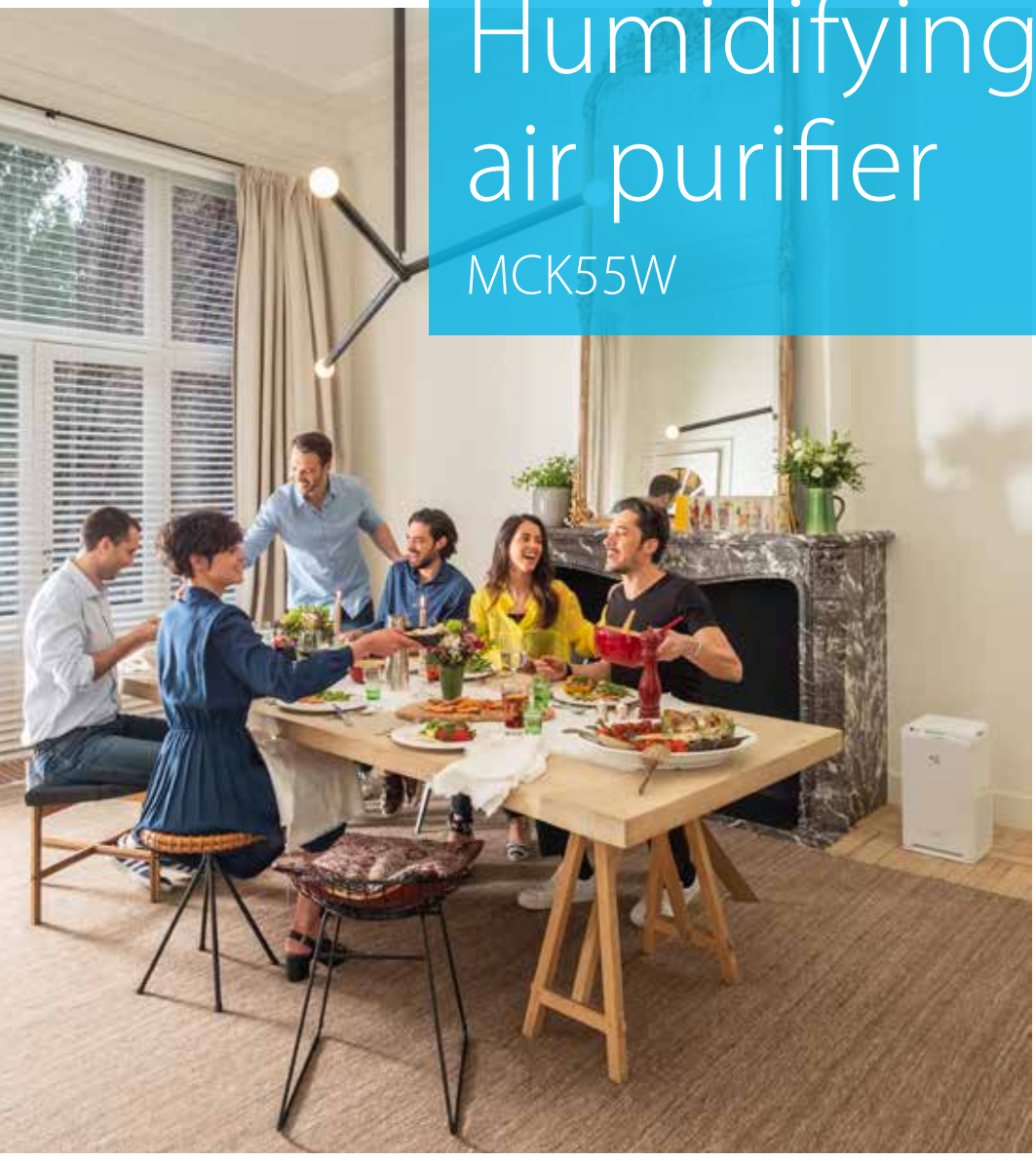
Humidifying air purifier

MCK55W



- Effectiveness against respiratory viruses evaluated by Institut Pasteur de Lille
- Humidification and purification in one
- Pure air thanks to active plasma ion discharge and flash streamer technology
- High performance HEPA filter with no need to change for 10 years
- Whisper quiet

Why choose Daikin?

Institut Pasteur de Lille evaluated the effectiveness of Daikin's air purifiers against respiratory viruses.

