INTERNET OF THINGS AIR DISINFECTION MACHINE

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PRODUCT FEATURES

Ⅰ. **Medical grade air disinfector,** the national standard of disinfector,we can provide the authoritative report which issued by Guangzhou Microbiology Technology (Guangzhou) Co., Ltd;

Ⅱ. **Broad spectrum sterilization,** active disinfection and sterilization, germs are instantly eliminated after being sucked into the equipment through the fan;

Ⅲ. **One machine owns the multiple functions.** It has a strong disinfection and sterilization ability against bacteria and viruses. VOC, formaldehyde, O3, allergen and PM2.5 have good processing ability;

Ⅳ. **Human-machine coexistence,** safe and efficient, no secondary pollution, harmless to people;

Ⅴ. **The Internet of Things (IoT),** the IoT technical solution, enables the seamless connection of human-computer interaction and communication between devices;

Fast and efficient | Disinfect | Sterilization | VOC Elimination | Anaphylactogen Elimination | PM0.3/2.5 Elimination | Aldehyde Elimination

APPLICABLE SCENARIO

Medical system:
Confinement center, ICU, ward, consulting room

Hotel system:
Lobby, banquet hall, guest room

Educational system:
Classroom, auditorium, canteen, dormitory building

Commercial centre:
Office, conference room, cinema, video game city, tea house

DYNAMICAL SYSTEM

I . **German technology,** external rotor adjustable speed permanent magnet synchronous motor, meeting CE, ROHS, CB, CCC standards;

II . **High-speed air inlet,** the maximum design air volume is 2229m ³/ h. Up to 1930 rpm

III. **High vacuum degree,** the maximum static pressure can reach 630pa, more than 10 times that of the cross-flow fan

IV. **Low energy consumption,** the first level can meet the demand of the daily working conditions , and the power of the overall energy consumption can be control within 30W.

V . **Stable performance, durable usage,** all-metal structure, can last for 60000 hours (about 7 years)

CE RoHS CB

TECHNICAL PARAMETERS

Model	LD050A（movable type）	**Disinfection technology**	Low temperature plasma (HPSD)
Voltage	100~127V/60Hz 220~240V/50Hz	**Plasma density**	7.78*10^18m^{-3}
Power	200W	**Formaldehyde removal rate**	>80%
Air volume	1400m^3/h	**Death rate of the Natural Bacteria**	>93%
CADR particles	875m^3/h	**Elimination rate of Staphylococcus albus**	>99.99% （15min）
Package size	700*470*1150mm	**Packing weight**	55kg

FILTER ELEMENT CONFIGURED

Filter name	Filter Size	Replacement cycle	Function of filter element
Primary filter	715*525*12mm	**Washing per 3 months**	Remove large particles in the air to prolong the service life of activated carbon filter element and HEPA filter element
Activated carbon filter	715*525*20mm	**Replacement per 6 months**	Absorb odor and second-hand smoke in the air
HEPA filter	715*525*50mm	**Replacement per 6 months**	Effectively capture small particles and various allergens
Plasma catalytic filter	375*375*20mm	**Replacement per 12 months**	Filtering the O3 in the air to ensure that the releaseed air is clean and harmless

Note: This machine is equipped with a filter element monitoring system.
The system will remind you when the filter element expires. Please refer to the system.

COMPARISON OF ELIMINATION TECHNIQUES

Project	Low-temperature plasma	Needle/tube corona discharge plasma	UV sterilization	Ozone
Plasma density	7.78*10^18m^{-3}	≥2*10^12m^{-3}	×	×
Odor elimination capability	√	×	×	×
Anaphylactogen Elimination	√	×	×	×
VOC Elimination	√	×	×	√
Bactericidal ability	Strong	Weak	Strong → weak	Strong
Processing area	Overall air path	Nearby area	Illuminated area	Overall air path
Impact of dust	×	√	×	×
Human-machine coexistence	√	×	×	×
Durability	≥5 years	3-5 years	≤1 year	≤5 years

STERILIZER PERFORMANCE COMPARISON

Project		Air disinfection machine of other brands	Ruiwan brand air disinfection machine
Disinfection and sterilization ability	Sterilization method	UVC, high pressure plasma (low efficiency)	Low temperature plasma (high efficiency)
	Odor elimination	×	√
	Anaphylactogen elimination	×	√
	VOC Elimination	×	√
Hardware	Fan	Cross-flow fan (low negative pressure, no filter element can be installed)	EC fan (High negative pressure, filter element can be installed)
	screen	Digital screen/digital tube (black and white)	1024*600 7 inches LCD
	2.4G gain antenna	×	√
	PM2.5 detection	√	√
	Temperature and humidity detection	√	√
	Temperature and humidity detection	×	√
	TVOC detection	×	√
	CO fire alarm	×	√
Control technology	Control panel	Button type	Capacitive screen
	Remote control	√	√
	Hardware fault detection	×	√
	Filter element detection	×	√
	Appointment disinfection	√	√
Internet of Things technology	Automated execution scenario	×	According to pollutant standard Set automatic disinfection
	APP	×	√
	Web central management system	×	Group management, monitoring control equipment
	Air quality data	×	Cloud storage, real-time/day/week/month
	Execution log	×	√

TECHNICAL PARAMETERS

Ⅰ. APP / Web

Own platform	Independent property rights, functions can be updated at any time according to the market, and various functions can be flexibly configured
Customization	A complete set of solutions can be opened to provide personalized services.
Unattended	Indoor air quality maintenance system (IAQMS), which operates automatically according to user-defined air quality indicators, No need for manual intervention.
Data cloud	Cloud storage daily operation records, air quality data
Central management system	Cloud batch management, monitoring and control equipment.
Intelligent interconnection	One-touch control, sharing and management of mobile APP

Ⅱ. Embedded system

7" 1024*600 LCD	High-resolution large-scale touch screen, easy to operate and clear display.
Large data screen	Simple and clear sensor data, accurate feedback of indoor air quality
Equipment self-inspection	Modular design scheme, real-time feedback of each hardware (sensor, fan, plasma module consumables)
OTA over-the-air upgrade	After function update, it can be synchronously pushed to all in-network devices for update

SYSTEM COMPOSITION DIAGRAM