



- Warning**
- 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 any enquiries, please contact your local importer, distributor and/or retailer.

PM2.5 Purifying Series

HEAT RECLAIM VENTILATOR

Fresh Air Ventilation

High Efficiency Purification

Energy Conservation



Effectively Filtering Particulate Matter in the Air



Ventilation through Windows

Hot or cold outdoor air introduced into the indoor increases not just the workload of air conditioners but also the cost of the operation. In addition, outdoor supplied air contains PM2.5, motor vehicle exhaust and industrial emissions, which harm our health.

Ventilation through Purifying Heat Reclaim Ventilator

The purifying heat reclaim ventilator utilizes heat exchange technology and an additional purifying filtration unit to solve problems caused by ventilation through windows.

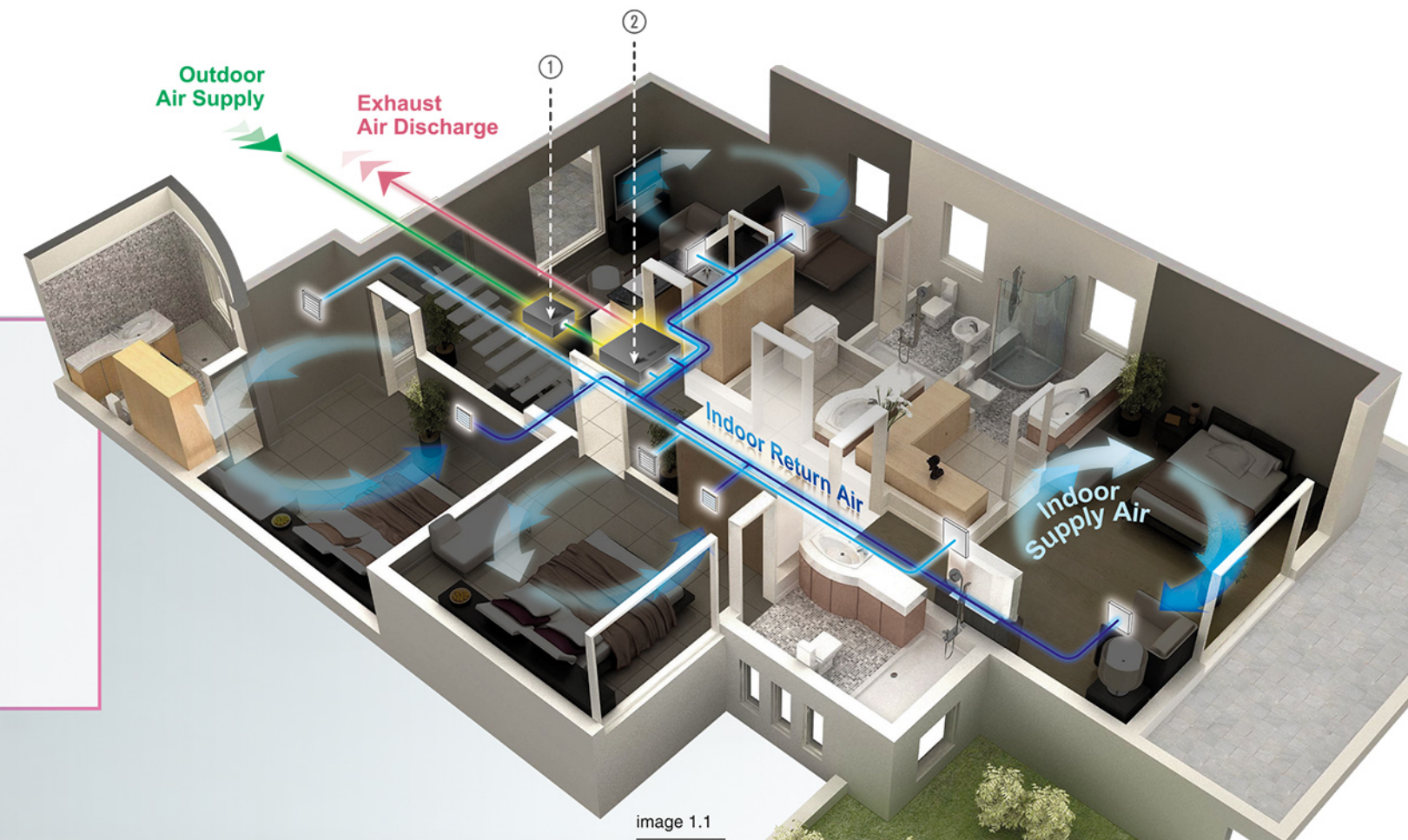
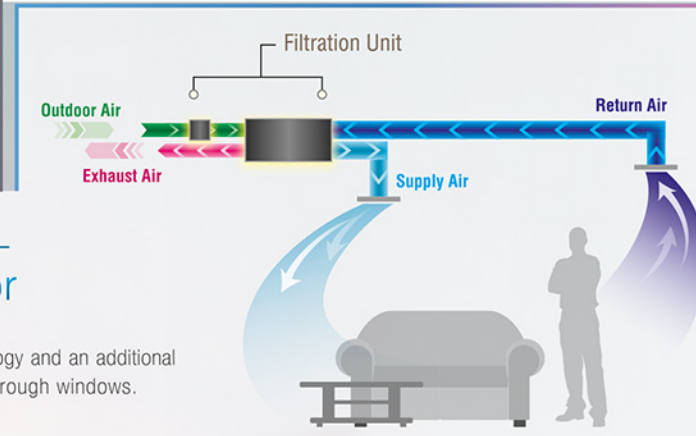
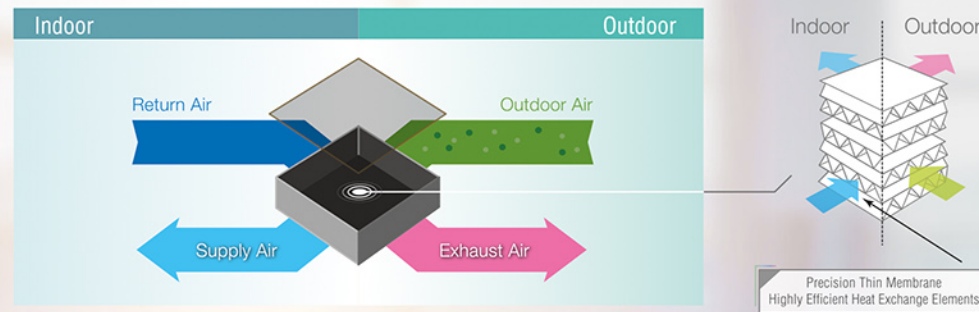


