Warning

- Daikin products are manufactured for export to numerous countries throughout the world. Prior to purchase, please confirm with your local authorised importer, distributor and/or retailer whether this product conforms to the applicable standards, and is suitable for use, in the region where the product will be used. This statement does not purport to exclude, restrict or modify the application of any local legislation.
- Use only those parts and accessories supplied or specified by Daikin.
- Read the user's manual carefully before using this product. The user's manual provides important safety instructions and warnings. Be sure to follow these instructions and warnings.

If you have any enquiries, please contact your local importer, distributor and/or retailer.

Daikin Airconditioning (Hong Kong) Ltd.

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www.daikin.com.hk

PCAHK2202

STREAMER

Air Purifier

MCK55VBFVM
Streamer Air Purifier
Humidifying 55 type

MC55/40VBFVM3
Streamer Air Purifier
55 / 40 type

MC30YBFVM3
Streamer Air Purifier
30 type

About the dust collection and deodorising capacity of air purifiers:
- Not all harmful substances in cigarette smoke (carbon monoxide, etc.) can be removed.
- Not all odour components that emanate continuously (building material odours and pet odours, etc.) can be removed.

This product is not a medical device, medical treatment device or a therapeutic good.
This product is not intended to have any therapeutic use or to be used for the diagnosis, treatment, relief or prevention of illness.
If you have a health concern or are not feeling well, please consult a health care professional.

Ideal for livingrooms
and bedrooms.

MCK55VBFVM

MCK55VBFVM

The sophisticated
appearance fits in perfectly
with a room's interior design.

MC55VBFVM3

Compact design allows
flexible choices of where to
place the unit.

MC30YBFVM3

Streamer Air Purifier

STREAMER

Slim design with humidification

MCK55VBFVM

Double method

Compact design with powerful airflow

MC55VBFVM3

Double method

MC40VBFVM3

Compact and stylish design

MC30YBFVM3

Contents

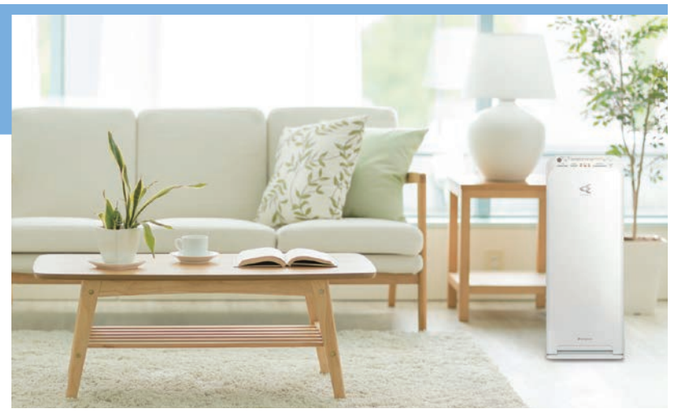
Lineup

Slim design with humidification

Double method

MCK55VBFVM

With wireless remote controller



MCK55VBFVM		
Humidification	Dust collection	Deodorisation

Capacity in turbo operation mode

Air purification		Humidifying capacity
Air purification only Airflow 5.5 m³/min.	Humidification + air purification Airflow 5.5 m³/min.	500 mL/h *2
Applicable room area ～41m² *1		
Approximate room cleaning time 13.2m²/11min. *1		

Compact design with powerful airflow

Double method

MC55VBFVM3 MC40VBFVM3

With wireless remote controller

MC55VBFVM3	
Dust collection	Deodorisation

Capacity in turbo operation mode

Air purification
Air purification only Airflow 5.5 m³/min.
Applicable room area ～41m² *1
Approximate room cleaning time 13.2m²/11min. *1

MC40VBFVM3	
Dust collection	Deodorisation

Capacity in turbo operation mode

Air purification
Air purification only Airflow 4.0 m³/min.
Applicable room area ～31m² *1
Approximate room cleaning time 13.2m²/15min. *1

• This model has no humidifying function.

Note:
*1 Calculated by test method based on Japan Electrical Manufacturers' Association Standard JEM1467.
*2 Humidifying capacity by JEM1426 (electric humidifier) with turbo operation at temperature of 20°C and humidity of 30%.

Compact and stylish design

NEW

MC30YBFVM3

MC30YBFVM3	
Dust collection	Deodorisation

Capacity in turbo operation mode

Air purification
Air purification only Airflow 3.0 m³/min.
Applicable room area～23m² *1
Approximate room cleaning time 13.2m²/19min. *1

• This model has no humidifying function.

Daikin's Unique Double Method

Outside

Active plasma ion flow out

*MCK55 and MC55 models.

The plasma ion technology uses plasma discharge to release ions into the air, which combine with components of the air to form active species with strong oxidizing power like OH radical. They attach to the surface of fungi and allergens and decompose proteins in the air by oxidation.

Daikin's plasma ions have been proved safe.
Safety concerning effect on skin, eyes, and respiratory organs
Testing organization: Life Science Laboratories, Ltd.
Name of test: repeated-dose toxicity test
Test number: 12-II A2-0401

Mechanism of reduction by active plasma ions

Concentration: 25,000 ions/cm^3 *1

Note:
*1 The number of ions per 1cm3 of air blown into the atmosphere measured near the air outlet during operation with maximum airflow. Test conditions: temperature 25°C, humidity 50%.

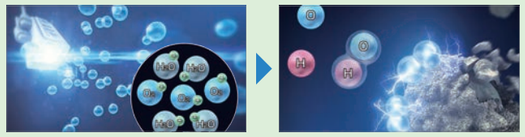


Image is for illustrative purposes

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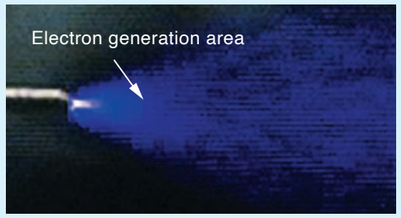
Inside

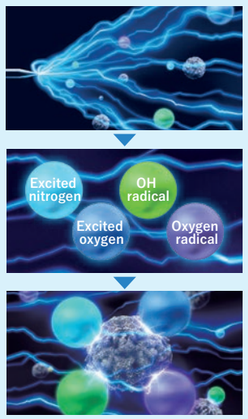
Streamer decomposes by suction

Streamer, a type of plasma discharge, decomposes hazardous chemical substances.
The decomposition power is comparable to thermal energy of about 100,000°C.*2



Note:
*2 Comparison of oxidation decomposition.
This does not mean temperature will become high.

Mechanism of decomposition by Streamer



Streamer emits high-speed electrons.

The electrons collide and combine with nitrogen and oxygen in the air to form four kinds of decomposing elements with decomposition power.

The decomposing elements provide decomposition power.

Streamer

Scan here for more
DAIKIN Streamer Research Institute

Three Steps to Decompose Harmful Substances

1 Powerful suction

Takes in dust over a wide area from 3 directions.

2 Effective capture of pollutants

Catches dust and pollutants effectively with an electrostatic HEPA filter.

3 Decomposition

Uses Daikin's Streamer technology to decompose harmful substances caught on the filter by oxidation.*1

Effect after nine hours in a space of about 200L.

Note:
*1 Placed an air purifier in a 1 m^3 box with acetaldehyde as an exhaust gas-derived VOC and operated the air purifier.
Test result: Confirmed an increase in concentration of generated product (CO_2) when acetaldehyde was decomposed by Streamer.
(Evaluation by Daikin)
Test unit: MCK55S (Japanese model), a model equivalent to MCK55V series.

Pollutants that can be collected and deodorised by filter						Pollutants that can be reduced	
House dust	Pollen (cedar,etc.)	Yellow dust	PM2.5	Indoor air pollutants (formaldehyde, etc.)	Diesel exhaust particulates (DEP)		Floating viruses
City exhaust gas (trichloroethylene,etc.)	NOx	VOC-type chemical substances	Moulds	Cockroaches (feces)	Mites (feces and carcasses)		Floating mould
Dog epidermis (dander)	Cat epidermis (dander)	Hamster epidermis (dander)	Pet hair	Wheat flour	Body odour		Attached viruses
Ammonia	Garbage odour	Cooking odour	Cigarette smoke odour	Pet odour	Mould odour		Attached bacteria
							Attached odour

Streamer

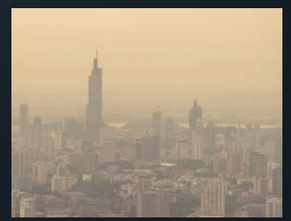
Battle harmful airborne substances using Streamer air purifiers.

Streamer

PM2.5 (Haze)

Removes 99% of particles between 0.1µm and 2.5µm[*1] in size.

Entry of new particles from outdoors, for example by ventilation, is not considered.



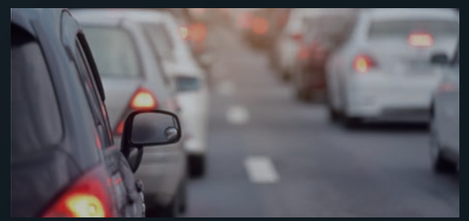
"PM2.5" refers to general fine particulate matters sized 2.5µm or smaller. This air purifier has not been proved to remove very fine particles of less than 0.1µm.
This product does not remove all harmful substances in the air.
The test results are effects in a closed space of 32m³ and not in an actual operation space.
Test unit: Tested with MCK55S (Japanese model), a model equivalent to MCK55V series.

