

# WUXI CITY BAOLAI BATTERY CO.,LTD.

Address:North Industrial Zone,Huangshi Street,Qianzhou Town,Wuxi,Jiangsu,China.  
Tel:+86 510 82600771 Fax: +86 510 82600773

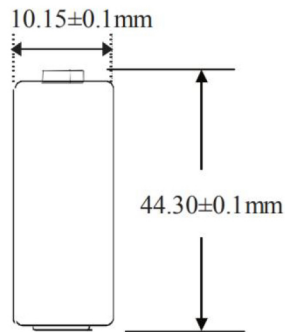
## TECHNICAL SPECIFICATION

### 1.About

Alkaline Battery

Model# : LR03/AAA Gold

Dimension:



Chemical System: Zn/KOH — H<sub>2</sub>O/MnO<sub>2</sub>

Nominal voltage: 1.5V

Average weight: 11.5g

Jacket: Aluminium Label

Reference document: 2006/66/EC,2013/56/EU, GB/T 8897.2-2013,IEC60086-1:2011

### 2.Ratings

	Nominal Voltage	1.5V
Temperature Range for operation	Standard Temperature	20°C±2°C
	Special Temperature	30°C±2°C
	High temperature	45C±2C
Humidity Range for Storage	Standard Humidity	45%~75%
	Special Humidity	35%~65%
Dimension	Diameter	10.15 ±0.1mm
	Height	44.30±0.1mm
	Approx weight	11.5g

### 3. Service Time

Discharge condition			Average minimum discharge time
Discharge load ( $\Omega$ )	Daily discharge	End voltage(V)	
3.9 $\Omega$	24h/d	0.9V	170min
5.1 $\Omega$	4min/h 8h/d	0.9V	257min
5.1 $\Omega$	1h/d	0.8V	4.3h
24 $\Omega$	15s/min 8h/d	1.0V	24.3h
75 $\Omega$	4h/d	0.9V	79.7h
50mA	1h/12h 24h/d	0.9V	24.1h
600mA	10s/min 1h/d	0.9V	431 cycles

Capacitance:0.75AH (3.9  $\Omega$  discharge 24hours per day at 20 $\pm$ 2 $^{\circ}$ C, end point voltage 0.9V

### 4. Anti-leakage characteristic

Item	Condition	Period	Characteristics
Over-discharge characteristics	Load 3.9 $\Omega$ , discharge to 0.8V and then storage at 45 $^{\circ}$ C room	12 weeks	no deformation exceeding the specified dimensions nor visible leakage
Spillage proof test at high temperature	Storage high temp 71 $^{\circ}$ C room.	12 weeks	

### 5. Safety

Item	Condition	Period	Characteristics
Short circuit characteristics	Temp.: 20 $^{\circ}$ C $\pm$ 2 $^{\circ}$ C	24 H	Batteries shall be No explosion, No fire.
Abuse characteristics	Short circuit 4 pieces of battery in series, one of the batteries has to be connected with its polarity reversed	24 H	

Item	Condition	Sample	Characteristics
Free fall	Drop each undischarged battery Two times,oriented in each of three mutually perpendicular face (six total) from a height 1 meter,onto a concrete surface	5pcs	Batteries shall be No explosion,No fire.

## 6.Marks:

the following marks will be printed or stamped on the batteries' body

- (1) Model
- (2) Nominal Voltage
- (3) pole
- (4) Warning
- (5) expiry date

## 7.Storage life

Under room temp and suitable environment, its shelf time is 5 years

## 8.Discharge Curves

**Battery Discharge Record Table**

**DUKECELL**

Station:	05 panel 2 row	Discharge Pattern:	24h/d
Type:	1.50V	Manufacturer:	DUKECELL
Load :	3.9Ω	Battery Name:	LR03
End Volt:	0.90V	Brand Name:	
E/P Type:	Normal End	Lot No:	715020210411
Min.time:	150.0min	Prod.Date:	2021-04-11
deviation:	91.8%	Start Date:	2021-04-11
Environment:	20°C RH 50%	End Date:	2021-04-11

	1	2	3	4	5	6	7	8	9	max	min	avg
OCV	1.652	1.653	1.652	1.652	1.653	1.653	1.652	1.652	1.651	1.653	1.651	1.652
CCV(Avg)	1.557	1.553	1.546	1.526	1.552	1.549	1.560	1.550	1.552	1.560	1.526	1.549
Cap(mAh)	731.7	716.7	713.9	705.4	750.3	695.5	744.0	696.0	716.6	750.3	695.5	718.9

**Duration time up to each voltage(min)**

1.600V	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1.500V	0.6	0.5	0.4	0.6	0.6	0.5	0.7	0.5	0.5	0.7	0.4	0.5
1.400V	5.6	5.1	4.9	5.5	5.3	5.1	6.0	5.0	5.3	6.0	4.9	5.3
1.300V	18.2	17.8	18.9	18.9	19.5	17.4	20.9	17.4	18.4	20.9	17.4	18.6
1.200V	46.2	44.3	46.6	42.0	46.7	42.0	47.0	40.8	45.0	47.0	40.8	44.5
1.100V	78.3	79.1	77.5	75.3	80.2	74.8	81.3	77.7	80.5	81.3	74.8	78.3
1.000V	121.3	120.8	117.1	118.8	123.5	116.0	123.4	118.2	121.3	123.5	116.0	120.0
0.900V	150.9	147.3	146.9	145.1	154.9	143.3	152.9	142.8	146.9	154.9	142.8	147.9

**Voltage(V) Battery discharge graph**

