

AIR TREATMENT EQUIPMENT LINE-UP

Heat Reclaim Ventilator – VAM Series

The Heat Reclaim Ventilator creates a high-quality environment by interlocking with the air conditioner

Model Name

VAM250GJVE, VAM500GJVE, VAM650GJVE,
VAM800GJVE, VAM1000GJVE, VAM1500GJVE,
VAM2000GJVE

Improved Enthalpy Efficiency*¹
Higher External Static Pressure*²
Enhanced Energy Saving Functions

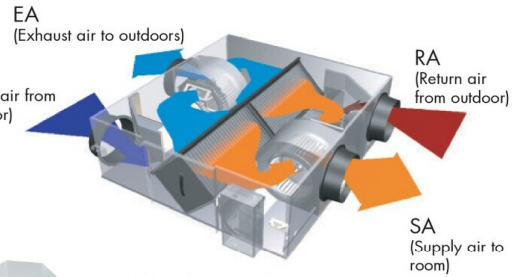
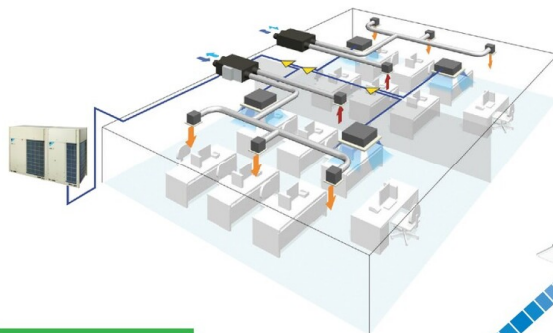


Heat Reclaim Ventilator remote controller* BRC301B61 (Option)

This remote controller is used in case of independent operated of Heat Reclaim Ventilator.

This VAM series provides higher Enthalpy Efficiency*¹ due to the greatly enhanced performance of the thin film element. Furthermore, improved external static pressure*² offers more flexibility of installation. Along with these three outstanding improvement, the night-time free cooling operation contributes to energy conservation and more comfortable space.

*¹ For Model: VAM150/250/350/650/800/1000/2000GJVE
*² For models: VAM150/250/500GJVE



Daikin air conditioner Indoor unit

- ON/OFF signal
- Cooling/Heating mode signal
- Set temperature signal
- Ventilation signal

- Operating mode signal
- Filter cleaning signal
- Failure detection signal

Interlocking

LCD remote controller for indoor unit



Heat Reclaim Ventilator.



Compact Equipment

With a height of just 306mm, the unit easily fits in limited spaces, such as above ceiling.



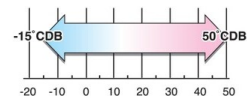
*For VAM500GJVE

Energy Conservation

Air conditioning load reduced by approximately 31%

Cold Climate Compatible

Standard operation at temperatures down to -15°C.



Heat Reclaim Ventilator – VAM Series

Air conditioning load reduced by approximately 31%

Total heat exchange ventilation

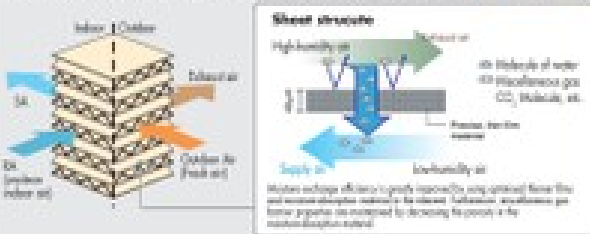
This unit recovers heat energy lost through ventilation and curbs room temperature changes caused by ventilation, thereby conserving energy and reducing the load on the air conditioning system.

Enthalpy Efficiency drastically improved by employing thin film element (VAM-GJ model)

Due to thinner film.....

- Decreases the moisture resistance of the partition sheets drastically.
- Realizes more space for extra layers in the element, resulting in increased effective area that supply and exhaust air can be exposed to.

Moisture absorption increased by approx. 10%



23%

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.

6%

Pre-cool, Pre-heat Control

Reduces air conditioning load by not running the Heat Reclaim ventilator while air is still clean soon after the air conditioner is turned ON.

