

A range of air purifiers to optimise indoor air quality



#### Daikin Global

Daikin Industries Limited is a multinational corporation listed on the Japanese stock market, with sales of over \$23.4 billion in 2018-2019, and a leading global manufacturer and supplier of HVAC (heating, ventilation and air conditioning) equipment, including heat pump and refrigeration solutions for residential, commercial and industrial customers.

# Daikin Europe

A fully owned subsidiary of Daikin Industries Limited, Daikin Europe N.V. (DENV) is Daikin's sales, development and manufacturing headquarters for Europe, the Middle East and Africa, with net sales of over €2 billion in 2015-2016.

The Daikin Europe Group currently includes our headquarters in Ostend, five highly advanced production facilities in Belgium, Czech, Germany, Italy and Turkey, four sales offices and 17 affiliated sales companies throughout the EMEA region. Across the entire Daikin Europe Group, the company employs more than 6,000 people.

## Daikin UK

Daikin Airconditioning UK Ltd is a wholly owned subsidiary of Daikin Europe NV. The focus of our business is the sales and distribution of Daikin air conditioning products whilst fully utilising the advantage of our European Group Manufacturing Division.

The Daikin UK headquarters are in Weybridge, Surrey. However, we recognise that being close to our customers, is vital to our shared success. So Daikin UK has a national network of regional sales teams, training and service centres to ensure that we provide an efficient and expert local response to your needs.

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# Why AAF?

#### **AAF Global**

AAF is the world's largest manufacturer of air filtration solutions, operating production, warehousing and distribution facilities in 22 countries across four continents. With its global headquarters in Louisville, Kentucky, AAF is committed to protecting people, processes and systems through the development and manufacture of the highest quality air filters, filtration equipment and associated housing and hardware available in the world today.

# A strong and large international group

Present in 66 countries
22 factories
6 R & D Centers all over the world
1,500 employees
200,000 customers

AAF understands the vital importance of clean air. That's why we are committed to cleaning the indoor air around the globe to improve our quality of life, increase productivity, protect critical processes and equipment, and create products that advance the human condition

AAF has an in-depth understanding of air filtration challenges and opportunities. This understanding and technical ability makes AAF the preferred partner in optimizing your indoor air quality.

# AAF International Plant Locations



# **Europe**

Gasny, France Vitoria, Spain Ecoparc, France Trencin, Slovakia

Cramlington, UK

Olaine, Latvia Horndal, Sweden Vantas, Finland

Riyadh, Saudi Arabia Shah Alam, Malaysia Suzhou, China Shenzhen, China Miaoli. Taiwan

**Asia & Middle East** 

Bangalore, India Noida, India Yuki, Japan (Nippon Muki)

### **Americas**

Louisville, KY Atlanta, GA Ardmore, OK Bartow, FL Columbia, MO Fayetteville, AR

Hudson, NY

Momence, IL Ontario, CA Smithfield, NC Tijuana, Mexico Votorantim, Brazil Washington, NC



According to Allergy UK, people today spend on average 90% of their time indoors. So good indoor air quality is crucial for our health.

Pure indoor air is especially important for vulnerable groups – such as the very young and old, as well as people living with respiratory diseases and allergies. Yet our homes are often poorly ventilated and can be highly polluted, with some pollutant levels being up to 10 times higher than outside.

Daikin's Air Purifier is designed to deal with harmful particles, as well as dust, odours, bacteria, pet hairs, moulds, pollen and mites and other allergens, leaving the indoor air clean and healthy.



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

# High performance HEPA filter catches fine particles of dust

The filter collects dust effectively with electrostatic forces (>99% of  $0.3\mu m$ ). It is not prone to clogging, unlike non-electrostatic HEPA filters which collect particles only via the fineness of the mesh. Therefore a larger amount of air can pass through the filter and be cleaned accordingly.

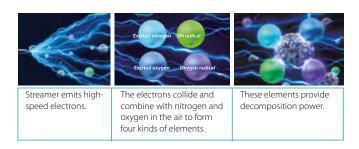
Electrostatically charged

# Pure air thanks to air purification technologies

The Streamer 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.

These attach to the surface of fungi and allergens and decompose proteins in the air by oxidation. On the inside, the Streamer decomposes these hazardous elements.

Daikin's patented streamer technology inactivates more than 99.9% of the novel Coronavirus (SARS-CoV-2) after three hours.\* The Flash Streamer technology is not meant to be used for medical purposes.



### Low maintenance

Dirty filters, grilles and sensors can be cleaned easily by either vacuuming or using a damp cloth. Dust filters may only need to be replaced every 10 years dependent on usage and location.

