

ICS 23.080; 91.140.65; 97.080
CCS K 09



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

GB/T 4706.86-2024

Replacing GB 4706.86-2008

**Safety of household and similar electrical appliances - Part 86:
Particular requirements for commercial floor treatment
machines**

家用和类似用途电器的安全 第86部分：商用地板处理机的特殊要求
(English Translation)

Issued on: July 24, 2024

Implemented on: August 1, 2026

**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 Markings 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 work
20 Stability and mechanical hazards
21 Mechanical strength
22 Structure
23 Internal wiring
24 Element
25 Power connection and external cord
26 Terminal block for external conductor
27 Grounding measures
28 Screws and connections
29 Electrical clearances, creepage distances and solid insulation
30 Heat and flame retardant

31 Rust-proof

32 Radiation, toxicity and similar hazards

Appendix

Appendix B (Normative) Appliances powered by rechargeable batteries charged inside the appliance

Appendix S (normative) Appliances powered by non-rechargeable batteries or batteries charged externally to the appliance

Appendix AA (Normative) Precast Concrete Panels

Appendix BB (Normative) Requirements for internal combustion engine driven appliances using liquefied petroleum gas (LPG)

Appendix CC (Informative) Noise Emission

Appendix DD (Informative) Vibration Emission

Reference

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.

This document is Part 86 of GB/T 4706 "Safety of Household and Similar Electrical Appliances". GB/T 4706 has been published as follows part.

--- Part 1: General requirements;

--- Part 2: Particular requirements for electric irons;

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

This document replaces GB 4706.86-2008 "Safety of household and similar electrical appliances - Industrial and commercial floor treatment machines and floor cleaning equipment" Compared with GB 4706.86-2008, in addition to structural adjustments and editorial changes, the main technical changes are as follows.

--- Added general requirements for safe operation of equipment (see Chapter 4);

--- Added requirements for storage and use of test solutions (see 5.101);

--- Added requirements for the content and symbols of equipment marking (see 7.1, 7.101, 7.6); deleted the requirements for equipment switch marking (see 7.9 of the 2008 edition), added the contents that the instructions for use of the equipment should include (see 7.12.101, 7.12.102, 7.12.103), added the height requirements for original instructions for use and signs and symbols (see 7.13 and 7.14);

- Deleted the provisions on battery systems (see 8.1.4 of the 2008 edition);
 - Added the requirement that "the appliance can only be intentionally started by a specific control device" (see Chapter 9);
 - Added the description of "the appliance operates normally to a stable state" in the heating test (see 11.7);
 - Added the requirements for "transient overvoltage" (see Chapter 14);
 - Added the composition requirements of the test solution (see 15.2), and added some tests for water-absorbing cleaning appliances and power cleaning heads Requirements (see 15.101);
 - Added requirements for current-carrying hoses (see 16.3);
 - Changed the requirements for durability of appliances (see Chapter 18, Chapter 18 of the 2008 edition);
 - Added abnormal test requirements for power cleaning heads (see 19.7);
 - Added the requirement that the power cleaning head is not subjected to the test (see 20.1); Added the requirement that the appliance is equipped with OPC, rotating parts, fuel the structure and protection requirements of the tank and internal combustion engine driven equipment using liquefied petroleum gas (see 20.101~20.104);
 - Increased mechanical strength requirements for current-carrying hoses (see 21.102 to 21.106);
 - Added structural requirements for switchgear or controllers (see 22.106);
 - Added the requirement that 22.54 is not applicable (see 22.54); added the requirement that class I and class II appliances should be equipped with power isolation switches (See 22.102); Added appliances with batteries, appliances with split rims for inflating tires, protective devices, and appliances with incorrect installation Installation, structural dimensions of the equipment, requiring the operator to use personal protective equipment (PPE), equipment with internal combustion engines, etc.
- Structural requirements (see 22.103~22.109);
- Added requirements for cyclic working test of OPC (see 24.1.3);
 - Added reliability test requirements for overload protection devices (see 24.101);
 - Added test conditions for IPX4 type appliance input sockets (see 25.15);
 - Added provisions for micro-environmental pollution levels (see 29.2);
 - Added provisions for rechargeable batteries charged from a power source (see 30.2);
 - Added normative appendix "Appliances powered by rechargeable batteries charged

inside the appliance" and "Appliances powered by non-rechargeable batteries or outside the appliance" "Requirements for appliances powered by batteries that are not recharged" and "Requirements for appliances powered by internal combustion engines that use liquefied petroleum gas (LPG)" (see Appendix B, Appendix Appendix S, Appendix BB).

This document is equivalent to IEC 60335-2-67:2016 "Safety of Household and Similar Electrical Appliances Part 2-67.Commercial Floor Treatment" Special Requirements for Machines.

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 86: Particular Requirements for Commercial Floor Treatment Machines", and the Coordination of the standards system.

Introduction

GB/T 4706 "Safety of Household and Similar Electrical Appliances" adopts most of 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 requirements for electrical, mechanical, thermal, fire and radiation risks when the appliance is used normally in accordance with 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 equipment.

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