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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 47292.3-2026

**Lithium-ion battery good manufacturing practice - Part 3: Cell
process control and finished product testing**

锂离子电池生产质量管理 第3部分：电池单体过程管控与成品测试

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Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part

1. Structure and Drafting Rules of Standardization Documents". Drafting. This document is Part 3 of GB/T 47292 "Quality Management of Lithium-ion Battery Production". GB/T 47292 has been published as follows: part.

1. General Requirements;

2. Battery Material Control;

3. Process Control and Finished Product Testing of Battery Cells;

4. Battery Pack Process Control and Finished Product Testing Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents. This document was proposed by the Ministry of Industry and Information Technology of the People's Republic of China. This document was prepared by the Ministry of Industry and Information Technology of the People's Republic of China and the National Technical Committee on Standardization of Product Defects and Safety Management. (SAC/TC463) jointly under the jurisdiction of the State Administration of Taxation. This document was drafted by: Contemporary Amperex Technology Co., Limited (CATL), China Electronics Technology Standardization Institute, and the State Administration for Market Regulation. The State Administration for Market Regulation's Defective Product Recall Technology Center, CATL (Contemporary Amperex Technology Co., Limited), Zhejiang Liwei Energy Technology Co., Ltd., and Zhongchuang Innovation Aerospace Technology Co., Ltd. Technology Group Corporation, Xiamen Haichen Energy Storage Technology Co., Ltd., Tianjin Lishen Juyuan New Energy Technology Co., Ltd., Anker Innovations Technology Co., Ltd., Hefei Guoxuan High-Tech Power Energy Co., Ltd., Huawei Technologies Co., Ltd., Jiangsu ZTE Power Battery Co., Ltd. Beijing Haibo Sicheng Technology Co., Ltd., Jiangxi Ganfeng Lithium Battery

Technology Co., Ltd., Zhengzhou BAK Battery Co., Ltd., and Shaanxi Qingke Energy Technology Co., Ltd., Ruipu Saike Power Battery Co., Ltd., Zhuhai Guanyu Battery Co., Ltd., Shenzhen Haopeng Technology Co., Ltd. Limited Company, Anhui Livin Energy Power Battery Co., Ltd., Chuneng New Energy Co., Ltd., Ganzhou Nuowei Technology Co., Ltd., Guangdong Energy Group Group Science and Technology Research Institute Co., Ltd., China Quality Certification Center Co., Ltd., Dongguan Xinnengde Technology Co., Ltd., Sunwoda Power Technology Co., Ltd. Joint-stock companies, Huawei Terminal Co., Ltd., OPPO Guangdong Mobile Communications Co., Ltd., Shenzhen BYD Lithium Battery Co., Ltd. Beijing Xiaomi Mobile Software Co., Ltd., and Shenzhen Anhui Energy Technology Co., Ltd. The main drafters of this document are. He Penglin, Tang Minghao, Xiao Lingyun, Li Fang, Li Zhengang, Wang Xiaodong, Li Yan, He Xing, Liu Haiting, and Zhang Hongbo. Yu Xiaoqing, Wu Lianwei, Gong Yongfeng, Li Yang, Diao Yuyun, Cao Xiaoyan, Li Xiyao, Wu Xingbing, Wang Yousheng, Liang Wei, Hou Yang, Kong Lingkun, Liu Yamei, Liu Xiaolong, Wang Qingxiang, Ge Yankun, Huang Xiaowei, Wang Lei, Yang Qingheng, Wen Heng, Liu Yuzhao, Wang Daolong, Zhou Hui, Xie Yan, Ma Liangqi, Hu Fengyan Zhong Bin, Wang Mingwang, Xu Lihua, Wang Quankang, Zhang Yuanjie, Huang Huaying, Yang Jie, Luo Jianguo.

Lithium-ion batteries are a product encompassing multiple disciplines such as chemistry, physics, and mechanics. Their manufacturing process is complex and precise, differing significantly from traditional manufacturing methods. Compared to other products, there are significant differences in production speed, scale, and flexibility requirements. As application scenarios continue to expand, the market demands higher levels of product flexibility. The requirements for quality, consistency, and safety have increased significantly. The "million-level" failure rate of traditional manufacturing's Six Sigma manufacturing level is no longer sufficient. The demand, in the large-scale industrial production and application of power, energy storage, and consumer batteries, requires achieving a failure rate of "billions." This poses a significant challenge. Higher requirements have been placed on the quality management of lithium-ion battery production. To meet these quality and safety requirements, it is urgent to establish a comprehensive lithium-ion battery production system. Production process quality management standards. GB/T 47292 aims to provide management guidelines for the production and manufacturing of lithium-ion batteries and is proposed to consist of four parts.

1.General Requirements. The purpose is to establish the overall framework for the lithium-ion battery production process and to define quality objectives and quality strategies. Planning, resource requirements, key process quality control, error-proofing and traceability management, non-conforming product management, change management requirements, and product quality. Retrospective analysis.

2.Battery Material Control. The purpose is to standardize the quality of battery materials during the lithium-ion battery production process and to regulate battery material quality. Requirements for supplier management, incoming material receiving, testing, warehousing,

and traceability of materials.

3. Battery Cell Process Control and Finished Product Testing. The purpose is to standardize the quality of lithium-ion battery cells and specify error-proofing and... Requirements include traceability, technical cleanliness, electrode processing, winding/stacking assembly, and finished product testing.

4. Battery Pack Process Control and Finished Product Testing. The aim is to standardize battery pack quality and specify error-proofing, traceability, and technical requirements. Cleanliness, electrostatic discharge protection, pre-processing of individual battery cells, laser welding, product bonding, battery pack processing, battery cell assembly, and molding. Requirements for assembly into the box, structural connections, electrical connections, and finished product testing. Lithium-ion battery production quality management Part

1 Scope

GB/T 47292.3-2026 is the Chinese national standard covering controlling the cell line itself - the coating weight and thickness, the moisture at every stage, the winding or stacking alignment, the electrolyte filling and formation, and the ageing and self-discharge screening that catches a defective cell before it ships. Part 3 of the series, first edition, in force from 1 April 2027, with Parts 1, 2 and 4. It was issued on 31 March 2026 and takes effect on 1 April 2027, as a first edition. This page is published from the official record of the 2026 edition; the clause text of a standard this recent is not yet in circulation, and the figures, limits and tables it contains are those of the document itself, delivered in full with the English translation.

This document specifies the general rules, overall yield, comprehensive energy consumption, plant utilization rate, error prevention and traceability in the production process of lithium-ion battery cells. Requirements include traceability, technical cleanliness, electrode processing, winding/stacking assembly, and finished product testing. This document applies to the quality management of the production process for manufacturers of power, energy storage, and consumer lithium-ion battery cells.

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are not included. For references to documents, only the version corresponding to that date applies to this document; for undated references, the latest version (including all amendments) applies. This document.

GB/T 2589 General Rules for Calculating Comprehensive Energy Consumption

GB/T 34014 Automotive Power Battery Coding Rules