



SR920

TECHNICAL SPECIFICATION

技術規格書

SILVER OXIDE BUTTON CELL

氧化銀鈕扣式電池

PREPARED:	
CONFIRMED:	
APPROVED:	

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GOLDEN POWER CORPORATION (HK) LTD.

金力企業（香港）有限公司

Flat C, 20/F, Block 1, Tai Ping Industrial Centre, 57 Ting Kok Road, Tai Po, N.T. Hong Kong.

香港新界大埔汀角路 57 號太平工業中心第一座 20 樓 C 室

Tel 電話 : (852) 3125 2288 Fax 傳真: (852) 3125 2000 / (852) 3125 2001

E-mail 電郵 : battery@goldenpower.com Web Page 網址 : <http://www.goldenpower.com>

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1. Scope 概要

This specification is applicable to Golden Power's Silver Oxide Button Cell

這技術規格是應用於金力氧化銀鈕扣式電池

Model No. / 型號 : SR920

1.1 Designations 型號

Golden Power:	SR920	IEC:	SR69	Others:	---
	JIS: SR69		ANSI:	---	

1.2 Reference Document 參考標準

- IEC 60086-1 (2021-04) - Primary Batteries - Part 1: General
- IEC 60086-2 (2021-04) - Primary Batteries - Part 2: Physical and Electrical Specification
- IEC 60086-3 (2021-04) - Primary Batteries - Part 3: Watch Batteries
- IEC 60086-5 (2016-07) - Primary Batteries - Part 5: Safety of batteries with aqueous electrolyte

2. Chemical System Zinc-Silver Oxide (Sodium Hydroxide Electrolyte and/or Potassium Hydroxide Electrolyte)
化學構成 鋅 - 氧化銀 (鹼性電解液)

3. Nominal Voltage 1.55V
標稱電壓

4. Average Weight 0.66g
平均重量

5. Nominal Capacity 32mAh
標稱容量

Condition : continuous discharge at $20 \pm 2^{\circ}\text{C}$ under $33\text{k}\Omega$ load for 24 hrs/day to EPV 1.2V

條件 : 利用 $33\text{k}\Omega$ 電阻, 在 $20 \pm 2^{\circ}\text{C}$ 每日放電 24 小時, 終止電壓為 1.2V

6. Electrical Characteristics 電性能

Test Conditions tested within 30 days after delivery
條件 收貨後 30 天內測試

load resistance 33kΩ ± 0.5% temperature 20 ± 2°C Measuring time 0.3 sec
負載電阻 測量溫度 測量時間

	Off-load voltage 空載電壓 (V)	On-load voltage 負載電壓 (V)	Test Specification 驗收規則
New Battery 新電	1.56	1.5	MIL-STD-105E, Class II, Double Sampling, AQL=0.4

7 Service Output 放電性能

Test Conditions tested within 30 days after delivery
條件 收貨後 30 天內測試

Temperature 20 ± 2°C
測量溫度

Standard 標準	Discharge Condition 放電條件			Average Minimum Discharge Time 平均最少放電時間		
	Discharge load 放電負載	Daily discharge time 每天放電時間	End Point Voltage 終止電壓 (V)	New Battery 新電池	After 12 mth. at room temp. 在室溫下存放 12 個月	After 24 mth. at room temp. 在室溫下存放 24 個月
IEC	33kΩ	24 hrs	1.2	710hrs	673 hrs	639 hrs

Acceptance Criteria / 驗收標準：

- (1) 9 pieces of battery will be tested for each discharging standard.
每一種放電條件取 9 只電池進行放電。
- (2) The result of the average discharging time from each discharging standard shall be equal to or more than the average minimum time requirement; and no more than one battery has a service output less than 80% of the specified requirement.
平均放電時間等於或大於平均最少放電時間的規定值，而放電時間少於規定值 80% 的電池數量不大於 1，則認為電池的放電時間符合要求。
- (3) One re-test is allowed to confirm the previous result.
若以上結果不合格，可作一次重驗。

