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**Reliability Test Methods of Drive Motor System for
Electric Vehicles**
电动汽车用驱动电机系统可靠性试验方法

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Reliability Test Methods of Drive Motor System for Electric Vehicles

1 SCOPE

This document specifies the test conditions, test procedure, test methods, inspection and maintenance, processing of test results, reliability evaluation and test report, with respect to the reliability bench test of drive motor system for electric vehicles.

This document is applicable to the drive motor system for electric vehicles, while the vehicle motor system that only has the auxiliary drive or power generating function may use this document as a reference.

2 NORMATIVE REFERENCES

The following normative documents contain provisions which, through normative reference in this text, constitute essential provision of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendment) applies.

GB/T 2900.13	Electrotechnical terminology - Dependability and quality of service
GB/T 18488.1	Drive motor system for electric vehicles—Part 1: Specification
GB/T 18488.2	Drive motor system for electric vehicles—Part 2: Test methods
GB/T 19596	Terminology of electric vehicles
QC/T 893	Failure classification and assessment of electrical machine system for electric vehicle
QC/T 1022-2015	Technical specification for reduction gearbox of battery electric passenger cars

3 TERMS AND DEFINITIONS

For the purposes of this document, the terms and definitions given in GB/T 2900.13, GB/T 18488.1, GB/T 18488.2, GB/T 19596 and QC/T 893, as well as the following apply.

3.1 rated voltage

The nominal voltage of DC bus declared by the manufacturer

3.2 continuous torque

The maximum mechanical torque at which the drive motor system can work continuously for a long time under the conditions specified by the manufacturer

3.3 rated speed

The maximum speed at which the drive motor system can output the continuous torque under the conditions specified by the manufacturer



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