

# PKCELL

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**SHENZHEN PKCELL BATTERY CO., LTD**

LR03

**Specifications for Non-Hg Alkaline Battery**

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Product Model: PKCELL-LR03-AAA

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(The manufacturer keeps privilege to modify the product specifications and data without notice)

## Specifications for Non-Hg LR03 Alkaline Battery

### 1 Product Model

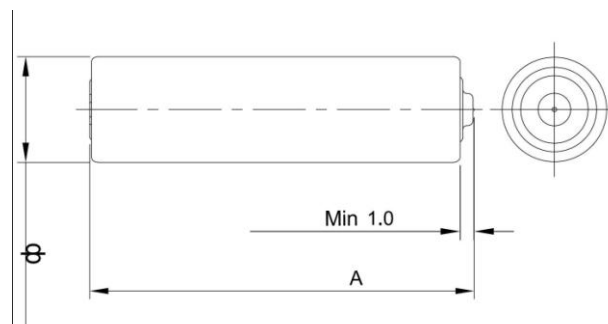
LR03 AAA AM-4

### 2 Chemical System

Alkaline battery  
(Non-Hg, Non-Cadmium)

### 3 Specification (mm)

Total Length A : 43.3~44.5  
External diameter $\phi$ : 9.5~10.5



### 4 Nominal Voltage: 1.5V

### 5 Storage Performance

After 12 months storage at specified conditions, discharge capacity should be no less than 90% of the original discharge capacity.

### 6 Mercury Content: Less than 1ppm

### 7 Electrical Performance (3.9 $\Omega$ 0.3S 20 $\pm$ 2 $^{\circ}$ C)

/	Open Circuit Voltage (V)	Closed Circuit Voltage (V)	Short Circuit Current (A)
Initial period	Above 1.62	Above 1.45	Above 5.5
After 12 months	Above 1.58	Above 1.43	Above 4.0

### 8. Discharge Capacity (20 $\pm$ 2 $^{\circ}$ C, R H: 45%~75%)

Standard	Discharge Condition			Average Minimum Discharge time		
	discharge Load	Discharge Time	E.P.(V)	New Battery	After 3 mths at 45 $^{\circ}$ C	after 12 mths.at room temperature
IEC	10 $\Omega$	1H/D	0.9v	480min	430min	430min
IEC	5.1 $\Omega$	8H/D	0.9V	230min	210min	210min
IEC	3.9 $\Omega$	24H/D	0.9V	135min	120min	120min

**Pls check the sketch map as following**

## 9. Performance

(1) Spillage proof test at over-discharge

The number of samples: 9

Test condition:  $20\pm 2^{\circ}\text{C}$ , relative humidity 45%-75%

Test method: 20 $\Omega$  continuous discharge at 48h

Requirements: no spillage at eyesight, the distortion of total height of the battery will not exceed 0.2mm, the max allowable value.

Standard: 0/9

(2) Spillage proof test at high temperature

The number of samples: 20

Test condition:  $45\pm 2^{\circ}\text{C}$ , relative humidity 85%-95%

Test method: Under the prescriptive test conditions, the samples are stored for 30 days. Then they are taken out and placed under  $20\pm 2^{\circ}\text{C}$ , relative humidity 45%-75% conditions for 4 to 24 hours for observation.

Requirements: no spillage at eyesight, the distortion of total height of the battery will not exceed 0.2mm, the max allowable value.

Standard: 0/20

## 10. Safety performance

The performance of explosion protection due to the external short circuit

The number of samples: 10

Test condition:  $20\pm 2^{\circ}\text{C}$ , relative humidity 45%-75%

Test method: Under the prescriptive test conditions, external short circuit lasts for 24 hours

Requirements: no separation occurs between the negative terminal and the body of the battery.

