

**Huizhou WinPow Electronic Co., Ltd.**

**惠州市威源电子有限公司**



**23A**



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**TECHNICAL SPECIFICATION**  
**ALKALINE ZINC MANGANESE DIOXIDE BATTERY**

PREPARED BY: 张伟

APPROVED BY:

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DATE: 2016-7

SPEC.NO: WPref--23A--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 23A.

### 1.1 Designations

WINPOW 23A	IEC ----	Other L1028、 A23、 MN21、 MS21、 V23GA、 LR23A
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### 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 | MnO<sub>2</sub>(+)

3、 Nominal Voltage: 12.0 volt

4、 Average Weight: 7.85g

## 5、 Nominal Capacity

52mAh (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	11.5	MIL-STD105E, Class II, Double Sampling, AQL=0.4
After 12 mon. room temp.	12.1	11.0	

## 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	95h	85h
Reference	1K Ω	1S/4S,24h	6.0	18000times	17000times

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: 23A;
- (2) Manufacturer's name or abbreviation:  ;
- (3) Nominal voltage: 12V ;
- (4) Polarity: "+" or "-";

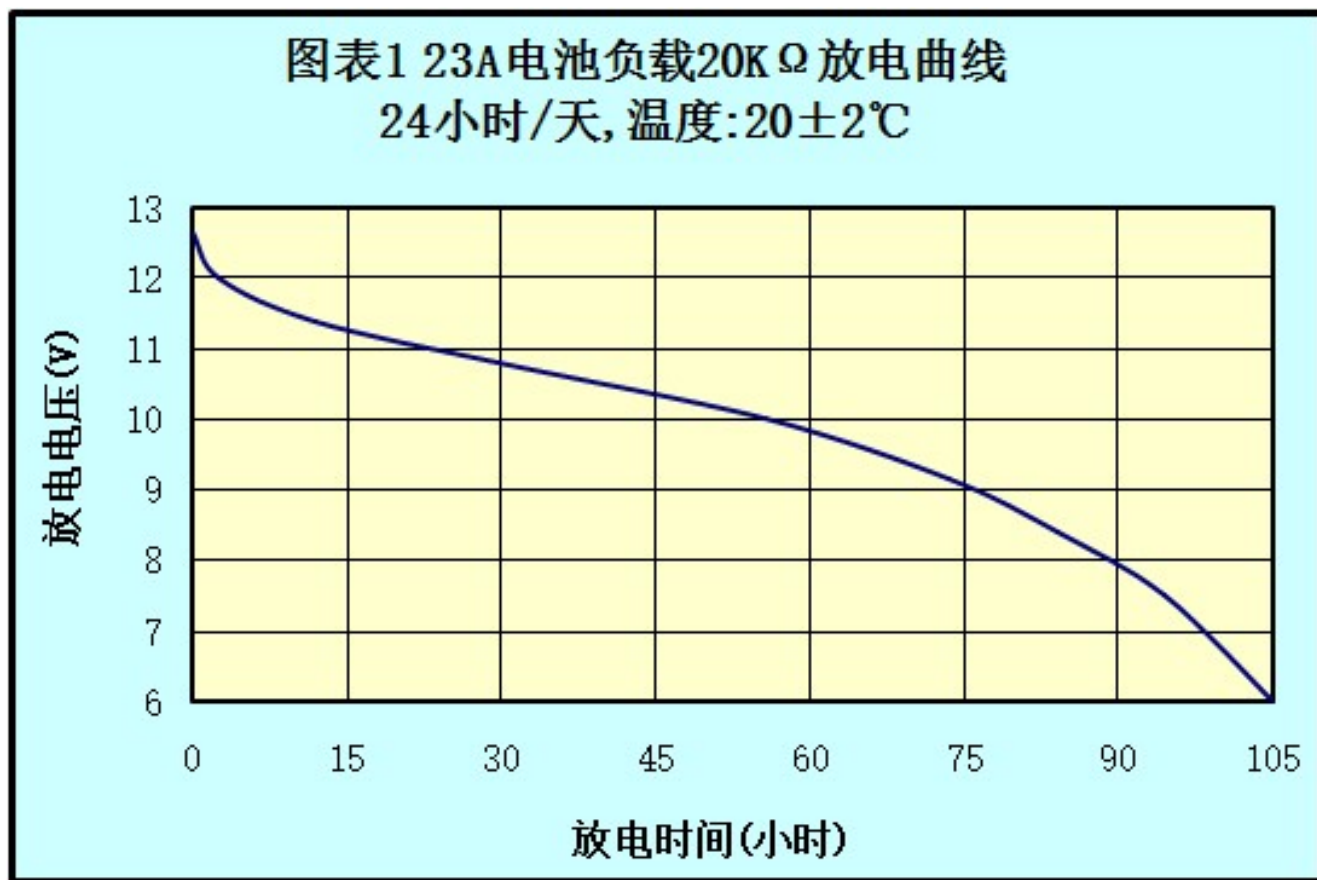
**10、 Caution for Use**

- (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)

