DAIKIN

Perfecting the Air
Kenyamanan Tanpa Batas

- Ask a qualified installer or contractor to install this product. Do not try to install the product yourself. Improper installation can result in water or refrigerant leakage, electrical shock, fire or explosion.
- Use only those parts and accessories supplied or specified by Daikin. Ask a qualified installer or contractor to install those parts and accessories. Use of unauthorised parts and accessories or improper installation of parts and accessories can result in water or refrigerant leakage, electrical shock, fire or explosion.
- Read the user's manual carefully before using this product. The user's manual provides important safety instructions and warnings. Be sure to follow these instructions and warnings.

If you have enquiries, please contact your local importer, distributor and/or retailer.

DEALER RESMI

Cautions on product corrosion

1. Air conditioners should not be installed in areas where corrosive gases, such as acid gas or alkaline gas, are produced.
2. If the outdoor unit is to be installed close to the sea shore, direct exposure to the sea breeze should be avoided. If you need to install the outdoor unit close to the sea shore, contact your local distributor.

Specifications, designs and other content appearing in this brochure are current as of February 2025 but subject to change without notice.

DGC **0800 1 081 081**
DAIKIN CONTACT CENTER

Jam Beroperasi:
Senin - Jumat: 07:00 - 19:00 WIB
Sabtu - Minggu & Libur Nasional: 07:00 - 17:00 WIB

PT DAIKIN AIRCONDITIONING INDONESIA
Menara Astra 7th & 8th Floor, Jl. Jenderal Sudirman Kav. 5-6,
Kel. Karet Tengsin, Kec.Tanah Abang, Jakarta Pusat, DKI Jakarta - 10220
Telp : +6221 8665 6886 I Website : www.daikin.co.id

• **SERVICE CENTER : Jakarta Selatan**, Telp. : 021-2782 5545 I **Samarinda**, Telp. : 0541-252 2889 • **WORKSHOP: Cirebon**, Telp. : 0231-8817 512 I **Banjarmasin**, Tlp. : 0511-3258 969 I **Aceh**, Tlp. : 0651-7318 036 I **Lombok**, Tlp. : 0370-7843 231 I **Jambi**, Tlp. : 0741-3066 790 I **Padang**, Tlp. : 0751-896 2684 • **TRAINING CENTER : Sunter**, Telp. : 021-650 5030 • **BRANCH : Bekasi**, Telp. :021-2945 0585 I **Tangerang**, Telp. : 021-5314 1195 I **Bandung**, Telp. : 022-522 5150 I **Semarang**, Telp. : 024-7660 3221 I **Yogyakarta**, Telp. : 0274-551 321 I **Surabaya**, Telp. : 031-503 1138 I **Denpasar**, Telp. : 0361-900 5514 I **Makassar**, Telp. : 0411-805 2691 I **Palembang**, Telp. : 0711-573 2282 I **Pekanbaru**, Telp. : 0761-561 139 I **Medan**, Telp. : 061-4200 8866 I **Manado**, Telp. : 0431-719 1199 I **Batam,** Tlp. : 0778-4171 445

TÜVRheinland CERTIFIED — Management System ISO 9001:2015 — www.tuv.com ID 9105084313

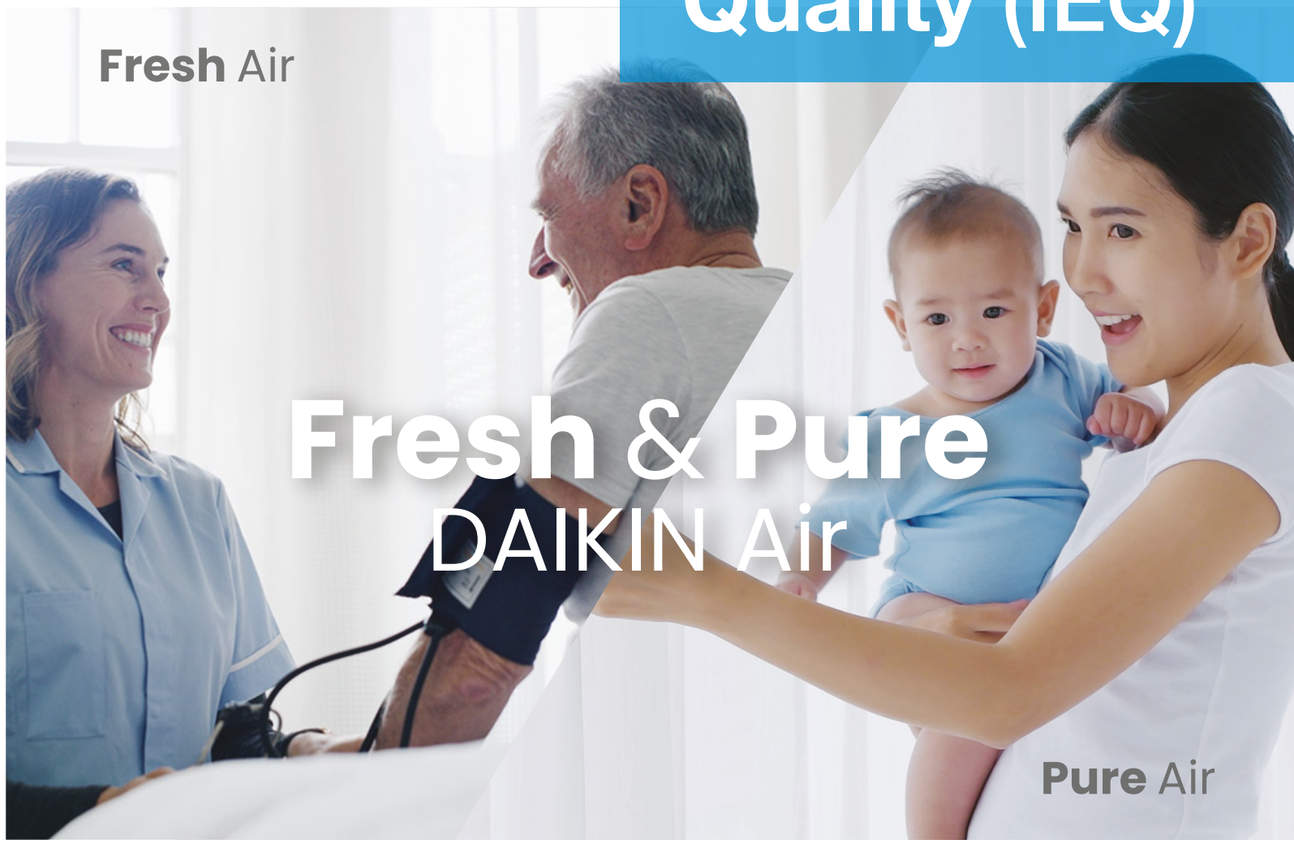
AMTIVO ISO 27001 Information Security Management — UKAS MANAGEMENT SYSTEMS 8289

DAIKIN

Perfecting the Air
Kenyamanan Tanpa Batas

DIDIEQ2404

Indoor Environment Quality (IEQ)



Streamer Duct Chamber | Cassette Streamer | High Performance Prefilter
Outdoor-Air Processing Unit | Heat Reclaim Ventilator

JAPAN QUALITY



The world contains an infinite number of spaces.

Daikin believes that the air in each of them should be ideally suited to the environment they support.

Thus, we make it possible to manage the air to control its temperature, humidity, flow and cleanliness.

Exciting new research promises the ability to modulate sensory elements, such as light and smell.

We will continue to identify opportunities and seek

solutions as we strive to the make world's spaces happier and more comfortable.

At Daikin, we discover something new every day. Because the Solution is in the Air.

DAIKIN

Perfecting the Air

Filter recommendation for HVAC systems under COVID-19 situation by ASHRAE ETF ※1

WHAT IS THE SIZE OF THE SARS-COV-2 VIRUS, AND CAN IT BE CAPTURED BY VENTILATION FILTERS?

A: Research has shown that the particle size of the SARS-CoV-2 virus is around 0.1 µm (micrometer). However, the virus does not travel through the air by itself. Since it is human generated, the virus is trapped in respiratory droplets and droplet nuclei (dried respiratory droplets) that are predominantly 1 µm in size and larger.



※1 ASHRAE ETF (n.d.) FILTRATION AND DISINFECTION FAQ. Retrieved March 9, 2022, from https://www.ashrae.org/technical-resources/filtration-and-disinfection-faq

ASHRAE currently recommends using a minimum MERV 13 filter, which is at least 85% efficient at capturing particles in 1 µm to 3 µm size range. A MERV 14 filter is at least 90% efficient at capturing those same particles. Thus, the recommended filters are significantly more efficient at capturing the particles of concern that a typical MERV 8 filter which is only around 20% efficient in the 1 µm to 3 µm size range. For filters with MERV ratings higher than 14 would capture an even higher percentage of the particles of concern. (ASHRAE ETF, n.d.)

ASHRAE is an abbreviation for "American Society of Heating, Refrigerating and Air-Conditioning Engineers".

Standard 52.2. Minimum Efficiency Reporting Value	Composite Average Particle Size Efficiency. % in Size Range, µm		
	Range 1 (0.3-1.0)	Range 2 (1.0-3.0)	Range3 (3.0-10.0)
14	75%	90%	95%

Target Application

...and Daikin can respond.

Facility	Common Recommendation	Measures for Each Facility Situation
		For air-conditioned facilities with mechanical ventilation
Residential Landed properties Apartment/Condominium 	❶ Increase ventilation rate (10 L/s per person) ❷ Reduce max room occupancy ❸ Open window and door frequently ❹ Use portable air cleaner with appropriate filters	**When ventilating...** ・The recommended temperature setting for air conditioning is 23-26 ˚C. ・The recommended relative humidity in the room is 40-70%. ・Operate electric fans to enhance thermal comfort. ・Make the openings small not to cause excessive infiltration of outdoor air when air conditioning is in operate.
Light Commercial Restaurant/Café Spa/Hair Salon Pharmacy 		**When ventilating...** ・The recommended temperature setting for air conditioning is 23-26 ˚C. ・The recommended relative humidity in the room is 40-70%. ・Run ventilation fan continuously to keep the air from stagnating. ・Ensure maintenance and inspection. ・Filter inspection and replacement.
Commercial / Public Area Office Commercial Building Showroom School/University Classroom 		**When ventilating...** ・Ensure the system are fully functioning. ・Minimize the recirculation of dirty air; Increase air filter which capable of catching dirt, in air conditioning system. ・Adjust airflow operation and reconfigure equipment.
Healthcare Hospital Clinic Quarantine Center 		**When ventilating...** ・Ensure the system are fully functioning. ・Minimize the recirculation of dirty air; Increase air filter which capable of catching dirt, in air conditioning system. ・Adjust airflow operation and reconfigure equipment. ・Set recirculation air dampers to a minimum according to system capabilities.

Solution from Daikin

Residential

Heat Reclaim Ventilator (VAM Series), Streamer Duct Chamber (Dust Collection Filter (MERV 14) and Streamer),Streamer Wall Mount Indoor Unit, Streamer Air Purifier Unit



Light Commercial

Outdoor Air Processing Unit, Heat Reclaim Ventilator (VAM Series), Streamer Duct Chamber (Dust Collection Filter (MERV 14) and Streamer), Streamer Cassette Indoor Unit, Streamer Air Purifier Unit



Solution from Daikin

Commercial / Public Area

Outdoor Air Processing Unit, Heat Reclaim Ventilator (VAM Series), Streamer Duct Chamber (Dust Collection Filter (MERV 14) and Streamer), Air Handling Unit



Healthcare

Outdoor Air Processing Unit, Heat Reclaim Ventilator, Streamer Duct Chamber (Dust Collection Filter (MERV 14) and Streamer), Air Handling Unit, Hospital AC (HEPA Filter)



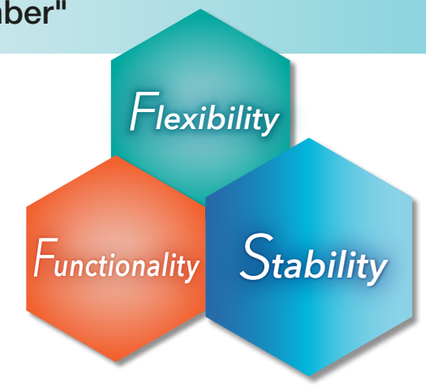
STREAMER DUCT CHAMBER

Just leave it to Daikin "Streamer Duct Chamber"

Multiple combination of ducting unit.

Dust collection filter (MERV 14) catch bacteria and viruses and prevents them from entering the room.

Streamer technology to decompose harmful substances which caught by the filter.



BDEZ500A60VE 

BDEZ500A140VE 

BDEZ500A510VE 

Flexibility

Connectable Air Conditioning



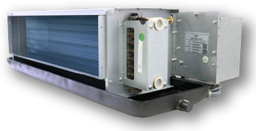
Duct Type Indoor Unit



Heat Reclaim Ventilator (VAM Series)

Also supports installation to existing equipment.

Fan Coil Unit



Outdoor Air Processing Unit



CAUTION

Operating Conditions

To ensure the correct usage of the unit, operate it within the operating conditions specified in the table below.

Model	Airflow range (CMH)
BDEZ500A60VE	80-600
BDEZ500A140VE	500-1400
BDEZ500A510VE	1200-5100

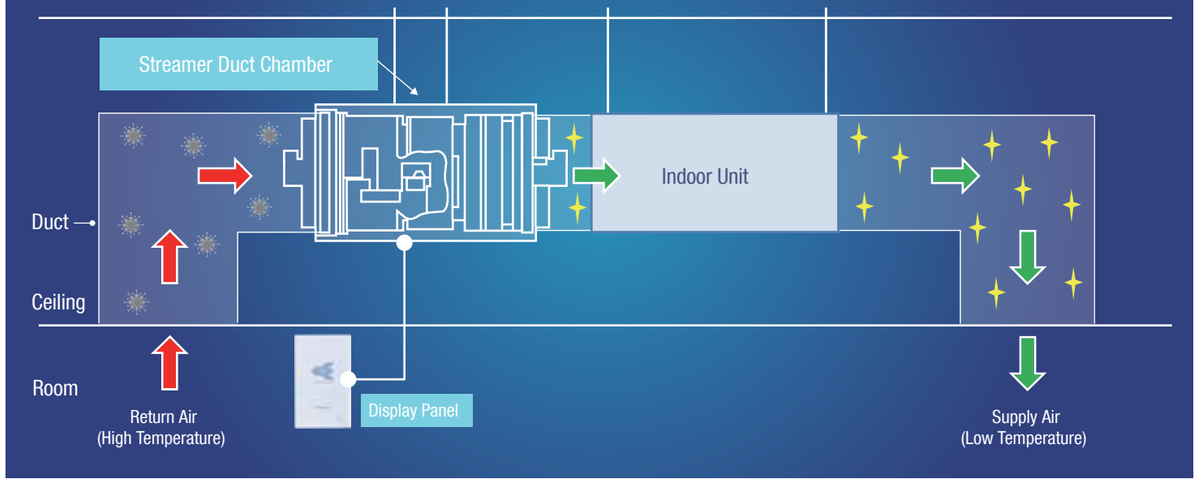
Operating Condition	-10˚ to 50˚C Max. 80%RH

Do not install the unit in places such as the following :

1. Place subjected to high temperature or direct flame. Overheat or fire may result. **2.** Where there is mist of oil, oil spray, or vapor, for example, kitchen, barber or salon. Fire may result. **3.** Where toxic gas from acid, alkaline, organic solvents or coating, or corrosive gas is produced, for example, a machinery or chemical plant. Gas poisoning or fire may result. **4.** Place subject to high humidity. Electric shock or electrical leakage may result. **5.** Where there is machinery that emits electromagnetic waves. Electromagnetic waves may disturb the control system and cause malfunction of the unit. **6.** Where flammable gases may leak, where carbon fiber or ignitable dust is suspended in the air or where volatile flammables, such as thinner or gasoline, are handled. If the gas should leak and remain around the unit, it may cause ignition. **7.** Places with high salt contents such as coastal area. **8.** Places with sulfur gas contents such as hot springs. **9.** Insides cars or ships. **10.** Places with high smoke contents such as smoking room.

