

Huizhou WinPow Electronic Co., Ltd.

惠州市威源电子有限公司



27A



TECHNICAL SPECIFICATION
ALKALINE ZINC MANGANESE DIOXIDE BATTERY

PREPARED BY: 张伟

APPROVED BY: 

DATE: 2016-7

SPEC.NO: WPref--27A--E

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(The Manufacturer reserves the right to modify product specification and data stated herein without prior notice.)

1、 Scope

The specification is applicable to WinPow ALKALINE BATTERY 27A.

1.1 Designations

WINPOW	IEC	Other
27A	----	L828、A27、MN27、MS27、V27GA、LR27A

1.2 Reference Document

IEC 60086-1: 2000	---Primary Batteries – General
IEC 60086-2: 2001	---Primary Batteries - Specification Sheets
GB/T8897.1—2008	---Primary Batteries – General

2、 Chemical System

Alkaline-Manganese Dioxide (-) Zn | KOH | MnO₂(+)

3、 Nominal Voltage: 12.0 volt

4、 Average Weight: 4.8g

5、 Nominal Capacity

22mAh (20kΩ load resistance, discharge 24hours per day at 20±2°C, E.P.V 6V。)

6、 Electrical Characteristics

(Conditions : 1000 Ω ±0.5% load resistance, measuring time 0.3seconds, 20±2°C, tested within 30 days after delivery)

	Off-load voltage (V)	On-load voltage (V)	Acceptance Standard
New battery	12.3	11.3	MIL-STD105E, Class II, Double Sampling, AQL=0.4
After 12 mon. room temp.	12.1	10.8	

7、 Service Output

(Conditions : Test temp. 20±2°C, tested within 30 days after delivery。)

	Discharge Condition			Average Minimum Discharge Time	
	Discharge Load	Daily Discharge time	End Point Voltage(V)	New battery	After 12mth.at room temp.
Standard	20k Ω	24h	6.0	45h	40h
Reference	1K Ω	1S/4S,24h	6.0	9000times	8100times

Acceptance Standard:


- (1) 9 pieces of battery will be tested for each discharging standard .
- (2) The result of the average discharging time from each discharging standard shall be equal to or more than the average minimum time requirement.

8、 Electrolyte Leakage Proof Characteristics

Item	Condition	Periods	Characteristics	Acceptance Standard
Over-discharge Characteristics	20kΩ continuous discharge at temp. 20±2°C, Relative Humidity : 65±20%RH	Continuous discharge 48 hours after discharge termination	There shall be no leakage or explosion recognized by human eye	N=9, Ac=0, Re=1

9、 Marking

The following markings will be printed, stamped or impressed on the body of the battery:

- (1) Designation: 27A;
- (2) Manufacturer's name or abbreviation:  ;
- (3) Nominal voltage: 12V ;
- (4) Polarity: "+" or "-";

10、 Caution for Use

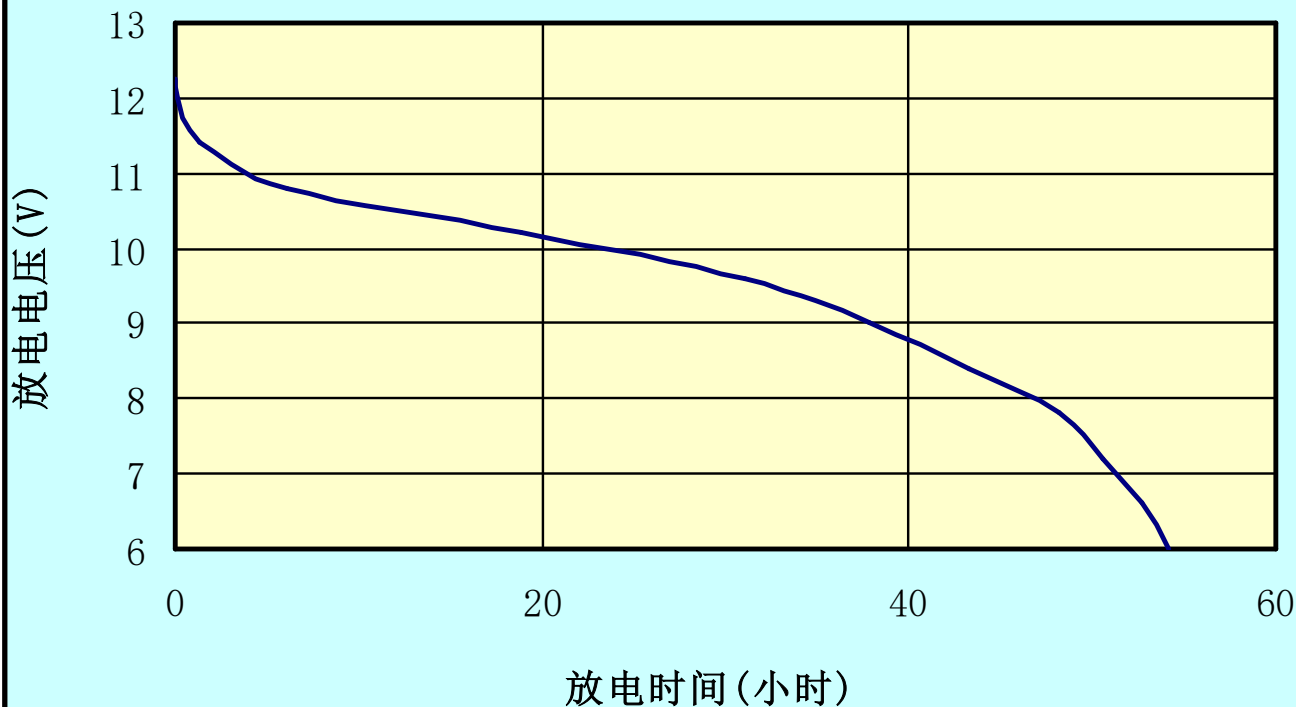
- (1) Since the battery is not manufactured for recharging, there are risks of electrolyte leakage or causing damage to the device if the battery is charged.
- (2) The battery shall be installed with its "+" and "-" in correct position.;
- (3) Short circuiting, heating, throwing into fire and disassembling the battery shall not be done. .