image 1.1

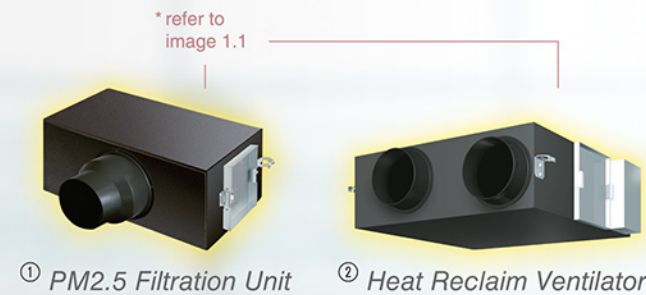
Daikin Ventilation Technology

Improves comfort and energy conservation efficiency

The heat reclaim ventilator uses highly efficient heat exchange elements to exchange heat between outdoor and indoor air. It also minimizes the temperature differences, making the temperature of the supplied air close to that of the indoor air, which improves comfort and conservation efficiency.



Note: The above diagram is an example of the cooling operation using heat reclaim ventilator



Heat Reclaim Ventilator PM2.5 Filtering Series

Double-layered efficient filtration

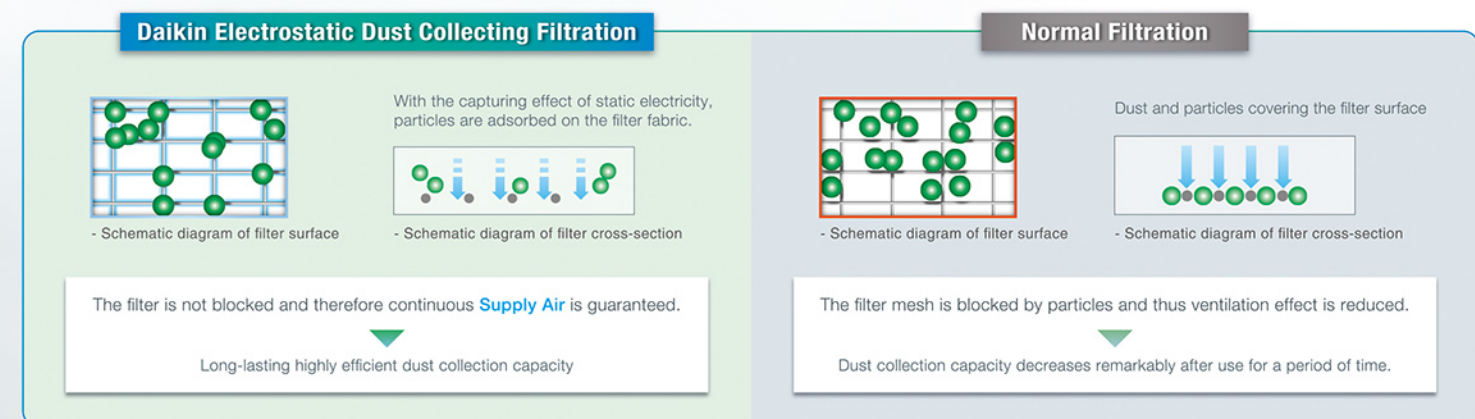
PM2.5 filters are double-layered.

1. The front filter effectively removes large particles.
2. The PM2.5 filter layer contains a large amount of static electricity to capture particulate matter efficiently.



Electrostatic dust collection filter: more efficient and longer lasting effect

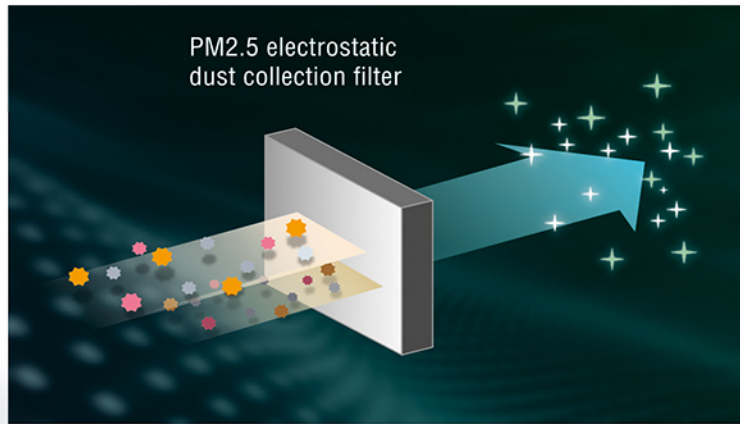
The PM2.5 filter layer contains a large amount of static electricity to capture particulate matter efficiently, including those smaller than the grid mesh. The filter is difficult to be blocked by particles and has good ventilation and long life span.



