



Humidifying air purifier

for an extended surface area



MCK70YVM / MCK70YB

- › Humidification and purification in one
- › Pure Air thanks thanks to **Catch and Clean** approach
- › High performance electrostatic HEPA filter with no need to change for 10 years
- › Whisper quiet operation (18 dB(A))

Eliminates pollutants and allergens



mold spores



dust



fine particles



ultrafine particles



pollen



bacteria



odors



virus



animal hair



volatile organic compounds (VOC)



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.



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: 18 dBA), providing you pure air without noticing.

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 32m³ within 90 minutes. (Converted to a value in a test space of 32m³).

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/m³), 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: LSRJ-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 m³ and operated the air purifier. Examined increase of concentration of product (CO) generated by decomposition of acetaldehyde by Streamer (evaluation by Daikin). Test unit: Tested with MCK555 (Japanese model), a model equivalent to MCK55W series.
- Formaldehyde decomposition: 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 in Japan. (This equates to the ventilation capacity of an approximately 65 m³ 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 m³. Counted the number of live bacteria after five hours. Test result: Reduced by more than 99% in five hours. Test unit: Tested with MCK555 (Japanese model), a model equivalent to MCK55W series (turbo operation).
- Removal of bacteria from humidifying filter: testing organization: Japan Food Research Laboratories. Test number: 15044989001-0101. Test method: Attached a test piece inoculated with bacteria liquid on the upstream side of a humidifying filter installed in an air purifier, and operated it in a test area of 25 m³. Counted the number of live bacteria after five hours. Object part: Humidifying filter. Test result: Reduced by more than 99% in five hours. Test unit: Tested with MCK555 (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 2L_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's unique double method

OUTSIDE

Active plasma ion discharge

Plasma ion technology releases ions into the air by plasma discharge and combines them with components in the air to generate active components such as OH radicals with strong oxidising power. 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

- Daikin's plasma ions have been proved safe, in relation to the effect on skin, eyes and respiratory organs.
- Testing organization: Life Science Laboratories, Ltd.
- Name of test: repeated-dose toxicity test.
- Test number: 12-II A2-0401 Mechanism of reduction by active plasma ions.



INSIDE

Streamer decomposes hazardous elements

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

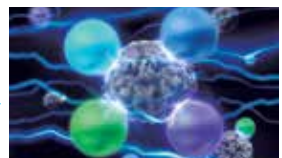
Mechanism of decomposition by Streamer



Streamer emits high-speed electrons.

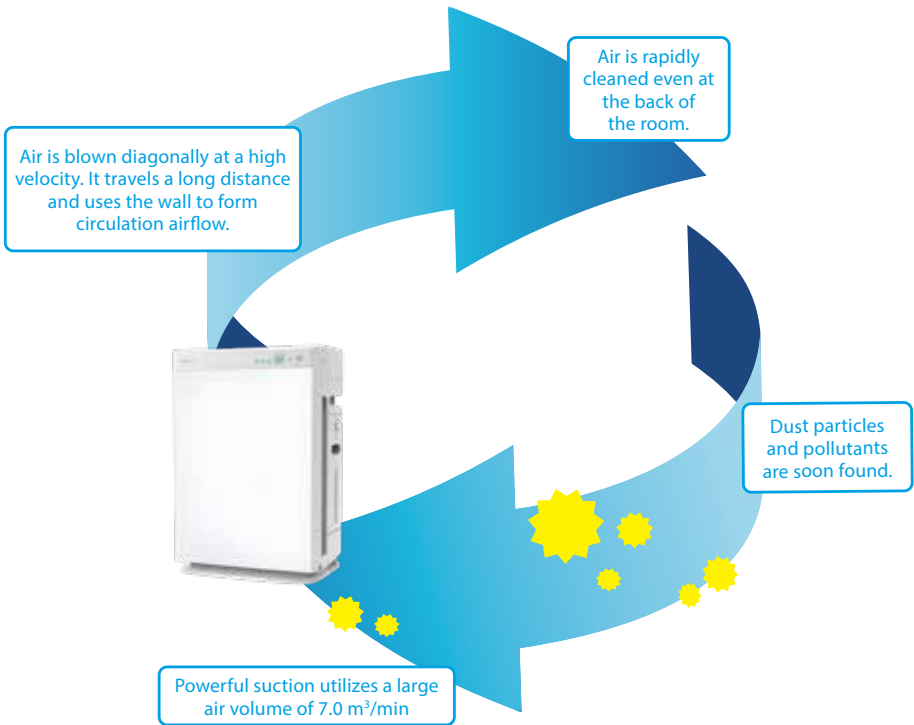


The electrons collide and combine with nitrogen and oxygen in the air to form four kinds of elements.