According to tests performed in the laboratories of the Institut Pasteur de Lille, Daikin Air Purifier MCK55W removes **99.996%** of **the human coronavirus** HCoV-229E in 2.5 minutes*. This virus is of the same family as SARS-CoV-2, the coronavirus behind the COVID-19 pandemic. The unit has also been evaluated as **99.986% effective against the H1N1 virus in 2.5 minutes***. H1N1 is the virus causing common flu.

This means Daikin's air purifiers are an additional measure in the fight against respiratory diseases. Our compact plug-and-play purifiers, whose effectiveness is achieved through a combination of the high performance electrostatic HEPA filter, which traps the virus, followed by an intense exposure to Daikin's patented **Flash Streamer technology**, which removes the virus, can strongly contribute to reducing the risk of respiratory virus transmission.

*Daikin device MCK55WVM (commercial name MCK55W), tested by Institut Pasteur de Lille, removes 99.996 % of Human Coronavirus HCoV-229E in 2.5 minutes running time at `turbo' speed in laboratory conditions(air-tight chamber with inner volume 0.47 m3, no air renewal). Human Coronavirus HCoV-229E is different from the virus responsible for COVID-19, SARS-CoV-2, but belongs to the same family of coronaviruses. | Daikin device MCK55WVM (commercial name MCK55W), tested by Institut Pasteur de Lille, removes 99.986 % of Influenza A virus subtype H1N1 in 2.5 minutes running time at `turbo' speed in laboratory conditions (air-tight chamber with inner volume 0.47 m^3, no air renewal).

Tested by Institut Pasteur de Lille

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

BRITISH ALLERGY FOUNDATION • ALLERGY UK SEAL OF APPROVAL •

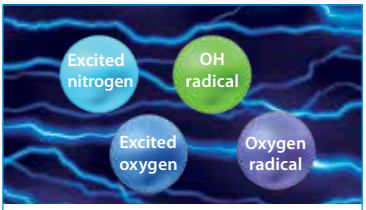
Daikin's unique double method

1. The Streamer unit, a high power plasma discharge technology, decomposes harmful substances* inside the unit. These substances are either trapped on the HEPA filter or adsorbed to the deodorizing filter element.

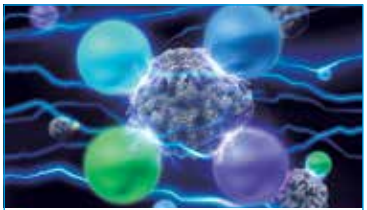
2. The Active Plasma Ion generation unit provides further purification to the space, by adding purifying elements to the cleaned air. These could for example assist to deodorize smelling curtains and carpets.

* Substances including: viruses[1], bacteria[2], pollen[3], mould spores[4]

Plasma discharge 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.

Note:
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.
2 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).
3 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.
4 Testing organization: Japan Food Research Laboratories. Test number: 204041635-001. Test result: 99.9% or more of mould (Cladosporium) spores decomposed and removed in 24 hours.

Three steps to decompose harmful substances

1 Powerful suction

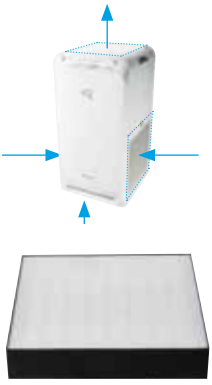
Takes in air over a wide area from 3 directions.

2 Effective capturing of pollutants

Efficiently catches dust and pollutants with an electrostatic HEPA filter.

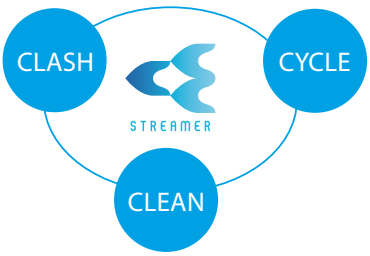
3 Decomposition

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



STREAMER

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 adsorbs and decomposes odour. Thanks to the regeneration of the adsorbing capacity, the deodorising capacity is maintained. No need to change the deodorising filter , unlike air purifiers with activated carbon filters.

CLEAN: Removes bacteria from dust collection filter and humidifying filter.

High performance HEPA filter to catch fine particles of dust

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

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.

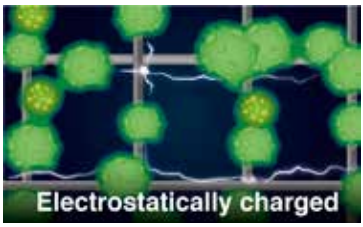
→ Therefore, a larger amount of air can pass through the filter.

