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

GB/T 4706.85-2024

Replacing GB 4706.85-2008

**Safety of household and similar electrical appliances - Part 85:
Particular requirements for skin exposure to optical radiation
(English Translation)**

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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 85 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 4706.85-2008 "Safety of ultraviolet and infrared radiation skin appliances for household and similar electrical appliances" Compared with GB 4706.85-2008, in addition to structural adjustments and editorial changes, the main technical changes are as follows.

--- Changed the scope of the standard (see Chapter 1, Chapter 1 of the 2008 edition);

- Changed the definition of ultraviolet emitter and infrared emitter (see 3.6.101 and 3.6.102, 3.101 and 3.102);
- Added the definitions of transmittance, UV equipment, infrared equipment, VIS equipment, and UV filters (see 3.1.102, 3.5.101, 3.5.102, 3.5.103, 3.6.104);
- The test conditions have been changed (see 5.101, 5.1 of the 2008 edition);
- Added test requirements for appliance structure (see 22.105, 22.112, 22.114 and 22.115);
- Changed the radiation requirements for UV equipment (see 32.101 and 23.102, 32.101 and 23.102 of the 2008 edition);
- Added relevant content in Appendix R (see Appendix R).

This document is equivalent to IEC 60335-2-27:2019 "Safety of Household and Similar Electrical Appliances Part 2-27.Optical Radiation Skin Devices" Special Requirements for Tools.

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 85: Particular Requirements for Apparatuses That Exposure to Light to the Skin", and Strengthen the coordination of the standard 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 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 GB/T 4706.1-2024 "Safety of Household and Similar Electrical Appliances - Part 1: General Requirements" the corresponding clauses in the "Requirements" shall apply to this document; for the parts marked "replace" in this document, the clauses in this document shall prevail;

The "Add" part indicates that in addition to complying with the corresponding clauses in GB/T 4706.1-2024, the additional clauses in this document must also be complied with.

Clause; The part marked "modified" in this document indicates that the corresponding clauses of GB/T 4706.1-2024 are modified.

Safety of household and similar electrical appliances Part 85: Particular requirements for devices that irradiate light to the skin

1 Scope

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

This document specifies the requirements for appliances for household and similar purposes that are equipped with a transmitter that radiates light with a wavelength of 100nm~1mm towards the skin.

Security requirements.

This document applies to household and similar appliances with a rated voltage not exceeding 250V for single-phase appliances and 480V for other appliances.

An apparatus equipped with a transmitter that radiates light with a wavelength of 100nm~1mm to the skin.

NOTE 101 Battery-powered appliances and other DC-powered appliances are within the scope of this document. Dual-supply appliances powered by either the mains or a battery are when operating in power mode, it is considered to be a battery-powered device.

As far as is practical, this document deals with the common hazards arising from the use of