**Source:** "Study report on the inactivation effect of plasma ion generator (Daikin Streamer) on SARS-CoV-2" redacted by Shigeru Morikawa, Department of Veterinary Medicine, Microbiology Course, Okayama University of Science The tests described herein only concern the patented Streamer Technology. The effects of products equipped with Streamer Technology or the effects in actual use environment may differ.

#### **Powerful suction**

The air purifier takes in air from the front and side of the unit covering a wide area. Ambient air is cleaned inside the air purifier and discharged at the top covering an area of up to 41m<sup>2</sup>.

# Powerful humidification to protect against air dryness and viruses

The water wheel lifts the humidifying water from the tank which is then met by the filtered air coming from below. This filtered air containing charged electrons from the Flashstreamer is blown onto the humidifying filter, removing any residual bacteria and viruses. Humid, clean air is discharged into the room.



# 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.

# 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

**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.

#### Different filters for the best indoor air

Deodorizing filter



**Dust collection filter** 



Pre-filter



# **Applications**

- Redrooms
- Meeting room:
- Offices
- Nurseries
- Care homes

# MC55VB

# **Daikin Air Purifier**

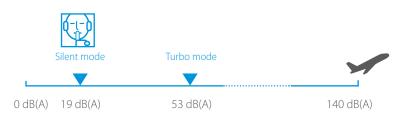
# Stylish new compact design

Daikin's light-weight air purifier has a small footprint, enhanced level indicator for PM2.5, dust and odour control



# Whisper quiet

The four different fan settings (quiet, low, standard and turbo) mean the air purifier can be used in offices, hallways, living and bed rooms.







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

Model				MC55VB			
Application			Floor standing type				
Colour			White				
Mode			Air purifying operation				
Applicable room area m <sup>2</sup>			41				
Power supply	wer supply			1 Phase, 220-240/220-230v, 50/60hz			
Fan			Multi Blade Fan (Sirocco fan with shroud assembly)				
Modes				Quiet	Low	Standard	Turbo
Airflow rate			m³/sec	0.018	0.033	0.053	0.092
Power consump	consumption kW			0.008	0.010	0.015	0.037
Sound pressure level dB(A)			19	29	39	53	
Dimensions	Unit	HeightxWidthxDepth	mm	500 x270 x270			
Weight	Unit		kg	6.8			
Deodorizing method			Flash streamer + Deodorizing catalyst				
Dust collecting method			Electrostatic HEPA filter				
Air filter	Type			Polyethylene terephthalate net (PET)			

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. (JEM 1467) | 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.

# Accessories

Accessory reference	Description			
KAFP080B4	Dust collection Filter (1 sheet), needed after about 10 years			

# **Functions**

Description	
Dust (PM2.5/dust) and odour sensor lamps	✓
Streamer discharge	✓
Active plasma ion	✓
Electrostatic HEPA filters	✓
Streamer regenerated deodorizing filter	✓
Econo mode	✓
Auto fan mode	✓
Anti-pollen mode	✓
Turbo mode	✓
Child proof lock	✓
Brightness adjustment	✓
Auto restart after power failure	✓
Stabilizer free	✓

# MCK55W

# Ururu Sarara - Humidifying Air Purifer

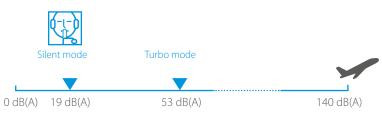
# New stylish and compact design

Daikin's light-weight air purifier has a small footprint, enhanced level indicator for PM2.5, dust and odour control.



# Whisper quiet

The four different fan settings (quiet, low, standard and turbo) mean the air purifier can be used in offices, hallways, living and bed rooms.





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

Model			MCK55W				
Colour			White				
Mode			Air Purification		Humidification + Air Purification		
Applicable room area m²			41		23		
Power Supply			1 Phase, 220-240/220-230v, 50/60hz				
Fan	Type		Multi Blade Fan (Sirocco fan with shroud assembly)				
Mode			Quiet	Low	Standard	Turbo	
Airflow rate	Air purifying operation	m³/sec	0.015	0.033	0.053	0.092	
	Humidifying operation	m³/sec	0.028	0.040	0.053	0.092	
Power consumption	Air purifying operation	kW	0.007	0.01	0.017	0.056	
	Humidifying operation	kW	0.011	0.014	0.019	0.058	
Sound pressure level	Air purifying operation	dB(A)	19	29	39	53	
	Humidifying operation	dB(A	25	33	39	53	
Humidification		ml/sec	0.056	0.067	0.083	0.139	
	Water tank capacity	litre	2.7				
Dimensions	Height x Width x Depth	mm	700 x 270 x 270				
Weight kg			9.5 (without water)				
Deodorising method			Flash streamer + Deodorising catalyst				
Dust collection filter			Electrostatic HEPA Filter				
Air Filter Type			PET net				

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) 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 1 m 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.