Standard: 0/10

## 11. Guarantee period: 3 years

## 12. Label on the product:

The following items are labeling on the battery surface:

(1) Model: LR03

(2) Trademark: PKCELL

(3) Nominal voltage: 1.5V

(4) Polarity: “+” “—”

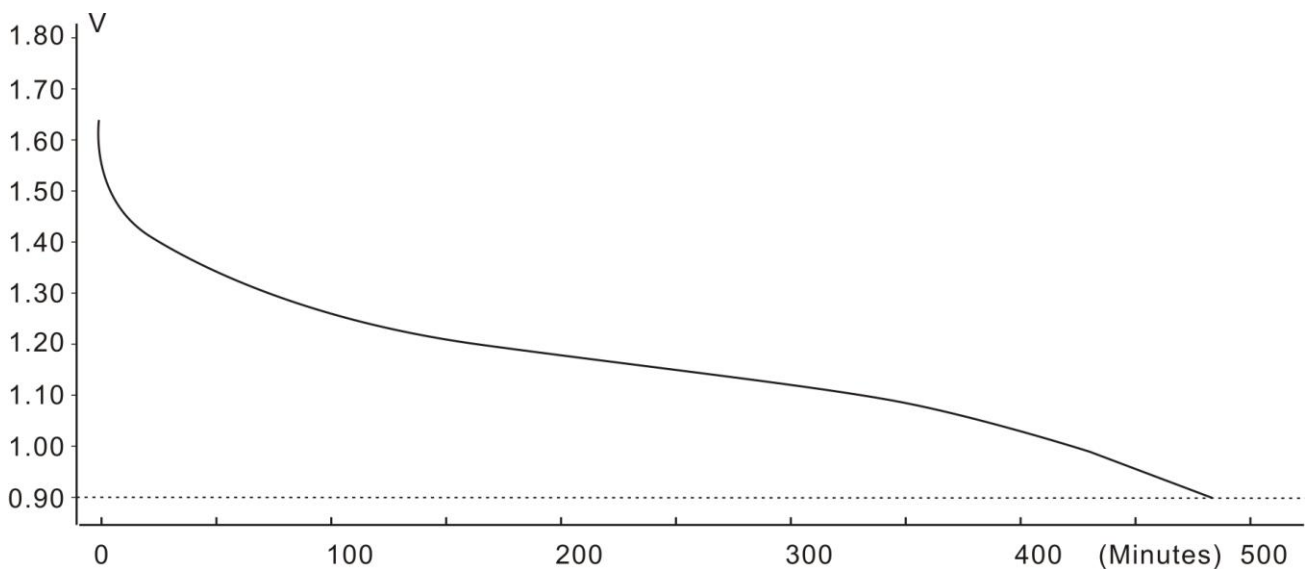
(5) Precautions: Do not attempt to recharge a battery, and Do not dispose of batteries in fire.

(6) Manufacturer: Pkcell

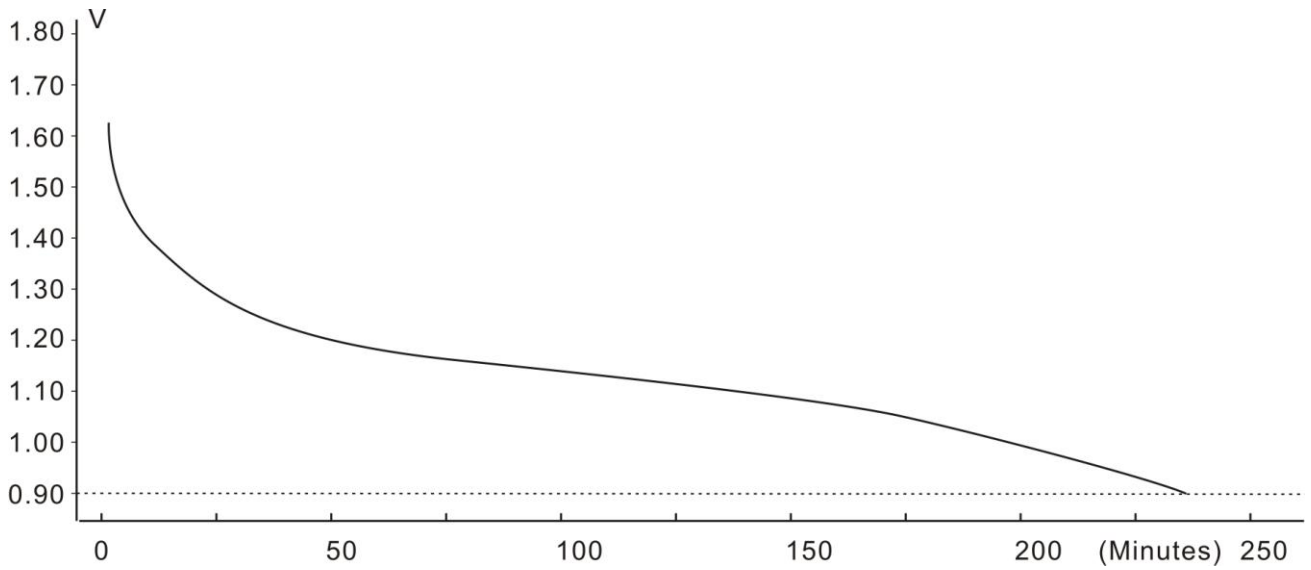
### 13. Precautions of use:

