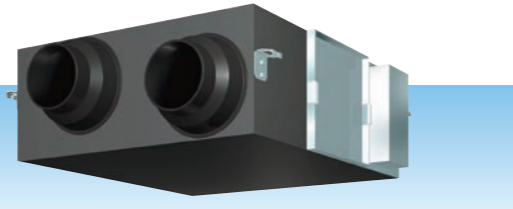


Air Treatment Equipment

Heat Reclaim Ventilator

VAM-GJ Series

Daikin VAM series ensures fresh air intake and energy savings

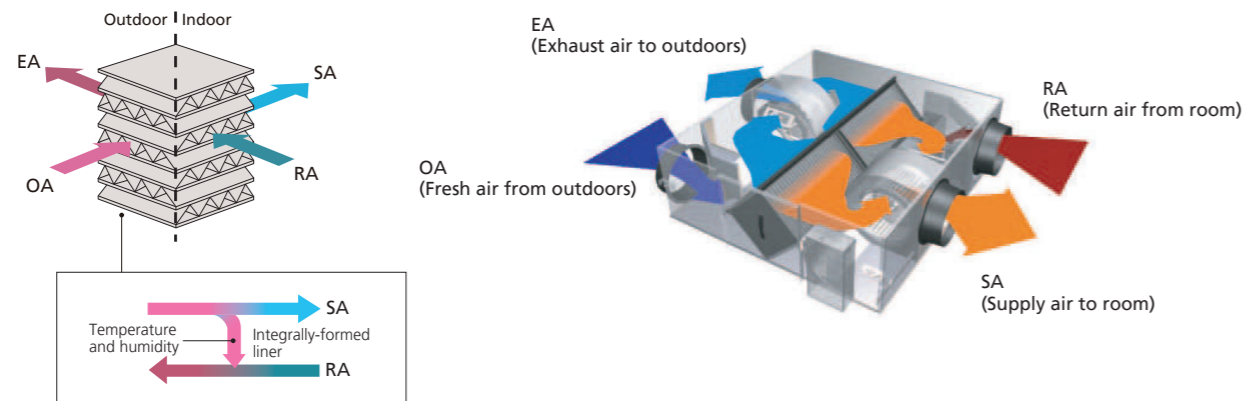


BRC301B61 (Option)
Used in case of independent operation.