11、 Discharge Curves: (Condition: Test temperature 20±2°C)

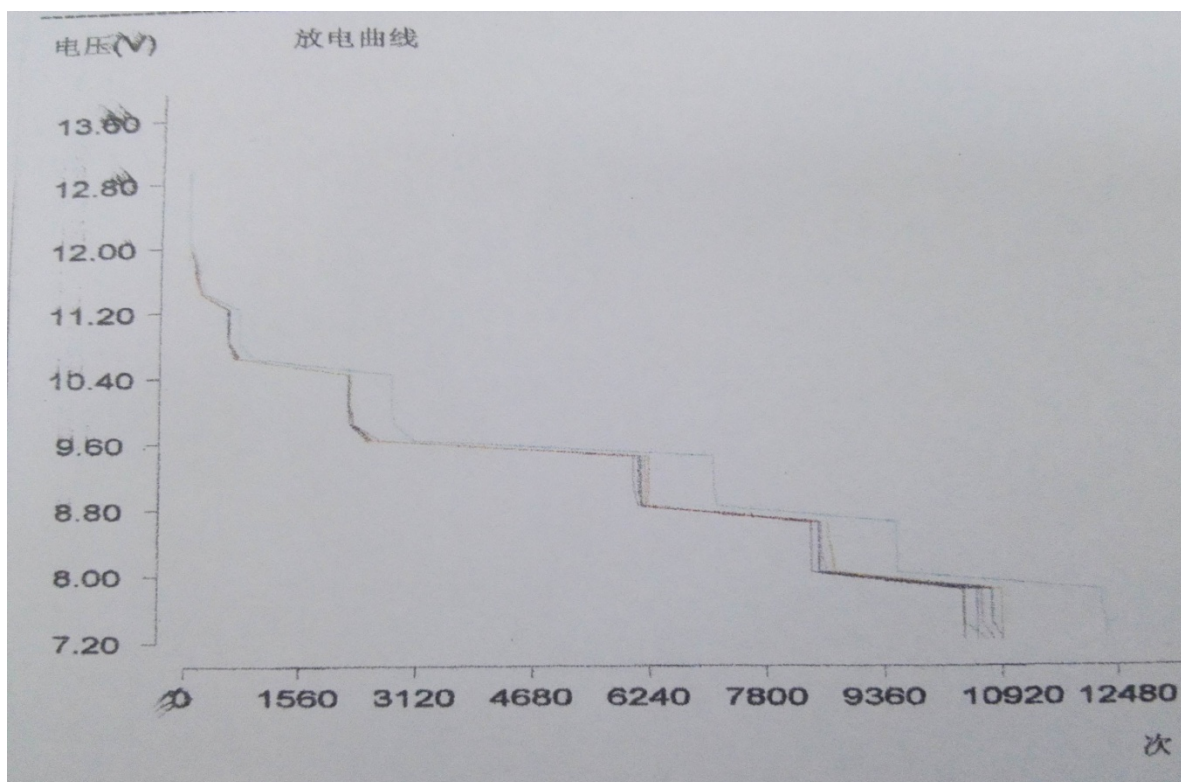
Discharge Method : 20k Ω 24hrs/day / 1k Ω 1S/4S,24h (Figure 1、 2)