These elements provide decomposition power.

The large volume of circulation airflow cleans even spacious areas quickly



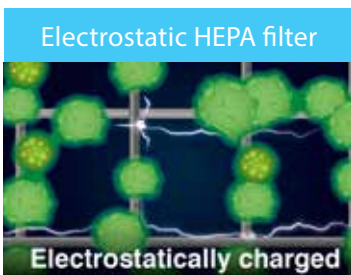
High performance HEPA filter to catch fine particles of dust



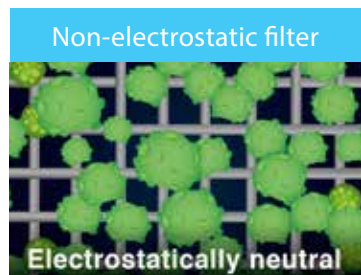
Removes 99% of particles between 0.1µm and 2.5µm in size.

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



VERSUS



- 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.

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.



NEW

Twin streamer unit
High speed electrons are discharged

NO NEED TO CHANGE



Pre-filter
Catches dust

NO NEED TO CHANGE

*regular cleaning is necessary

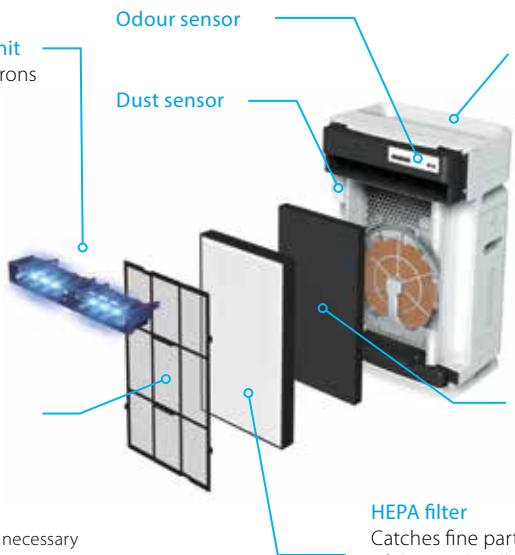
Odour sensor

Dust sensor

Active plasma ion generation unit

Plasma ions are discharged

NO MAINTENANCE OR EXCHANGE NEEDED



Deodorising filter
Absorbs odour

NO NEED TO CHANGE

HEPA filter

Catches fine particles of dust and pollen

NO NEED TO CHANGE FOR 10 YEARS

MCK70YV/YB

- Air purification for large spaces such as residential and light commercial applications
- Pure air thanks to Daikin **'Catch and Clean'** approach in decomposing harmful substances
- High performance HEPA filter with no need to change for 10 years
- Whisper quiet

DUST COLLECTION

HUMIDIFICATION

DEODORISATION

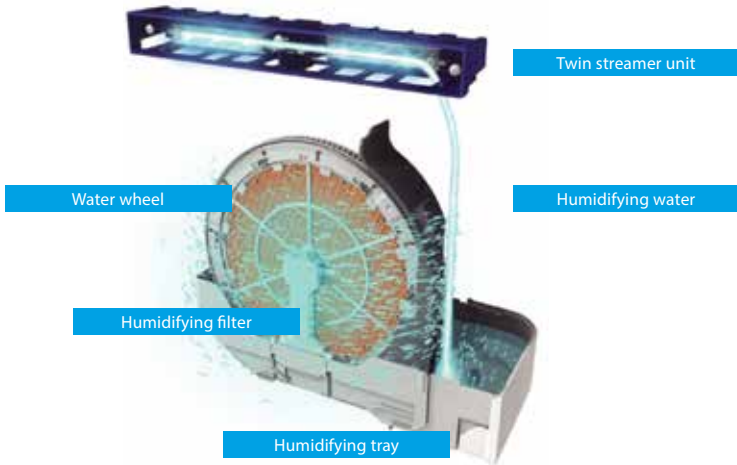
Capacity in turbo operation mode

AIR PURIFICATION	HUMIDIFYING CAPACITY
Humidification + Air purification Airflow 7.0 m ³ /min. 420 m ³ /hour	650 ml/h
Applicable room area ~96 m ² *	

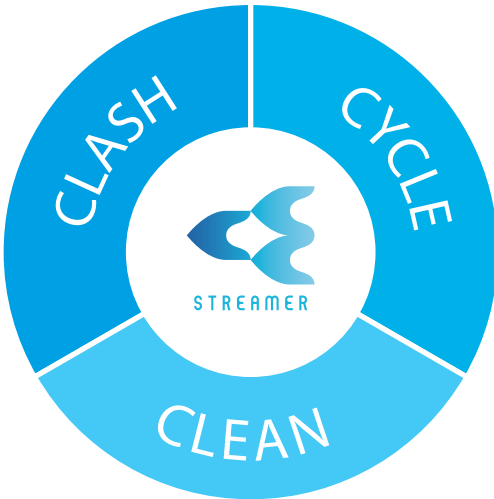
*Area calculated according to NRCC-54013-2011 standard using CADR value by test method based on Japan Electric Manufacturers' Association Standard JEM 1467.

