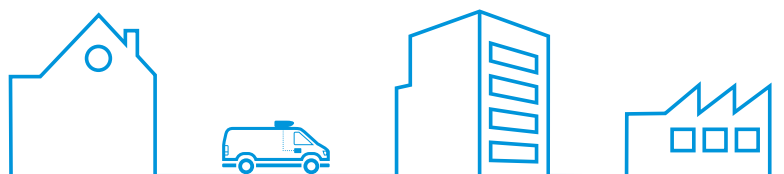


Commercial air purification & ventilation





Indoor Air Quality matters more than ever. Since indoor air quality can up to 2 to 5 times worse than outdoor air quality, a correct treatment is important. Daikin offers the widest range in DX commercial ventilation from decentralised heat recovery systems to large-scale air handling units and air purification solutions in order to provide a healthy solution for your project.

Commercial Ventilation & Air Purification

	Why choose Daikin ventilation	570
	ERV / HRV - Energy/Heat recovery ventilation units	572
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Want to know more
about ventilation systems
and how Indoor Air
Quality can be secured by
ventilation? Follow our
online webinar!



5 reasons why Daikin's ventilation range is unique in the market

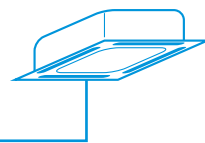
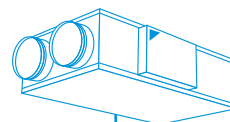
1 Market leading controls & connectivity

- › Interlock of ventilation and air conditioning system
 - Control ERV/HRV and air conditioning from the same controller
 - Aligns the operation mode between the systems to save energy
- › Easy integration in the total solution
 - Online control and monitoring via the Daikin Cloud Service
 - Full portfolio integration in the intelligent Touch Manager, Daikin's cost-effective mini BMS
- › User-friendly controller with premium design
 - Intuitive touch button control

Madoka

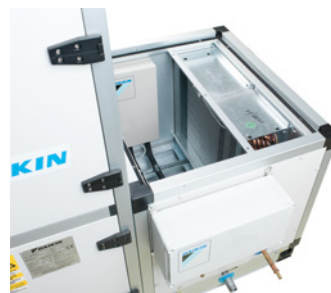


reddot award 2018
winner



2 Unique installation benefits

- › Integrates seamlessly in the Daikin total solution, ensuring a single point of contact
- › Total fresh air solution with Daikin supplying the VAM/Modular L Smart, Modular Top (smart) and the electrical heater
- › Daikin AHU and condensing unit connect Plug & Play thanks to same pipe diameters, factory mounted controls, expansion valves, etc.





3 High energy efficiency

- › Energy recovery of up to 92%, reducing running costs
- › Free nighttime cooling using fresh outside air
- › Inverter driven centrifugal fans
- › ErP compliant

Up to
92%
energy
recovery

4 Best comfort

- › Wide range of units to control fresh air and humidity
- › Wide range of optional filters to suit the application available up to ePM₁ 80% (F9)
- › Special paper heat exchanger recovers heat and moisture from extract air to warm up and humidify fresh air to comfortable levels (VAM, VKM)



5 Top reliability

- › Most extensive testing before new units leave the factory
- › Widest support network and after sales service
- › All spare parts available in Europe



Did you know?

CO₂ levels and ventilation rates all have significant, independent impacts on cognitive function:

COGNITIVE FUNCTION SCORES ...



+ 61%
IN GREEN BUILDING
CONDITIONS



+ 101%
IN ENHANCED
GREEN BUILDING CONDITIONS

Widest range of DX integrated ventilation on the market

Daikin offers a variety of solutions from small energy recovery ventilation to large-scale air handling units for the provision of fresh air ventilation to homes, or commercial premises.

Ventilation solutions

Daikin offers state-of-the-art ventilation solutions that can easily be integrated into any project:

- › **Unique portfolio** within DX manufacturers
- › High-quality solutions complying with the **highest Daikin quality standards**
- › **Seamless integration** of all products to provide the best indoor climate
- › All Daikin products connected to a single controller for **complete control** of the HVAC system.

