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

GB/T 24986.6-2024

**Testing and evaluation methods for reliability of household and
similar electrical appliances - Part 6: Particular requirements for
air cleaners**

家用和类似用途电器可靠性试验及评价 第6部分：空气净化器的特殊要求

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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 6 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 evaluation methods for household and similar electrical appliances Part

2. Special requirements for refrigerators (freezers);

--- Reliability evaluation methods for household and similar electrical appliances Part

3. Particular requirements for washing machines;

--- Reliability evaluation methods for household and similar electrical appliances 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. Special requirements for air purifiers. 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 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 Air Conditioner Co., Ltd., China Household Electrical Appliances Research Institute, Beijing Lingwei Technology Co., Ltd., Qingdao

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1 Scope

GB/T 24986.6-2024 is the air cleaner part of the Chinese series on reliability testing and evaluation of household appliances. Air purifiers are bought on a clean air delivery rate that is measured when the machine is new, and their characteristic failure is not that they stop but that they quietly stop working: the fan wears, the seals leak past the filter, the sensor drifts and the delivered clean air falls while the machine still runs. A reliability standard for this product therefore has to define failure in performance terms as well as in functional ones. The standard sets the particular requirements: the duty cycle and operating conditions of the test, the accelerated life test and its relation to service life, the functions and performance parameters monitored and the criteria that constitute a failure, the treatment of the filter as a consumable, the sample size and duration, the statistical evaluation and the reliability indices, and the reporting. It took effect on 23 August 2024.

This document specifies the parameters, distribution assumptions, reliability and reliability of air purifiers for household and similar purposes (hereinafter referred to as purifiers) for reliability evaluation. Performance evaluation methods, tests, fault criteria and statistics, data processing, result determination, test records and test reports. This document is applicable to purifier products whose evaluation objects comply with the provisions of GB/T 18801.

2 Normative references

The contents of the following documents constitute 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 Credibility of electrical terminology

GB/T 3358.2 Statistical vocabulary and symbols Part

3 Terms and definitions

Terms defined in GB/T 2900.99, GB/T 3358.2, GB/T 24986.1-2020, GB/T 5080.7-1986 and the following terms and definitions apply to this document.

3.1 air purifier aircleaner Household and similar electrical appliances that have a certain ability to remove one or more target pollutants in indoor air. [Source: GB/T 18801-2022, 3.1]

3.2 Confidence level The probability that a random confidence interval contains the true value of the parameter.

3.3 Relevant test time The time used to verify reliability requirements or to calculate reliability characteristic values, related to the number of relevant failures of test samples.

4 Reliability evaluation parameters

4.1 The reliability parameters that should be selected for the purifier include. mean time before first failure (MTTFF), mean time between failures (MTBF).