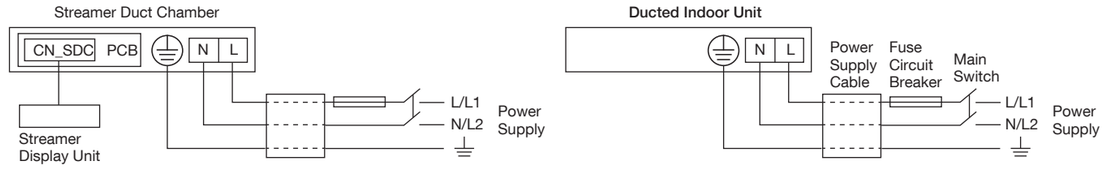
There are many types of Combination.

Streamer Duct Chamber Mechanism

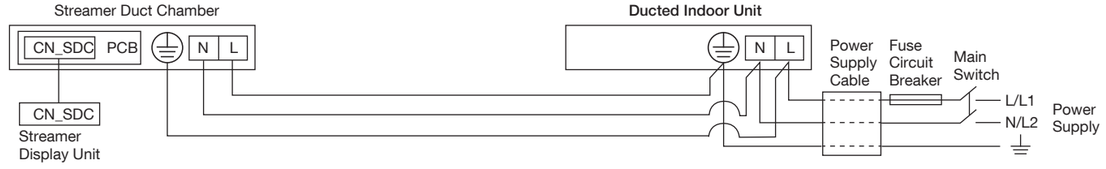


For more installation combination, please refer to the “Installation Conditions” in page 13.

DEDICATED POWER SUPPLY



INTERGRATED POWER SUPPLY



1. Component electrical specifications

Model	Power Voltage Range	Power Supply	
	50 Hz	MCA	MFA
BDEZ500A60VE	Power Supply Max. 264V - Min. 198V	0.03	6
BDEZ500A140VE		0.04	
BDEZ500A510VE		0.05	

2. Specification for field supplied fuses and wire

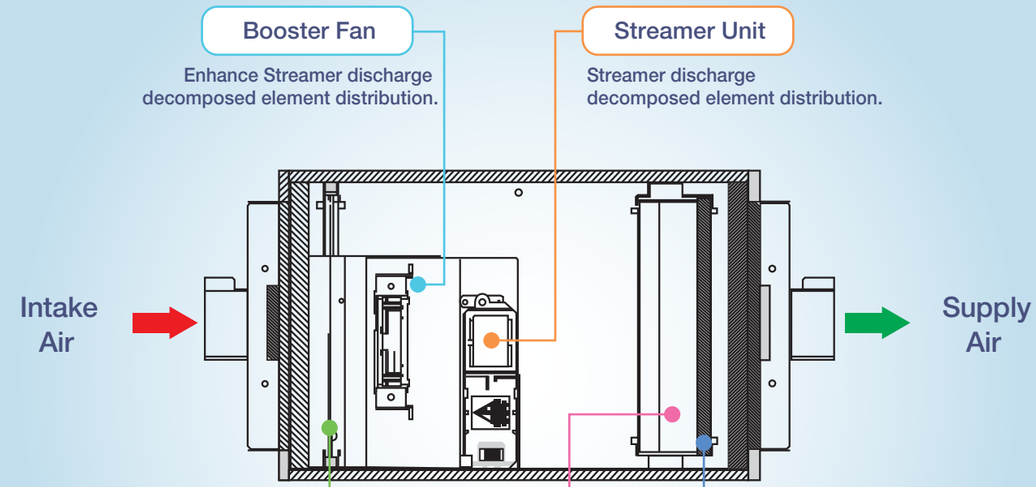
Model	Voltage range		
	Field Supplied	Wire	Size
BDEZ500A60VE	6A	H07RN-F	1.0mm² (Table 11 IEC 60335 - 1), wire must comply with local codes
BDEZ500A140VE			
BDEZ500A510VE			

Symbol:
MCA: Min. Circuit Amps (A) MFA: Max. Fuse Amps (A) NOTE: For details, refer to ELECTRICAL DATA
NOTE: For details, please refer to ELECTRICAL DATA in Installation Manual.

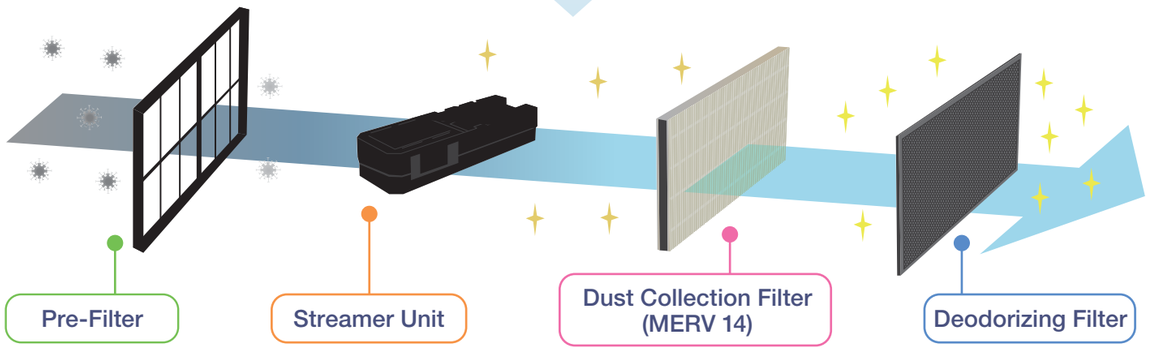
Functionality

Streamer Duct Chamber Internal Structure

Filters Location



Filters Mechanism



Reliable features always give you peace of mind



Dust Collection Filter (MERV 14)

Particulate matter as small as 2.5 μm (micrometers) can be breathed deep into the lungs, rest assure that your air remains clean as the filter is able to remove particulate matter as small as PM2.5 with Dust Collection Filter (MERV 14) ratings in accordance to ASHRAE 52.2 Standards.

Product: Streamer Duct Chamber (Line-Up 1,2,3)
Testing Organization: Goldensea
Test Number: GS-GL-0817-2021-01/02, GS-GL-0818-2021-01
Test Method: Filter performance test based on ASHRAE 52.2-2017
Test result: The filter meets MERV 14 rating.

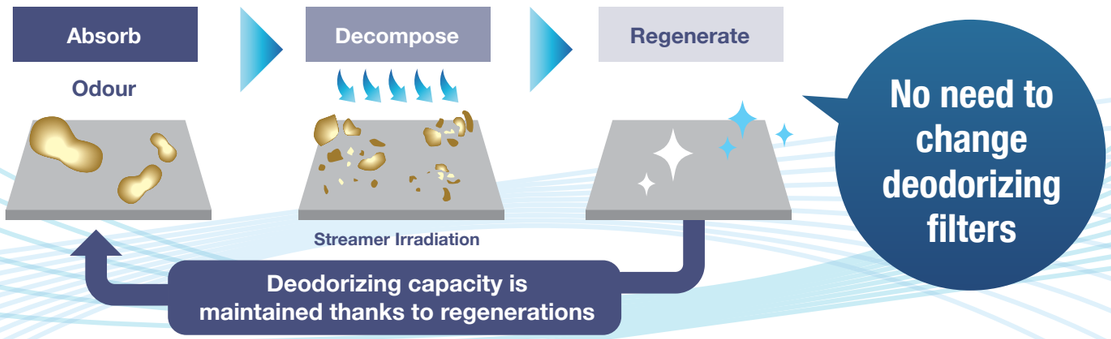
Standard 52.2 Minimum Efficiency Reporting Value	Composite Average Particle Size Efficiency, % in Size Range, μm		
	Range 1 (0.3-1.0)	Range 2 (1.0-3.0)	Range 3 (3.0-10.0)
14	75%	90%	95%

Dust Collection Filter (MERV 14) Replacement Period

Air Quality Condition	Dust concentration (μg/m³)		Replacement period
	PM2.5	PM10	
Case 1	18.5	28.5	12 months
Case 2	35	65	6 months

Replace with a new filter when clogging occurs. The left table shows the approximate replacement time when daily operation is 9 hours and annual operation are 240 days. It shows the calculation result for two air conditions. Adjust the replacement timing in consideration of the air environment in the area where the product is actually installed and the time and day it is operated.

Deodorizing Filter



Stability

STREAMER TECHNOLOGY

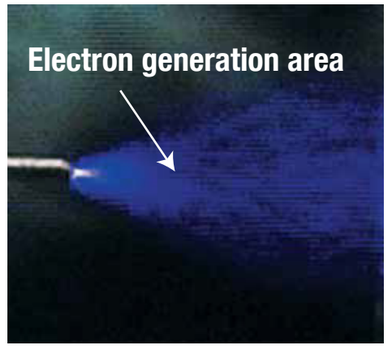
Streamer technology is a unique Daikin technology that decomposes viruses, bacteria, allergens such as pollen, hazardous chemical substances such as formaldehyde, and odors with strong decomposing power.

What is Streamer?

・Streamer discharge is a type of plasma discharge which generates high speed electrons that combine with oxygen and nitrogen in the air to form four kinds of decomposing elements with strong oxidative decomposition power. These four kinds of decomposing elements and thereby eliminate viruses, bacteria, allergens such as pollen, mold, mites (droppings and dead mites), hazardous chemical substances such as formaldehyde, and odors.

・Compared to standard plasma discharge (glow discharge), its speed of oxidative decomposition is over 1000 times greater with the same electrical power.

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



Mechanism of Decomposition by Streamer

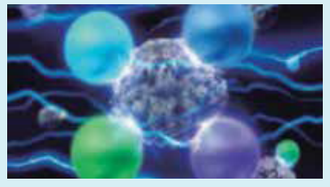
1 Streamer emits high-speed electrons



2 The electrons collide and combine with oxygen and nitrogen in the air to form four kinds of decomposing elements with strong oxidative decomposition power. (Excited nitrogen/Excited oxygen/OH radical/Oxygen radical)



3 The decomposing elements provide decomposition power.



Caution 1 *Comparison of oxidation decomposition. This does not mean temperature will become high.

Caution 2 *There are effects in a Streamer test space and not verification results in an actual operation space.

Examples

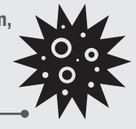
Viruses



Bacteria



Allergens: pollen, mold, mites (droppings and dead mites)



Hazardous chemical substances: formaldehyde



Odors

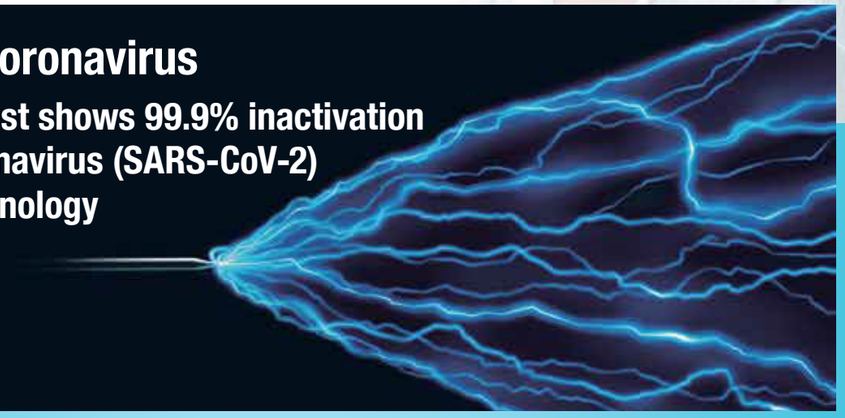


Clean air
that reaches me...



Effective on Coronavirus

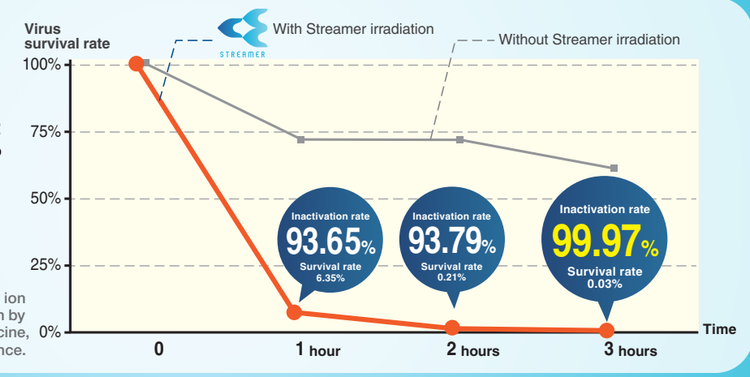
Demonstration test shows 99.9% inactivation of the novel coronavirus (SARS-CoV-2) by Streamer technology after 3 hours



Demonstration Test Results

As a result of the test, SARS-CoV-2 was inactivated by more than 93.6% after 1 hour of Streamer irradiation. After 2 hours, it inactivated by more than 99.7%, reaching more than 99.9% after 3 hours of Streamer irradiation.

Source:
"Study report on the inactivation effect of plasma ion generator (Daikin Streamer) on SARS-CoV-2" written by Shigeru Morikawa, Department of Veterinary Medicine, Microbiology Course, Okayama University of Science.



Test Method

Two acrylic boxes of about 31 L were mounted inside a safety cabinet. One box was equipped with a Streamer discharge device, and the other box was not. A see-saw rocking motion shaker was placed in each box, and a six-well plate was placed on top of the motion shaker. Virus, solution measuring 0.5 ml was put into each well of the plates, and Streamer irradiation was performed while agitating the solution using the motion shaker (approximately 12 times per minute). Virus solution was collected from two wells every hour for three hours, and viral load was measured. The viral load of SARS-CoV-2 was quantified by the TCID50 method using Vero E6/TMPRSS2 cells.

Caution 3 *This product can be used to improve the quality of the air. However, this product is not intended for the creation of sterile environments or for the prevention pathogen infections.

Scan here for more Daikin Streamer Research Institute

Experiment results of the Streamer technology that have been verified so far.