Energy Recovery Ventilation

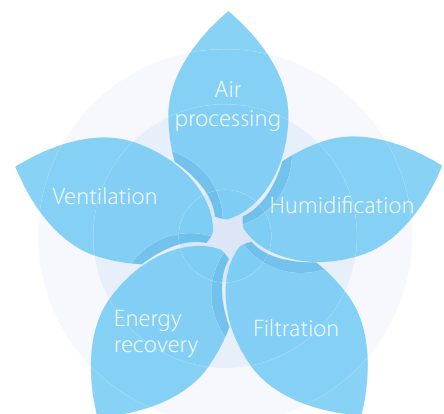
Our energy recovery units **recover sensible energy** (Modular L Pro / Modular L Smart / Modular Top / Modular Smart) or **total (sensible + latent) energy** (VAM/ EKV DX/VKM-GBM), substantially reducing the load on the air conditioning system up to 40%.

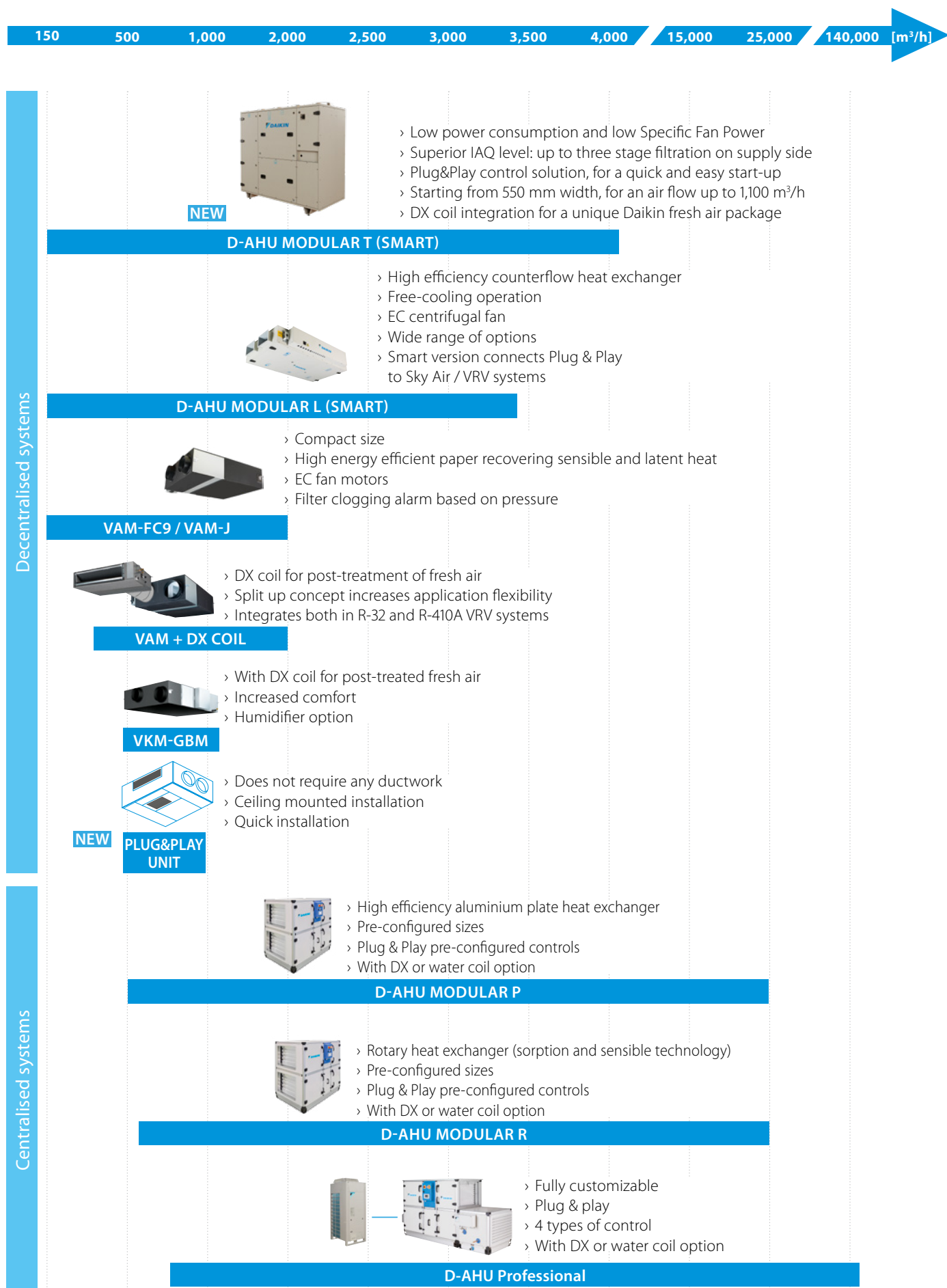
Ventilation with DX connection - Control over fresh air temperature

