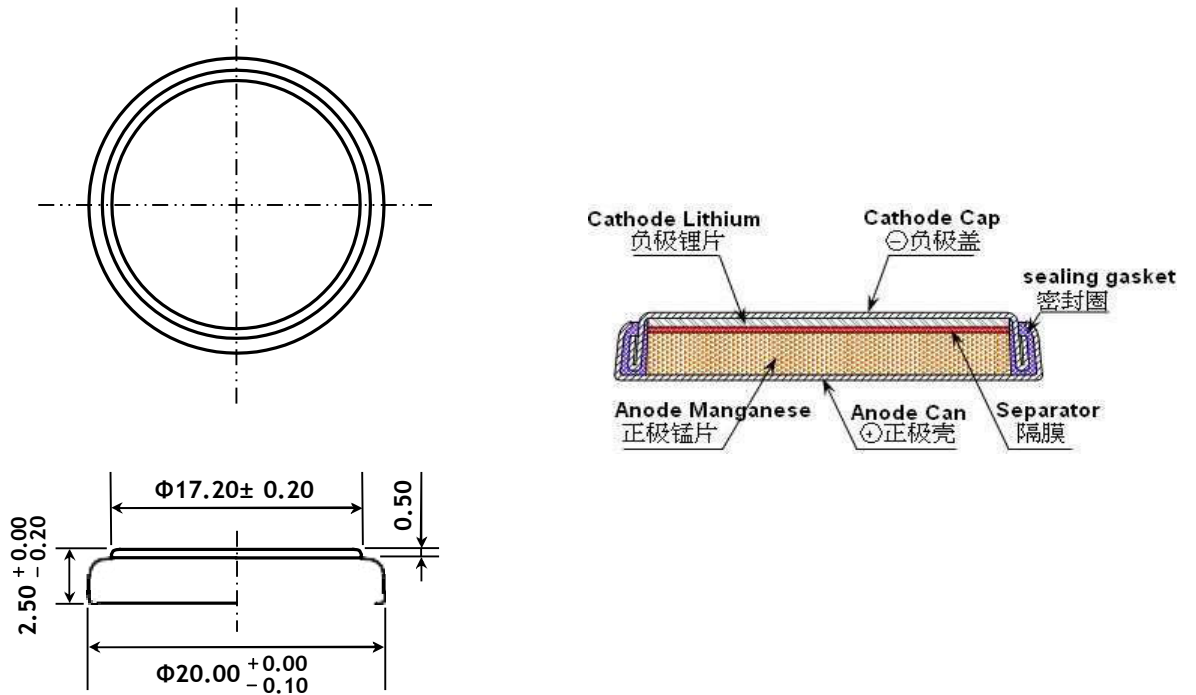
9.1、 If the battery sold and confirmed existing defective caused by either processing, or Material; please return to us for free replacement,, other cost, like direct or indirect damage for used or cannot be reuse, are excluded from this warranty.

如果确认产品在工艺、材料、制作过程中有缺陷，请将产品寄回我司免费更换。其他损坏、破坏所产生的直接或间接成本、费用的损失，及已经使用或无法使用的产品均排除在外。

9.2、 We do not take any liability if users do not follow the using instruction in this specification sheet.

电池使用时必须遵守本技术规格要求，否则我司不能承担任何责任。

11、 Structure and Dimension 电池外形尺寸及结构图



12、 Safety Measures 安全性能

| Test Item 测试项目 | Test Condition 测试方法 | Sample Size 样品数量 | Requirement 要求 |
|------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|---------------------|------------------------------------|
| Leakage After Over discharge 过放电耐漏液性能 | Use standard (15KΩ) discharged to 2.0 V, then continuous discharge for extra 24 hours 电池正常放电 (15KΩ) 至 2.0V 时再持续放电 24 小时。 | 9 Pcs 9 只 | There shall be NO leakage 电池无漏液 |

CR2025 Technical Specification 技术规格

| | | | |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|------------------------------------------------------------------|
| Thermal Shock 高低温循环 | Put the batteries at 75°C for 6 hours, and place under -40°C for 6 hours as One temperature test cycle, each temperature change should be reserved at least 30 minutes for temperature homogenize, observation after 24 hours by 10 temp. cycles. 电池在 75°C 环境放置 6h, 然后在 -40°C 环境放置 6h, 不同温度的转换时间不超过 30 分钟, 重复 10 个循环后转入环境温度下存放 24 小时。 | 10 pcs 10 只 | There shall be NO Leakage, No Fire and Explosion. 无漏液、无爆炸、无起火 |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|------------------------------------------------------------------|

