

DAIKIN



Pure air
Because Daikin cares



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Daikin: a tradition of caring

For more than 80 years, we have been the leaders in energy-efficient climate control solutions. Our world-renowned products are easy to use, incorporate the latest technologies with respect to the environment. But most importantly, they care for you and provide you with superior comfort.

Our latest air purifier, the streamer technology air purifier, is a great example. A blend of new technology, improved performance, and ultra quiet operation, it is designed to care for you by unobtrusively providing purified air to produce a healthy home environment. Purified air improves the perception of comfort and, by removing and destroying contaminants and odours, the streamer technology air purifier also plays an essential role for those who suffer from asthma or allergies. These efforts place the streamer technology air purifier among the best residential air purifiers on the market today.



Allergens are impurities in the air that can bring on an allergic reaction. In an urban environment, a mixture of these allergens with other impurities present in the air – called **adjuvant substances** – such as Diesel Exhaust Particles (DEP's) and Volatile Organic Compounds (VOC's) present in some building materials and cosmetics, can produce **heavy allergens**. These in turn have increased negative health effects such as aggravated breathing symptoms and the triggering of latent allergies.



Why buy an **air purifier?**

There are so many particles in the air, many of which are natural and generally harmless while others are chemical contaminants, that we no longer enjoy the health benefits of clean air. It is essential, therefore, to remove and destroy the chemical contaminants and any allergens present as these have a direct negative impact on health and can trigger or aggravate asthma and allergic reactions.

Air purifiers are designed to do this efficiently and effectively and to produce clean air that it is, once again, fit to breathe. At the same time, they filter out the particles that produce odours, 'decomposes' them, and thus eliminate residual and unwanted smells. By removing the unwanted and potentially dangerous particles, the air purifier is directly contributing to the creation of an enhanced and healthy residential environment.

What is the Daikin streamer technology?

“Streamer Discharge” is a type of plasma discharge in which high-speed electrons collide with oxygen and nitrogen molecules, which then become activated and capable of oxidative decomposition of bacteria. This type of discharge has the ability to eliminate bacteria and mould as well as hazardous chemical substances and allergens, etc. Compared to standard plasma discharge (glow discharge), the discharge range of Daikin’s Streamer Discharge is wider, which makes it easier for electrons to collide with the oxygen and nitrogen molecules in the air. This enables activated molecules to be generated three dimensionally over a wide area, which results in an oxidative decomposition speed that is over 1,000 times greater with the same electrical power. Daikin’s Streamer Discharge technology has proven successful in stably generating high-speed electrons, a feat that has been considered difficult up to now.



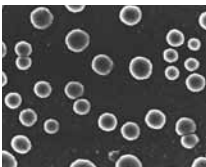
How does the **decomposition** mechanism of Streamer technology work?

The massive streamer discharge hits the viruses, decomposing and fragmenting their surface proteins, which are then destroyed through oxidation thus rendering the virus safe. The streamer discharge then breaks down into safe nitrogen and oxygen atoms and water molecules.

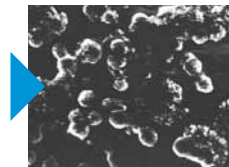
Examples of results after decomposition

Given below are some of the nasty air-born particles that are often serious health hazards but the air purifier filters these out, subjects them to decomposition by the massive streamer discharge, and makes the air safe.