# Accessories

Accessory	Description
KAFP080B4	Dust collection Filter (1 sheet), needed after about 10 years
KNME080A4	Humidifying Filter (1 sheet), needed after about 10 years

# **Functions**

Description	
Dust (PM2.5/dust) and odour sensor lamps	✓
Streamer discharge	✓
Active plasma ion	✓
Electrostatic HEPA filters	✓
Streamer regenerated deodorizing filter	✓
Econo mode	✓
Auto fan mode	✓
Anti-pollen mode	✓
Turbo mode	✓
Child proof lock	✓
Brightness adjustment	✓
Auto restart after power failure	✓
Stabilizer free	✓



# AstroPure

Facility managers currently face the situation in which building occupants are uncertain whether it is safe to share a building space with a larger group of people. In such situations, air purifiers can help.

Of course, fresh air supply is always recommended. However, when it's cold outside, it is difficult to maintain suitable ventilation by opening windows and doors. In this situation, air purifiers can achieve the required Air Change Rate (ACR) to lower aerosol concentration and reduce infection risks.

Professional Air Purifiers, like AAF's AstroPure, are able to provide air volume flow rates that can achieve the desired ACR of at least six air changes per hour, for a huge range of different room volumes.

AstroPure is a totally self-contained stand-alone Recirculation Unit for areas where additional, extra high, filtration performance is needed to help prevent any type of contamination including viruses. AstroPure combines state-of-the-art H14 HEPA filtration with optionally available fluorescent UV-C irradiation to create total clean air solutions fulfilling all relevant guidelines such as the VDI 6022.

Depending on its configuration, AstroPure provides air flow rates up to 2,000 m³/h. Together with the ability to take various filter combinations and a variance of optional features, AstroPure provides the highest flexibility to meet all customer-specific requirements at point of use.

To allow economical and easy installation, AstroPure is designed as a Plug & Play unit so no modifications required at your premises.

Highly recommended to improve indoor air quality by recirculating indoor air and providing occupants with better health and comfort, AstroPure provides ACR and efficient virus filtration suitable for any location. Besides that AstroPure is:

- · Easy to install
- Easy scalable
- Mobile and flexible to use
- Easy to maintain

# AstroPure2000

Model			BR00000554	BR0000676	BR00000678
Maximum airflow rate		m³/hr		2000	
Variable speed control				Yes	
Dimensions	Height x Width x Depth	mm		1630 x 770 x 770	
Weight		kg		150	
Electrical details				1 phase, 220-277 VAC, 50/60hz	
Fan	Type		EC centrifugal fan, backward-curved, single-intake		
Filter	Pre-filter standard		ISO coarse 70% (592 x 592 x 45)		
	Pre-filter optional			ISO ePM10 70%	
	Gas phase filter optional		-	ISO coarse 65%	ISO coarse 65%
	Main filter		HEPA H14 (610 x 610 x 292)		
UV-C Lamp			-	-	450 x OD26mm G13
LCD Screen				Yes	Yes
Sound pressure		dBA		35-52	
Operating conditions			0-50°C, H	0 dry environment, ambient air	≤ 90%RH



# Features and benefits

- · Suitable for in-room use or sheltered outdoor installation
- Combines HEPA filters and optional UV germicidal irradiation (UVGI)
- Designed with internal variable speed fan (electronically commutated) and filter combinations to meet specific application requirements
- Insulated double-wall construction provides whisper-quiet operation
- Easy installation, operation, and maintenance in a totally self-contained system
- Sliding tray design provides easy access and servicing of filters
- CE-compliance, VDI 6022 guided design

# **Applications**







Commercial Buildings









Shops and Shopping malls



# Highly adaptable

# available as recirculation or negative pressure unit

### **Clean Air supply options**

AstroPure is used to draw out the indoor contaminated air in a room, the contaminated air passes the HEPA filter before releasing it to the outside environment. Negative pressure from a room prevents the spread of virus to other rooms, areas and environment. Highly recommended to improve indoor air quality by recirculating indoor air and providing occupants with better health and comfort.