[*1] Test method: Japan Electrical Manufacturers' Association Standard JEM1467. Criterion: Remove 99% of fine particulate matters of 0.1 to 2.5µm in a closed space of 32m³ within 90 minutes. (Converted to a value in a test space of 32m³).

Exhaust gas

Decomposes harmful substances by oxidation.[*2]

Effect in a test space of 1 m³.



[*2] Placed an air purifier in a 1 m³ box with acetaldehyde as an exhaust gas-derived VOC and operated the air purifier.
Test result: Confirmed an increase in concentration of generated product (CO_2) when acetaldehyde was decomposed by Streamer. (Evaluation by Daikin)
Test unit: MCK55S (Japanese model), a model equivalent to MCK55V series.

The 3 C's of Streamer

STREAMER

1.Clash Decomposes harmful substances on the dust collection filter by oxidation! ▶ **2.Cycle** The deodorising filter absorbs and decomposes odour. ▶ **3.Clean** Removes bacteria from dust collection filter[*3], humidifying filter[*4], and humidifying water.[*5]

Note:

[*3] Testing organization: Japan Food Research Laboratories. Test number: 15044988001-0201. Test method: Attached a test piece inoculated with bacteria liquid on the upstream side of a dust collection filter installed in an air purifier, and operated it in a test area of 25 m³. Counted the number of live bacteria after five hours. Test object: A type of bacterium. Object part: Dust collection filter. Test result: Reduced by more than 99% in five hours. Test unit: Tested with MCK55S (Japanese model), a model equivalent to MCK55V series (turbo operation).

[*4] (Removal of bacteria from humidifying filter) Works on objects caught by the humidifying filter. Testing organization: Japan Food Research Laboratories. Test number: 15044989001-0101
Test method: Attached a test piece inoculated with bacteria liquid on the upstream side of a humidifying filter installed in an air purifier, and operated it in a test area of 25 m³. Counted the number of live bacteria after five hours. Object part: Humidifying filter. Test result: Reduced by more than 99% in five hours. Test unit: Tested with MCK55S (Japanese model), a model equivalent to MCK55V series (turbo operation).

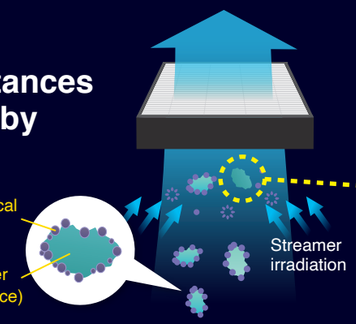
[*5] (Reduction of bacteria in humidifying tray) Testing organization: Japan Food Research Laboratories. Test number: 15044985004-0101.
Test method: Performance evaluation test by voluntary standard of Japan Electrical Manufacturers' Association (HD-133). Test object: Moulds and bacteria in humidifying water. Test result: Reduced by more than 99% in 24 hours.
Test unit: Tested with MCK55S (Japanese model), a model equivalent to MCK55V series (turbo operation).

About the dust collection and deodorising capacity of air purifiers:
- Not all harmful substances in cigarette smoke (carbon monoxide, etc.) can be removed.
- Not all odour components that emanate continuously (building material odours and pet odours, etc.) can be removed.

1 Clash

Decomposes harmful substances on the dust collection filter by oxidation!

Harmful gaseous chemical substances attach to the surface of floating substances in the air.



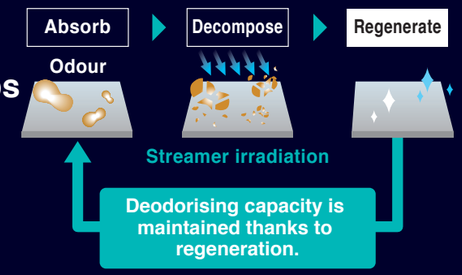
The dust collection filter catches the floating substances with the attached harmful gases and Streamer decomposes the harmful gases by oxidation. [*2]

2 Cycle

The deodorising filter absorbs and decomposes odour.

The deodorising capacity is maintained because the adsorbing capacity regenerates.

(Comparison with conventional Daikin products. Evaluation under conditions set by Daikin).[*6]

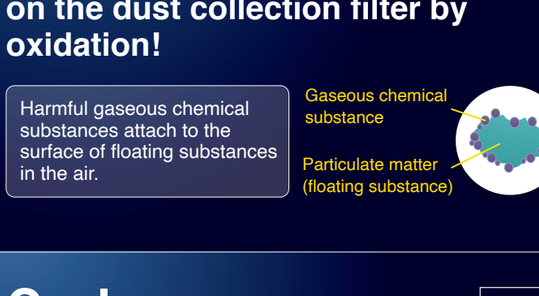


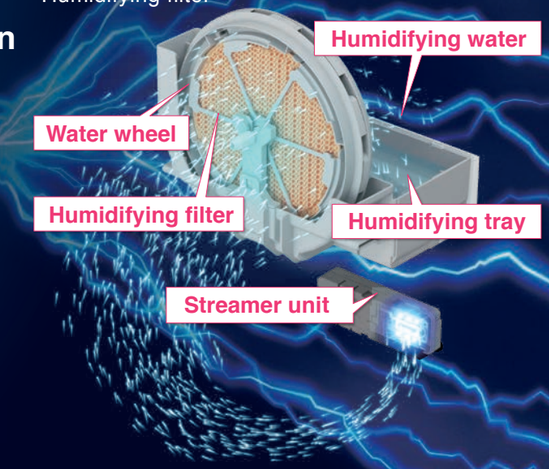
No need to change deodorising filters

Streamer

3 Clean

Removes bacteria from dust collection filter[*3], humidifying filter[*4], and humidifying water.[*5]





[*6] Placed the air purifier and an odour component, acetaldehyde, in a box of 21 m³ and operated the air purifier. Examined increase of concentration of product (CO_2) generated by decomposition of acetaldehyde by Streamer (evaluation by Daikin).
Test unit: Tested with MCK55S (Japanese model), a model equivalent to MCK55V series.

This product can be used to improve the quality of the air by removing airborne hazardous chemical substances, allergens, mould, bacteria, and viruses, etc. However, this product is not intended for the creation of sterile environments or for the prevention pathogen infections.

This description relates to the Streamer Technology devised by Daikin, but not to this Air Purifier. Test results from use of the Streamer Technology are generated according to prescribed test methods conducted by Daikin. Although the Streamer Technology is contained within this Air Purifier, this does not mean that precisely the same results will be experienced using this Air Purifier. Actual results may differ depending on the conditions of product installation and use of the actual product, etc.

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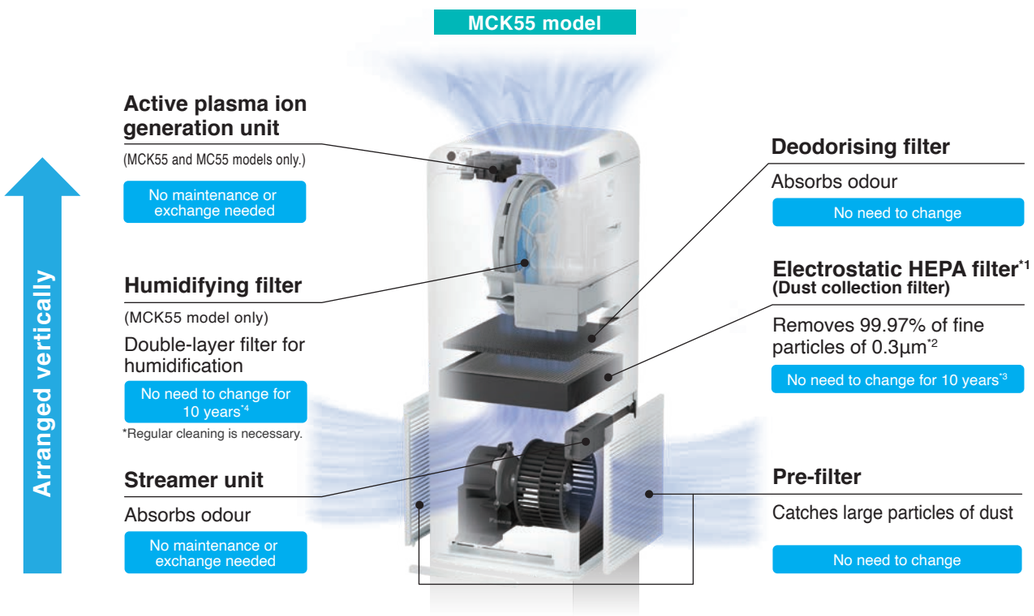
Streamer Air Purifier Humidifying 55 type
Streamer Air Purifier 55/40/30 type