Daikin offers a range of inverter condensing units to be used in combination with Daikin AHUs for ultimate control over the fresh air. There are 4 control possibilities when **combining AHU and Daikin outdoor units** hence offering all the required flexibility for any installation. Indoor units can be combined to the same outdoor unit to reduce the installation costs. For **false-ceiling installations** where space is a constraint, the VKM can fit perfectly to deliver fresh air at a comfortable temperature and it has an optional humidification element.

Indoor Environment Quality Components

- › **Ventilation:** Ensures the provision of fresh and clean air
- › **Energy recovery:** Delivers energy savings by transferring heat and moisture between airflows thus helping to bring supply air to the required indoor conditions for temperature and humidity
- › **Air processing:** Delivers the required conditioned air to optimize the energy efficiency of indoor HVAC equipment
- › **Humidification:** Ensures the desired moisture level in the conditioned space
- › **Filtration:** Ensures clean and healthy air by filtering out pollen, dust, odors and other contaminants that are harmful to our health





Modular T Smart

Top connected Air Handling Unit

Highlights

- › Duct connections are located at the top, reducing the unit's footprint
- › Low power consumption and low SFP (Specific Fan Power) for a very efficient unit operation
- › Superior IAQ level: up to three stage filtration on supply side (more than the 90% of PM1 is removed from outdoor air)
- › Plug&Play control solution, for a quick and easy start-up
- › Very compact unit, starting from 550 mm width, for an air flow up to 1,100 m³/h
- › DX coil integration for a unique Daikin fresh air package available for connection to VRV or ERQ

IAQ matters

An excellent IAQ improves people's performance and well-being, and decreases risk factors for various diseases. Modular T satisfies the ventilation and filtration needs of the indoor environment, guaranteeing an outstanding level of IAQ.

The future of ventilation

The Modular T, with its unique features, represents the latest product developed by Daikin for fresh air treatment and not only. Thanks to its optimized design, it can be easily transported and installed into new projects or existing buildings.



ATB-S

More details and final information can be found by scanning or clicking the QR codes.



Technical details

MODULAR T Pro & Smart		Size (1)	03	04	05	06	07
Airflow		m ³ /h	800	1,650	2,300	2,700	3,900
HE Thermal efficiency (2)		%	89.3	88.3	85.1	85.5	90.8
External static pressure		Pa	100				
Current		A	1.70	3.39	4.61	5.17	7.87
Power input		kW	0.39	0.78	1.06	1.19	1.81
SFPv (2)		kW/m ³ /s	1.47	1.5	1.49	1.41	1.5
Electrical supply	Phase (ph)		1				
	Frequency (Hz)		50/60				
	Voltage (V)		220/240 Vac				
Main unit Dimensions	Width (mm)		550		790		890
	Height (3) (mm)		1,600		1,900	1,850	2,050
	Length (mm)		1,580	1,650	2,170 (4)	2,620 (5)	2,950 (5)
Circular duct flange	Diameter (mm)		255	315	355	400	500
Unit sound power level		dBA	57	52	55		58
Unit sound pressure level (6)		dBA	50	45	48		51
Weight unit		Kg	200	250	400	500	620

(1) All size available in Smart or Pro version and right or left handing | (2) Outdoor condition: -5°C, 90% Indoor condition: 25°C, 50% | (3) Including feet and duct connections |

