

Product	Alkaline battery, 1.5 volts	Page 1 of 4
Size	LR1, Lady, N,	March 23, 2010

Scope:

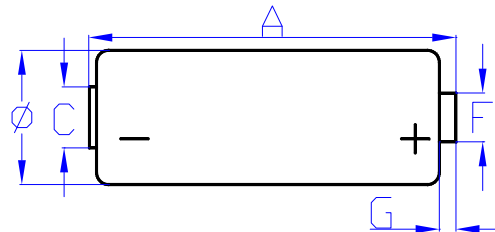
If not otherwise specified, the cells should meet or exceed the requirements of IEC 60086-1 and IEC 60086-2.

If not otherwise specified in the drawing, the cell shall meet the dimensional requirements of standards listed in the scope.



1) Dimensions

In accordance with attached drawing.



Dimensions	Max	Min
A	30.2	29.1
Ø	12.0	10.9
C	7.8	7.2
F	3.7	3.3
G	1.3	0.9

2) Electrical requirement

O.C.V.: min. 1.560V
max. 1.650V

C.C.V.: $\geq 1.400V$

After $0.2\text{sec} \pm 0.01\text{sec}$ by $R=5.0\Omega$

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3) Service life

Test condition: +20±2°C and 60±15%RH

3.1	Load Resistance(±0.5%)	20Ohms
	Cycle Time	24h/d
	Cut-off Voltage Duration	0.9V
	Minimum Average Duration:	
	N0(≤30 days after delivery).....	9.50 hours
	N12(+20±2°C and 60±15%RH for 12 months)	8.50 hours
3.2	Load Resistance(±0.5%)	300 Ohms
	Cycle Time	12h/d
	Cut-off Voltage Duration	0.9V
	Minimum Average Duration:	
	N0(≤30 days after delivery).....	200 hours
	N12(+20±2°C and 60±15%RH for 12 months)	180 hours
3.3	Load Resistance (±0.5%)	5.1 Ohms
	Cycle Time	5 min/d
	Cut-off Voltage Duration	0.9V
	Minimum Average Duration:	
	N0(≤30 days after delivery).....	100 min
	N12(+20±2°C and 60±15%RH for 12 months)	90 min
3.4	Capacity(according with 3.2)	900 mAh

4) Leakage resistance

4.1 High heat and humidity storage test:

High Temperature Exposure

When exposed to a temperature of **60±2°C 90±5%RH**
for a period of..... **20 days**

no leakage shall occur during the test.

4.2 High heat test:

High Temperature Exposure

When exposed to a temperature of **70±2°C**
for a period of **7 days**

no leakage shall occur during the test

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5. Safety requirement

5.1 Short Circuit Test:

When a continuous short circuit is applied to the terminals at Standard Environment, the case temperature must not exceed the specified limit and no explosion may occur. Leakage is tolerable.

Max. Case Temperature **100°C**
Test Duration **6 hours**

5.2 Safety Vent Test:

When 4 cells are connected in series with a load resistor and one of the 4 cells is connected with reverse polarity no explosion may occur.-The safety valve must operate.

Load Resistor..... **3.9 Ohms**
Test Duration..... **24 hours**

5.3 Forced Over Discharge Test:

When one drained cell is connected in series with 3 fresh cells and a load resistor no explosion may occur.-Leakage is tolerable. The drained cell is prepared by discharging a fresh cell through a 3.9 Ohms resistor until its CCV reaches 0.9V.

Load Resistor..... **3.9 Ohms**
Test Duration..... **3 days**

6) Heavy Metal Contents

The heavy metal contents of the cell shall conform to

Mercury limit(per cell weight)..... **1 ppm max.**
Cadmium limit(per cell weight) **10 ppm max.**

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7) Discharge curves