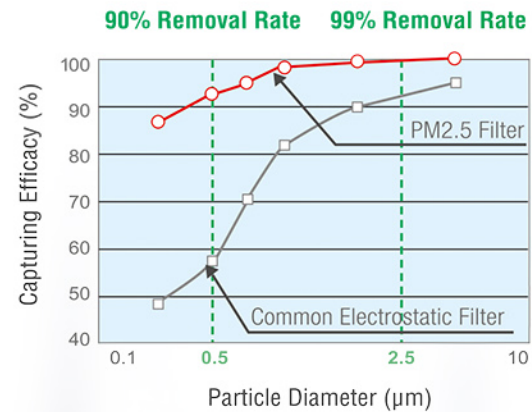
Filtering PM2.5 efficiently for healthier and more comfortable environments



The PM2.5 filtering series heat reclaim ventilator is equipped with an electrostatic dust collection filter for PM2.5 removal. This filter not only removes **99%** or more of 2.5 μm; it also eliminates up to **90%** of 0.5 μm matter!



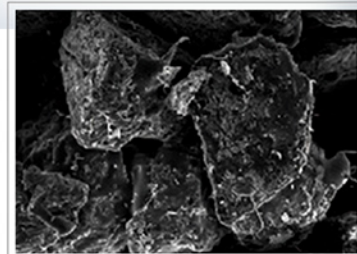
* Test results by the Heating, Ventilation and Air Conditioning Lab at Tongji University
Test environment: temperature 25-26°CDB, humidity 58-60%RH



Extra-High Performance Filter Against Sulfur Oxides and Nitrogen Oxides

Effective Use of Active Carbon Material to Enlarge the Absorption Area

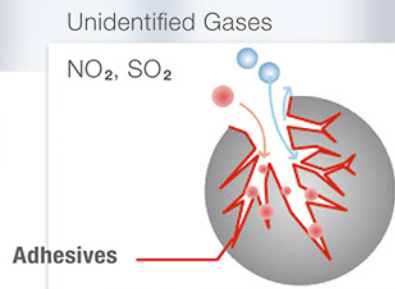
As an expert in the research and development of filters, DAIKIN has specifically selected active carbon material as the main substance to constitute the filter against sulfur oxides and nitrogen oxides. The material's usable pore surface is fully exploited, thus extending the filter's durability.



Note: 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.

Outdoor Pollution threatens long-term health

Rapid urbanization has increased industrial and automobile emissions, resulting in higher PM2.5 levels. This has become the source of respiratory diseases and poses a serious threat to the long-term health of people. As the air quality has worsened, research has shown the harmful effects of PM2.5 on the health of the general public.

Major Sources of PM2.5

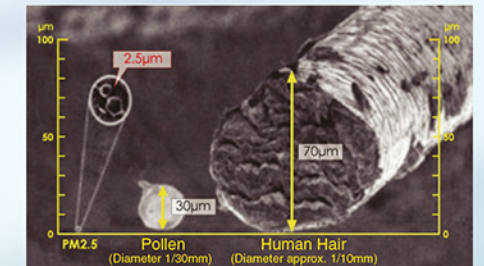
Combustion processes, such as fossil fuel (coal, petrol, diesel oil), biofuel (straw, firewood), waste incineration and motor vehicle emissions.

* The increase of polluting gases and particles makes urban gas components more complicated.