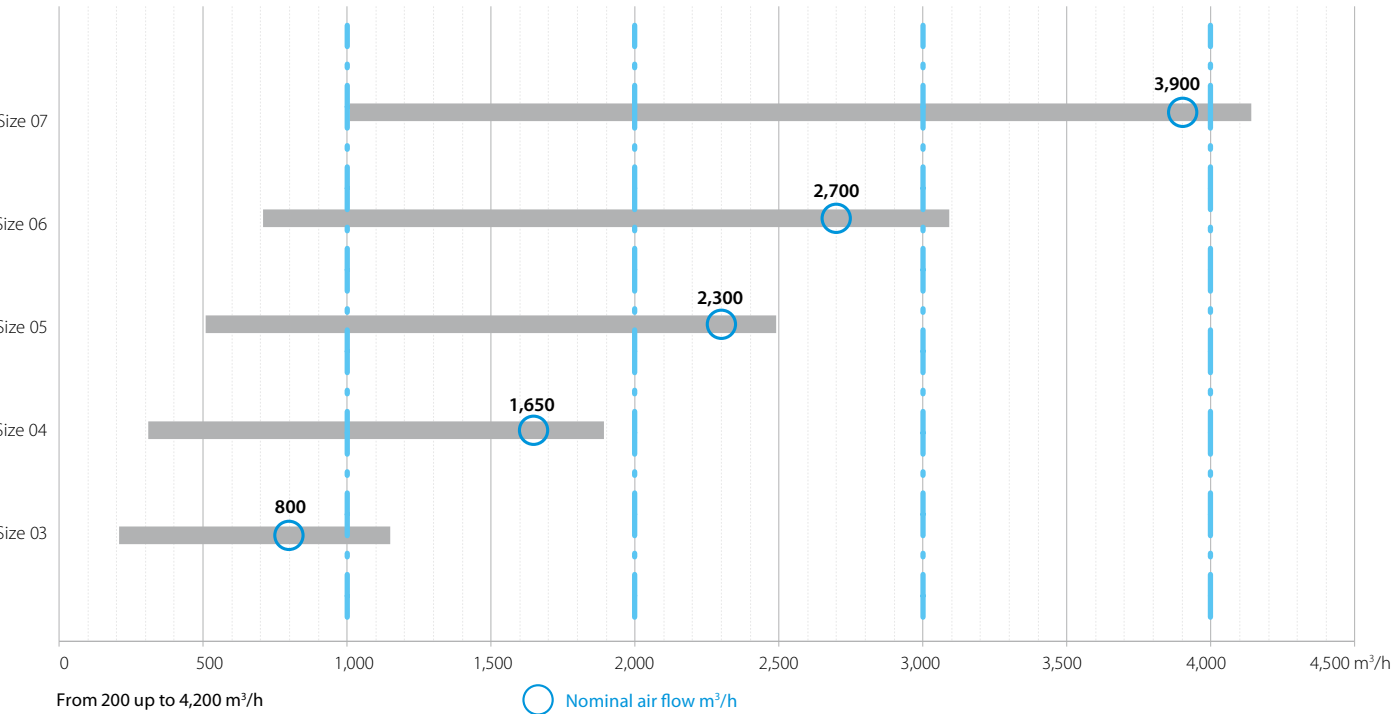
(4) Size 05 is provided in two sections | (5) Size 06 and 07 are provided in three sections | (6) Simple source reference value at 1 meter, directivity factor Q=4 (quarter sphere) and non-reverberant field. Allowances on declared values: +/- 3dB

Air flow range

Modular T is available in 5 sizes covering a wide range of applications such as hotels, offices, schools, gyms and light commercial buildings.

Sectioning

To ensure an easy and quick installation Modular T size 05 will be provided in two sections, while size 06 and 07 in three sections to pass smoothly through standard doors¹.



1. Please refer to technical data table at page 6 for more details



Modular L Smart

Premium efficiency heat recovery unit

Highlights

- › Connects Plug&Play into the Sky Air and VRV control network
- › Easy installation and commissioning
- › Internal pre-filter stage (up to ePM₁ 50% (F7) + ePM₁ 80% (F9)) making the unit reach highest indoor air quality requirements.
- › Wide air flow coverage from 150m³/h to 3,400m³/h
- › Exceeding ErP 2018 requirements
- › Best choice when compactness is needed (only 280 mm height up to 550 m³/h)
- › 50 mm double skin panel (120 kg/m³) for a maximum sound and thermal insulation

EC centrifugal fan

- › Maximum ESP available 600 Pa (depending on model sizes and airflow)
- › Inverter driven with IE4 premium efficiency motor
- › High-efficient blade profiling
- › Reduced energy consumption
- › Optimized SFP (Specific Fan Power) for an efficient unit operation

Heat exchanger

- › Premium quality counter flow plate heat exchanger
- › Up to 91% of the thermal energy recovered
- › High grade aluminum allowing optimum corrosion protection



Right drain connection (ALB-RBS)



Left drain connection (ALB-LBS)

For integration with Applied systems, please refer to the Modular L, in the AHU chapter



More details and final information can be found by scanning or clicking the QR codes.



