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LR6FUI • Alkaline Zinc Manganese Dioxide Battery

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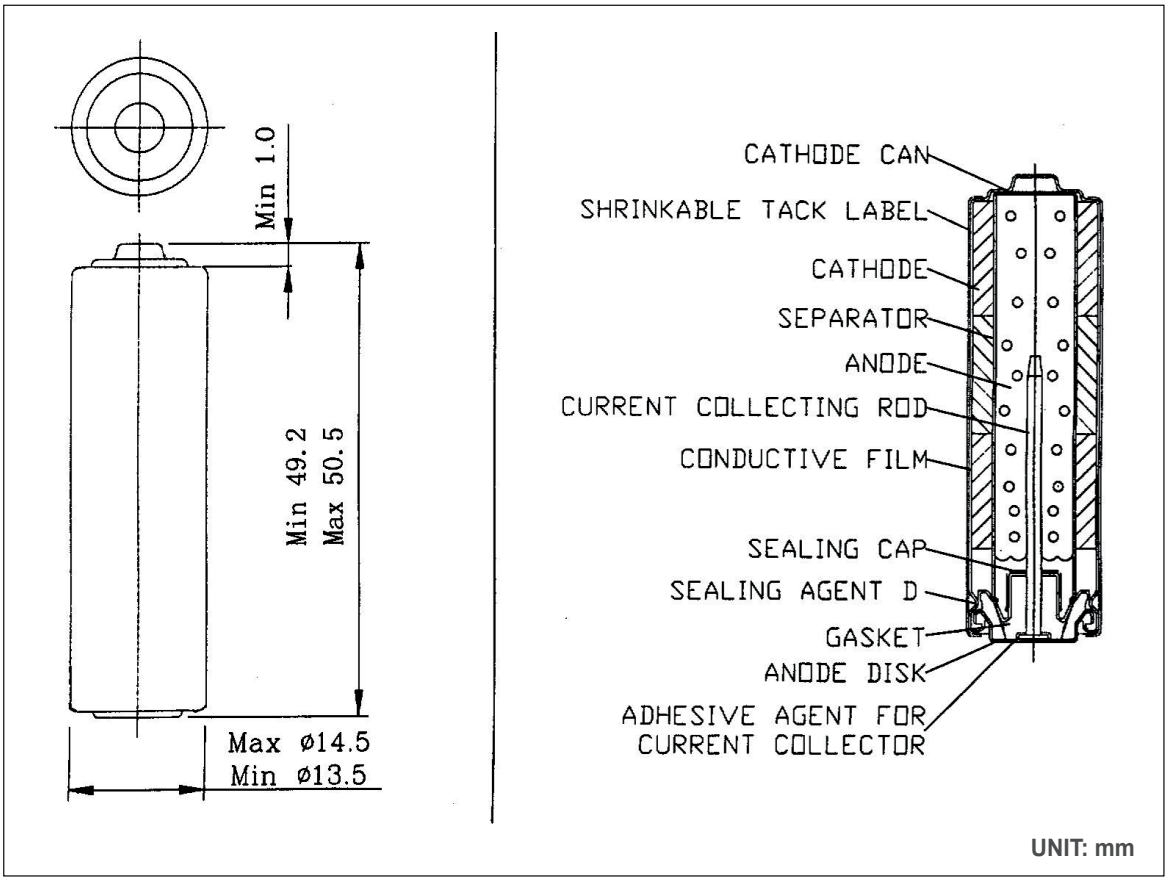
1. Scope

This specification defines the technical requirements for LR6FUI alkaline battery.

2. Dimension and structure



3. Purpose

To assure that any LR6FUI battery manufactured or procured by Fullwat will meet or exceed our customers expectations.

4. Reference Document

IEC 60086-1:2000 … Primary Batteries-Part1: General

IEC 60086-2:2000 … Primary Batteries-Part2: Physical and Electrical Specification

GB/T 7112-1998 … Zinc-Manganese Dry Batteries of R03, R1, R6, R14and R20
Alkaline Zinc-Manganese Dry Batteries of LR03, LR1, LR6, LR14 and LR20

5. Chemical System

Alkaline Zinc-Manganese Dioxide (KOH Electrolyte),
MERCURY AND CADMIUM ARE NOT ADDED IN THE BATTERY

6. Nominal voltage: 1.5volt

7. Weight: approximate: 23.5g

8. Jacket: Foil label

9. Nominal capacity

2950mAh (Conditions: S.T. 25mA constant-current discharge to 0.8 V).

