

ICS 97.030
CCS Y62



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

GB/T 44573-2024

Test method of performance for household fresh-air air cleaner

家用新风净化机性能测试方法

Issued on: September 29, 2024

Implemented on: October 1, 2025

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

Table of Contents

1 Scope	1
2 Normative references	1
3 Terms and Definitions	1
4 Categories	2
34 Reference	35

Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part

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Wenqiang, Chen Ping, Wang Chenglong, Fang Jian, Ma Shuangbin, Tang Weidong, Li Chongchao, Li Wunan, Liu Haonan, Shi Zian, Zhang Ziqi, Cao Ruilin. Performance test method for household fresh air purifier

1 Scope

GB/T 44573-2024 gives the Chinese test methods for household fresh-air air cleaners, the units that draw outdoor air into a dwelling, filter it and deliver it at slight positive pressure. They are a different machine from a recirculating air purifier and cannot be tested like one: the performance that matters is the clean air delivered from outside at a stated pressure, the filtration efficiency against outdoor particulate, the heat recovery if fitted, the noise, and the ability to maintain the positive pressure that keeps unfiltered air from leaking in. The standard sets the categories, then the test methods for each performance characteristic in turn, with a normative annex specifying the micro-positive pressure test rig on which several of them depend, and informative annexes giving the virus removal and allergen removal performance test methods, which have become commercially important claims. It takes effect on 1 October 2025, and for a manufacturer or an importer selling fresh-air units in China it is the method behind every published figure.

This document specifies the product classification, test conditions, measuring instruments and The requirements for filters are described, and the attenuation method, single filter efficiency method and other related test methods are described. This document is applicable to the inspection of fresh air fans with a rated voltage not exceeding 250V for single-phase appliances and 480V for other appliances. The inspection of other products with fresh air function, such as air conditioners, dehumidifiers, etc., shall be carried out in accordance with the same regulations.

Note. The new fan test environment in this document includes laboratory environment and field environment.

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 1236 Standardized air duct performance test for industrial ventilators

GB/T 2624.1 Measurement of full pipe flow rate using differential pressure devices installed in circular cross-section pipes Part

3 Terms and definitions

The terms and definitions defined in QB/T 5580-2021 and the following apply to this document.

3.1 Filtration efficiency Under specified test conditions, the ratio of the pollutant concentration purified by the fresh air purifier to the initial pollutant concentration. [Source: QB/T 5365-2019, 3.2]