Δ Fan / Motor Unit

R HEPA Filte

Prefilte

Control panel providing indication for filter change, speed control and on/off switch

Air outlet grill

F UV lamp

In its standard configuration
AstroPure is delivered with a
galvanised steel finish. Optionally the
unit is also available with powder
coated finish (any RAL) for a smooth
integration into any room
environment.







### **Unit control options**

On the front AstroPure is as standard equipped with control lights to indicate necessary changes of the pre- or HEPA filter. Integrated knobs switch the unit on / off and control the speed. As an option, AstroPure can be delivered with a fully digital LCD Display, instead of the indicator lights and control knobs.



### Fan/motor combination

AstroPure contains a high performance encapsulated, direct driven, backward curved fan/motor combination. Motor options are available to create air flows from 2,000 m³/hr up to 4,000 m³/hr. The specialised electronic commutation motor design permits variable speed control via Potentiometer. The complete section is mounted on a sliding tray providing easy access to service the fan.



# **Prefilter options**

In its standard configuration AstroPure is equipped with an RedPleat ISO coarse 70% prefilter. As an option the unit can also be equipped with RedPleat Carb, an ISO coarse 65% Prefilter including active carbon media able to additionally control unpleasant odours in the room.



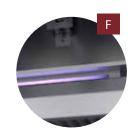
# Air supply options

When operated as a Recirculation Unit, AstroPure releases the cleaned air via a perforated outlet grill on the top side of the unit into the room. Optionally, the air outlet can be designed so that the AstroPure unit can be connected to ventilation ducts.



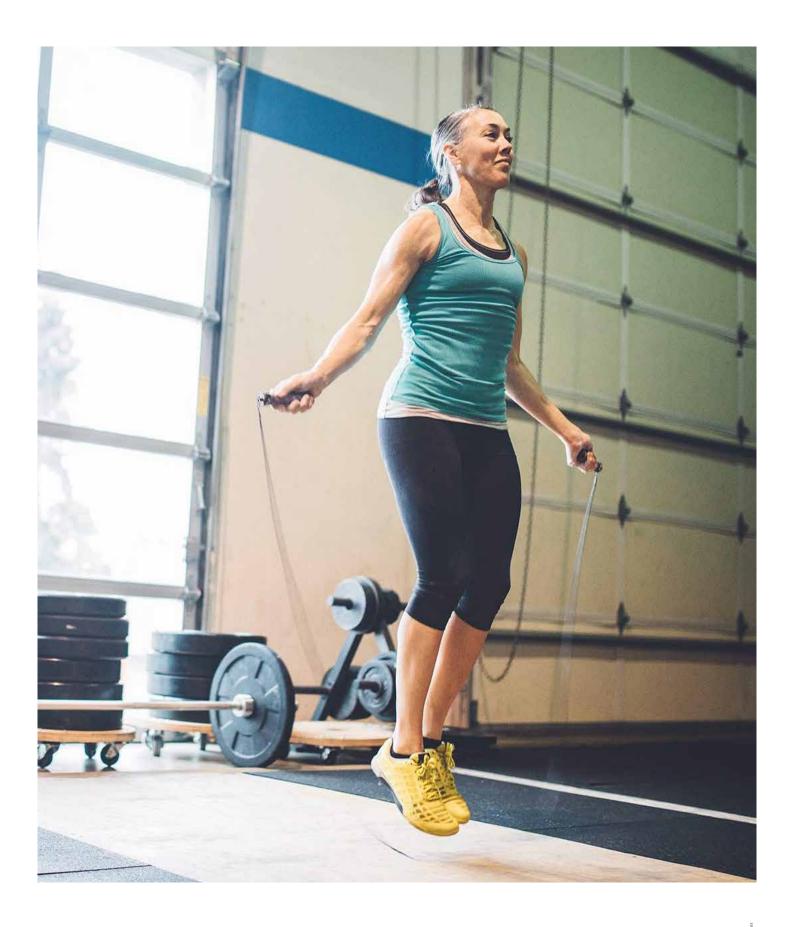
# Easy filter installation and maintenance

The unique design of the clamping system is designed to take various AAF pre and main filters and hereby ensures easy installations and filter maintenance and disposal when no longer effective. The complete servicing is done from the rear-side.



# **Optional UV lamp**

Intelligently engineered to kill pathogens while maintaining higher filtration performance, the optional fluorescent UV-C irradiation unit radiates 255 nm germicidal wavelength, which prevents the Ozon production responsible for faster degradation of filters while keeping the appropriate range to kill bacteria and viruses. Installing a UV lamp will provide wider germicidal coverage without affecting the filtration efficiency.





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