- (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 “-” polarity in correct position, otherwise may cause short-circuit.
- (3) Short-circuit, heating, disposing of into fire and disassembling the battery are prohibited.
- (4) Battery cannot be forced discharged, which leads to excess gassing and may result in bulging leakage and de-crimping of cap.
- (5) 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) Exhausted batteries should be removed from compartment to prevent over-discharge, which causes leakage damage to the device.
- (7) Direct soldering is not allowed, which will damage the battery.
- (8) Battery should be kept out of the reach of children to prevent swallow, in case of accident should contact physician at once.

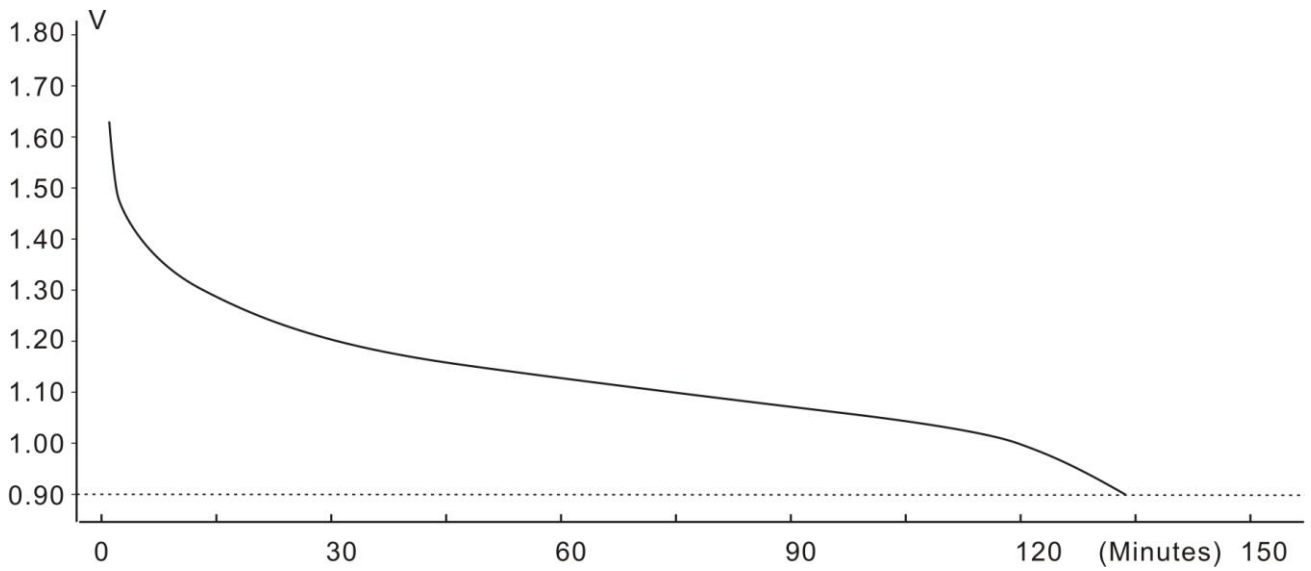
Schematic diagram of discharge:



discharge Load: 10Ω



discharge Load: 5.1Ω



discharge Load: 3.9Ω  
(recommended continuous drain)