



Product Name: lithium manganese dioxide battery

Type: CR2016

Lithium Manganese Battery



PRODUCT SPECIFICATION

Version: 2012

Page 2 of 4

1. Scope

This specification governs the performance of the following Akyga Lithium Button Cell model: CR2016.

Designations:

Akyga: CR2016
IEC: CR2016
MAXE11: CR2016
SONY: CR2016
DURACELL: DL2016

Nominal Voltage: 3V

Typical Weight: 1.9 g

2. Technique parameter

| Item | | Unit | Standard |
|---------------------------------------|--|------------|-------------|
| Dimensions | Diameter | mm | 20.0 (-0.2) |
| | Height | | 1.6 (-0.2) |
| Open voltage | | V | 3.1-3.40 |
| Instant short-circuit current | | mA | ≥ 300 |
| Nominal capacity (Load 30K Ω) | | mAh | 90 |
| Appearance | The outward appearance is smooth, bright and clean, no rusty stain | | |
| Min time of discharge | Initial stage (New battery) | h | 910 |
| | Delayed for 12 months | | 860 |
| Over-discharge Characteristics | | No leakage | |

PRODUCT SPECIFICATION

Version: 2012

Page 3 of 4

3、 Test method

| No. | Item | Condition |
|-----|--------------------------------|--|
| 1 | Dimensions | When measure with vernier calipers whose precision is up 0.02mm. to avoid short circuit,should paste on one insulation material on one end of the vernier calipers |
| 2 | Open voltage | the precision of Multimeters is not lower than 0.25%,intel resistance is bigger than 1MΩ |
| 3 | Instant short-circuit current | When test with Multimeters,not surpass 0.5 second each time, avoid duplicating tests, if need once more, the time-gap should above half hour |
| 4 | Appearance | visual |
| 5 | Min time of discharge | Lay aside above 8 hours in the temperature of $20 \pm 2^{\circ}\text{C}$ and under the humidity of $60 \pm 15\%$ conditions, with the condition that Resistance is 30 kΩ ,end-point voltage is 2.0V. The new battery (Initial stage)should be tested in 60 days after produce. The old battery (Delayed for 12 months) should be tested in 14 days after the storage period. |
| 6 | Over-discharge Characteristics | Take nine battery in the temperature of $20 \pm 2^{\circ}\text{C}$ and under the humidity of $60 \pm 15\%$ conditions, with the condition that Resistance is 30 kΩ ,end-point voltage is 1.2V. visual test. |

4、 Acceptance rule

Check Criterion: IS02859-1:1999 (GB/T2828.1-2003),

The concrete item see the sheet of the following :

| NO. | Check item | IL | AQL |
|-----|--------------|----|-------------|
| 1 | Dimensions | I | Sampling 20 |
| 2 | Open voltage | | 0.25 |
| 3 | Appearance | II | Cr |
| | | | Maj |
| | | | Min |

PRODUCT SPECIFICATION

Version: 2012

Page 4 of 4

5、Cautions for Use

- 5.1 The battery shall be installed with its “+” and “-“ polarity in a correct position, otherwise may cause short-circuit.
- 5.2 Short-circuiting, heating, disposing of into fire or disassembling of battery is prohibited.
- 5.3 Battery can not be forced discharged, which leads to excess gassing and may result in bulging, leakage or explosion.
- 5.4 New batteries and used ones can not be used at the same time. It is recommended to use the same brand when replacing batteries.
- 5.5 Direct soldering is not allowed, or else it will damage the battery.
- 5.6 Battery are to be kept away from children. If swallowed, contact a physician at once.

6、Storage Environment

The environment temperature at 0 to 30 °C , RH not more than 75% is proper. Keep the environment sweep、cool、dry、well ventilated and should not close to heat high and wet place.

7、Marking and package

Basis customer request

8、Discharge Characteristics (Initial stage, Load 30K Ω , 24h /d, EPV 2.0 V)

