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

GB/T 24986.2-2024

Replacing GB/T 24986.2-2010

**Testing evaluation methods for reliability on household and
similar electrical appliances-Part 2: Particular requirements for
refrigerators appliances**

家用和类似用途电器可靠性试验及评价 第2部分：制冷器具的特殊要求

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3.1 [Source. GB/T 8059-2016, 3.1]

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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 2 of GB/T 24986. GB/T 24986 has published the following parts.

- Reliability testing and evaluation of household and similar electrical appliances Part 1: General requirements;
 - Reliability testing and evaluation of household and similar electrical appliances Part 2: Particular requirements for refrigeration appliances;
 - Reliability testing and evaluation of household and similar electrical appliances Part 3: Particular requirements for washing machines;
 - Household and similar electrical appliances - Reliability evaluation methods - Part 4: Particular requirements for room air conditioners;
 - Reliability evaluation methods for household and similar electrical appliances - Part 5: Particular requirements for room heaters;
 - Reliability testing and evaluation of household and similar electrical appliances - Part 6: Particular requirements for air purifiers
- This document replaces GB/T 24986.2-2010 "Reliability evaluation methods for household and similar electrical appliances Part 2: Refrigerators (electric refrigerators) GB/T 22759-2008 "Reliability test methods for refrigeration appliances for household and similar purposes", this document is based on GB/T 24986.2-2010 is the main version, which integrates the contents of GB/T 22759-2008. Compared with GB/T 24986.2-2010, except for the structure In addition to adjustments and editorial changes, the main technical changes are as follows.

- Changed the scope of application of the standard (see Chapter 1, Chapter 1 of the 2010 edition);
- Added some terms (see 3.1 to 3.4, 3.6 to 3.12), deleted some terms (see 3.1 and 3.2 of the 2010 edition);
- Deleted "the significance and purpose of reliability evaluation" and "the service life of reliability parameters" (see Chapter 4 and 5.1 of the 2010 edition);
- Added the requirement that the test sample should be a qualified product that complies with GB/T 8059-2016 and GB/T 4706.13 (see 7.1.1.1, 7.1.1.2);
- Added the requirement that the test equipment should be within the validity period of metrological qualification (see 7.1.3.1);
- Added the requirement that the temperature data collection interval should not exceed 1min (see 7.1.3.2, 7.1.3.3);
- The test plan adds "During the test period, the test samples are monitored continuously or at short intervals, and the cumulative relevant test time is Until the predetermined relevant test time is reached or exceeded (acceptance) or the predetermined number of relevant failures occurs (rejection)" (see 7.1.4);
- Changed the single test duration formula [see 7.1.5.2 formula (2), 8.1.1.5.2 formula (2) of the 2010 edition];
- Added test interruption requirements (see 7.1.7);
- Added the determination of test results, test records and test reports (see Chapter 10 and Chapter 11).

Please note that some of the contents of this document may involve patents. The issuing organization of this document does not assume the responsibility for identifying patents.

This document was proposed by the China Light Industry Federation.

This document is under the jurisdiction of the National Technical Committee for Standardization of Household Electrical Appliances (SAC/TC46).

This document was drafted by: Qingdao Haier Refrigerator Co., Ltd., Qingdao Zhonghai Borui Testing Technology Service Co., Ltd., China Academy of Building Research (Beijing) Testing and Certification Co., Ltd., Hubei Midea Refrigerator Co., Ltd., Weikai Testing Technology Co., Ltd., Hisense Refrigerator Co., Ltd., Henan University of Technology Institute of Technology, Qingdao Haier Intelligent Technology R&D Co., Ltd., Guangdong Gas Appliance Association, Guangzhou Institute of Metrology and Testing Technology, Zhongshan Yuehai Electric Co., Ltd. Limited Company.

The main drafters of this document are: Wang Jian, Tang Jianjun, Feng Changqing, Jiang Mingbo, Wang Weisi, Sun Bin, Li Wanwan, Gao Ping, Huang Xunqing, Ma Qingliang, Yan

Jingen.

The previous versions of this document and the documents it replaces are as follows.

- First published in 2010 as GB/T 24986.2-2010;
- This is the first revision and integrates the contents of GB/T 22759-2008 (GB/T 22759-2008 was first issued in 2008).

Introduction

Reliability is an important indicator for evaluating household appliances. In order to provide a scientific and consistent household appliance reliability test method and standardize household appliances Reliability evaluation index, GB/T 24986 "Reliability test and evaluation of household and similar electrical appliances" was formulated. In order to avoid lengthy standards, GB/T 24986, which describes the product characteristics of different types of household appliances, is composed of the following parts in accordance with the principles of universality and particularity.

- Part 1: General requirements.
- Part 2: Particular requirements for refrigerating appliances.
- Part 3: Particular requirements for washing machines.
- Part 4: Particular requirements for room air conditioners.
- Part 5: Particular requirements for room heaters.
- Part 6: Particular requirements for air purifiers.

Part 1 provides the index selection principles and general requirements for reliability testing and evaluation methods for household and similar electrical appliances.

Part 2 to Part 6 give the specific requirements for reliability testing and evaluation of various household products.

They can be used together to form a complete household appliance reliability test and evaluation system.

Reliability testing and evaluation of household and similar electrical appliances Part 2: Particular requirements for refrigerating appliances

1 Scope

This document specifies the parameters and indicators, classification and reliability quantitative evaluation of household and similar refrigeration appliances (hereinafter referred to as "refrigeration appliances").

Assumptions, reliability evaluation methods, tests, failure criteria and statistics, data

processing, result determination, test records and reporting requirements.

This document applies to factory assembled appliances for household and similar purposes that are cooled by natural or forced convection. Refrigeration appliances.

2 Normative references

GB/T 2900.99-2016

GB/T 4706.13

GB/T 5080.1-2012

GB/T 5080.7

GB/T 8059-2016

GB/T 24986.1-2020

3 Terms and Definitions

GB/T 2900.99-2016, GB/T 5080.1-2012, GB/T 5080.7, GB/T 8059-2016, GB/T 24986.1-
For the purposes of this document, the following terms and definitions are applicable, as defined in 2020.

3.1 [Source. GB/T 8059-2016, 3.1]

It consists of one or more compartments and can be controlled at a specified temperature, has a volume and structure suitable for home use, uses natural convection or An insulated box that uses forced convection and consumes one or more energy sources to obtain cooling.

3.2 Mean Time Between Failures

The average working time between two consecutive failures.

Note. It only applies to repairable products. The ratio of the cumulative working time of the product to the number of failures during the total use period is MTBF.

[Source. GB/T 24986.1-2020, 3.7, modified]