Lineup		
VAM150GJVE	VAM250GJVE	VAM350GJVE
VAM500GJVE	VAM650GJVE	VAM800GJVE
VAM1000GJVE	VAM1500GJVE	VAM2000GJVE

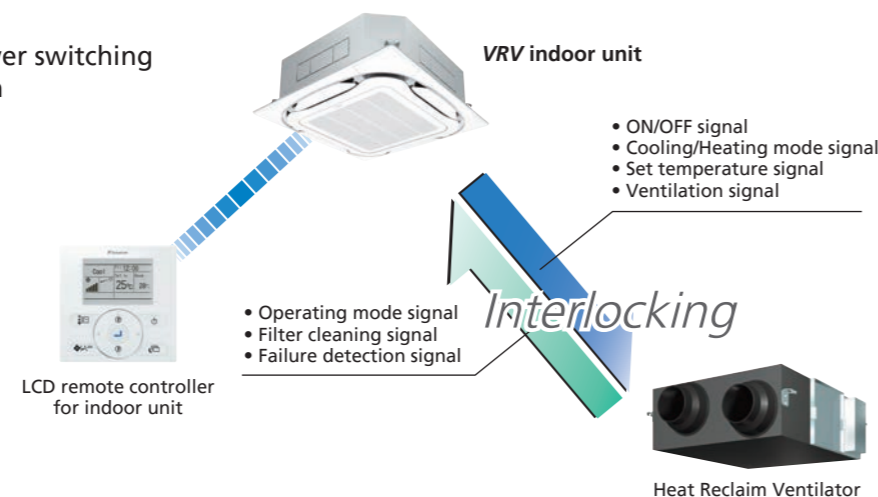
Airflow rate: 150-2,000 m³/h

Heat recovery ventilation with simultaneous supply and exhaust



Further energy-saving ventilation by interlocking with VRV indoor unit

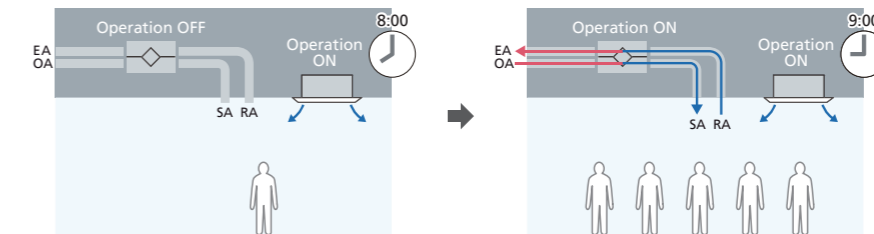
- Pre-cool, Pre-heat control
- Auto-ventilation mode changeover switching
- Nighttime free cooling operation



Pre-cool, Pre-heat control

Intentional delay of the start-up time

When the air conditioner is started up, the ventilation start-up is delayed to reduce load caused by the outside air. This reduces power consumption of air conditioners.

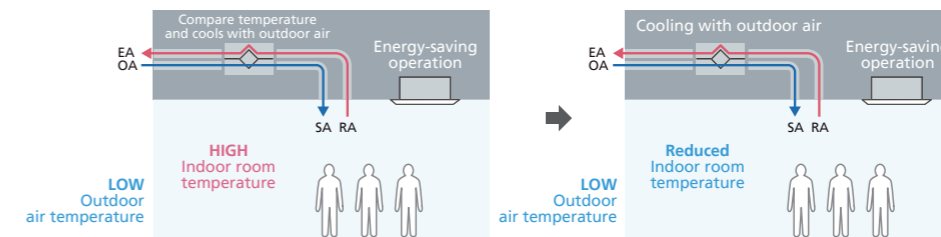


* The delay time can be changed using field settings.

Auto-ventilation mode changeover switching

Automatically determine the appropriate ventilation for each situation

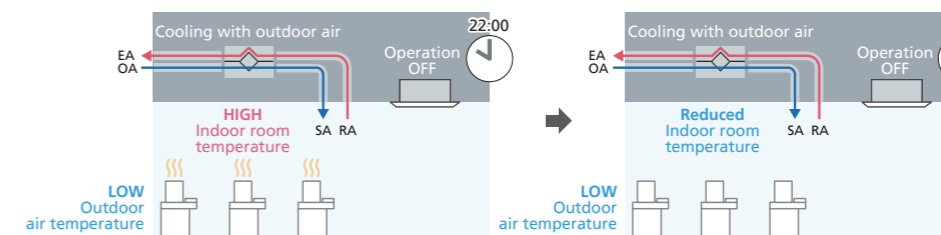
Indoor temperature and the outdoor temperature are detected, and the system automatically switches to the ventilation mode which has higher energy-saving effect.



Nighttime free cooling operation

Efficient use of outdoor air at night.

Rise in indoor temperature is avoided by automatically cooling the outdoor air at night, thus reducing air conditioning load at the start of cooling operation on the next morning.



*The system is automatically controlled by the set temperature of the VRV indoor unit.

CO₂ sensor control (Option)

* Refer to page 177 for details.

When CO₂ sensor is installed, it detects the concentration of CO₂ in the indoor air and the Ventilation rate is controlled appropriately, reducing the air conditioning load due to ventilation.

PM_{2.5} filter (Option)

* Refer to page 178-180 for details.

Removes PM_{2.5} particulate matter present in the outdoor air, as well as sulfur oxides and nitrogen oxides, providing clean fresh air to the indoor ambient.

