

ICS 13.120
CCS Y60



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

GB 44246-2024

**Household and similar electrical appliances, electrical parts of
sporting goods and electric toys - Safety technical specification**

家用和类似用途电器、体育用品的电气部分及电玩具 安全技术规范

Issued on: July 24, 2024

Implemented on: August 1, 2026

**Issued by: State Administration for Market Regulation;
Standardization Administration of China**

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1 Scope

GB 44246-2024 is the Chinese national standard on household and similar electrical appliances, electrical parts of sporting goods and electric toys - safety technical specification, in the field of environment and health protection, safety. It carries no /T suffix, which in the Chinese system means compliance is mandatory: a product or a practice within its scope has to meet it to be lawfully made, sold or carried out in China. It was issued on 24 July 2024 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 August 2026. Classification: ICS 13.120, CCS Y60. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This document defines the terms and definitions related to household and similar electrical appliances, electrical parts of sporting goods and electric toys. It specifies the general requirements, product safety requirements, marking and instruction requirements, as well as the installation, maintenance and repair requirements for household and similar electrical appliances, electrical parts of sporting goods. It also describes the corresponding verification methods. This document applies to the design, production, inspection, use of household and similar electrical appliances (hereinafter referred to as "household appliances"), the electrical parts of sporting goods and electric toys, as well as the installation, maintenance and repair of the household appliances and electrical parts of sporting goods.

2 Normative references

The following referenced documents are indispensable for the application of this document.

For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

GB/T 4706 (all parts), Safety of household and similar electrical appliances

GB/T 4026, Basic and safety principles for man-machine interface, marking and identification -- Identification of equipment terminals, conductor terminations and conductors

GB 8877, Safety requirements for the installation, operation and maintenance of household and similar electrical appliances

GB 17790, Installation specifications for household and similar air-conditioning

GB/T 19865, Safety of electric toys

GB/T 20429, Installation rule for electrical water heaters

GB 31187, Sporting goods -- General requirements for electrical parts

GB/T 36932, General requirements for installation and wiring of household and similar electrical appliances

GB/T 39182, Installation specifications for household and similar heat pump water heater

GB 50231-2009, General code for construction and acceptance of mechanical equipment installation engineering

3 Terms and definitions

For the purposes of this document, the terms and definitions defined in GB/T 4706 (all parts), GB/T 19865, GB 31187 as well as the followings apply. NOTE: Unless otherwise specified, the terms "voltage" and "current" refer to effective values (r.m.s.).

3.1 household and similar electrical appliances Electrical appliances with a rated voltage not exceeding 250 V for single-phase AC power supplies and 480 V for other appliances used by non-qualified person in homes, residences and similar places (such as shops, light industry and farms).

3.2 electrical parts of sporting goods Electrical parts of products used in physical education, competitive sports and sports training, with a single-phase rated voltage not exceeding 250 V and other rated voltages not exceeding 480 V.

3.3 electric toy Products designed or intended for children under 14 years of age that require the use of electricity for at least one function. NOTE: Transformer toys and power toys are both categories of electric toys.

3.4 rated current The current specified by the manufacturer for household appliances, the electrical parts of sporting goods and electric toys. [Source: GB/T 4706.1-2024, 3.1.6,

modified]

3.5 qualified person Personnel who have received qualified person training, have the qualified person knowledge and skills, and are able to identify potential hazards in the household appliances and the electrical parts of sporting goods that they install, maintain and repair; [Source: GB/T 4706.1-2024, 3.3.1]

3.12 supplementary insulation Independent insulation applied in addition to basic insulation to provide protection against electric shock in case of failure of basic insulation. [Source: GB/T 4706.1-2024, 3.3.2]

3.13 double insulation An insulation system consisting of basic insulation and supplementary insulation. [Source: GB/T 4706.1-2024, 3.3.3]

3.14 reinforced insulation Single insulation applied to live parts providing a degree of protection against electric shock equivalent to double insulation, under the conditions specified in this document. NOTE: This does not mean that the insulation is a homogeneous body. It may consist of several layers, but it cannot be tested one by one like supplementary insulation or basic insulation. [Source: GB/T 4706.1-2024, 3.3.4]

