Specification Approval Sheet

Tenergy P/N： 40435
Name: Alkaline AAA battery cell--U8

Approved By	Checkup	Make

Customer Confirmation	Signature	Date
	Company Name：	
	Stamp：	
Please sign back specification before bulk order		

436 Kato Terrace, Fremont, CA 94539 U.S.A.

Tel: 510.687.0388 Fax: 510.687.0328

www.Tenergy.com

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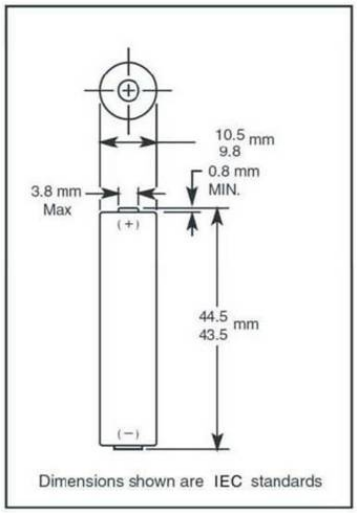
Amendment Records

Revision	Description	Issued Date	Approved By
A0	New release	2022-01-05	

LR03 (U8) MERCURY FREE ALKALINE MANGANESE BATTERY SPECIFICATION

1. ESSENTIAL PARAMETER

Model	IEC: LR03 ANSI: AAA
Electrochemical System	Zinc/ MnO2
Nominal Weight	11 g
Nominal Voltage	1.5V
Working Temperature	-20℃~54℃
Shelf Life (20℃)	5 years
Packaging and Mark	PET label (aluminum jacket) marked with expiry date
Hazardous Substance	Hg Content ＜1ppm ; Cd Content ＜20ppm ; Pb Content ＜40ppm
Reference Standard	IEC 60086 GB/T 8897.2 2006/66/EC



2. ELECTRICAL CHARACTERISTICS (20Ω, 0.8s, 20±2℃, RH 55±20%)

/	**OCV (V)** **Open-circuit Voltage**	**CCV (V)** **Closed-circuit Voltage**	**SC (A)** **Short-circuit Current**
Standard Value (Initially)	≥1.59	≥1.50	≥6.0

3. DISCHARGE PERFORMANCE (20±2℃, RH: 55±20%)

Discharge Pattern	**Appliances (simulating)**	**End Voltage**	**Unit**	**Standard Value (Initially)**	**Actual Level (Initially)**
5.1Ω – 4min/h, 8h/day	Portable lighting	0.9 V	hour	3.3	3.8
24Ω - 15 s/min, 8h/day	Remote controller	1.0 V	hour	18	20
5.1Ω – 1h/day	Toy	0.8 V	hour	3.2	3.8
50mA - 1h/12h, 24h/day	Radio	0.9 V	hour	16	19

4. ANTI-LEAKAGE PERFORMANCE

No.	Test Item	Test Method (IEC Standard)	Sample QTY.	Standard Value (Initially)
1	High Temperature Anti-leakage Test	Store the battery (batteries) under an environmental condition of Temp.60±2℃ and RH: 90±5% for certain days, then put them under normal atmospheric temperature for 4~24 hours.	20 pcs	No leakage within 40 days

5. SECURITY CHARACTERISTICS (Environment Temp.20±2℃, RH.55±20%)

No.	Security Test Item	Test Method	Sample QTY.	Specification Standard
1	Over discharge Anti-leakage Test	IEC Standard	5 pcs	No explosion
2	External Short-Circuit	IEC Standard	5 pcs	No explosion
3	Improper Installation	IEC Standard	5 groups	No explosion
4	Free Drop Test	IEC Standard	5 pcs	No explosion

6. USAGE GUIDE (Please refer to IEC60086-5 for detailed safety and storage specifications)

(1) Insert batteries correctly with regard to the polarities (“+”/”-”) marked on the battery and the electrical appliances;

(2) Do not short-circuit, recharge, heat, disassemble the battery, or dispose of in fire;

(3) Do not mix use old batteries with new ones, or mix use batteries of different types or brands;

(4) Exhausted batteries should be immediately removed from the equipment;

(5) Keep the batteries away from small children; do not let the child remove/ replace batteries without monitoring from adults.

(6) Storage condition of the batteries shall be Temperature: 15℃~25℃ (no higher than 30℃), while extremely damp environment beyond RH: 40%~90% shall also be avoided. Naked battery is recommended to be stored after being labeled.