

TEST REPORT

Report No. : SHES250901817671

Date of issue 2025-12-17

Test item description: Electronic Air filter

Model/Type reference: : EAF

Rating DC12V; IP54 for power unit

Applicant AirQuality Technology (Shanghai) Co., Ltd.

Address: No.189, Fulianer Road, Baoshan District, Shanghai, China

Manufacturer's Name: Same as applicant

Address: Same as applicant's address

Factory's Name: Same as applicant

Address: Same as applicant's address

Testing Laboratory SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd.

Address 588 West Jindu Road, Xinqiao, Songjiang, 201612 Shanghai, China

Number of Samples received 3

Date of samples reception 2025-09-28

Date Test Conducted 2025-09-28 to 2025-12-04

Test Requested Clause 13.4, 13.5, 14.2.4, 14.3

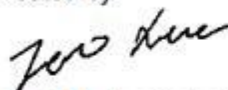
Test Method (standards) IEC 60529:1989+A1:1999+A2:2013

Test result see the following pages

CONCLUSION The submitted sample complied with the test requested.

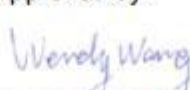
Remark -

Tested by:



Zero Xue

Approved by:



Wendy Wang

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.



中国认可
检测
TESTING
CNAS L0699

Report No. SHES250901817671

Page 2 of 5

TEST RESULTS

Standards used IEC 60529:1989+A1:1999+A2:2013

Clause	Requirement + Test	Result – Remark	Verdict
13.4, 13.5	IP5X Test	See Observations	Pass
14.2.4, 14.3	IPX4 Test	See Observations	Pass

TEST PREPARATION:

The samples were mounted in normal operation.

TEST CONDITION:

IP5X Test

1. Test means:

Clause 13.4

The test is made using a dust chamber incorporating the basic principles shown in figure 2 whereby the powder circulation pump may be replaced by other means suitable to maintain the talcum powder in suspension in a closed test chamber.

The talcum powder used shall be able to pass through a square-meshed sieve the nominal wire diameter of which is 50 μm and the nominal width of a gap between wires 75 μm .

The amount of talcum powder to be used is 2 kg per cubic metre of the test chamber volume.

It shall not have been used for more than 20 tests.

NOTE Health and safety regulations should be observed in selecting the type of talcum powder and its use.

Category 1 enclosures:

The enclosure under test is supported inside the test chamber and the pressure inside the enclosure is maintained below the surrounding atmospheric pressure by a vacuum pump. The suction connection shall be made to a hole specially provided for this test. If not otherwise specified in the relevant product standard, this hole shall be in the vicinity of the vulnerable parts.

If it is impracticable to make a special hole, the suction connection shall be made to the cable inlet hole. If there are other holes (for example, more cable inlet holes or drain-holes) these shall be treated as intended for normal use on site.

The object of the test is to draw into the enclosure, by means of depression, a volume of air 80 times the volume of the sample enclosure tested without exceeding the extraction rate of 60 volumes per hour. In no event shall the depression exceed 2 kPa (20 mbar) on the manometer shown in figure 2.

The fact extraction rate of 40 to 60 volumes per hour is obtained the duration of the test is 2 h.

IPX4 Test

1. Test means:

Clause 14.2.4:

Test for second characteristic numeral 4 with oscillating tube.

The test is made using test devices described in figure 4 in accordance with the relevant product standard.

a) Conditions when using the test device as in figure 4 (oscillating tube):



中国认可
检测
TESTING
CNAS L0699

Report No. SHES250901817671

Page 3 of 5

The oscillating tube has spray holes over the whole 180° of the semicircle.
The total flow rate is adjusted as specified in table 9 and is measured with a flow meter.
The tube is caused to oscillate through an angle of almost 360°, 180° on either side of the vertical, the time for one complete oscillation ($2 \times 360^\circ$) being about 12 s.
If not specified otherwise in the relevant product standard, the support for the enclosure under test is perforated so as to avoid acting as a baffle and the enclosure is sprayed from every direction by oscillating the tube to the limit of its travel in each direction.

