DAIKIN

AP-1123-F

Air Purifier

Healthy Air Because of DAIKIN

‘Pure’ Air



Scan to watch our exclusive Air Purifier video!

Bahasa Melayu Version

Chinese Version

TWIN STREAMER

STREAMER

Smart Control

Double Method

BRITISH ALLERGY FOUNDATION · ALLERGY UK SEAL OF APPROVAL ·

STREAMER

Model debut in a compact and stylish design!

MC80ZVMM

Dust collection | Deodorisation

Capacity in turbo operation mode

Air purification
Air purification only Airflow 8.0 m³/min.
Applicable room area ~62m² (667 sq ft)*1
Approximate room cleaning time 13.2m²/8min

MCK55UVMM

Humidification | Dust collection | Deodorisation

Capacity in turbo operation mode

Air purification		Humidifying capacity*2
Air purification only Airflow 5.5 m³/min.	Humidification + air purification Airflow 5.5 m³/min.	500 mL/h
Applicable room area ~ 41m² (441 sq ft)*1		Applicable room area Prefab: ~23m² (248 sq ft) Wooden: ~14m² (151 sq ft)
Approximate room cleaning time 13.2m²/11min.		

MC55XVMM

Dust collection | Deodorisation

Capacity in turbo operation mode

Air purification
Air purification only Airflow 5.5 m³/min.
Applicable room area ~ 41m² (441 sq ft)*1
Approximate room cleaning time 13.2m²/11min.

MC40XVMM

Dust collection | Deodorisation

Capacity in turbo operation mode

Air purification
Air purification only Airflow 4.0 m³/min.
Applicable room area ~ 31m² (333 sq ft)*1
Approximate room cleaning time 13.2m²/15min.

MC30YVMM

Dust collection | Deodorisation

Capacity in turbo operation mode

Air purification
Air purification only Airflow 3.0 m³/min.
Applicable room area ~ 23m² (248 sq ft)*1
Approximate room cleaning time 13.2m²/19min.

MCQ30ZVMM-H

Dust collection

Capacity in turbo operation mode

Air purification
Air purification only Airflow 3.0 m³/min.
Applicable room area ~ 23m² (248 sq ft)*1
Approximate room cleaning time 13.2m²/19min.

Note:

*1 Calculated by test method based on Japan Electrical Manufacturers' Association Standard JEM1467. Operation during turbo mode has been approximated.

*2 Humidifying capacity by JEM1426 (electric humidifier) with turbo operation at temperature of 20˚C and humidity of 30%.



Twin Streamer

Twice the power of harmful substances and odours

Equipped with twice the Steamer units compared to conventional models, it also features a structural design that irradiates the filter even more effectively.

Removal of harmful gases is **twice** as fast. *1

(Comparison with conventional Daikin products)

This is an effect in a test space and not a test result in an actual operation space.

Equipped with twice the Streamer units compared to conventional models, it decomposes harmful gases such as exhaust gas at twice the speed.

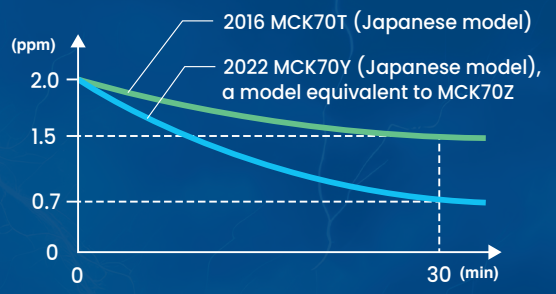
Deodorising capacity is **twice** as much. *2

(Comparison with conventional Daikin products)

The effect was in a test space of 29.4 m^3 after 30 minutes of operation and was not a test result in an actual operation space.

The deodorising filter absorbs odours, and twin streamer quickly decomposes them. Combining the effect of the deodorising filter doubles the amount of deodorisation.

• Change in indoor ammonia concentration

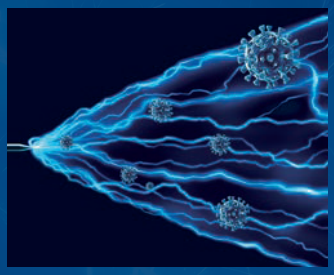


Removal of bacteria is **twice** as fast. *3

(Comparison with conventional Daikin products)

• Removes bacteria on the TAFU-HEPA filter. *4

The effect was in a closed test space of approximately 25 m^3 after 2.5 hours of operation and was not a test result in an actual operation space.



Note:

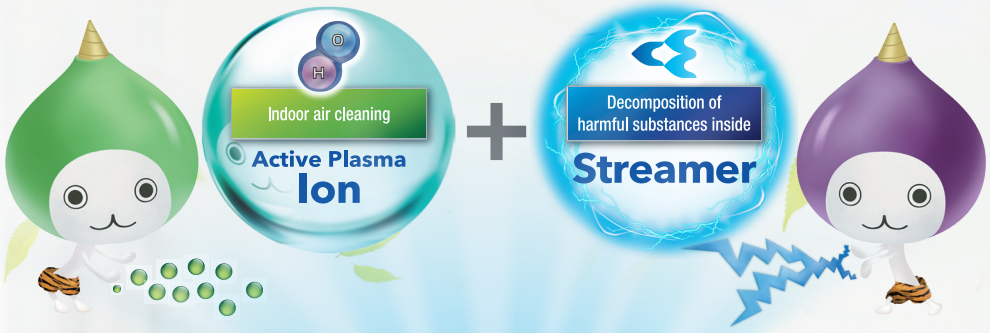
*1 Placed an air purifier in a 1m^3 box and operated. (at maximum Streamer output operation).
Measured the change in acetaldehyde concentration in cigarette smoke as an exhaust gas-derived VOC.
(Daikin evaluation) Confirmed that acetaldehyde concentration decreased by half after 10 minutes in the 1m^3 box.
Test unit: MCK70Y (Japanese model), a model equivalent to MCK70Z and 2016 MCK70T (Japanese model).

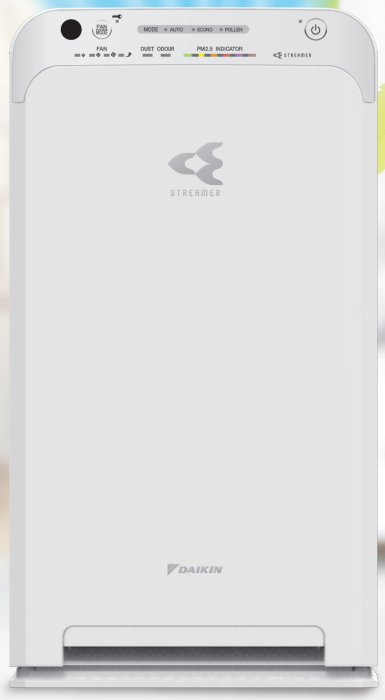
*2 Measured the change in ammonia concentration due to tobacco in a test space of 29m^3, and compared decrease from a concentration equivalent to Level 3 on the odour intensity scale.
(Daikin evaluation) Test result: Confirmed that indoor ammonia concentration decreased by half after 30 minutes.Comparison between 2022 MCK70Y (Japanese model), a model equivalent to MCK70Z and 2016 MCK70T (Japanese model).

*3 Twin streamer: reduced by more than 99% in 2.5 hours;
Streamer: reduced by more than 99% in 5 hours
Test unit (Twin streamer):2022 MCK70Y (Japanese model), a model equivalent to MCK70Z.
Test unit (Streamer): 2015 MCK70S (Japanese model).

*4 Testing organization: Shokukanken Inc. Test number: 227072N.
Test method: Attached a test piece inoculated with bacterial liquid on the upstream side of the dust collection filter installed into the air purifier, and operated in a closed test space of 25m^3. Counted the number of live bacteria after 2.5 hours.
Test object: One bacterium type.
Test result: Reduced by more than 99% after 2.5 hours.
Test unit: Tested with MCK70Z (Japanese model), a model equivalent to MCK70Z (turbo operation).

Double Method





Pollutants that can be captured and deodorised by filters:

- House dust
- Pollen (cedar,etc.)
- Yellow dust
- PM2.5
- Wheat flour
- Body odour
- City exhaust gas (trichloroethylene,etc.)
- NOx
- VOC-type chemical substances
- Moulds
- Dog epidermis (dander)
- Cigarette smoke odour
- Cat epidermis (dander)
- Hamster epidermis (dander)
- Pet hair
- Ammonia
- Garbage odour
- Cooking odour
- Indoor air pollutants (formaldehyde, etc.)
- Diesel exhaust particulates (DEP)
- Cockroaches (droppings)
- House dust mites (droppings and dead mites)
- Mould odour
- Pet odour

Pollutants that can be reduced:

- Floating viruses
- Floating mould
- Attached viruses
- Attached bacteria
- Attached odour

Daikin's Unique Double Method



OUTSIDE

* MCK55 and MC55 models only.

Active Plasma Ion Flow Out

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.

Mechanism of reduction by active plasma ions

Concentration: 25,000 ions/cm³

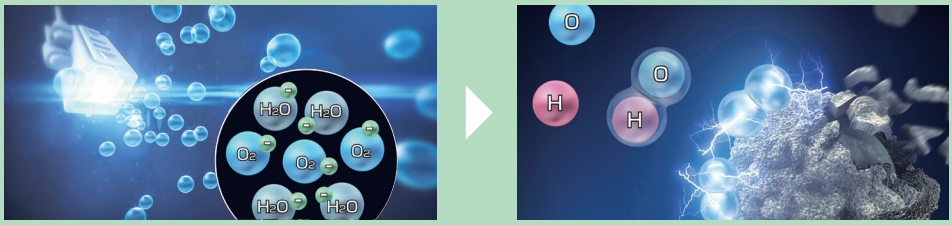


Image is for illustrative purposes

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%.

Daikin's plasma ions have been proven to be safe in regards to effects 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

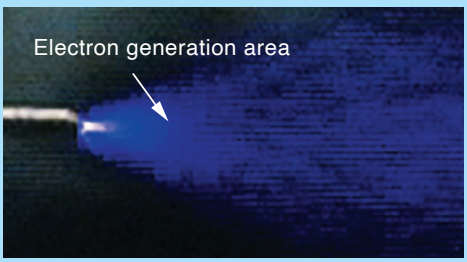


INSIDE

Decomposition By Streamer

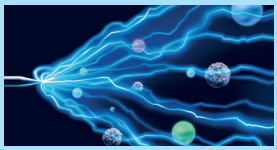
Streamer, a type of plasma discharge, decomposes hazardous chemical substances. The decomposition power is comparable to thermal energy of about 100,000°C.*2

Mechanism of decomposition by STREAMER

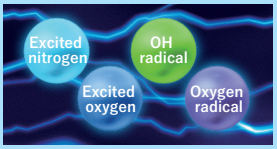


Note:

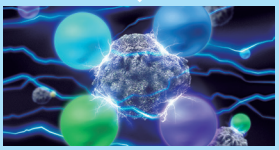
*2 Comparison of oxidation decomposition. This does not mean temperature will become high.



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 break down and decompose harmful substances caught by the filter.