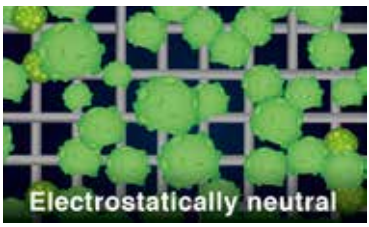
→ The filter can purify a larger amount of air!

Electrostatic HEPA filter ⟷ versus ⟷ Non-electrostatic 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 less pressure loss

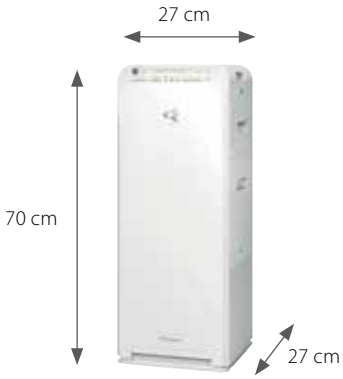
- Because it catches particles relying only on mesh size, it is necessary to make mesh finer, making it easy to be clogged and cause high pressure loss





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

Small footprint

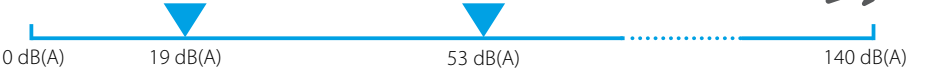


MCK55W

Very quiet

Silent mode

Turbo mode



Unique vertical structure

Humidifying filter

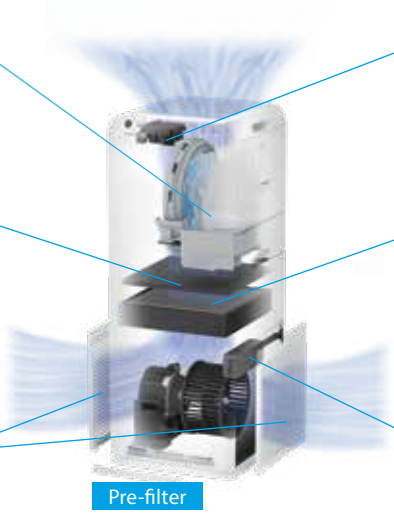
Double-layer filter for humidification.
No need to change for 10 years.

Deodorising filter

Adsorbs odour.
No need to change.

Pre-filter

Catches large particles of dust.
No need to change.



Active plasma ion generation unit

No maintenance or exchange needed.

Dust collection filter

Catches fine particles of dust.
Removes 99,97% of fine particles of 0,3µm.

Streamer unit

No maintenance or exchange needed.