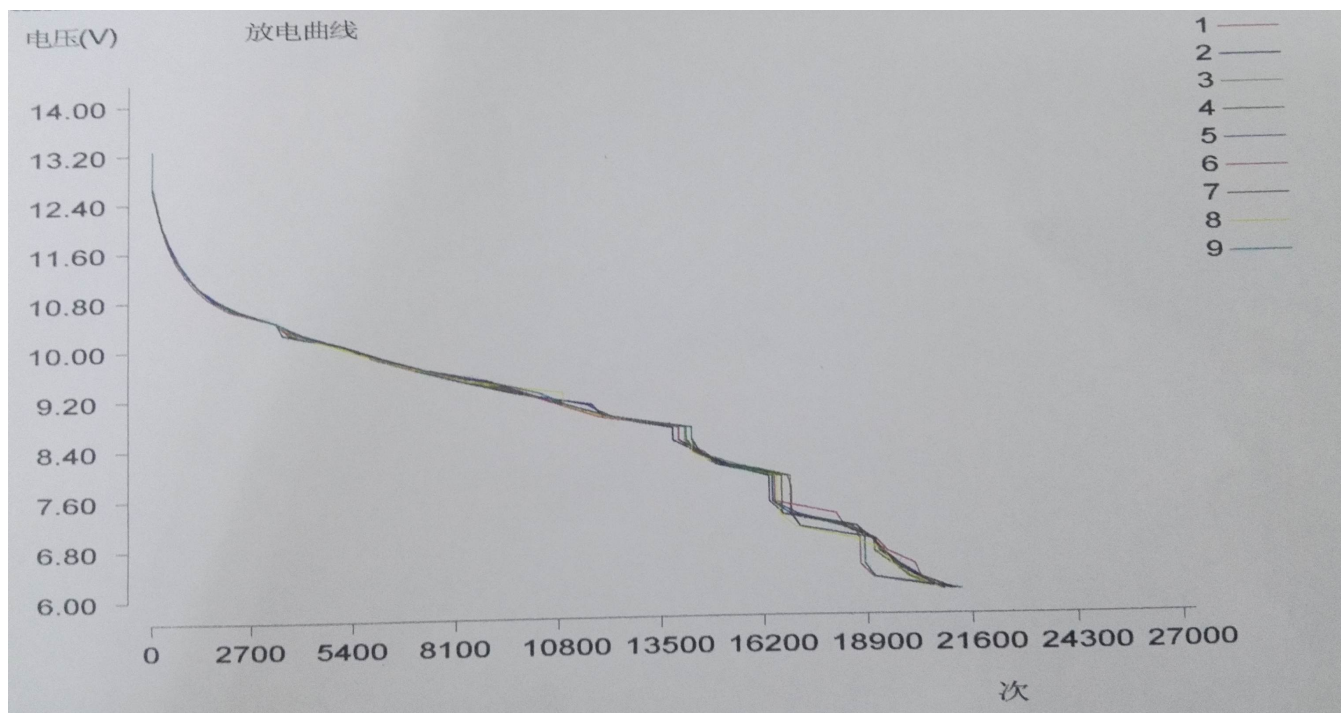
Discharge Method : 20k Ω 24hrs/day / 1k Ω 1S/4S,24h (Figure 1、 2)

**12、 Battery Dimension and construction** (Refer Drawing: DWG-A-A23)

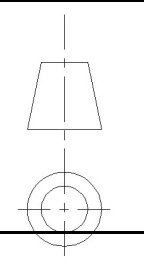
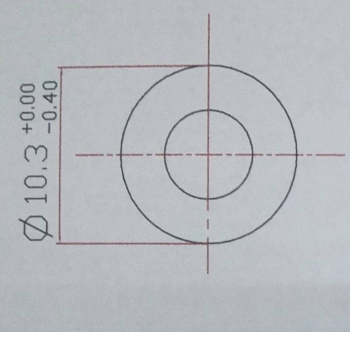
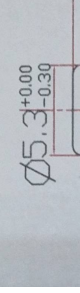
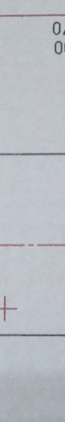
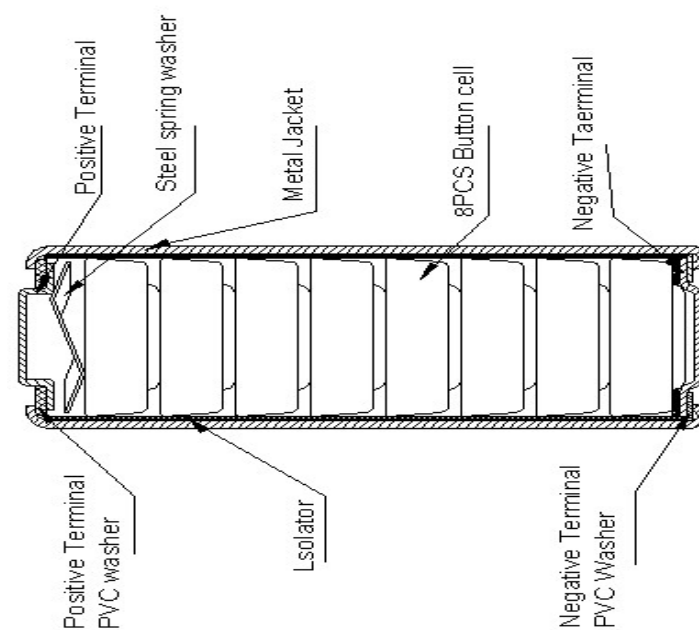


图表 2、23A 电池负载 1KΩ 脉冲放电曲线图

脉冲 1S/4S, 24hrs/天, 终止 6.0V



Refer Drawing: DWG-A-A23

	<p><b>Unit: mm</b></p>									
	<p><b>Construction:</b></p>									

**Huizhou WinPow Electronic co., Ltd**

DRAWN		Date	Model	23A Alkaline Battery
APPD.			No.	DWG-A-A23
			Ver.	A
			Scale	NTS

1	2	3	4	5	6
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