

广州市微生物研究所 GUANG ZHOU INSTITUTE OF MICROBIOLOGY 广州工业微生物检测中心 GUANG ZHOU TESTING CENTER OF INDUSTRIAL MICROBIOLOGY

检测报告

TEST REPORT

Report Number

KJ20181785

Name of Sample

Airfree Air Sterilizer

Jebsen Consumer Products (China)

Company Limited







GUANG ZHOU INSTITUTE OF MICROBIOLOGY GUANGZHOU TESTING CENTER OF INDUSTRIAL MICROBIOLOGY TEST REPORT

Date Received: Oct. 15, 2018

			lyzed: Oct. 15, 201
Name of Sample	Airfree Air Sterilizer	Source of Sample	Delivery
Applicant	Jebsen Consumer Products (China) Company Limited	Client	Lao Yanyi
Manufacturer	Airfree Produtos Electronicos, S.A.,	Brand	AirFree
Type and Specification	Babyair	Quantity of Sample	1PC
Date of Production		State of Sample	Machine
Batch Number	(A)	Packing of Sample	In box
Sample Picture		8	
Standard and Methods	GB/T 18801-2015 Air cleaner GB 21551.3-2010 Antibacterial an electrical appliances-Particular requ *GB/T 4214.1-2017 The method appliances-General requirements	irements of air cleaner for noise of household a	and similar electrica
Items of Analysis	Eliminating Bacterial Rate (<i>Pseudor typhimurium</i> CMCC50115) Noise	monas aeruginosa ATCC1.	5442, Salmonella
Remarks	-04		

To be continued







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Test Method for Air Purifier Disinfection Performance:

- 1. Test Equipment
 - 1) Strain: Pseudomonas aeruginosa, Salmonella typhimurium
 - 2) Microbial aerosol generator: TK-3
 - 3) Culture media: NA
 - 4) Sampling equipment: six-stage sieve sampler
- 2. Test Conditions
 - 1) The volume of the test chamber: 3 m³
 - 2) Environment temperature: (20~25) °C
 - 3) Environment humidity: (50~70) %RH
- Operation Conditions of the Air Purifier The test process was electrified.
- 4. Test Procedure
 - 1) Get a bacteria slant culture (4~7 generation) which is incubated at 37 °C for 24 h, wash the culture from this slant with 10 mL NB, filter the liquid culture by aseptic cotton buds, and dilute this inoculums with NB as appropriate.
 - 2) The equipments are placed in the test chambers, close the door, and turn on the HEPA filter system. Simultaneously operate the environmental control devices until the temperature reaches 20 °C~25 °C, relative humidity reaches 50-70%. Turn off the chamber environmental control system.
 - 3) Release microbial aerosol: turn on the microbial aerosol generator, then turn on the ceiling fan, turn off the fan after 10 min, and let stand for 15 min.
 - 4) Original bacteria aerosols collected by six-stage sieve sampler.
 - 5) Turn on the fan during the test. The air purifier are adjusted to the highest air cleaning mode setting for test (test group). Bacteria aerosols (control group and test group) are collected at 60 min.
 - 6) Choose 2 NA plates (the same batch) as the negative control, and culture them on the same condition with the samples.
 - 7) Run the test three times and take the mean as the final result.
- 5. Computational Formula

Natural decay rate
$$N_t(\%) = \frac{V_0 - V_t}{V_0} \times 100$$

Where: V_0 = original bacteria count of control group; V_t = bacteria count after treatment of control group.

Killing Rate
$$K_t(\%) = \frac{V_1 \times (1 - N_t) - V_2}{V_1 \times (1 - N_t)} \times 100$$

Where: V_1 = original bacteria count of test group; V_2 = bacteria count after treatment of test group. ***To be continued***







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Test Results

				C	Control Group		Test	Group		
Number of Sample	Test Time (min)	Test Strain	Test Number	Original Bacteria Count V_0 (cfu/m 3)	Bacteria Count after Treatment V_t (cfu/m 3)	Natural Decay Rate N _t (%)	Original Bacteria Count V 1 (cfu/m³)	Bacteria Count after Treatment V ₂ (cfu/m ³)	Killing Rate K_t (%)	
			1	1.28×10^{5}	8.76×10^4	31.56	1.25×10^{5}	7.81×10^3	90.87	
		Pseudomonas	2	1.22×10 ⁵	8.27×10^4	32.21	1.19×10 ⁵	7.24×10^{3}	91.03	
		aeruginosa	3	1.32×10 ⁵	8.85×10^4	32.95	1.33×10 ⁵	8.41×10^3	90.57	
W 100101705 1			Mean	9 44		3			90.82	
KJ20181785-1	60		1	1.18×10 ⁵	7.17×10^4	39.24	1.27×10 ⁵	7.24×10^{3}	90.62	
		Salmonella	2	1.13×10^{5}	6.93×10^4	38.67	1.16×10 ⁵	6.78×10^{3}	90.47	
		typhimurium	3	1.23×10 ⁵	7.24×10^4	41.14	1.05×10 ⁵	6.08×10^{3}	90.16	
			Mean			A		. 5	90.42	

To be continued







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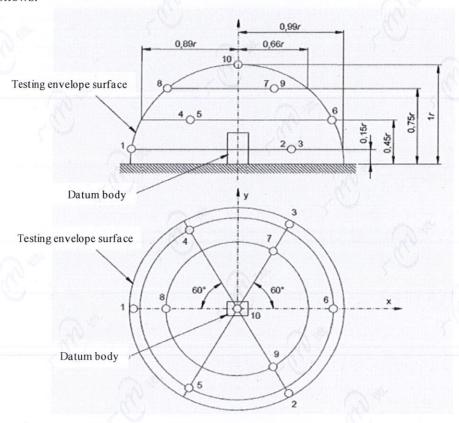
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Measuring of Noise:

- Test Environment: semi-anechoic chamber; Background Noise: 12.0 dB(A)
- Operational Conditions of the Machine The test process was electrified.
- 3. Testing Envelope Surface: hemisphere envelope surface; Testing Radius: r=1.5 m. Test schematic diagrams are showed as follows:



Test Results

Number of Sample	Average Sound Pressure Level dB(A)	Acoustic Power Level dB(A)
KJ20181785-1	≤12.0	≤23.5

End of report

Editor Checker Sissuer









Statements

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Contact Address, I Jiantashan Road, Huangpu District, Guangzhou City, Guangdong Province

Test Address, (only fill in when it's different from the contact address)

Postal Code, 510663

Tel., (8620)61302671

URL, http://www.ggtest.com.cn