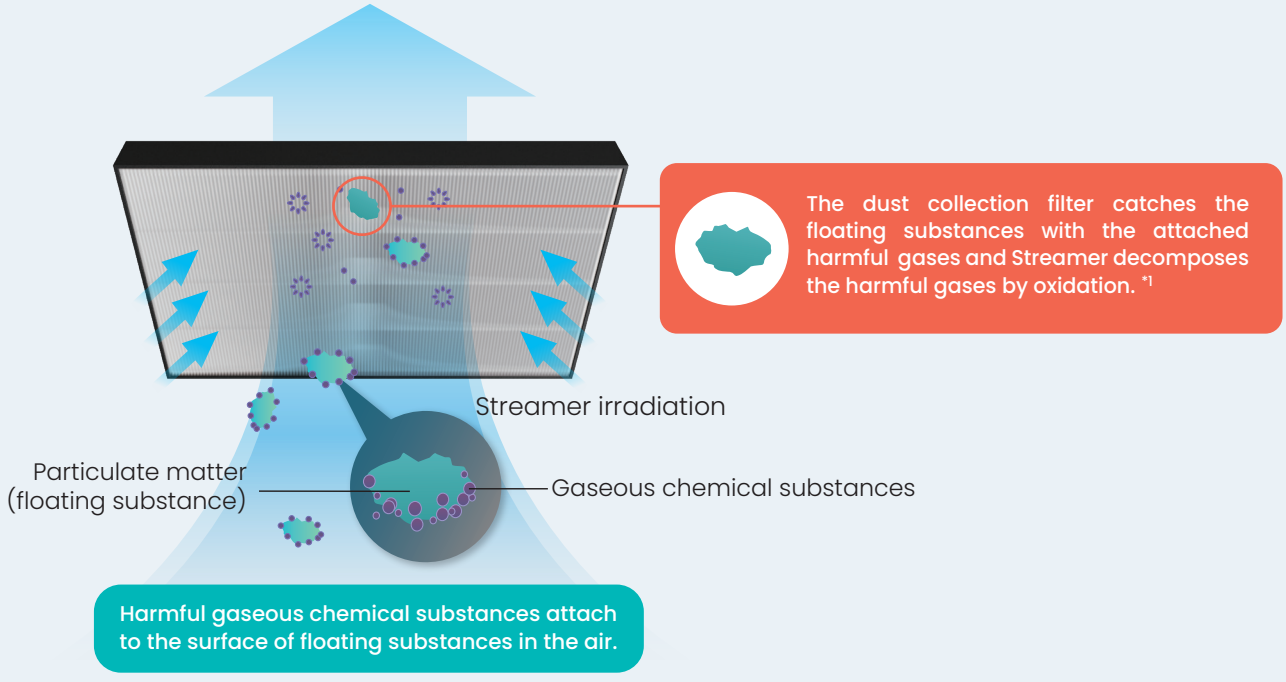
The 3C's of Streamer

The Streamer symbol consists of three C's





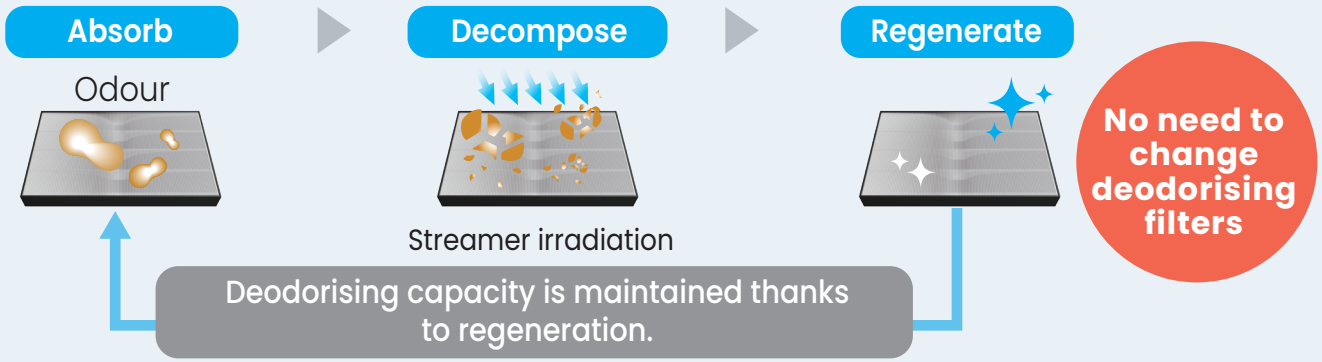
1st C CLASH | Decomposes harmful substances on the dust collection filter by oxidation!



2nd C CYCLE

The deodorising filter absorbs and decomposes odour

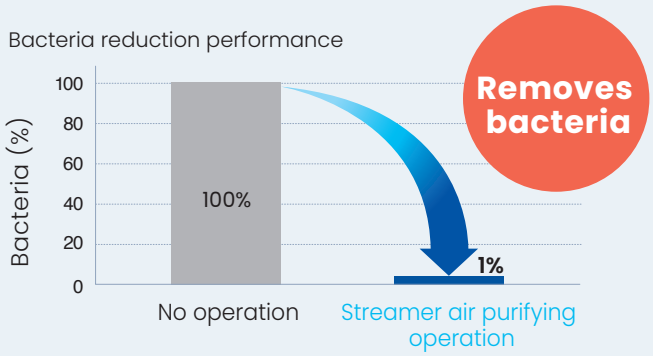
The deodorising capacity is maintained because the adsorbing capacity regenerates.
(Comparison with conventional Daikin products. Evaluation under conditions set by Daikin.) *2



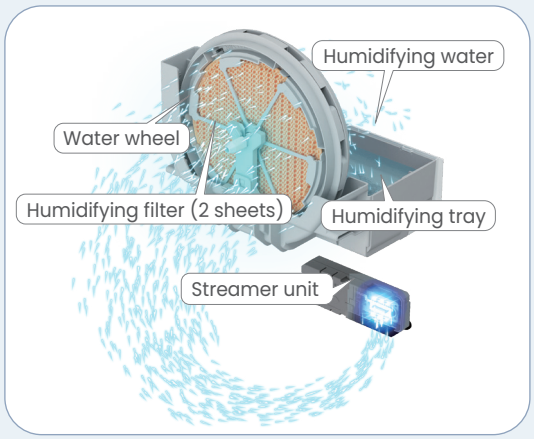
3rd C CLEAN

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

- Dust Collection Filter



- Humidifying Filter (MCK55 model only)



Note:

*1 (Reduction of gases) Testing organization: Life Science Research Laboratory. Test method: After operating a gasoline engine for 10 minutes (when particulate concentration reached 60mg/m^3), operated the air purifier for 80 minutes to absorb polluting dust emitted from the engine. Operated this air purifier for 24 hours in a closed space of 200L and measured the effect to decompose gases. Test result: Compared with a test without Streamer irradiation, gas components were reduced by 63% in 9 hours. Test number: LSRL-83023-702. Test unit: Tested with MCK70N (Japanese model).

*2 Placed the air purifier and an odour component, acetaldehyde, in a box of 21 m^3 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 MCK55T series.

*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 m^3. 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 MCK55T 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 m^3. 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 MCK55T 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 MCK55T series (turbo operation).

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.

DAIKIN EYE Air Quality Visualization

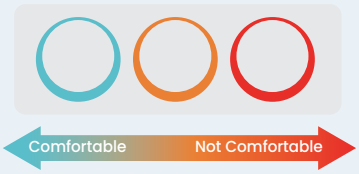
Air quality in the room can be seen at a glance.

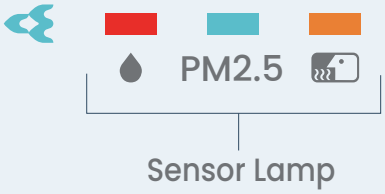


DAIKIN EYE

Displays the condition of the air selected by air monitor in 3 colours: Blue, orange, and red.

If PM2.5 (μg/m³) or humidity (%) is selected, it displays the same colour as the sensor lamp.







Air Monitor Indicator

Indicates the condition of the air selected by air monitor in maximum three digits.

μg/m³ : PM2.5 concentration

℃ : Indoor temperature

% : Indoor humidity

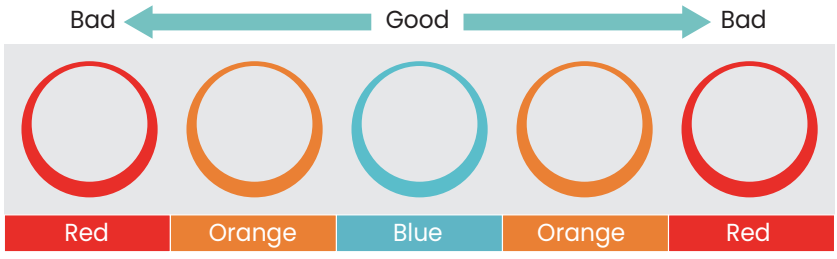
Air Monitor

Indicates the level of humidity, PM2.5 (dust), and odour in 3 colours.

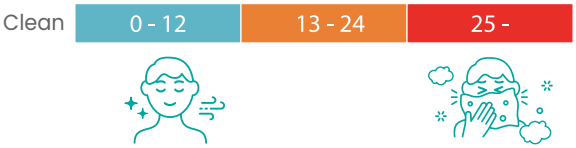
**Only applicable for MC80ZVMM*



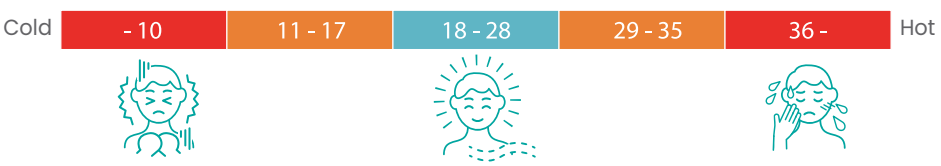
Ring colour for each air monitor and indicator



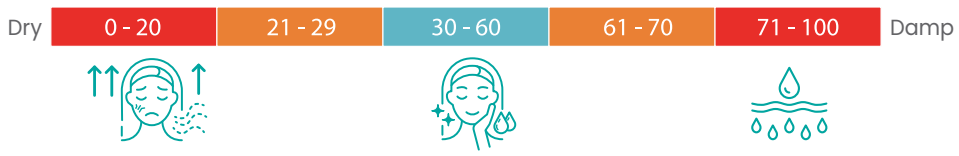
- **PM2.5 concentration μg/m³**



- **Indoor temperature (˚C)**



- **Indoor humidity (%)**



Featuring TAFU HEPA filter*1

Removes 99.97% of fine particles of 0.3μm *2

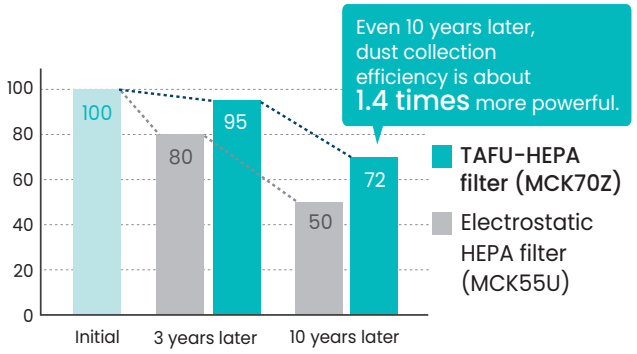


Note:
*1 Only Applicable to MC80.
*2 This is removal performance of filter and not removal performance for entire room.

Maintains dust collection performance for 10 years with no filter change*3

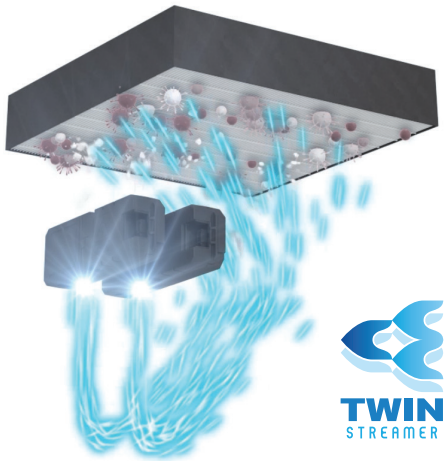
A filter using a material with high water and oil repellency was adopted.

• Comparision of duct collection efficiency after 10 years

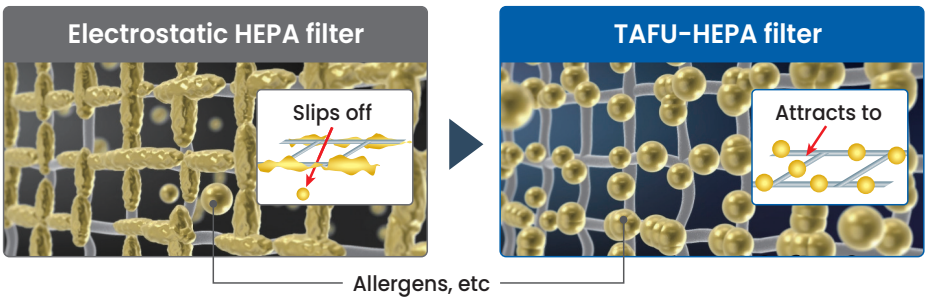


Calculation conditions:
Five cigarettes per day were assumed in calculation of tobacco use. Usage varies. With 100 the initial value, the numerical value was taken after 3 and 10 years.