12、 Battery Dimension and construction (Refer Drawing: DWG-A-A27)

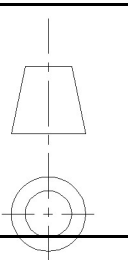
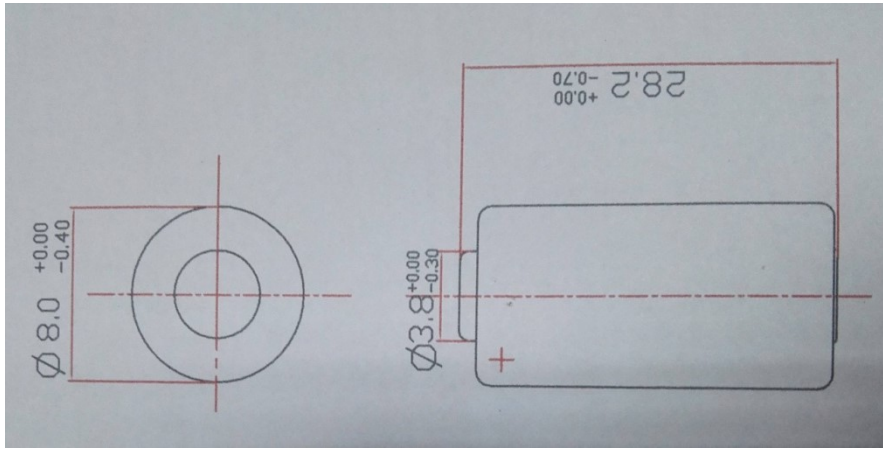
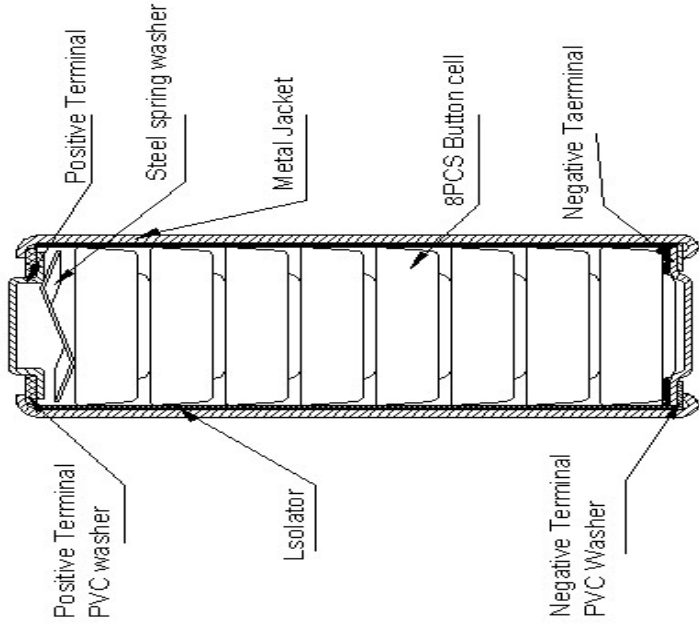
图表1 27A电池负载20KΩ放电曲线
24小时/天, 温度: 20±2℃



图表 2、27A 电池负载 1KΩ 脉冲放电曲线图
脉冲 1S/4S, 24hrs/天, 终止 6.0V



Refer Drawing: DWG-A-A27

<p>1</p> 	<p>2</p> <p>Unit: mm</p>	<p>3</p> 	<p>4</p> <p>5</p> <p>6</p>	<p>Construction:</p> <p>+</p> 	<p>D</p> <table border="1"> <tr> <td colspan="2">SIGNATURE</td> <td colspan="2">Date</td> <td colspan="2">Huizhou WinPow Electronic co., Ltd</td> </tr> <tr> <td>DRAWN</td> <td></td> <td></td> <td></td> <td>Model</td> <td>27A Alkaline Battery</td> </tr> <tr> <td>APPD.</td> <td></td> <td></td> <td></td> <td>No.</td> <td>DWG-A-A27</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td>Ver.</td> <td>A</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td>Scale</td> <td>NTS</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td>6</td> </tr> </table>	SIGNATURE		Date		Huizhou WinPow Electronic co., Ltd		DRAWN				Model	27A Alkaline Battery	APPD.				No.	DWG-A-A27					Ver.	A					Scale	NTS						6
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