ALB-LBS



ALB-RBS

Technical details

D-AHU Modular L Smart			ALB02*BS	ALB03*BS	ALB04*BS	ALB05*BS	ALB06*BS	ALB07*BS
Airflow		m³/h	300	600	1,200	1,600	2,300	3,000
Heat exchanger thermal efficiency (1)		%	86		87			86
External static pressure	Nom.	Pa	100					
Current	Nom.	A	0.61	1.35	2.26	2.83	4.39	6.22
Power input	Nom.	kW	0.14	0.31	0.52	0.65	1.01	1.43
SFPv (2)		kW/m³/s	1.25	1.52	1.3	1.35	1.35	1.51
Electrical supply	Phase	ph	1					
	Frequency	Hz	50/60					
	Voltage	V	220/240 Vac					
Main unit dimensions	Width	mm	920	1,100	1,600		2,000	
	Height	mm	280	350	415		500	
	Length	mm	1,660	1,800	2,000			
Rectangular duct flange	Width	mm	250	400	500		700	
	Height	mm	150	200	300		400	
Weight unit		kg	125	180	270	280	355	360

(1) Winter design condition: Outdoor: -5°C, 90% Indoor: 22°C, 50% | (2) SFPv is a parameter that quantifies the fan efficiency (the lower it is the better will be). This reduces if airflow decreases.

Electrical heater for Modular L Smart

- › Total solution for fresh air with Daikin supply of both Modular L Smart and electrical heaters
- › Increase comfort in low outdoor temperature thanks to the heated outdoor air
- › Integrated electrical heater concept (no additional accessories required)
- › Standard dual flow and temperature sensor
- › Heater only consumes what is required to pre-heat to the desired minimum fresh air temperature; thus saving energy



More details and final information can be found by scanning or clicking the QR codes.



ALD-HEFB

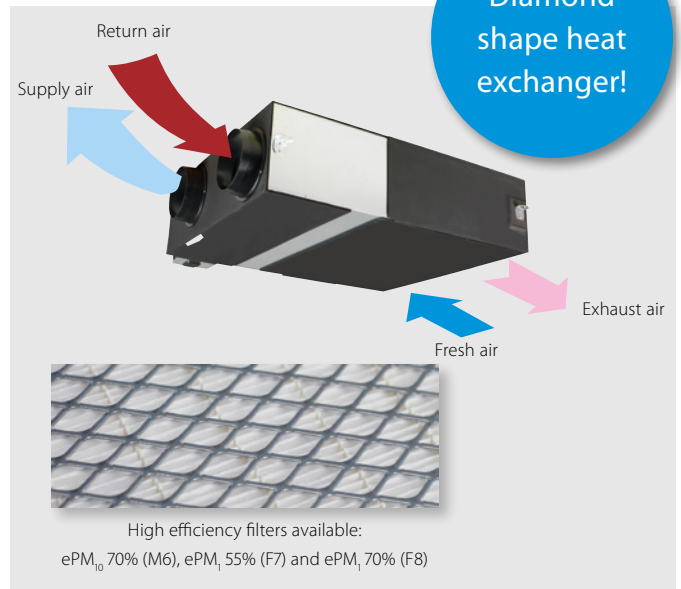
Electrical heater for Modular L Smart (ALD)	02HEFB	03HEFB	05HEFB	07HEFB
Capacity kW	1.5	3	7.5	15
Connectable Modular L Smart size	02	03	04, 05	06, 07
Supply voltage	230V,1ph		400V,3ph	
Output current (maximum) (A)	6.6	13.1	10.9	21.7
Temperature sensor	15k ohms at -20 °C 10k ohms at +10 °C	16k ohms at -20 °C 10k ohms at +10 °C	17k ohms at -20 °C 10k ohms at +10 °C	18k ohms at -20 °C 10k ohms at +10 °C
Temperature control range	- 20 °C to 10 °C			
Control fuse	Mini Circuit Breaker 6 A			
LED indicators	Yellow = Airflow fault Red = Heat ON			
Mounting holes	Depends on duct size			
Maximum ambient adjacent to terminal box	30°C (during operation)			
Auto high temperature cutout	75°C Pre-set			
Manual reset high temperature cutout	120°C Pre-set			
Width (mm)	470	620	720	920
Depth (mm)	370	370	370	370
Height (mm)	193	243	343	443

