CMA 201819000873

TEST REPORT

ILAC-MRA CNAS 中国认可 国际互认 检测 TESTING CNAS L7673

Applicant :	Qierling (Beijing) Health Technology Co., Ltd.
Address :	No. 101-42/101-43 (Dongsheng district), 9th Floor, No 1 Building, No 8th , Heiquan Road, Haidian District, Beijing City.

The following merchandise was (were) submitted and identified by the client as:

Name of Sample :	720 DS-X1000W Air Purifiering Disinfector
Test Type :	Commission
Sample Quantity :	1
Model :	DS-X1000W
Batch No. :	/
Brand :	720
Manufacturer:	Healthlead Corproation Limited
Sample Received :	2020/07/22
Test Period :	2020/07/22-2020/08/11
Test Items :	Please refer to next page(s).
Test Method :	Please refer to next page(s).
Test Result :	Please refer to next page(s).
Sample Description :	Machine
Note:	/

Edited by: _____ **Approved by:** _____

Checked by: _____ **Official Seal:** _____

广州中科检测技术服务有限公司 检验检测专用章

Add: No. 368 Xingke Road, Tianhe District, Guangzhou, P. R .China. **ZIP Code: 510650**
Tel: 020-85231290, 020-85231823 **Website: http://www.cas-test.org**
Fax: 020-85231035 **E-mail: atc@gic.ac.cn**

TEST RESULTS (1):

Test Conclusions:

1. Cyclic wind volume:

The cyclic wind volume of the 720 DS-X1000W Air Purifiering Disinfector was 903.6 m^3/h under the condition of "Maximum Wind Speed".

2. Ozone leakage:

The 720 DS-X1000W Air Purifiering Disinfector activated and disinfected for 60 minutes under the condition of "Maximum Wind Speed" and the average ozone concentration in the indoor air environment was 0.004 mg/m^3, which was accorded with the requirements of the "Hygienic standard for ozone in indoor air" (GB/T 18202-2000).

3. Simulated field test:

The 720 DS-X1000W Air Purifiering Disinfector activated and disinfected for 60 minutes under the condition of "Maximum Wind Speed" and the bactericidal rate of *Staphylococcus albus* in 3 tests were all >99.90%, which was qualified for disinfection and accorded with the requirements of the "Technical Standard for Disinfection" (2002).

4. Field test:

The 720 DS-X1000W Air Purifiering Disinfector activated and disinfected for 60 minutes under the condition of "Maximum Wind Speed"and the test place is an empty room about 60 m^3. The killing rate of natural bacteria in 3 tests were all >90.00%, which was qualified for disinfection and accorded with the requirements of "Technical Standard for Disinfection " (2002).

******** TO BE CONTINUED ********

TEST RESULTS (2):

1. Test item

Cyclic wind volume

2. Instrument

（1） Test ducts, Pressure transmitter(ROSEMOUNT);

（2） Disinfection equipment:720 DS-X1000W Air Purifiering Disinfector

3. Test method

（1） Test basis: GB/T 14294-2008 Central-station air handling units

（2） Test conditions: Environment temperature: 26.1℃; Environment humidity: 59%RH

（3） Test method:The prototype to be tested was installed on the test ducts, and the maximum wind speed range was opened at rated voltage and rated frequency to record the pressure difference before and after the nozzle. The test was repeated for 3 times.

4. Result

After three repeated tests, the cyclic wind volume of the 720 DS-X1000W Air Purifiering Disinfector was 903.6 m^3 /h under the condition of "Maximum Wind Speed"

Table 1 Test result of cyclic wind volume

Test item	Test result			
	Unit	Test number	Wind volume L	Standard wind volume L_0
Cyclic wind volume	m^3/h	1	932.0	903.6
		2	920.1	
		3	937.5	
		Average	929.9	

******** TO BE CONTINUED ********

TEST RESULTS (3):

1. Test item

Ozone leakage

2. Instrument

（1） Test chamber (30 m^3), Ozone analyzer (106-L)

（2） Disinfection equipment:720 DS-X1000W Air Purifiering Disinfector.

3. Test method

（1） Test conditions: Environment temperature: 27.1℃; Environment humidity: 59%RH

（2） Operation conditions of the machine: "Maximum Wind Speed".

（3） Test basis: "Hygienic standard for ozone in indoor air" (GB/T 18202-2000)

（4） Test method: Place the 720 DS-X1000W Air Purifiering Disinfector in the 30 m^3 test chamber according to the requirements of use. A sampling point was set at the center of the test chamber 1.5 m away from the ground, and turned on the machine at set mode. The test time was 1 h. During this time, 12 data to be read at a certain interval for averaging. The ozone concentration measured in the test was subtracted from the ozone concentration in the air before the test as the ozone leakage amount of the 720 DS-X1000W Air Purifiering Disinfector.

4. Result

The 720 DS-X1000W Air Purifiering Disinfector activated and disinfected for 60 minutes under the condition of "Maximum Wind Speed" and the average ozone concentration in the indoor environment was 0.004 mg/m^3 (Table 2).

Table 2 Experimental data of Ozone leakage

Time (min)	Ozone leakage（mg/m^3）	Average value（mg/m^3）
5	0.003	
10	0.003	
15	0.005	
20	0.006	
25	0.003	
30	0.004	0.004
35	0.003	
40	0.004	
45	0.004	
50	0.005	
55	0.005	
60	0.004	

******** TO BE CONTINUED ********

TEST RESULTS (4):

1. Test item

Simulated field test（*Staphylococcus albus*）

2. Instrument

（1） Test chamber: 20 m^3;

（2） Test microorganism: *Staphylococcus albus* 8032, Medium: nutrient agar medium, Sampler: six-stage sieve sampler;

（3） Disinfection equipment:720 DS-X1000W Air Purifiering Disinfector

3. Test method

（1） Test basis: "Technical Standard for Disinfection" (2002) 2.1.3

（2） Test conditions: Environment temperature:(20~25) ℃; Environment humidity: (50~70) %RH

（3） Operation status of the machine: "Maximum Wind Speed".