Cathes harmful substances and decomposes them with Streamer



• Because the filter resists clogging, it maintain electro static force.



*3 Verified by test method based on Japan Electrical Manufacturers' Association Standard JEM1467. The standard assumes five cigarettes are smoked per day. Not all harmful substances in cigarette smoke (carbon monoxide, etc.) can be removed.
More frequent filter changing may be needed depending on operating conditions.

Featuring Electrostatic HEPA filter

Removes 99.97% of fine particles of 0.3µm *1



Note:
*1 This is removal performance of filter and not removal performance for entire room.

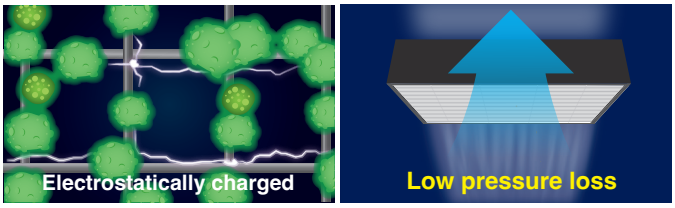
Comparison Between Electrostatic HEPA Filter And Non-Electrostatic HEPA Filter

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.

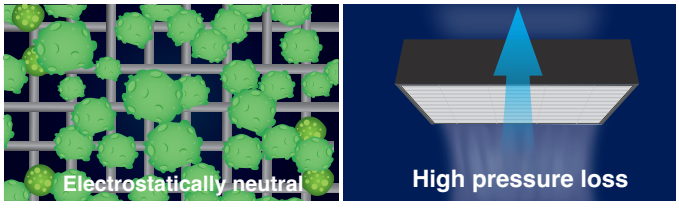
The filter can purify a larger amount of air!

Electrostatic HEPA Filter



Filter fiber itself is charged with static electricity, and collects particles efficiently. Doesn't clog easily because of low pressure loss.

Non-Electrostatic HEPA Filter



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

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.

80 Type only

Wireless LAN Connection With Mobile Application

Shape the world according to your needs with Wireless LAN connection to your air purifier

Visualizing your indoor air quality

Allows you to monitor your indoor air quality condition with your smartphone while you are on the move.

Visualizes the levels of PM2.5, humidity, odour and temperature in 3 distinct colours:
blue, orange and red.

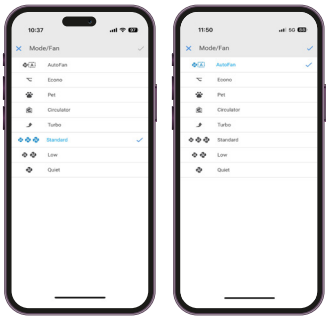


Change the operation settings at your convenience

Quick and easy setting of the Fan speed and Mode while you are away.

Mode: AutoFan, Econo, Pet, and Circulator

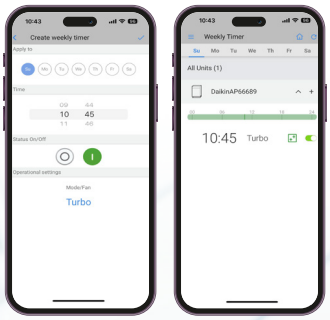
Fan Speed: Turbo, Standard, Low, and Quiet



Hassles-free with the Schedule Timer

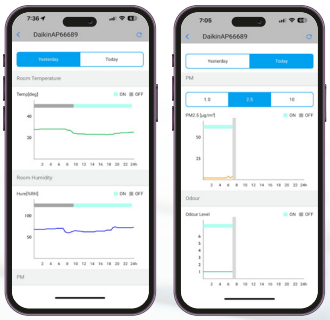
Enhance your productivity with the Schedule Timer function by helping you to stay focused during your daily routine.

The unit will be turned on and will operate based on the selected Fan or Mode setting.



Discover usage trends by Cumulative Graph Display

Enable to monitor the value level of Temperature, Humidity, PM1, PM2.5, PM10 and ON & OFF status. The cumulative graph indicates a trend of unit operations.



Enjoy 2 years free upgrade to pro on us

Function List	Standard RM0.00	Pro RM11.99 Per year
Standard Control Functions	✓	✓
In-Home Control	✓	✓
Out-Home Control		✓
IAQ Monitoring		✓
Weekly Scheduling		✓
Auto Error Code Detection	✓	✓



GO DAIKIN
Only for MC80 Series

- To use it, you must have an Internet connection and a wireless LAN network at home.
- When downloading the dedicated app and using the service will incur separate communication charges.
- If the connection is poor due to disasters or equipment failure, it cannot be used.
- Please visit our homepage for the details of compatible smartphone.
- "Android" is a trademark of Google Inc. Registered trademark. iPhone is a trademark of Apple Inc.
- The specifications are for improvement and subject to change without prior notice.
- When using the service download the dedicated app (for Android™ smartphones Google Play™, App Store for iPhone) Internet connection of smartphone is required. (The app is free).

For details, such as checking the connection of the smartphone or router, refer to the operation manual.

GO DAIKIN
Smart Control

Smart Control connect your tablet or smartphone through internet and by accessing GO DAIKIN App.

Scan to download your GO DAIKIN app

App Store | Google Play

Powerful Humidification to Protect against Air Dryness and Viruses

*** MCK55 model only.**

Benefit of Humidification

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



Protects against viruses by
maintaining appropriate
humidity of the room.

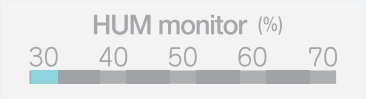


Select the target humidity from 3 levels

(The target humidity is a rough estimation.)

Low	Standard	High
40%	50%	60%

Indicates humidity of the room



Eliminates bacteria on the humidifying filter *1

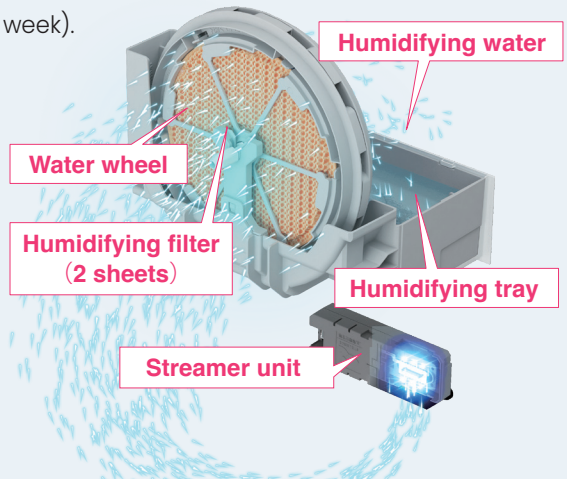
Effect after five hours in a test space of about 25 m^3.
This is an effect in a test space and not a test result in an actual operation space.

Reduces bacteria in humidifying water by Streamer *2

STREAMER

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:

*1 (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 m^3. 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 MCK55T series (turbo operation).

*2 (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 MCK55T series (turbo operation).

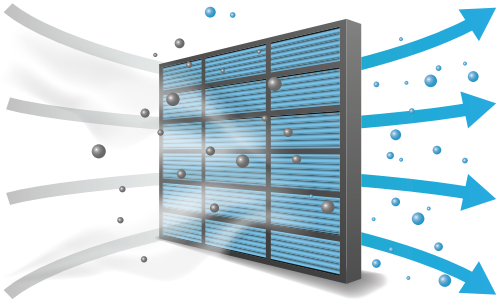


Gin-ION Blue Filter Technology

Gin-ION Blue Filter is designed to effectively decompose the virus on the air filter surface

*** MCQ30 model only.**





Gin-ION Blue Filter

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

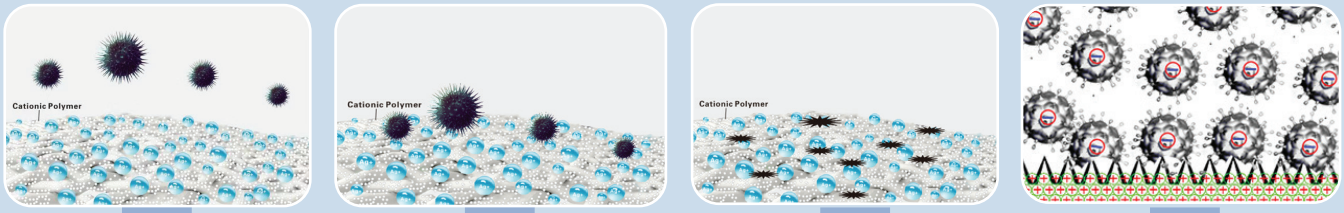
Experiment results of the Gin-ION Technology that have been verified so far

	Testing Target	Testing Organaization	Test Result	Test Standard
1. Virus	Influenza H1N1	Guangdong Detection Center of Microbiology	99.93% in 2 hours	ISO 18184:2014 (E)
	Chicken Coronavirus Infectious Bronchitis Virus		99.64% in 2 hours	
2. Bacteria	Escherichia Coli	Guangdong Detection Center of Microbiology	>5.8 (99.99% in 24 hours)	JIS Z 2801:2010
	Staphylococcus Aureus		>4.1 (99.99% in 24 hours)	
3. Fungus	Aspergillus Niger	Guangdong Detection Center of Microbiology	Grade 0	JIS Z 2911:2018 Appendix A
	Penicillium Pinophilum			
	Trichoderma Viride			
	Chaetomium Globosum			
	Poecilomyces Variotii			

* These are effects in a Gin-ION Blue Filter test space and not verification results in an actual operation space.

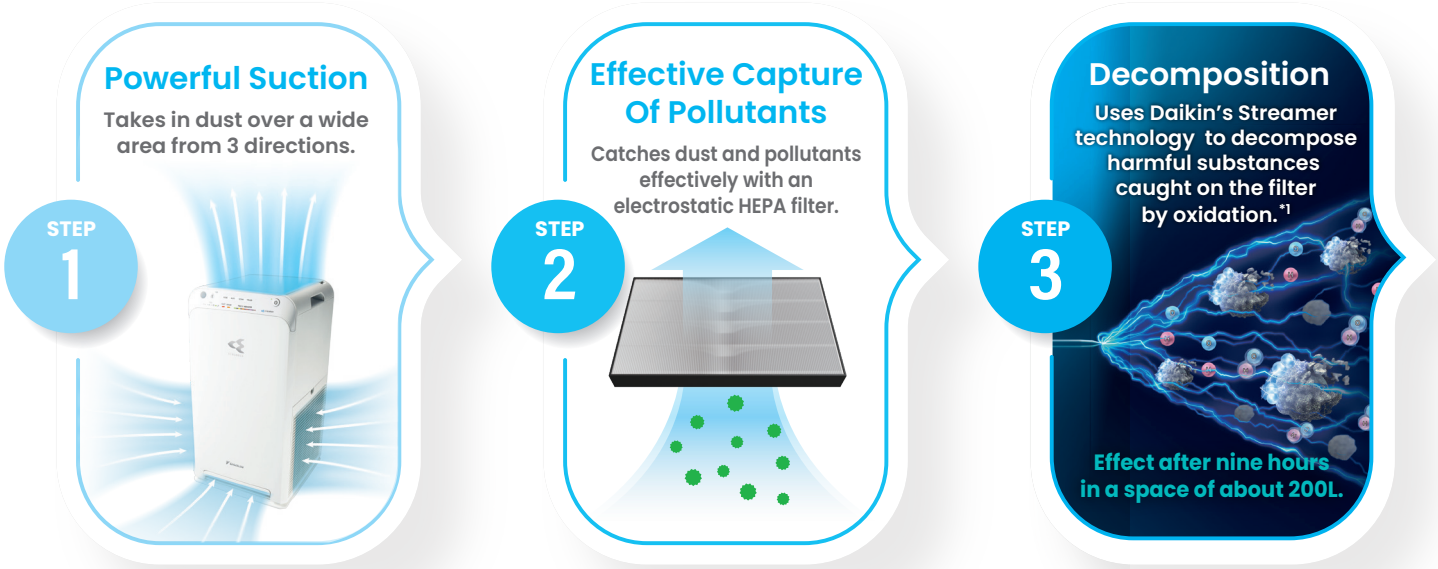
How does Gin-ION Blue Filter work?

