PRODUCT SPECIFICATION

Philips Power Alkaline AA LR6

MMD Hong Kong Holding Limited
Add: Units 1208-11, 12th Floor, C-Bons International Center, 108 Wai Yip Street, Kwun Tong, Kowloon, Hong Kong
Tel: 0086-755-3635 8914

REV. No.	REASON	CONTENTS	DATE	REMARK
0	Initial Release		2020-01-03	

LR6 Power Alkaline

1. **Trademark: PHILIPS**

2. **Type designation:** IEC LR6

   JIS: AM3

   ANSI：AA

3. Chemical system:

Electrolyte-zinc-manganese dioxide (mercury & cadmium free)

4. Dimension: Diameter: 13.7-14.5

Height: 49.5-50.5

5. Nominal voltage: 1.5Volts

6. Nominal:

The weight of each battery is approximately: **23.3g**

7. Heavy Metal content (%):

Mercury content	Cadmium	Lead
≤1ppm	≤10ppm	≤40ppm

8. Appearance and terminal:

Battery shall be clean and have no dirt, no leakage, and no deformation which may affect their performance and actual use and shall have clearly visible markings.

9. Battery capacity: (Test environment：20℃±2, 60%±15%R.H)

(Load resistance: **43ohms**, Daily period: **24h/d**, Cut off voltage: **0.8V**；According to as the above the same discharge condition, the capacity of each battery is approximately:**2600mAh)**

10. Storage characteristics:

After 12 months storage at 20℃, 90% capacitance of fresh cells.

After 60 months storage at 20℃, 80% capacitance of fresh cells.

11. Electrical characteristics:

(Test environment: 20℃±2, 60%±15%R.H)(Load resistance: **3.9ohms,** Measure time**: 0.3S**)

(All samples shall be normalized for a minimum of 8 hours at the above environment prior to measurement)

	OCV (V)	SCC (A)
Initial	≥1.59	≥8
After 12 months storage	≥1.57	≥6

Remark: OCV: Open Circuit Voltage; CCV: Close Circuit Voltage; SCC: Short Circuit Current

12. Discharge test (service life) (Test environment: 20℃±2, 45%--75%R.H)

LOAD Resistance	（1.5W，0.65W）	50mA	3.9Ω	100mA	250mA	3.9Ω
Daily Period	(2s,28s), 5m/h,24h/d	1h/8h, 24h/d	4m/h,8h/d	1h/d	1h/d	1h/d
Cut off Voltage	1.05V	1.0V	0.9V	0.9V	0.9V	0.8V
Initial	80pulses	47.0h	390min	22.5h	7.5h	7.0h
After 12 months storage	70pulses	44.0h	360min	21.0h	6.8h	6.5h
Application	Digital still camera	Remote control	Portable lighting	Tape recorder	CD/Electronic games	Motor,/toy

Remark: The initial discharge test shall commence within 30 days of manufacture.

The discharge time is the minimum average duration (MAD).

Test quantity: n=9pcs (for per discharge test)

13. Leakage-proof structure:

① The sealing location of the battery is provided with double beading scores to make the structure tighter.

② Using imported special sealing glue, with more reliable leakage-proof performance.

14. Safety test (Test environment: 20℃±2, 60%±15%R.H)

Test item	Test method	Test pcs	Requirements
Over-discharge leakage test	10ohms (24h/d) 48hours	9pcs	No leakage
	3.9ohms (4min/h,8h/d) to 0.6V	9pcs	No leakage
	50mA (1h/8h, 24h/d) to 0.6V	9pcs	No leakage
	100mA (1h/d) to 0.6V	9pcs	No leakage
	250mA (1h/d) to 0.6V	9pcs	No leakage
	3.9ohms (1h/d) to 0.6V	9pcs	No leakage
High temperature test	60±2℃, RH: 90±5%, after 20 days storage, the cells shall be stored in an ambient temperature of 20±2℃, RH: 60±5%, for 4-24hours.	40	No leakage
One piece of battery Short circuit test	The terminal of an un-discharged battery is connected by wire. The circuit is completely for 24hours or until the case temperature has return to environment.	10	No explosion
Reversible charge	4 pieces of battery are in series connected and one of them is under incorrect polarity for 24 hours or until the case temperature has return to environment..	40	No explosion
Over discharge	One battery discharge 43ohms to 0.6V, then in series connect with 3 pieces of new battery with 20ohm 24h	36	No explosion
Free fall test	The battery free drops from one-meter height for 6 times, then store for 1h	10	No explosion
Impact under high and low temperature	Un-discharged battery store in test box under 70±2℃ for 24h, then change to -20℃ for 24h, repeat the above condition for 10 cycles.	20	No explosion
Storage after partial discharge	50% discharged battery stored under 45±5℃ for 30days	9	No leakage No explosion

15. Shelf-life: 10 years