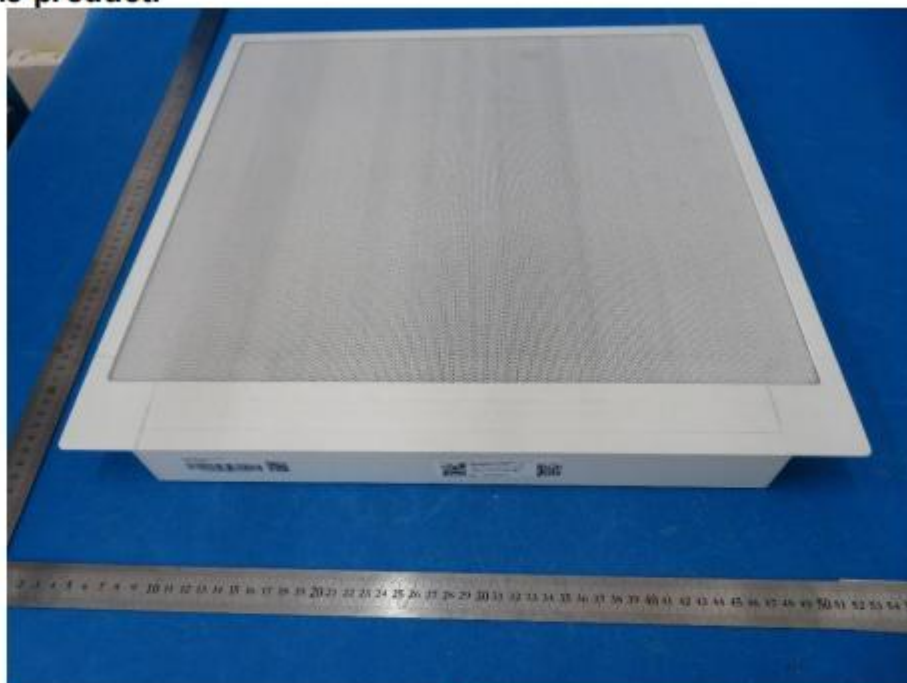
2. Duration of Test: The duration of the test is 10 min.

OBSERVATIONS:

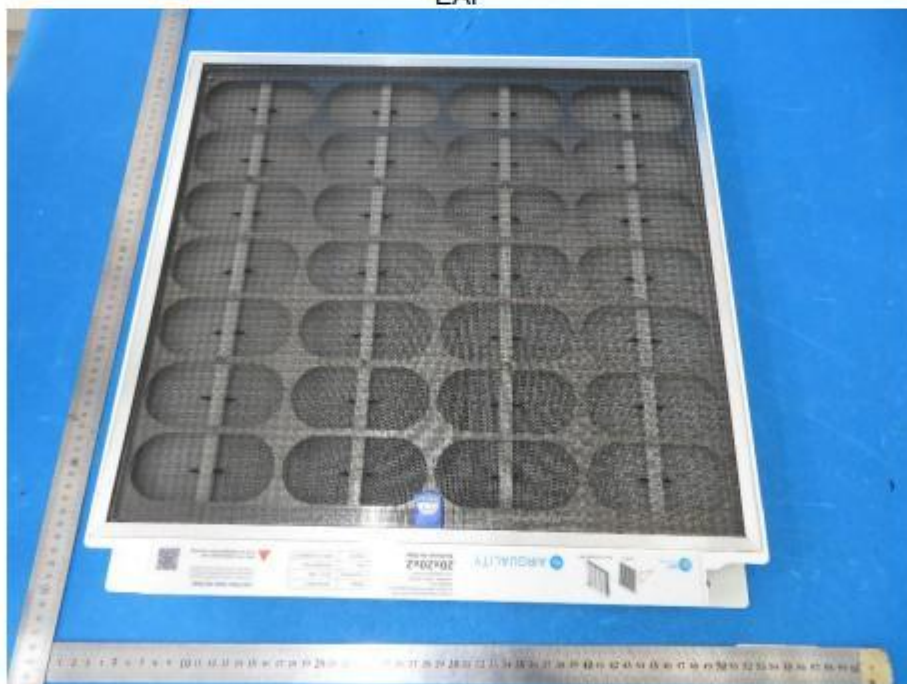
There was no deposit of talcum powder inside the enclosure of power unit after IP5X test;

No water ingress was observed in the enclosure of power unit after IPX4 test.

Photos of the product:



EAF



EAF

After tested:



IP5X

— End of Report —