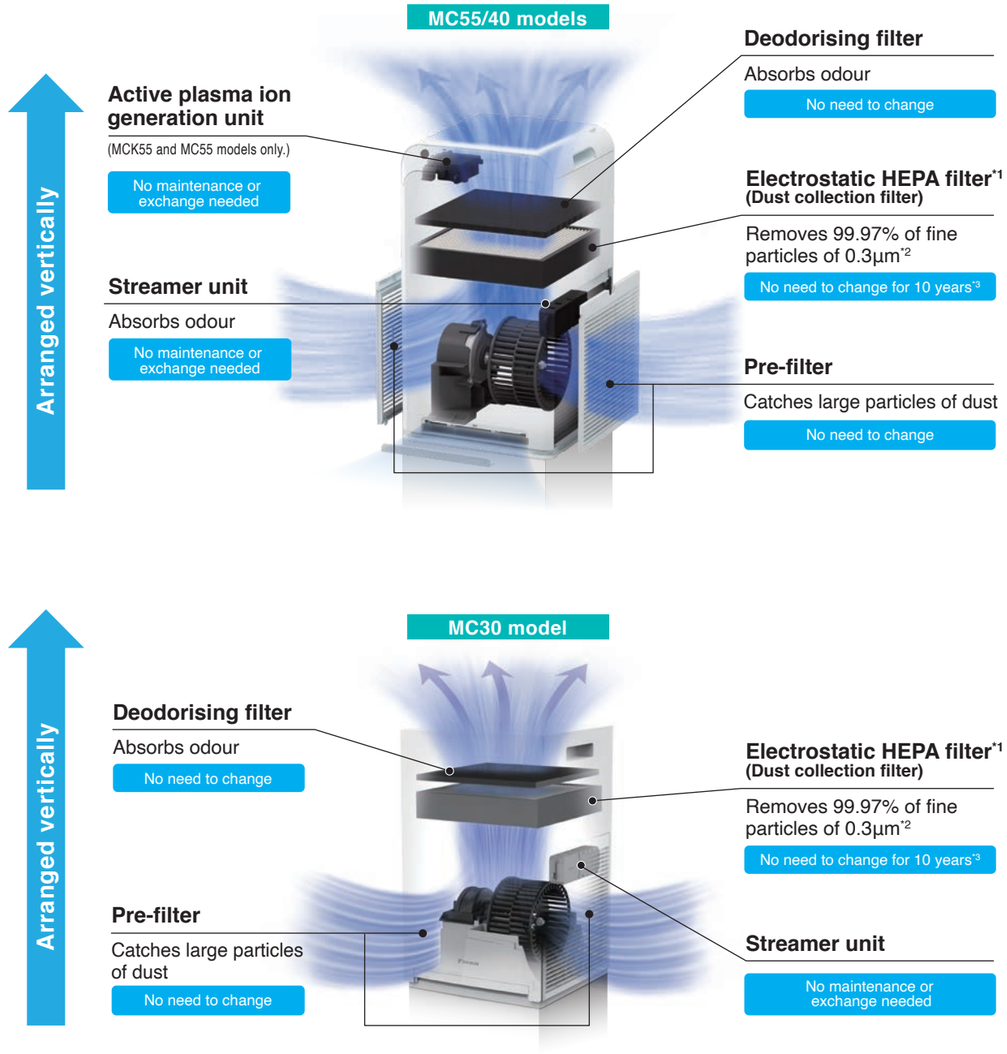
Scan here for more
Promotion video for MCK55 at Daikin official YouTube site.

55/40/30 type

MCK55VBFVM | MC55VBFVM3 | MC40VBFVM3 | MC30YBFVM3

Unique vertical structure





It may become necessary to change out items that usually do not require replacing due to environmental and operational conditions.

Note:
*1 Test method based on Japan Electrical Manufacturers' Association Standard JEM1467.
*2 This is removal performance of filter and not removal performance for entire room.
*3 Verified by test method based on JEM1467. The standard assumes five cigarettes are smoked per day.
Not all harmful substances in cigarette smoke (carbon monoxide, etc.) can be removed.
Filter lifespan may vary depending on the operating conditions.
*4 This is the standard replacement time until the humidifying capacity drops to 50% of the rated humidifying capacity, assuming that the filters are used 8 hours per day, 6 months per year, and are cleaned regularly following the operation manual.
Replacement time may become shorter depending on the water quality and usage conditions.

About the dust collection and deodorising capacity of air purifiers:
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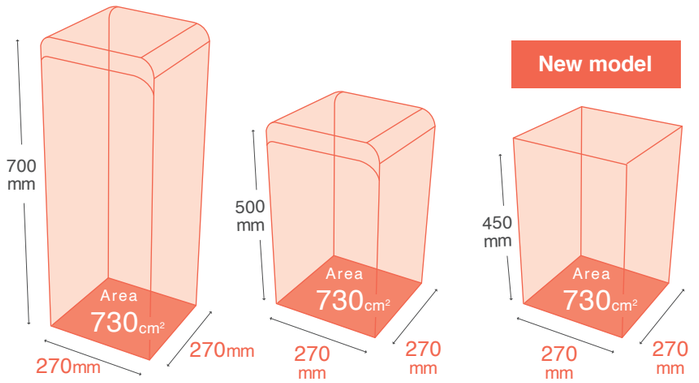
55/40/30 type

Scan here for more
Promotion video for MCK55 at Daikin official YouTube site.

55/40/30type

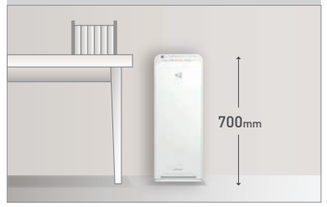
New Stylish and Compact Design

Flexible choice of where to place the unit



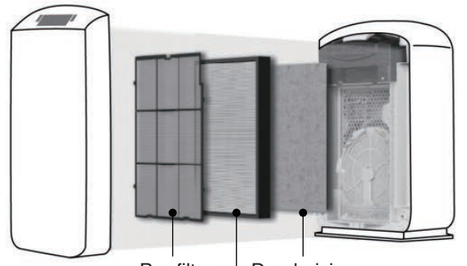
Only **27cm** width & depth

Fits in neatly because the unit is 700 mm high, roughly the height of common desks.



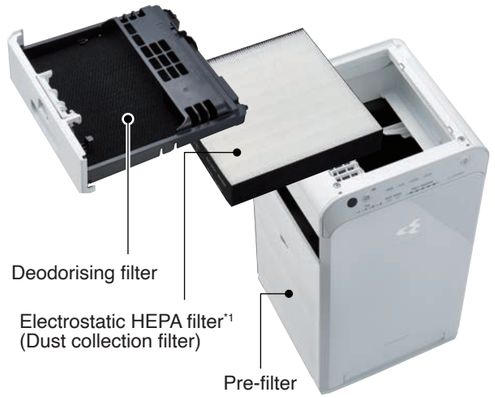
Compact, effective and quiet thanks to the new, innovative structure

Common design



MC55 / 40 models

Arranged vertically

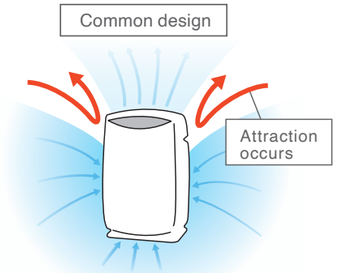


Note:
*1 Test method based on Japan Electrical Manufacturers' Association Standard JEM1467.

Powerful suction in 3 directions

Effectively takes in dust over a wide area

Common design



Air above the air inlet is attracted into the faster airflow from the air outlet.

MCK55 model

Takes in large amounts of air because the air inlet is located apart from the air outlet and the airflow from the outlet is soft.

Operation sound sensed by people is reduced

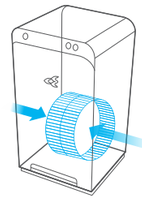
(Comparison with conventional Daikin products. In turbo operation)

The key is the sound of airflow from the air outlet

Daikin succeeded in reducing the operation sound sensed by people by adopting a wide air outlet and positioning the fan below the filters for soundproofing effect.

The fan is positioned below

Positioned farthest from people's ears.
The filters also provide a soundproofing effect, so the operation sound is not disturbing.



Scan here for more
Promotion video for MCK55 at Daikin official YouTube site.

55/40/30 type

Electrostatic HEPA filter *1

High-performance filter to catch fine particles of dust

Removes 99.97% of fine particles of 0.3μm *2

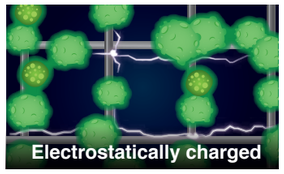
The filter collects dust efficiently with electrostatic forces.
It is not prone to clogging compared with unelectrified HEPA filters which collect particles only by the fineness of the mesh.

▶ Therefore, a larger amount of air can pass through the filter.

▶ **The filter can purify a larger amount of air!**

Comparison between Electrostatic HEPA filter*1 and Non-electrostatic filter

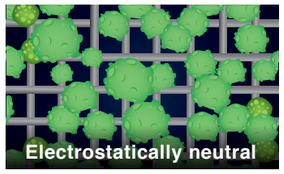
Electrostatic HEPA filter*1



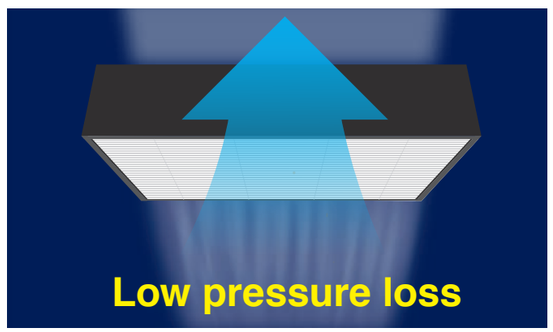
Filter fiber itself is charged with static electricity, and collects particles efficiently.