- PM_{2.5} filter: Removes 99% or more of 2.5 μm particulate matter.
- Activated Carbon filter: Removes sulfur oxides and nitrogen oxides

Air Treatment Equipment

Heat Reclaim Ventilator

Specifications

MODEL		VAM150GJVE	VAM250GJVE	VAM350GJVE	VAM500GJVE	VAM650GJVE	VAM800GJVE	VAM1000GJVE	VAM1500GJVE	VAM2000GJVE												
Power Supply		1-phase, 220-240 V/ 220 V, 50/60 Hz																				
Temp. Exchange Efficiency (50/60 Hz)	Ultra-High	79/79	75/75	79/79	74/74	75/75	72/72	78/78	72/72	77/77												
	High	79/79	75/75	79/79	74/74	75/75	72/72	78/78	72/72	77/77												
	Low	84/85	79/79	82/82	80/80.5	77/77.5	74/74.5	80.5/81	75.5/76	79/81												
Enthalpy Exchange Efficiency (50/60 Hz)	For Cooling	Ultra-High	66/66	63/63	66/66	55/55	61/61	61/61	64/64	61/61	62/62											
		High	66/66	63/63	66/66	55/55	61/61	61/61	64/64	61/61	62/62											
		Low	70/70.5	66/66	70/70	59/59.5	64/64.5	64/64.5	68.5/69	64/64.5	66/67											
	For Heating	Ultra-High	72/72	71/71	70/70	67/67	67.5/67.5	65/65	70/70	65/65	72/72											
		High	72/72	71/71	70/70	67/67	67.5/67.5	65/65	70/70	65/65	72/72											
		Low	76/76.5	74/74	77/77	74/74.5	71.5/72	67.5/68	72.5/73	67/67.5	76/76											
Power Consumption (50/60 Hz)	Heat Exchange Mode	Ultra-High	125/134	137/141	200/226	248/270	342/398	599/680	635/760	1,145/1,300	1,289/1,542											
		High	111/117	120/125	182/211	225/217	300/332	517/597	567/648	991/1,144	1,151/1,315											
		Low	57/58	60/59	122/120	128/136	196/207	435/483	476/512	835/927	966/1,039											
	Bypass Mode	Ultra-High	125/134	137/141	200/226	248/270	342/398	599/680	635/760	1,145/1,300	1,289/1,542											
		High	111/117	120/125	182/211	225/217	300/332	517/597	567/648	991/1,144	1,151/1,315											
		Low	57/58	60/59	122/120	128/136	196/207	435/483	476/512	835/927	966/1,039											
Sound Level (50/60 Hz)	Heat Exchange Mode	Ultra-High	27-28.5/28.5	27-29/29	31.5-33/33	33-35.5/34	34-36/36	39-40.5/39.5	39.5-41.5/39.5	39.5-41.5/41.5	41.5-43.5/42											
		High	26-27.5/27.5	26-27.5/28	30-31.5/30	31.5-34/32	33-34.5/34	37-39.5/37.5	37.5-39.5/37.5	37.5-39.5/39.5	39-43/40											
		Low	20.5-21.5/21	21-22/21	23-25/23	25-28.5/24	27.5-29.5/28	35-37.5/34	35-37.5/34.5	35-37.5/36	36-39/39											
	Bypass Mode	Ultra-High	28.5-29.5/29.5	28.5-30.5/30.5	33-34.5/34.5	34.5-36/35.5	35-37.5/37.5	40.5-42/41	40.5-42.5/40.5	41-43/42.5	43-45.5/44											
		High	27.5-28.5/28.5	27.5-29/29.5	31.5-33/31.5	33-34.5/33.5	33-35.5/35.5	38.5-40/39	38.5-40.5/38.5	39.5-41/41.5	40.5-45/42											
		Low	22.5-23.5/22	22.5-23/22.5	24.5-26.5/24.5	25.5-28.5/25.5	27.5-30.5/29.5	36-38.5/35.5	36-38.5/35.5	36.5-38/37.5	37.5-39.5/41											
Casing		Galvanised steel plate																				
Insulation Material		Self-extinguishable polyurethane foam																				
Dimensions (H x W x D)	mm	278 x 810 x 551			306 x 879 x 800			338x973x832			387x1,111x832			387x1,111x1,214			785x1,619x832			785x1,619x1,214		
Machine Weight	kg	24			32			45			55			67			129			157		
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 (50/60 Hz)	Ultra-High	150/150	250/250	350/350	500/500	650/650	800/800	1,000/1,000	1,500/1,500	2,000/2,000											
		High	150/150	250/250	350/350	500/500	650/650	800/800	1,000/1,000	1,500/1,500	2,000/2,000											
		Low	100/95	155/155	230/230	320/295	500/470	700/670	860/840	1,320/1,260	1,720/1,580											
	External Static Pressure (50/60 Hz)	Ultra-High	120/154	70/96	169/222	105/150	85/125	133/170	168/192	112/150	116/140											
		High	106/131	54/65	141/145	66/52	53/67	92/85	110/86	73/72	58/32											
Low		56/60	24/20	67/30	32/18	35/38	72/61	85/60	56/50	45/45												
Motor Output	kW	0.030 x 2			0.090 x 2			0.140 x 2			0.280 x 2			0.280 x 4								
Connection Duct Diameter	mm	φ 100			φ 150			φ 200			φ 250			φ 350								
Unit ambient condition		-15°C~50°CDB, 80%RH or less																				

