

ICS 13.120
CCS K 09



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

GB/T 21097-2025

Replacing GB/T 21097.1-2007

**General rules on safe service life and recycling for household
and similar electrical appliances**

家用和类似用途电器的安全使用年限和再生利用通则

Issued on: June 30, 2025

Implemented on: January 1, 2026

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

Table of Contents

Foreword	3
1 Scope	5
2 Normative References	5
3 Terms and Definitions	6
4 General requirements	8
5 Requirements for Safe Service Life	8
6 Recycling and Recovery Requirements	9
Bibliography	13

1 Scope

This document specifies the general requirements for the safe service life and recycling of household and similar electrical appliances, as well as the safe service life requirements, and recycling and recovery requirements.

This document applies to household and similar electrical appliances sold, used, treated and disposed of within the territory of China.

2 Normative References

GB/T 5296.1

GB/T 5296.2

GB 18599

GB/T 20861

GB/T 29769

GB/T 32355.1

GB/T 32355.2

GB 44499

GB/T 45070

3 Terms and Definitions

The terms and definitions defined in GB/T 20861 and GB/T 29769, and the following are

applicable to this document.

3.1 Household appliances

household and similar electrical appliances Single-phase AC powered appliances used by non-professionals in homes, residences and similar settings (e.g., shops, light industry, and farms) with a rated voltage not exceeding 250 V, and other appliances with a rated voltage not exceeding 480 V. [source. GB 44246-2024, 3.1] NOTE. in this document, household appliances or household and similar electrical appliances are simply referred to as "appliances".

3.2 Safe service life

The period during which the safe use of a household appliance (3.1) can be guaranteed under standard use conditions (3.5) as specified by producers during design and manufacture.

NOTE. the unit of safe service life is years.

3.3 Safety

A state free from unacceptable risks (3.4).

[source. GB/T 20002.4-2015, 3.14]

3.4 Risk

A combination of the probability of injury and the severity of injury.

[source. GB/T 20002.4-2015, 3.9]

3.5 Standard use conditions

Parameters such as the operating environment, load conditions, and frequency of use of household appliances.

3.6 Waste appliance

Household appliances (including all parts (components) and elements (devices) constituting the products) that are no longer used or have been discarded or abandoned by the owner, as well as substandard products and scrap generated during production, distribution and use.

4.1 During the process of appliance design, production, installation, use, maintenance, repair,

etc., producers shall conduct risk management and risk assessment based on factors such

as the appliance's functional performance, user population, usage behavior, usage environment, etc., and take corresponding risk disposal or risk reduction measures based on the results of the risk assessment.

4.2 Producers shall establish a guarantee mechanism to ensure that the safe service life of the appliances installed, maintained and repaired with producers' authorization will not be affected.

4.3 At each stage of the life cycle of appliances, including design, production, installation, use, maintenance and repair, as well as recovery, treatment and disposal of waste appliances, producers, sellers, maintenance agencies, after-sales service agencies, recovery operators, treatment enterprises and other relevant parties shall comprehensively consider the environmental impact and resource and energy consumption of product recovery, and comply with relevant national policies, laws, regulations and standards.

5.1 Basic requirements

5.1.1 Producers of the appliances shall indicate the safe service life of the appliances in a self-declaration manner in accordance with the requirements of GB/T 5296.1 and GB/T 5296.2.

5.1.2 The minimum safe service life of the appliances shall not be less than the three-guarantee validity period for major (parts) components in the "Regulations on Responsibility for Repair, Replacement and Return of Household Appliances".

NOTE. "Regulations on Responsibility for Repair, Replacement and Return of Household Appliances" refers to the "Regulations on Responsibility for Repair, Replacement and Return of Certain Commodities" [1995] No. 458 jointly issued by the State Economic and Trade Commission, State Bureau of Quality and Technical Supervision, State Administration for Industry and Commerce, and Ministry of Finance on August 25, 1995, as well as subsequent supplementary provisions.

5.1.3 The safe service life is calculated from the date of first purchase by the consumer. For products that require professional installation for normal use specified in the instructions for use, the safe service life is calculated from the date of first installation completion.

5.1.4 The safe service life of the appliances shall be determined under standard use conditions.

5.2 Marking Requirements

5.2.1 The marking of safe service life of the appliances is expressed in words or symbols, and the safe service life shall be marked on the product or in the instructions for use.

5.2.2 The marking shall contain at least the following contents.

a) Product's safe service life;

b) Risk warning information for using products that have exceeded their safe service life.

5.3 Determination of Safe Service Life

5.3.1 For the determination of the safe service life of appliances, producers shall have corresponding objective statistical and analytical data or test methods as a basis. The data and process documents related to the safe service life determination process shall be completely and clearly recorded.

5.3.2 The safe service life of specific appliances is specified by the special requirements for the safe service life of household and similar electrical appliances.

5.3.3 The safe service life of specific appliances can be determined by referring to the following methods.

- Statistical method. The previous statistical and analytical data of design, production, testing, use and after-sales of the same specifications and models or similar appliances involving safety, faults, etc. can be used as a reference for calculating or estimating the safe service life of appliances.
- Test method. The assessment of the safe service life of appliances can be carried out by accelerated test and other methods based on the expected functions, working principle, structure and other characteristics of the appliances and the usage environment.
- A combination of the above two methods.

6.1.1 Design

Producers should comprehensively consider the environmental impact and resource and energy consumption throughout the product lifecycle when designing and developing appliances. They shall adopt designs that are harmless (or low-harm), lightweight, modular, easily degradable and disassembled upon disposal, and convenient for recovery, so as to minimize environmental impact and resource and energy consumption while maximizing recyclability rate.

6.1.2.1 Producers shall use materials, technologies and processes that are highly resource-

.....