



# Pure air Because Daikin cares

- Pure air thanks to active plasma ion discharge and flash streamer technology
- High performance HEPA filter to catch fine particles of dust
- Powerful suction and whisper quiet
- New stylish and compact design

## 1. 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

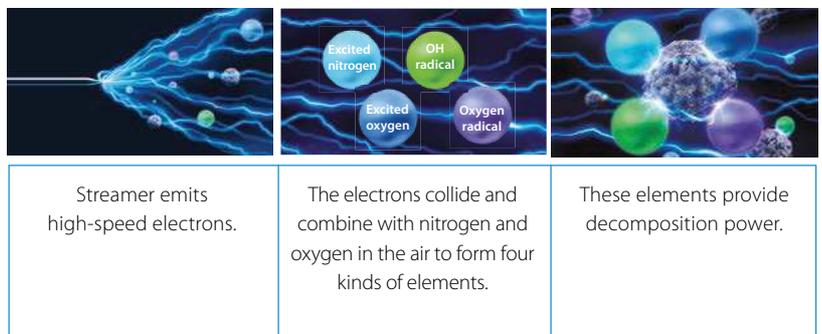
Concentration: 25.000 ions/cm<sup>3</sup> \*1

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. The decomposition power is comparable to thermal energy of about 100,000°C.\*2

#### > Mechanism of decomposition by Streamer



Note:  
 \*1 The number of ions per 1cm<sup>3</sup> of air blown into the atmosphere measured near the air outlet during operation with maximum airflow. Test conditions: temperature 25°C, humidity 50%.  
 \*2 Comparison of oxidation decomposition. This does not mean temperature will become high.  
 \*3 (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<sup>3</sup>), 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).  
 \*4 Placed the air purifier and an odour component, acetaldehyde, in a box of 21 m<sup>3</sup> and operated the air purifier. Examined increase of concentration of product (CO<sub>2</sub>) generated by decomposition of acetaldehyde by Streamer (evaluation by Daikin). Test unit: Tested with MCK555 (Japanese model), a model equivalent to MCK55W series.  
 \*5 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

## 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.

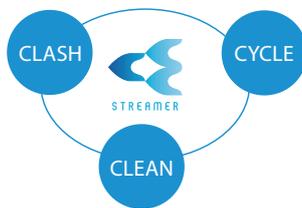


### 3 Decomposition

Uses Daikin's Streamer technology to decompose, by oxidation, harmful substances caught on the filter.\*3



## 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\*3.

**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\*4.

**CLEAN:** Removes bacteria from dust collection filter\*5, humidifying filter\*6 and humidifying water tray\*7.

## 2. High performance HEPA filter to catch fine particles of dust.

Removes 99% of particles between 0.1µm and 2.5µm in size\*8

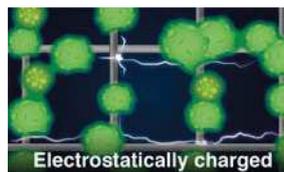
The filter collects dust efficiently with electrostatic forces. It is not prone to clogging compared with non-electrostatic HEPA filters which collect particles only by the fineness of the mesh.

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

The filter can purify a larger amount of air!

### Electrostatic HEPA filter

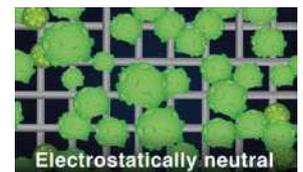
- Removes 99,97% of fine particles of 0,3µm
- Filter fiber itself is charged with static electricity, and collects particles efficiently.
- Doesn't clog easily, hence causes low pressure loss.



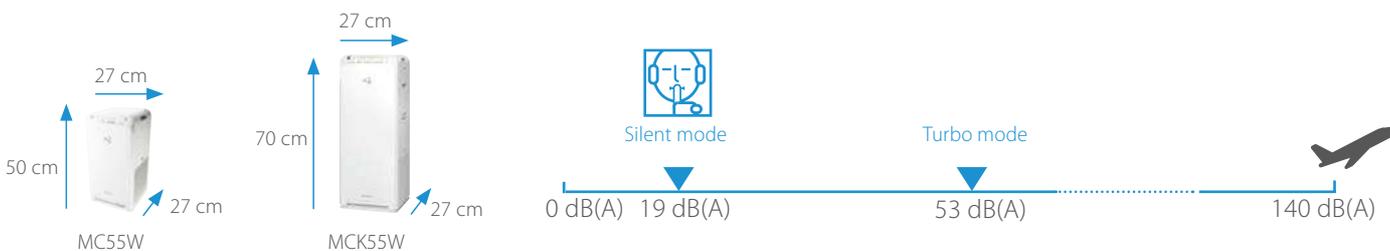
versus

### 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.



## 3. Compact, effective and quiet thanks to the new, innovative structure



installed in an air purifier, and operated it in a test area of 25 m<sup>3</sup>. 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).

\*6 (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<sup>3</sup>. 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 MCK55W series (turbo operation).

\*7 (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 MCK55W series (turbo operation).