3.15 class 0 appliance An appliance whose protection against electric shock relies only on basic insulation. That is, it has no means of connecting accessible conductive parts (if any) to the protective conductors in the fixed wiring of the installation. In the event of failure of this basic insulation, the protection against electric shock relies on the environment. NOTE: Class 0 appliances have either an enclosure of insulating material which constitutes part or all of the basic insulation, or a metal enclosure separated from live parts by suitable insulation. If an appliance with an enclosure of insulating material has provisions for grounding internal parts, it is considered to be a class I appliance, or a class 0I appliance. [Source: GB/T 4706.1-2024, 3.3.7]

3.16 class 0I appliance An appliance having at least basic insulation as a whole and having a grounding terminal, but its supply cord does not have a grounding conductor and its plug does not have a grounding pin. [Source: GB/T 4706.1-2024, 3.3.8]

3.17 class I appliance The household appliances and the electrical parts of sporting goods whose protection against electric shock not only relies on basic insulation but also includes an additional safety protection measure. The protective measure is to connect the accessible conductive parts to the protective grounding conductor in the fixed wiring of the facility so that in the event of basic insulation failure, the accessible conductive parts will not be energized. NOTE: This protection includes a protective earth conductor in the power supply cord. [Source: GB/T 4706.1-2024, 3.3.9, modified]

3.18 class II appliance The household appliances and the electrical parts of sporting goods whose protection against electric shock not only relies on basic insulation, but also provides additional safety protection measures such as double insulation or reinforced insulation.

This kind of household appliances and the electrical parts of sporting goods does not have protective grounding or measures that rely on installation conditions. NOTE 1: The This kind of appliance may be of one of the following types. - An appliance having a durable and substantially continuous casing of insulating material which encloses all metal parts except small parts such as nameplates, screws and rivets. The enclosure provides protection at least equivalent to reinforced insulation to isolate these small metal parts from the live parts of the appliance. This type of appliance is called a class II appliance with an insulating enclosure. - An appliance having a substantially continuous metal enclosure in which double insulation or reinforced insulation is used throughout is called a class II appliance with a metal enclosure. - An appliance that is a combination of a class II appliance with an insulating enclosure and a class II appliance with a metal enclosure. NOTE 2: For class II appliances with insulating enclosures, the enclosure may constitute part or all of the supplementary insulation or reinforced insulation. [Source: GB/T 4706.1-2024, 3.3.10, modified]

3.19 class III appliance The household appliances and the electrical parts of sporting goods that rely on safety extra-low voltage to provide protection against electric shock and the voltage they produce is not higher than the safety extra-low voltage. [Source: GB/T 4706.1-2024, 3.3.12, modified]

4.1 General requirements

4.1.1 The safety of household appliances, electrical parts of sporting goods and electric toys shall comply with the requirements of 4.2, except for the differentiated requirements proposed in the standards listed in Table A.1 in Annex A. NOTE: Differentiation requirements include "addition", "replacement", "modification", "not applicable", etc.

4.1.2 The installation, maintenance and repair of household appliances shall comply with the requirements of 4.3. The installation, maintenance and repair of the electrical parts of sporting goods shall comply with the applicable requirements of 4.3.

4.1.3 The markings and instructions of household appliances, electrical parts of sporting goods and electric toys shall comply with the requirements of 4.4.

4.2.1 Electrical safety

4.2.1.1 Protection against contact with live parts 4.2.1.1.1 The structure and casing of household appliances shall provide adequate protection against accidental contact with live parts. 4.2.1.1.2 The structure and casing of the electrical parts of sporting goods shall be such that when they are operating in normal use, live parts shall be inaccessible in all positions and after the detachable parts are removed. The electrical parts of foldable sporting goods shall have adequate protection against electric shock when folded. The outer cover and other parts of the electrical parts of sporting goods that provide protection against electric shock shall have sufficient mechanical strength. The live parts shall not be