Viruses

Test target	Testing organaization	Test method	Report date
Norovirus	Kobe University Graduate School	ELISA method	12-Jan-2007
Influenza virus (Type A-H1N1)	Vietnam National Institute of Hygiene and Epidemiology	CPE observation	14-Sep-2009
Avian influenza virus (Type A-H5N1)	Vietnam National Institute of Hygiene and Epidemiology	CPE and TCID50	16-Apr-2009
Influenza virus (Type A-H1N1)	Kitasato Research Center for Environmental Science	CPE and TCID50	31-Jul-2009
Influenza virus (Type A-H3N2)	Shanghai City Center for Disease Control and Prevention, etc.	CPE and TCID50	8-Feb-2010
RS virus	Wakayama Medical University	CPE and TCID50	13-Apr-2012
Adenovirus	Kitasato Research Center for Environmental Science	CPE and TCID50	23-Jun-2017
Coxsackievirus		CPE and TCID50	
Enterovirus		CPE and TCID50	
Echovirus		CPE and TCID50	
Measles		CPE and TCID50	
Mouse Norovirus	The University of Tokyo Graduate School	CPE and TCID50	11-Oct-2018
Mouse Coronavirus	The University of Tokyo Graduate School	Plaque assay	28-Apr-2020
Novel Coronavirus (SARS-CoV-2)	Okayama University of Science	CPE and TCID50	8-Jul-2020

Bacteria

Test target	Testing organaization	Test method	Report date
Escherichia coli	Japan Food Research Laboratories	Pour plate culture method	8-Apr-2004
Staphylococcus aureus		Pour plate culture method	8-Apr-2004
Enterotoxin		ELISA method	25-Aug-2004
Tubercle bacilli	Kitasato Research Center for Environmental Science	Plaque assay	8-Mar-2010
Tubercle bacilli	The Jikei University School of Medicine	PCR method	15-Feb-2010
Vancomycin-resistant enterococci (VRE)	Japan Food Research Laboratories	Pour plate culture method	19-Feb-2010
Methicillin-resistant Staphylococcus aureus (MRSA)		Pour plate culture method	19-Feb-2010
Pseudomonas aeruginosa		Pour plate culture method	12-Apr-2010
Bacillus, Serratia, and Arthrobacter		Pour plate culture method	29-Sep-2010
Escherichia coli		Pour plate culture method	10-Sep-2018
Moraxella bacteria		Pour plate culture method	10-Jun-2019

Allergens

Test target	Testing organaization	Test method	Report date
Molds and mites (feces and carcasses)	Wakayama Medical University	Observation by electron microscope, ELISA method	14-Sep-2004
Pollen + exhaust gas + PM2.5	Yamagata University under the supervision of Professor Shirasawa, Tohoku Bunka Gakuen University	IgE antibody test, ELISA method	8-Nov-2017
Mites (feces and carcasses) + cedar pollen		ELISA method	8-Nov-2017
Pollens (16 kinds)	L.S.L. Asaka Research Laboratory under the supervision of Project Professor Kusakabe, graduate school of the University of Tokyo	ELISA method	23-Jan-2020

Molds

Test target	Testing organaization	Test method	Report date
Mold (Black mold)	Japan Food Research Laboratories	Pour plate culture method	28-Sep-2004

Hazardous gases

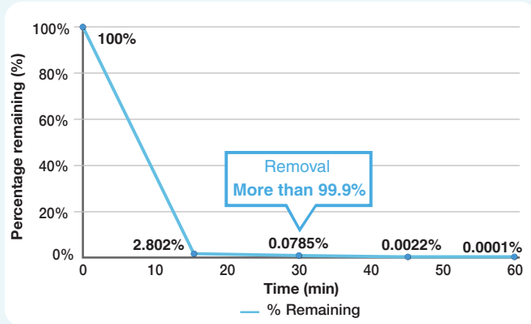
Test target	Testing organaization	Test method	Report date
Adjuvant suppression effect (DEP)	Wakayama Medical University National Institute for Environmental Studies	ELISA method	1-Nov-2005
Adjuvant (VOC)	Tohoku Bunka Gakuen University	Attenuation method	8-Dec-2006

This product can be used to improve the quality of the air by removing airborne hazardous chemical substances, allergens, mould, bacteria, and viruses, etc. However, this product is not intended for the creation of sterile environments or for the prevention pathogen infections.

This description relates to the Streamer technology devised by Daikin, but not to this Streamer Duct Chamber. Test results from use of the Streamer technology are generated according to prescribed test methods conducted by Daikin. Although the Streamer technology is contained within this Streamer Duct Chamber, this does not mean that precisely the same results will be experienced using this Streamer Duct Chamber. Actual results may differ depending on the conditions of product installation and use of the actual product, etc.

Test Result for Streamer Duct Chamber

JEM1467 Appendix D: Airborne Bacteria Removal Performance



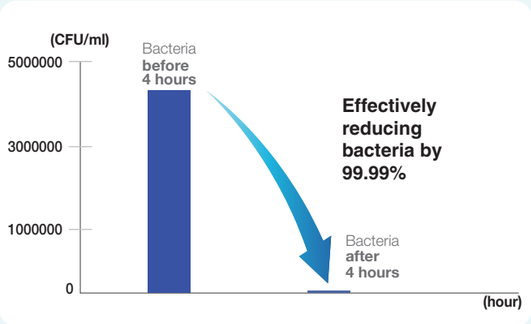
Test Organisation:
Tropical Infectious Diseases Research & Education Centre (TIDREC), Universiti Malaya

Test Number:
(TS4-0390)

Test Method:
Airborne removal of bactericidal activity of the Streamer Duct Chamber unit (BDEZ500A60VE) coupled with VAM150HVE unit installed in the Airborne Testing Chamber and testing method was based on JEM1467 (Appendix D), conducted in a room volume of 24.03 m^3.

Test Result:
Streamer Duct Chamber (BDEZ500A60VE) was able to remove more than 99.9% of airborne bacteria in 30 minutes of operation.

JEM1467 Appendix F: Bacteria Decomposition Performance



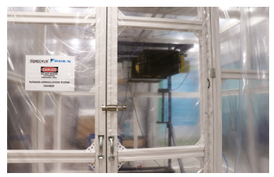
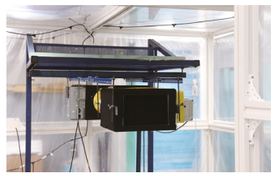
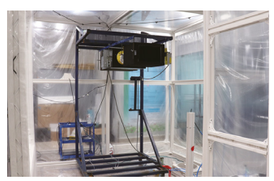
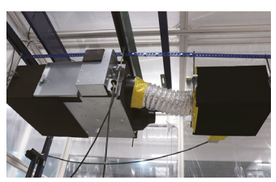
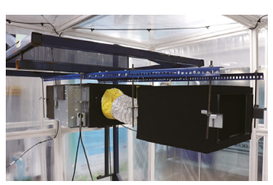
Test Organisation:
Tropical Infectious Diseases Research & Education Centre (TIDREC), Universiti Malaya

Test Number:
(TS4-0390)

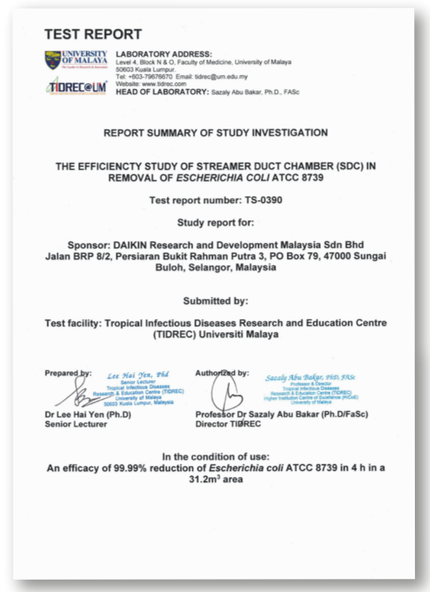
Test Method:
The antibacterial testing method the Streamer Duct Chamber unit (BDEZ500A60VE) coupled with VAM150HVE was based on JEM 1467 (Appendix F) standard, conducted in a room with volume of 31.2 m^3.

Test Result:
Streamer Duct Chamber (BDEZ500A60VE) was able to inactivate bacteria by 99.99% on MERV14 filter after exposure of 4 hours.

Experiment Setup

Test Report from Universiti Malaya (Malaysia)



TEST REPORT

UNIVERSITY OF MALAYA
TIDREC@UM

LABORATORY ADDRESS:
Level 4, Block N & O, Faculty of Medicine, University of Malaya
50603 Kuala Lumpur
Tel: +603-79678670 Email: tidrec@um.edu.my
Website: www.tidrec.com
HEAD OF LABORATORY: Sazaly Abu Bakar, Ph.D., FASc

REPORT SUMMARY OF STUDY INVESTIGATION

THE EFFICIENCY STUDY OF STREAMER DUCT CHAMBER (SDC) IN REMOVAL OF *ESCHERICHIA COLI* ATCC 8739

Test report number: TS-0390

Study report for:

Sponsor: DAIKIN Research and Development Malaysia Sdn Bhd
Jalan BRP 8/2, Persiaran Bukit Rahman Putra 3, PO Box 79, 47000 Sungai Buloh, Selangor, Malaysia

Submitted by:

Test facility: Tropical Infectious Diseases Research and Education Centre (TIDREC) Universiti Malaya

Prepared by: Lee Hai Yen, PhD
Senior Lecturer
Tropical Infectious Diseases Research & Education Centre (TIDREC)
University of Malaya
50603 Kuala Lumpur, Malaysia

Dr Lee Hai Yen (Ph.D)
Senior Lecturer

Authorized by: Sazaly Abu Bakar, PhD, FASc
Professor
Tropical Infectious Diseases Research & Education Centre (TIDREC)
Higher Institution Centre of Excellence (HICoE)
University of Malaya

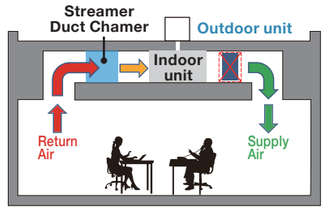
Professor Dr Sazaly Abu Bakar (Ph.D/FaSc)
Director TIDREC

In the condition of use:
An efficacy of 99.99% reduction of *Escherichia coli* ATCC 8739 in 4 h in a 31.2m^3 area

Installation Conditions

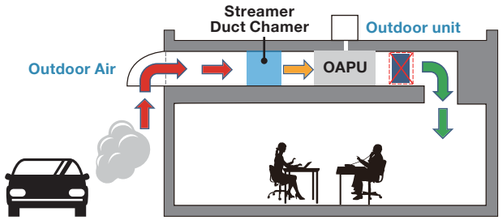
Duct Type Indoor Unit

For Duct Type Indoor Unit. Streamer Duct Chamber must be installed before the air conditioner unit to avoid condensation issue due to cold air draft.



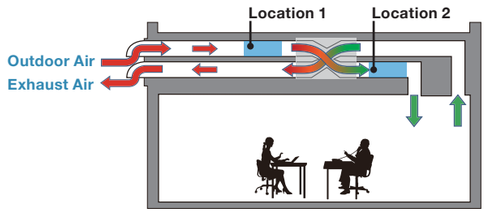
Outdoor Air Processing Unit

For Outdoor Air Processing Unit that combine fresh air treatment and air conditioning. Streamer Duct Chamber must be installed before the air conditioner unit to avoid condensation issue due to cold air draft. Besides, it can avoid OAPU to get dirty from the outdoor polluted air.



Heat Reclaim Ventilator (VAM Series)

For Heat Reclaim Ventilator (VAM Series). Streamer Duct Chamber can be installed in either Location 1 or Location 2 . However, Location 1 is hightly recommended in order to avoid VAM to get dirty from the outdoor polluted air.



Installation Position for Each System

- If the temperature and humidity inside the ceiling exceed 30°C or RH80%, apply additional insulation materials to the main unit. Refer to engineering data for operating areas. Use glass wool or polyethylene foam as insulation not thicker than 10 mm and fits inside the ceiling opening.

- If the unit intakes foggy, misty, or humid air, water droplets will drip from the air filter or heat exchange element, causing water leakage or failure. If the room is under negative pressure or if there is a strong outside wind, the unit may intake outside air even when the unit is not in operation. In such cases, install an electric shutter, etc., to prevent outside air from coming in.

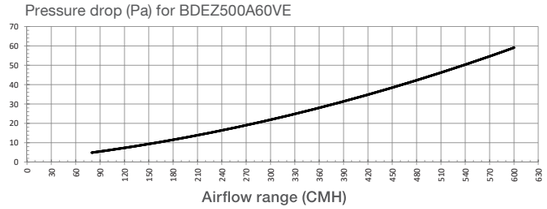
(1) Select an installation site where the following conditions are fulfilled
- Location with sufficient strength and stability (beams, ceiling, and other locations capable of fully supporting the weight of the unit). Insufficient strength may result in the unit falling over and causing injury. It may also cause vibration and unusual noise.
- Where nothing blocks the passage.
- Where the Unit is not in direct contact with the ceiling or wall. If the unit is in contact with the ceiling or wall, it can cause vibration.
- Where sufficient service space and space for duct connection can be secured.
- Where the unit is not in direct contact with the ceiling or wall.
- Where ceiling materials are present (this unit can be installed only above the ceiling). In the absence of ceiling materials. The unit may make noise in quiet places.

(2) Suspension bolts are used for installation. Check whether the installation location can withstand the weight of the main unit and, if necessary, reinforce the location with beams, etc., before installing the unit.

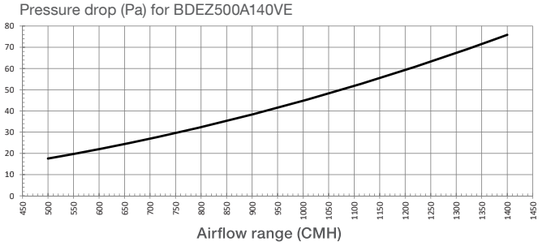
Pressure Drop Chart

Pressure drop chart in each model is as below.
Please select the model according to the airflow range required for the entire air conditioning system.

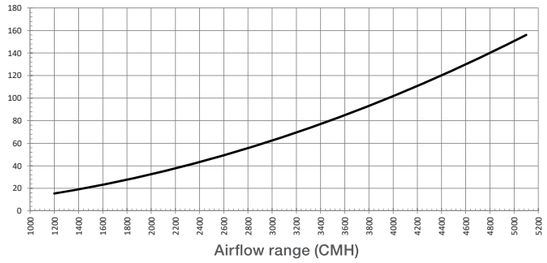
Pressure drop (Pa) for BDEZ500A60VE



Pressure drop (Pa) for BDEZ500A140VE



Pressure drop (Pa) for BDEZ500A510VE



Display panel

Stylish outlook, without affecting the building interior design





CAUTION

- **Keep the Streamer Duct Chamber and the Streamer display unit least 1 m away from televisions, radios, stereos, and other similar equipment.** This may cause distorted picture or noise.

- **Turn off the main power supply when it is not used for long periods of time.** When the main power switch is turned on, some watts of electricity is being consumed even if the system is not operating.

- **Do not install the Steamer display unit where direct sunlight may fall on it.** This may cause discoloration or deformation.

Specification

Model Name		BDEZ500A60VE	BDEZ500A140VE	BDEZ500A510VE
Outlook				
Power Supply		1 phase 220-240V, 50 Hz		
Casing Dimension	H (mm)	269	269	318
	W (mm)	419	819	1419
	D (mm)	418	418	653
Operating Temperature	°C	-10 to 50		
Operating Humidity	%	Max. 80%RH		
Airflow	CMH	80 - 600	500 - 1400	1200 - 5100
Initial Pressure Drop	Pa	5 – 59	18 - 76	16 - 156
Dust Collection Filter (MERV 14) Lifespan	Months (based on median CMH)	12	12	12
Weight	kg	13	19	38
Power Consumption	W	6.0	8.5	11.0
Sound Pressure Level		No increase in Sound Pressure Level as overall system		
Filters Quantity	Pre-Filter	1	2	4
	Dust Collection Filter (MERV 14)	1	2	4
	Deodorizing Filter	1	2	4
Replacement Filter Dust Collection Filter (MERV 14)		BAFH500A60 (1pc)	BAFH500A140 (2pcs)	BAFH500A510 (4pcs)
Dimension H*W*D (mm)		221 x 392 x 50 (referring to 1pc only)		450 x 343 x 50 (referring to 1pc only)
Working Method		DP sensor		



Outdoor-Air Processing Unit FXMQ-BFV(24)

Cooling only model

Product Features

Room Temperature Control
Set point temperature can be selected similar to normal ***VRV*** indoor unit.



3 Steps Airflow
3 airflow levels (H/M/L) can be selected, which enhance usage and design flexibility.

Filter Options
The filter options of MERV8 and MERV14 are available.



Slim & Compact Design
Only 300 mm in height and 700 mm in depth, the new casing comes with smaller footprint and with 59% reduction* in unit size.

*Reduction in size compared to conventional FXMQ200/250MF series

DC Motor
The change from AC motor to DC motor resulted in lower power consumption and more energy efficiency.

Extended Operation Range
Extended operation range:
Cooling: 15°CDB to 43°CDB

VRT Control
With the VRT* control feature, highest efficiency can be achieved.

*Default setting is VRT off.

Lower Power Consumption
The new FXMQ-BF series requires 79% less power making it the perfect choice for small commercial applications.

