

ICS 43.140  
CCS Y 14



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

GB 43854-2024

Safety Technical Specification of Lithium-Ion  
Battery for Electric Bicycle  
电动自行车用锂离子蓄电池安全技术规范

(English Translation)

Issued on 2024-04-25

Implemented on 2024-11-01

Jointly Issued by

State Administration for Market Regulation of the People's Republic of China &  
Standardization Administration of the People's Republic of China

## CONTENTS

Foreword .....	I
1 Scope .....	1
2 Normative References .....	1
3 Terms and Definitions.....	1
4 Symbols .....	3
5 Safety Requirements.....	3
6 Test Methods .....	6
7 Type Test.....	13
Annex A (Normative) Test Procedure for Flame Retardance of Conductors.....	15
Bibliography.....	16

www.chinaautoregs.com

# Safety Technical Specification of Lithium-Ion Battery for Electric Bicycle

## 1 SCOPE

This document specifies the requirements for electrical safety, mechanical safety and environmental safety of lithium-ion cells and batteries for electric bicycles, and describes their respective test methods.

This document is applicable to the lithium-ion cells and batteries for electric bicycles (hereinafter referred to as “cells and batteries”) specified in GB 17761.

## 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 2423.4-2008 Environmental testing for electric and electronic products - Part 2: Test method - Test Db: Damp heat, cyclic (12h+12h cycle)
- GB/T 2423.18-2021 Environmental testing—Part 2: Test methods—Test Kb: Salt mist, cyclic (sodium chloride solution)
- GB/T 5169.5-2020 Fire hazard testing for electric and electronic products—Part 5: Test flames—Needle-flame test method—Apparatus, confirmatory test arrangement and guidance
- GB/T 5169.16 Electrotechnical terminology--Power electronics
- GB/T 17626.2 Electromagnetic compatibility—Testing and measurement techniques—Electrostatic discharge immunity test
- GB 17761 Safety technical specification for electric bicycle
- GB/T 36945-2018 Vocabulary of lithium-ion batteries for electric bicycle

## 3 TERMS AND DEFINITIONS

For the purpose of this document, the terms and definitions established in GB/T 36945-2018 and the following apply.

### 3.1 rated capacity

capacity value of a cell or battery measured under specified conditions and declared by the manufacturer

[Source: GB/T 36945-2018, 4.6, modified]

### 3.2 cell

a basic functional unit, which directly converts chemical energy into electric energy

Note: It consists of electrodes, electrolyte, case and terminals, and is designed to be rechargeable electrically.

[Source: GB/T 36945-2018, 2.1, modified]



# ChinaAutoRegs

中国汽车标准译文库

## **The following pages are left blank intentionally.**

- 现成译文，到款即发。
  - 下单前可任取样页验证译文质量。
  - 免费提供正规普通增值税数电发票。
  - 请联系手机/微信: [13306496964](tel:13306496964)/Email: [standardtrans@foxmail.com](mailto:standardtrans@foxmail.com) 获取完整译文。
  - 本英文译本为纯人工专业精翻版本，保证语法术语准确率和专业度！
  - 专业源于专注|ChinaAutoRegs 始终专注于汽车标准翻译领域！
  - 「中国汽车标准译文库」已收录上千个现行汽车国家标准和行业标准的英文版译本，涵盖传统燃油车、新能源汽车和摩托车标准化体系！独家打造千万级汽车专业术语库和记忆库。
  
  - ◆ The English Translation of this document (GB, GB/T, QC/T, CNCA, CQC, CAV, etc.) is readily available, and delivered immediately upon payment.
  - ◆ You may request for sample pages to your preference before placing an order.
  - ◆ Please contact [standardtrans@foxmail.com](mailto:standardtrans@foxmail.com) for the complete PDF version in English.
  - ◆ Almost all of Chinese automotive/automobile standards, regulations and norms in effect have been included in our well-established database, providing one-stop, up-to-date, efficient and professional solution.
-