（4） Disinfection method: During the test, the machine to be tested was placed in the test chamber. Open the prototype to the set mode and sampling after 60 minutes. The test was repeated 3 times.

（5） Sampling method: A sampling point was set at the center of the test chamber 1.0 m away from the ground, sampling by a six-stage sieve sampler with the sampling flow of 28.3 L/min. Sample was collected at the beginning and after 60 minutes working. The sampling time of the comparison group was 20 s and 20 s, and the sampling time of the test group was 20 s and 6 min.

4. Result

The test temperature was (20~25)°C and the relative humidity was(50~70)%RH.The 720 DS-X1000W Air Purifiering Disinfector activated and disinfected for 60 minutes under the condition of "Maximum Wind Speed", and the 3 test results for the bactericidal rate of *Staphylococcus albus* were>99.99%, >99.99%, >99.99% respectively(Table 3).

Table 3 Experimental data of air sterilization effect identification test

Test bacteria	Test time (min)	Test number	Comparison group			Test group		Killing rate (%)
			Original bacteria quantity (CFU/m^3)	Bacteria quantity after test (CFU/m^3)	Natural decay rate (%)	Original bacteria quantity (CFU/m^3)	Bacteria quantity after test (CFU/m^3)	
Staphylococcus albus	60	1	7.01×10^4	5.33×10^4	23.97	7.06×10^4	<6	>99.99
		2	8.89×10^4	6.59×10^4	25.87	9.05×10^4	<6	>99.99
		3	8.04×10^4	6.35×10^4	21.02	8.21×10^4	<6	>99.99

******** TO BE CONTINUED ********

TEST RESULT (5):

1. Test item

Identification test for air disinfection effect (Field test)

2. Instrument

（1） Test chamber: About 60 m^3 empty airtight room;

（2） Medium: Nutrient Agar (NA), Sampler: six-stage sieve sampler;

Disinfection equipment: 720 DS-X1000W Air Purifiering Disinfector

3. Test method

（1） Test basis: " Technical Standard for Disinfection " (2002) 2.1.3

（2） Test conditions: Environment temperature: (24~26) ℃; Environment humidity: (50~70) %RH

（3） Operation status of the machine: "Maximum Wind Speed".

（4） Disinfection method: During the test, the machine to be tested was placed in an empty airtight room of about 60 m^3, and the sample was collected after 60 minutes working. The test was repeated 3 times.

（5） Sampling method: A sampling point was set 1.0 m away from the ground in the middle of empty airtight room, sampling by a six-stage sieve sampler with the sampling flow of 28.3 L/min.

（6） Sampling time: 5 minutes before disinfection, 10 minutes after disinfection.

4. Result

The test room was an empty airtight room about 60 m^3. The test temperature was (24~26) °C, the relative humidity was (50~70) % RH, the 720 DS-X1000W Air Purifiering Disinfector activated and disinfected for 60 minutes under the condition of "Maximum Wind Speed", and the 3 test results for the bactericidal rate of natural airborne bacteria was97.58%, 98.40%, 98.61% respectively(Table 4).

Table 4 Experimental data of air sterilization effect identification test (natural airborne bacteria)

Test bacteria	Test time (min)	Test number	Original bacteria quantity (CFU/m^3)	Bacteria quantity after test (CFU/m^3)	Killing rate (%)
Natural airborne bacteria	60	1	2.36×10^3	57	97.58
		2	1.75×10^3	28	98.40
		3	1.51×10^3	21	98.61

******** END OF REPORT ********

Statement

1. This report is issued by The Guangzhou CAS Test Technical Services Co., Ltd (hereinafter referred to as "Our Company").
2. This report is invalid if not affixed with authorized stamp of test and paging seal.
3. This report is invalid without signature of verifier and approver.
4. This report is invalid if being supplemented, deleted or altered.
5. Without written permission of our Company, this report can not be reproduced in part (except in whole).
6. The result(s) shown in this report refer only to the sample(s) tested, but do not apply to the same batch, size or brand of products (except the test samples) or to prove the related methods of making, processing or production of the test sample(s), or the correctness and rationality of processes or process.
7. Objections to this report must be submitted to our Company within 15 days. Otherwise, it will automatically deem to have accepted this report.
8. The Client shall be responsible for the accuracy, authenticity and completeness of the samples and information submitted for inspection, and the disputes arising therefrom shall be borne by the Client.
9. As any reports is issued as a result of this application for testing services, our Company will strictly keep confidentiality to the Clients. Except where disclosure is required on the basis of laws, regulations, judgments, and rulings (including in accordance with summons, court, or government proceedings).
10. The result(s) or conclusion(s) shown in this report about the description of the characteristics, composition, properties or quality are based on the specific time, methods and applicable criteria. Using different methods and criteria or under different environmental conditions for testing may come to different conclusions.
11. Since our Company's causes lead to modify the contents of this report, our Company shall reissue this report and bear the modification cost. The Client shall return the original report. Since the Client's causes lead to modify the contents of this report, the Client need to submit an application form for the change of report to our Company. The Client shall bear the modification cost and return the original report if our Company approves to reissue this report.