# **Product Specification**

## **General**

Batteries, in all their aspects, should be in accordance with IEC 60086-1 and IEC 60086-2

1. Model no. PRO-ELEC Alkaline 6LR61

2. Nominal voltage 9.0Volt

Open circuit voltage 9.0Volt + 1.7/ - 0

3. Nominal capacity 475mAh

(Test condition: $620\Omega$  Load, continuous discharge, and end voltage 4.8V)

4. Average weight 49±2g 5. Shelf life 60Month

6. Performance

Battery service life should meet the values as stated in Table I

Table I

Discharges						
Test condition			Average duration <sup>1)</sup> at 20°C			
Load	Daily period	End voltage	Initial	After 12 months storage <sup>2)</sup>	After 36 months storage <sup>2)</sup>	
180Ω	30 m/d	4.8V	11h	10.1h	9.3h	
270Ω	1h/d	5.4V	17h	15.6h	14.4h	
620Ω	2 h/d	5.4V	40h	36.8h	34h	

<sup>1)</sup> Average service life will be calculated without the highest and the lowest of 9 samples

7. Heavy metal content: Mercury(Hg) content should be less than 1 PPM

Cadmium (Cd) content should be less than 5 PPM Lead (Pb) content should be less than 15 PPM

# 8. QUALITY ASSURANCE

DESCRIPTION	AQL
Battery dimensions	0.65%

<sup>2)</sup>Storage conditions: temperature 20±2°C and the Relative Humidity shall be 65±20%

Appearance	1.00%	
Off load voltage	0.65%	
On load voltage	1.00%	
Service Output	Note 1	
Leakage 6.1 6.2 6.3	0.65% ( Note 2 ) Note 3 Note 4	

Note 1 : Acceptance/rejection in accordance with IEC publication (1993) 86-1

Sub-clause 8.8.

Note 2: Leakage on arrival at warehouse is within two months after shipping.

Note 3: Sample size: n = 20

Judgement : Ac = 1, Re = 2

Note 4 : Sample size : n = 20

Judgement : Ac = 0, Re = 2

#### 9. PACKAGING

Packaging shall be a form agreed by both parties.

# **PRECAUTION & HANDLING**

- (1) Do not disassemble or short-circuit batteries.
- (2) Do not recharge batteries.
- (3) Do not dispose of batteries in fire.
- (4) Do not allow metal objects to contact the battery terminals.
- (5) Do not mix with used or other battery type (such as alkaline with carbon zinc).
- (6) Do not solder the batteries directly. If soldering or welding connection to the battery is required, consult our engineer for proper methods.
- (7) Do not over-discharge batteries. Force discharging batteries by external power source in a series may cause explosion.
- (8) To install or remove batteries, follow the equipment manufacturer's instructions.
- (9) Keep battery away from small children. If swallowed, consult a physician at once.
- (10) Remove batteries from device when it is not in use.

### **STORAGE**

- (1) Store in cool, dry place before use.
- (2) Do not keep batteries at temperature of  $45^{\circ}$ C or above.
- (3) Do not keep batteries at relative humidity of 75% or above.

**Drawing 1: Dimensions of Battery (6LR61/9V Size)** 