- Notes: 1. Airflow rate can be changed over to Low mode or High mode.
 2. Temperature Exchange Efficiency is the mean value between cooling and heating.
 3. Efficiency is measured under the following conditions:
 Ratio of rated external static pressure has been maintained as follows; outdoor side to indoor side = 7 to 1.
 4. In conformance with JIS standards (JIS B 8628), operating sound level is based on the value when one unit is operated, with the value converted for an anechoic chamber. This is transmission sound from the main unit, and does not include sound from the discharge grille. Thus it is normal for the sound to be louder than the indicated value when the unit is actually installed.

Options

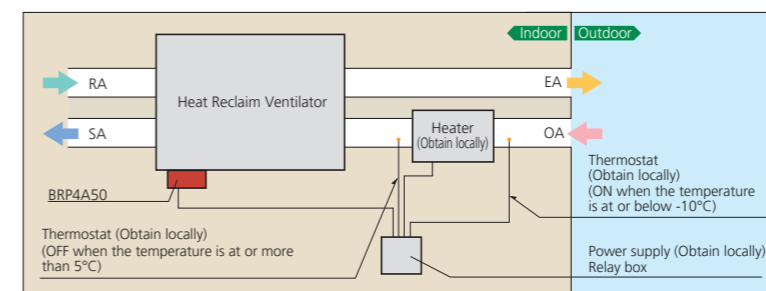
Option List

Item	Type	VAM150GJVE	VAM250GJVE	VAM350GJVE	VAM500GJVE	VAM650GJVE	VAM800GJVE	VAM1000GJVE	VAM1500GJVE	VAM2000GJVE	
Additional function	Silencer	—			KDDM24B50	KDDM24B100			KDDM24B100x2		
	Nominal pipe	—			φ 200	φ 250			φ 250		
	High efficiency filter	KAF242J25M			KAF242J50M	KAF242J65M	KAF242J80M	KAF242J100M	KAF242J80Mx2	KAF242J100Mx2	
Air filter for replacement		KAF241J25M			KAF241J50M	KAF241J65M	KAF241J80M	KAF241J100M	KAF241J80Mx2	KAF241J100Mx2	
	Flexible duct (1 m)	K-FDS101D	K-FDS151E			K-FDS201E			K-FDS251E		
Flexible duct (2 m)		K-FDS102D	K-FDS152D			K-FDS202D			K-FDS252E		
Silencer	Nominal pipe	—			—			YDFA25A1			
		—			—			φ 250			
CO ₂ sensor		BRYMA65			BRYMA100			BRYMA65	BRYMA100		
PM2.5 filtration unit*		BAF249A150	BAF249A300	BAF249A350	BAF249A500	—			BAF429A20A		
PM2.5 with activated carbon filtration unit*		BAF249A150C	BAF249A300C	BAF249A350C	BAF249A500C	—			BAF429A20AC		
Navigation remote controller		BRC1E63									
Heat Reclaim Ventilator remote controller		BRC301B61									
Controlling device	Centralised controlling device	Residential central remote controller	—							DCS303A51*1	
		Central remote controller	—							DCS302CA61	
	PCB Adaptor	Unified ON/OFF controller	—							DCS301BA61	
		Schedule timer	—							DST301BA61	
Wiring adaptor for electrical appendices	For humidifier	—							KRP50-2		
	Installation box for adaptor PCB	—							KRP50-2A90 (Mounted electric component assy of Heat Reclaim Ventilator)		
	For heater control kit	—							BRP4A50		

*1 For residential use 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.
 *Refer to pages 178 - 180 for details.

