DAIKIN

Streamer technology air purifier

Powerful air purification

MC30YV/YB

- Air treatment up to 46m^2
- Pure Air thanks to **Catch and Clean** approach
- No need to change filter for 10 years thanks to high performance electrostatic HEPA filter
- Whisper quiet operation (19 dB(A))

Eliminates pollutants and allergens

mold spores

dust

fine particles

ultrafine particles

pollen

bacteria

odours

virus

hair

volatile organic compounds (VOC)

No maintenance costs for at least **10 years**

No need to change the filters in the first 10 years after unit purchase, avoiding additional costs for regular filter changes.

One of the **most silent** air purifier range on the European market

Our air purifiers are whisper quiet during **quiet operation** (sound pressure level: 19 dBA), providing you pure air without noticing.

Compact & performing

Small size and perfect for surfaces up to 46m^2.

About the dust collection and deodorizing 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 (from building materials and pets, 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.

HEPA filtration effect claims:
- Removes 99% of particles between 0.1µm and 2.5µm in size: 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 32m^3 within 90 minutes. (Converted to a value in a test space of 32m^3).

Deodorization/gas removal effect claims:
- Reduction of gases by oxidation: 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 particles 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).
- Adsorption and decomposition of odours: 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 MCK55W series.
- Formaldehyde decomposition: test method: constant generation method. Test room: 22 to 24 m^3, 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 m^3/h, which is within the guideline of the Ministry of Health, Labour and Welfare in Japan. (This equates to the ventilation capacity of an approximately 65 m^3 room.)

Substance decomposition effect claims:
- Removal of bacteria from dust collection filter: 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 result: Reduced by more than 99% in five hours. Test unit: Tested with MCK55S (Japanese model), a model equivalent to MCK55W series (turbo operation).
- Allergen decomposition and removal: various allergens were irradiated by streamer discharge and the breakdown of protein in the allergens was verified using the ELISA method, cataphoresis, or an electron microscope (Joint research with Wakayama Medical University). Test example: 'Japanese cedar pollen Cryj-1'. Test result: 99,6% or more decomposed and removed in 2 hours (ELISA method); 96,9% decomposed and removed in 4 hours (other measurement method). Note: test performed on the flash streamer module.
- Virus removal ref. 1: testing organization: Kitasato Research Center for Environmental Science. Test result certificate 21_0026 (issued by same organization). Result of experiment: 99.9% removal of A-H1N1 virus after 1 hour. Note: test performed on the flash streamer module.
- Virus removal ref. 2: testing organization: Vietnamese Institute of Hygiene and Epidemiology. Result of experiment: over 99.9% removal of A-H5N1 virus in 3 hours. Note: test performed on the flash streamer module.
- Virus removal ref. 3: testing organization: Graduate School of Kobe University. Result of experiment: over 96% removal of Norovirus in 24 hours. Note: test performed on the flash streamer module.

Daikin unique's Catch & Clean approach
3 steps to decompose harmful substances

1

Powerful suction

Takes in air over a wide area from 3 directions.

2

Effective capturing of pollutants

Efficiently catches dust and pollutants with an electrostatic HEPA filter.

3

Decomposition

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

STREAMER

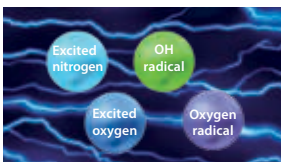
INSIDE

Streamer decomposes hazardous elements

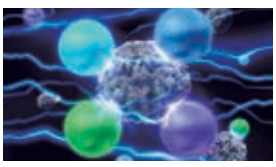
Streamer, a type of plasma discharge, decomposes hazardous chemical substances.

Mechanism of decomposition by Streamer

Streamer emits high-speed electrons.