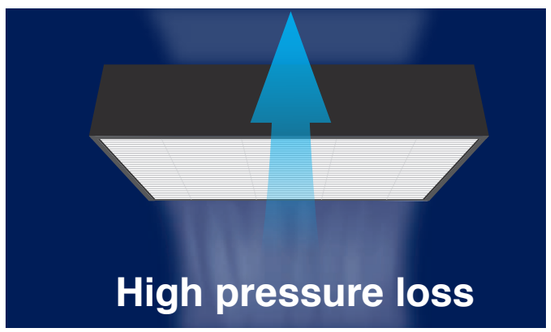
Doesn't clog easily because of low pressure loss.

Non-Electrostatic filter



Because it catches particles relying only on mesh size, it is necessary to make mesh finer, making it easy to be clogged.





Note:
*1 Test method based on Japan Electrical Manufacturers' Association Standard JEM1467.
*2 This is removal performance of filter and not removal performance for entire room.

About the dust collection and deodorising capacity of air purifiers:
- Not all harmful substances in cigarette smoke (carbon monoxide, etc.) can be removed.
- Not all odour components that emanate continuously (building material odours and pet odours, etc.) can be removed.

Powerful humidification (MCK55 model only)

Humidification capacity
500 mL/h*3

Benefit of Humidification

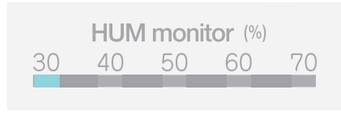
- Protects the skin, the throat and the nostril from dryness.

- Protects against viruses by maintaining appropriate humidity of the room.

Select the target humidity from 3 levels

(The target humidity is a rough estimation.)

Indicates humidity of the room



Eliminates bacteria on the humidifying filter *4

Effect after five hours in a test space of about 25 m³.
This is an effect in a test space and not a test result in an actual operation space.

STREAMER

Reduces bacteria in humidifying water by Streamer *5

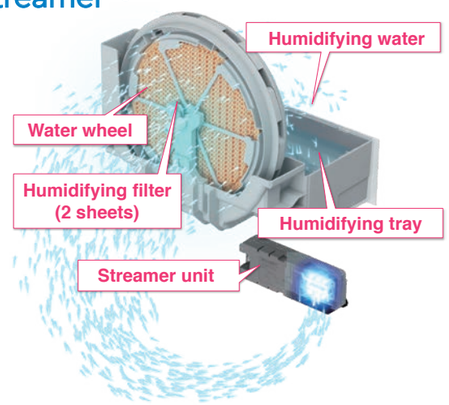
The humidifying tray needs regular maintenance (once in about a week).
This is not a verification result in an actual operation environment.

The humidifying tray is irradiated with Streamer as well as the humidifying filter to reduce bacteria in the water.
By keeping the water and its surroundings clean, the air purifier provides clean air and humidity to the room.

Use tap water to fill the tank, and replace with fresh water every day.
Using well water or water from water purifiers makes bacteria develop faster.

Features for clean humidification

- The humidifying tray is equipped with a silver ion agent
- A water wheel system to keep the humidifying filter from being directly soaked in water



Note:
*3 Humidifying capacity by JEM1426 (electric humidifier) with turbo operation at temperature of 20°C and humidity of 30%.

*4 (Removal of bacteria from humidifying filter) Works on objects caught by the humidifying filter. Testing organization: Japan Food Research Laboratories. Test number: 15044989001-0101. Test method: Attached a test piece inoculated with bacteria liquid on the upstream side of a humidifying filter installed in an air purifier, and operated it in a test space of 25 m³. Counted the number of live bacteria after five hours. Object part: Humidifying filter. Test result: Reduced by more than 99% in five hours. Test unit: Tested with MCK55S (Japanese model), a model equivalent to MCK55V series (turbo operation).

*5 (Reduction of bacteria in humidifying tray) Testing organization: Japan Food Research Laboratories. Test number: 15044985004-0101. Test method: Performance evaluation test by voluntary standard of Japan Electrical Manufacturers' Association (HD-133). Test object: Moulds and bacteria in humidifying water. Test result: Reduced by more than 99% in 24 hours. Test unit: Tested with MCK55S (Japanese model), a model equivalent to MCK55V series (turbo operation).

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Scan here for more
Promotion video for MCK55 at Daikin official YouTube site.

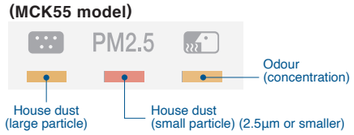
55/40/30 type

Convenience

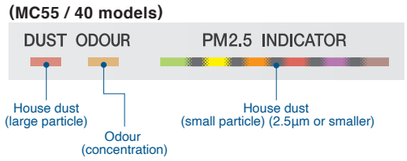
"Triple detection" sensor to quickly detect PM2.5

Equipped with a high sensitivity dust sensor that distinguishes small particles such as PM2.5 and larger particles of dust and reacts accordingly. Along with the odour sensor, "triple detection" of dust, PM2.5 and odour is provided.

(MCK55 model)



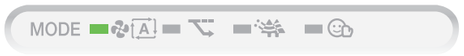
(MC55 / 40 models)



Choose from the various operation modes

- Auto Fan mode
- Econo mode
  for energy saving
- Anti-pollen mode
- Moist mode (MCK55 model only)
  Humidity is automatically adjusted to be gentle on the skin and throat.

(MCK55 model)



(MC55 / 40 models)

Equipped with a remote controller

Convenient for operation from a distant position.

MCK55 model

MC55 model

Easy cleaning

- Filter cleaning without opening the panel

  Just vacuum with a cleaner.
  No need to open the panel to clean the filter.

- Equipped with roll-away casters (MCK55 model only)

  Easy to move to clean the floor.

- Easy-to-detach water tank (MCK55 model only)

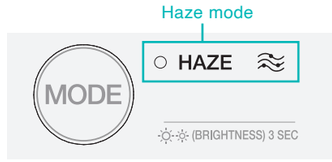
  The water tank is conveniently placed in a high position for easy detaching.
  The compact size of the tank makes it easy to replenish water in a sink or a wash basin.

Haze mode (MC30 model only)

Remove the fine particles (PM2.5) quickly and decompose harmful substances in the Haze.

Stage 1 Airflow will begin to operate at Turbo fan speed for 90 minutes with streamer discharge.

Stage 2 Then the airflow change to Standard fan speed with Streamer discharge until the termination of function.



The Haze (PM2.5) test results and test methods have been acknowledged and certified by Universiti Malaya

Stage 1: Purification Test

Proven to fully cleanse air in a room!

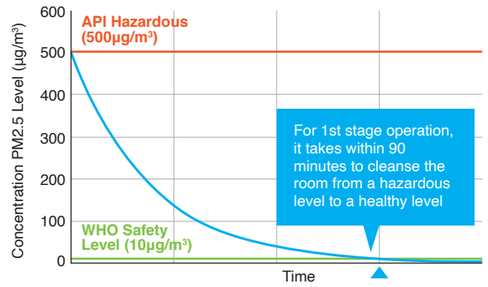
Test Result *1:
Based on the actual operation of Haze mode at Turbo fan speed for the first 90 minutes of operation, the results show the air purifier has managed to fully cleanse the air within 90 minutes. Hence, 90 minutes for the first stage operation is proven to be sufficient.

Stage 2: Infiltration Test

Effective to maintain a good air quality that we breathe in!

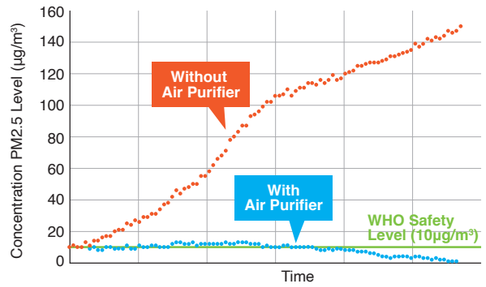
Test Result *2:
Based on the actual operation of Haze mode at Standard fan speed operating continuously, the results proved the ability to maintain the room in a healthy indoor air quality condition effectively.

Stage 1: Purification Test



*The graph is not retrieve from experiment result but design calculation for illustration purpose

Stage 2: Infiltration Test



*The graph is not retrieve from experiment result but design calculation for illustration purpose

Note:
Test Organisation: Certification Laboratory, Daikin Research & Development Malaysia (DRDM) in a collaboration with Universiti Malaya
Test Report Number: SYS-2021-01

*1 Test Method: Dust concentration level in a test space of 25.7m³, in accordance to JEM 1467 Standard, is measured to determnie the reduction of PM 2.5 dust particle size from hazardous levels stated in Air Pollution Index (API), to healthy levels based on the World Health Organization (WHO) Air Qualities Guideline: Global 2005. With the consideration of the effective room capacity of the unit, an operation period of 90 minutes with turbo fan speed is required to satisfy the test standard.

