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

中华人民共和国国家标准

GB/T 19638.1-2014

Replace GB/T 19638.2-2005

**Lead-acid batteries for stationary
valve-regulated— Part 1: Technical requirements**

固定型阀控式铅酸蓄电池

第 1 部分：技术条件

(IEC STATIONARY LEAD-ACID BATTERIES - Part 22: Valve regulated types
– Requirements, MOD)

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Foreword

GB/T 19638 *Lead-Acid Batteries for Stationary Valve-Regulated* has two parts:

--Part 1: Technical conditions

--Part 2: Product types and specifications

This part is the first part of GB/T 19638.

This part is drafted according to the rules provided in GB/T 1.1—2009.

The historical version replaced by this Part is: GB/T 19638.2—2005 *Lead-Acid Batteries for Stationary Valve-Regulated*.

This part has the following main changes compared to GB/T 19638.2—2005:

——Definitions of "environment temperature", "floating battery (pack)" "full charge" "actual capacity" and so on are added (See chapter 3);

——The battery quality reference value is modified and listed as the informative annex;

——The technical requirements and test methods of the inflaming retarding ability of materials are modified (See 5.2.8, 6.14);

——The technical requirements and test methods of the connection performance between unit cells are added (See 5.3.3, 6.18);

——The technical requirements of connection voltage drop are deleted (See 2005 version, 6.3.3);

——The technical requirements of overcharge resistance are deleted (See 2005 version 6.3.4);

——The technical requirements of overcharge circulating durability are deleted (See 2005 version 6.4.1.2);

——The technical requirements and test methods of circulating durability are modified (See 5.4.1, 6.22, 6.23);

——The technical requirements and test methods of thermal runaway sensitivity are

modified (See 5.4.2, 6.24);

——The technical requirements and test methods of low temperature sensibility are modified (See 5.4.3, 6.25);

——The test methods of gassing volume are modified (See 6.7);

——The test methods of capacity properties are modified (See 6.17);

——The test methods of charge maintenance property are modified (See 6.19).

——The requirements and test methods of “battery terminal voltage balance” in YD/T 799—2010 Valve-Regulated Lead Acid Battery for Telecommunications are added (See 5.3.1, 6.16).

International standard IEC 60896-22:2004 *Stationary Lead-Acid Batteries Part 22: Valve-Regulated Types Test Methods* is adopted and redraft methods are used for modification in this part.

The technical differences are as follows compared to IEC 60896-22:2004:

——IEC 60896-22:2004 *Stationary Lead-Acid Batteries Part 22: Valve-Regulated Types Test Methods* specifies 21 technical requirements and test methods in total; and this standard adopts 17 technical requirements and test methods from them (among which there are 12 adopting by equivalent and 5 adopting by modification); 4 items of requirements are not adopted.

Please note that some contents of this document can involve patents. The issuing organization of this document assume no responsibility of recognition of these patents.

This Part is proposed by China Electrical Equipment Industrial Association.

This Part is under the jurisdiction of National Technical Committee of Lead-Acid Battery Standardization (SAC/TC 69) .

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The historical version replaced by this Part is as follows:

——GB/T 19638.2—2005.

Lead-acid batteries for stationary valve-regulated—

Part 1: Technical requirements

1 Scope

This part of GB/T 19638 specifies the technical requirements, test method, inspection rules, mark, package, transportation and storage of fixed-valve-controlled lead-acid storage battery.

The part is applicable to all fixed-valve-controlled lead-acid storage batteries (hereinafter referred to as storage batteries) and storage battery for the purposes of communication, equipment switch, generation, emergency power and uninterruptible power supply or similar purposes in still places and combined with the fixing equipment and fixed in the battery room. The sulfuric acid electrolyte in the battery cannot flow, or absorb in the microcellular structure among electrodes or in colloid form.

The part is not suitable for starting, energy storage and general lead-acid storage battery and storage battery, etc.

2 Normative references

The articles contained in the following documents have become this document when they are quoted herein. For the dated documents so quoted, all the modifications (Including all corrections) or revisions made thereafter shall be applicable to this document.

GB/T 2408-2008 Plastics-Determination of Burning Characteristics-Horizontal and Vertical Test (IEC 60695-11-10:1999, IDT)

GB/T 2900.41 Electrotechnical Terminology - Primary and Secondary Cells and Batteries (GB/T 2900.41-2008, IEC 60050 (482): 2003, IDT)

GB/T 19638.2-2014 Lead-Acid Batteries for Stationary Valve-Regulated-Part 2:Kinds of Products and Specification

GB/T 23754 Lead-acid Storage Battery Cell



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