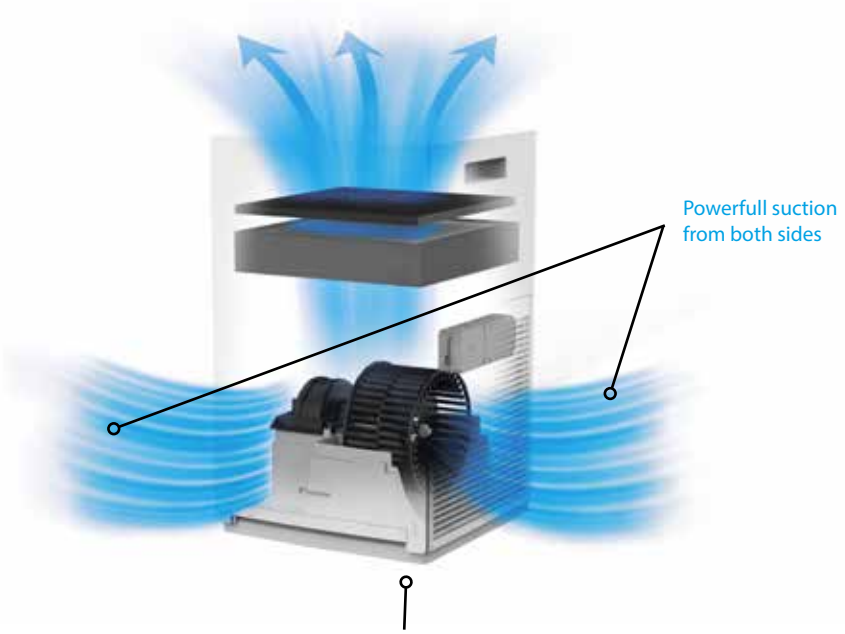
The electrons collide and combine with nitrogen and oxygen in the air to form four kinds of elements.



These elements provide decomposition power.

Tower Type structure

resulting in Cleaner air delivery, lower sound level and effective 3-way air flow



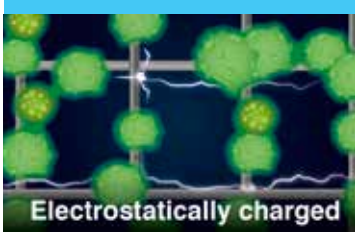
High performance HEPA filter to catch fine particles of dust

Removes 99% of particles between 0.1µm and 2.5µm in size.

STEP 1	STEP 2	RESULT
The filter collects dust efficiently with **electrostatic forces**. It is **not prone to clogging** compared with non-electrostatic HEPA filters which collect particles only by the fineness of the mesh.	Therefore, a larger amount of air can pass through the filter.	The filter can purify a larger amount of air!

Comparison between electrostatic HEPA filter and non-electrostatic filter

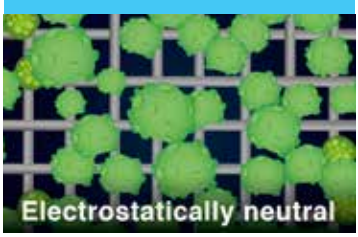
Electrostatic HEPA filter



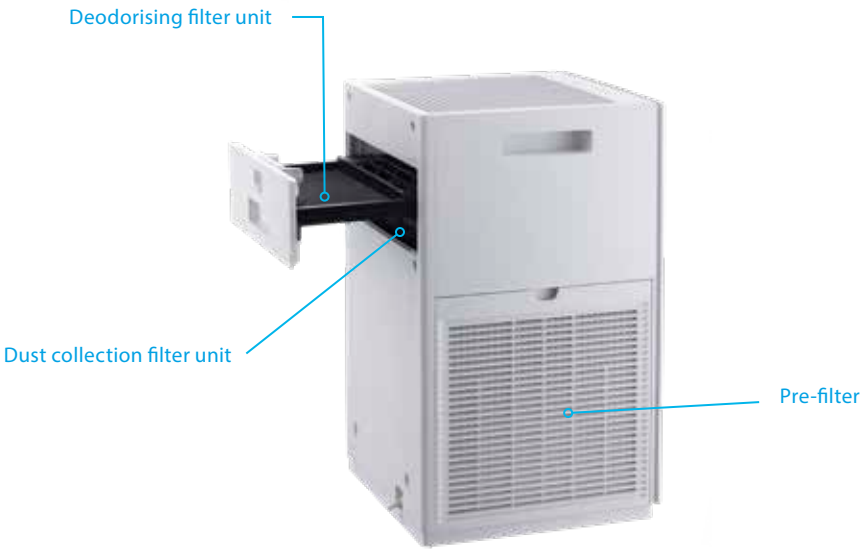
- Removes 99.97% of fine particles of 0.3µm.
- Filter fiber itself is charged with static electricity, and collects particles efficiently.
- Doesn't clog easily, hence causes low pressure loss.

