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中国认可
国际互认
检测
TESTING
CNAS L1045

TEST REPORT

NCSA-2022AC-0086

Product name: Electrostatic filter

Client: AirQuality (Shanghai) Co., Ltd.

Manufacturer: AirQuality (Shanghai) Co., Ltd.

Test Category: Comissioned inspection

Testing Institute of Building Environment and Energy, Jianke EET Co., Ltd.

**National Center of Quality Supervision, Inspection and Testing for Air Conditioning
Equipment**

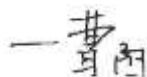
Testing Institute of Building Environment and Energy, Jianke EET Co., Ltd.
National Center of Quality Supervision, Inspection and Testing for Air Conditioning Equipment

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Sample number	2022AC-0086		
Product name	Electrostatic filter	Model	FAH
		Trademark	Airquality
Client	AirQuality (Shanghai) Co., Ltd.	Factory number	/
		Production date	/
Manufacturer	AirQuality (Shanghai) Co., Ltd.	Sample quantity	1 piece
		Sample delivery date	30.06.2022
Inspection category	Commissioned inspection	Inspection date	06.07.2019 to 08.07.
Client address	Nr. 1199 Yixian road, Baoshan district, Shanghai		
Inspection standard	GB/T 34012-2017 (Air purification devices for ventilation systems) GB/T 14295-2019 (Air filters)		
Judgement standard	GB/T 34012-2017 (Air purification devices for ventilation systems)		
Inspection location	Gequ Fuji road, Tongzhou district, Beijing		
Inspection instruments and devices	1AQ44 handheld digital multimeter; T-H11 Dust particle counter; T-H18 Air filter negative pressure test device; T-H48 Dust tester; T-H49 safety performance comprehensive tester; T-H61 laser particle counter; T-H70 steel measuring tape; T-IAQ27 Fully automatic vertical steam sterilizer; T-IAQ44 Ozone analyzer; T-IAQ45 High pressure tester; T-IAQ63 Electric thermostatic incubator		
Inspected qualities	Airflow resistance, rated power, PM2.5 purification efficiency and PM2.5 purification efficiency after 24 hours of continuous operation, counting efficiency ($\geq 0,5 \mu\text{m}$), microbial purification efficiency, ozone concentration increase, electrical safety (insulation resistance, electrical strength, leakage current, grounding resistance)		
Test conclusion	See page 2-3 Date of issuance: 25.07.2022		

Approval:



Verification:



Chief Tester:



Testing Institute of Building Environment and Energy, Jianke EET Co., Ltd.
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Sample number		2022AC-0086						
Air velocity		2,5 m/s						
Test results								
Nr.	Inspected qualities		Standard requirements			Nominal value	Test result	Evaluation
1	Air resistance (Pa)		Testing done at ≤110% of nominal value			/	14,5	/
2	Rated power (W)		Testing done at ≤120% of nominal value			32	21,6	Passed
3	PM2.5 Purification efficiency (%)	A	ePM2.5 > 90		And ≥ 95% of nominal value	/	91,7	Passed
		B	70 < ePM2.5 ≤ 90				/	/
		C	50 < ePM2.5 ≤ 70				/	/
		D	20 < ePM2.5 ≤ 50				/	/
4	PM2.5 purification efficiency after continuous running for 24h	A	ePM2.5 > 90		And ≥ 95% of nominal value	/	91,5	Passed
		B	70 < ePM2.5 ≤ 90				/	/
		C	50 < ePM2.5 ≤ 70				/	/
		D	20 < ePM2.5 ≤ 50				/	/
5	Microbial purification efficiency (%)	A	Ew > 90		And ≥ 95% of nominal value	/	91,9	Passed
		B	70 < Ew ≤ 90				/	/
		C	50 < Ew ≤ 70				/	/
		D	20 < Ew ≤ 50				/	/
6	Increase in ozone concentration (mg/m3)		≤0,10 and ≤ nominal value			/	0,003	Passed
7	Electrical safety	Insulation resistance (MΩ)	≥2			/	33,3	Passed
		dielectric strength test	No breakdown			/	No breakdown	Passed
		Leakage current (mA)	≤ 0,75			/	0,126	Passed
		Ground resistance (Ω)	0,1			/	0,010	Passed
8	Counting	≥0,5µm	/			/	93,4	/

	efficiency (%)					
Remarks	1. Airflow surface dimensions: 510 mm × 280 mm 2. PM2.5 purification efficiency: The test dust source was KCl (potassium chloride) aerosol. During the 24-hour continuous operation period, the dust source was ambient atmospheric dust. 3. Microbial purification efficiency: The test microorganism was Staphylococcus albus (white staphylococcus), strain number 8032. 4. The sample has a nameplate but no corresponding rated (nominal) values were found, and therefore evaluation was not based on nominal values. 5. Items 1–7 were tested according to GB/T 34012-2017, and item 8 was tested according to GB/T 14295-2019.					

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Sample number	2022AC-0086
Sample description	
Input voltage (V)	220
Overall dimensions (mm)	610 x 370 x 180

Note: Sample photos are shown below:



Air intake side



Air outlet side

型号 MODEL	FAH
输入 INPUT	220V/50Hz;32W
输出 OUTPUT	6.2kVDC/3.2mADC
风量 VOLUME	1700 m ³ /h

Nameplate

Used standards

GB/T 34012-2017

1 Scope

This standard specifies the terms and definitions, classification and marking of general purpose, requirements, test methods for air purification systems for ventilation systems. Inspection rules and signs, packaging, transportation and storage. This standard applies to the production and inspection of air purification equipment for ventilation and air conditioning systems.

2 Terms and definitions

The following terms and definitions apply to this document:

- A device that has a certain ability to remove air contaminants from air in the ventilation system.
- Air pollutants: A substance that adversely affects the human body or the environment. Including particulate matter, gaseous pollutants, microorganisms and other pollutants.
- Respirable particulate matter (particle size less than or equal to 10µm) inhalable particulate matter (PM10) The aerodynamically equivalent particles of less than or equal to 10µm in ambient air.

3 More details

<https://www.chinesestandard.net/PDF/English.aspx/GBT34012-2017>

GB/T 14295-2019

1 Scope

This standard specifies the terms and definitions, classification and marking, general requirements, requirements, test methods, inspection rules, signs, and Packaging, transportation and storage. This standard applies to air filters for ventilation, air conditioning and air purification systems or equipment. This standard does not apply to air filters with high efficiency and above.

2 Terms and definitions

The following terms and definitions apply to this document:

- Equipment that uses filtration, adhesion or charged capture to remove particulate matter in the air.
- After the particles are charged by a high-voltage electrostatic field, they are captured by the dust collecting plate to achieve the removal of airborne particles in the air filter.
- Rated air volume: In the standard air state, the air volume flow through the air filter in the nominal unit time.

3 More details

<https://www.chinesestandard.net/PDF/English.aspx/GBT14295-2019>