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

Powerful humidification to protect against Air Dryness and viruses



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, humidifying filter and humidifying water tray.

Twin Streamer

Twice the decomposition power
for dust particles & odours

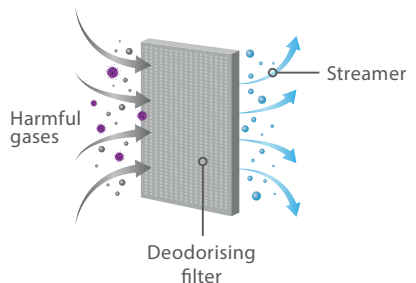
Equipped with twice the Steamer units compared to conventional models, it also features a structural design that irradiates the filter even more effectively.

Decomposition of harmful gases is twice as fast¹

(In comparison with conventional Daikin products)

Equipped with twice the Steamer units compared to a previous model, it decomposes harmful gases such as exhaust gas at twice the speed.

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



Deodorisation is twice as much²

(In comparison with previous Daikin product)

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

The effect was in a test space of 29.4 m³ after 30 minutes of operation and was not a test result in an actual operation space.

Twin streamer even cleans the inside of the unit

- Removes bacteria on the dust collection filter.³
 - Speed of bacteria removal is twice as fast.⁴
- (In comparison with previous Daikin models)

The effect was in a closed test space of approximately 25 m³ after 2.5 hours of operation and was not a test result in an actual operation space.

¹ Placed an air purifier in a 1m3 box with acetaldehyde as an exhaust gas-derived VOC and operated the air purifier (at maximum Streamer output operation). Measured the change in acetaldehyde concentration. (Only the decomposed amount was calculated by subtracting the amount of filter absorption.) (Daikin evaluation) Reduction of acetaldehyde concentration was confirmed to be twice as fast as conventional products. Comparison between 2018 MCK70U(Japanese model), a model equivalent to MCK70V and 2017 MCK70T(Japanese model). | ² Measured the change in ammonia concentration due to tobacco in a test space of 29.4 m³, 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 2018 MCK70U (Japanese model), a model equivalent to MCK70V and 2017 MCK70T (Japanese model).

³ Testing organization: Japan Food Research Laboratories. Test number: 17117469001-0101. 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 25m3. 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 MCK70U (Japanese model), a model equivalent to MCK70V. | ⁴ Twin streamer: reduced by more than 99% in 2.5 hours; Streamer: reduced by more than 99% in 5 hours.



More details and final information can be found by scanning or clicking the QR codes.



MCK70YV



MCK70YB

Specifications

Indoor Unit				MCK70YVM	
Application				Floor standing type	
Applicable room area				48 (1) / 96 (2)	
Dimensions	Unit	HeightxWidthxDepth	mm		
Weight				12.5	
Casing				White (N9.0)	
Fan				Multi Blade Fan (Sirocco fan with shroud assembly)	
Air flow rate				60/132/210/420	
Humidifying operation				102/132/210/420	
Sound pressure level	Air purifying operation	Silent/Low/Medium/Turbo		18/27/37/54	
	Humidifying operation	Silent/Low/Medium/Turbo		23/27/37/54	
Humidifying operation	Power input	Silent/L/M/Turbo		0.011/0.012/0.018/0.068	
	Humidification	Turbo		650	
Water tank capacity				3.6	
Air purifying operation	Power input	Silent/L/M/Turbo		0.008/0.010/0.016/0.066	
Deodorizing method				Flash streamer + Deodorizing catalyst	
Dust collecting method				Electrostatic HEPA filter	
Air filter				Polyethylene terephthalate net	
Sign				01	
Power supply				1~/50/60/220-240/220-230	
Type				Humidifying air purifier	

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 removed in 30 minutes. ((1) in accordance with JEM (2) in accordance with CADR (JEM) & NRCC-54013-2011 standard) (3) With caster: 637 x 395 x 287 | Humidification amount changes in accordance with indoor and outdoor temperature and humidity. Measurement condition: 20°C in temperature, 30% in humidity. | 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 and humidifying filters are attached in the unit.



Buy your
air purifier now or
contact your installer!

www.daikin.eu

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- > 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.

FSC

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