PCB adaptor for heater control kit (BRP4A50)

When the installation of an electric heater is required in a cold region, this adaptor with an internal timer function eliminates the complicated timer connecting work that was necessary with conventional heaters.



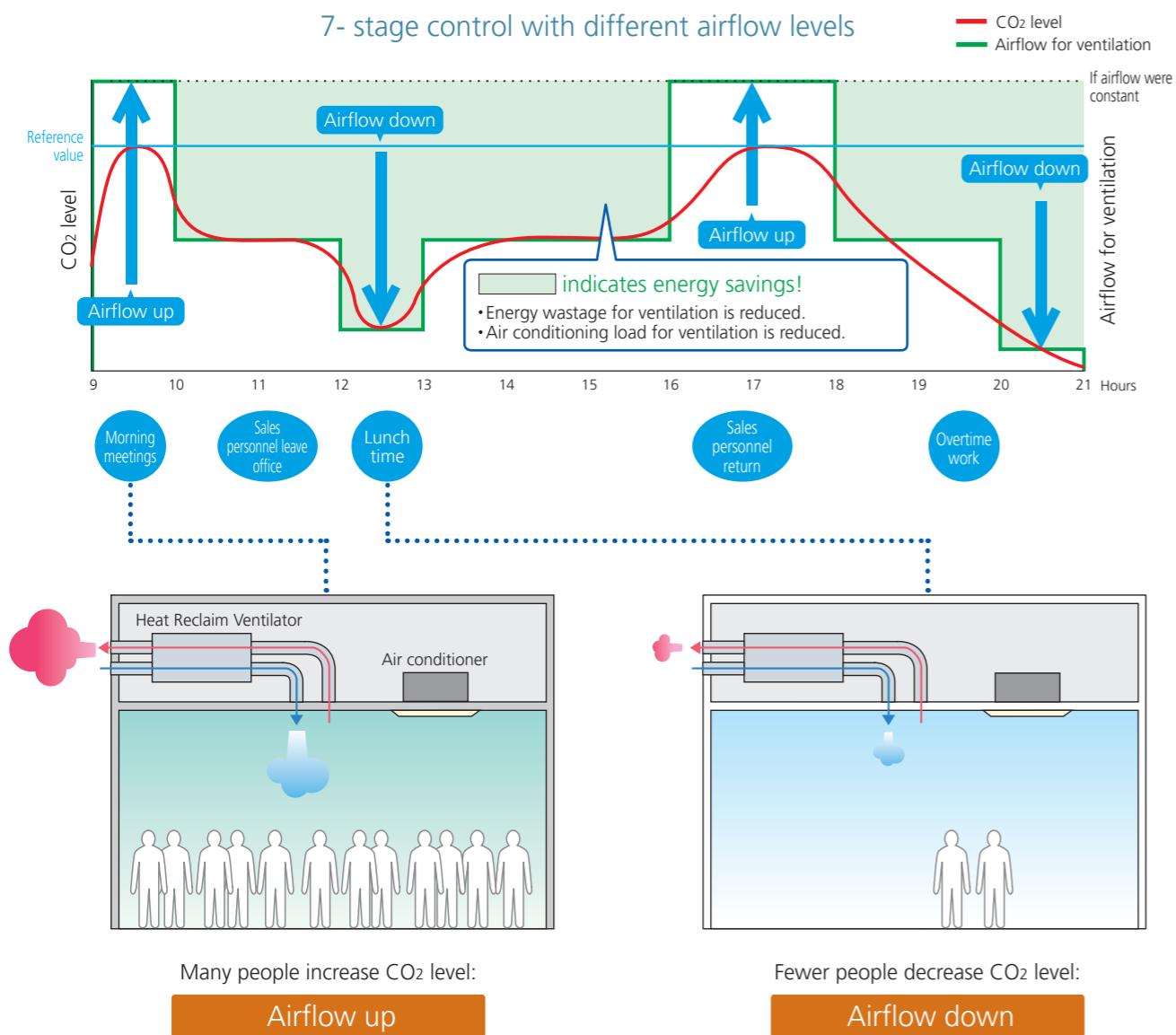
- Notes when installing :
- Examine fully an installation place and specification for using the electric heater based on the standard and regulation of each country.
 - Supply the electric heater and safety production devices such as a relay and a thermostat, etc of which qualities satisfy the standard and regulation of each country at site.
 - Use a non-inflammable connecting duct to the electric heater. Be sure to use 2 m or more between the electric heater and the Heat Reclaim Ventilator for safety.
 - For the Heat Reclaim Ventilator, use a different power supply from that of the electric heater and install a circuit breaker for each.

