



Shandong Huatai New Energy Battery Co.,Ltd.

SPECIFICATION

HIBAR LR6- ULTRA ALKALINE BATTERY

Document No. : HT-JS-HIBARLR6-HP

Version : C

Date of Issuance: 2021-11-01

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1. Summary

This specification applies to High Performance LR6 AA AM-3 alkaline battery produced by Huatai Battery Co.,Ltd

1.1 Model No.

IEC: LR6 Other: AA JIS: AM-3

1.2 Reference Standard:

IEC 60086-1:2021 --- Primary Batteries - Part 1: General
IEC 60086-2:2021--- Primary Batteries - Part 2: Physical and electrical specification

1.3 Execution Standard:

GB/T 8897.2-2021

2. Electrochemical system

- Zinc Powder
- KOH
- Electrolyte Manganese Dioxide
- No Added mercury and cadmium

3. Nominal Voltage: 1.5 Volt

4. Average Weight: 23.0g

5. Nominal Capacity: 2500mAh (Conditions:100mA, 1h/d 0.9V, Operating Temperature: 20±2°C)

6. Electrical Performance

Testing Conditions: Load resistance (±0.5%) 3.9Ω

Testing time: 0.3 seconds

Temperature: 20±2°C, 50+20/-40%)

	OCV (V)	load voltage (V)	Accepted Levels
New battery (within 30 days of delivery)	≥1.58	≥1.40	MIL-STD105E, II, AQL=0.4



Storage after 12 months under the normal temperature	≥ 1.56	≥ 1.35	
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7. Discharge Performance

(Testing Conditions: Temperature: 20±2℃ ,Relative Humidity55+20/-40% RH)

	Discharge conditions			New battery discharge levels	Minimum Average Duration		
	Load	Daily period	End voltage		New battery	With 20±2℃ storage after 12 months	Applications
IEC ITEMS	3.9Ω	1h/d	0.8V	8.5h	8.0h	7.5h	Motor/toy
	3.9Ω	4min/h, 8h/d	0.9V	450min	420min	400min	Portable lighting (LED)
	250mA	1h/d	0.9V	8.5h	8.0h	7.5h	Toy, non-motorized
	100mA	1h/d	0.9V	25.0h	23.0h	22.0h	CD, digital audio
	50mA	1h/8d, 24h/d	1.0V	49.0h	48.0h	47.0h	Radio/clock/remote control
	1500mW/2s 650mW/28s	10T/h	1.05V	120time	100time	90time	High drain Application
	3.9Ω	24h	0.9V	420min	390min	370min	Discharge test

Acceptance method:

- 1) Select 8 batteries for each testing item from a single delivery.
- 2) The conditions of test qualified:
The average result is greater than or equal to the minimum average discharge time, and the quantity of signal battery's discharge time which below minimum average of 80% is less than one.
- 3) It need a retest sampling if the first one unqualified. The second test is passed, it should be judged qualified.
- 4) Discharge rate drop is within 10%, and the leakage rate is controlled 30ppm within one year.

8. Resistance to leakage

Item	Conditions	Testing Time	Results	Accepted Levels
Over discharge test	Discharge continuously under 10Ω in the condition of 20±2℃ and 55+20/-40%RH	Continuous discharge for 48hours	The deformation of the battery cannot exceed the size limit and cannot occur the leakage by naked eyes.	N=20, Ac=1, Re=2



Temperature / Humidity test	Temperature:60 ±2°C Relative humidity 90±5% RH	35days		N=20 Ac=1, Re=2
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9. Safety Performance

Item	Test Conditions	Testing Time	Requirements	Accepted Levels
External short circuit	Temperature:20 ± 5°C	24h	There shall be no explosion during this test.	N=5, Ac=0,Re=1
Incorrect installation	Four undischarged batteries shall be connected in series with one reversed	24 h		N=20, Ac=0,Re=1

10. Identification

The contents printed on the label:

Model: LR6

Registered Trademark: POWERFLASH

Nominal Voltage: 1.5V

Battery Poloidal: “+” and “-”

Warning words: Install and use correctly. Do not recharge, disassemble, heat and short-circuit.

11. Precaution and Handling:

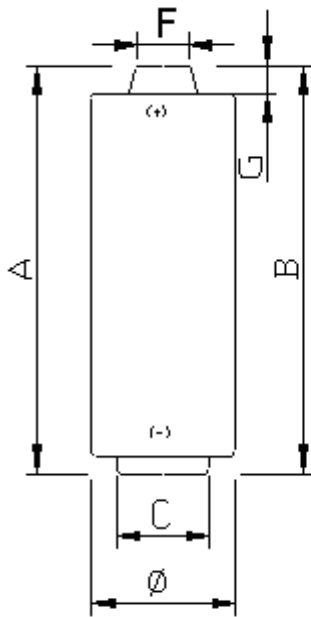
- (1) Do not recharge the alkaline batteries. May leak or explode if charged.
- (2) To install batteries following the instructions of “+” and “-” .
- (3) Do not short-circuit, heat, dispose in fire or disassemble.
- (4) Do not over-discharge batteries. Over- discharging battery may destroy the appliance.
- (5) Do not mix with used or other battery type at the same time. Make sure use the same brand and replace all batteries.
- (6) Remove batteries from device when it is not in use. Over-discharge may destroy the appliance.
- (7) Do not allow metal objects to contact the battery terminals. It may destroy the battery.

12. Expiry Date



10 years (Temperature: $20 \pm 2^{\circ}\text{C}$, Relative humidity : $55 \pm 20\%$)

13. Dimension and structure of LR6 AA AM-3 battery:



MODEL	LR6
A (Max)	50.5
B (Min)	49.5
C (Min)	7.0
F (Max)	5.5
G (Min)	1.0
\varnothing (Max)	14.5
\varnothing (Min)	13.7