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

GB/T 19638.1-2014

Replacing 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

(English Translation)

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Foreword

GB/T 19638 "Fixed type VRLA batteries" is divided into two parts.

- Part 1. Technical conditions;
- Part 2. product varieties and specifications.

This section GB/T 19638 Part 1.

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

This Part replaces GB/T 19638.2-2005 "stationary VRLA batteries." this portion of the GB/T 19638.2-2005 compared to the main part of the following changes.

- Increase the "ambient temperature" "floating battery (group)" "fully charged" "actual capacity" and the definition (see Chapter 3);
- Modify the battery quality reference value, tied to informative annex;
- Modify the flame resistance of technical requirements and test methods for materials (see 5.2.8,6.14);
- Increased connectivity between single-cell technology requirements and test methods (see 5.3.3,6.18);

- Remove the voltage drop connection technical requirements (see the 2005 version 6.3.3);
- Remove the overcharge resistance capability technical requirements (see 2005 Version 6.3.4);
- Remove the overcharge cycle durability technical requirements (see 2005 Version 6.4.1.2);
- Cycle durability revised technical requirements and test methods (see 5.4.1,6.22,6.23);
- Modify the sensitivity of technical requirements and test methods for thermal runaway (see 5.4.2,6.24);
- Modify the low sensitivity of technical requirements and test methods (see 5.4.3,6.25);
- Modify the amount of gas evolved test methods (see 6.7);
- Modify the capacity performance test methods (see 6.17);
- Modify the charge retention performance test methods (see 6.19).
- Increased YD/T 799-2010 "Communication with VRLA batteries," the "battery terminal voltage balance" requirement and test methods (see 5.3.1,6.16).

This section uses redrafted law revision of international standards IEC 60896-22:2004 "Fixed lead-acid batteries - Part 22. Valve Control Type test methods. " this part of IEC 60896-22:2004 compared to the technical differences and the reasons are as follows.

--- IEC 60896-22:2004 "Fixed lead-acid batteries - Part 22. valve-regulated type test method" provides for a total of 21 technical Requirements and test methods; This standard uses of which 17 technical requirements and test methods (which equivalent to 12 to modify mining with five), there are four requirements are not adopted.

Please note that some of the content of this document may involve patents. Release mechanism of the present document does not assume responsibility for the identification of these patents.

This part is proposed by the China Electrical Equipment Industrial Association.

The lead-acid batteries in part by the National Standardization Technical Committee (SAC/TC69) centralized.

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1 Scope

This section GB/T 19638 specifies the fixed-type VRLA battery of technical requirements, test methods, inspection rules, marks, packages Loading, transport and storage.

This section applies to and in conjunction with the fixed equipment in stationary places together using float or fixed in the battery compartment to pass Letter, switching equipment, power, emergency power and uninterruptible power supply or a similar use of all fixed-type VRLA batteries (hereinafter referred to as the accumulator Batteries) and batteries. Sulfuric acid electrolyte in the battery is not flowing, or adsorbed on the pore structure between the electrodes or in colloidal form.

This section does not apply to start with, and general storage use lead-acid batteries and batteries and so on.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) applies to this document.

GB/T 2408-2008 Plastics - Determination of burning behavior of horizontal and vertical (IEC 60695-11-10:1999, IDT) GB/T 2900.41 Electrotechnical terminology primary cells and batteries (GB/T 2900.41-2008, IEC 60050 (482).2003, IDT) GB/T 19638.2-2014 stationary VRLA batteries - Part 2. Product varieties and specifications GB/T 23754 lead-acid battery slot

3 Terms and Definitions

GB/T 2900.41 define the following terms and definitions apply to this document.

Ambient temperature 5mm around the battery or batteries within the medium temperature.

Floating battery (group) floatingbattery Battery (group) terminal is permanently connected

to a constant voltage, which is sufficient to maintain a constant voltage battery (group) remains fully charged State, when the normal power supply is temporarily interrupted, battery (group) can provide electricity.

Fully charged fulcharge Battery all active substances available have been transformed into full state of charge.

Actual capacity Under the conditions specified discharge rate, discharge termination voltage and temperature, battery or battery output power, in ampere hours (Ah) represented.