Virus



BEFORE irradiation



AFTER irradiation

Pollen based allergen



BEFORE irradiation



AFTER irradiation

Fungal allergens



BEFORE irradiation



AFTER irradiation

Allergens from animate beings



BEFORE irradiation



AFTER irradiation

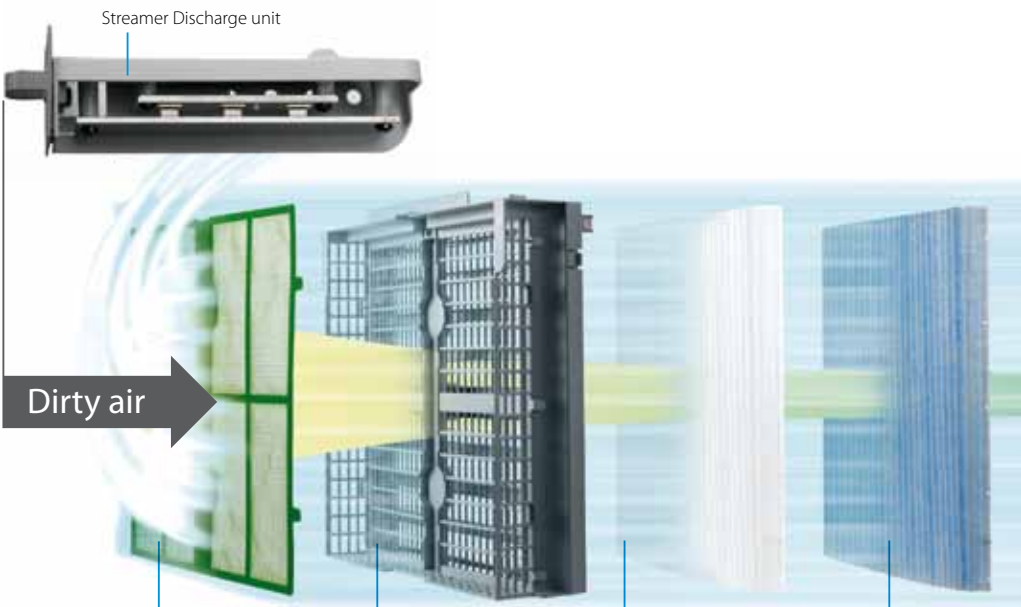
Viruses and allergens were placed on the electrode of streamer discharge unit and then photographed through an electron microscope after being irradiated. (Testing organization: Yamagata University and Wakayama Medical University)

Enhanced technology means clean air

Clean air could be defined as having had all the harmful particles and contaminants removed, but Daikin goes beyond this. Our **air purification** technology is designed not only to remove and then decompose **harmful particles** but also **dust, odours, bacteria, pet hairs, moulds, pollen** and **mites** and other **allergens** and so leaving it in a clean **and healthy** state.

Six-layer powerful decomposition and removal system

1 High-speed electrons are discharged that enable decomposition and removal



2 Dust is captured. Bacteria and allergens are removed *2
Prefilter

3 Dust and pollen are electrically charged and then sent to the filter
Plasma ionizer

4 Dust and pollen are absorbed by the electrically charged filter
Electrostatic dust collection filter (front of pleated dust collection filter)

5 Odours and viruses are kept under control by photocatalyst*3
Titanium apatite filter (back of pleated dust collection filter)

6

Formaldehyde*⁴ and odours
are decomposed

Deodorising catalyst filter

Clean air

*1 Measurement method: Antibacterial test/bacterial removal test; Testing organization: Japan Food research Laboratories; Test result certificate number 203120769-001; Result of experiment: 99.99% removal/mould removal test; Testing organization: Japan Food research Laboratories; Test result certificate 204041635-001; Result of experiment: 99.9% removal/Virus removal test; Testing organization: Kitasato Research Center for Environmental Science; Test result certificate 21_0026 (issued by same organization); Result of experiment: 99.9% removal. These results will differ from actual location where product will be used. *2 Conditions of experiment: Allergens were irradiated by Streamer Discharge and the breakdown of protein in the allergens was verified using either the ELISA method, cataphoresis, or an electron microscope. (Joint research with Wakayama medical University.) *3 Measurement method: Virus removal test; Testing organization: Kitasato Research Center for Environmental Science; Test result certificate 21_0026 (issued by same organization); Result of experiment: 99.9% removal. *4 Test method: constant generation method; Test room: 22 to 24 m³; Temperature: 23 ± 3°C; Humidity: 50 ± 20%; Ventilation condition: When concentration of 0.2 ppm is continually emanated, a removal capacity of 0.08 ppm is maintained at 36 m³/h, which is within the guideline of the Ministry of Health, Labour and Welfare (Japan). (This equates to the ventilation capacity of an approximately 65 m³ room.)

