

Product	Alkaline battery, 4.5 volts	Page	1 of 3
Size	3LR12, 4,5 V Flach, Flachbatterie, 3012, 1203,		

1. APPLICABILITY

This specification is applicable to alkaline battery, 3LR12 (no mercury added).

2. GENERAL

2.1 Type designation

IEC: 3LR12
JIS: 3LR12
ANSI: 3LR12

2.2 Chemical system

Zn/KOH-H₂O/MnO₂

2.3 Nominal voltage: 4.5 V

2.4 Weight: approx. 163 g

2.5 Dimension(mm)

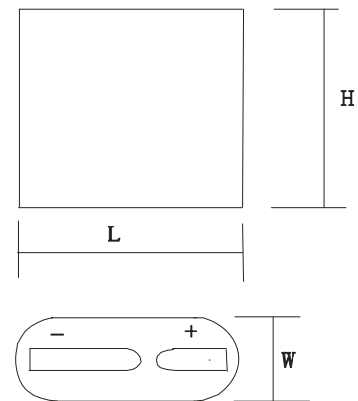
	min	max
L	60.0	62.0
W	20.0	22.0
H	63.0	67.0

2.6 Heavy Metal Contents

Hg	Cd	Pb
<1ppm	<10ppm	<40ppm

2.7 capacity

approx. 4800mAh (20Ω,24h/d, 20□, e.v.:2.7V)



3. APPEARANCE

There shall be no dirt, scratch or deformation detrimental to practical service in appearance.

4. ELECTRICAL CHARACTERISTICS (3.9Ω, 0.3S, 20±2□)

	OCV(V)	CCV(V)
Initial	≥4.75	≥3.5
Storage 1 year	≥4.65	≥3.3

Note: storage condition: 20±5°C, RH: 45%-75%

5. SERVICE OUTPUT

<i>Load</i>	20Ω	20Ω	220Ω
Test mode	24h/d	1h/d	4h/d
end voltage	2.7V	2.7V	2.7V
Initial	≥23h	≥24.0h	≥320h
Storage 1 year	≥21.0 h	≥22.0h	≥310h

Note: storage condition: 20±5°C, RH: 45%-75%

Product	Alkaline battery, 4.5 volts	Page	2 of 3
Size	3LR12, 4,5 V Flach, Flachbatterie, 3012, 1203,		

6. LEAKAGE RESISTANCE

6.1 over discharge leakage test

samples: 9 pcs

test conditions: 20±2□、RH 60±15% , 20Ωcontinuous discharge 48h

requirement: no visible leakage

criterion: 0/9

6.2 high temperature leakage test

samples: 40 pcs

test conditions: store 20 days under 60±2□&RH 90±5%,
then store 4~24 h under 20±2□&RH 60±15%.

requirement: no visible leakage

7. SECURITY CHARACTERISTICS

short-circuit explosion-proof characteristics

samples: 10 pcs

test conditions: 24h short-circuit under 20±2□, RH 60±15%.

requirement: negative terminal no departure from battery body.

criterion: 0/10

8. DISCHARGE CURVE

20Ωcontinuous、20Ω、220Ωdiscontinuous (see Appendix 1)

9. EXPIRY PERIOD

7 years

10. EXPIRY DATE MARKING

Expiry date marked on the bottom plate of finished cells, for example: 2014-01 means expiry date is Jan. , 2014.

Product	Alkaline battery, 4.5 volts	Page	3 of 3
Size	3LR12, 4,5 V Flach, Flachbatterie, 3012, 1203,		

Appendix :

