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Electric Vehicles Traction Battery Safety Requirements
电动汽车用动力蓄电池安全要求

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Electric Vehicles Traction Battery Safety Requirements

1 SCOPE

This standard specifies the safety requirements and test methods of traction battery (hereinafter referred to as “battery”) cells, battery packs or systems for electric vehicles.

This standard is applicable to rechargeable energy storage devices for electric vehicles, e.g., lithium-ion battery and nickel-metal hydride battery.

2 NORMATIVE REFERENCES

The following referenced documents are indispensable for the application of this document. For dated references, only the editions cited apply. For undated references, the latest editions of the normative document (including any amendments) apply.

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|-------------------|--|
| GB/T 2423.4 | Environmental testing for electric and electronic products - Part 2: Test method - Test Db: Damp heat, cyclic (12h+12h cycle) |
| GB/T 2423.17 | Environmental testing for electric and electronic products - Part 2: Test method - Test Ka: Salt mist |
| GB/T 2423.43 | Environmental testing for electric and electronic products - Part 2: Test methods - Mounting of specimens for vibration impact and similar dynamic tests |
| GB/T 2423.56 | Environmental testing - Part 2: Test methods - Test Fh: Vibration, broadband random and guidance |
| GB/T 4208-2017 | Degrees of protection provided by enclosure (IP code) |
| GB/T 19596 | Terminology of electric vehicles |
| GB/T 28046.4-2011 | Road vehicles - Environmental conditions and testing for electrical and electronic equipment - Part 4: Climatic loads |

3 TERMS AND DEFINITIONS

For the purpose of this document, the terms and definitions established in GB/T 19596 and the followings apply.

3.1 Secondary cell

The basic functional unit, which realizes mutual conversion between chemical energy and electric energy

Note: It generally consists of electrodes, separators, electrolyte, container and terminals, and is designed to be electrically recharged.

3.2 Battery module

The combination, intended as a power source, of more than one secondary cell in series and/or parallel connection

3.3 Battery pack

The unit which can obtain electric energy from external sources and can output electric energy to external devices

Note: It generally consists of secondary cells, battery management module (excluding BCU), battery enclosure and the relevant accessories (cooling components, connection cables, etc.).

3.4 Battery system

The energy storage device which includes one or more battery packs and the relevant accessories, such as management system, high voltage circuits, low voltage circuits, and mechanical assemblies



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