Main features

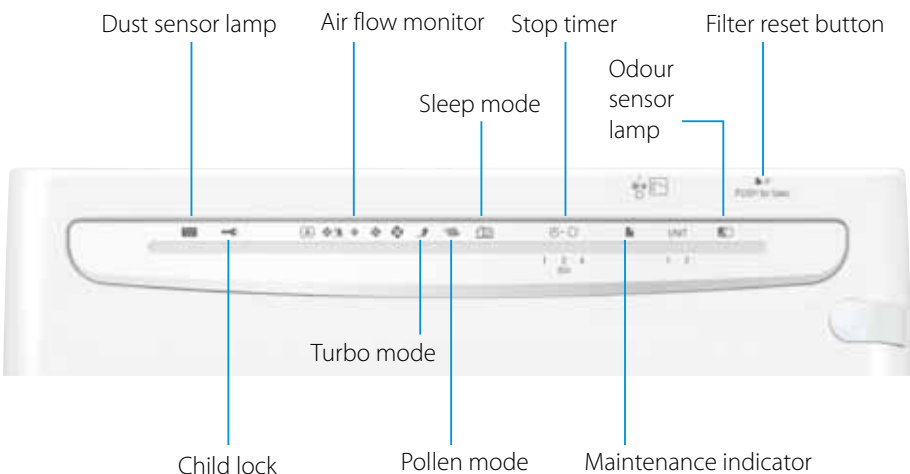


- > **Large air flow: 420m³/h***
*(in TURBO MODE)
- > **Ultra quiet operation: 16dB(A)***
*(in SILENT MODE)
This makes the unit suitable for use in bedrooms.
- > **Compact size**
Fits everywhere. No room or office corner is too small for the MC70L.
- > **Portable**
At only 8.5 kg, the unit can be easily moved from one room to another

- ✓ Sleep mode
- ✓ Suitable for rooms of up to 46 m²
- ✓ The Powerful fan action reaches every corner of the room.

User friendly design that's easy to read and easy to use

Top display and operation panel



- > **Child lock:** This prevents small children from mishandling the air purifier.
- > **Display adjustment:** This adjusts the brightness of the display.
- > **Off timer:** This sets the time (1,2 or 4 hours) after which the unit will turn off.
- > **Pollen Mode:** By creating a gentle turbulence in the room air, pollen is caught before it lands on the floor.
- > **Turbo mode:** This provides high-power operation when, for example, you come home or when you have unexpected guests.

Economical: no need to buy filters for 10 years^{*4}

Operation is economical with the 5 filters provided. You won't need to buy filters for 10 years, because each filter lasts 2 years.

Easy filter storage

Unused filters can be stowed neatly inside the unit.

*4 Based on ten cigarettes being smoked per day. (Calculation based on testing method of Japan Electrical Manufacturers Association JEM1467 standard.) The unit is unable to decompose all harmful substances such as carbon monoxide found in cigarette smoke. Two years as the replacement period for the pleated filter is given as a guide. This may differ depending on how and where the product is used. The replacement period will become shorter if it is used in a place where there are a lot of pollutants in the air.

Function list

Titanium apatite photocatalytic filter

Bacteria and viruses are thoroughly absorbed by the titanium apatite and then removed by the photocatalyst.

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).

Pollen mode

By switching between normal and low airflow to create a gentle turbulence, pollen is caught before it lands on the floor.

Off timer

Operation stop time can be set.

Streamer Discharge

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

Dust and odour sensor lamps

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

Sleep mode

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

Child lock

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

Streamer deodorising catalyst

Odours and allergens, etc., are adsorbed on the catalyst and then decomposed by the power of the streamer.

Power saving inverter

The inverter saves energy by efficiently controlling the rotational speed of the motor in order to reduce power consumption.

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.

Display adjustment

The brightness of the indicator panel lamp can be adjusted.

Plasma dust collection

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

Energy saving automatic operation

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.

Prefilter

This catches large dust particles. Bacteria and allergens are removed by the streamer and filter.

The stylish
design of
the MC70L
matches any
interior design



Main specifications

Daikin has already received great praise for its air purifiers: a British Allergy Foundation seal of approval and the TÜV Nord test mark confirm the efficiency of our units.

MC70L

Applicable room area			Up to 46 m ²				
Power supply			1 phase 220-240 / 220-230 V				
Color			White				
Dimensions	HxWxD	mm	576 x 403 x 241				
Weight		kg	8.5				
Convenient functions			Off timer, Child lock, display adjustment				
Mode			Quiet	Low	Normal	High	Turbo
Airflow		(l/s)	15.1	36.6	58.3	79.9	116.6
Power consumption		W	7.0	10.0	16.0	26.0	65.0
Sound pressure		dB(A)	16.0	24.0	32.0	39.0	48.0
Sold separately	Replacement pleated filter		KAC017A4E Set of 5				





About the dust collection and deodorising capacity of an air purifier:

- 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.

The Daikin Air Purifier is not a medical device and is not meant to be used as a substitute to any medical or pharmaceutical treatment.



Daikin's unique position as a manufacturer of air conditioning equipment, compressors and refrigerants has led to its close involvement in environmental issues. For several years Daikin has had the intention to become a leader in the provision of products that have limited impact on the environment. This challenge demands the eco design and development of a wide range of products and an energy management system, resulting in energy conservation and a reduction of waste.

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