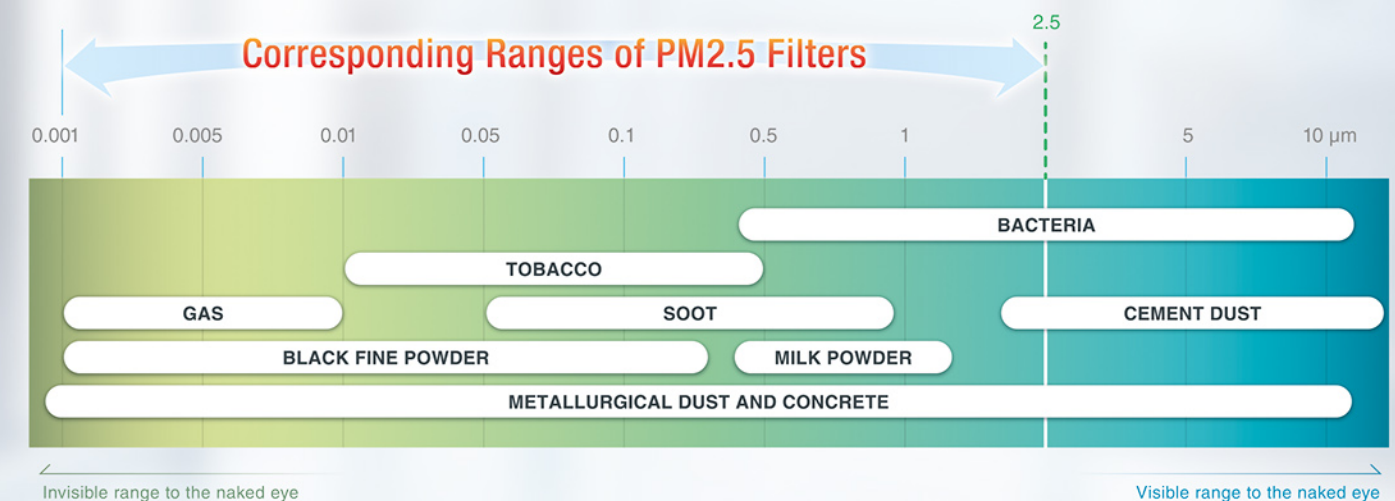
What is PM2.5?

PM : Particulate matter. Particles of various sizes are found in the air; the smaller PM2.5 have diameters of 2.5 micrometers or less, about 1/20 diameter of a human hair. They are also called respirable suspended particles. PM2.5 concentration refers to the amount of particulate matter per cubic meter of air. The higher the concentration is, the more severe the air pollution is.



PM2.5 Health Risks

PM2.5 can easily be drawn into the lungs, damaging our respiratory and cardiovascular systems. Lung cancer, cardiovascular diseases, bronchitis and asthma are all linked to PM2.5 exposure. The elderly, children, and patients with cardiovascular and respiratory diseases are more sensitive to PM2.5 pollution.



Invisible range to the naked eye

Visible range to the naked eye

Specifications

PM2.5 Filtration Unit

Models		BAF249A150	BAF249A300	BAF249A350	BAF249A500	
Heat Reclaim Ventilator Models		VAM150GJVE	VAM250GJVE	VAM350GJVE	VAM500GJVE	
Dimensions (H x W x D)	mm	220 x 603 x 366	220 x 603 x 366	300 x 623 x 366	300 x 623 x 366	
Connection Duct Diameter	mm	Ø100	Ø150	Ø150	Ø200	
Airflow Rate	m³/h	150	300	350	500	
PM2.5 Filter	Initial Pressure Drop	Pa	34	30	31	42
	Filter Lifetime ¹		1 year			
	Filtration Efficiency ²		99% of higher			
	Filter Material No. ³		BAF244A300		BAF244A500	

- Notes:
1. Annual usage: 400 hrs/month x 12 months = 4,800 hrs
 2. 99% or higher removal rate of ultra-fine particles with diameter of 2.5 µm or more; 90% or higher removal rate of ultra-fine particles with diameter of 0.5 µm.
 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

Models		BAF249A150C	BAF249A300C	BAF249A350C	BAF249A500C	
Heat Reclaim Ventilator Models		VAM150GJVE	VAM250GJVE	VAM350GJVE	VAM500GJVE	
Dimensions (H x W x D)	mm	220 x 603 x 366	220 x 603 x 366	300 x 623 x 366	300 x 623 x 366	
Connection Duct Diameter	mm	Ø100	Ø150	Ø150	Ø200	
Airflow Rate	m³/h	150	250	350	500	
PM2.5 Filter	Initial Pressure Drop	Pa	34	30	31	42
	Filter Lifetime ¹		1 year			
	Filtration Efficiency ²		99% of higher			
	Filter Material No. ³		BAF244A300		BAF244A500	
Activated Carbon Filter	Initial Pressure Drop	Pa	3	5	5	9
	Filter Lifetime ¹		1 year			
	Filter Material No. ³		BAF244A300C		BAF244A500C	
Total Initial Pressure Drop for PM2.5 with Activated Carbon Filtration Unit		Pa	37	35	36	51