VERSUS

Non-electrostatic filter



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



MC30YV/YB

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- Pure air thanks to **'Catch and Clean'** approach
- No need to change filter for 10 years thanks to high performance electrostatic HEPA filter
- Whisper quiet operation (19 dB(A))

DUST COLLECTION

DEODORISATION

Capacity in turbo operation mode

AIR PURIFICATION

Air purification

Airflow

3.0 m^3/min.

180 m^3/hour

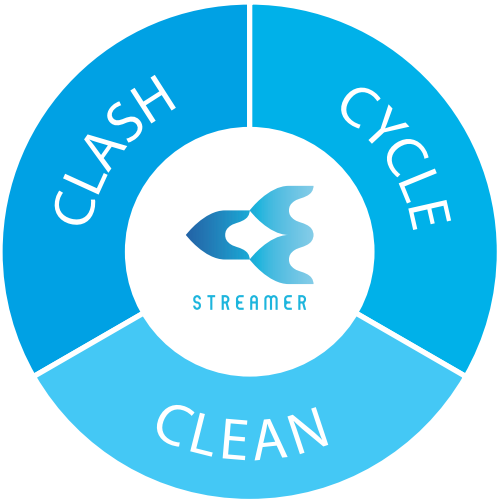
Applicable room area

~46 m^{2*}

*Area calculated according to NRCC-54013-2011 standard using CADR value by test method based on Japan Electric Manufacturers' Association Standard JEM 1467.

The Streamer Symbol consists of

three C's



CLASH
The dust collection filter catches the floating substances with the attached harmful gases and Streamer decomposes the gases by oxidation.

CYCLE
The deodorising filter absorbs and decomposes odour. Thanks to the regeneration of the adsorbing capacity, the deodorising capacity is maintained. No need to change the deodorising filter.

CLEAN
Removes bacteria from dust collection filter

Specifications

Technical specifications				MC	MC30YV/YB
Application					Floor Standing Type
Applicable room area					23 (1) / 46 (2)
CADR				m3/h	180
Weight	Unit			kg	5.8
Dimensions				mm	565/350/345
Casing	Colour				White
Fan	Type				Multi Blade Fan (Sirocco fan)
	Air flow rate	Air purifying operation	Silent Medium Turbo	m^3/h m^3/h m^3/h	60 120 180
Sound pressure level	Air purifying operation	Silent Medium Turbo		dBA dBA dBA	19 27 37
Air purifying operation	Power input	Silent Medium Turbo		kW kW kW	0.008 0.015 0.025
Deodorizing method					Flash streamer + Deodorizing catalyst
Dust collecting method					Electrostatic HEPA filter
Air filter	Type				Polyethylene terephthalate net
Sign	Item	01			Child proof lock lamp/ ON/OFF lamp Streamer lamp/ Sleep mode
Power supply		Phase Frequency Voltage		Hz Hz V	1~ 50/60 220-240/220-30
Type					Air Purifier

Standard accessories: Electrostatic HEPA filter; Quantity : 1;

Standard accessories: Deodorising filter; Quantity : 1;

Standard accessories: Operation manual; Quantity : 1;

Note

(1) The applicable room area is appropriate for operating the unit of maximum fan speed (HH). Applicable room area indicates the space where a certain amount of dust particles can be remover in 30 minutes. (JEM 1467) | (2) The applicable room area is appropriate for operating the unit of maximum fan speed (HH). Applicable room area was calculated in accordance with NRCC-54013 standard using cigarette smoke CADR that was tested accoring to JEM1467. | Converted to CADR standards from test values in accordance with JEM1467. | Operating sound levels are the average of values measured at 1m away from the front, left, right and top of the unit. (These are equal to the values in an anechoic chamber) | Electrostatic HEPA filter is attached in the unit. | Other function : Auto-restart function.

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› Not all odour components that emanate continuously (from building materials and pets, etc.) can be removed.

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FSC

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CERTIFIED ISO 9001 · ISO 14001

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