13、Marking 标记

The follow marking is clearly marked on the battery/ 在电池上标明以下内容:

Model No. 型号: CR2025

Nominal Voltage 标称电压: 3V

Polarity Marking 极性标志: "+" Marking as Anode, 正极外壳标注 "+"
 NO Cathode marking (负极 "-" 没标注)

14、Caution 注意事项

14.1 Transportation and loading 运输及装卸

- a. Use suitable packing to avoid strong impact and shock during transportation and Loading.
 采用适当的包装, 避免电池在运输、装卸和堆放过程受到强烈的冲击和震动。
- b. Be care for suitable goods stacking height, (max. 1.5 M for Carton Box , and max. 3 M for wooden box.)
 采取合适的堆放高度 (一般纸质包装不超过 1.5m、木箱不超过 3m)。
- c. Keep away from engine room or boiler during land or maritime transportation.
 运输过程中电池摆放位置不可离车船发动机太近。
- d. Never place Lithium Battery under closed vessel, or expose under sunshine for Long Time, Particular the high temperature season.
 高温季节不可将电池长时间滞留在金属棚车或密闭容器中。

14.2 Storage 贮存

- a. Always place Lithium Battery under well-ventilated, dry, and cool condition, the popper storage temperature is 10 - 25 °C, and do not over 30°C, the humidity should be suited between 40 - 95%. High Humidity storage may cause damage to cell battery.
 电池应贮在通风良好、阴凉干燥处。正常的贮存温度在 10°C~25°C 之间为宜, 不应当超过 30°C, 并应避免将电池贮存在极端湿度 (相对湿度高于 95% 或低于 40%) 环境下。
- b. Never place battery under direct sunlight, or near the heat source, boiler, radiator.
 避免电池贮存在阳光直射、附近有热源 (如散热器、发动机、锅炉等) 的环境中。

- c put unused battery back to original packing, always keep away from metal object, key, coin, etc., if the original packing is loosen, do not mix batteries together, this will cause direct short circuit, consequence high heat or explosion may occur.

将不用的电池放在原包装内，远离易引起短路的金属物体。如果包装已经拆掉，不要把电池乱混在一起，以免电池直接堆积短路。

14.3 Handling in safe 安全使用

- a Insert battery in popper polarity

应按电池及用电器具标明的极性标志（+和一）正确装入电池。

- b Never mix use by different brand, model, or new/old together.

不要将新旧电池或不同类型、不同牌号的电池混合使用。

- c Never short circuit, charging up, heat, throw into fire, or abuse discharge.

不要将电池短路、充电、加热、投入火中或强制放电。

- d Remove battery from devices once used, then dispose in popper way.

应及时从用电器具中取出电量已耗尽的电池并妥善处理。

- e Never direct soldering the CR coin battery

不要直接焊接电池。

- f Never dismantle, destructure, punching, or drilling the CR coin Battery

不要对电池挤压、打孔或进行其他形式的破坏。

- g Always keep away from Child's reaching, if swallowed, seek Doctor immediately.

电池应存放在儿童拿不到的地方，要谨防小孩误吞电池。万一误吞电池要立即就医。

- h Remove battery from device when not in use for long time (except emergency devices purpose)

若长时间不使用要将电池从用电器具中取出（紧急用途的电器具除外）。

- i Never Stacking CR coin battery together (as diagram shown)

It may cause high heat, deform, leakage, explosion or fire.

不要将电池重叠或交叉堆放（如右图示）

如果这样电池有可能发生变形、泄漏、过热、爆炸或火灾。



15、Other 其他

15.1、CR coin battery compliance with the RoHS requirement.

受限于RoHS指令，我司这个电池符合下面化学物质控制要求：铅、汞、镉、六价铬、溴化物、阻燃剂、PBB(多溴联苯)、PBDE（多溴联苯醚）。

15.2、UN 38.3 IATA safety requirement compliance, Certificate available on demand

UN38.3 航空货运安全要求：按需提供

15.3 US. UL Approval certificate available on demand.

U.L 检测报告：按需提供

15.4 M.S.D.S. (Material Safety Data Sheet 材料安全数据表)

Available on demand 按需提供

15.5 R.E.A.C.H / SVHC 申报

Related data already shown in SDS form, like CAS No. weight composition etc,

Separate declaration letter available for SVHC

相关数据，包含物质名称、CAS号、重量、百分比已经在MSDS表单中列明。