- Notes:
1. Annual usage: 400 hrs/month x 12 months = 4,800 hrs
 2. 99% or higher removal rate of ultra-fine particles with diameter of 2.5 µm or more; 90% or higher removal rate of ultra-fine particles with diameter of 0.5 µm.
 3. Filters come with applicable filtration units with a one-year life. They can be purchased and replaced according to their model numbers.

Specifications

Models		VAM150GJVE	VAM250GJVE	VAM350GJVE	VAM500GJVE	
Power Supply		1-phase, 220-240 V / 220 V, 50/60 Hz				
Temp. Exchange Efficiency ^{1,2} (50/60 Hz)	Ultra-High	79/79	75/75	79/79	74/74	
	High	79/79	75/75	79/79	74/74	
	Low	84/85	79/79	82/82	80/80.5	
Enthalpy Exchange Efficiency (50/60 Hz)	For Heating	Ultra-High	72/72	71/72	70/70	67/67
		High	72/72	71/71	70/70	67/67
		Low	76/76.5	74/74	77/77	74/74.5
	For Cooling	Ultra-High	66/66	63/63	66/66	55/55
		High	66/66	63/63	66/66	55/55
		Low	70/70.5	66/66	70/70	59/59.5
Power Consumption (50/60 Hz)	Heat Exchange Mode	Ultra-High	125/134	137/141	200/226	248/270
		High	111/117	120/125	182/211	225/217
		Low	57/58	60/59	122/120	128/136
	Bypass Mode	Ultra-High	125/134	137/141	200/226	248/270
		High	111/117	120/125	182/211	225/217
		Low	57/58	60/59	122/120	128/136
Sound Level ^{3,4,5} (50/60 Hz)	Heat Exchange Mode	Ultra-High	27-28.5/28.5	27-29/29	31.5-33/33	33-35.5/34
		High	26-27.5/27.5	26-27.5/28	30-31.5/30	31.5-34/32
		Low	20.5-21.5/21	21-22/21	23-25/23	25-28.5/24
	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
		High	27.5-28.5/28.5	27.5-29/29.5	31.5-33/31.5	33-34.5/33.5
		Low	22.5-23.5/22	22.5-23/22.5	24.5-26.5/24.5	25.5-28.5/25.5
Dimensions (HxWxD)		mm	278x810x551		306x879x800	
Machine Weight		kg	24		32	
Fan	Airflow Rate (50/60 Hz)	Ultra-High	150/150	250/250	350/350	500/500
		High	150/150	250/250	350/350	500/500
		Low	100/95	155/155	230/230	320/295
	External Static Pressure (50/60 Hz)	Ultra-High	120/154	70/96	169/222	105/150
		High	106/131	54/65	141/145	66/52
		Low	56/60	24/20	67/30	32/18
Connection Duct Diameter		mm	φ 100	φ 150	φ 200	
Remote Controller (Wired)		BRC301B61				
Unit Ambient Condition		-15°C – 50°C DB, 80%RH or less				



Heat Reclaim Ventilator

- Notes:
1. Temperature exchange efficiency is the mean value between cooling and heating.
 2. Efficiency is measured under the following conditions: ratio of rated external static pressure kept as follows: outdoor side to indoor side = 7 to 1.
 3. Sound level is measured at 1.5 m below the center of the body.
 4. Sound level is measured in an anechoic chamber. Sound level generally exceeds this value, depending on the operating conditions, reflected sound, and peripheral noise.
 5. The sound level at the exhaust air port is about 8 dB(A) higher than the unit's sound level.