Image is for illustration purposes



1. The Ag+ and cationic polymer treated filter is positively charged, and pull negatively charged virus to the filter.
2. Virus will be attracted to the surface of filter by positive charges. Ag+ and cationic polymer attacks virus and penetrate into virus cell membrane.
3. Virus will be deactivated under co-action of Ag+ and cationic polymer.
4. Virus cell membrane will be penetrated by cationic polymer. Then protein and nutrition will be removed and eventually deactivated.

Three Steps To Decompose Harmful Substances



Note:

*1 (Reduction of gases) Testing organization: Life Science Research Laboratory.
Test method: After operating a gasoline engine for 10 minutes (when particulate concentration reached 60mg/m^3), operated the air purifier for 80 minutes to absorb polluting dust emitted from the engine.
Operated this air purifier for 24 hours in a closed space of 200L and measured the effect to decompose gases.
Test result: Compared with a test without Streamer irradiation, gas components were reduced by 63% in 9 hours.
Test number: LSRL-83023-702.
Test unit: Tested with MCK70N (Japanese model).

Efficient Against Allergens

Efficient against allergens as recognized by BAF (Bristish Allergy Foundation)

The Allergy UK Seal of Approval reassures that the product is efficient at reducing small particles which may include allergens, bacteria, and viruses.


AllergyUK

SEAL OF APPROVAL CERTIFICATE

This is to certify that

Daikin Europe N.V.

Have been awarded the British Allergy Foundation Seal of Approval

For reduction in exposure to small particulates which may include allergens, bacteria, and viruses.

For their product

Streamer Air Purifier/Humidifier

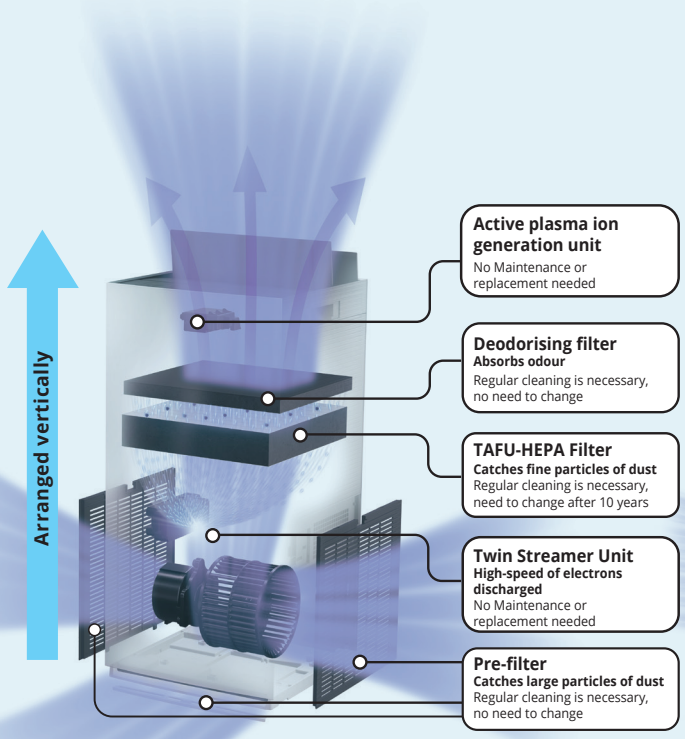
Model No. MCI(K)55W & MC55VB

Signed
Carla Jones, Chief Executive
Licence No: 3505
Valid until: 2nd October 2023

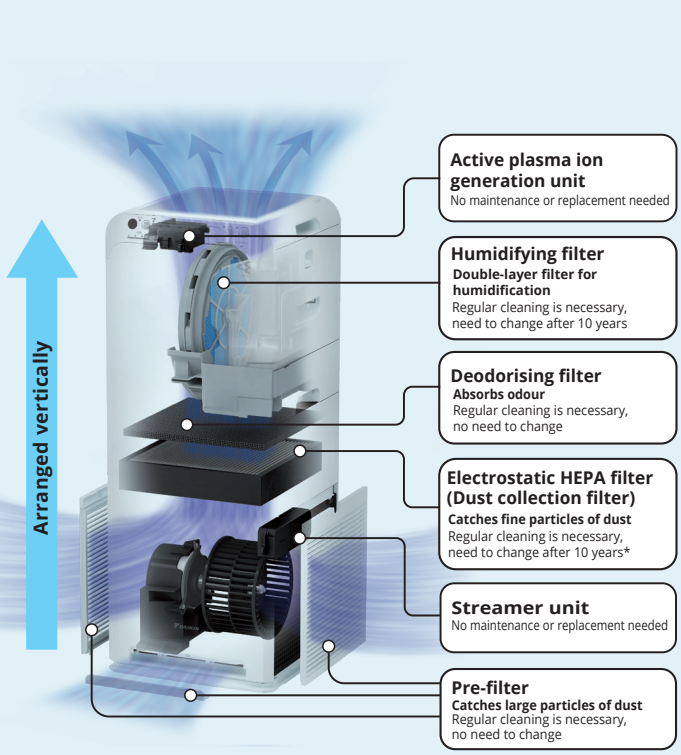


Unique vertical structure

MC80ZVMM



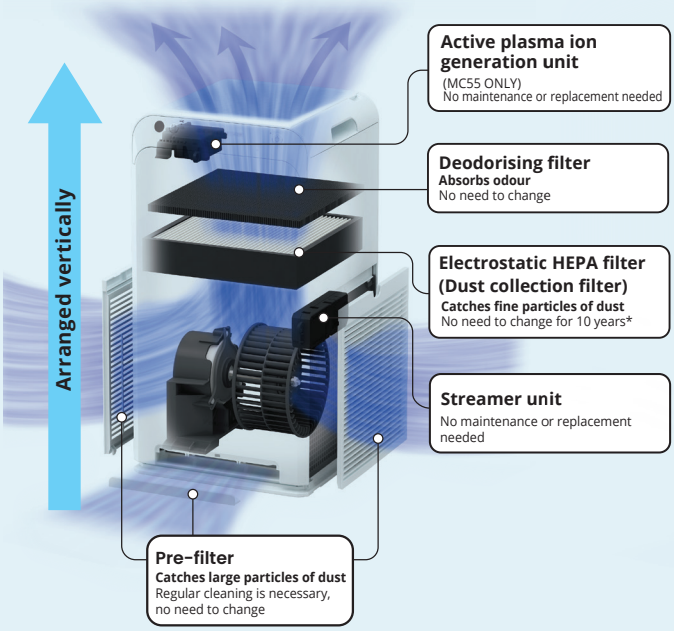
MCK55UVMM



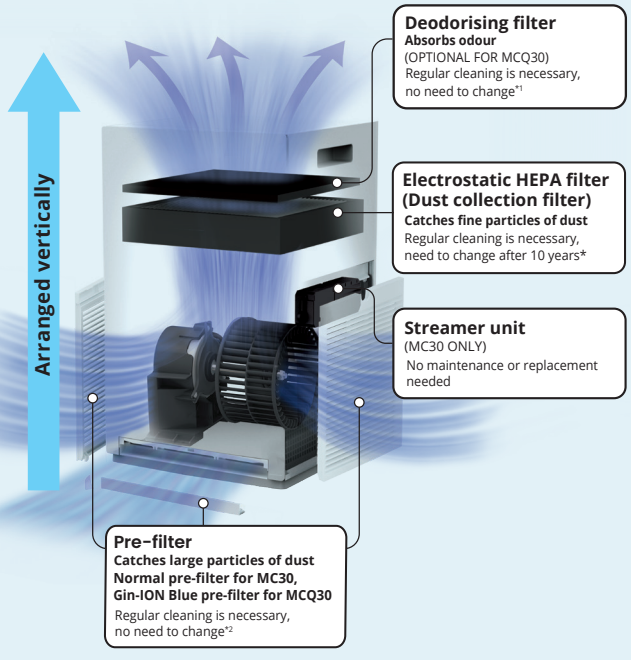
It may be necessary for certain items to require replacement due to environmental and operational conditions.

** Verified by test method based on Japan Electrical Manufacturers' Association Standard JEM1467.*

MC55/40XVMM



MC30YVMM/MCQ30ZVMM-H



It may be necessary for certain items to require replacement due to environmental and operational conditions.

** Verified by test method based on Japan Electrical Manufacturers' Association Standard JEM1467.*

Notes:

*1 For MC30 only. Recommended lifespan of optional deodorising filter for MCQ30 is 1 year.

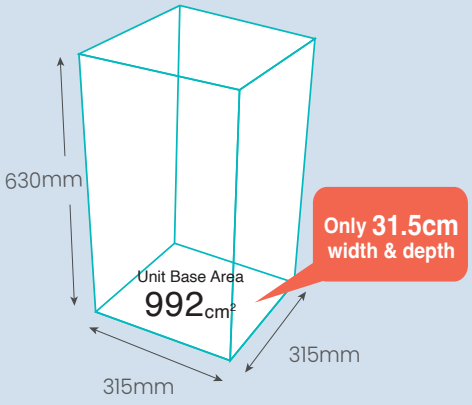
*2 For MC30 only. Recommended lifespan of Gin-ION Blue pre-filter for MCQ30 is 1 year.

New Stylish and Compact Design

Flexible choice of where to place the unit

MC80ZVMM

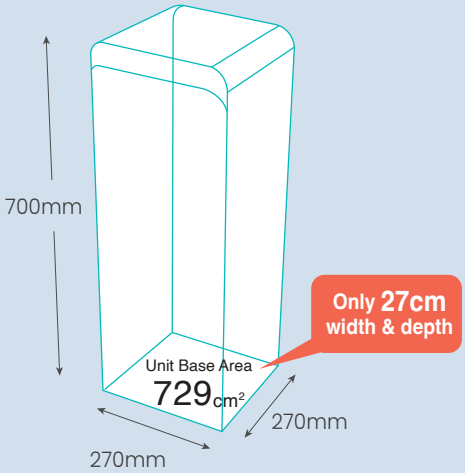
NEW



Only 31.5cm width & depth



MCK55 Model

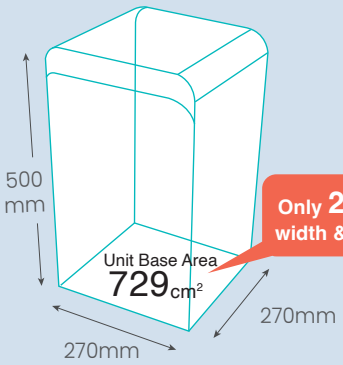


Only 27cm width & depth



Flexible choice of where to place the unit

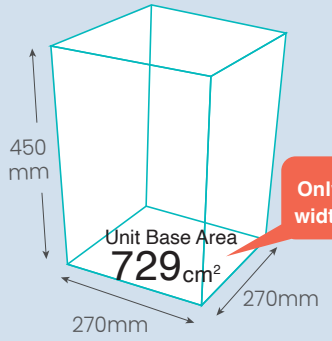
MC55/40 Model



Only **27cm** width & depth



MC30/MCQ30 Model



Only **27cm** width & depth

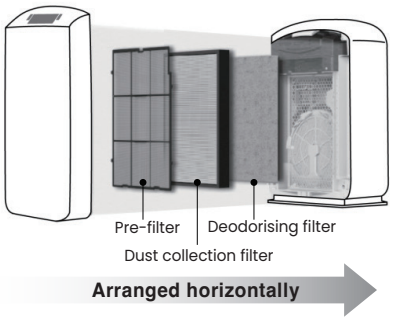




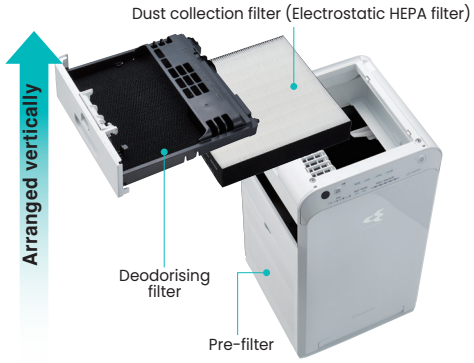
Powerful Suction and Reduced Operation Sound

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

Common Design



Daikin Design

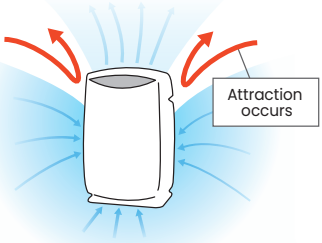


Powerful suction in 3 directions

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.



