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中华人民共和国国家标准
NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

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**Safety Requirements and Test Specifications of Electric
Vehicle Conductive Supply Equipment**
电动汽车供电设备安全要求及试验规范

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Safety Requirements and Test Specifications of Electric Vehicle Conductive Supply Equipment

1 SCOPE

This Standard specifies the safety requirements, test guidelines, and test methods of electric vehicle conductive supply equipment (hereinafter referred to as “supply equipment”).

This Standard is applicable to various types of supply equipment with a rated output voltage of 1,000V AC or 1,500V DC and below, including the supply equipment in Charging Mode 2, Charging Mode 3, and Charging Mode 4; this standard also applies to the supply equipment which is not intended for the use of public purpose but is used under special conditions, e.g. supply equipment that is explosion-proof, liquid-cooled, or used at an altitude above 2,000 m, and the requirements of appropriate standards shall be combined.

For the independent electrical attachments and auxiliary materials of the supply equipment, e.g. connection set, cables, and insulating materials, should comply with the requirements of specific product standard in combination with this standard.

This Standard involves the case where the supply equipment conforms to correct operation procedure but misoperation may occur, serious equipment damage and major personal hazard may result from electric shock hazard, energy hazard, mechanical hazard, high temperature hazard, fire spread hazard, sound pressure hazard, or runaway hazard.

This Standard doesn't involve the following information:

- Safety requirements related to transport package, improper installation, and application;
- Electromagnetic compatibility requirements;
- Information safety requirements;
- Safety issues arisen from deliberate destruction and other purposive behavior;
- Other functional and performance requirements irrelevant to the safety.

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.

GB/T 1002	Single phase plugs and socket-outlets for household and similar purposes - Types basic parameters and dimensions
GB/T 2099.1	Plugs and socket-outlets for household and similar purposes- Part 1: General requirements
GB/T 2423.55	Environmental testing for electric and electronic products- Part 2: Test methods-Test Eh: Hammer tests
GB/T 4776-2017	Electrical safety terminology
GB 4793.1-2007	Safety requirements for electrical equipment for measurement, control, and laboratory use-Part 1: General requirements
GB 4943.1-2011	Information technology equipment -Safety - Part 1: General requirements
GB/T 5169.11	Fire hazard testing for electric and electronic products—Part 11: Glowing/hot-wire based test methods—Glow-wire flammability test method for end-products (GWEPT)
GB/T 5169.21	Fire hazard testing for electric and electronic products—Part 21: Abnormal heat—Ball pressure test method
GB/T 12113	Methods of measurement of touch current and protective conductor current
GB/T 16842	Protection of persons and equipment by enclosures-Probe for verification
GB/T 16935.1-2008	Insulation coordination for equipment within low-voltage systems - Part 1: Principles requirements and tests
GB/T 18487.1-2015	Electric Vehicle Conductive Charging System - Part 1: General Requirements
GB/T 20234.1-2015	Connection Set for Conductive Charging of Electric Vehicles—Part 1: General Requirements
GB/T 29317-2012	Terminology of electric vehicle charging/battery swap infrastructure



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