Energy recovery ventilation

Ventilation with heat recovery as standard

- › Thinnest High Efficiency Enthalpy Heat Exchanger in the market (J-series)
- › Energy saving ventilation using indoor heating, cooling and moisture recovery
- › Free cooling possible when outdoor temperature is below indoor temperature (eg. during nighttime)
- › Prevent energy losses from over-ventilation while improving indoor air quality with optional CO₂ sensor (J-series)
- › Possibility to change ESP via wired remote control allows optimisation of the supply air volume (J - series)
- › Can be used as stand alone or integrated in the Sky Air or VRV system
- › Wide range of units: air flow rate from 150 up to 2,000 m³/h
- › Shorter installation time thanks to easy adjustment of nominal air flow rate, so less need for dampers compared with traditional installation
- › No drain piping needed
- › Can operate in over- and under pressure
- › Total solution for fresh air with Daikin supply of both VAM / VKM and electrical heaters
- › VAM-J8 series are connectable to EKVDX DX coil for air processing
- › Possibility of CO₂ concentration when combining VAM-J8 with optional BRYMA CO₂ sensor and Madoka remote controller (with or without EKVDX)

More details and final information can be found by scanning or clicking the QR codes.



VAM-FC9



VAM-J8

Ventilation			VAM/VAM	150FC9	250FC9	350J8	500J8	650J8	800J8	1000J8	1500J8	2000J8	
Power input - 50Hz	Heat exchange mode	Nom.	Ultra high/High/Low	kW	0.132/0.111/0.058	0.161/0.079/0.064	0.097/0.070/0.039	0.164/0.113/0.054	0.247/0.173/0.081	0.303/0.212/0.103	0.416/0.307/0.137	0.548/0.384/0.191	0.833/0.614/0.273
	Bypass mode	Nom.	Ultra high/High/Low	kW	0.132/0.111/0.058	0.161/0.079/0.064	0.085/0.061/0.031	0.148/0.100/0.045	0.195/0.131/0.059	0.289/0.194/0.086	0.417/0.300/0.119	0.525/0.350/0.156	0.835/0.600/0.239
Temperature exchange efficiency - 50Hz	Ultra high/High/Low			%	77.0(1)/72.0(2)/78.3(1)/72.3(2)/82.8(1)/73.2(2)	74.9(1)/69.5(2)/76.0(1)/70.0(2)/80.1(1)/72.0(2)	85.1/86.7/90.1	80.0/82.5/87.6	84.3/86.4/90.5	82.5/84.2/87.7	79.6/81.8/86.1	83.2/84.8/88.1	79.6/81.8/86.1
Enthalpy exchange efficiency - 50Hz	Cooling	Ultra high/High/Low		%	60.3(1)/61.9(1)/67.3(1)	60.3(1)/61.2(1)/64.5(1)	65.2/67.9/74.6	59.2/61.8/69.5	59.2/63.8/73.1	67.7/70.7/76.8	62.6/66.4/74.0	68.9/71.8/77.5	62.6/66.4/74.0
	Heating	Ultra high/High/Low		%	66.6(1)/67.9(1)/72.4(1)	66.6(1)/67.4(1)/70.7(1)	75.5/77.6/82.0	69.0/72.2/78.7	73.1/76.3/82.7	72.8/75.3/80.2	68.6/71.7/77.9	73.8/76.1/80.8	68.6/71.7/77.9
Operation mode				Heat exchange mode, bypass mode, fresh-up mode									
Heat exchange system				Air to air cross flow total heat (sensible + latent heat) exchange									
Heat exchange element				Specially processed non-flammable paper									
Dimensions	Unit	HeightxWidthxDepth		mm	285x776x525		301x1,113x886		368x1,354x920		368x1,354x1,172		731x1,354x1,172