8 Safety Characteristics 安全性能

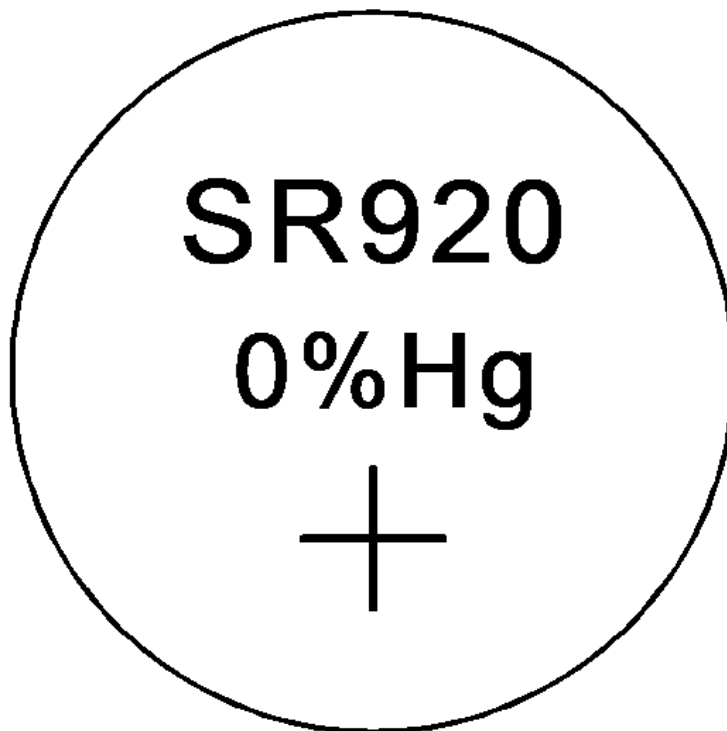
Item 項目	Condition 條件	Requirements 要求	Acceptance Standard 驗收標準
Short circuit Characteristics 短路性能	24 hrs short circuit test at 20 ±2°C 在 20 ±2°C 下短路 24hrs	There shall be no explosion of battery 電池沒有爆炸	N=10, Ac=0, Re=1

9 Marking 標記

The following markings will be printed, stamped or impressed on the body of the battery:
在電池外標明以下內容：

- 1) Designation 型號 SR920
- 2) Polarity Marking 極性標記
Marking 標記 'SR920 0%Hg +'
Location 位置 On cathode can
電池的正極上

- 3) 字樣圖見下



10 Caution for Use 注意事項

1. Battery should be kept out of the reach of children to prevent from swallowing. In case of

accident, please contact to physician and bring them to nearby hospital immediately.

電池應放在小童不可接觸的地方，以免小童誤吞而產生危險。如果發現小童誤吞意外，應該立刻通知醫生和帶他們去附近的醫院。

2. Short-circuiting, heating, disposing of in fire or water is prohibited.

請勿將電池短路、加熱、投入火中、水中。

3. Dismantle battery is prohibited.

請勿拆解電池。

4. Do not touch leaking battery.

請勿觸摸漏液電池。

5. Never charge or force to discharge battery. There are risks of deform, leakage, overheat or fire hazard and it may damage the charging device.

請勿對電池進行充電或強行放電，這樣可能會導致電池變形、漏液、過熱或火災及對相關的充電設備造成破壞。

6. Direct soldering of battery is not allowed, which will cause to short-circuit and draining the battery.

請勿焊接電池，這樣會對電池造成短路及耗盡電源。

7. The battery shall be installed with its "+" and "-" polarity in correct position, otherwise it may cause short-circuit.

在安裝電池時，請把電池安裝在正確的方向，若安裝不正確或會造成短路。

8. New and discharged or different types of batteries cannot be used together. It is recommended to replace with all new and same type of batteries.

請盡量避免把新電池及已用過的電池或不同型號的電池混合使用。

9. Exhausted batteries should be removed from compartment to prevent over-discharge which causes leakage & damage to the device.

請把已耗盡的電池從用電的產品上移走，避免對電池進行過放，而引起電池漏液。

10. Dispose of battery should be followed by local government regulations. Normally, "+" and "-" polarity area should be covered by insulation tape. This is because disposed battery still remains current capacity, that may cause leakage, overheat or explosion when the battery contacted with metals.

當廢棄電池時請遵守當地國家或地區的法規。一般而言，在處置前應用絕緣膠帶覆蓋電池的(+)和(-)端。原因是廢棄電池仍然存在電容量，當接觸金屬材料時，可以造成電池滲漏、過熱或爆炸。

11. Shelf Life

2 years after delivery (90% of the capacity will be maintained after 2-year storage under proper conditions)