Daikin Design

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

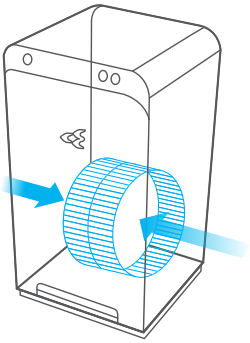
The key is the sound of airflow from the air outlet

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.

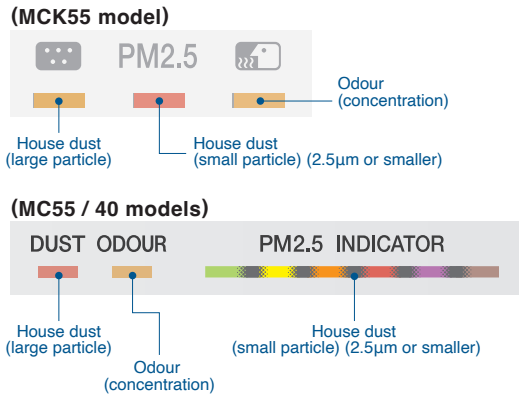


Convenience

"Triple detection" sensor to quickly detect PM2.5

**For MCK55, MC55 & MC40 only.*

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.



An Air Purifier To Remove Pm2.5

Removes 99% of particles between 0.1µm and 2.5µm *1

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

"PM2.5" refers to general fine particulate matters sized 2.5 µm 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 32m^3 and not in an actual operation space.

Test unit: Tested with MCK55S (Japanese model), a model equivalent to MCK55T series.

Note:
*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 32m^3)

Other useful features

- **Filter cleaning without needing to open the panel**

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



- **Equipped with a remote controller (MCK55 & MC55 models only)**

Convenient for operation from a distant position.



MCK55 model MC55 model

- **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.



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

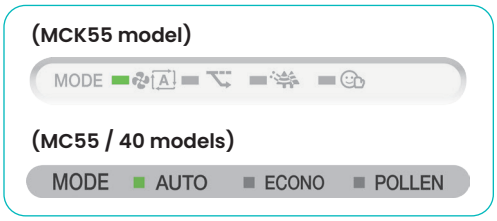
Easy to move to clean the floor.



Choose from the various operation modes

**For MCK55, MC55 & MC40 only.*

- **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.

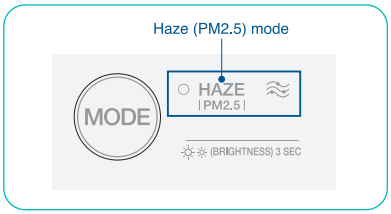


Haze (PM2.5) Mode Operation (MC30 model only)

Rapidly removes fine particles (PM2.5) and decomposes harmfulsubstances in Haze.

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

Stage 2:
The airflow then changes to Standard fan speed with continuous Streamer discharge until the termination of the function.

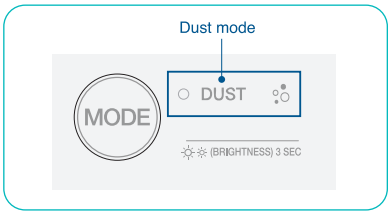


Dust Mode Operation (MCQ30 model only)

Removes the fine particles (PM2.5) quickly.

Stage 1:
Airflow will begin to operate at Turbo fan speed for 90 minutes.

Stage 2:
Then the airflow then change to Standard fan speed until the termination of function.



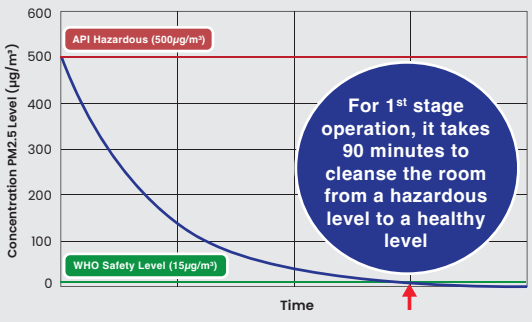
The Haze (PM2.5) Mode test results and test methods are being acknowledged and certified by the University of Malaya

Stage 1: Purification Test

Proven to fully cleanse room!

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

Stage 1: Operation of Haze (PM2.5) Mode



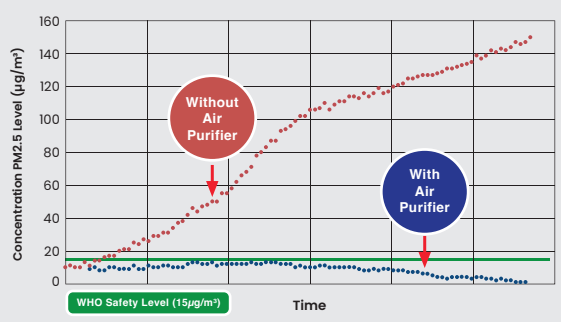
**The graph is not retrieve from experiment result but design calculation for illustration purpose*

Stage 2: Infiltration Test

Effective to maintain a good air quality we breathe in

Test Result *2 :
Based on the actual operation of Haze mode at a Standard fan speed operate continuously is proven to maintain the room in a healthy indoor air quality condition effectively.

Stage 2: Dust Concentration Level



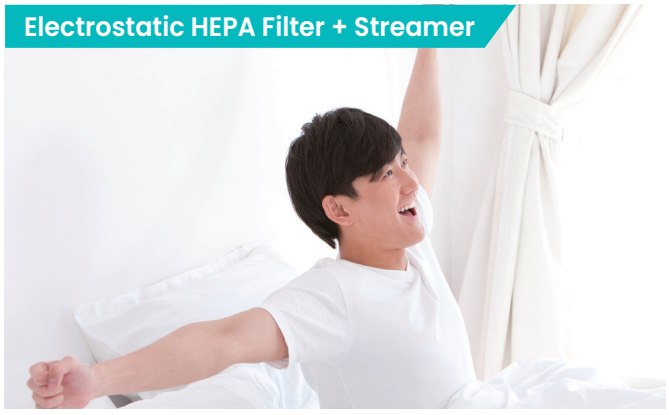
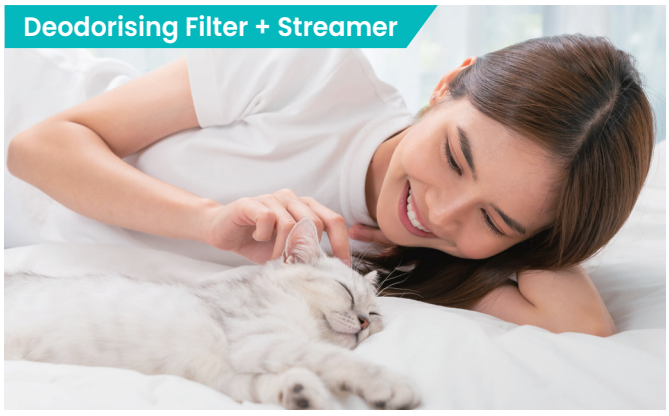
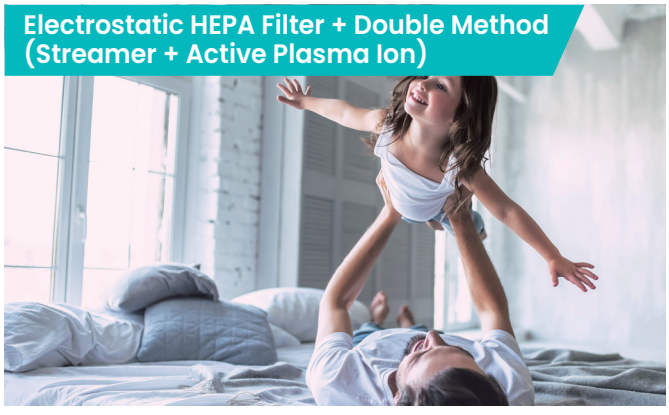
**The graph is not retrieve from experiment result but design calculation for illustration purpose*

Note:
Test Organisation : Test Chamber at Certification Laboratory, Daikin Research & Development Malaysia (DRDM) in a collaboration with the University of Malaya
Test Number : SYS-2021-01

*1 Test Method : Aims to achieve a reduction of dust concentration level in PM 2.5 size from hazardous to healthy level based on the most critical level stated in API orWorld Health Organization (WHO) standard. 90 minute of operation with Turbo fan speed operated in a test space of 25.7m³ in accordance to JEM 1467 Standard, is selected to prove the cleansing ability. Purification test is used to justify the cleansing ability of first stage operation.

*2 Test Method : Aims to ensure the ability of the air purifier to maintain the dust concentration level of the room or further cleanse the room from first stage operation withan assumption made on the amount of haze polluted gases flowing into the room gradually. A continuous operation of Standard fan speed operated in a test space of25.7m³ in accordance to JEM 1467 Standard, is selected to prove the cleansing ability. Infiltration test is used to justify the cleansing ability of second stage operation.

Best Solutions for Indoor Air Quality

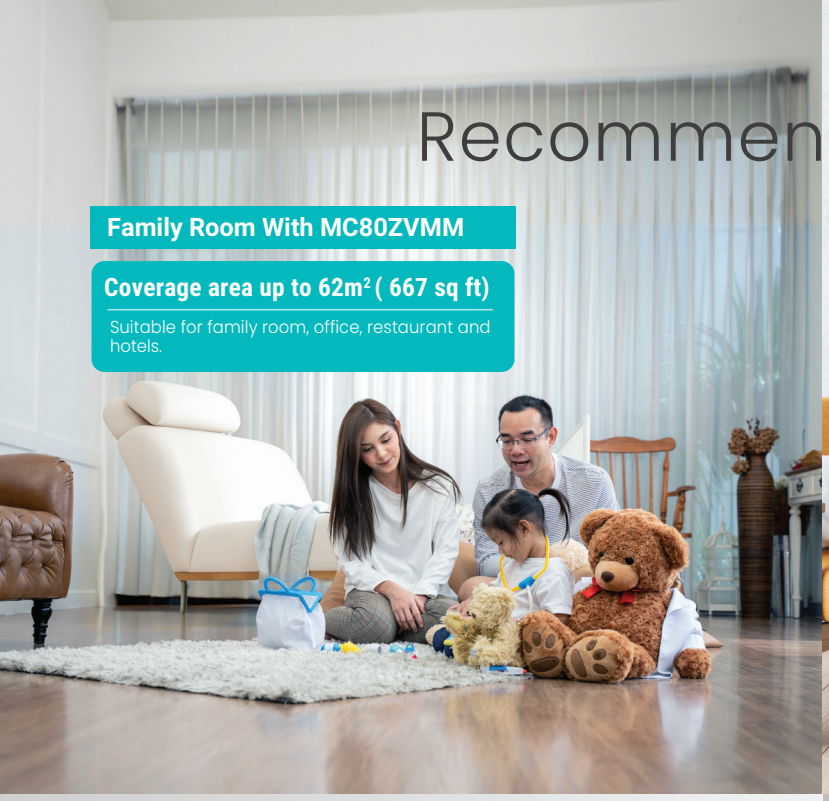
PROBLEMS	SOLUTIONS (FEATURE)
Haze 	TAFU HEPA Filter + PM2.5 sensor 
Allergy – dust mite & pet fur 	Electrostatic HEPA Filter + Streamer 
Pet smell (ammonia) & cooking smell 	Deodorising Filter + Streamer 
Poor air quality for babies & kids 	Electrostatic HEPA Filter + Double Method (Streamer + Active Plasma Ion) 

Recommended Areas

Family Room With MC80ZVMM

Coverage area up to 62m² (667 sq ft)

Suitable for family room, office, restaurant and hotels.



