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

GB/T 24986.3-2024

**Testing and evaluation methods for reliability of household and
similar electrical appliances - Part 3: Particular requirements for
washing machines**

家用和类似用途电器可靠性试验及评价 第3部分：洗衣机的特殊要求

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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 3 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 24986.3-2010 "Reliability evaluation methods for household and similar electrical appliances Part

1 Scope

GB/T 24986.3-2024 is the washing machine part of the Chinese series on reliability testing and evaluation of household appliances. Reliability is the quality attribute a buyer cannot verify and that manufacturers therefore assert freely, and the washing machine is the appliance where the assertion matters most, since it combines water, detergent, an unbalanced rotating mass and a mechanical programme over a service life measured in

thousands of cycles. The standard sets the particular requirements: the definition of the duty cycle and the load used in the test, the accelerated life test conditions and their relationship to real use, the failure criteria and the classification of failures by severity, the components and functions to be monitored, the sample size and the test duration, the statistical model and the calculation of the reliability indices, mean cycles between failures and the reliable life at a stated confidence, and the evaluation and reporting. It takes effect on 1 May 2025.

2 Normative references

The contents of the following documents constitute the essential clauses of this document through normative references in this document. For referenced documents without a date, only the version corresponding to that date applies to this document; for referenced documents without a date, the latest version (including all amendments) applies to This document.

GB/T 2900.99-2016 Credibility of Electrical Terminology

GB/T 4288-2018 Household and similar electric washing machines

GB/T 4706.24 Safety of Household and Similar Electrical Appliances Part

24.Particular Requirements for Washing Machines

GB/T 5080.1-2012 Reliability testing Part

GB/T 5080.7 Equipment reliability test - Verification test plan for failure rate and mean time between failures under the assumption of constant failure rate

GB 5749-2022 Sanitary Standard for Drinking Water

GB/T 24986.1-2020 Reliability testing and evaluation of household and similar electrical appliances Part

3 Terms and Definitions

GB/T 2900.99-2016, GB/T 4288-2018, GB/T 5080.1-2012, GB/T 5080.7, GB/T 24986.1- For the purposes of this document, the following terms and definitions are applicable, as defined in 2020.

3.1 An appliance that uses electrical energy to drive and relies on mechanical action to wash clothes.

3.2 extractor An appliance that relies on mechanical action to remove moisture from washed fabrics. [Source: GB/T 4288-2018, 3.2]

3.3 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]

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