

ICS 11.180.10

CCS Y 14



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

GB/T 18029.25-2022

**Wheelchairs - Part 25: Batteries and chargers for powered
wheelchairs**

Issued on: October 14, 2022

Implemented on: February 1, 2023

**Issued by: State Administration for Market Regulation, China National
Standardization Administration**

Table of Contents

foreword

Introduction

1 Scope

2 Normative references

foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for Standardization Work Part 1. Structure and Drafting Regulations of Standardization Documents"

drafted.

This document is Part 25 of GB/T (GB /Z) 18029 "Wheelchair Vehicles", GB/T 18029 (GB /Z) has issued the following parts.

- Part 1.Determination of static stability;
- Part 2.Determination of dynamic stability of electric wheelchairs;
- Part 3.Determination of braking performance;
- Part 4.Determination of theoretical energy consumption of electric wheelchairs and electric scooters;
- Part 5.Determination of dimensions, mass and operating space;
- Part 6.Determination of the maximum speed, acceleration and deceleration of electric wheelchairs;
- Part 7.Measurement of seat and wheel dimensions;
- Part 8.Requirements and test methods for static strength, impact strength and fatigue strength;
- Part 9.Electric wheelchair climatic test method;
- Part 10.Determination of the obstacle-surmounting ability of electric wheelchairs;
- Part 11.Test dummies;
- Part 13.Determination of the coefficient of friction of the test surface;
- Part 14.Requirements and test methods for power and control systems for electric wheelchairs and electric scooters;

- Part 15.Requirements for information release, document issuance and identification;
- Part 16.Flame retardancy of postural fixation devices;
- Part 19.Wheeled mobile devices that can be used as motor vehicle seats;
- Part 21.Electromagnetic compatibility requirements and test methods for electric wheelchairs, electric scooters and battery chargers;
- Part 22.Adjustment procedures;
- Part 25.Batteries and chargers for electric wheelchairs;
- Part 26.Terminology;
- Part 28.Requirements and test methods for stair climbing appliances.

This document is equivalent to ISO 7176-25:2013 "Wheelchairs - Part 25.Batteries and chargers for electric wheelchairs".

The following minimal editorial changes have been made to this document.

- Add ISO 7176-15 to the list of normative references in Chapter 2;
- "[Source. IEC 60050-482,01-04]" in Term 3.1 is changed to "[Source. IEC 60050-482,01-04]", in Term 3.2 "[To Source. IEC 60050-482,05-01]" to "[Source. IEC 60050-482,05-01]", in term 3.3 "[Source. IEC 60050-482,03-31]" to "[Source. IEC 60050-482,03-31]";
- Delete the article number and article title "Heat dissipation" and content "under consideration" of 5.2.7, and add "Note. Heat dissipation problem" at the end of 5.2.6.3 under consideration".

Please note that some content of this document may be patented. The issuing agency of this document assumes no responsibility for identifying patents.

Introduction

GB/T (GB /Z)18029 "Wheelchair Vehicles" is to ensure the performance and quality of wheelchair vehicles and accurately provide these performance and quality to relevant parties

standard. Wheelchair users want to know the performance and quality of the product, manufacturers want to know if the product achieves good quality, and the test

The agency wants to know if the product is being inspected. Since GB/T (GB /Z) 18029 is too long, and all parties using the document generally only need to

Some of them are required, and the updates of each part will not be synchronized, so they are compiled in parts, and it is planned to be composed of 22 parts.

- Part 1.Determination of static stability;
- Part 2.Determination of dynamic stability of electric wheelchairs;
- Part 3.Determination of braking performance;
- Part 4.Determination of theoretical energy consumption of electric wheelchairs and electric scooters;
- Part 5.Determination of dimensions, mass and operating space;
- Part 6.Determination of the maximum speed, acceleration and deceleration of electric wheelchairs;
- Part 7.Measurement of seat and wheel dimensions;
- Part 8.Requirements and test methods for static strength, impact strength and fatigue strength;
- Part 9.Electric wheelchair climatic test method;
- Part 10.Determination of the obstacle-surmounting ability of electric wheelchairs;
- Part 11.Test dummies;
- Part 13.Determination of the coefficient of friction of the test surface;
- Part 14.Requirements and test methods for power and control systems for electric wheelchairs and electric scooters;
- Part 15.Requirements for information release, document issuance and identification;
- Part 16.Flame retardancy of postural fixation devices;
- Part 19.Wheeled mobile devices that can be used as motor vehicle seats;
- Part 21.Requirements and test methods for electromagnetic compatibility of electric wheelchairs, electric mobility scooters and battery chargers;
- Part 22.Adjustment procedures;
- Part 25.Batteries and chargers for electric wheelchairs;
- Part 26.Terminology;
- Part 28.Requirements and test methods for stair climbing devices;
- Part 30.Wheelchair test methods and requirements for changing the occupant's posture.

Among them, Part 26 is the foundation, Part 11 and Part 13 are the infrastructure requirements for wheelchair testing, and Part 22 is the test criteria.

Part 15 is the information release requirements, Part 19, Part 28, Part 30 are the requirements for special wheelchair vehicles, Part 2,

Part 4, Part 6, Part 9, Part 14, Part 25 are requirements and test methods for electric wheelchairs, the rest

is a requirement and test method for all wheelchairs.

As the reliability and performance of an electric wheelchair depends on the operation, performance and reliability of the battery and charger, ensure that the battery and charging wheelchair and wheelchair compatibility and compatibility becomes critical, as is ensuring that the use of wheelchair batteries is eliminated or reduced as much as possible

Dangerous possibilities when using batteries and chargers. In summary, the performance requirements and safety requirements of wheelchair batteries and chargers are essential Less.

There are 3 types of battery chargers. off-board, on-board and on-board. Operation, transportation and storage of these 3 types of chargers

Storage conditions vary, so they apply to different requirements.

wheelchair

Part 25. Batteries and chargers for electric wheelchairs

CAUTION. This document indicates that personal injury may occur if proper precautions are not taken during operation. This document provides only relevant

Technical suitability does not exempt those from legal obligations related to health and safety from performing or commissioning tests. for battery or charging

Testing of electrical appliances in hazardous conditions, it is recommended to fully evaluate the possible results before carrying out the test and make appropriate arrangements to reduce the danger to

lowest.

1 Scope

This document specifies requirements and test methods for batteries and battery chargers intended for use in electric wheelchairs.

This document applies to lead-acid batteries and chargers intended for use with lead-acid batteries.

The applicable range of the charger is that the rated input voltage is not greater than AC (AC) 250V, and the nominal output voltage is not greater than DC (DC)