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NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB/T 8897.3-2021

Primary batteries - Part 3: Watch batteries

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Foreword

GB/T 8897 "Primary Battery" is divided into 5 parts.

---Part 1.General Provisions;

---Part 2.Dimensions and electrical properties;

---Part 3.Watch battery;

---Part 4.The safety of lithium batteries;

---Part 5.Safety requirements for aqueous electrolyte batteries.

This part is Part 3 of GB/T 8897.

This section was drafted in accordance with the rules given in GB/T 1.1-2009.

This part replaces GB/T 8897.3-2013 "Primary Battery Part 3.Watch Battery", which is mainly compared with GB/T 8897.3-2013

The technical changes are as follows.

---Revised the battery sizes in Table 1 and Table 2 (see Table 1, Table 2, and Table 1 and Table 2 of the.2013 edition);

---The relative humidity of 7.2.1 has been revised (see 7.2.1, 7.2.1 of the.2013 edition);

---Revised the resistance and time tolerance of Table 6 (see Table 6, Table 6 of the.2013 edition);

---Revised the resistance and time tolerance of Table 7 (see Table 7, Table 7 of the.2013 edition);

---Revised the discharge resistance value of some batteries in Table 8 (see Table 8, Table 8 in the.2013 edition);

---The relative humidity of 8.1 has been revised (see 8.1, 8.1 in the.2013 edition).

This section uses the redrafting law to modify and adopt IEC 60086-3.2016 "Primary Battery Part 3.Watch Battery".

Compared with IEC 60086-3.2016, this part has structural changes and appendix B has been added.

The technical differences between this part and IEC 60086-3.2016 and the reasons are as follows.

---Regarding normative reference documents, this section has made adjustments with technical differences to adapt to my country's technical conditions and adjustments.

The situation is collectively reflected in Chapter 2 "Normative Reference Documents", and the specific adjustments are as follows.

* Replace IEC 60086-1.2015 with GB/T 8897.1-2021 modified to adopt international standards;

* Replace IEC 60086-2.2015 with GB/T 8897.2-2021 which is modified to adopt international standards;

* Added reference to GB/T 2828.1.

---Modified the marking requirements to meet the requirements of relevant Chinese technical regulations and standards [see 4.8.1e) and 4.8.1f)];

---The normative Appendix B "Inspection Rules" has been added.

This part was proposed by the China National Light Industry Council.

This part is under the jurisdiction of the National Primary Battery Standardization Technical Committee (SAC/TC176).

Drafting organizations of this section. Songbai (Guangdong) Battery Industry Co., Ltd., Zhengzhou University of Light Industry, Fujian Nanping Nanfu Battery Co., Ltd., Light

Industrial Chemical Power Research Institute, Suzhou Product Quality Supervision and Inspection Institute, Sichuan Changhong New Energy Technology Co., Ltd.

1 Scope

This part of GB/T 8897 specifies the dimensions and physical performance requirements,

electrical performance requirements, sampling and quality of primary batteries for watches.

Guarantee, inspection methods, visual inspection and qualification conditions.

This part is applicable to multiple inspection methods. The manufacturer shall indicate its use when presenting the battery's electrical performance and/or other performance data.

The test method used.

2 Normative references

The following documents are indispensable for the application of this document. For dated reference documents, only the dated version applies to this article

Pieces. For undated reference documents, the latest version (including all amendments) is applicable to this document.

GB/T 2828.1 Sampling inspection procedure by attributes Part 1.Batch inspection sampling plan retrieved by acceptance quality limit (AQL)

(GB/T 2828.1-2012, ISO 2859-1.1999, IDT)

GB/T 8897.1-2021 Primary battery Part 1.General (IEC 60086-1.2015, MOD)

GB/T 8897.2-2021 Primary battery Part 2.Dimensions and electrical performance (IEC 60086-2.2015, MOD)

3 Terms and definitions

The following terms and definitions defined in GB/T 8897.1-2021 apply to this document.

3.1

Capacitivereactance

A component of internal resistance that causes a voltage drop during the first few seconds of applying a load.

3.2

Capacitive

The charge (power) that the battery can output under specified discharge conditions.

Note. The unit of charge is coulomb (1C=1A.s), and the capacity is usually expressed in ampere-hour (A.h).

3.3

New battery freshbattery

Produce undischarged batteries that are less than 60 days old.

3.4

Ohmicdrop

The voltage drop caused by a component of the internal resistance at the moment the load is applied.

4.1 Battery size, symbol and size code

The external dimensions and tolerances of the watch battery should meet the requirements of Figure 1, Table 1 and Table 2.The battery size shall be inspected according to 7.1.

The symbol that shows the shape of the battery in Figure 1 is consistent with Chapter 4 in GB/T 8897.2-2021.

4.2 Extreme

Negative contact end (-). The negative contact end (size d4) should meet the requirements of Table 1 and Table 2.This requirement does not apply to the "double

Stepped" battery.

Positive terminal (). The cylindrical surface of the battery is connected to the positive terminal. The positive contact terminal should be on the side of the battery, but it can also be on the side of the battery.

bottom.

4.3 The protruding part of the negative pole (h5)

The size h5 should meet the following requirements.

---When h1/h2<=1.65, h5>=0.02;

---When 1.65 \u003ch1/h2\u003c2.5?,h5>=0.06;

---When h1/h2>=2.5, h5>=0.08.

Note. The negative contact terminal should be the highest point of the battery.

4.4 The shape of the negative pole

The three-dimensional space requirement of the negative electrode. It should be within 45° (see Figure 2).

For batteries with different angles (h1/h2), the minimum value of l1 is shown in Table 3.

4.8.1 General

The type and polarity of the battery should be marked on the battery. Other signs can be