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

MCK55W

HUMIDIFICATION | DUST COLLECTION | DEODORISATION

Capacity in turbo operation mode

AIR PURIFICATION

Air purification only	Humidification + Air purification

Airflow

5.5 m^3/min. 330 m^3/hour

Applicable room area

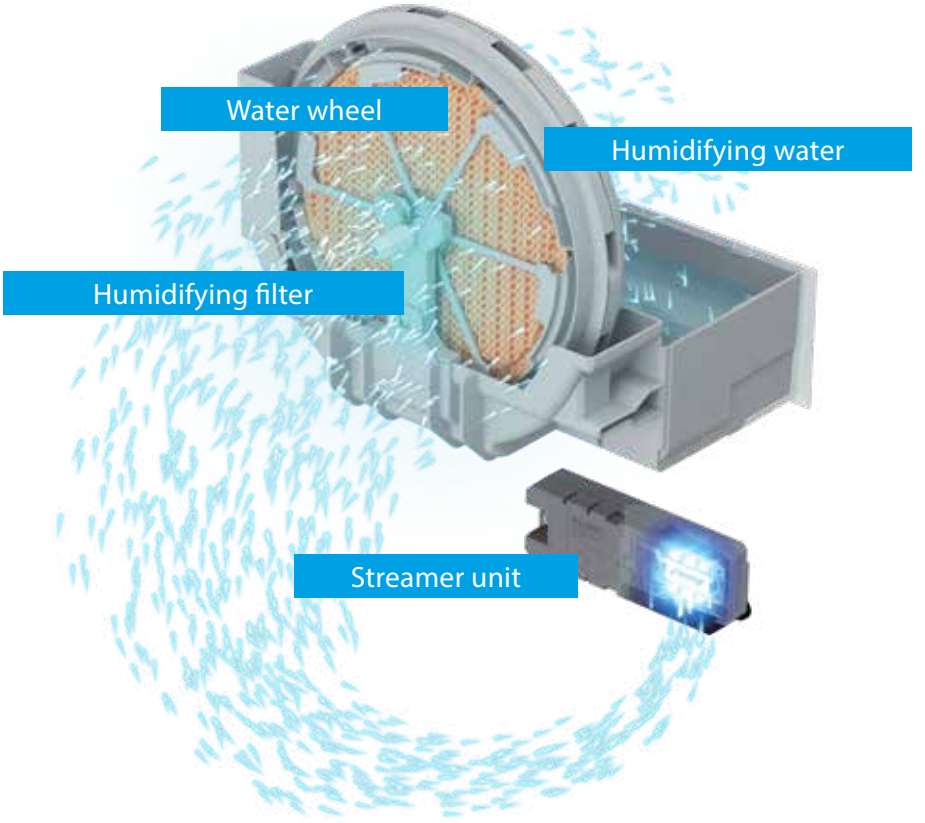
~82 m^{2*}

HUMIDIFYING CAPACITY

500 ml/h

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

Powerful humidification to protect against Air Dryness and viruses



Triple Detection sensor to quickly detect air pollution

STREAMER

Equipped with a high sensitivity dust sensor that distinguishes small particles such as $PM_{2.5}$ and larger particles of dust and reacts accordingly. Triple detection of dust, $PM_{2.5}$ and odour is provided.

MCK55W

- Protects the skin, the throat and the nostrils from dryness
- Protects against viruses by maintaining appropriate humidity of the room
- Indicates humidity of the room
- Eliminates bacteria on the humidifying filter

MCK55WVM

Single Unit				**MCK**	**55W**
Application					Floor standing type
Applicable room area				m^2	41 (1) / 82 (2)
Dimensions	Unit	HeightxWidthxDepth		mm	700 x 270 x270
Weight	Unit			kg	9.5
Casing	Colour				White
Fan	Type				Multi Blade Fan (Sirocco fan)
	Air flow rate	Air purifying operation	Silent/ Low/ Medium/ Turbo	m^3/h	54 /120 /192 /330
		Humidifying operation	Silent/ Low/ Medium/ Turbo	m^3/h	102 /144 /192 /330
Sound pressure level	Air purifying operation	Silent/Low/Medium/ Turbo		dBA	19.0 /29.0 /39.0 /53.0
	Humidifying operation	Silent/Low/Medium/ Turbo		dBA	25.0 /33.0 /39.0 /53.0
Humidifying operation	Power input	Silent/L/M/Turbo		kW	0.011 /0.014 /0.019 /0.058
	Humidi-fication	Silent/Low/Medium/ Turbo		ml/h	200 /240 /300 /500
	Water tank capacity			l	2.7
Air purifying operation	Power input	Silent/L/M/Turbo		kW	0.007 /0.010 /0.017 /0.056
Deodorizing method					Flash streamer + Deodorizing catalyst
Dust collecting method					Electrostatic HEPA filter
Air filter	Type				Polyethylene terephthalate net
Sign	Item	01			Dust: 3 stages / Odour: 3 stages / Anti-pollen mode / Water supply lamp / Child proof lock lamp / ON/OFF lamp / Streamer lamp / Econo mode / MOIST mode / AUTO FAN mode / $PM_{2.5}$ sensor lamp: 3 stages / Humildity monitor lamp: 5 stages / Humildity setting: Low/Standard/High / Airflow rate: Quiet/Low/Standard/Turbo / Humidity on/off
Power supply	Phase/Frequency/Voltage			Hz/V	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) | 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.

Functions

Dust ($PM_{2.5}$/dust) and odour sensor lamps	x
Streamer discharge	x
Active plasma ion	x
Electrostatic HEPA filters	x
Streamer regenerated deodorizing filter	x
Econo mode	x
Auto fan mode	x
Anti-pollen mode	x
Turbo mode	x
Child proof lock	x
Brightness adjustment	x
Auto restart after power failure	x
Stabilizer free	x

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.

FSC

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CERTIFIED ISO 9001 · ISO 14001

CE

Daikin Europe N.V. Naamloze Vennootschap Zandvoordestraat 300 · 8400 Oostende · Belgium
www.daikin.eu · BE 0412 120 336 · RPR Oostende (Publisher)