



EVERGREEN (C.P.) USA INC.

TEL: (650) 952-8091

FAX: (650) 952-3629

E-MAIL: sales@evergreencpusa.com

SPECIFICATIONS ALKALINE 'C' SIZE LR14

Technology specification

1 · Summary

This specification defines the Technology for Alkaline cells LR14

1.1 Type

IEC : LR14 Other : C

JIS : AM-2

1.2 Reference standard

IEC 60086-1 (2006-12) --- Primary Batteries - Part 1: General

IEC 60086-2 (2006-12) --- Primary Batteries - Part 2: Physical and electrical specification

1.3 Execution standard

GB/T 8897.2-2008

2 · Chemistry composition

Zinc、EMD、Potassium hydroxide、Graphite。

*0.00% Mercury & Cadmium

3. Normal voltage : 1.5V

4. Average weight : 70g

5. Normal capacity

6700MAh (Test condition : Load Resistance (±0.5%) 10.0 Ω , Time: 4h/d, E.P.V=0.9V, Temperature: 20±2°C.)

6. Electrical performance

(Test condition : Load Resistance (±0.5%) 5.0 Ω , Time: 0.3s, Temperature: 20±2°C 。)

| | O. C. V (V) | C. C. V (V) | Accept Level |
|----------------------------------|----------------|----------------|----------------------------|
| ≤ 30 days after delivery | 1.58 | 1.45 | MIL-STD105E · II , AQL=0.4 |
| 45°C for 3 months | 1.56 | 1.40 | |
| Normal temperature for 12 Months | 1.56 | 1.40 | |

7 · Service Life

(Test condition: +20°C±2°C and 60±15%RH)

| | Discharge Method | | | Minimum Average Duration | | |
|----------|------------------|------|-------------------|--------------------------|-------------------|----------------------------------|
| | Load Resistance | Time | Cutoff Voltage(V) | ≤ 30 days after delivery | 45°C for 3 months | Normal Temperature for 12 Months |
| IEC Item | 20 Ω | 4h | 0.9 | 105h | 95h | 95h |



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| | | | | | | |
|----------|------|--------|-----|-----|-------|-------|
| | 6.8Ω | 1h | 0.9 | 33h | 30h | 30h |
| IEC Item | 3.9Ω | 1h/day | 0.8 | 17h | 15.3h | 15.3h |

Satisfaction Standard:

- 1) 9 pieces of battery will be tested for each discharging standard.
- 2) The result of the Minimum Average Duration from each discharging standard shall be equal to or more than the Minimum Average Duration requirement; and no more than one battery have a service output less than 80% of the specified requirement.
- 3) One re-test is allowed to confirm the previous result

8 • Leakage Resistance

| Item | Condition | Test Duration | Result | Accept Level |
|-------------------------------------|---|---------------|---|-------------------------|
| Over Discharge Test | Test condition: +20°C ±2°C and 60±15%RH Load Resistor: 3.9Ω Time:24h/d | Discharge 48h | There shall be no deformation exceeding the specified dimensions, nor leakage recognized by human eye | N=30 , Ac=1,Re=2 |
| High heat and humidity storage test | 60 ±2°C Low 90% RH | 30days | | N=30 , Ac=1,Re=2 |

9. Marking

The label printing :

- (1) Type: LR14
- (2) Brand: **EVERGREEN**
- (3) Normal voltage : 1.5V
- (4) Polarity: "+" or "-"
- (5) Warning: Battery may explode or leak if recharged or disposed of in fire.

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 "-" polarity in correct position, otherwise may cause short-circuit.
- (3) Short-circuiting, heating, disposing of into fire and disassembling the battery are prohibited.
- (4) Battery cannot be forced discharged, which lead 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 Cause 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.

11 • Shelf life : 3 years after delivery under proper storage conditions.