Master Bedroom with MCK55UVMM

Coverage area up to 41m² (441 sq ft)

Suitable for low humidity space due to air conditioning in a living room, master bedroom, office and shop.



Living Room with MC55XVMM

Coverage area up to 41m² (441 sq ft)

Suitable for living room, master bedroom, dining area and office.



Bedroom & Kids' Playroom with MC40XVMM

Coverage area up to 31m² (333 sq ft)

Suitable for a smaller bedroom, dining area, study room and pets area.



Bedroom & Study Room with MC30YVMM

Coverage area up to 23m² (248 sq ft)

Suitable for kids bedroom and study room.



Bedroom & Baby Room with MCQ30ZVMM-H

Coverage area up to 23m² (248 sq ft)

Suitable for smaller sized rooms like baby bedroom and study room.



Specifications



MC80ZVMM

TWIN STREAMER

Capacity Guide
- Air purifying only: Up to 62m² (667 sq ft) *1
- Maximum airflow rate: 8.0m³/min
- Dimensions: 315mm(W) x 315mm(D) x 630mm(H)

Specifications

Colour			2 Tone Colour (Front: White, Top/Side: Dark Grey)			
Mode			Air purifying operation			
Applicable room area*1	Air purification	m² (sq ft)	62 (667) (13.2m² purified in approx. 8 min.)			
Power supply			1 Phase, 220–240/220–230V, 50/60Hz			
Plug shape			C type			
Mode			Quiet	Low	Standard	Turbo
Airflow rate		m³/min.	1.4	2.2	3.5	8.0
Power consumption		W	9	11	16	80
Sound pressure level		dB	19	25	34	55
Dimensions		mm	H630 X W315 X D315			
Weight		kg	9.8			
Dust collection filter			TAFU HEPA filter			
Optional accessories	Replacement filter	Dust collection	BAFT501A (1 sheet) (Purchase of new filters is needed after about 10 years)*2			
			Caster: KKS080B41			

Note:
*1 Calculation based on testing method of the Japan Electrical Manufacturers' Association standard. (JEM1467)
*2 Verified by test method based on Japan Electrical Manufacturers' Association Standard JEM1467.
The standard assumes five or more cigarettes are smoked per day.
Not all harmful substances in cigarette smoke (carbon monoxide, etc.) can be removed.
More frequent filter changing may be needed depending on operating conditions.

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.

Main Function:

Twin Streamer · Smart Control · Active Plasma Ions · Daikin Eye Indicator · TAFU HEPA Filter · 3-directional inlets · Deodorising filter · Compact design



MCK55UVMM

Humidifying type

STREAMER

Capacity Guide

- Air purifying only: Up to 41m² (441 sq ft) *1
- Maximum airflow rate: 5.5m³/min
- Humidifying & air purifiying: Up to 23m² (248 sq ft)
- Maximum humidification rate: 500ml/hour *2
- Dimensions: 270mm(W) x 270mm(D) x 700mm(H)

Specifications

Colour			White						
Mode			Air purifying operation				Humidifying operation			
Applicable room area*1	Air purification	m² (sq ft)	41 (441)				----------			
	Air purification + Humidification		41 (441)				Prefab : 23 (248) Wooden : 14 (151)			
Power supply			1 Phase, 220–240/220–230V, 50/60Hz							
Mode			Quiet	Low	Standard	Turbo	Quiet	Low	Standard	Turbo
Airflow rate		m³/m	0.9	2.0	3.2	5.5	1.7	2.4	3.2	5.5
Power consumption		W	7	10	17	56	11	14	19	58
Sound pressure level		dB	19	29	39	53	25	33	39	53
Humidification*2		mL/h	-----	-----	-----	-----	200	240	300	500
Dimensions		mm	H700 X W270 X D270							
Weight		kg	9.5 (Without water)							
Dust collection method			Electrostatic HEPA filter							
Humidifying method			Evaporation type Element							
Tank capacity			About 2.7L							
Optional accessories			Replacement dust collection filter : BAFP500A (Purchase of new filters is needed after about 10 years)*3							
			Replacement humidifying filter : KNME080A4E							
			Caster : KKS080B41							

Note:

*1 Calculation based on testing method of the Japan Electrical Manufacturers' Association standard. (JEM1467)

*2 Humidification amount changes in accordance with indoor and outdoor temperature and humidity.
Measurement condition: 20°C in temperature, 30% in humidity. (JEM1426)

*3 Verified by test method based on Japan Electrical Manufacturers' Association Standard JEM1467.
The standard assumes five or more cigarettes are smoked per day.
Not all harmful substances in cigarette smoke (carbon monoxide, etc.) can be removed.
More frequent filter changing may be needed depending on operating conditions.

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.

Main Function:

Double Method

Streamer · Active Plasma Ions · Humidification · PM2.5 Sensor · 3-directional inlets · Deodorising filter · Electrostatic HEPA filter · Compact design · Quiet · Remote Controller



MC55XVMM

STREAMER

Capacity Guide
- Air purifying only: Up to 41m² (441 sq ft) *1
- Maximum airflow rate: 5.5m³/min
- Dimensions: 270mm(W) x 270mm(D) x 500mm(H)

Specifications

Colour			White			
Mode			Air purifying operation			
Applicable room area*1	Air purification	m² (sq ft)	41 (441) (13.2m² purified in approx. 11 min.)			
Power supply			1 Phase, 220–240/220–230V, 50/60Hz			
Plug shape			C type			
Mode			Quiet	Low	Standard	Turbo
Airflow rate		m³/min.	1.1	2.0	3.2	5.5
Power consumption		W	8	10	15	37
Sound pressure level		dB	19	29	39	53
Dimensions		mm	H500 X W270 X D270			
Weight		kg	6.8			
Dust collection filter			Electrostatic HEPA filter			
Optional accessories	Replacement filter	Dust collection	BAFP500A (1 sheet) (Purchase of new filters is needed after about 10 years)*2			

Note:
*1 Calculation based on testing method of the Japan Electrical Manufacturers' Association standard. (JEM1467)
*2 Verified by test method based on Japan Electrical Manufacturers' Association Standard JEM1467.
The standard assumes five or more cigarettes are smoked per day.
Not all harmful substances in cigarette smoke (carbon monoxide, etc.) can be removed.
More frequent filter changing may be needed depending on operating conditions.

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.

Main Function:

Double Method

- Streamer
- Active Plasma Ions
- PM2.5 Sensor
- 3-directional inlets
- Deodorising filter
- Electrostatic HEPA filter
- Compact design
- Quiet
- Remote Controller



MC40XVMM

STREAMER

Capacity Guide
- Air purifying only: Up to 31m² (333 sq ft) *1
- Maximum airflow rate: 4.0m³/min
- Dimensions: 270mm(W) x 270mm(D) x 500mm(H)

Specifications

Colour			White			
Mode			Air purifying operation			
Applicable room area *1	Air purification	m² (sq ft)	31 (333) (13.2m² purified in approx. 15 min.)			
Power supply			1 Phase, 220–240/220–230V, 50/60Hz			
Plug shape			C type			
Mode			Quiet	Low	Standard	Turbo
Airflow rate		m³/min.	1.1	1.8	2.8	4.0
Power consumption		W	7	9	13	23
Sound pressure level		dB	19	27	36	49
Dimensions		mm	H500 X W270 X D270			
Weight		kg	6.8			
Dust collection filter			Electrostatic HEPA filter			
Optional accessories	Replacement filter	Dust collection	BAFP500A (1 sheet) (Purchase of new filters is needed after about 10 years)*2			

Note:
*1 Calculation based on testing method of the Japan Electrical Manufacturers' Association standard. (JEM1467)
*2 Verified by test method based on Japan Electrical Manufacturers' Association Standard JEM1467.
The standard assumes five or more cigarettes are smoked per day.
Not all harmful substances in cigarette smoke (carbon monoxide, etc.) can be removed.
More frequent filter changing may be needed depending on operating conditions.

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.

Main Function:

Streamer · PM2.5 Sensor · 3-directional inlets · Deodorising filter · Electrostatic HEPA filter · Compact design · Quiet



MC30YVMM

STREAMER

Capacity Guide
- Air purifying only: Up to 23m² (248 sq ft) *1
- Maximum airflow rate: 3.0m³/min
- Dimensions: 270mm(W) x 270mm(D) x 450mm(H)

Specifications

Colour			White		
Mode			Air purifying operation		
Applicable room area *1	Air purification	m² (sq ft)	23 (248) (13.2m² purified in approx. 19 min.)		
Power supply			1 Phase, 220–240/220–230V, 50Hz		
Plug shape			C type		
Mode			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
Dimensions		mm	H450 X W270 X D270		
Weight		kg	5.8		
Dust collection filter			Electrostatic HEPA filter		
Optional accessories	Replacement filter	Dust collection	BAFP500A (1 sheet) (Purchase of new filters is needed after about 10 years)*2		

Note:
*1 Calculation based on testing method of the Japan Electrical Manufacturers' Association standard. (JEM1467)
*2 Verified by test method based on Japan Electrical Manufacturers' Association Standard JEM1467.
The standard assumes five or more cigarettes are smoked per day.
Not all harmful substances in cigarette smoke (carbon monoxide, etc.) can be removed.
More frequent filter changing may be needed depending on operating conditions.

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.

Main Function:

Streamer · Haze Mode · 3-directional inlets · Deodorising filter · Electrostatic HEPA filter · Compact design · Quiet



MCQ30ZVMM-H

Gin-ION BLUE FILTER

Capacity Guide
- Air purifying only: Up to 23m² (248 sq ft) *1
- Maximum airflow rate: 3.0m³/min
- Dimensions: 270mm(W) x 270mm(D) x 450mm(H)

Specifications

Colour			White		
Mode			Air purifying operation		
Applicable room area *1	Air purification	m² (sq ft)	23 (248) (13.2m² purified in approx. 19 min.)		
Power supply			1 Phase, 220–240/220–230V, 50Hz		
Plug shape			C type		
Mode			Quiet	Standard	Turbo
Airflow rate		m³/min.	1.0	2.0	3.0
Power consumption		W	9	16	25
Sound pressure level		dB	19	27	37
Dimensions		mm	H450 X W270 X D270		
Weight		kg	5.8		
Dust collection filter			Electrostatic HEPA filter*2		
Optional accessories	Replacement filter	Dust collection	1) Dust Collection Filter ~ BAFP500A (10 years)*2 2) Deodorising Filter ~ BAD504A (1 year) *3 3) Pre-filter (Gin-ION Blue Filter) ~ BAFG503A (1 year)		

Note:
*1 Calculation based on testing method of the Japan Electrical Manufacturers' Association standard. (JEM1467)
*2 Verified by test method based on Japan Electrical Manufacturers' Association Standard JEM1467.
The standard assumes five or more cigarettes are smoked per day.
Not all harmful substances in cigarette smoke (carbon monoxide, etc.) can be removed.
More frequent filter changing may be needed depending on operating conditions.
*3 Optional item.

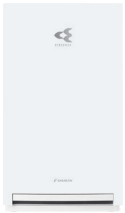
About the dust collection and deodorising capacity of air purifiers:
- Not all harmful substances in cigarette smoke (carbon monoxide, etc.) can be removed.
- Not all odour components that emanate continuously (building material odours and pet odours, etc.) can be removed.

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.

