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

GB/T 32620.1-2016

Replacing GB/T 18332.1-2009

**Lead-acid batteries used for electric road vehicles -- Part 1:
Technical condition**

电动道路车辆用铅酸蓄电池 第1部分：技术条件
(English Translation)

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Foreword

GB/T 32620 "Lead-acid batteries for electric road vehicles" is divided into two parts.

--- Part 1. Technical conditions;

--- Part 2. Product variety and specifications.

This part is the first part of GB/T 32620.

This part is drafted in accordance with the rules given in GB/T 1.1-2009.

This part replaces GB/T 18332.1-2009 "Lead-acid batteries for electric road vehicles", compared with GB/T 18332.1-2009, the main the technical changes are as follows.

--- The standard name was changed to "Lead-acid batteries for electric road vehicles - Part 1. Technical conditions" (see cover, 2009 edition) surface);

--- Remove the "high rate discharge" requirements and test methods (2009 version 5.11, 6.7);

--- Remove the "sealing reaction efficiency" requirements and test methods (2009 edition 5.11, 6.12);

--- Remove the "exhaust valve action" requirements and test methods (2009 version 5.12, 6.13);

---Delete "product name, specification model and size" (2009 edition 4.2);

---Delete "terminal position" (2009 version 4.3);

--- Add "acronyms" (see 3.2);

--- Increase the "capacity at different temperatures" requirements and test methods (see 4.2.2, 5.4);

--- Increase the "dynamic endurance" requirements and test methods (see 4.5, 5.7);

--- Increase the "flame resistance of materials" requirements and test methods (see 4.7.2, 5.9.2);

--- Increase the "water loss" requirements and test methods (see 4.9, 5.11);

--- Increase the "cadmium element" requirements and test methods (see 4.11, 5.13);

--- Increase the "driving simulation test of battery system performance" (see Appendix A);

--- Increase the scope of application, including the "electric motorcycle battery" content (see Chapter 1, 2009 edition 1);

---Add and modify the "definition" content (see 3.1, Chapter 3 of the 2009 edition);

- Add and modify "capacity" requirements and test methods (see 4.2.1, 5.3);
- Modify "classification" (see 3.4, 2009 edition 4.1);
- Modify the "product name, specification model and size" requirements and inspection methods (see 4.1, 5.2, 2009 edition 5.1, 5.2, 5.3, 5.4 and 6.2, 6.3, 6.4);
- Modify the "security" content (see 4.7, 2009 version 5.13);
- Modify the "fast charging capability" test method (see 5.8, 2009 edition 6.11);
- Modify the "peak power" requirements and test methods (see 4.8, 5.10, 2009 edition 5.17, 6.18).

This section uses the redrafting method to modify the use of IEC 61982-1:2012 "electrical road vehicle drive battery test parameters." the main differences between this part and IEC 61982-1:2012 are as follows.

- Rewritten according to China's standard rules;
- Modify the "scope" content (see Chapter 1);
- Modify "normative references" (see Chapter 2);
- Re-editing "terms, definitions, abbreviations and codes and classifications" (see Chapter 3);
- Increase the "battery appearance, name, model, size, terminal polarity and quality" requirements and test methods (see 4.1, 5.2);
- Increase the "circulation endurance" requirements and test methods (see 4.4, 5.6);
- Increase the "fast charging capacity" requirements and test methods (see 4.6, 5.8);
- Increase the "safety" requirements and test methods (see 4.7, 5.9);
- Increase the "water loss test" requirements and test methods (see 4.9, 5.11);
- Increase the "vibration resistance test" requirements and test methods (see 4.10, 5.12);
- Increase the "cadmium content" requirements and test methods (see 4.11, 5.13);
- Add the "Inspection Rules" section (see Chapter 6);
- Add the "Marking, Packaging, Transportation, Storage" section (see Chapter 7).

This part was proposed by China Electrical Equipment Industry Association.

This part is under the jurisdiction of the National Lead-acid Battery Standardization Technical Committee (SAC/TC69).

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1 Scope

This part of GB/T 32620 specifies the technical requirements, test methods, inspection rules and signs of lead-acid batteries for electric road vehicles.

Battery system performance in packaging, transportation and storage and driving conditions.

This section applies to electric vehicles, electric tricycles, golf carts, tourist vehicles, electric motorcycles that use batteries as the main source of power.

A lead-acid battery (hereinafter referred to as a battery) and a battery pack, which are used at a rated capacity of 32 Ah (including 32 Ah) or the like.

This section does not apply to power-type batteries and battery packs for other purposes such as starters, electric bicycles, and traction.

2 Normative references

The following documents are indispensable for the application of this section. For dated references, only dated versions apply to this article.

Pieces. For undated references, the latest edition (including all amendments) applies to this document.

GB/T 2408-2008 Determination of burning properties of plastics - Horizontal method and vertical method (IEC 60695-11-10.:1999, IDT) GB/T 2900.41 Electrotechnical terminology primary battery and battery (GB/T 2900.41-2008, IEC 60050 (482)..2003, IDT) GB/T 32620.2-2016 Lead-acid batteries for electric road vehicles - Part 2. Product variants and specifications JB/T 11236-2011 Determination method of cadmium in lead-acid batteries

3 Terms, definitions, abbreviations and codes and classification

The following terms, definitions, abbreviations, codes and classifications as defined in GB/T 2900.41 apply to this document.