10. Electrical Characteristics

	Off-load Voltage (V)	On-load Voltage (V)	Short circuit current	Acceptance standard
Initial within 30 day	≥1.610	≥1.470	≥8.0	GB2828 commonly I sampling
After 12 months	≥1.600	≥1.420	≥7.0	AQL=0.4

Note *- conditions: 3.9Ω±0.5% load resistance, measuring time 0.3 seconds, temperature at 20±2ºC, the hairspring type ampere meter with ±0.5% accuracy (0.5level) shall be used.*

11. Service time

Discharge condition			Minimum average discharge time	
On-load resistance	/Discharge time per day	/end voltage (V)	Fresh battery	Stored for 12 months under room temp
3.9Ω	1h/d	0.8	480min	450min
1000mA	10s/min, 1h/d	0.9	450min	410min
3.9Ω	24h/d	0.9	400min	380min
100mA	1h/d	0.9	23.5h	21h
43Ω	4h/d	0.9	93h	90h

Note *- condition: test temp. 20±2ºC, tested within 30 days after delivery.*
Satisfaction standard: 9 pieces of battery will be tested for each discharging standard.
The result of the average discharging time from each discharging standard shall be equal to or more than the average minimum time requirement.

12. Electrolyte leakage proof characteristics

Item	Condition	Period	Characteristics	Acceptance standard
Over-discharge leakage test	10Ω continuous discharge at temp. 20±2ºC Relative humidity= 60±15%RH	48 hours	There shall be no deformation exceeding the specified dimensions, nor leakage recognized by human eye	N=9 AC=0 Re=1
High temp. storage leakage test	At temp. 45±2ºC Relative Humidity: Less than 65%RH	90 days		N=40 AC=1 Re=2
	At temp. 60±2ºC Relative humidity= 90±5%RH	20 days		

13. Safety characteristics

Item	Condition	Period	Characteristics	Acceptance standard
Short circuit test characteristics	Temp. 20±2ºC	24 hours	There shall be no explosion* of battery	N=5 AC=0 Re=1
Abusive test characteristics	At temp. 20±2ºC, short circuit 4 pieces of battery in series, one of the 4 battery has to be connected with its polarity reversed	24 hours		N=20 AC=0 Re=1

* - *An instantaneous release wherein solid matter from any part of the battery is propelled to a distance greater than 25 cm away from the battery.*

14. 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, disposing of into fire and disassembling the battery are prohibited.

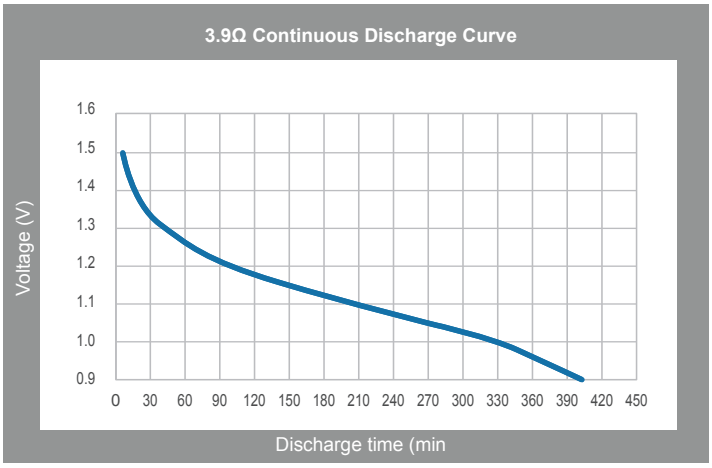
(4) Avoid using old and new batteries together.

15. Shelf Life

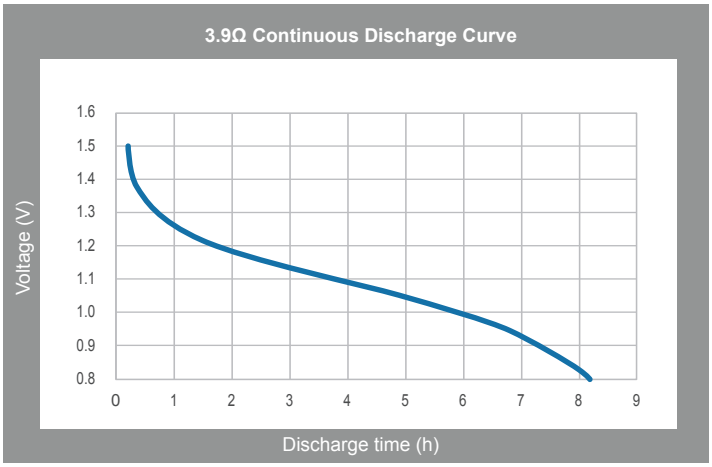
5 years after delivery under proper storage condition.

