

ICS 13.120
CCS K 09



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

GB/T 4706.14-2024

Replacing GB 4706.14-2008

**Safety of household and similar electrical appliances - Part 14:
Particular requirements for grills, toasters and similar portable
cooking appliances**

家用和类似用途电器的安全 第14部分：烤架、面包片烘烤器及类似用途便携式烹
饪器具的特殊要求

(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 electrical 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 conditions
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 19
29 Clearances, creepage distances and solid insulation
30 Heat and flame retardant

31 Rust-proof

32 Radiation, toxicity and similar hazards

Appendix

Appendix C (Normative) Aging test on electric motors

Appendix R (Normative) Software Evaluation

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 14 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 4706.14-2008 "Safety of grills, bread toasters and similar electrical appliances for household and similar purposes" Compared with GB 4706.14-2008, in addition to structural adjustments and editorial changes, the main technical changes are as follows.

--- Changed the user groups not considered in the scope (see Chapter 1, Chapter 1 of the 2008 edition);

--- Added instructions and requirements for "household and similar purposes" (see Chapter 1, 7.12);

--- Added terms and definitions and related requirements for popcorn machines, cotton candy machines, and concave electromagnetic cooktops (see Chapter 3, Chapter 7, Chapter 11 Chapter 19 and Chapter 22);

--- Added terms and definitions of thermal functional surfaces (see 3.6.103);

--- Added test conditions for appliances with electromagnetic cookers and other electric heating elements (see 5.101);

--- Changed the height requirements of the "hot surface" symbol (see 7.14, 7.14 of the 2008 edition);

--- Added marking requirements for cooking areas of stoves (see 7.101);

- Added requirements for heating element switch devices for bread toasters (see 8.1.3);
- Added deviation requirements for electric appliances applicable to electromagnetic cooktops (see Chapter 10);
- Added surface temperature rise test requirements for appliances such as ovens, rotary grills, oven ranges, contact grills, etc. (see 11.1);
- Added test tools and methods for measuring temperature rise on flat surfaces (see 11.3);
- Added heating test for electromagnetic stove head (see 11.6);
- Changed the test description of the surface temperature rise of the bread toasting machine (see 11.101, 11.101 of the 2008 edition);
- Added heating requirements and test methods for ovens, oven ranges, contact grills, bread machines and other appliances (see 11.102, 11.103, 11.104, 11.105);
- Added leakage current test conditions at the operating temperature of the concave electromagnetic cooker head (see 13.1);
- Added leakage current test conditions for concave electromagnetic stove heads (see 16.1);
- Changed the requirements for abnormal test of electromagnetic cooktop (see 19.1, 19.1 of the 2008 edition);
- Added abnormal test for electronic circuit of bread toaster (see 19.11.2);
- Added abnormal test content for bread toaster (see 19.103);
- Changed the description of the impact energy of the stove surface (see 21.1, 21.1 of the 2008 edition);
- Added the impact test conditions for concave electromagnetic cooker heads (see 21.101);
- Added the requirement that the stove should not be equipped with a timer to delay the operation of the heating element (see 22.101);
- Added situations where the structural requirements for electric grills and barbecue grills are not applicable (see 22.106);
- Added structural requirements and test methods for bread machines (see 22.111 and 22.113);
- Added structural requirements for electric heating elements of cotton candy machines (see 22.114);
- Added structural requirements for appliances containing at least one heating unit

controlled by an electronic circuit (see 22.115);

--- Increased the number of working cycles of specific switches and thermal circuit breakers (see 24.1.3 and 24.1.4);

--- Added examples of popcorn machines and cotton candy machines (see Figure 101);

--- Added the structure diagram of the test fixture for measuring surface temperature (see Figure 105);

--- Added exemption area in front of the appliance (see Figure 106);

--- Added relevant content on software evaluation (see Appendix R).

This document is equivalent to IEC 60335-2-9:2019 "Safety of Household and Similar Electrical Appliances Part 2-9.Grills, Bread Toasters Particular requirements for grills and similar portable cooking appliances.

The following minimal editorial changes were made to this document.

--- The name of the standard is changed to "Safety of Household and Similar Electrical Appliances Part 14: Grills, Bread Toasters and Similar Electrical Appliances Special requirements for portable cooking appliances" to enhance the coordination of the standard system;

---Changed the order of the figures in the file and re-arranged them in the order of introduction.

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.