Main Function:

Gin-ION Pre-filter | Dust Mode | 3-directional inlets | Electrostatic HEPA filter | Compact design | Quiet

Functions

	NEW  MC80ZVMM	 MCK55UVMM	 MC55XVMM	 MC40XVMM	 MC30YVMM	 MCQ30ZVMM-H
Humidification	–	●	–	–	–	–
Twin Streamer Discharge	●	–	–	–	–	–
Smart Control	●	–	–	–	–	–
Daikin Eye Indicator	●	–	–	–	–	–
Active Plasma Ion	●	●	●	–	–	–
Humidity Sensor	●	●	–	–	–	–
Dust (PM2.5/dust) and Odour Sensor Lamps	●	●	●	●	–	–
Streamer Discharge	–	●	●	●	●	–
TAFU HEPA Filter	●	–	–	–	–	–
Electrostatic HEPA Filter	–	●	●	●	●	●
Deodorising Filter	●	●	●	●	●	●*
Gin-ION Blue Filter	–	–	–	–	–	●
Moist Mode	–	●	–	–	–	–
Pet Mode	●	–	–	–	–	–
Econo Mode	●	●	●	●	–	–
Auto Fan Mode	●	●	●	●	–	–
Anti-Pollen Mode	–	●	●	●	–	–
Turbo Mode	●	●	●	●	●	●
Haze (PM2.5) Mode	–	–	–	–	●	–
Dust Mode	–	–	–	–	–	●
Child Proof Lock	●	●	●	–	●	●
Brightness Adjustment	●	●	●	●	●	●
Auto-Restart After Power Failure	●	●	●	●	●	●

*Optional Item

Functions

Humidity Sensor

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

Dust (PM2.5) And Odour Sensor Lamp

"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.

Twin Streamer Discharge

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

Streamer Discharge

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

Smart Control

Control your air purifier at anywhere and anytime with GODAIKIN mobile app.

DAIKIN EYE With Air Monitor Indicator

Visualization of the indoor air quality level (PM2.5), temperature, and humidity by three ring colours with numerical display.

Active Plasma Ion

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

TAFU HEPA Filter

There is a high-performance filter that catches 99.97% of 0.3μm fine particles and requires no changing for 10 years.

Electrostatic HEPA Filter

There is a high-performance filter that catches 99.97% of 0.3μm fine particles and requires no changing for 10 years.

Deodorising Filter

Odours and adjuvants are caught on the catalyst and decomposed by the power of Streamer.

Gin-ION Blue Filter

The Gin-ION Blue Filter is designed to effectively decompose the virus on the air filter surface.
It is to provide better indoor air quality for healthier life.

Moist Mode

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

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.

Econo Mode

Operation automatically switches only between "Quiet" and "Low" fan speeds in accordance with the degree of polluted air.

Pet Mode

This mode creates a gentle air by switching every 5 minutes between the fan setting "Standard" and "Low" so that pet hair (pollen) can be drawn in and caught before reaching to the floor.

Anti-Pollen Mode

Switching between "Standard" and "Low" fan speeds to create a gentle turbulence, pollen is caught before it lands on the floor.

Haze (PM2.5) Mode

The air purifier runs with high dust absorption capacity at Turbo fan speed for 90 minutes and then changes to Standard fan speed with continuous Streamer discharge in order to quickly clean the indoor air.

Dust Mode

This mode will remove the fine particles (PM2.5) quickly. Airflow will begin to operate at Turbo fan speed for 90 minutes. Then the airflow changes to Standard fan speed until termination of the function.

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.

Child Proof Lock

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

Brightness Adjustment

The brightness of the indicator panel lamp can be adjusted.

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.

Test Results of Streamer Devices

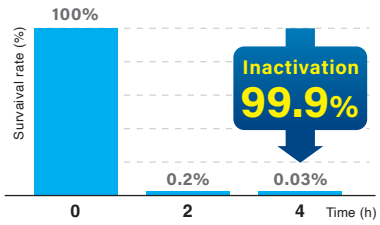
Experimental Results of Daikin Streamer Technology

Demonstration of the inactivation effects against 6 types of Coronavirus (SARS-CoV-2) variants by Streamer technology.

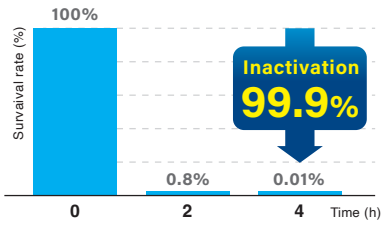
* Each survival rate is calculated by comparison with the rate of natural attenuation of each hour.

More than 99.8% inactivation of Coronavirus variants

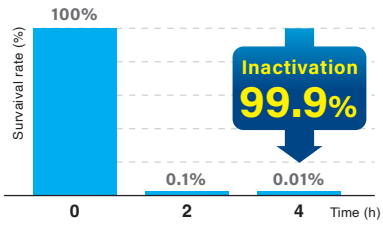
Conventional



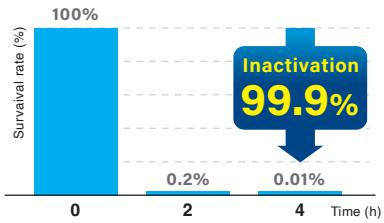
Alpha



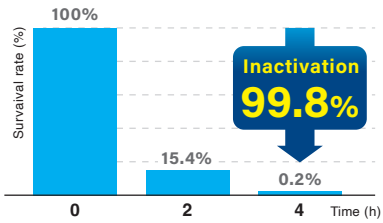
Beta



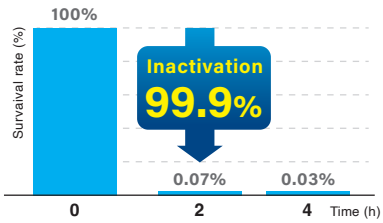
Gamma



Delta



Omicron



Experimental result

Daikin Industries, Ltd., in collaboration with Professor Tatsuo Shioda and Assistant Professor Tadahiro Sasaki, Department of Virus Infections, Research Institute for Microbial Diseases, Osaka University, have demonstrated that Daikin's unique Streamer technology has more than 99.9% inactivation effects against Alpha, Beta, Gamma and Omicron variants, and 99.8% against Delta variant, which are Coronavirus (SARS-CoV-2) variants.

Test method

Quantification was performed by the TCID50 method uusing an acrylic box of about 31L.
The virus loads were quantified 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.

Testing organization

Conventional strain: Faculty of Veterinary Medicine, Okayama University of Science
Alpha, Beta, Gamma, Delta, and Omicron strain: Research Institute for Microbial Diseases, Osaka University

The test results obtained for the Streamer discharge device were under laboratory conditions.
The effect and results of products equipped with Streamer technology may vary under actual conditions.

Test Results of Streamer Devices

Daikin's Streamer Technology

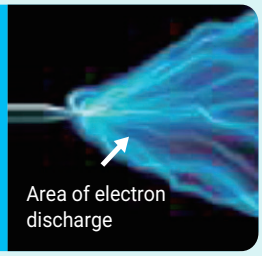
Scan Here For More

DAIKIN Streamer Research Institute

"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

1,000 Times Faster than ordinary plasma electric discharge



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 organization	Test method	Report date
Noro virus	Kobe University Graduate School	ELISA method	12-Jan-2007
Influenza virus (Type A-H1N1)	Vietnam National Institute of Hygiene and Epidemiology	CPE observation	14-Sep-2009
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 EnvironmentalScience	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
Adeno virus	Kitasato Research Center for Environmental Science	CPE and TCID50	23-Jun-2017
Coxsackievirus		CPE and TCID50	
Entero virus		CPE and TCID50	
Echo virus		CPE and TCID50	
Measles		CPE and TCID50	
Mouse Noro virus	The University of Tokyo Graduate School	CPE and TCID50	11-Oct-2018
Mouse Corona	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

Bacteria

Test target	Testing organization	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
Tubercle bacilli	The Jikei University School of Medicine	PCR method	15-Feb-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 organization	Test method	Report date
Mold (Black mold)	Japan Food Research Laboratories	Pour plate culture method	28-Sep-2004

Allergens

Test target	Testing organization	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 organization	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.

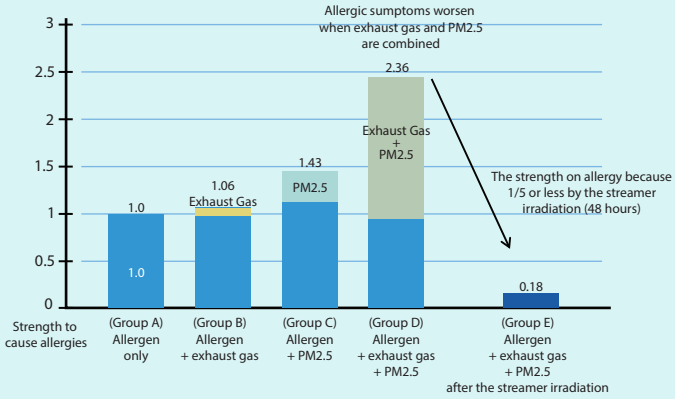
This description relates to the Streamer Technology devised by Daikin, but not to this Air Purifier.
Test results from use of the Streamer Technology are generated according to prescribed test methods conducted by Daikin. Although the Streamer Technology is contained within this Air Purifier, this does 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.

The test results obtained for the Streamer discharge device were under laboratory conditions.
The effect and results of products equipped with Streamer technology may vary under actual conditions.

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.

Pollen + exhaust gas + PM2.5 are decomposed at the same time, reducing the 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.

* This is the demonstration result using a streamer discharge device for testing.
The effect of products equipped with Streamer technology or the effect in actual use environment may differ.

Testing organization

Demonstrated at Yamagata University under the supervision of Professor Shirasawa, Tohoku Bunka Gakuen University.

Test method

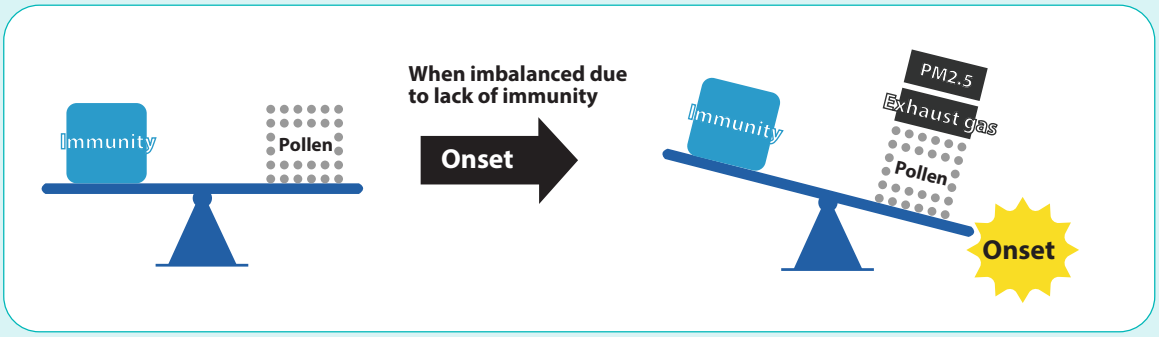
A comparative experiment was performed on 3 groups of mice. (Group A) allergen, (B group) allergen + exhaust gas, (C group) allergen + PM2.5, (D group) allergen + exhaust gas + PM2.5, (Group E) allergen + exhaust gas + PM2.5 after the Streamer irradiation, was administered respectively. Administration to mice was continued every 2 weeks, and 8 weeks later, IgE antibody*1 concentration in the blood of the mice was measured. We used ovalbumin as the allergen, which is a typical substance used in immunity experiments as an alternative to pollen.

*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 worsen allergic symptoms may adhere to pollen, which may upset the balance that was previously maintained and increase the risk of developing hay fever.

- **The Image of the hay fever development**



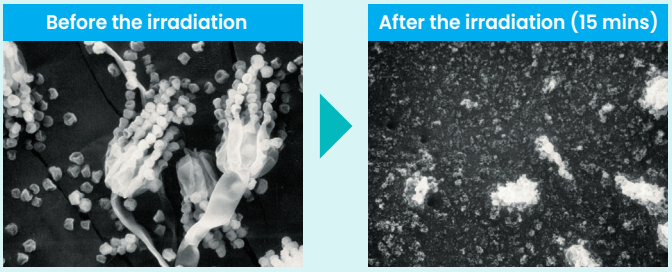
The test results obtained for the Streamer discharge device were under laboratory conditions.
The effect and results of products equipped with Streamer technology may vary under actual conditions.