2%

- The air conditioning load reduction value may vary according to weather and other environmental conditions at the location of the customer's installation.
- The air conditioning load reduction values are based on the following conditions:
Application: Tokyo office building
Building form: 6 floors above ground, 2 floors underground, floor area 2,100 m²
Personnel density: 25 persons/m²
Ventilator volume: 25 m³/h
Indoor air conditioning level: summer 25°C 50% RH, intermediate seasons 24°C 50% RH, Winter 22°C 60%RH
Operating time: 2746 hours (9 hours per day, approx. 25 days per month)
Calculation method: simulation based on "WBCQJ-HASJ/1982" of the Japan Building Mechanical and Electrical Engineers Association.

Air conditioning Loads Reduced by Approximately



31%

Night-time free cooling operation¹⁾

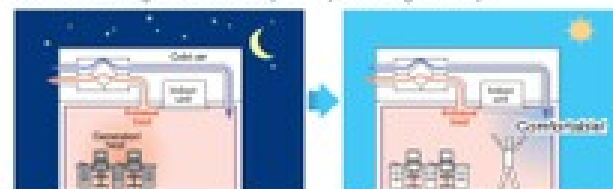
Nighttime free cooling operation is an energy-conserving function that works at night when air conditioners are off. By ventilating rooms containing equipment that raises that room temperature, nighttime free cooling operation reduces the cooling load when air conditioners are turned on in the morning.

It also alleviates feeling of discomfort in the morning caused by heat accumulated during the night.

- Nighttime free cooling operation only works to cool and if connected to Building M&E or VEC system.
- Nighttime free cooling operation is set to "off" in the factory setting, so if you wish to use it, request your dealer to turn it on.

¹⁾ This function can be operated only when interlocked with air conditioners.
²⁾ Value is based on the following conditions:
• Cooling operation performed from April to October.
• Calculated for air conditioning sensible heat load only (latent heat load not included).

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



Heat is discharged

The load is small, so the temperature is rapidly returned to a comfortable level

* Interlocked operation with air conditioner.

Air conditioning sensible heat load reduced by approx. 5%²⁾

AIR TREATMENT EQUIPMENT LINE-UP

Specifications

MODEL		YAC020GVE	YAC030GVE	YAC050GVE	YAC080GVE	YAC100GVE	YAC150GVE	YAC200GVE	
Power Supply		1 phase, 200-240 V/ 230 V, 50 Hz							
Temp. Exchange Efficiency (20/40 Hz)	Ultra High	75/75	74/74	75/75	75/75	76/76	75/75	75/77	
	High	75/75	74/74	75/75	75/75	76/76	75/75	75/77	
	Low	75/79	80/80.5	77/77.5	74/74.5	80.5/81	75.5/76	79/81	
Exhaust Exchange Efficiency (20/40 Hz)	For Heating	Ultra High	47/47	47.5/47.5	49/49	76/76	49/49	75/77	
		High	47/47	47.5/47.5	49/49	76/76	49/49	75/77	
		Low	74/74	74/74.5	71.5/72	47.5/48	71.5/72	47/47.5	74/76
	For Cooling	Ultra High	43/43	35/35	41/41	41/41	44/44	41/41	43/43
		High	43/43	35/35	41/41	41/41	44/44	41/41	43/43
		Low	44/44	39/39.5	44/44.5	44/44.5	48.5/49	44/44.5	44/47
Power Consumption (20/40 Hz)	Heat Exchange Mode	Ultra High	120/140	248/276	242/268	290/380	433/568	1,043/1,308	1,289/1,647
		High	120/125	225/217	228/222	275/297	247/248	991/1,144	1,111/1,215
		Low	40/39	128/126	196/207	425/483	474/572	835/937	966/1,038
	Bypass Mode	Ultra High	120/140	248/276	242/268	290/380	433/568	1,043/1,308	1,289/1,647
		High	120/125	225/217	228/222	275/297	247/248	991/1,144	1,111/1,215
		Low	40/39	128/126	196/207	425/483	474/572	835/937	966/1,038
Sound Level (20/40 Hz)	Heat Exchange Mode	Ultra High	27.28/29	33.02/33.6	34.26/34	37.48/37.9	37.94/37.9	39.34/39.6	41.24/42.4
		High	24.27/24.8	31.5/24.7	32.24/32.4	37.28/37.3	37.3/37.3	37.3/37.3	37.42/37.4
		Low	27.22/27	33.28/32.4	37.3/29.28	35.27/32.4	35.27/32.4	35.27/32.4	36.28/39
	Bypass Mode	Ultra High	28.3/28.28.5	34.3/28.28.5	33.27/32.3	40.3/42.4	40.3/42.4	41.43/42.3	43.43/44.4
		High	27.5/28/29.5	33.44/33.3	33.15/31.5	38.5/40.38	38.5/40.38	39.54/41.5	40.5/42/42
		Low	22.9/23/23.3	25.28/23.28.5	27.9/28.28.5	34.38/32.8.5	34.38/32.8.5	34.5/36/37.5	37.5/28.3/41
Casing	Color-coated steel plate								
Insulation Material	Self-extinguishable polyurethane foam								
Dimensions (H×W×D)	mm	2760/1900	3660/1900	5260/1900	8070/11900	8870/11111/24	7620/10900	7650/11912/4	
Machine Weight	kg	34	32	40	33	67	109	157	
Heat Exchange System	Air to air cross flow total heat (Sensible heat + latent heat) exchange								
Heat Exchange Element Material	Specially processed non-flammable paper								
Air Filter	Multi-layered fibrous filter								
Fan	Type	Siemens fan							
	Air Flow Rate (20/40 Hz)	Ultra High	230/230	300/300	450/450	800/800	1,000/1,200	1,200/1,500	2,000/2,000
		High	230/230	300/300	450/450	800/800	1,000/1,200	1,200/1,500	2,000/2,000
		Low	110/110	220/220	330/330	700/670	840/840	1,220/1,280	1,700/1,280
	External Static Pressure (20/40 Hz)	Ultra High	75/76	102/110	85/100	123/170	168/192	112/140	114/144
		High	34/40	66/72	53/67	92/98	118/96	73/71	34/33
Low		24/20	32/18	35/28	72/91	85/60	34/30	45/40	
Motor Output	kW	0.0300	0.0900	0.1400		0.2800		0.2800	
Connection Duct Diameter	mm	φ130		φ200		φ250		φ300	
Unit ambient condition	-15°C -35°CDB, 80%RH or less								

