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**Secondary Lithium Cells and Batteries Used in Electrical
Energy Storage Systems—Safety Requirements**
电能存储系统用锂蓄电池和电池组 安全要求

(English Translation)

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Secondary Lithium Cells and Batteries Used in Electrical Energy Storage Systems—Safety Requirements

1 SCOPE

This document specifies the safety requirements for secondary lithium cells and batteries used in electrical energy storage systems and describes the corresponding test methods.

This document is applicable to the secondary lithium cells and batteries used in electrical energy storage systems (hereinafter referred to as “cells and batteries”), where the application of electrical energy storage systems includes but not limited to:

- a) Telecommunications;
- b) Central emergency lighting and alarm systems;
- c) Stationary engine starting;
- d) Photovoltaic systems;
- e) home (residential) energy storage systems (HESS);
- f) Large energy storage: on-grid/off-grid.

The electrical energy storage systems enumerated above are not exhaustive, so the equipment not listed may also be within the scope of this document.

The batteries covered by this document normally has a rated energy above 100 kWh, while the safety requirements for the batteries with a rated energy of 100 kWh and below are as set out in GB 40165.

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 2423.5	Environmental testing—Part 2: Test methods—Test Ea and guidance: Shock
GB/T 2423.10	Environmental testing—Part 2: Test methods—Test Fc: Vibration (sinusoidal)
GB/T 2423.21	Environmental testing - Part 2: Test methods - Test M: Low air pressure
GB/T 2423.22	Environmental testing - Part 2: Tests methods - Test N: Change of temperature
GB 4943.1-2022	Audio/video, information and communication technology equipment—Part 1: Safety requirements
GB/T 5169.16	Fire hazard testing for electric and electronic products—Part 16: Test flames—50W horizontal and vertical flame test methods
GB/T 5169.21	Fire hazard testing for electric and electronic products—Part 21: Abnormal heat—Ball pressure test method
GB/T 17626.2	Electromagnetic compatibility — Testing and measurement techniques- Electrostatic discharge immunity test

3 TERMS AND DEFINITIONS

For the purpose of this document, the following terms and definitions apply.

3.1 secondary lithium cell

secondary cell where electrochemical energy is derived from the insertion/extraction reactions

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