Air Treatment Equipment

CO₂ Sensor Optional Kit Connection for VAM / VKM Series

The CO₂ sensor controls airflow so that it best matches the changes of CO₂ level in the room. This prevents energy losses from over-ventilation while maintaining indoor air quality with optional CO₂ sensor.

• Example of CO₂ sensor operation in an office room:



PM_{2.5} filtration unit (Option) for VAM / VKM / FXMQ-MF series

Rapid urbanization has increased industrial and automobile emissions, resulting in higher PM_{2.5} levels. This has become the source of respiratory diseases and poses a serious threat to a long term health issue. As the air quality has worsened, research has shown the harmful effects of PM_{2.5} on the health of the general public.

Double-layered efficient filtration

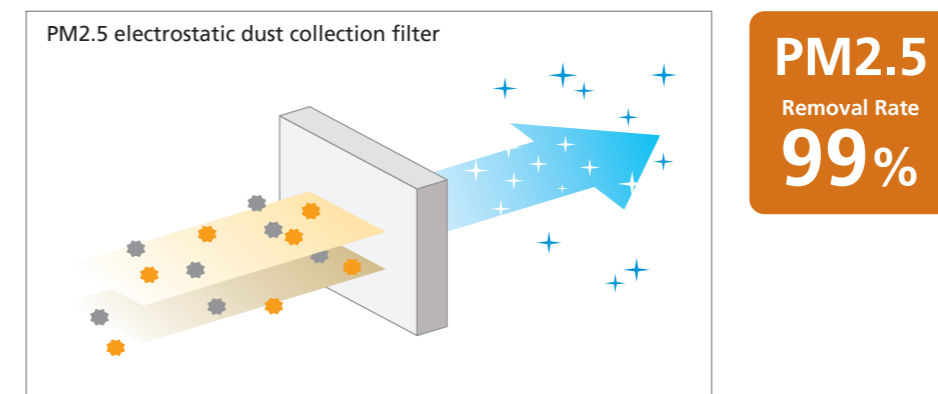
PM_{2.5} filters are double-layered.

1. The front filter effectively removes large particles.
2. The PM_{2.5} filter layer contains a large amount of static electricity to capture particulate matter efficiently.



Filtering PM_{2.5} efficiently for healthier and more comfortable environments

This filter removes 99% or more of 2.5 μm particulate matter.



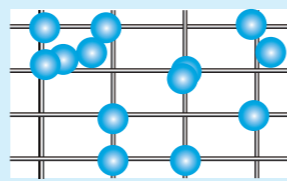
*Test results by the Heating, Ventilation and Air Conditioning Lab at Tongji University
 Test environment: temperature 25-26°CDB, humidity 58-60%RH

Air Treatment Equipment


Electrostatic dust collection filter: more efficient and longer lasting effect

The PM2.5 filter layer contains a large amount of static electricity to capture particulate matter efficiently, including those smaller than the grid mesh. The filter is difficult to be blocked by particles and has good ventilation and long life span.

Daikin Electrostatic Dust Collecting Filtration



With the capturing effect of static electricity, particles are adsorbed on the filter fabric.



The filter is not blocked and therefore continuous Supply Air is guaranteed.

