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WS

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

WS/T 648-2019

**General hygienic requirement for air disinfecting machine
(English Translation)**

Issued on: January 1, 1970

Implemented on: July 1, 2019

Issued by: National Health Commission

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Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009.

This standard was drafted. Heilongjiang Provincial Center for Disease Control and Prevention, China Center for Disease Control and Prevention, Environmental and

Health-related Product Safety Institute, Chinese People's Liberation Army Center for Disease Control and Prevention, Jiangsu Provincial Center for Disease Control and Prevention, Jiangsu Provincial Health Supervision Institute, Hebei Province Disease Prevention and Control Center, Shandong Provincial Center for Disease Control and Prevention.

1 Scope

This standard specifies the classification, naming and model, technical requirements, inspection methods, of use, nameplates and instructions for air sterilizers.

This standard applies to air sterilizers that are sterilized using physical factors, chemical factors and other factors.

2 Normative references

The following documents are indispensable for the application of this document. For dated references, only the dated version applies to this document.

For undated references, the latest edition (including all amendments) applies to this document.

GB 9706.1 Medical electrical equipment - Part 1. General requirements for safety GB/T 14294 modular air conditioning unit GB 28232 Ozone Generator Safety and Hygiene Standard GB 28235 UV air sterilizer safety and hygiene standards GBZ/T 189.8 workplace physical factor measurement noise Disinfection Technical Specification (2002 Edition) Ministry of Health (Wei Fa Jian Fa [2002] No. 282) Management Specification for Labeling Instructions for Disinfecting Products (2005 Edition) Ministry of Health (Wei Supervision and Development [2005] No. 426)

3 Terms and definitions

The following terms and definitions apply to this document.

Air disinfecting machine Use physical, chemical or other methods to kill or remove microorganisms in indoor air, and to achieve disinfection requirements, with independent power, energy Stand-alone device.

Natural decay rate

The percentage of bacteria in the air that naturally decrease or naturally die.

Extinction rate

The percentage of bacteria in the air that are naturally decaying and disinfected.

Killing rate

In the microbial killing test, the percentage indicates the decrease in the number of microorganisms.

4.1 Classification by working principle

4.1.1

Air disinfection machine with physical factors. use electrostatic adsorption, filtration technology and ultraviolet light to kill or remove microorganisms in the air.

An air sterilizer that meets the disinfection requirements can be used for indoor air disinfection in some cases. Such as electrostatic adsorption air sterilizer, high efficiency filtration (HEPA), ultraviolet air sterilizer, etc.

4.1.2

Air disinfection machine for chemical factors. use the chemical factors produced to kill microorganisms in the air to achieve the disinfection requirements of the air disinfection machine, it is only used for disinfection of indoor air in the absence of people. Such as chlorine dioxide air disinfection machine, ozone air disinfection machine, hydrogen peroxide air disinfection machine, Peracetic acid air disinfection machine, etc.

4.1.3

Other factors of air disinfection machine. use other factors to kill microorganisms in the air, to achieve the disinfection requirements of the air disinfection machine, such as Ion body air sterilizer, photocatalyst air sterilizer, etc.

4.2 Classification by installation method

Can be divided into wall-mounted, cabinet, mobile cabinet, embedded air disinfection machine.

5.1 Naming

It shall comply with the provisions of the "Management Specifications for Labeling Instructions for Disinfecting Products".

5.2 Model

Product Name - B --1--2 Product Name - G --1--2 Product Name - Y --1--2 Product Name - Q --1--2 Description. B--wall coded air sterilizer code G-cabinet air disinfection machine code Y-mobile air sterilizer code Q-embedded air sterilizer code-1-Common name-2-property name Example. XX card-Q--1--2 Indicates XX brand embedded 300 ozone air disinfection machine

6.1.1 Appearance

The appearance of the air sterilizer should be smooth and flat, and the components should be firmly connected. It can work safely in normal use, and will not cause people and weeks.

Environmental hazards.

6.1.2 Effective life

Ultraviolet air sterilizer should meet the requirements of life in GB 28235; ozone air sterilizer should meet the effective life of GB 28232 Seeking; other air sterilizers should meet the requirements of the corresponding standards, and there should be no corresponding standards to meet the requirements of product quality standards.

6.1.3 Working noise

The working noise of the UV air sterilizer should meet the noise requirements of GB 28235; the air sterilizer without the corresponding standard runs.

It should be stable and reliable, without vibration, and the noise is ≤ 60 dB (A-weighted).

6.1.4 Circulating air volume

An air sterilizer that relies on circulating air volume for disinfection purposes, the circulating air volume should be more than 8 times the applicable volume;

The air sterilizer should meet the requirements of circulating air volume in GB 28235.

6.1.5 Applicable volume

The volume must not be less than 30 m³.

6.1.6 Electrical safety

Should meet the requirements of GB 9706.1.

6.2 Physical factor air disinfection machine technical requirements

6.2.1

The technical requirements for raw materials, and components of UV air sterilizers shall comply with the requirements of GB 28235; other air disinfection the raw materials, and components of the machine should meet the requirements of the corresponding standards. If there is no corresponding standard, the requirements of the product quality standards should be met.