*Reduction of power consumption refer from comparison with 22.4kW model (FXMQ-MF series).

Specifications

Model name			FXMQ80BFV24	FXMQ140BFV24	FXMQ200BFV24	FXMQ250BFV24
Power supply			1 phase, 220 V, 50 Hz			
★1 ★2 Cooling capacity		Btu/h	30,700	54,600	76,400	95,500
		kW	9.0	16.0	22.4	28.0
Power consumption		kW	0.080	0.100	0.115	0.180
Casing			Galvanised steel plate			
Dimensions (H×W×D)		mm	300×700×700	300×1,000×700	300×1,400×700	
Airflow rate (H/M/L)		m³/min	11.5/8.6/5.8	20.5/15.4/10.3	29.0/21.8/14.5	36.0/27.0/18.0
		l/s	192/143/97	342/257/172	483/363/242	600/450/300
		cfm	406/304/205	724/544/364	1,024/770/512	1,271/953/635
External static pressure		Pa	Rated 100 (200-50)			
Air filter			★3			
Piping connections	Liquid	mm	ϕ9.5 (Flare)			
	Gas	mm	ϕ15.9 (Flare)		ϕ19.1 (Brazing)	ϕ22.2 (Brazing)
	Drain	mm	VP25 (External dia. 32, Internal dia. 25)			
Machine weight		kg	28	36	46	47
Sound level (H/M/L)		dB(A)	37.5/30/23	41/34/25	42/35/26	44/36/27
★4 Operation range		°CDB	15 to 43			

Notes:
*1 The cooling capacity is the maximum value under the following conditions:
Indoor temp.: 33°CDB, 28°CWB / outdoor temp.: 33°CDB, Piping length: 7.5m.
The rated external static pressure and air volume are set in ( ).
*2 Capacities are net, including a deduction for indoor fan motor heat.
*3 Air filter is not standard accessory, but please mount it in the duct system of the suction side.
Select its dust collection efficiency (gravity method) 50% or more.
*4 Operation range can be extend to 15°C by field setting.
When the unit is all fresh air (OAPU) connection under cooling operation, the operation limit is at 19°C - 43°C.
(extend of operation range is not available.)
5 VRT can be activated with remote controller thermistor and outdoor field setting.

Remarks:
1. This machine cannot be used to handle internal heat loads.
The blowout temperature changes depending on the air conditioning load, outside air temperature, and operation of the protective device. When the protection function is activated, unprocessed outside air maybe sent directly.
2. When this unit is connected to another indoor unit, the outside air processing mixing ratio must be as follows:
The total content capacity should be A% or less when the unit is connected.
A:B = 100:40 / A:B = 110:30 / A:B = 120:20 / A:B = 130:10
3. During cooling operation, if the ceiling temperature exceeds 30°C and relative humidity reaches 80%, or fresh air is inducted into the ceiling, heat insulation material (glass wool or polyethylene foam, thickness: 10 mm or more) is required to prevent dew condensation.

Option List

Option name		FXMQ80BFV24	FXMQ140BFV24	FXMQ200BFV24	FXMQ250BFV24
Filter	MERV8	BAF376B56	BAF376B80	BAF376B160	
	MERV14	BAF377B56	BAF377B80	BAF377B160	
Filter chamber		KDDF37AA56	KDDF37AA80	KDDF37AA160	
Long life replacement filter		KAF371B56	KAF371B80	KAF371B160	
Service panel		KTBJ25K56F	KTBJ25K80F	KTBJ25K160F	
Air discharge adaptor		KDAJ25K56A	KDAJ25K71A	KDAJ25K140A	
Stylish remote controller	White	BRC1H63W			
	Black	BRC1H63K			
Navigation remote controller		BRC1E63			
Simplified remote controller		BRC2E61			
Wireless remote controller		BRC4C66*1			
Remote sensor (for indoor temperature)		BRCS01A-6			

Notes:
*1 Remote sensor is necessary when using wireless remote controler.
*2 Refer to Engineering Data for full list of optional accessories.

Components of Indoor Air Quality



FXMQ-BFV(24)



MERV8

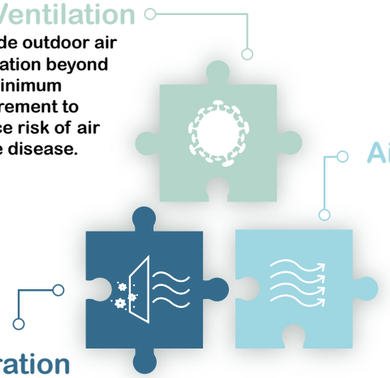


MERV14



Ventilation

Provide outdoor air ventilation beyond the minimum requirement to reduce risk of air borne disease.



Air processing

Ventilate occupied space by supply-ing the fresh air and filtrate the air with MERV filters to enhance the IAQ while able to maintain the comfortability with room temperature control feature.

Filtration

Filter that achieve MERV14 or better grade can help remove infectious aerosol for recirculated air.

Benefits to Various Application Types



Supermarket

- Provides fresh air to closed space that are typically crowded such as supermarkets and grocery stores to reduce the risk of airborne transmitted diseases.
- The new 9kW capacity model is the perfect fit for smaller business such as small/medium-sized shops and convenience stores.



Hotel

- Maintains the best IAQ with room temperature control and fresh air ventilation in guest rooms and common areas.
- By maintaining ideal temperature and humidity, the unit could save future costs by extending the life cycle of furniture and appliances.



Factory

- Enhances the IAQ of the production areas where machines may generate dusty atmosphere and other contaminants.
- Maintains comfortability and precise temperature control in large areas with the remote sensor option BRCS01A-6.



Office/School

- Many hours were spent in school/office in one day, maintaining comfortability with fresh air and precise room temperature control is essential.
- Improves IAQ to help prevent occupants from allergies, sick building syndrome (SBS) and building-related illnesses (BRI).



Restaurant/Kitchen

- Freshens up the air by introducing fresh air while reducing the presence of unpleasant smell such as smokes, food smells, and stale air from the cooking area.
- With the MERV14 filter options, it is able to capture the airborne particles between 1 µm to 3 µm size range at 90% efficient rate*.
  *ANSI/ASHRAE Standard 52.2-2017 P.44



NEW

Round Flow Cassette with Sensing and Streamer
Round Flow Cassette with Streamer

FXFTQ-AV
FXFRQ-AV

Daikin Streamer Technology

Daikin Streamer Technology enhances maximum efficiency in cleaning, which uses powerful decomposition properties to decompose substances captured by filter for better air quality.



Introducing Streamer technology to *VRV* Indoor unit

NEW

FXFTQ-AV
FXFRQ-AV



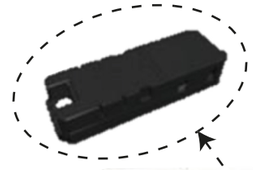
STREAMER Technology



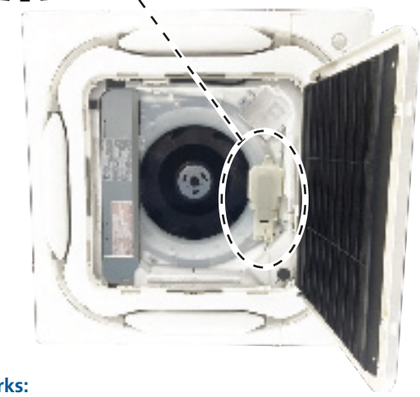
Irradiate streamers when the fan and air conditioning operation is stopped. The streamer fumigates the cabin and sterilizes the filter.

Wired remote controller BRC1H62W/K	Model name	
	FXFTQ-A	FXFRQ-A
Streamer function unit NEW	✓	✓
Dual sensors*	✓	×
Sensing sensor low mode*	✓	×
Sensing sensor stop mode*	✓	×
Circulation airflow	×	×
Individual airflow direction control	✓	✓
Switchable 5 step fan speed	✓	✓
Auto airflow function (Draft prevention)*	✓	×
Auto swing	✓	✓
Selectable airflow pattern	×	×
Swing pattern selection	✓	✓
High ceiling application	✓	✓

Note : *Applicable when sensing panel is installed.



Streamer function unit is built-in inside the indoor unit for efficient cleaning function.



Remarks:

1) Only the remote controller BRC1H63W(K) can be connected for ON / OFF operation of the streamer.
2) Streamer function operates when the fan stops after the air conditioning operation is stopped. The maximum operation of streamer is 180 minutes per day. (This function is available only when the remote controller BRC1H63W(K) is connected.)



Stylish Remote Controller BRC1H63W/K

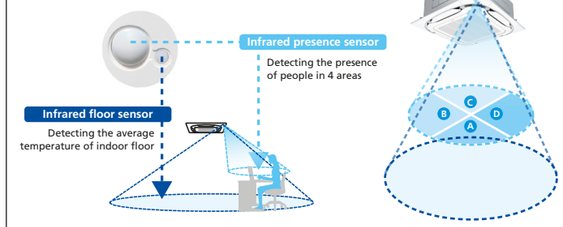
FEATURES

FXFTQ : Round Flow Cassette with Sensing and Streamer
FXFRQ : Round Flow Cassette with Streamer

Daikin advanced sensing technology dual sensors (FXFTQ)

Round flow with sensing

Comfort and energy saving by sensing functions

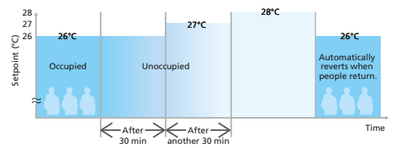


Sensing sensor mode Energy saving

Sensing sensor low mode (default: OFF)

When there are no people in a room, the set temperature is shifted automatically.

Example
- Cooling setpoint: 26°C
- Shift temperature: 1.0°C
- Shift time: 30 min.
- Limit cooling temperature: 30°C



Sensing sensor stop mode (default: OFF)

Based on preset user conditions, the system automatically stops operation if the room is unoccupied.

*Adjustment is possible for shift time and set temperature by local setting.

Individual airflow direction control

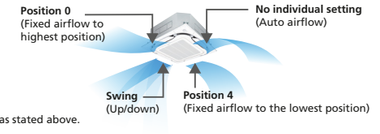
Comfortable air conditioning for all room layouts and conditions

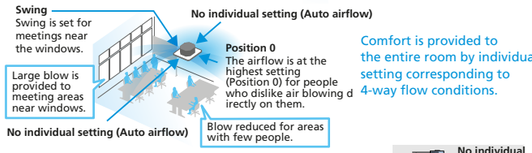
Easy setting is possible with a wired remote controller

Airflow direction can be individually adjusted for each air discharge outlet to deliver optimal air distribution.

Individual airflow settings
No individual setting (Auto)
Position 0 (Highest point)
Position 1
Position 2
Position 3
Position 4 (Lowest point)
Swing

Individual settings are possible as stated above.



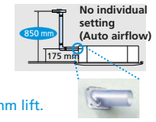


Comfort is provided to the entire room by individual setting corresponding to 4-way flow conditions.

Quick and easy installation

Installable in tight ceiling spaces

Min. of 261 mm* ceiling space when using standard panel.
* For FXFTQ/FXFRQ25-80A models.

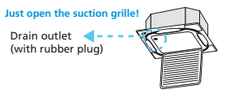


Drain pump is equipped as standard accessory with 850 mm lift.

Easy maintenance

Drain pan and drain water check

The condition of the drain pan and drain water can be checked by removing the suction grille and drain plug.



Cleanliness

Silver ion anti-bacterial drain pan

Prevents the growth of slime, bacteria, and mould that cause odours and clogging.
* Drain pan should be changed once every two to three years.



Filter has anti-mould and antibacterial treatment

Specifications

MODEL NAME			FXFTQ25AV4	FXFTQ32AV4	FXFTQ40AV4	FXFTQ50AV4	FXFTQ63AV4	FXFTQ80AV4	FXFTQ100AV4	FXFTQ125AV4	FXFTQ140AV4
Power supply			1-phase, 220 V, 50 Hz								
Cooling capacity		Btu/h	9,600	12,300	15,400	19,100	24,200	30,700	38,200	47,800	54,600
		kW	2.8	3.6	4.5	5.6	7.1	9.0	11.2	14.0	16.0
Power consumption	Cooling	kW	0.028		0.035	0.056	0.061	0.092	0.164	0.170	0.194
Casing			Galvanised steel plate								
Airflow rate (H/HM/M/ML/L)		m^3/min	13/12.5/11.5/11/10		17/13.5/12.5/12/11	23/20.5/19/14.5/11	23.5/21/20/16/13.5	24.5/22/20.5/20/15	33.5/30.5/27/23.5/21	34.5/31.5/28.5/25.5/23	35.5/32.5/29.5/26.5/23
		cfm	459/441/406/388/353		600/477/441/424/388	812/724/671/512/388	830/741/706/565/477	865/777/724/706/530	1,183/1,077/953/830/741	1,218/1,112/1,006/900/812	1,253/1,147/1,041/935/812
Sound level (H/HM/M/ML/L)		dB(A)	30/29.5/28.5/28/27		35/29.5/29/28/27	38/35/34.5/29.5/27	38/36/35.5/31.5/28	39/37/36/35.5/31	44/41/38/35/33	45/42.5/39.5/37/35	46/43.5/40.5/38/35
Dimensions (H×W×D)		mm	256×840×840						298×840×840		
Machine weight		kg	19			24	22		25		26
Piping connections	Liquid (Flare)	mm	ϕ6.4				ϕ9.5				
	Gas (Flare)		ϕ12.7				ϕ15.9				
	Drain		VP25 (External Dia. 32/Internal Dia. 25)								

MODEL NAME			FXFRQ25AV4	FXFRQ32AV4	FXFRQ40AV4	FXFRQ50AV4	FXFRQ63AV4	FXFRQ80AV4	FXFRQ100AV4	FXFRQ125AV4	FXFRQ140AV4
Power supply			1-phase, 220 V, 50 Hz								
Cooling capacity		Btu/h	9,600	12,300	15,400	19,100	24,200	30,700	38,200	47,800	54,600
		kW	2.8	3.6	4.5	5.6	7.1	9.0	11.2	14.0	16.0
Power consumption	Cooling	kW	0.029		0.036	0.040	0.063	0.096	0.158	0.178	0.203
Casing			Galvanised steel plate								
Airflow rate (H/HM/M/ML/L)		m^3/min	13/12.5/11.5/11/10		17/13.5/13/12/11	18/17/13.5/12.5/11	21/20/16/15/13.5	22.5/21.5/21/20/15	32/29/26/23/21	33/30.5/28/25.5/21	35.5/32.5/29.5/26.5/23
		cfm	459/441/406/388/353		600/477/459/424/388	635/600/477/441/388	741/706/565/530/477	794/759/741/706/530	1,130/1,024/918/812/741	1,165/1,077/988/900/741	1,253/1,147/1,041/935/812
Sound level (H/HM/M/ML/L)		dB(A)	30/29.5/28.5/28/27		35/29.5/29/28/27	35/33.5/29.5/28.5/27	36/35.5/31.5/31/28	37/36.5/36/35.5/29.5	43/40.5/37.5/35/33	44/41.5/39/36.5/33	46/43.5/40.5/38/35
Dimensions (H×W×D)		mm	256×840×840						298×840×840		
Machine weight		kg	19				22		25		26
Piping connections	Liquid (Flare)	mm	ϕ6.4				ϕ9.5				
	Gas (Flare)		ϕ12.7				ϕ15.9				
	Drain		VP25 (External Dia. 32/Internal Dia. 25)								

Notes: Specifications are based on the following conditions;
- Cooling: Indoor temp.: 27°CDB, 19°CWB, Outdoor temp.: 35°CDB, Equivalent piping length: 7.5 m, Height difference: 0 m.
- Capacity of indoor unit is only for reference. Actual capacity of indoor unit is based on the total capacity index. (See Engineering Data Book for details.)
- Sound level: Anechoic chamber conversion value, measured at a point 1.5 m downward from the unit centre.
  During actual operation, these values are normally somewhat higher as a result of ambient conditions.