*2 Test Method: An infiltration of polluted haze is allowed into the test space gradually. A continuous operation under Standard fan speed is used in a test space of 25.7m³, in accordance to JEM 1467 Standard. This infiltration test is used to demonstrate the cleansing ability of the second stage operation to maintain the dust concentration level in the room.

Installation Image

Specifications

MODEL			Streamer Air Purifier Humidifying 55 type								Streamer Air Purifier 55 type				Streamer Air Purifier 40 type			
			Double method  With wireless remote controller MCK55VBFVM								Double method  With wireless remote controller MC55VBFVM3				 MC40VBFVM3			
			Max. airflow 5.5m³/min.								Max. airflow 5.5m³/min.				Max. airflow 4.0m³/min.			
Colour			White															
Applicable room area*1	Air purification		41 m²												31 m²			
Approximate room cleaning time*1			13.2 m² / 11 min.												13.2m² / 15 min.			
Power supply			1 Phase, 220–240/220–230V, 50/60Hz															
Plug shape			BF type															
Mode			Air purifying operation				Humidifying operation				Air purifying operation							
			Quiet	Low	Standard	Turbo	Quiet	Low	Standard	Turbo	Quiet	Low	Standard	Turbo	Quiet	Low	Standard	Turbo
Airflow rate		m³/min.	0.9	2.0	3.2	5.5	1.7	2.4	3.2	5.5	1.1	2.0	3.2	5.5	1.1	1.8	2.8	4.0
Power consumption		W	7	10	17	56	11	14	19	58	8	10	15	37	7	9	13	23
Sound pressure level		dB	19	29	39	53	25	33	39	53	19	29	39	53	19	27	36	49
Humidification*2		mL/h	—	—	—	—	(200)	(240)	(300)	500	—	—	—	—	—	—	—	—
Dimensions		mm	H700 × W270 × D270 (H718 with caster)								H500 × W270 × D270							
Weight		kg	9.5 (Without water)								6.8							
Dust collection filter			Electrostatic HEPA filter*3															
Humidifying method			Evaporation type Element								———							
Tank capacity			About 2.7L								———							
Optional accessories	Replacement filter	Dust collection	KAFP080B4E (1 sheet) (Purchase of new filters is needed after about 10 years)*4															
		Deodorising	———															
		Humidifying	KNME080A4E (2 sheets of 1 set) (Purchase of new filters is needed after about 10 years)								———							

Note:
*1 Calculated by test method based on Japan Electrical Manufacturers' Association Standard JEM1467.
*2 Humidifying capacity by JEM1426 (electric humidifier) at temperature of 20°C and humidity of 30%.
The values in parentheses are for reference purposes only.
*3 Test method based on Japan Electrical Manufacturers' Association Standard JEM1467.
*4 Verified by test method based on JEM1467. The standard assumes five cigarettes are smoked per day.
Not all harmful substances in cigarette smoke (carbon monoxide, etc.) can be removed.
Filter lifespan may vary depending on the operating conditions.
*5 Verified by test method based on JEM1467. The standard assumes ten cigarettes are smoked per day.
Not all harmful substances in cigarette smoke (carbon monoxide, etc.) can be removed.
Filter lifespan may vary depending on the operating conditions.

Specifications

MODEL			Streamer Air Purifier 30 type
			NEW  MC30YBFVM3
			Max. airflow 3.0m³/min.
Colour			White
Applicable room area*1	Air purification		23 m²
Approximate room cleaning time*1			13.2m² / 19 min.
Power supply			1 Phase, 220–240/220–230V, 50/60Hz
Plug shape			BF type
Mode			Air purifying operation
			Quiet / Standard / Turbo
Airflow rate	m³/min.		1.0 / 2.0 / 3.0
Power consumption	W		8 / 15 / 25
Sound pressure level	dB		19 / 27 / 37
Humidification	mL/h		———
Dimensions	mm		H450 × W270 × D270
Weight	kg		5.8
Dust collection filter			Electrostatic HEPA filter*3
Humidifying method			———
Tank capacity			———
Optional accessories	Replacement filter	Dust collection	BAFP500A (1 sheet) (Purchase of new filters is needed after about 10 years)*4
		Deodorising	———
		Humidifying	———

About the dust collection and deodorising capacity of air purifiers:
- Not all harmful substances in cigarette smoke (carbon monoxide, etc.) can be removed.
- Not all odour components that emanate continuously (building material odours and pet odours, etc.) can be removed.

This product is not a medical device, medical treatment device or a therapeutic good.
This product is not intended to have any therapeutic use or to be used for the diagnosis, treatment, relief or prevention of illness.
If you have a health concern or are not feeling well, please consult a health care professional.

Functions

		 MCK55VBFVM	 MC55VBFVM3	 MC40VBFVM3	NEW  MC30YBFVM3
	Humidification	●	—	—	—
1	Humidity sensor	●	—	—	—
2	Dust (PM2.5/dust) and odour sensor lamps	●	●	●	—
3	Dust and odour sensor lamps	—	—	—	—
4	Streamer discharge	●	●	●	●
5	Active plasma ion	●	●	—	—
6	Electrostatic HEPA Filter*1	●	●	●	●
7	Electric dust collection	—	—	—	—
8	Pleated dust collection filter	—	—	—	—
9	Titanium apatite deodorising filter	—	—	—	—
10	Deodorising filter	●	●	●	●
11	Moist mode	●	—	—	—
12	Econo mode	●	●	●	—
13	Auto fan mode	●	●	●	—
14	Anti-pollen mode	●	●	●	—
15	Sleep mode	—	—	—	—
16	Turbo mode	●	●	●	●
17	Haze mode	—	—	—	●
18	Off timer	—	—	—	—
19	Child proof lock	●	●	—	●
20	Brightness adjustment	●	●	●	●
21	Auto-restart after power failure	●	●	●	●
22	Stabilizer free	●	●	●	●

Functions

1 Humidity sensor

Humidity is detected and shown by an easy-to-understand indicator.

2 Dust (PM2.5/dust) and odour sensor lamps

“Triple detection” is performed by a dust sensor (which distinguishes small particles, such as PM2.5 and larger particles of dust, and reacts accordingly) and an odour sensor.

3 Dust and odour sensor lamps

Dust and odours are detected and shown in 3 easy-to-understand colours to indicate the level.

4 Streamer discharge

This function quickly decomposes odours and allergens, etc., with high speed electrons that have a powerful ability to oxidize.

5 Active plasma ion

The active plasma ion technology decomposes odours and allergens in the air by plasma ions with strong oxidizing power.

6 Electrostatic HEPA filter*1

There is a high-performance filter that catches 99.97% of 0.3μm fine particles.*2

7 Electric dust collection

Dust and pollen are collected by charging them positively and using the electrostatic dust collection filter charged negatively.

8 Pleated dust collection filter

Very economical, the air purifier comes standard with 5 replacement filters. You will not have to buy filters for 10 years (1 filter can be used for 2 years).

9 Titanium apatite deodorising filter

Odours and allergens are thoroughly adsorbed by the titanium apatite and then removed.

10 Deodorising filter

Odours are caught on the deodorising filter.
The air purifier utilizes streamer to decompose these odours and adjuvants on the filter.

11 Moist mode

Automatic control maintains relatively high humidity that is gentle to the throat and the skin.

12 Econo mode

Operation automatically switches only between “Quiet” and “Low” modes in accordance with the degree of polluted air.

13 Auto fan mode

The air purifier is run, without wasteful operation, only in accordance with the level of pollutants in the air, which is detected by the sensor.

14 Anti-pollen mode

Switching between “standard” and “low” modes to create a gentle turbulence, pollen is caught before it lands on the floor.

15 Sleep mode

Operation automatically switches only between “Quiet” and “Low” modes in accordance with how polluted the air is. This is recommended for times such as when sleeping.

16 Turbo mode

This convenient mode provides high-power operation to quickly clean the air in a room when, for example, you come home or when you have guests over.

17 Haze mode

The dust absorption capacity at a Turbo fan speed for 90 minutes and change to a Standard fan speed with a Streamer discharge to fast cleanse the indoor air.

18 Off timer

Operation stop time can be set.

19 Child proof lock

This can be used to prevent small children from mishandling the air purifier.

20 Brightness adjustment

The brightness of the indicator panel lamp can be adjusted.

21 Auto-Restart after Power Failure

The air purifier memorises the settings for mode, airflow, etc., and automatically returns to them when power is restored after a power failure.

22 Stabilizer free

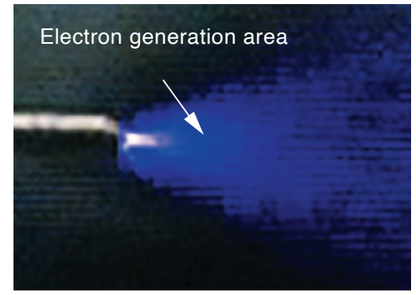
Stabilizer free operation protects the vital components of machine from power fluctuations. With this function installing stabilizer becomes needless (voltage range protection: 180～264V).
If power fluctuation is beyond the limit mentioned then a stabilizer is required.

