

ICS 13.120  
CCS K 09



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

**GB/T 4706.125-2024**

---

**Safety of household and similar electrical appliances - Part 125:  
Particular requirements for self-balancing personal transport devices  
for use with batteries containing alkaline or other non-acid electrolytes  
(English Translation)**

**Issued on: August 23, 2024**

**Implemented on: August 23, 2024**

---

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

## Table of Contents

|                                                                     |
|---------------------------------------------------------------------|
| Preface                                                             |
| Introduction                                                        |
| 1 Scope                                                             |
| 2 Normative references                                              |
| 3 Terms and Definitions                                             |
| 4 General requirements                                              |
| 5 General conditions for testing                                    |
| 6 Categories                                                        |
| 7 Signs and instructions                                            |
| 8 Protection against contact with live parts                        |
| 9 Starting of electric appliances                                   |
| 10 Input power and current                                          |
| 11 Fever                                                            |
| 12 Empty Chapter                                                    |
| 13 Leakage current and electrical strength at operating temperature |
| 14 Transient overvoltage                                            |
| 15 Moisture resistance                                              |
| 16 Leakage current and electrical strength                          |
| 17 Overload protection of transformers and related circuits         |
| 18 Durability                                                       |
| 19 Abnormal working order                                           |
| 20 Stability and mechanical hazards                                 |
| 21 Mechanical Strength                                              |
| 22 Structure                                                        |
| 23 Internal wiring                                                  |
| 24 Components                                                       |
| 25 Power connection and external cord                               |
| 26 Terminal block for external conductor                            |
| 27 Grounding measures                                               |
| 28 Screws and connections                                           |
| 29 Clearances, creepage distances and solid insulation              |
| 30 Heat and flame resistance                                        |

31 Rust prevention

32 Radiation, toxicity and similar hazards

Appendix

Appendix R (Normative) Software Evaluation

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 rules for standardization documents" Drafting is required.

This document is Part 125 of GB/T 4706 "Safety of Household and Similar Electrical Appliances". GB/T 4706 has been published for the following part.

--Part 1: General requirements;

-- Part 2: Particular requirements for electric irons;

-- Part 121: Particular requirements for professional ice cream machines;

-- Part 125: Particular requirements for self-balancing passenger transport devices using batteries containing alkaline or other non-acid electrolytes.

This document is equivalent to IEC 60335-2-114:2018 "Safety of Household and Similar Electrical Appliances Part 2-114. Use of Alkaline or other non-acid electrolyte battery packs.

The following minimal editorial changes were made to this document.

--The name of the standard was changed to "Safety of Household and Similar Electrical Appliances Part 125: Electrical Equipment Using Alkaline or Other Non-acidic Electrolytes "Special requirements for self-balancing passenger transport devices with battery packs" to enhance the coordination of the standard system.

## Introduction

GB/T 4706 "Safety of Household and Similar Electrical Appliances" mostly adopts IEC 60335. On this basis, GB/T 4706 refers to the structure of IEC 60335 is divided into several parts, consisting of general requirements and special requirements. Part 1 is general requirements, and the other parts are for products covered by special requirements, their safety requirements are general requirements used in combination with the special requirements.

The requirements include supplements and modifications to the corresponding clauses in the general requirements to provide complete requirements for each product.

This document is the protection that the equipment needs to have against electrical, mechanical, thermal, fire and radiation risks when it is used normally according to the instructions.

This document also covers abnormal conditions that may occur during use and considers how electromagnetic interference may affect the safe operation of the appliance.

This document has taken into account the requirements specified in GB/T 16895 "Low Voltage Electrical Installations". The appliance is connected to the power supply in accordance with the electrical wiring rules.

requirements are coordinated.

If multiple functions of an appliance involve other parts of GB/T 4706, the other parts shall apply to the appliance separately as long as it is reasonable.

Each function. If applicable, consider the impact of one function on other functions.

When no additional requirements are given in other parts for hazards already included in this document, GB/T 4706.1 applies.

GB/T 4706 is a standard covering appliance safety and takes precedence over general standards/horizontal standards covering the same subject.

This document is used in conjunction with GB/T 4706.1-2024 "Safety of Household and Similar Electrical Appliances Part 1: General Requirements".

The part marked "applicable" in the document indicates that the corresponding clauses in GB/T 4706.1-2024 are applicable to this document; the part marked "replaces" in this document indicates that the corresponding clauses in GB/T 4706.1-2024 are applicable to this document.

For the parts marked as "added" in this document, in addition to complying with the provisions in GB/T 4706.1-2024, in addition to the corresponding clauses, the clauses added in the clauses of this document must also be complied with; the part of this document marked "modified" means that in GB/T 4706.1-the relevant provisions of 2024 shall be amended.

Safety of household and similar electrical appliances Part 125: Use of alkaline or other non-acidic Electrolyte battery pack for self-balancing manned transport Special Requests

## 1 Scope

This chapter of GB/T 4706.1-2024 is replaced by the following content.

This document specifies the safety requirements for self-balancing personnel transport devices using batteries containing alkaline or other non-acid electrolytes.

This document applies to self-balancing passenger transport devices (hereinafter referred

to as "apparatus") using batteries containing alkaline or other non-acid electrolytes.

This document also applies to appliances which are not intended for normal household use but which may still cause a hazard to the public, such as those intended for use in shops, light industry, Tools used by non-professionals in industry and on farms.

As far as is practical, the common hazards presented by the various appliances covered in this document are present in all persons in and around the home.

However, in general, this document does not consider the following situations.

--The following groups (including children).

- due to physical, sensory or mental impairment; or - Due to lack of experience and knowledge;

Conditions that render them incapable of using the appliance safely without supervision or instruction.

--The condition of children's play equipment.

--Operational safety, such as speed limits, fall hazards, and rapid acceleration.

**Note 101:** Note the following facts.

- For equipment intended for use in vehicles, vessels or aircraft, additional requirements may be necessary;

-- National regulatory authorities may have additional requirements for equipment.

**Note 102:** This document does not apply to.

- appliances intended for exclusive industrial use;

-- appliances intended for use in special environments, such as those where corrosive or explosive gases (dust, vapour or gas) are present.

## 2 Normative references

Except for the following contents, this chapter of GB/T 4706.1-2024 applies.

Increase.

IEC 60068-2-64 Environmental testing Part 2-64. Test Fh. Broadband random vibration and guidance testing-Part 2-64. Tests-Test Fh. Vibration, broadband random and guidance)

Note. GB/T 2423.56-2023 Environmental testing Part 2: Test method Test Fh. Broadband random vibration and guidance (IEC 60068-2-64.

2019, IDT)

IEC 61558-2 (all parts) Safety of transformers, reactors, power supply units and their