Option list

Name of option \ MODEL NAME			FXFTQ25,32,40,50,63,80AV4	FXFTQ100,125,140AV4	FXFRQ25,32,40,50,63,80AV4	FXFRQ100,125,140AV4
Standard panel with sensing		Fresh white	BYCQ125EEF		-	
		Black	BYCQ125EEK		-	
Standard panel		Fresh white	BYCQ125EAF		BYCQ125EAF	
		Black	BYCQ125EAK		BYCQ125EAK	
Panel spacer			KDB55J160F		KDB55J160F	
Fresh air intake kit	Chamber type [1,2,4]	Without T-duct joint	KDDP55C160 [Components: KDDP55C160-1, KDDP55C160-2]		KDDP55C160 [Components: KDDP55C160-1, KDDP55C160-2]	
		With T-duct joint	KDDP55C160K [Components: KDDP55C160-1, KDDP55C160K2]		KDDP55C160K [Components: KDDP55C160-1, KDDP55C160K2]	
	Direct installation type [3]		KDDP55X160A		KDDP55X160A	
Replacement long-life filter			KAF5511D160		KAF5511D160	
Branch duct chamber			KDJP55C80	KDJP55C160	KDJP55C80	KDJP55C160
Insulation kit for high humidity [5]			KDTP55K80A	KDTP55K160A	KDTP55K80A	KDTP55K160A
Stylish remote controller [6]			BRC1H63W/BRC1H63K		BRC1H63W/BRC1H63K	
Adaptor for wiring (operation status output) [7]			BRP11B62		BRP11B62	
Digital input adaptor [7]			BRP7A52		BRP7A52	
Wiring adaptor for electrical appendices [7]			KRP4AA53		KRP4AA53	
Installation box for adaptor PCB			KRP1H98A		KRP1H98A	
Remote sensor			BRCS01A-5		BRCS01A-5	
External control adaptor for outdoor unit [7]			DTA104A62		DTA104A62	
Multi tenant for indoor unit (24V free type) [7]			BRP114A61		BRP114A61	
Multi tenant for unit booster (24V free type)			BRP114A63		BRP114A63	

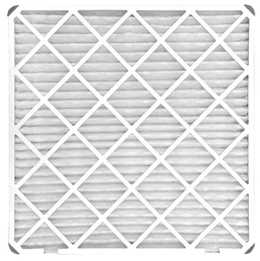
Notes: 1. When installing a fresh air intake kit (chamber type), two air outlet corners are closed.
2. It is recommended that the volume of outdoor air introduced through the kit is limited to 10% of the maximum airflow rate of the indoor unit.
Introducing higher quantities will increase the operating sound and may also influence temperature sensing.
3. The volume of fresh air for direct installation type is approximately 1% of the indoor unit airflow. The chamber type is recommended when more fresh air is necessary.
4. Please order using the names of both components instead of set name.
5. Please use in case temperature/humidity inside ceiling may get over 30˚C, 80% RH.
6. Wiring for wired remote controller should be obtained locally.
7. Installation box for adaptor PCB (KRP1H98A) is necessary.

MERV 8 DAIKIN AIR FILTER

High Performance Prefilter



Pure air with a simple step





Features and Benefits

Pure Air

MERV 8 Rating

This filter is a high performance prefilter that has achieved MERV 8 rating.

PM2.5 Filtration

This filter can catch fine particles that could not be removed by the existing prefilter, capturing 97% of 1.0-3.0 µm particles and 99% of 3.0-10 µm particles when air passes through filter 10 times.

Filter Exchange Twice a Year

Replace the filter twice a year in order to maintain the filter's high performance.

Simple Step

Chamberless Filter

Additional parts and difficult installation works are unnecessary. Just replace the existing prefilter.

Retrofit to Existing Indoor Unit

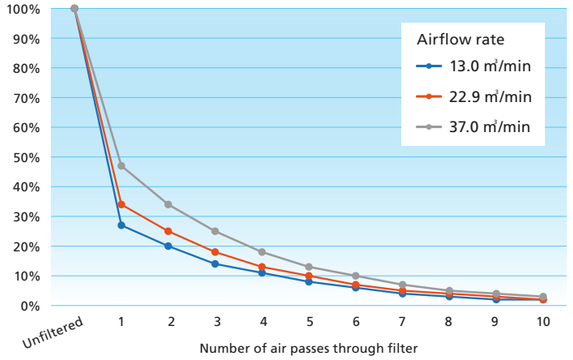
Attachable to your current round flow cassette for IAQ improvement.



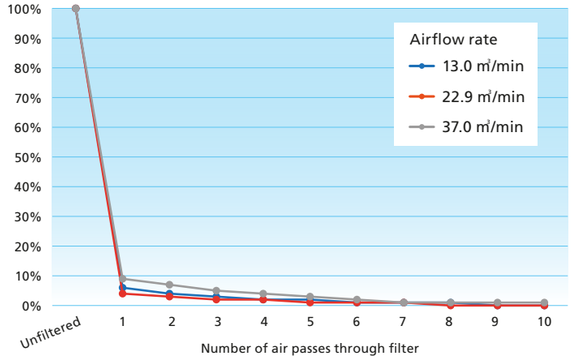
Filter Efficiency

Our in-house test results have proven that this filter can meet the MERV 8 standard.
In addition, as the air conditioning system continues to operate, the air in the room will pass through this filter many times. As a result, more harmful substances in the air can be captured.
For example, more than 97% of 1.0 - 3.0 µm sized substances, including PM2.5, can be collected by circulating air through the filter 10 times.

Percentage of 1.0 – 3.0 µm particles remaining in the indoor air*1



Percentage of 3.0 – 10.0 µm particles remaining in the indoor air*1



*1. This figure is simulated based on the actual measured data of one-pass performance and assumes that particles do not occur continuously in the room. By repeating the one-pass performance about 2~10 times, it can expect the attenuation as shown in the figure.

Specifications

DAIKIN AIR FILTER
High performance prefilter
BAF552A160



Round flow cassette
(including with Sensing Type)
VRV SkyAir



Model Name		BAF552A160		
Brand		DAIKIN		
Production Base		AAF Malaysia		
Performance		MERV 8		
Dimensions	mm	526 x 523 x 35		
Airflow rate	m³/min	13.0	22.9	37.0
Initial Pressure Drop*2	Pa	18.1	35.8	81.4
Weight	g	520		
Lifetime *3		6 months (1,250 hours)		
Reuse		Non-reusable		

Note 1. It is necessary to set a high ceiling mode on site to prevent a decrease in air volume when installing the filter. The setting number differs according to each model. Please refer to the installation manual.

*2. This result is based on the test of the filter only. The results may be different in the actual use environment where the filter is installed in the indoor unit.

*3. Filter lifetime may vary depending on the condition of the operating environment.
Certain instances such as high traffic areas, pets or smokers in a residence, or other situations may require more frequent changes.

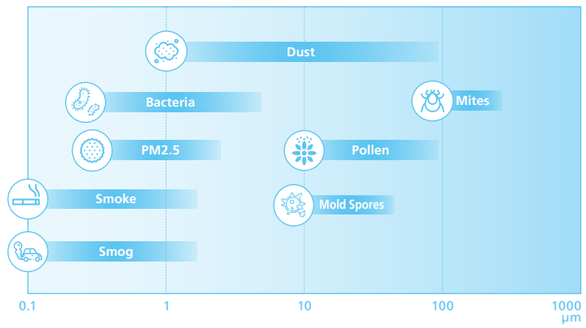
What is MERV rating?

Fig. 1 Criteria for achieving MERV 8 (ASHRAE52.2 : 2017)

MERV	Composite Average Particle Size Efficiency, % , In Size Range, µm			
	E1 Range (0.3 - 1.0)	E2 Range (1.0 - 3.0)	E3 Range (3.0 - 10)	10 µm ~
1 - 4	n/a	n/a	<20	Effective for collecting
5	n/a	n/a	<20	-
6	n/a	n/a	35≤	-
7	n/a	n/a	50≤	-
8	n/a	**20≤**	**70≤**	-
9	n/a	35≤	75≤	-
10	n/a	50≤	80≤	-
11	20≤	65≤	85≤	-
12	35≤	80≤	90≤	-
13	50≤	85≤	90≤	-

Minimum efficiency reporting value (MERV) is a filter rating system devised by ASHRAE (American Society of Heating, Refrigerating and Air-Conditioning Engineers) to standardize and simplify air filter efficiency ratings for the public.

The higher the MERV rating, the higher the effectiveness of the air filter.



Applicable Models



VRV

Indoor Unit		Panel	
Round Flow Cassette with Sensing	FXFSQ-A*	Standard panel	BYCQ125EAF(K)
		Standard panel with sensing	BYCQ125EEF(K)
Round Flow Cassette	FXFQ-A*	Standard panel	BYCQ125EAF(K)
Ceiling Mounted Cassette (Round Flow with Sensing) Type	FXFQ-S	Standard panel	BYCQ125B-W1
Ceiling Mounted Cassette (Round Flow) Type	FXFQ-L	Standard panel	BYCP125K-W1
Round Flow Cassette Type	FXFQ-P	Standard panel	BYCP125K-W1

* Cannot be used for Designer panel and Auto grille panel

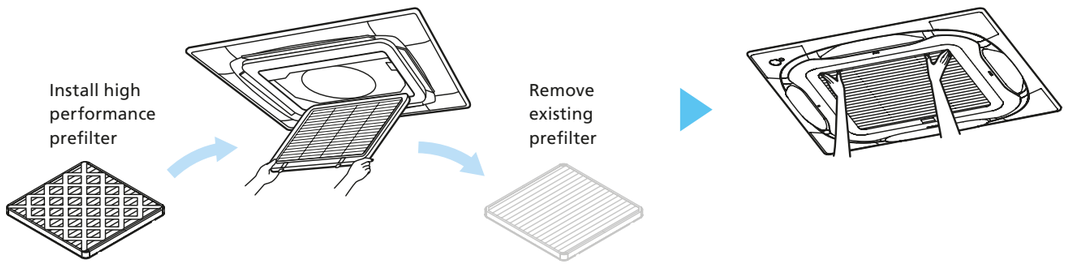
SkyAir

Indoor Unit		Panel	
Ceiling Mounted Cassette Type <Round Flow> (R32)	FCF series* FCA series* FCFC series*	Standard panel	BYCQ125EAF(K)
		Standard panel with sensing	BYCQ125EEF(K)
Ceiling Mounted Cassette Type <Round Flow> (R410A)	FCQ series FCNQ series	Decoration panel	BYCP125K-W1

* Cannot be used for Designer panel and Auto grille panel

Easy Replacement

The existing prefilter can be replaced easily*.
Since it's a chamberless filter, the installer will remove the existing prefilter and replace it with the high performance prefilter.



* The filter should be fixed to the air conditioner with attached components, so consult your dealer when installing or replacing the filter.

VRV is a trademark of Daikin Industries, Ltd.
VRV Air Conditioning System is the world's first individual air conditioning system with variable refrigerant flow control and was commercialised by Daikin in 1982.
VRV is the trademark of Daikin Industries, Ltd., which is derived from the technology we call "variable refrigerant volume."
Specifications, designs and other content appearing in this brochure are current as of August 2021 but subject to change without notice.

VAM-HVE Series

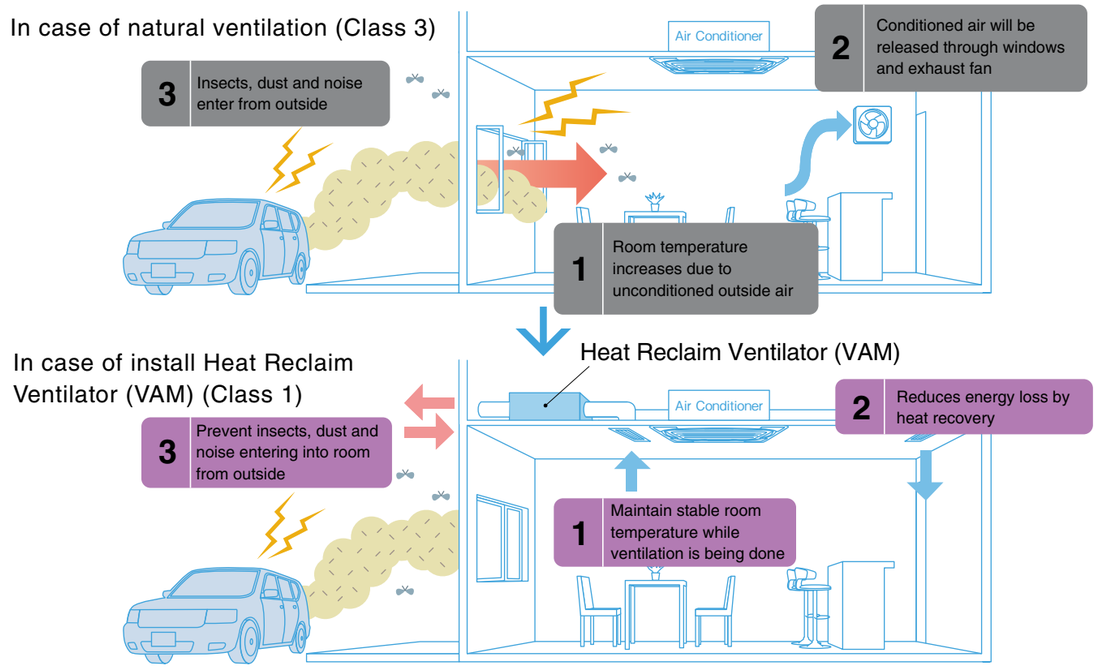
(Heat Reclaim Ventilator)

VAM150 - 2000HVE



Good quality air for every day

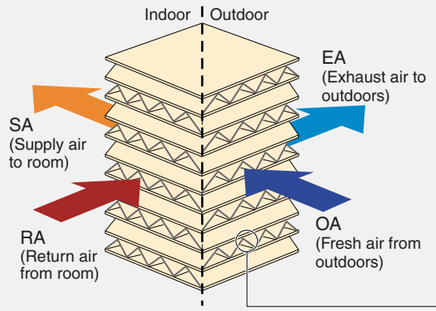
Controlling the necessary elements will improve the quality of ventilation.

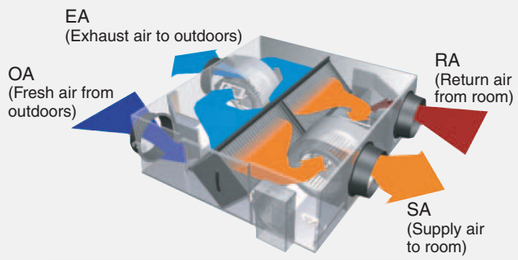


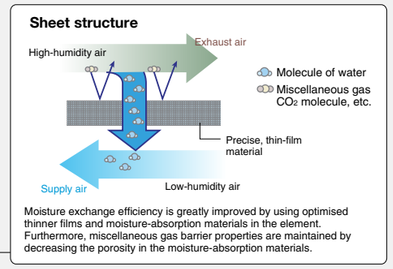
Air conditioning load is reduced by heat recovery.

Total heat exchange ventilation

This unit recovers heat energy lost through ventilation and curbs room temperature changes caused by ventilation, thereby conserving energy and reducing the load on the air conditioning system.







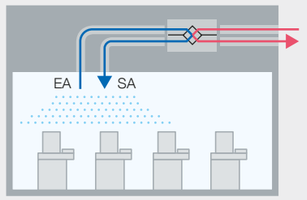
Airflow Control

Class 1 Ventilation

Both supply air and exhaust air are controlled by mechanical ventilation in order to achieve stable ventilation when required.

For common ventilation usage, Class 1 ventilation is able to meet the requirement.