Note:
*1 Test method based on Japan Electrical Manufacturers' Association Standard JEM1467.
*2 This is removal performance of filter and not removal performance for entire room.

Test results of Streamer devices

Experimental Results of Daikin Streamer Technology

“Streamer Discharge” is a type of plasma discharge which generates high speed electrons that combine with oxygen and nitrogen in the air and turn into active species with strong oxidative decomposition power and thereby eliminate allergens such as mould, mites (droppings and dead mites), and pollen, and hazardous chemical substances such as formaldehyde. Compared to standard plasma discharge (glow discharge), its speed of oxidative decomposition is over 1000 times greater with the same electrical power.
The decomposition power is comparable to thermal energy of about 100,000°C.*1



Note:
*1 Comparison of oxidation decomposition. This does not mean temperature will become high.

These are effects in a Streamer test space and not verification results in an actual operation space.

Experiment results of the Streamer technology that have been verified so far.

Viruses

Test target	Testing organaization	Test method	Report date
Norovirus	Kobe University Graduate School	ELISA method	12-Jan-2007
Avian influenza virus (Type A-H5N1)	Vietnam National Institute of Hygiene and Epidemiology	CPE and TCID50	16-Apr-2009
Influenza virus (Type A-H1N1)	Kitasato Research Center for Environmental Science	CPE and TCID50	31-Jul-2009
Influenza virus (Type A-H3N2)	Shanghai City Center for Disease Control and Prevention, etc.	CPE and TCID50	8-Feb-2010
RS virus	Wakayama Medical University	CPE and TCID50	13-Apr-2012
Adenovirus	Kitasato Research Center for Environmental Science	CPE and TCID50	23-Jun-2017
Coxsackievirus		CPE and TCID50	
Enterovirus		CPE and TCID50	
Echovirus		CPE and TCID50	
Measles		CPE and TCID50	
Mouse Norovirus	The University of Tokyo Graduate School	CPE and TCID50	11-Oct-2018
Mouse Coronavirus	The University of Tokyo Graduate School	Plaque assay	28-Apr-2020
Novel Coronavirus (SARS-CoV-2)	Okayama University of Science	CPE and TCID50	8-Jul-2020

This result was obtained by using a Streamer discharge device for testing in lab conditions.
The effect of products equipped with Streamer technology or results in actual use environments may differ.

Experimental Results of Daikin Streamer Technology

STREAMER

Scan here for more
DAIKIN Streamer Research Institute

Bacteria

Test target	Testing organaization	Test method	Report date
Escherichia coli	Japan Food Research Laboratories	Pour plate culture method	8-Apr-2004
Staphylococcus aureus		Pour plate culture method	8-Apr-2004
Enterotoxin		ELISA method	25-Aug-2004
Tubercle bacilli	Kitasato Research Center for Environmental Science	Plaque assay	8-Mar-2010
Vancomycin-resistant enterococci (VRE)	Japan Food Research Laboratories	Pour plate culture method	19-Feb-2010
Methicillin-resistant Staphylococcus aureus (MRSA)		Pour plate culture method	19-Feb-2010
Pseudomonas aeruginosa		Pour plate culture method	12-Apr-2010
Bacillus, Serratia, and Arthrobacter		Pour plate culture method	29-Sep-2010
Escherichia coli		Pour plate culture method	10-Sep-2018
Moraxella bacteria		Pour plate culture method	10-Jun-2019

Molds

Test target	Testing organaization	Test method	Report date
Mold (Black mold)	Japan Food Research Laboratories	Pour plate culture method	28-Sep-2004

Allergens

Test target	Testing organaization	Test method	Report date
Molds and mites (feces and carcasses)	Wakayama Medical University	Observation by electron microscope, ELISA method	14-Sep-2004
Pollen + exhaust gas + PM2.5	Yamagata University under the supervision of Professor Shirasawa, Tohoku Bunka Gakuen University	IgE antibody test, ELISA method	8-Nov-2017
Mites (feces and carcasses) + cedar pollen		ELISA method	8-Nov-2017
Pollens (16 kinds)	L.S.L. Asaka Research Laboratory under the supervision of Project Professor Kusakabe, graduate school of the University of Tokyo	ELISA method	23-Jan-2020

Hazardous gases

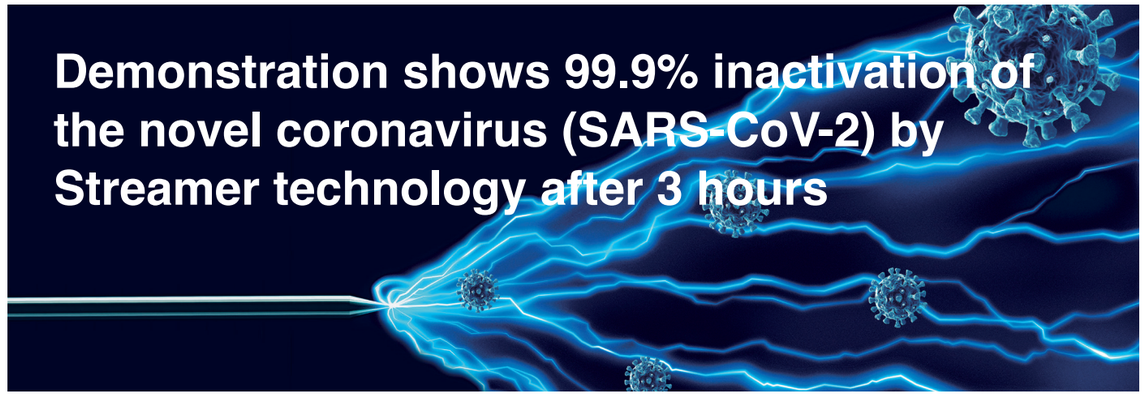
Test target	Testing organaization	Test method	Report date
Adjuvant suppression effect (DEP)	Wakayama Medical University National Institute for Environmental Studies	ELISA method	1-Nov-2005
Adjuvant (VOC)	Tohoku Bunka Gakuen University	Attenuation method	8-Dec-2006

This product can be used to improve the quality of the air by removing airborne hazardous chemical substances, allergens, mould, bacteria, and viruses, etc. However, this product is not intended for the creation of sterile environments or for the prevention pathogen infections.

This description relates to the Streamer Technology devised by Daikin, but not to this Air Purifier.
Test results from use of the Streamer Technology are generated according to prescribed test methods conducted by Daikin. Although the Streamer Technology is contained within this Air Purifier, this does not mean that precisely the same results will be experienced using this Air Purifier. Actual results may differ depending on the conditions of product installation and use of the actual product, etc.

This result was obtained by using a Streamer discharge device for testing in lab conditions.
The effect of products equipped with Streamer technology or results in actual use environments may differ.

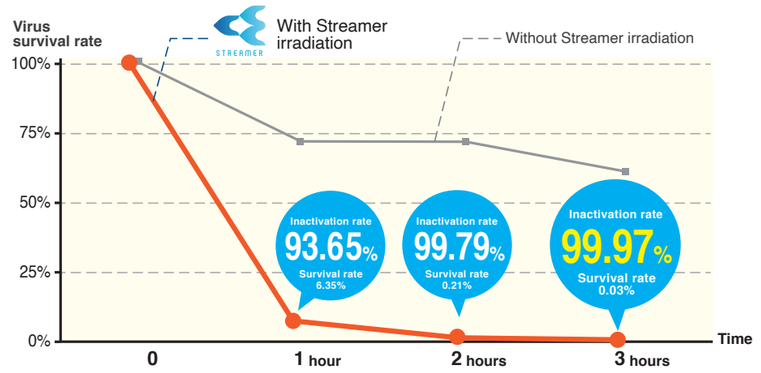
Demonstration of the inactivating effects of Streamer technology on the novel coronavirus (SARS-CoV-2)



Experimental Results

Daikin Industries, Ltd., in collaboration with a group of research professors led by Professor Shigeru Morikawa from the Department of Microbiology in the Faculty of Veterinary Medicine at the Okayama University of Science, has demonstrated the inactivating effects of Streamer technology on the novel coronavirus (SARS-CoV-2).

In the test, Streamer irradiation inactivated SAR-CoV-2 by 93.7% after 1 hour, 99.8% after 2 hours, and more than 99.9% after 3 hours.



Source:
"Study report on the inactivation effect of plasma ion generator (Daikin Streamer) onSARS-CoV-2" written by Shigeru Morikawa, Department of Veterinary Medicine, Microbiology Course, Okayama University of Science.

Test Organization

Testing was performed by a research group at the Department of Microbiology in the Faculty of Veterinary Medicine from the Okayama University of Science and was led by Professor Shigeru Morikawa.

Test Method

Two acrylic boxes of about 31L were mounted inside a safety cabinet. One box was equipped with a Streamer discharge device, and the other box was not. A see-saw rocking motion shaker was placed in each box, and a six-well plate was placed on top of the motion shaker. Virus solution measuring 0.5 ml was put into each well of the plates, and Streamer irradiation was performed while agitating the solution using the motion shaker (approximately 12 times per minute). Virus solution was collected from two wells every hour for three hours, and viral load was measured. The viral load of SARS-CoV-2 was quantified by the TCID50 method using Vero E6 / TMPRSS2 cells.