- Notes:**
- Sound level is measured at 1.5m below the center of the body.
 - Airflow rate can be changed over to Low mode or High mode.
 - Sound level is measured in an anechoic chamber.
 - Sound level generally becomes greater than the value depending on the operating conditions, reflected sound and peripheral noise.
 - The sound level of the air discharge port is about 1 dB(A) higher than the unit's sound level.
 - The specifications, design, and information given here are subject to change without notice.
 - Temperature Exchange Efficiency is the mean value between cooling and heating.
 - Efficiency is measured under the following conditions:
Ratio of inlet and outlet static pressure has been maintained as follows: outdoor side-inlet side = 7 to 1.
In conformance with JIS standard (JIS S 8038), operating sound level is based on the value when one unit is operated, with the value corrected for an outdoor chamber.
This is transmission sound from the room unit, and does not include sound from the discharge grille. Thus it is corrected for the sound to be louder than the indicated value when the unit is actually installed.
 - Sound level from the discharge port varies the value to be approximately 0.8dB(A) (models with the air flow rate of less than 150 to 200m³/h) or approximately 1.1 dB(A) (models with the airflow rate of 450m³/h or more) greater than the indicated value. Furthermore, for outdoor noise from the discharge grille may increase depending on the on-site duct resistance conditions. Please consider noise countermeasures when installing the unit.

- With large models in particular (1000 and 2000m³/h models), if the supply air (SA) grille is installed near the room unit, the noise of the room unit may be heard from the discharge grille via the duct, and this will result in a notable increase in noise in such cases. If peripheral effects are included (such as installation of the floor and walls, cooperation with other equipment, and background noise), sound level may become much as 10 dB(A) higher than the indicated value. When installing a large model, please provide as much separation as possible between the room unit and the discharge grille. If the equipment and discharge grille are near each other, please consider countermeasures such as the following:
 - Use a sound muffling box, flexible duct and sound muffling air supply/discharge grille.
 - Decorative installation of discharge grille.
- When installing in a location with particularly low background noise such as a classroom, please consider the following measures to avoid transmission sound from the room unit:
 - Use of ceiling materials with high sound-insulating properties (high transmission loss).
 - Methods of blocking sound transmission, for example, by adding sound-insulating materials around the bottom of the sound source.
 Alternatively, consider supplementary methods such as installing the equipment in a different location (corridor, etc.).