

ICS 27.180
CCS F 19



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

GB/T 44934-2024

**Technical specification for flywheel energy storage unit of
electrical energy storage**

电力储能用飞轮储能单元技术规范

Issued on: December 31, 2024

Implemented on: July 1, 2025

**Issued by: State Administration for Market Regulation;
Standardization Administration of the PRC**

Table of Contents

Preface	III
1 Scope	1
2 Normative references	1
3 Terms and Definitions	1
4 Encoding	3
5 Normal working environment	4
6 Technical Requirements	5
7 Test methods	9
8 Inspection rules	17
9 Marking, packaging, transportation and storage	19

Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part 1: Structure and drafting rules for standardization documents" Drafting.

Please note that some of the contents of this document may involve patents. The issuing organization of this document does not assume the responsibility for identifying patents.

This document was proposed by the China Electricity Council.

This document is under the jurisdiction of the National Electric Energy Storage Standardization Technical Committee (SAC/TC550).

This document was drafted by: Beijing Honghui International Energy Technology Development Co., Ltd., Institute of Engineering Thermophysics, Chinese Academy of Sciences, China Energy Hunan Electric Power Design Institute Co., Ltd., Candela (Shenzhen) New Energy Technology Co., Ltd., Pinggao Group Energy Storage Technology Co., Ltd.

Shenyang Micro-control Flywheel Technology Co., Ltd., Huachi Kinetic Energy (Beijing) Technology Co., Ltd., China Electric Power Research Institute Co., Ltd., Beiken New Energy Co., Ltd., Beijing Qingyuan Feikong Energy Technology Co., Ltd., China Power Construction Group Hebei Electric Power Survey and Design Institute Co., Ltd.

Company, China Energy Engineering Group Tianjin Electric Power Design Institute Co., Ltd., China Datang Group Science and Technology Research Institute Co., Ltd. East China Electric Power Experimental Research Institute.

The main drafters of this document are: Cui Yadong, Li Guangjun, Zhang Fan, Dai Xingjian, Li Shusheng, Liu Dong, Zhang Qingyuan, Liu Hongchao, Zhu Baohong, Ren Xiaoyang, Su Sen, Dong Zhou, Liu Zhe, Hu Dongxu, Peng Long, Tu Weichao, Meng Qinghong, Yang Cenyu, Bai Jiexue, Lv Yi, Zhang Liuli, Wu Xiaokang, Xie Hongsheng, Li Xuebin, Xu Tingting, Li Xiang, Wang Shaofeng, Wei Shaoshuai, Hu Yuepeng, Li Wei.

Technical specification for flywheel energy storage unit for electric energy storage

1 Scope

This document specifies the coding, normal working environment, technical requirements, inspection rules, marking, packaging, transportation and other aspects of flywheel energy storage units for power energy storage.

The requirements for transportation and storage are described, and the corresponding test methods are described.

This document applies to the design, manufacture, testing, operation, maintenance and overhaul of flywheel energy storage units for electrical energy storage.

2 Normative references

GB/T 191

GB/T 755

GB/T 3077

GB/T 4857

GB/T 5398

GB/T 6402

GB/T 7251.1-2023

GB 12348-2008

GB/T 16471

GB/T 20113

GB/T 20626.1

GB/T 20840.2

GB/T 20840.3

3 Terms and definitions

The terms and definitions defined in DL/T 2528 and the following apply to this document.

3.1 [Source. DL/T 2528-2022, 4.4.1.1, modified]

A physical energy storage form that uses a flywheel as an energy storage carrier and realizes the storage and release of electrical energy through the mutual conversion of kinetic energy and electrical energy.

3.2 Flywheel

A rotating body composed of metal or fiber-reinforced composite materials used to store kinetic energy.