Product Specification XCell Performance LR01 Lady N Batterie

1. Scope

This Specification is applicable to XCell Alkaline Battery Model No.: XLR01

1.1 Designations

XCell Performance: XLR01 IEC: LR1 Others: ---
JIS: LR1 ANSI: 910A

1.2 Reference Document

IEC 60086-1 (2000-11) --- Primary Batteries - Part 1: General
IEC 60086-2 (2001-10) --- Primary Batteries - Part 2: Physical and electrical specification
IEC 60086-5 (2000-07) --- Primary Batteries - Part 5: Safety of batteries with aqueous electrolyte

2. Chemical System

Alkaline-Manganese Dioxide
* MERCURY AND CADIUM ARE NOT ADDED IN THE BATTERY

3. Nominal Voltage: 1.5 V

4. Average Weight: 9 g

5. Nominal Capacity

940mAh (Continuous discharge at 20+/-2°C under 300Ω discharge load to 0.9V end-point voltage)

6. Electrical Characteristics

Test conditions: 5Ω+/-0.5% load resistance, measuring time 0.3 seconds,
temperature at 20+/-2 °C, tested within 30 days after delivery.

	Off-Load Voltage (V)	On-Load Voltage (V)	* Flush current (A)	Test Specification
New Battery	1.58	1.40	6.00	MIL-STD 105E, Class II, Double Sampling, AQL=0.4
After 3 mths. at 45°C	1.56	1.25	4.50	
After 12 mths. room temp	1.56	1.25	4.50	

7. Service Output

Condition: Test temperature 20 +/- 2°C, tested within 30 days after delivery

Standard	Discharge Condition			Average Minimum Discharge Time		
	Discharge Load	Discharge Time	E.P.V. (V)	New Battery	After 3 mths. at 45°C	After 12 mths. at room temperature
IEC	5.1Ω	5 m/d	0.9V	110 min	80 ,om	80 min
IEC	300Ω	12 h/d	0.9V	208 hr	185 hr	185 hr
IEC	20Ω	24 h/d	0.9V	10.5 hr	8.5 hr	8.5 hr

Satisfaction Standard:

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

8. Electrolyte Leakage Proof Characteristics

Item	Condition	Period	Requierement	Acceptance Standard
Over-discharge Characteristics	20Ω continuous discharge at temperature 20+/-2°C; Relative humidity: 65+/-20%RH	48 hours	There shall be no deformation exceeding the specified dimensions, nor leakage recognized by human eye	N=30; Ac=0; Re=1
Storage Characteristics	At temperature 45+/-2°C, Relative Humidity: Less than 70%RH	60 days		N=30; Ac=1; Re=2
	At temperature 60+/-2°C, Relative Humidity: Less than 90%RH	30 days		

9. Safety Characteristics

Item	Condition	Period	Requierement	Acceptance Standard
Short Circuit Characteristics	At temperature 20+/-2°C	24 hours	There shall be no explosion of battery	N=9; Ac=0; Re=1
Abusive Characteristics	Charging current: 100mA, at temperature 20+/-2°C	24 hours		

10. Marking

The following markings will be printed, stamped or impressed on the body of the battery:
(1) Designation : LR01
(2) Manufacturer‘s name or abbreviation **„XCell Logo“**
(3) Polarity: „+“ or „-“
(3) Warning: Battery may explode or leak if recharged or disposed of in fire

11. 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 and 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.

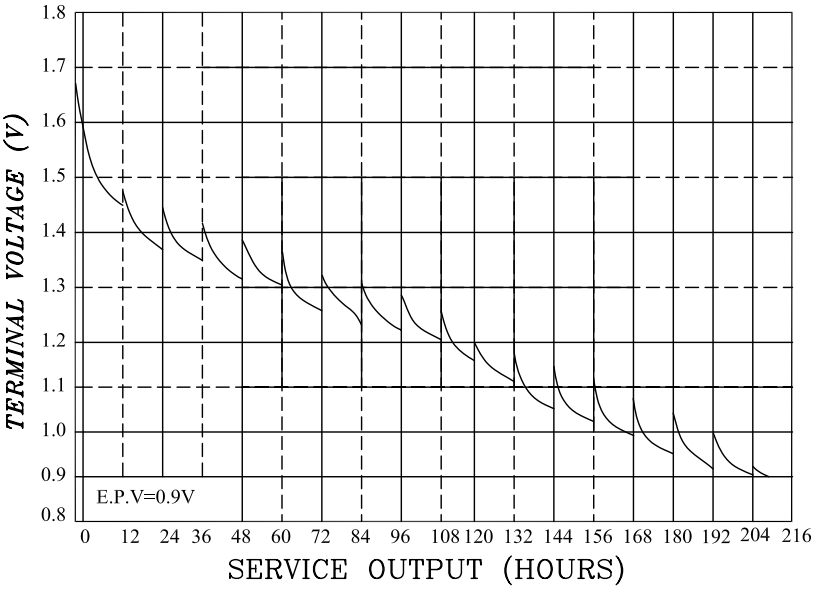
12. Discharge Curves (Condition: Test temperature 20+/-2°C)

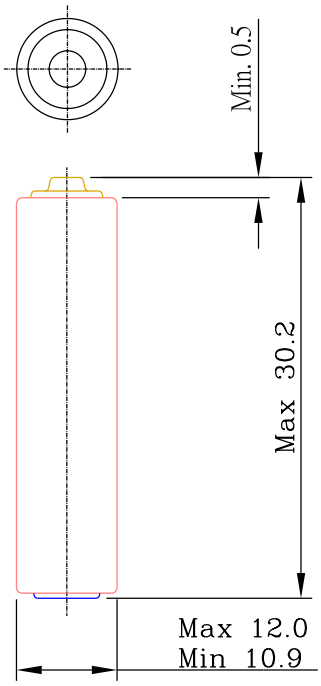
Discharge Method: 300Ω 12 hr/day (Ref to the Figure)
Discharge Method: 5.1Ω 5 min/day (Ref to the Figure)

13. Battery Dimension Ref to Drawing DWG-S001

14. Battery Structure Ref to Drawing DWG-S002

DISCHARGE METHOD : 300 ohm, 12hrs/day
TEMPERATURE : 20±2°C





DISCHARGE METHOD : 5.1ohm, 5min/day
TEMPERATURE : 20±2°C