Long-lasting highly efficient dust collection capacity

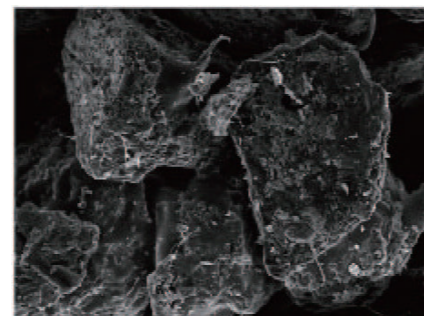
PM2.5 with activated carbon filtration unit (Option) for VAM / VKM / FXMQ-MF series

Extra-high performance filter against sulfur oxides and nitrogen oxides

Effective Use of Active Carbon Material to Enlarge the Adsorption Area

As an expert in the research and development of filters, DAIKIN has specifically selected active carbon material as the main substance to constitute the filter against sulfur oxides and nitrogen oxides. The material's usable pore surface is fully exploited, thus extending the filter's durability.

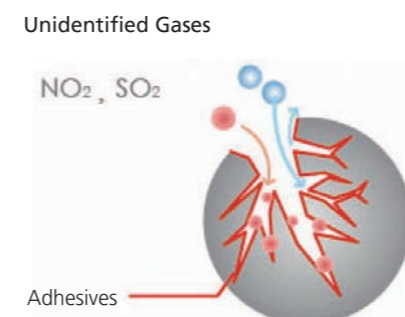
Notes: Surface area of active carbon: 700 m²/g
Given a newspaper page of 40.6 cm wide by 54.6 cm long, each gram of active carbon has a surface area of 3,000 newspaper pages.



Intelligent Identification, Super-effective Adhesion

The special substance added in the pores of active carbon can exclusively target sulfur oxide and nitrogen oxide gases and stick to them without blocking other unidentified gases. This ensures long durability of the filter.

Note: The figures are based on in-house tests under the following lab conditions: temperature 22 to 25°CDB, humidity 35 to 40% RH, air flow rate 0.2 m/s.



Specifications

PM2.5 filtration unit

MODEL		BAF249A150	BAF249A300	BAF249A350	BAF249A500	BAF429A20A
Dimensions (H x W x D)	mm	220x603x366	220x603x366	300x623x366	300x623x366	470x971x370
Connection Duct Diameter	mm	φ 100	φ 150	φ 150	φ 200	580x348
Airflow Rate	m ³ /h	150	250	350	500	2,100
PM2.5 Filter	Initial Pressure Drop	Pa	34	30	31	42
	Filter Lifetime ^{*1}		1 year			
	Filtration Efficiency ^{*2}		99% or higher			
	Filter Material No. ^{*3}		BAF244A300		BAF244A500	BAF424A20A

Notes: 1. Annual usage: 400 hrs/month x 12 months = 4,800 hrs
2. 99% or higher removal rate of ultra-fine particles with diameters of 2.5 μm or more.
3. Filters come with applicable filtration units with a one-year life. They can be purchased and replaced according to their model numbers.

PM2.5 with activated carbon filtration unit

MODEL		BAF249A150C	BAF249A300C	BAF249A350C	BAF249A500C	BAF429A20AC
Dimensions (H x W x D)	mm	220x603x366	220x603x366	300x623x366	300x623x366	470x971x370
Connection Duct Diameter	mm	φ 100	φ 150	φ 150	φ 200	580x348
Airflow Rate	m ³ /h	150	250	350	500	2,100
Total Initial Pressure Drop for PM2.5 with Activated Carbon Filtration Unit		Pa	37	35	36	51
PM2.5 Filter	Initial Pressure Drop	Pa	34	30	31	42
	Filter Lifetime ^{*1}		1 year			
	Filtration Efficiency ^{*2}		99% or higher			
	Filter Material No. ^{*3}		BAF244A300		BAF244A500	BAF424A20A
Activated Carbon Filter	Initial Pressure Drop	Pa	3	5	9	less than 10
	Filter Lifetime		1 year			
		Filter Material No. ³	BAF244A300C		BAF244A500C	BAF424A20AC

Notes: 1. Annual usage: 400 hrs / month x 12 months = 4,800 hrs.
2. 99% or higher removal rate of ultra-fine particles with diameters of 2.5 μm or more.
3. Filters come with applicable filtration units with a one-year life. They can be purchased and replaced according to their model numbers.