



**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

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Primary batteries - Part 2: Physical and electrical specifications

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Foreword

GB/T 8897 Primary Batteries consists of the following 5 parts.

- Part 1.General;
- Part 2.Physical and Electrical Specifications;
- Part 3.Watch Batteries;
- Part 4.Safety of Lithium Batteries;
- Part 5.Safety of Batteries with Aqueous Electrolyte.

This Part is Part 2 of GB/T 8897.

This Part was drafted as per the rules specified in GB/T 1.1-2009.

This Part replaced GB/T 8897.2-2013 Primary Batteries - Part 2.Physical and Electrical Specifications. Compared with GB/T 8897.2-2013, the major technical changes of this Part are

as follows.

--- Modify the minimum diameter of R03 from 9.5mm to 9.8mm (see 6.1.5 of this Edition;

6.1.1.1 of 2013 Edition);

--- Delete, modify and add some electrical performance test items for LR20, R20P, R20S, LR14, R14P, R14S LR6, LR03, R6P, R6S, R03, CR2025, CR2032 batteries (see 6.1.2, 6.1.3, 6.1.4, 6.1.5 and 6.4.6 of this Edition);

--- Add the common designations of batteries in the list of physical dimensions and performance requirements of various batteries (see Clause 6 of this Edition);

--- Re-add 5AR40 type batteries to the standard; add two new types of batteries FR14505 and FR10G445; delete four types of batteries LR53, R40, 2EP3863 and 6F100 (see 6.5.2,

6.1.4 and 6.1.5 of this Edition).

This Part used the redrafting method to modify and adopt IEC 60086-2:2015 Primary Batteries

- Part 2: Physical and Electrical Specifications.

Compared with IEC 60086-2:2015, the structural adjustments of this Part are as follows.

--- Add Clauses 7~9;

--- Since adding Annex A "Inspection Rules", the number of the remained annexes shall be deferred.

The technical differences and causes between this Part and IEC 60086-2:2015 are as follows.

--- Regarding normative references, this Part has made adjustments with technical differences to adapt to the technical conditions of China. The adjustments are concentrated in Clause 2 "Normative References". The specific adjustments are as follows.

? Use GB/T 1182 that modifies and adopts the international standard to replace ISO 1101;

? Use GB/T 8897.1-2021 that modifies and adopts the international standard to replace IEC 60086-1:2015.

--- Delete the term "closed-circuit voltage".

--- Modify the partial discharge index of R20S, LR03, R1 and 6F22 (see 6.1.2, 6.1.5, 6.1.6 and 6.6.8 of this Edition).

--- Modify the minimum diameter of R6P and R6S (see 6.1.4 of this Edition).

--- Increase inspection methods (see Clause 7 of this Edition), sampling and quality assurance (see Clause 8 of this Edition) and markings (see Clause 9 of this Edition).

--- Add the normative annex "Inspection Rules" (see Annex A).

This Part was proposed by China National Light Industry Council.

This Part shall be under the jurisdiction of National Technical Committee on Primary Battery of Standardization Administration of China (SAC/TC 176).

Drafting organizations of this Part. Fujian Nanping Nanfu Battery Co., Ltd.; Zhejiang Mustang

Battery Co., Ltd.; Guangzhou Tiger Head Battery Group Co., Ltd.; Zhongyin (Ningbo) Battery

Co., Ltd.; Institute of Chemical Power Sources for Light Industry; Hangzhou Eternal

Battery Co., Ltd.; Sichuan Changhong New Energy Technology Co., Ltd.; Guangdong Liwang

New Energy Co., Ltd.; Zhengzhou University of Light Industry; Suzhou Product Quality

Supervision and Inspection Institute; Xiamen 3-Circles Battery Co., Ltd.; Chung Pak (Guang

Dong) Battery Industrial Co., Ltd.; Zhejiang Yonggao Battery Co., Ltd.; Chengdu Jianzhong

Lithium Battery Co., Ltd.; Zhejiang Hengwei Battery Co., Ltd.; Jiaying Minimoan Battery Co,

Ltd.; Shandong Huatai New Energy Battery Co., Ltd.; Zhejiang Yunbang Battery Co., Ltd.;

Jiaying Reach Top Battery Power Technology Co., Ltd.; Jiaying Kaili Battery Co., Ltd.;

Yichang Power Glory Technology Co., Ltd.; Wuhan Fanso Technology Co., Ltd.; and

Shenzhen National Engineering Research Center of Advanced Energy Storage

Materials Co., Ltd.

Chief drafting staffs of this Part. Xiao Qicong, Chen Shuibiao, Liu Xu, Chen Guobiao, Wang

Haibo, Guo Long, Wang Lizhen, Xu Zengfu, Wu Zhen, Wang Hongqi, Lu Yanfang, Ye Manhui,

Wang Li, Cheng Hong, Ding Cheng, Wu Minji, Zhuang Biao, Wang Jiajun, Fu Jiqing, Wang

Jian, Wen Qingan, Yang Hui, Liu Hongbing, and Ma Kouxiang.

The historical editions replaced by this Part are as follows.

--- GB/T 7112-1986, GB/T 7112-1994, GB/T 7112-1998;

--- GB/T 8897.2-2005, GB/T 8897.2-2008, GB/T 8897.2-2013.

Primary Batteries - Part 2. Physical and Electrical

Specifications

1 Scope

This Part of GB/T 8897 specifies the battery size symbols, the description of the composition

of the battery technical requirements classification table, the physical dimensions and electrical

performance requirements, inspection methods, sampling and quality assurance and marking

for primary batteries.

2 Normative References

The following documents are essential to the application of this document. For the dated documents, only the versions with the dates indicated are applicable to this document; for the

undated documents, only the latest version (including all the amendments) is applicable to this

document.

3 Terms, Definitions, Symbols and Abbreviations

Suitable approximate value of the voltage used to designate or identify a cell, a battery or an

electrochemical system.

4 Battery Dimensions, Symbols

The symbols used to denote the various dimensions of batteries are as follows.

5 Constitution of the Battery Specification Tables