"For example:
Heat Reclaim Ventilator"

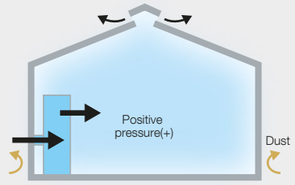


Class 2 Ventilation

System that uses mechanical ventilation for supply air and natural ventilation for exhaust air.

Class 2 ventilation is often used for specific purpose such as positively pressured room (Hospital Clean Room, Factory Clean Room).

"For example:
Mechanical Ventilation (Supply)"

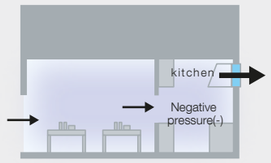


Class 3 Ventilation

System that uses natural ventilation for supply air and mechanical ventilation for exhaust air.

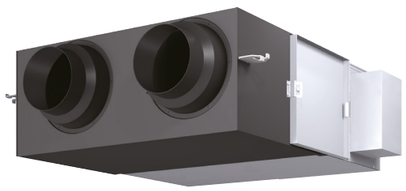
Class 3 ventilation often being used at area with high odor generation such as kitchen and toilet.

"For example:
Mechanical Ventilation (Exhaust)"



Fresh up Operation

By changing the airflow balance, positive pressure or negative pressure in a room can be achieved in order to prevent pollutants from entering or flowing out.

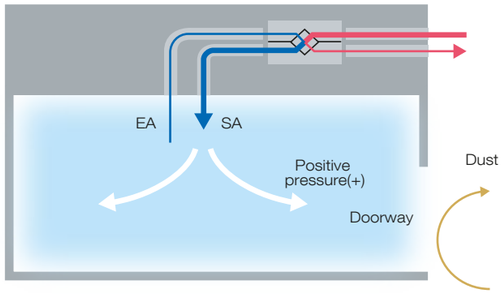


Supply fresh up operation increases the supply air volume to prevent pollutants from entering into the room.

For example, it keeps outdoor pollen and dust from entering when doors are opened or closed, or through gaps in windows.

Example: Convenience Stores

By positive pressure in the room, the entering of dirty outside air, odors and moisture when opening and closing of doorway is prevented.

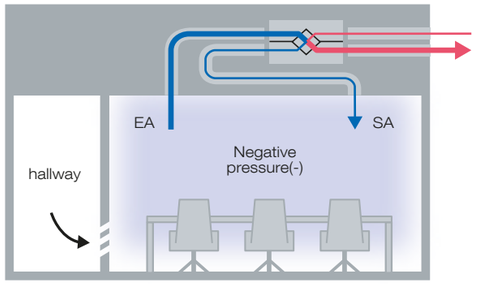


Exhaust fresh up operation will increase exhaust air volume to prevent pollutants from flowing to other area.

For example, to prevent dirty air generated indoors from flowing out in through windows and doors, the indoor air is kept under negative pressure and discharged.

Example: Conference Room

By negative pressure in the room, contaminated air and moisture from the room is prevented from leaking into other areas.

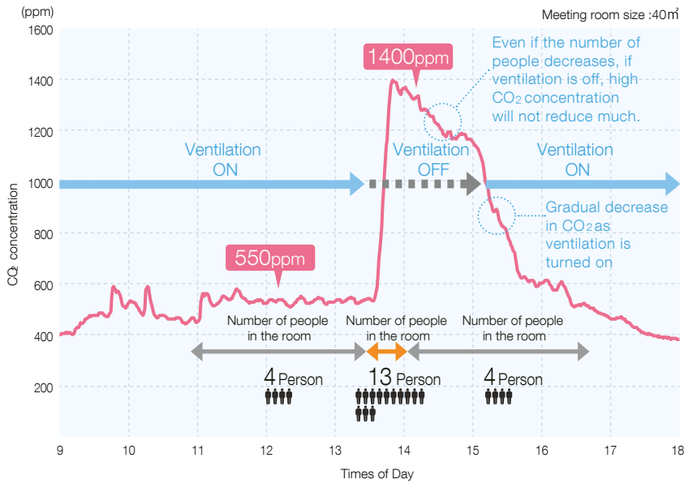


Ventilation volume control with CO_2 sensor interlocking

During increase in CO_2 level in the room, ventilation air volume will be increased to have higher air exchange in order to reduce the CO_2 level in room.

Human occupancy is reflected as CO_2 concentration

Change in CO_2 concentration in conference room



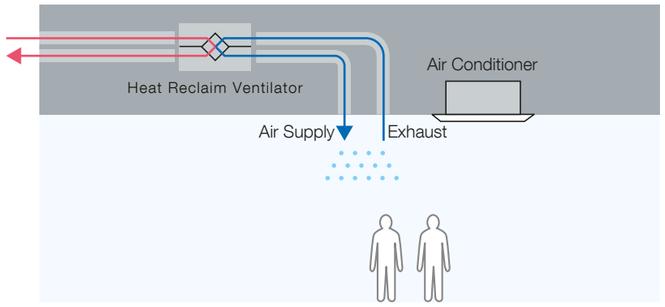


Experimental data: CO ₂concentration in the conference room. Closed conference rooms often tend to have stagnant air flow. In long meeting duration or meeting with full occupancy, the concentration of CO ₂increases due to the exhaled CO2 from human and causes decrease in mind concentration. In order to achieve effective ventilation in short period, mechanical ventilation and natural ventilation should be combined to replace the air.

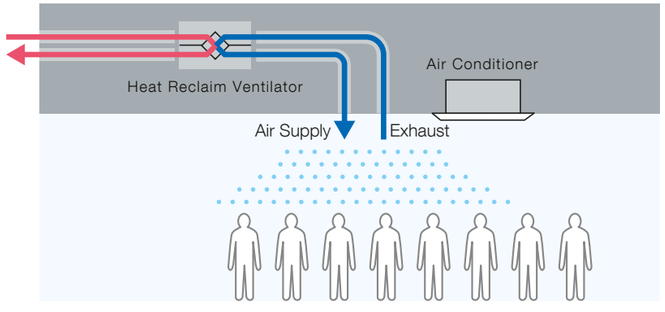
Image is for illustrative purpose

Equipped with a CO_2 sensor to automatically control the ventilation volume according to the CO_2 concentration.

Low airflow when there are low occupancy.



High airflow when there is an increase in occupancy.



NEW! New Wired Controller (BRC1H63W/K)



With the new wired controller, BRC1H63W/K, the airflow is able to be automatically controlled based on CO_2 concentration and CO_2 concentration is able to be visualized on the screen*.

*Optional accessory CO_2 sensor is required for this function.

This CO_2 sensor cannot be used as CO_2 measurement tool. CO_2 concentration value will subject to change depending on the room condition and environment.

Energy saving ventilation (interlocked with air conditioner)

Air conditioner and ventilation system can be interlocked to provide even greater comfort and energy saving.

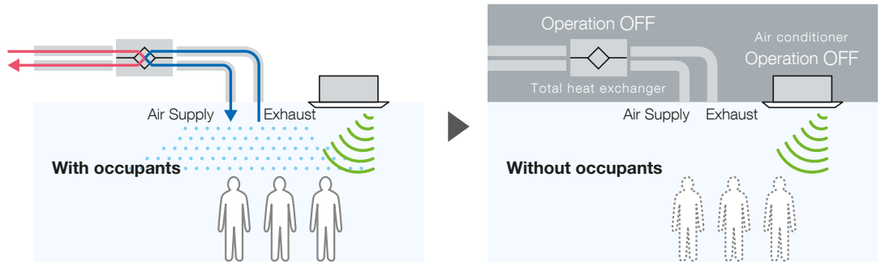
The system can be interlocked with Daikin air conditioners to provide energy saving ventilation solution for various situation.



Sensing sensor stop mode

In situation of no human occupancy is detected, the operation is turned off.

When the "Sensing sensor" installed on the air conditioner detects no occupancy in the room, the ventilation system and air conditioner system is turned off automatically to reduce energy wastage.



※During group controlling of air conditioner, no occupancy stop mode cannot be used. Please refer to ***VRV*** general catalogue for the target indoor units.

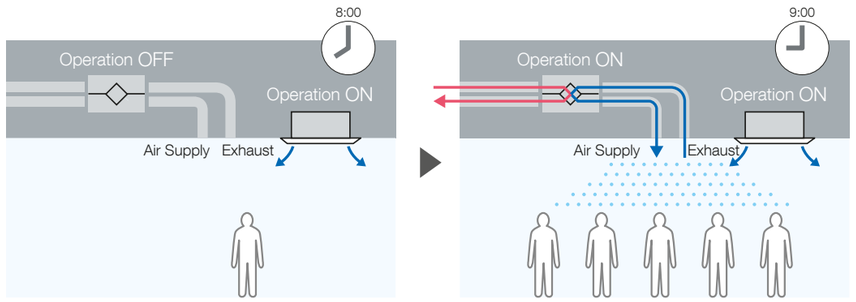
※During 24-hours ventilation mode is turned on, the normal operation mode is changed to 24-hours ventilation mode.

※Once the absence is detected and stopped, the operation will not be performed automatically again.

Pre-cooling / Pre-heating control

The operation of ventilation system is delayed during this mode.

During first start up of the air conditioner, the start up operation of ventilation system is delayed in order to reduce additional heat load from outside air. This will reduce power consumption for the air conditioner as well.



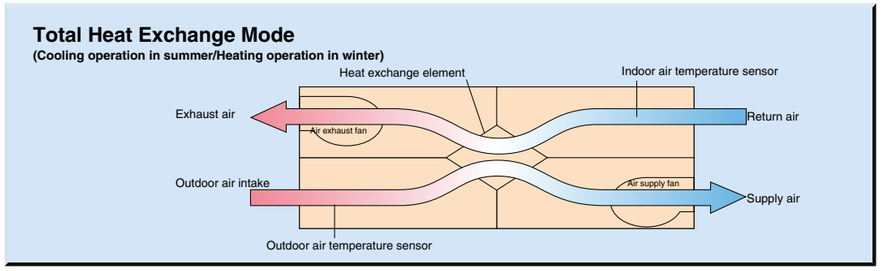
※Delay timer settings can be adjusted.

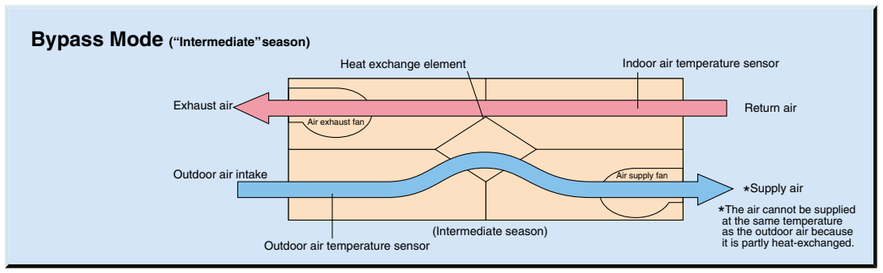
Auto-ventilation Mode Changeover Switching

Automatically switches the ventilation mode (Total Heat Exchange Mode/Bypass Mode) according to the operating status of the air conditioner.

When the cooling operation is required in winter, use of heat recovery ventilation is not efficient because the outdoor air temperature is normally lower than that of the indoor. Thus, the proper use of ventilation mode enhances the heating / cooling efficiency.

In addition by installing a humidity sensor (optional), automatic switching by heat (energy) or discomfort index is possible which further improves energy efficiency and comfort.



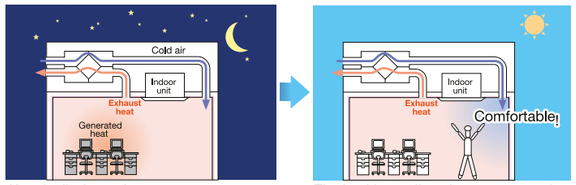


Nighttime free cooling operation

Nighttime free cooling operation is an energy-conserving function that works at night when air conditioners are off. By ventilating rooms containing office equipment that raises the room temperature, nighttime free cooling operation reduce the cooling load when air conditioners are turned on in the morning. It also alleviates feelings of discomfort in the morning caused by heat accumulated during the night.

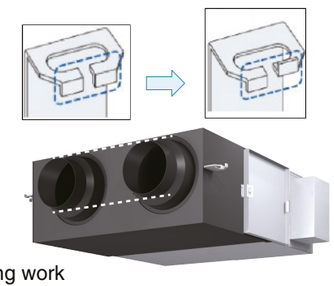
- When connected to air conditioners, operation of heat reclaim ventilator is controlled according to the set temperature, outside air temperature and room temperature.
- When using only ventilation unit, operation of heat reclaim ventilator is controlled according to the set temperature on remote controller.
- Nighttime free cooling operation is possible during air conditioners linked operation by centralized control.
- Nighttime free cooling operation is set to "off" in the factory settings, so if there is a need to turn on, please contact Daikin dealer

The indoor accumulated heat is discharged at night.
This reduces the air conditioning load the next day thereby increasing efficiency.



*Interlocked operation with an air conditioner

Improved installation method



1. Improved installation process by changing the dimension and shape of lifting lug
   - The nut dropout prevention structure eliminates the need to replace the lifting lug even when mounting upside down.
   - It also prevents the anti-vibration lifting lug from interfering with the equipment.
2. Improved duct installation process with new duct connector location
   - The duct connector is adjusted to be parallel to each other in order to ease duct installation process.
3. Improves controllability by input / output signals and simplifies various wiring work
   - Operation, ventilation volume, and ventilation mode can be switched by external contact input.
   - Output signal terminal for external dampers.
   - Output signal terminal for abnormal signals and filter signs.

Application Example

Ventilation related points to be taken into note during designing stage.

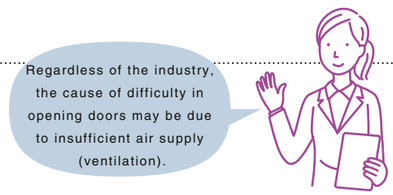
Restaurant

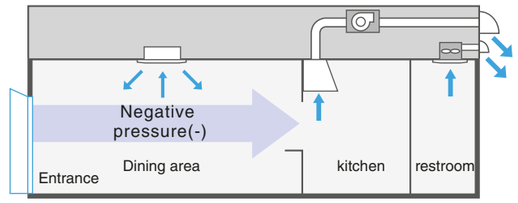
Problem

- The entrance door is difficult to open.
- The food smell leaks to dining area.
- Hot outside air is coming in when the entrance door is opened.



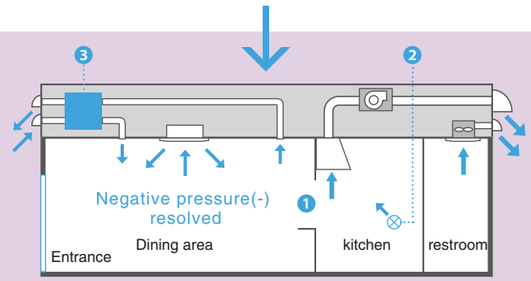
The restaurant has negative room pressure due to insufficient supply air. When the entrance door is opened, outside air enters into the restaurant bringing warm air and pollutants.





Countermeasure plan

1. Separate ventilation for kitchen and customer dining area.
2. Provide an air supply vent in the kitchen.
3. Install a Heat Reclaim Ventilator on the dining area.



Office & Shoplot

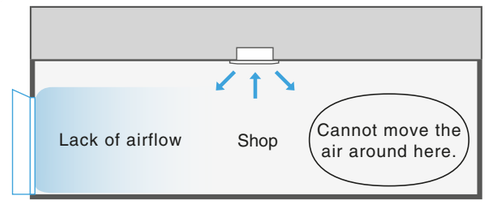
Problem

- Ventilation cannot be achieved by opening windows or doors.
- No large windows or doors at the area.



No air movement due to low airflow.