電池存放期

於常溫及合適環境儲存 2 年後電池可保留 90%容量。

Storage Conditions 存放條件

Temperature 20 ± 2°C

溫度

Relative humidity 55 ± 20% RH

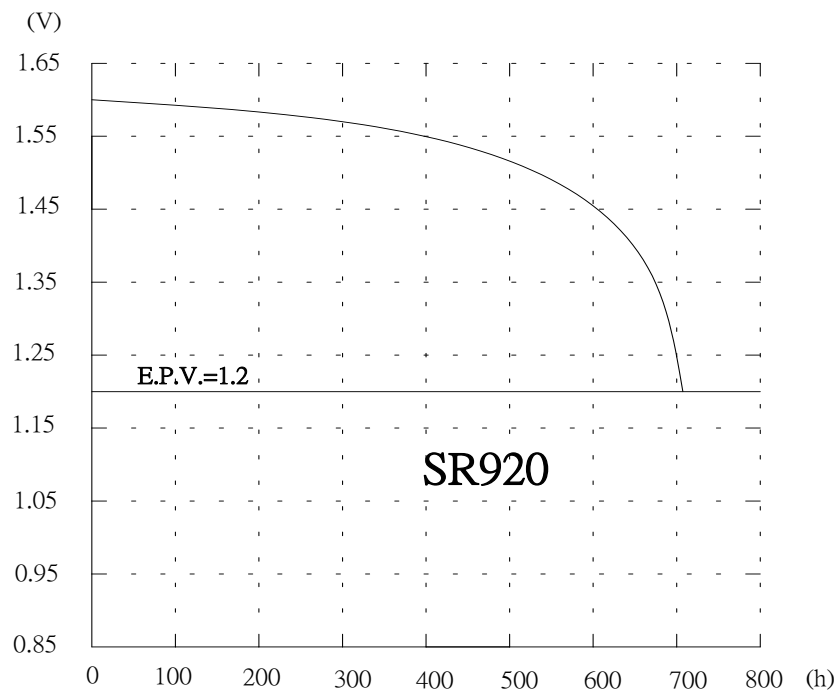
相對濕度

12. Discharge Curves 放電圖：

Test temperature / 測試溫度	20 ± 2°C
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Discharge Method(EPV) / 放電方法(終止電壓) :	33k Ω , 24 hrs/day (1.2V)	Fig 1
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Figure 1 / 圖 1 : DISCHARGE CURVE 放電圖



SERVICE OUTPUT (HOURS)	
Test temperature / 測試溫度	20 \pm 2°C
Discharge Method(EPV) / 放電方法(終止電壓) :	33k Ω , 24 hrs/day (1.2V)

13. Battery Dimension and Structure

電池尺寸 及 結構

Refer to Drawing DWG-S-002

參考圖紙 DWG-S-002

14. Compliance & Environmental Information 法規及環保信息

This product complies with EU RoHS Directive 2011/65/EU, Battery Directive 2006/66/EC , 2013/56/EU and REACH Directive and REACH regulation EC No. 1907/2006.

此產品符合 歐盟 RoHS 指令2011/65/EU, 電池指令 2006/66/EC、2013/56/EU 及REACH法規 EC. No. 1907/2006

15. Material Safety Data Sheet Information 物料安全數據

Hazardous Components	Chemical Symbol	contents(%wt)	CAS No.
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Silver Oxide	(Ag ₂ O)	24.55%	20667-12-3
Manganese Dioxide	(MnO ₂)	1.64%	1313-13-9
Zinc	(Zn)	7.52%	7440-66-6
Potassium Hydroxide	(KOH)	1.74%	1310-58-3
Graphite	(C)	1.09%	7782-42-5
Cadmium	(Cd)	<0.0005 %	7440-43-9
Mercury	(Hg)	<0.0001 %	7439-97-6
Lead	(Pb)	<0.002 %	7439-92-1

16. Packaging Requirements 包裝要求

- 16.1 Packing specification includes carton size, pallet, material, contents, prints should be mutually agreed and decide by specification or by sample approval.

包裝規格-含箱子尺寸、托盤、材質、文字內容、印刷等 需要訂立規格協議或樣版確認。

- 16.2 Packaging labels should be legible and permanent.

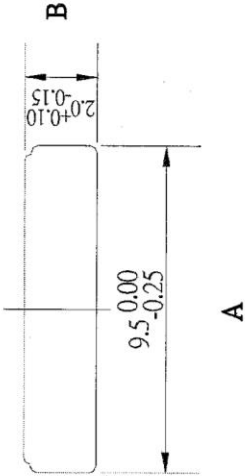
包裝用標籤須符合易於辨認，清楚顯示及能恆久存在。

- 16.3 Customized packaging shall be mutually agreed and decide by specification

客方特定包裝標準須另訂協議確認

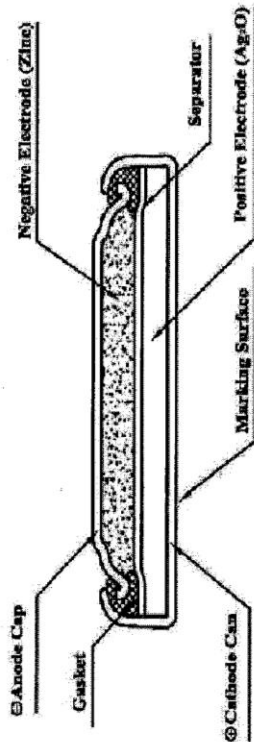
SR920 DIMENSIONS & STRUCTURE

Dimensions (in mm):



Dimensions	Specification
A	$\varnothing 9.5^{+0.00}_{-0.25}$
B	$2.0^{+0.10}_{-0.15}$

Structure :



DWG-S-002