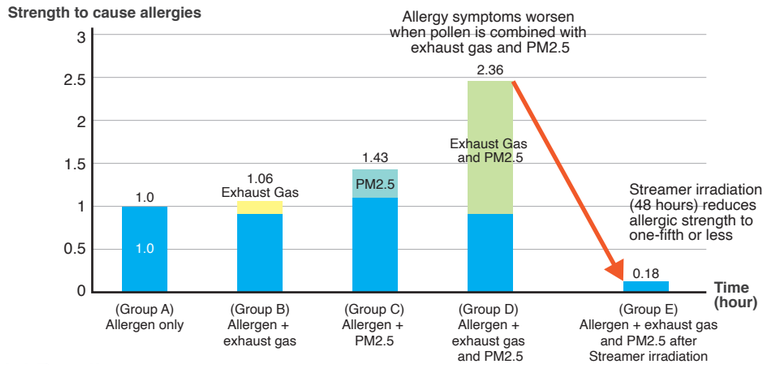
This result was obtained by using a Streamer discharge device for testing in lab conditions.
The effect of products equipped with Streamer technology or results in actual use environments may differ.

Experimental Results of Daikin Streamer Technology

Simultaneous decomposition of pollen + exhaust gas and PM2.5 which aggravate hay fever

Demonstration test results confirmed that Streamer technology decomposes cedar pollen. At the same time, it also decomposes exhaust gas (diesel exhaust particles) and PM2.5, which aggravate hay fever, and dramatically reduces the intensity of allergic reactions.

Simultaneous decomposition of pollen + exhaust gas and PM2.5 reduces allergenic strength by 92.4%



Experimental Results

In the test, the allergenic strength of Group D, which had exhaust gas and PM2.5 added to the allergen, was 2.36 times higher than Group A, which contained only the pollen allergen. This suggests that the simultaneous administration of a mixture of exhaust gas and PM2.5 enhanced the immune reaction that causes allergy symptoms such as hay fever.
On the other hand, the allergenic strength of Group E, which was exposed to the Streamer for 48 hours, was reduced by 92.4% compared to Group D.

Test Organization

Demonstration test was performed at Yamagata University under the supervision of Professor Nobuyuki Shirasawa, Tohoku Bunka Gakuen University.

Test Method

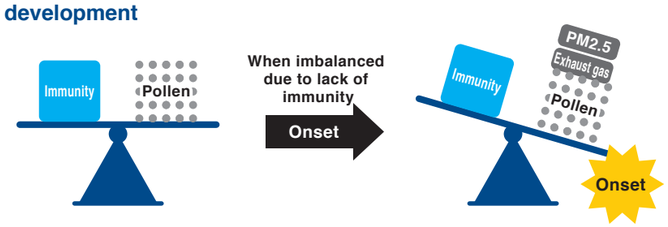
A comparative experiment was performed on 3 groups of mice. Allergen only (Group A), allergen + exhaust gas (Group B), allergen + PM2.5 (Group C), allergen + exhaust gas and PM2.5 (Group D) , allergen + exhaust gas and PM2.5 after the Streamer irradiation (Group E), were administered respectively. Administration to mice was continued every two weeks. Eight weeks later, the mice were tested for blood concentration of the IgE antibody*1. As an alternative to pollen, ovalbumin was used as the allergen since it is a substance typically used in immunity experiments.

*1: When a reaction with an allergen occurs in the body, an IgE antibody that can bind only to the allergen is produced, and when the reentered allergen reacts with the IgE antibody, various allergic symptoms are caused. Since it is detected only in a very small amount in healthy people, it is generally used for immunological tests.

Hay fever development

Adjuvant substances that aggravate allergy symptoms may adhere to pollen and upset the previously maintained balance of immunity and pollen, increasing the risk of developing hay fever.

Image of hay fever development



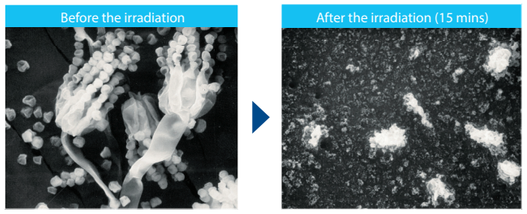
This result was obtained by using a Streamer discharge device for testing in lab conditions.
The effect of products equipped with Streamer technology or results in actual use environments may differ.

Decomposes molds and mites (feces and carcasses) and suppresses the causes of allergies.

Demonstration test results confirmed that Streamer technology decomposes molds and mites (feces and carcasses) and suppresses the causes of allergies.

Demonstration of mold

Picture of mold



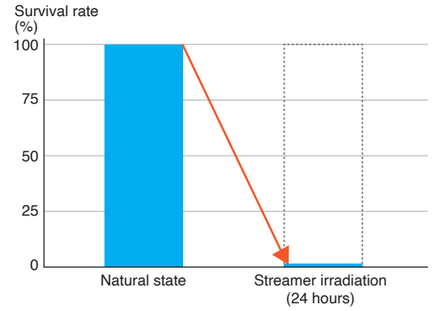
Test Organization

Demonstration test was performed at Wakayama Medical University.

Test Method

“Molds” were placed on the electrodes of a Streamer discharge unit where they were exposed to Streamer discharge for 15 minutes and photographed with an electron microscope.

Demonstration of mold suppression



Experimental Results

Demonstration test results confirmed that 99.9% of the molds was suppressed in 24 hours by Streamer irradiation.

Test Organization

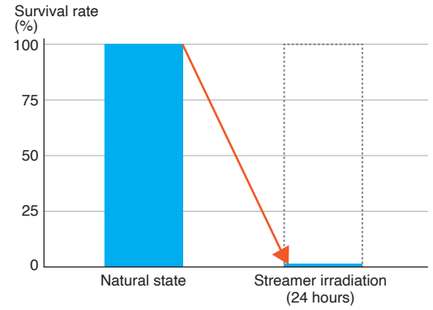
Demonstration test was performed at Japan Food Research Laboratories.

Test Method

A test piece in which the bacterial solution was cultured was placed in a container, the test Streamer discharge device was operated, and the viable cell count was measured after 24 hours.

Note:
It is important to show that this could only suppress 99.9%, but not 100%, which might lead the misunderstanding to the customers.

Demonstration of mite allergy suppression (feces and carcasses)



Experimental Results

Demonstration test results confirmed 99.6% suppression of mite allergy (feces and carcasses) after 24 hours of Streamer irradiation.

Test Organization

Demonstration test was performed at Wakayama Medical University.

Test Method

Allergen analysis was confirmed by ELISA method using a test Streamer discharge device.

Note:
It is important to show that this could only suppress 99.9%, but not 100%, which might lead the misunderstanding to the customers.

Relationship between molds, mites, and allergies

Since both molds and mites prefer a moist environment, they breed when humidity is high. Moreover, because mites in the room feed on molds, mites are more likely to occur in places where molds breed. When these molds and mite feces and carcasses contact human skin or are inhaled, they cause various allergy symptoms such as atopic dermatitis, asthma, rhinitis, and itchy eyes.

This result was obtained by using a Streamer discharge device for testing in lab conditions.
The effect of products equipped with Streamer technology or results in actual use environments may differ.

Streamer

Experimental Results of Daikin Streamer Technology

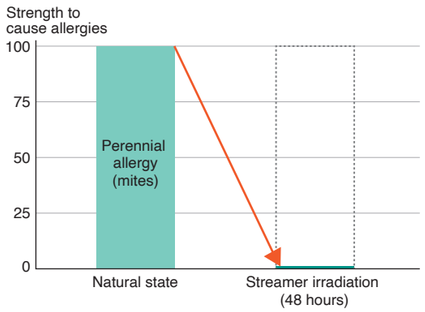
Decomposes the house dust (mite feces and carcasses) that causes perennial allergy symptoms

Demonstration test results confirmed that Streamer technology decomposes the house dust (mite feces and carcasses) that causes perennial allergies. It was also shown that the combination of perennial and seasonal allergies can aggravate or increase the likelihood of developing allergy symptoms. However, using Streamer to decompose these causative substances helps prevent allergy symptoms from developing.

Suppression of allergy symptoms caused by mites (feces and carcasses)

Experimental Results

Demonstration test results confirmed that Streamer irradiation is effective in suppressing 99% or more of the allergy symptoms caused by mites (feces and carcasses) in 48 hours.



Test Organization

Demonstration test was performed at Yamagata University under the supervision of Professor Nobuyuki Shirasawa, Tohoku Bunka Gakuen University.