(Temperature: 20+/-2° C; Relative humidity: 65+/-20%RH)



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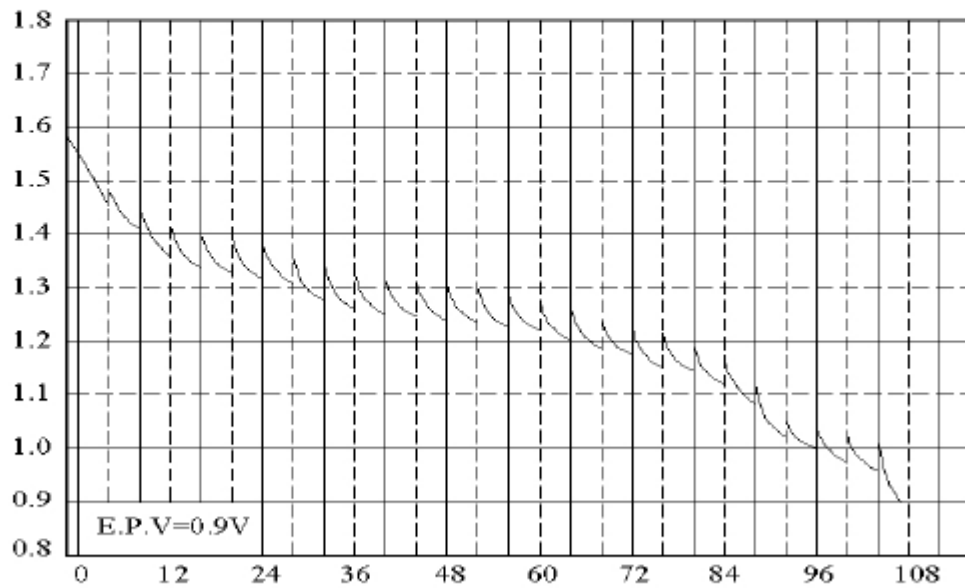
12 · Discharge curve (Figure : 1, Figure : 2)

13 · Dimensions (Figure : 3)

Discharge Method: 20 ohm; Period: 4 h/d

Temperature: 20+/-2°C

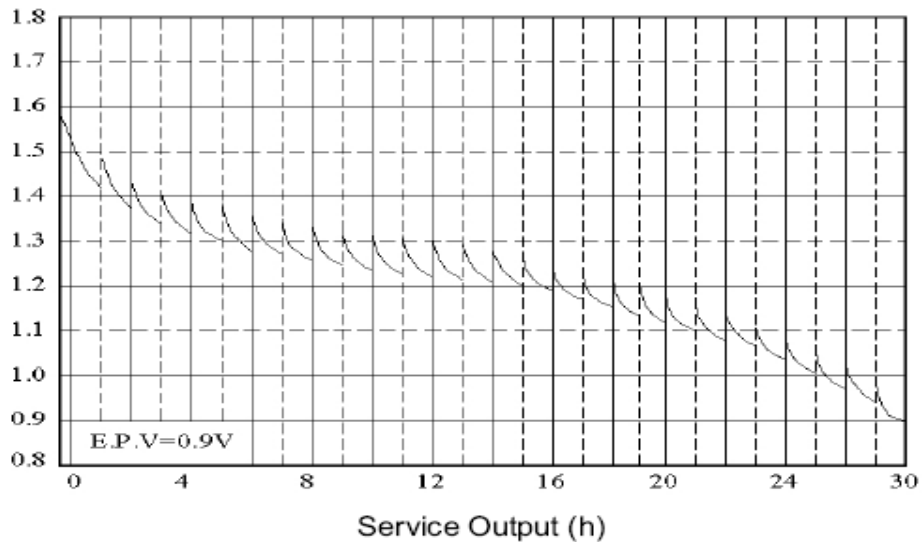
Terminal Voltage (V)



Discharge Method: 6.8 ohm; Period: 1 h/d

Temperature: 20+/-2°C

Terminal Voltage (V)