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 molds



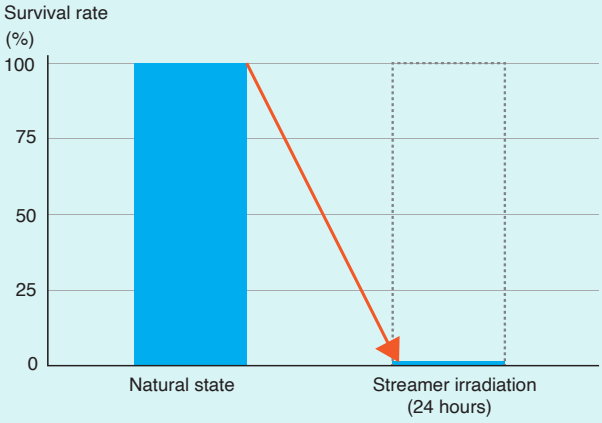
Testing organization

Joint research was performed with 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

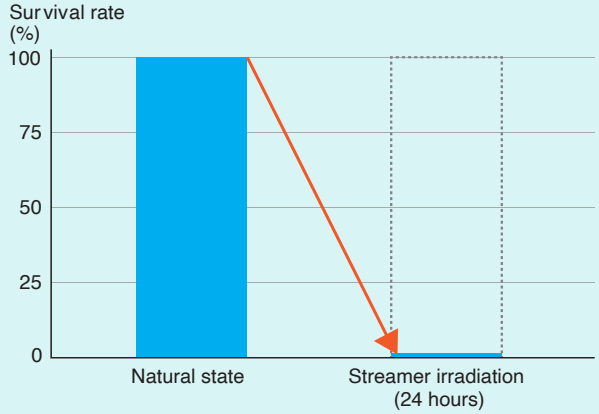
Demonstration test was performed at Japan Food Research Laboratories.

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.

The test results obtained for the Streamer discharge device were under laboratory conditions.
The effect and results of products equipped with Streamer technology may vary under actual conditions.

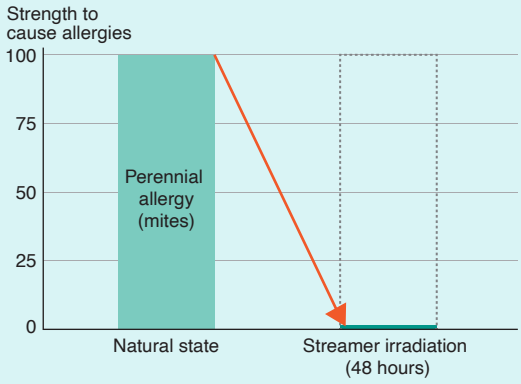
Decomposes the house dust (mite feces and carcasses) that causes perennial allergy symptoms

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.



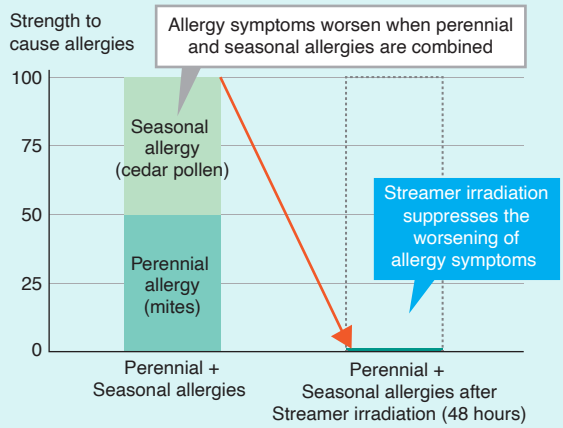
Test organization

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 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).



The test results obtained for the Streamer discharge device were under laboratory conditions.
The effect and results of products equipped with Streamer technology may vary under actual conditions.

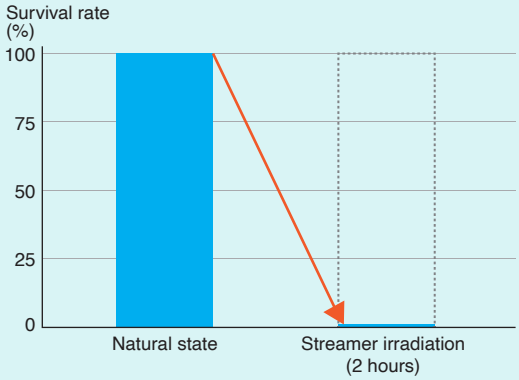
Decomposes and suppresses Moraxella bacterium, Decomposes the cause of damp odor for laundry

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 (60 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 that unpleasant laundry odor.



The test results obtained for the Streamer discharge device were under laboratory conditions.
The effect and results of products equipped with Streamer technology may vary under actual conditions.

Test Results of Active Plasma Ion Device

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.

Assumed mechanism of elimination

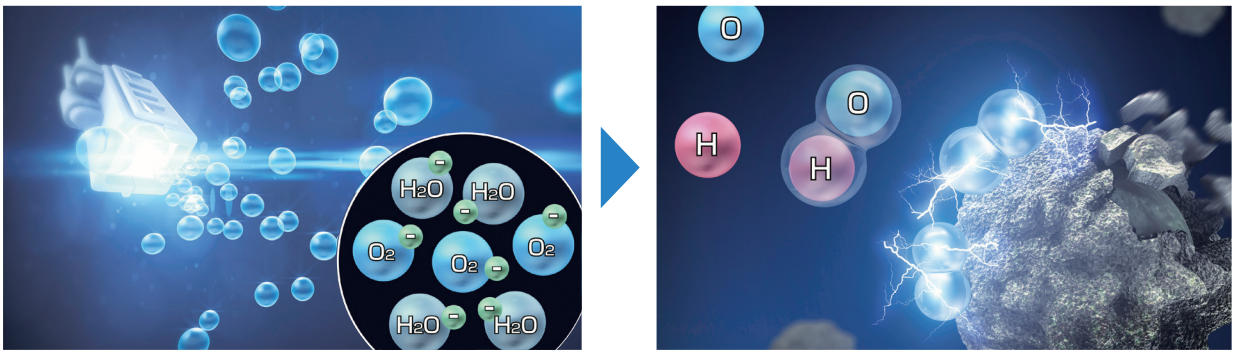


Image is for illustrative purposes

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

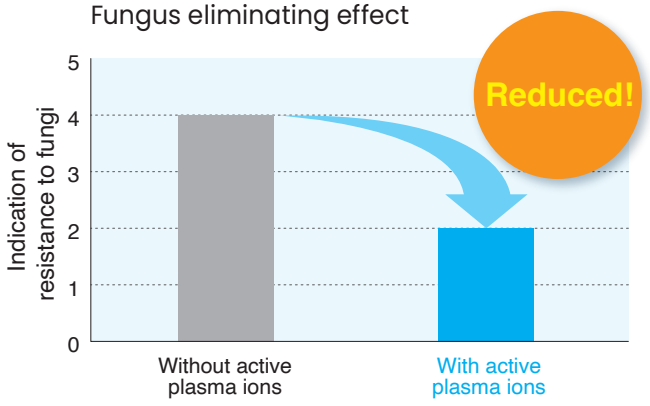
Concentration: 25,000 ions/cm³ *1

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

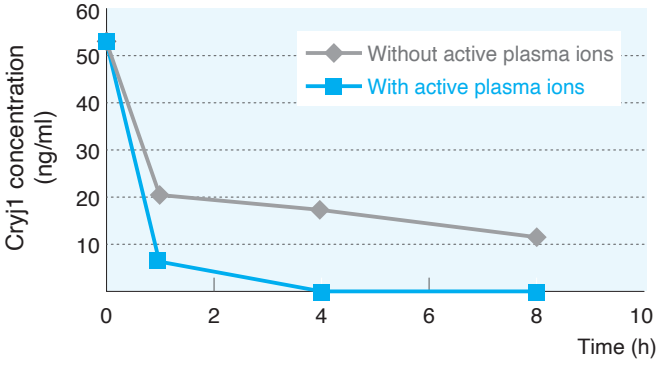
Fungus eliminating effect



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

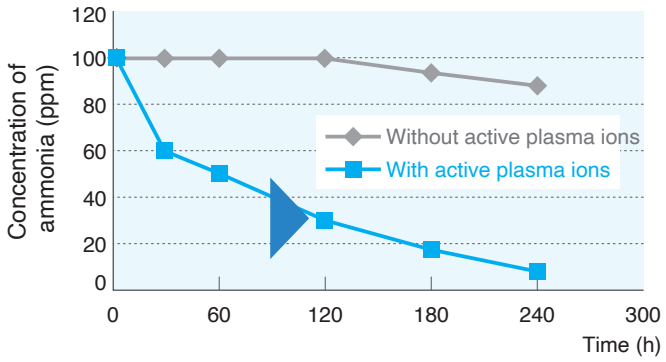
Change in concentration of allergen of cedar pollen over time



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

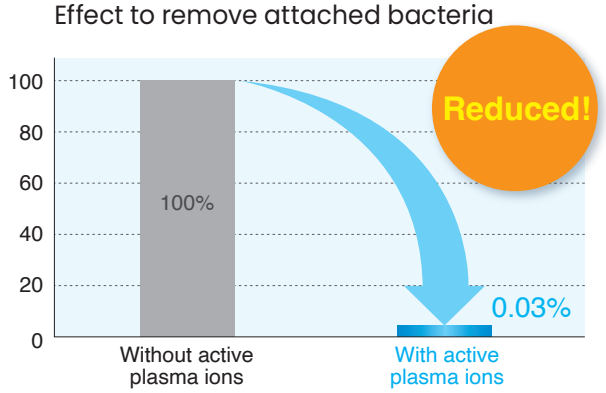
Deodorisation of ammonia



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

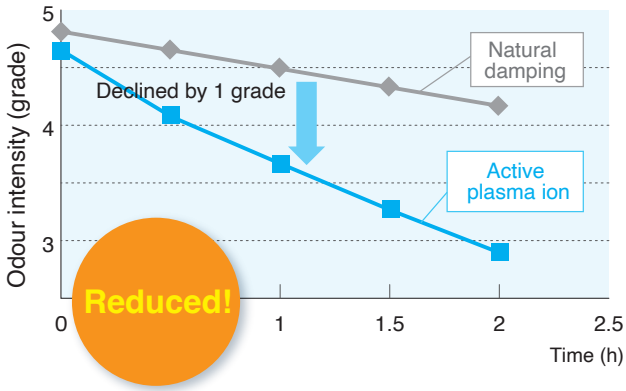
Effect to remove attached bacteria



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

Removal of attached odour

Effect to remove attached odour



Test method: In a test chamber of a size of about 6 tatami mats, evaluated deodorising effect on a piece of cloth to which tobacco odour components were attached by 6-grade odour intensity indication method.

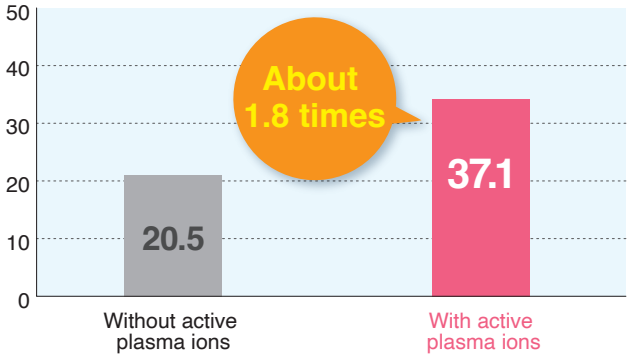
Test result: Odour intensity declined by 1 grade in about 1 hour (tested by Daikin).*

A one-grade decline of odour intensity means a 90% reduction of odour.

* The deodorisation effect varies depending on the ambient environment (temperature and humidity), operation time, odour, and the type of fiber.

Increase of skin moisture

Change in skin moisture (difference in integrated skin moisture of 120 minutes)



Organization: Soiken (Comprehensive Medical Science Laboratory).

Number: MII-2010-10.

Method: Measured skin moisture of 8 healthy women prone to skin dryness in a room of about 6 tatami mats under conditions with and without active plasma ions.

Result: Skin moisture increased by about 1.8 times in about 120 minutes.

* Actual effect will vary depending on room conditions and method of use.

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