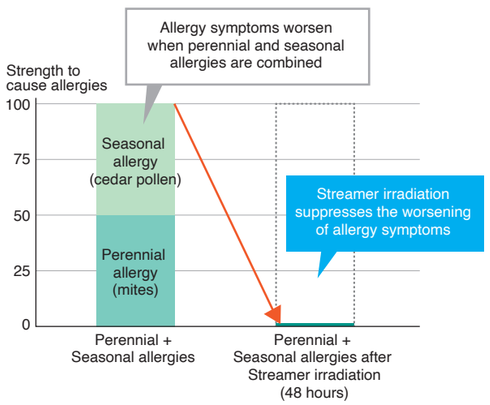
Test Method

House dust mite antigen (Dermatophagoides pteronyssinus), a typical causative agent of perennial allergies, was irradiated by Streamer at different times. The inactivation rate (the rate of loss of allergic ability) was measured by the allergen activity before and after irradiation by the ELISA method (a method of detecting and quantifying the ability of an allergen to bind to an antibody by using an enzymatic reaction).

Suppression of allergy symptoms caused by mites (feces and carcasses) + cedar pollen

Experimental Results

Demonstration test results confirmed that Streamer irradiation is effective in suppressing 99% or more of the deterioration of allergy symptoms caused by mites (feces and carcasses) and cedar pollen in 48 hours.



Test Organization

Demonstration test was performed at Yamagata University under the supervision of Professor Nobuyuki Shirasawa, Tohoku Bunka Gakuen University.

Test Method

House dust mite antigen (Dermatophagoides pteronyssinus), a typical causative agent of perennial allergies, and cedar pollen antigen, a typical causative agent of seasonal allergies, were irradiated by Streamer at different times. The inactivation rate (the rate of loss of allergic ability) was measured by the allergen activity before and after irradiation by the ELISA method (a method of detecting and quantifying the ability of an allergen to bind to an antibody by using an enzymatic reaction).

This result was obtained by using a Streamer discharge device for testing in lab conditions.
The effect of products equipped with Streamer technology or results in actual use environments may differ.

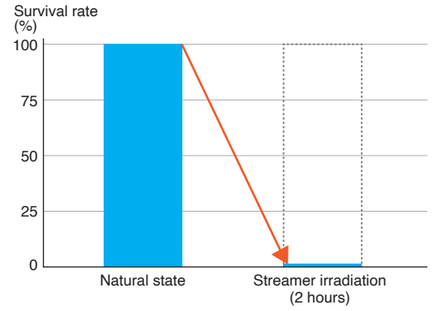
Decomposes and suppresses Moraxella bacterium, the cause of damp odor for laundry

The Moraxella bacterium is known to be the cause of the unpleasant damp odor that occurs when drying clothes indoors. Research has confirmed that Streamer technology decomposes and suppresses the bacteria causing this damp odor.

Demonstration of suppression of Moraxella bacterium Bacillus (causative agent of the laundry's damp odor)

Experimental Results

Demonstration test results confirmed that Moraxella bacterium (causative agent of the laundry's damp odor) was 99.8% decomposed and suppressed in 2 hours after Streamer irradiation.



Test Organization

Demonstration test was performed at Japan Food Research Laboratories.

Test Method

A sample containing 2 ml of the test bacterial solution in a petri dish (ϕ60 mm) was left to stand in the Streamer generator. The suppression effect was obtained from the results of measuring the number of bacteria after 1, 2, 3, 4, and 6 hours. The Streamer discharge device and test bacteria were provided by Daikin. This was measured 3 times.

Note:
From the above image, it seems like the graph is incomplete and not properly factored-in with descriptions.

To suppress laundry's damp odor, it is ideal to dry it within 5 hours!

The most important factor for preventing a damp odor when hanging laundry to dry indoors is the "time elapsing from the end of washing to the end of drying." Because Moraxella bacteria explosively grows after about 5 hours, you need to dry laundry within 5 hours of washing so that you can largely suppress a damp odor. The trick to drying clothes indoors is to first hang them in a well-ventilated place. Many people hang laundry on a curtain rail, but that is the worst place to hang laundry since moisture and germs naturally accumulate near the window. This makes it necessary to devise an effective method for hanging clothes.

“Arch drying” is a method in which wet clothes hang on a square hanger in an arch pattern with the long-hanging clothes placed at both ends and the short-hanging clothes placed in the middle. “Ghost drying” is a method in which the sleeves of a long-sleeved shirt rest on a separate hanger.
In addition to these methods, using a dehumidifier or air conditioner equipped with an air cleaning function is recommended to combat bacteria growth.

People worried about laundry odor are encouraged to use these tricks to help prevent their unpleasant laundry odor.

This result was obtained by using a Streamer discharge device for testing in lab conditions.
The effect of products equipped with Streamer technology or results in actual use environments may differ.

Streamer

Daikin's Active Plasma Ion Technology

The plasma ion technology uses plasma discharge to release ions into the air, which combine with components of the air to form active species with strong oxidizing power like OH radical. They attach to the surface of fungi and allergens and decompose proteins in the air by oxidation.

Daikin's plasma ions have been proved to be safe.
Safety concerning effect on skin, eyes, and respiratory organs
Testing organization: Life Science Laboratories, Ltd.
Name of test: repeated-dose toxicity test
Test number: 12-II A2-0401

Assumed mechanism of elimination

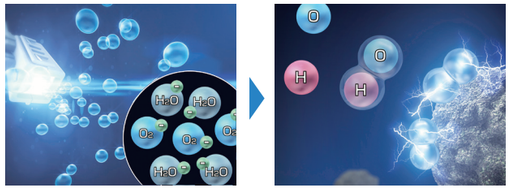


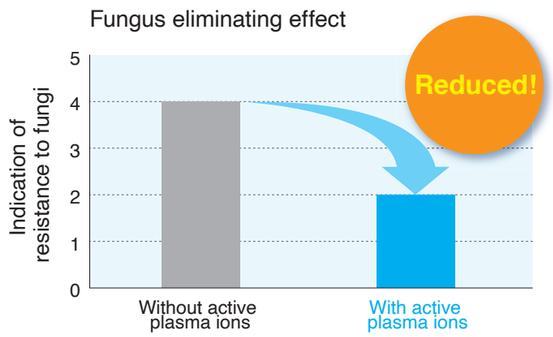
Image is for illustrative purposes

Concentration: 25,000 ions/cm³ *1

Note:
*1 The number of ions per 1cm³ of air blown into the atmosphere measured near the air outlet during operation with maximum airflow.
Test conditions: temperature 25°C, humidity 50%

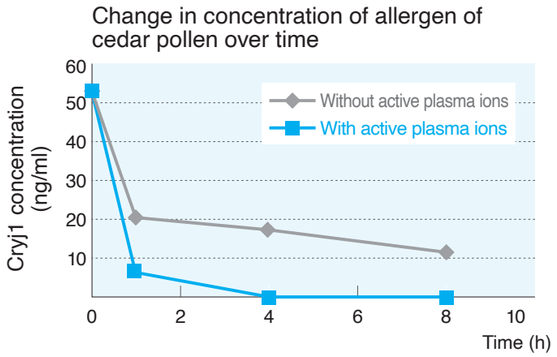
These are effects in an active plasma ion test space and not verification results in an actual operation space.

Reduction of attached fungi



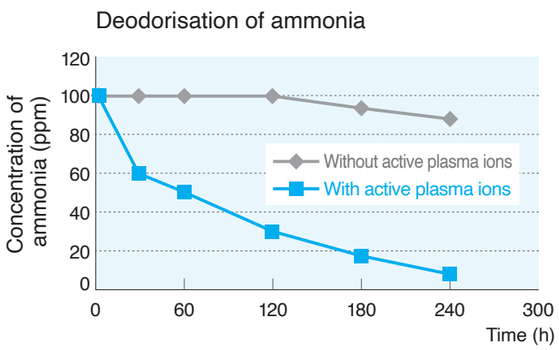
Test name: test of resistance to fungi.
Testing organization: Japan Spinners Inspecting Foundation.
Test number: 019190-1.
Test result: After cultivation in a 9L container according to Japanese Industrial Standard JISZ2911, generation of fungi was reduced to less than half.

Reduction of allergens



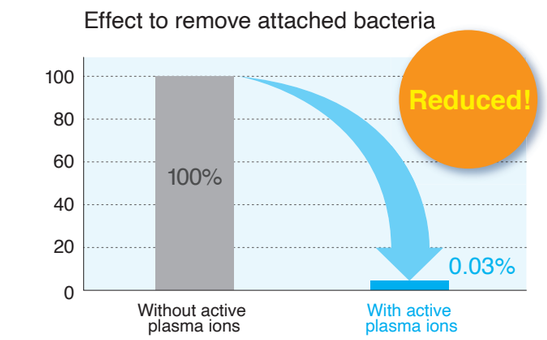
Test name: Test of reduction of allergen of cedar pollen.
Testing organization: ITEA/Institute of Tokyo Environmental Allergy.
Test number: 11MRPTMAY031.
Test result: Allergen of cedar pollen in a 45L container was reduced by more than 95.5% in about 8 hours.

Deodorisation



Test name: Deodorisation test.
Testing organization: Japan Spinners' Inspecting Foundation.
Test number: 200097-1.
Test result: In a 5L container, ammonia was reduced by 92.3% in about 240 minutes.

Reduction of attached bacteria



Test name: antibacterial test.
Testing organization: Japan Spinners' Inspecting Foundation.
Test number: 028669.
Test result: In a 9L container, reduced by more than 99.97% in 24 hours