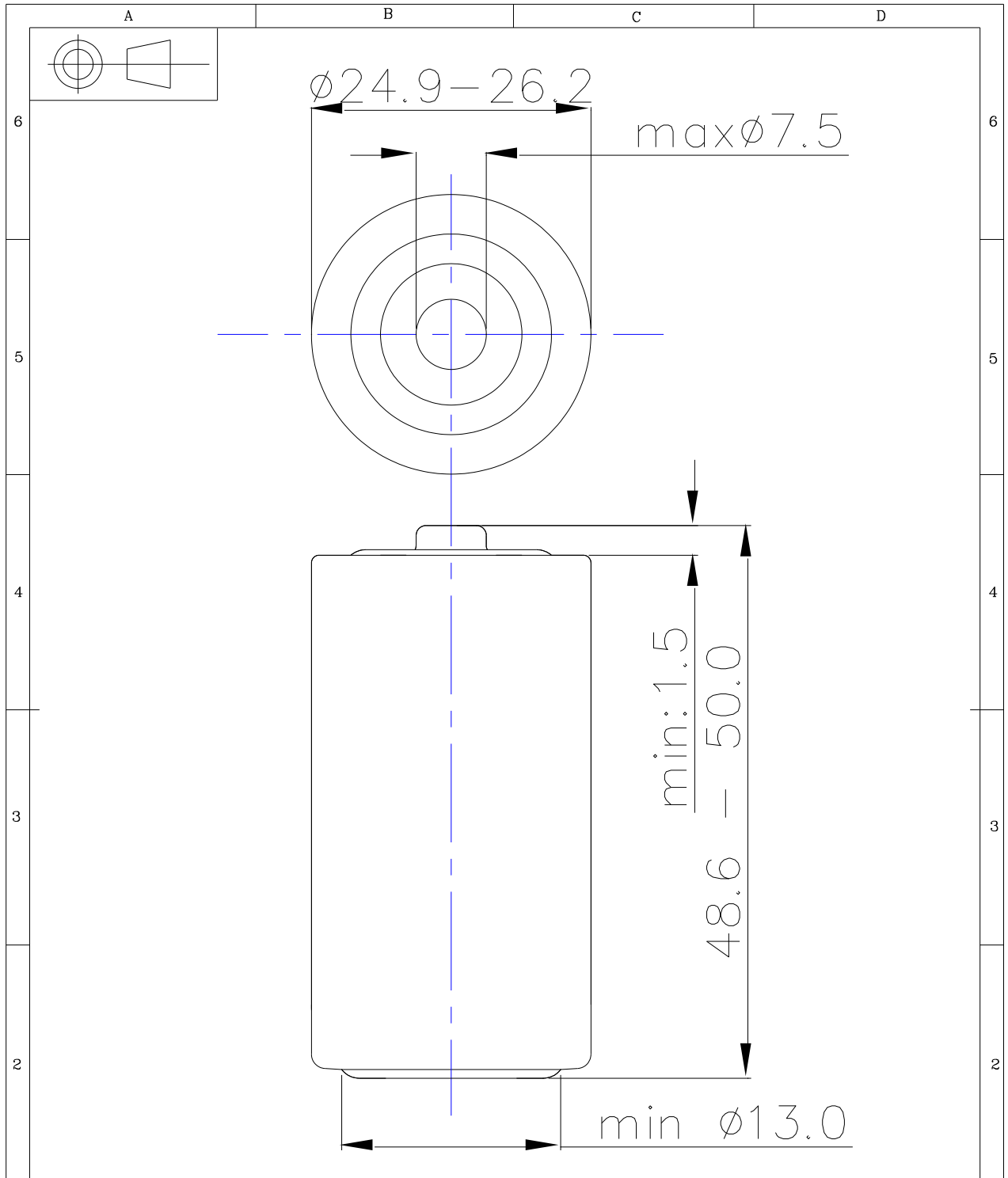
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**SPECIFICATIONS
ALKALINE 'C' SIZE LR14**



| | | | | | |
|-----------|----------------|---|-------|-----|--|
| Type | LR14 | | | | |
| Draw Name | LR14 DIMENSION | | | | |
| Draw No. | Version | C | Scale | NTS | |

1 The tolerance must be required as following if it is not pointed out in the drawing.

| | |
|-------|-------------|
| 0.000 | ± 0.005 |
| 0.00 | ± 0.01 |
| 0.0 | ± 0.2 |

| Signer | | Date |
|----------|--|------|
| Draw | | |
| Design | | |
| Check | | |
| Approval | | |

| | | |
|--|--|--|
| | | |
|--|--|--|



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