16. Discharge Curves

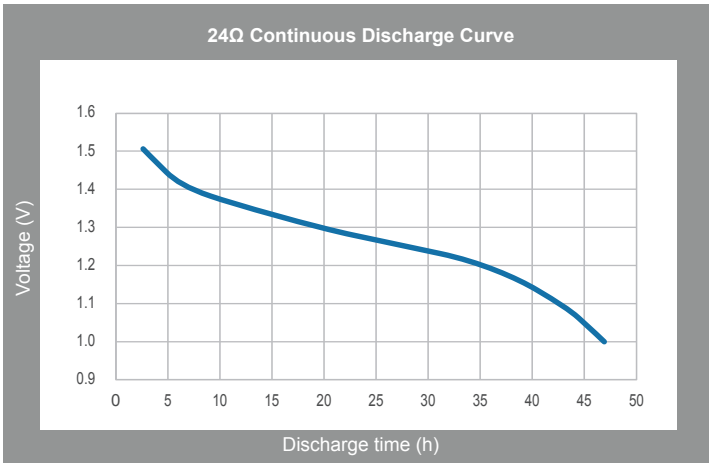
a. **Load resistance:** 3.9Ω **Discharge pattern:** 24h/day **End Voltage:** 0.8V **Temperature:** 20ºC±2ºC



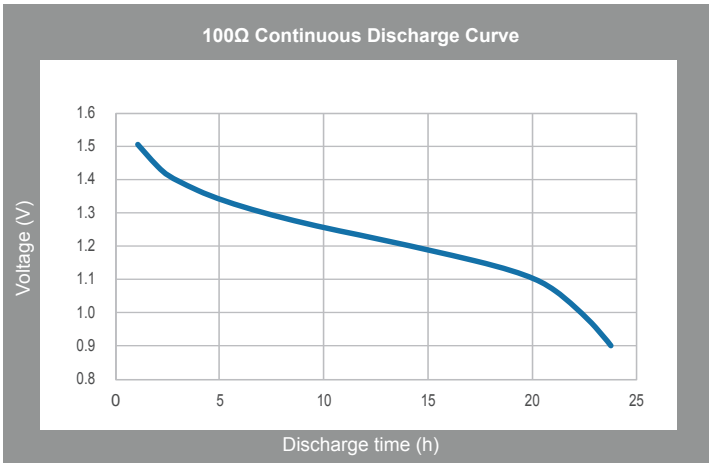
b. **Load resistance:** 3.9Ω **Discharge pattern:** 1h/day **End Voltage:** 1.0V **Temperature:** 20ºC±2ºC



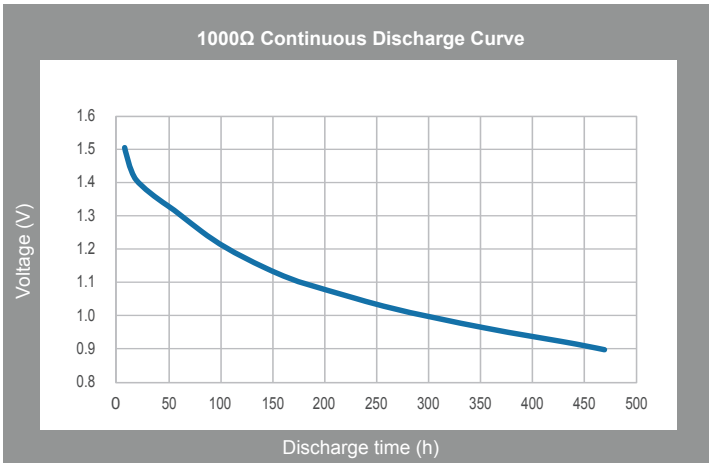
c. **Load resistance:** 24Ω **Discharge pattern:** 8h/day, 15s/m **End Voltage:** 0.9V **Temperature:** 20ºC±2ºC



d. **Load resistance:** 100Ω **Discharge pattern:** 1h/day **End Voltage:** 0.9V **Temperature:** 20ºC±2ºC



e. **Load resistance:** 1000Ω **Discharge pattern:** 1h/day, 10s/m **End Voltage:** 1.05V **Temperature:** 20ºC±2ºC



17. Warranty

The warranty is specified in our warranties section of *Terms of Sales*. If the product is to be stored for more than three months it is necessary to perform the appropriate maintenance to ensure the good condition of the batteries. Consult our annex to the *Terms of Sales* on the recommended maintenance.