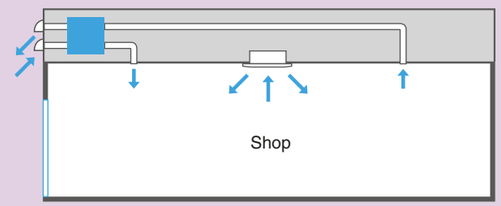
In the case of windows and doors are located at the front only, there will be no air movement at the back of the shop. Air will be stagnant and not well ventilated.



Countermeasure plan

Heat Reclaim Ventilator must be installed to provide effective mechanical ventilation.

As a result, airflow is able to ventilate all areas of the shop.



TECHNICAL SPECIFICATIONS

Unit								
Model				**VAM150HVE**	**VAM250HVE**	**VAM350HVE**	**VAM500HVE**	**VAM650HVE**
Power Supply				1-phase, 220-240 V, 50 Hz				
Temp. Exchange Efficiency (50 Hz)	For Cooling	Ultra-High	%	66.0 / 66.0	60.5 / 60.5	65.0 / 65.0	61.5 / 61.5	59.5 / 59.5
		High		66.0 / 66.0	60.5 / 60.5	65.0 / 65.0	61.5 / 61.5	59.5 / 59.5
		Low		69.0 / 69.5	65.0 / 65.5	70.0 / 70.0	63.0 / 64.0	62.5 / 63.0
	For Heating	Ultra-High	%	77.0 / 77.0	76.5 / 76.5	79.5 / 79.5	80.0 / 80.0	74.5 / 74.5
		High		77.0 / 77.0	76.5 / 76.5	79.5 / 79.5	80.0 / 80.0	74.5 / 74.5
		Low		78.5 / 79.0	78.5 / 79.0	81.5 / 82.0	81.5 / 82.5	76.5 / 77.0
Enthalpy Exchange Efficiency (50 Hz)	For Cooling	Ultra-High	%	63.5 / 63.5	60.0 / 60.0	62.5 / 62.5	62.5 / 62.5	60.0 / 60.0
		High		63.5 / 63.5	60.0 / 60.0	62.5 / 62.5	62.5 / 62.5	60.0 / 60.0
		Low		66.0 / 66.5	61.5 / 62.0	64.5 / 65.0	64.0 / 65.0	62.5 / 63.0
	For Heating	Ultra-High	%	71.5 / 71.5	69.5 / 69.5	72.0 / 72.0	71.0 / 71.0	68.0 / 68.0
		High		71.5 / 71.5	69.5 / 69.5	72.0 / 72.0	71.0 / 71.0	68.0 / 68.0
		Low		76.5 / 77.0	73.0 / 73.5	74.5 / 75.0	72.5 / 73.5	69.5 / 71.5
Power Consumption (50 Hz)	Heat Exchange Mode	Ultra-High	W	96-103 / 132	126-141 / 172	178-193 / 231	296-326 / 390	381-426 / 472
		High		90-93 / 118	114-123 / 144	163-170 / 207	248-261 / 329	307-319 / 413
		Low		68-73 / 67	75-83 / 79	132-142 / 145	223-233 / 268	264-276 / 332
	Bypass Mode	Ultra-High	W	96-103 / 132	126-141 / 172	178-193 / 231	296-326 / 390	381-426 / 472
		High		90-93 / 118	114-123 / 144	163-170 / 207	248-261 / 329	307-319 / 413
		Low		68-73 / 67	75-83 / 79	132-142 / 145	223-233 / 268	264-276 / 332
Sound Level (50 Hz)	Heat Exchange Mode	Ultra-High	dB(A)	33.0-34.0 / 34.0	33.0-34.0 / 33.5	32.0-33.0 / 34.5	36.0-37.0 / 38.5	37.5-38.0 / 38.0
		High		30.5-32.0 / 28.0	31.0-32.5 /28.0	30.0-31.5 / 27.5	35.0-36.0 / 35.0	36.0-36.5 / 37.0
		Low		23.0-25.5 / 20.0	23.0-25.5 / 21.0	26.5-28.5 / 22.0	32.0-34.0 / 31.0	34.0-35.0 / 32.5
	Bypass Mode	Ultra-High	dB(A)	33.5-34.0 / 36.0	33.0-34.0 / 34.5	32.5-33.5 / 34.5	36.0-37.0 / 38.5	39.5-40.0 / 42.0
		High		31.5-33.0 / 28.5	31.5-32.5 / 29.0	31.0-32.0 / 27.5	35.0-36.0 / 35.0	38.0-38.5 / 39.0
		Low		23.0-25.5 / 20.5	23.5-25.5 / 21.5	27.0-29.0 / 23.0	32.0-34.0 / 31.0	35.5-36.5 / 33.5
Casing				Galvanised steel plate				
Insulation Material				Self-extinguishable polyurethane foam				
Dimensions (H x W x D)			mm	278 x 551 x 810		306 x 800 x 879	338 x 832 x 973	
Machine Weight			kg	22	22	31	41	43
Heat Exchange System				Air to air cross flow total heat (Sensible heat + latent heat) exchange				
Heat Exchange Element Material				Specially processed nonflammable paper				
Air Filter				Multidirectional fibrous fleeces				
Fan	Type			Sirocco fan				
	Airflow Rate (50 Hz)	Ultra-High	m^3/h	150 / 150	250 / 250	350 / 350	500 / 500	650 / 650
		High		150 / 150	250 / 250	350 / 350	500 / 500	650 / 650
		Low		100 / 80	165 / 145	275 / 235	470 / 420	570 / 495
	External Static Pressure (50 Hz)	Ultra-High	Pa	125-140 / 155	115-130 / 135	170-185 / 230	165-190 / 245	185-190 / 260
		High		100-120 / 100	80-90 / 60	145-165 / 80	140-175 / 180	140-155 / 210
		Low		44-80 / 28	35-75 / 20	90-102 / 36	124-155 / 127	108-119 / 122
	Motor Output		kW	0.030 x 2		0.060 x 2	0.100 x 2	0.170 x 2
Net Supply Airflow Ratio		Ultra-High	%	90	90	90	90	90
Connection Duct Diameter		Indoor side	mm	φ100	φ150	φ150	φ200	φ200
		Outdoor side	mm					
Unit Ambient Condition				-15℃—50℃ DB, 80%RH or less				

* Values for electrical current, power consumption, and efficiency are at the above above-stated airflow.
* Exchange efficiencies are values based on performance codes and air conditions that comply with JIS B8628:2017.
* Temperature exchange efficiency and enthalpy exchange efficiency vary according to the ratio of supply air and exhaust air and air conditions.
* Operation sound is an anechoic chamber conversion that complies with JISB8628:2017. When measured under actual installation conditions,the operation sound is usually greater due to ambient noise and reverberation.
* Since the sound level of this specification is the noise level at the rated external static pressure, it will be higher on the display than the G type model as the external static pressure improves.

TECHNICAL SPECIFICATIONS

Unit							
Model				**VAM800HVE**	**VAM1000HVE**	**VAM1500HVE**	**VAM2000HVE**
Power Supply				1-phase, 220-240 V, 50 Hz			
Temp. Exchange Efficiency (50 Hz)	For Cooling	Ultra-High	%	61.5 / 61.5	58.0 / 58.0	61.5 / 61.5	58.5 / 58.5
		High		61.5 / 61.5	58.0 / 58.0	61.5 / 61.5	58.5 / 58.5
		Low		64.0 / 65.0	61.5 / 62.0	65.5 / 66.0	65.5 / 65.5
	For Heating	Ultra-High	%	77.5 / 77.5	74.0 / 74.0	77.5 / 77.5	73.5 / 73.5
		High		77.5 / 77.5	74.0 / 74.0	77.5 / 77.5	73.5 / 73.5
		Low		78.5 / 79.5	76.0 / 76.5	79.5 / 80.0	76.5 / 77.0
Enthalpy Exchange Efficiency (50 Hz)	For Cooling	Ultra-High	%	63.0 / 63.0	60.0 / 60.0	63.0 / 63.0	60.0 / 60.0
		High		63.0 / 63.0	60.0 / 60.0	63.0 / 63.0	60.0 / 60.0
		Low		64.5 / 65.5	62.0 / 62.5	65.5 / 66.0	64.5 / 64.5
	For Heating	Ultra-High	%	72.0 / 72.0	68.5 / 68.5	72.0 / 72.0	68.0 / 68.0
		High		72.0 / 72.0	68.5 / 68.5	72.0 / 72.0	68.0 / 68.0
		Low		74.0 / 75.0	72.0 / 72.5	74.0 / 75.0	71.0 / 71.5
Power Consumption (50 Hz)	Heat Exchange Mode	Ultra-High	W	644-684 / 829	683-736 / 883	1,274-1,353 / 1,645	1,365-1,471 / 1,763
		High		603-612 / 712	621-656 / 763	1,207-1,225 / 1,423	1,241-1,311 / 1,526
		Low		504-544 / 562	539-569 / 594	1,008-1,089 / 1,125	1,079-1,138 / 1,188
	Bypass Mode	Ultra-High	W	644-684 / 829	683-736 / 883	1,274-1,353 / 1,645	1,365-1,471 / 1,763
		High		603-612 / 712	621-656 / 763	1,207-1,225 / 1,423	1,241-1,311 / 1,526
		Low		504-544 / 562	539-569 / 594	1,008-1,089 / 1,125	1,079-1,138 / 1,188
Sound Level (50 Hz)	Heat Exchange Mode	Ultra-High	dB(A)	41.5-42.5 / 41.0	42.0-43.0 / 42.5	43.0-44.0/ 44.0	43.5-44.0 / 44.5
		High		39.5-41.0 / 37.0	40.0-41.0 / 38.0	41.0-42.5 / 39.0	41.5-43.0 / 40.0
		Low		36.0-38.5 / 33.0	38.0-39.5 / 34.5	38.0-40.5 / 35.0	39.0-41.0 / 36.5
	Bypass Mode	Ultra-High	dB(A)	41.5-42.5 / 41.0	42.0-43.0 / 42.5	43.0-44.0 / 44.0	43.5-44.0 / 44.5
		High		39.5-41.0 / 37.0	40.0-41.0 / 38.0	41.0-42.5 / 39.0	41.5-43.0 / 40.0
		Low		36.0-38.5 / 33.0	38.0-39.5 / 34.5	38.0-40.5 / 35.0	39.0-41.0 / 36.5
Casing				Galvanised steel plate			
Insulation Material				Self-extinguishable polyurethane foam			
Dimensions (H x W x D)			mm	387 x 1,012 x 1,110		785 x 1,012 x 1,110	
Machine Weight			kg	63		133	
Heat Exchange System				Air to air cross flow total heat (Sensible heat + latent heat) exchange			
Heat Exchange Element Material				Specially processed nonflammable paper			
Air Filter				Multidirectional fibrous fleeces			
Fan	Type			Sirocco fan			
	Airflow Rate (50 Hz)	Ultra-High	m^3/h	800 / 800	1,000 / 1,000	1,500 / 1,500	2,000 / 2,000
		High		800 / 800	1,000 / 1,000	1,500 / 1,500	2,000 / 2,000
		Low		720 /610	880 / 835	1,350 / 1,250	1,650 / 1,580
	External Static Pressure (50 Hz)	Ultra-High	Pa	210-235 / 250	205-225 / 220	195-215 / 235	190-210 / 210
		High		170-215 / 140	155-195 / 100	150-180 / 125	140-180 / 85
		Low		138-174 / 81	115-150 / 70	123-146 / 88	96-123 / 53
	Motor Output		kW	0.190 x 2		0.190 x 4	
Net Supply Airflow Ratio		Ultra-High	%	90	90	90	90
Connection Duct Diameter		Indoor side	mm	φ250	φ250	φ250×4	φ250×4
		Outdoor side	mm			□(680×290)×2	□(680×290)×2
Unit Ambient Condition				-15℃—50℃ DB, 80%RH or less			

* Values for electrical current, power consumption, and efficiency are at the above above-stated airflow.
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* Operation sound is an anechoic chamber conversion that complies with JISB8628:2017. When measured under actual installation conditions,the operation sound is usually greater due to ambient noise and reverberation.
* Since the sound level of this specification is the noise level at the rated external static pressure, it will be higher on the display than the G type model as the external static pressure improves.

REMOTE CONTROLLER & OPTION LIST

Standard remote controller:
- BRC1H63W/BRC1H63K

Optional remote controller:
- Navigation remote controller - BRC1E63
- Simplified remote controller - BRC2E61

(Optional controller are connectable with some function limitation.)

Function	Detail	BRC1H63W(K)	BRC1E63	BRC2E61
				
Air conditioner interlock	Interlock Heat Reclaim Ventilator with air conditioner by one remote controller	●	●	●
Ventilation mode	Switch the ventilation mode (Automatic, Heat exchange, Bypass)	●	●	-
Ventilation airflow rate	When using CO_2 sensor, ventilation volume can be changed	●	●	●
Fresh up indication	Indicates that fresh up operation is being carried out	●	-	-
CO_2 indication	Indicates value of CO_2 sensor	○	-	-
Outdoor temperature indication	Indicates outdoor air temperature (OA)	○	-	-
Nighttime free cooling indication	Show the night purge icon when is set	○	-	-
24 hours ventilating indication	Show the icon when is 24hrs operation is set	○	-	-
Ventilating operation indication	Indicates that ventilating operation is being carried out even when night purge operation and 24 hour ventilating operation is being carried out	●	●	-
Ventilating standby indication	Indicates that ventilating operation has been stopped temporarily during pre-cool / pre-heat control	○		-
Sharing CO_2 data	Share the CO_2 data to submit from main unit with in the group	○		-

Additional functions:
- ● Installed functions
- ○ Additional Installation function

Option List:

Type \ Item				VAM150HVE	VAM250HVE	VAM350HVE	VAM500HVE	VAM650HVE
Additional function	Silencer	Nominal pipe	mm	-			KDDM24B100	
				-			φ200	
	High efficiency filter			KAF242J25M		KAF242J50M	KAF242J65M	
	Air filter for replacement			KAF241L25M		KAF241L35M	KAF241L65M	
Flexible duct (1m)				K-FDS101E	K-FDS151E		K-FDS201E	
Flexible duct (2m)				K-FDS102E	K-FDS152E		K-FDS202E	
CO_2 sensor				BRYC24A25M		BRYC24A35M	BRYC24A65M	
Humidity sensor				BRYH241A100 (for RA) / BRYH242A100 (for OA)				
PM2.5 filtration unit				BAF249A150	BAF249A300	BAF249A350	BAF249A500	-
PM2.5 with activated carbon filtration unit				BAF249A150C	BAF249A300C	BAF249A350C	BAF249A500C	-
Wired remote controller				BRC1H63W (White) / BRC1H63K (Black) / BRC1E63 / BRC2E61				
Controlling device	Centralised controlling device	Residential central remote controller		DCS303A51*1				
		Central remote controller		DCS302CA61				
		Unified ON/OFF controller		DCS301BA61				
		Schedule Timer		DST301BA61				
	PCB adaptor	Wiring adaptor for electrical appendices		KRP2A62				
		Installation box for adaptor		KRP1C18A90				
		For heater control kit		BRP4A50A				
		PCB adaptor for wiring		KRP1C18				

Type \ Item				VAM800HVE	VAM1000HVE	VAM1500HVE	VAM2000HVE
Additional function	Silencer	Nominal pipe	mm	KDDM24B100		KDDM24B100 x 2	
				φ250			
	High efficiency filter			KAF242K100M		KAF242K100M x 2	
	Air filter for replacement			KAF241L100M		KAF241L100M x 2	
Flexible duct (1m)				K-FDS251E			
Flexible duct (2m)				K-FDS252E			
CO_2 sensor				BRYC24A100M			
Humidity sensor				BRYH241A100 (for RA) / BRYH242A100 (for OA)			
PM2.5 filtration unit				BAF429A20A			
PM2.5 with activated carbon filtration unit				BAF429A20AC			
Wired remote controller				BRC1H63W (White) / BRC1H63K (Black) / BRC1E63 / BRC2E61			
Controlling device	Centralised controlling device	Residential central remote controller		DCS303A51*1			
		Central remote controller		DCS302CA61			
		Unified ON/OFF controller		DCS301BA61			
		Schedule Timer		DST301BA61			
	PCB adaptor	Wiring adaptor for electrical appendices		KRP2A62			
		Installation box for adaptor		KRP1C18A90			
		For heater control kit		BRP4A50A			
		PCB adaptor for wiring		KRP1C18			

* 1 For residential only. When connect with a Heat Reclaim Ventilator (VAM), you can only switch the power ON/OFF. It cannot be used with other central control equipment.