\*8 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<sup>3</sup> within 90 minutes. (Converted to a value in a test space of 32m<sup>3</sup>)

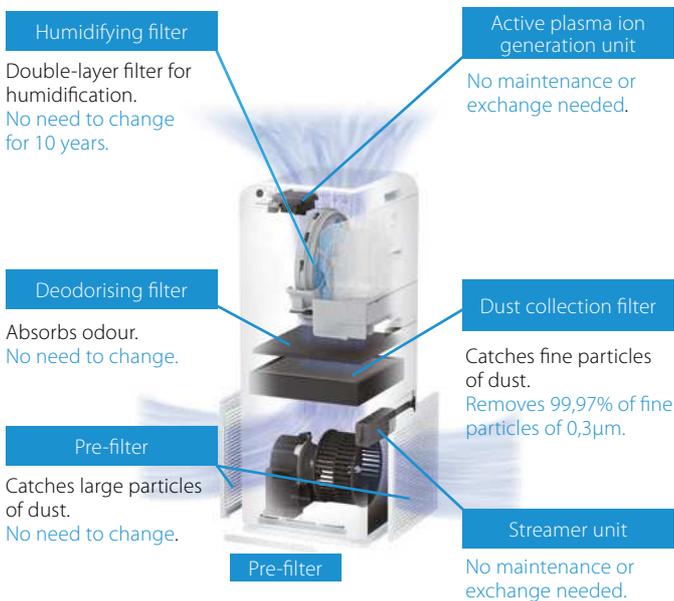
# New concept in a slim tower design



## MCK55W

- Humidification and purification in one
- Pure air thanks to active plasma ion discharge and flash streamer technology
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## Unique vertical structure



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		HUMIDIFYING CAPACITY
Air purification only Airflow 5.5 m³/min.	Humidification + Air purification 330 m³/hour	500 ml/h
Applicable room area ~41 m²		Applicable room area ~23 m²

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

# Powerful humidification to protect against Air Dryness and viruses

## BENEFITS

- 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.
- Reduces bacteria in humidifying water by Streamer.



## Triple Detection sensor to quickly detect air pollution

Equipped with a high sensitivity dust sensor that distinguishes small particles such as PM<sub>2.5</sub> and larger particles of dust and reacts accordingly. Triple detection of dust, PM<sub>2.5</sub> and odour is provided.



## Specifications

		MCK55W								
Model										
Colour		White								
Mode		Air purifying operation				Humidifying and Air Purifying Operation				
Applicable room area	Air purification	m <sup>2</sup>	41				-			
	Air purification + humidification		41				23			
Power supply		1 Phase, 220-240/220-230v, 50/60hz								
Plug shape		C type								
Mode		Quiet	Low	Standard	Turbo	Quiet	Low	Standard	Turbo	
Airflow rate	m <sup>3</sup> /min.	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(A)	19	29	39	53	25	33	39	53	
Humidification	ml/h	-	-	-	-	200	240	300	500	
Dimensions	mm	H 700 (718 with caster) x W 270 x D 270								
Weight	kg	9.5 (without water)								
Dust collection filter		Electrostatic HEPA filter								
Humidifying method		Evaporation type element								
Tank capacity		2.7l								
Optional Accessories	Replacement filter	Dust collection	KAFP080B4 (1 sheet) (purchase of new filters is needed after about 10 years)							
		Deodorising	-							
		Humidifying	KNME080A4							

## Functions

Humidification	x
Temperature and humidity sensors	x
Dust (PM <sub>2.5</sub> /dust) and odour sensor lamps	x
Streamer discharge	x
Active plasma ion	x
Electrostatic HEPA filters	x
Streamer regenerated deodorizing filter	x
Moist mode	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

Model debut in a compact and stylish design



## MC55W / MC55VB\*

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## MC55W / MC55VB\*

DUST COLLECTION

DEODORISATION

Capacity in turbo operation mode

### AIR PURIFICATION

Air purification only

Airflow **5.5** m<sup>3</sup>/min. **330** m<sup>3</sup>/hour

Applicable room area

**~41** m<sup>2</sup>\*\*

\* UK plug

\*\* Calculated by test method based on Japan Electrical Manufacturers' Association, Standard JEM1467.

# Compact, effective and quiet

thanks to the new, innovative structure



## Triple Detection sensor

to quickly detect air pollution

Equipped with a high sensitivity dust sensor that distinguishes small particles such as PM<sub>2.5</sub> and larger particles of dust and reacts accordingly. Triple detection of dust, PM<sub>2.5</sub> and odour is provided.



## Specifications

			MC55W / MC55VB*			
Model						
Colour			White			
Mode			Air purifying operation			
Applicable room area	Air purification	m <sup>2</sup>	41			
	Air purification + humidification		-			
Power supply			1 Phase, 220-240/220-230v, 50/60hz			
Plug shape			C type / UK plug type for VB model			
Mode			Quiet	Low	Standard	Turbo
Airflow rate		m <sup>3</sup> /min.	1.1	2.0	3.2	5.5
Power consumption		W	8	10	15	37
Sound pressure level		dB(A)	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	KAFP080B4 (1 sheet) (Purchase of new filters is needed After about 10 years)			
		Deodorising	-			
		Humidifying	-			

## Functions

Dust (PM <sub>2.5</sub> /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