NEW TEST STANDARD

This new VAM-H is complying to latest international testing standard!

Revision of JIS standards

Corresponds to the new JIS standard (JIS B8628:2017)
With the establishment of the international standard (ISO 16494) for total heat exchangers (2014), the JIS standard was also revised. (December 20, 2017).

International standard for total heat exchangers was established in 2014 (ISO 16494).
- Each country's standard was reviewed based on the international standard.
- In Japan, JIS standards were revised to comply with international standards.

→ **Revision of JIS Standards (JIS B8628:2017)**

Stricter standards!

If the new JIS is applied to current products, the total heat exchange efficiency and effective ventilation volume will be lower than the values indicated.

Comparison of old and new JIS standards

Item		Old JIS	New JIS
Measurement method	Air volume	Static pressure conditions are optional.	Static pressure conditions are specified.
	Total heat exchange conditions Temperature and humidity conditions at the time of measurement.	DB temperature: Reference value ± 1℃ WB temperature: Standard value ± 2℃	DB temperature: Reference value ± 0.3℃ WB temperature: Standard value ± 0.2℃
	Effective ventilation efficiency	Only internal leakage of the product can be measured.	Internal leakage + external leakage of the product to be measured
Notation on specification sheet		Not applicable	Yes

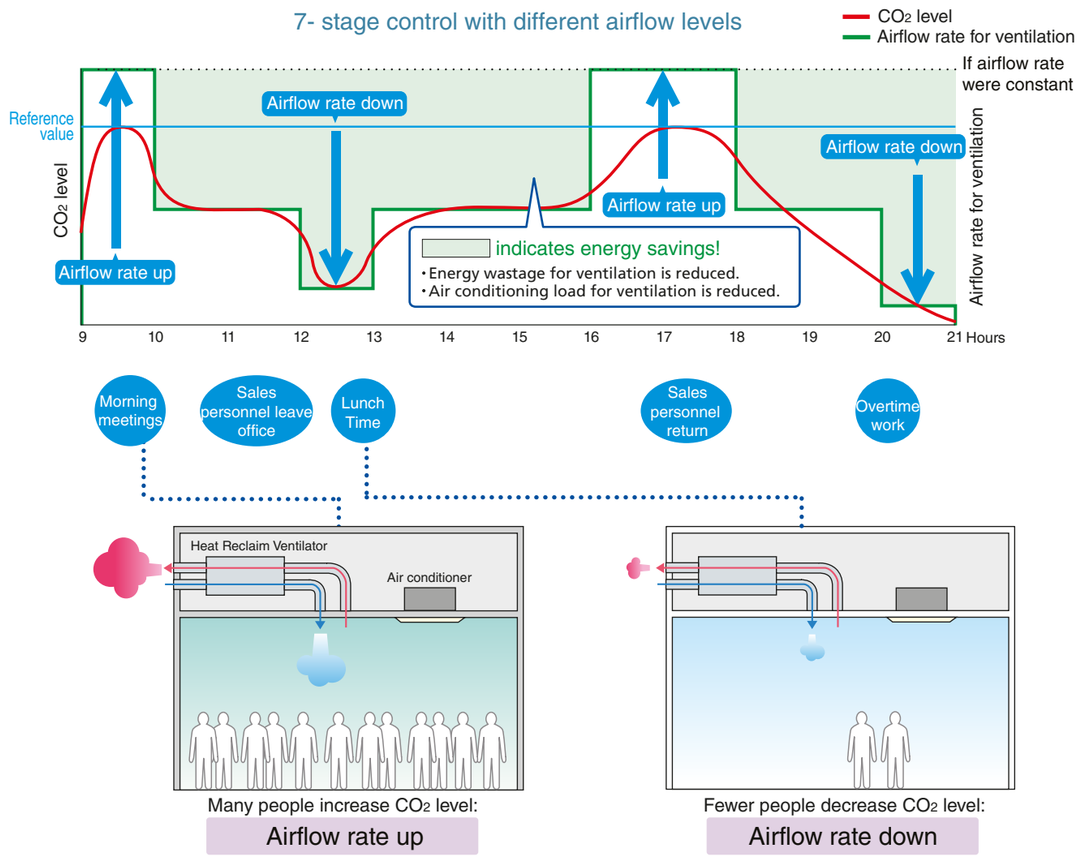
Due to stricter standards, when the new JIS is applied to current products, the total heat exchange efficiency and effective ventilation rate may be lower than the values indicated.

Air Treatment Equipment

Airflow rate control with CO_2 sensor

The CO_2 sensor controls airflow rate so that it best matches the changes of CO_2 level in the room. This prevents energy losses from over-ventilation while maintaining indoor air quality with optional CO_2 sensor.

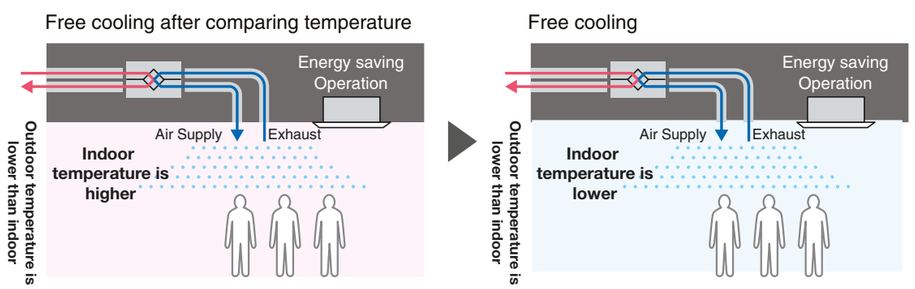
- Example of CO_2 sensor operation in an office room:



Automatic Ventilation Mode Swithching (Bypass control) with Humidity sensor

Suitable ventilation mode depending on condition will be switched automatically

The ventilation unit detects room temperature and outside air temperature, then automatically switches to suitable ventilation mode to provide higher energy-saving. By installing humidity sensor (optional item), the mode will be switched automatically based on the amount of heat (energy) and discomfort index to further improve energy saving and comfort. *1



*1 “Energy saving ventilation mode” or “Comfortable ventilation mode” can be selected by local setting.

STREAMER AIR PURIFIER

Specifications and Functions

	80 Type Twice the Decomposition Power with Twin Streamer	70 Type Humidifying and Twice the Decomposition Power with Twin Streamer		55 Type Stylish Design with Humification and Powerful Decomposition
				 With wireless remote controller
	MC80ZVM7	MCK70ZVM7-W (White)	MCK70ZVM7-T (Black)	MCK55TVM6
Max. airflow rate	8.0m³/min.	7.0m³/min.		5.5m³/min.
Applicable room area *1	～62 m²	～48 m²		～41 m²
Humidification		●		●
Streamer discharge	●Twin Streamer	●Twin Streamer		●Streamer
Active plasma ion	●	●		●
Filter: Dust collection filter	●TAFU-HEPA filter *2 (10 years)*3	●TAFU-HEPA filter *2 (10 years)*3		● Electrostatic HEPA filter *2 (10 years)*3
Filter: Deodorising filter	● (No need to change)	● (No need to change)		● (No need to change)
Filter: Pre-filter	● (3 Directional suctions)	● (3 Directional suctions)		● (3 Directional suctions)
Mode: Pet mode	●	●		
Mode: Anti-pollen mode				●
Mode: Circulator mode	●	●		
Mode: Moist mode		●		●
Mode: Econo mode	●	●		●
Mode: Auto fan mode	●	●		●
Mode: Haze (PM2.5) mode				
Mode: Sleep mode				
Air Visualization: DAIKIN EYE	● (With numerical display)	● (With numerical display)		
Air Visualization: Sensor lamps	● Humidity / PM2.5 / Odour	● Humidity / PM2.5 / Odour		●Humidity / PM2.5 / Dust / Odour
Convenience: Wireless control via App	●			
Convenience: Auto operation		●		
Convenience: Child proof lock	●	●		●
Convenience: Brightness adjustment	●	●		●
Convenience: Casters	Optional	●		●
Colour	2 Tone Colour (Front: White,Top/Side: Dark Grey)	White, Black		White
Power supply	1 Phase, 220-240V, 50 Hz	1 Phase, 220-240V, 50 Hz		1 Phase, 220-240V, 50 Hz
Plug shape	C type	C type		C type
Mode	Air purifying operation	Air purifying operation	Humidifying operation	Air purifying operation / Humidifying operation
Airflow rate (m³/min.)	1.4 / 2.2 / 3.5 / 8.0	1.4 / 2.2 / 3.5 / 7.0	1.4 / 2.2 / 3.5 / 7.0	0.9 / 2.0 / 3.2 / 5.5	1.7 / 2.4 / 3.2 / 5.5
Power consumption (W)	9 / 11 / 16 / 80	10 / 11 / 20 / 82	10 / 12 / 23 / 84	7 / 10 / 17 / 56	11 / 14 / 19 / 58
Sound pressure level (dB)	19 / 25 / 34 / 55	18 / 27 / 37 / 54	18 / 27 / 37 / 54	19 / 29 / 39 / 53	25 / 33 / 39 / 53
Humidification *4 (mL/h)	— / — / — / —	— / — / — / —	— / — / — / 700	— / — / — / —	(200) / (240) / (300) / 500
Dimensions (mm)	H630 × W315 × D315	H760 × W315 × D315		H700 × W270 × D270
Weight (kg)	9.8	12.5 (Without water)		9.5 (Without water)
Humidifying method	———	700 mL/h, Evaporation type Element		500mL/h, Evaporation type Element
Tank capacity	———	Humidifying: About 3.4 L *5		Humidifying: About 2.7 L
Optional accessories: Replacement filter: Dust collection	BAFT501A (1 piece) (Purchase of new filter is needed after about 10 years) *3	BAFT501A (1 piece) (Purchase of new filter is needed after about 10 years) *3		BAFP500A (1 piece) (Purchase of new filter is needed after about 10 years) *3
Optional accessories: Replacement filter: Deodorising	———	———		———
Optional accessories: Replacement filter: Humidifying	———	KNME108A4E (1 piece) (Purchase of new filters is needed after about 10 years)		KNME080A4E (1 set of 2 pieces) (Purchase of new filters is needed after about 10 years)
Optional accessories: Replacement filter: Gin-ION	———	———		———
Optional accessories: Casters	KKS080B41	(Equipped in the unit)		

	55 Type Compact Design and Powerful Decomposition	40 Type Compact Design and Powerful Decomposition	30 Type Compact Design and Powerful Decomposition	30 Type Coloured-style Design with Effective Suction
	 With wireless remote controller			
	MC55UVM6-7	MC40UVM6-7	MC30YVM7	MCQ30ZVM7-H (Grey)
Max. airflow rate	5.5m³/min.	4.0m³/min.	3.0m³/min.	3.0m³/min.
Applicable room area *1	～41 m²	～31 m²	～23 m²	～23 m²
Humidification				
Streamer discharge	●Streamer	●Streamer	●Streamer	
Active plasma ion	●			
Filter: Dust collection filter	● Electrostatic HEPA filter *2 (10 years)*3	● Electrostatic HEPA filter *2 (10 years)*3	● Electrostatic HEPA filter *2 (10 years)*3	● Electrostatic HEPA filter *2 (10 years)*3
Filter: Deodorising filter	● (No need to change)	● (No need to change)	● (No need to change)	Optional
Filter: Pre-filter	● (3 Directional suctions)	● (3 Directional suctions)	● (3 Directional suctions)	● (Gin-ION filter, 3 Directional suctions)
Mode: Pet mode				
Mode: Anti-pollen mode	●	●		
Mode: Circulator mode				
Mode: Moist mode				
Mode: Econo mode	●	●		
Mode: Auto fan mode	●	●		
Mode: Haze (PM2.5) mode			●	
Mode: Sleep mode				●
Air Visualization: DAIKIN EYE				
Air Visualization: Sensor lamps	●PM2.5 / Dust / Odour	●PM2.5 / Dust / Odour		
Convenience: Wireless control via App				
Convenience: Auto operation				
Convenience: Child proof lock	●		●	●
Convenience: Brightness adjustment	●	●	●	●
Convenience: Casters				
Colour	White	White	White	2 Tone Colour (Front: White, Operation display: Grey)
Power supply	1 Phase, 220-240V, 50 Hz		1 Phase, 220-240V, 50 Hz	1 Phase, 220-240V, 50 Hz
Plug shape	C type		C type	C type
Mode	Air purifying operation	Air purifying operation	Air purifying operation	Air purifying operation
Airflow rate (m³/min.)	1.1 / 2.0 / 3.2 / 5.5	1.1 / 1.8 / 2.8 / 4.0	1.0 / 2.0 / 3.0	1.0 / 2.0 / 3.0
Power consumption (W)	8 / 10 / 15 / 37	7 / 9 / 13 / 23	8 / 15 / 25	9 / 16 / 25
Sound pressure level (dB)	19 / 29 / 39 / 53	19 / 27 / 36 / 49	19 / 27 / 37	19 / 27 / 37
Humidification *4 (mL/h)	— / — / — / —	— / — / — / —	— / — / —	— / — / —
Dimensions (mm)	H500 × W270 × D270		H450 × W270 × D270	H450 × W270 × D270
Weight (kg)	6.8		5.8	5.8
Humidifying method	———		———	———
Tank capacity	———		———	———
Optional accessories: Replacement filter: Dust collection	BAFP500A (1 piece) (Purchase of new filter is needed after about 10 years) *3		BAFP500A (1 piece) (Purchase of new filter is needed after about 10 years) *3	BAFP500A (1 piece) (Purchase of new filter is needed after about 10 years) *3
Optional accessories: Replacement filter: Deodorising	———		———	BAD504A (1 piece) (Purchase of new filter is needed about 1 year)
Optional accessories: Replacement filter: Humidifying	———		———	———
Optional accessories: Replacement filter: Gin-ION	———		———	BAFG503A (1 set of 3 pieces) (Purchase of new filter is needed about 1 year)
Optional accessories: Casters	———		———	———

Note:
*1 Calculated by test method based on Japan Electrical Manufacturers' Association Standard JEM1467.
*2 Test method based on Japan Electrical Manufacturers' Association Standard JEM1467.
*3 Verified by test method based on JEM1467. The standard assumes five cigarettes are smoked per day.
Not all harmful substances in cigarette smoke (carbon monoxide, etc.) can be removed.
Filter lifespan may vary depending on the operating conditions.
*4 Humidifying capacity by JEM1426 (electric humidifier) at temperature of 20°C and humidity of 30%. The values in parentheses are for reference purposes only.
*5 When water is supplied from above. In the case of tank water supply, it will be 2.5L in consideration of the portability of the water tank.

About the dust collection and deodorising capacity of air purifiers:
- Not all harmful substances in cigarette smoke (carbon monoxide, etc.) can be removed.
- Not all odour components that emanate continuously (building material odours and pet odours, etc.) can be removed.

This product is not a medical device, medical treatment device or a therapeutic good.
This product is not intended to have any therapeutic use or to be used for the diagnosis, treatment, relief or prevention of illness.
If you have a health concern or are not feeling well, please consult a health care professional.