Weight	Unit			kg	24.0		46.5		61.5		79.0		157
Casing	Material			Galvanised steel plate									
Fan	Air flow rate - 50Hz	Heat exchange mode	Ultra high/High/Low	m³/h	150 /140 /105	250 /230 /155	350 (1)/300 (1)/200 (1)	500 (1)/425 (1)/275 (1)	650 (1)/550 (1)/350 (1)	800 (1)/680 (1)/440 (1)	1,000 (1)/850 (1)/550 (1)	1,500 (1)/1,275 (1)/825 (1)	2,000 (1)/1,700 (1)/1,100 (1)
		Bypass mode	Ultra high/High/Low	m³/h	150 /140 /105	250 /230 /155	350 (1)/300 (1)/200 (1)	500 (1)/425 (1)/275 (1)	650 (1)/550 (1)/350 (1)	800 (1)/680 (1)/440 (1)	1,000 (1)/850 (1)/550 (1)	1,500 (1)/1,275 (1)/825 (1)	2,000 (1)/1,700 (1)/1,100 (1)
	External static pressure - 50Hz	Ultra high/High/Low		Pa	90 /87/40	70 /63/25	90 (1)/70.0 /50.0 (1)						
Air filter	Type				Multidirectional fibrous fleeces								
Sound pressure level - 50Hz	Heat exchange mode	Ultra high/High/Low		dBA	27.0/26.0/20.5	28.0/26.0/21.0	34.5 (1)/32.0 (1)/29.0 (1)	37.5 (1)/35.0 (1)/30.5 (1)	39.0 (1)/36.0 (1)/31.0 (1)	39.0 (1)/36.0 (1)/30.5 (1)	42.0 (1)/38.5 (1)/32.5 (1)	42.0 (1)/39.0 (1)/33.5 (1)	45.0 (1)/41.5 (1)/36.0 (1)
	Bypass mode	Ultra high/High/Low		dBA	27.0/26.5/20.5	28.0/27.0/21.0	34.5 (1)/32.0 (1)/28.0 (1)	38.0 (1)/35.0 (1)/29.5 (1)	38.0 (1)/34.5 (1)/30.5 (1)	40.0 (1)/36.5 (1)/30.5 (1)	42.5 (1)/40.0 (1)/32.5 (1)	42.0 (1)/39.0 (1)/32.5 (1)	45.0 (1)/41.0 (1)/35.0 (1)
Operation range	Around unit			°CDB	-								
Connection duct diameter				mm	100	150	200		250		2x250		
Power supply	Phase/Frequency/Voltage			Hz/V	1~; 50/60; 220-240/220								
Current	Maximum fuse amps (MFA)			A	15.0				16.0				
Specific energy consumption (SEC)	Cold climate		kWh/(m².a)	-56.0 (5)	-60.5 (5)		-						
	Average climate		kWh/(m².a)	-22.1 (5)	-27.0 (5)		-						
	Warm climate		kWh/(m².a)	-0.100 (5)	-5.30 (5)		-						
SEC class				D / See note 5 B / See note 5									
Maximum flow rate at 100 Pa ESP	Flow rate			m³/h	130	207	-						
	Electric power input			W	129	160	-						
Sound power level (Lwa)				dB	40	43	51	54	58	61	62	65	
Annual electricity consumption				kWh/a	18.9 (5)	13.6 (5)	-						
Annual heating saved	Cold climate		kWh/a	41.0 (5)	40.6 (5)		-						
	Average climate		kWh/a	80.2 (5)	79.4 (5)		-						
	Warm climate		kWh/a	18.5 (5)	18.4 (5)		-						

(1) Measured according to JIS B 8628 | (2) Measured at reference flow rate according to EN13141-7 | (5) At reference flow rate in accordance with commission regulation (EU) No 1254/2014

Electrical heater for VAM

- › Total solution for fresh air with Daikin supply of both VAM and electrical heaters
- › Increased comfort in low outdoor temperature thanks to the heated outdoor air
- › Integrated electrical heater concept (no additional accessories required)
- › Standard dual flow and temperature sensor
- › Flexible setting with adjustable setpoint
- › Increased safety with 2 cut-outs: manual & automatic



More details and final information can be found by scanning or clicking the QR codes.



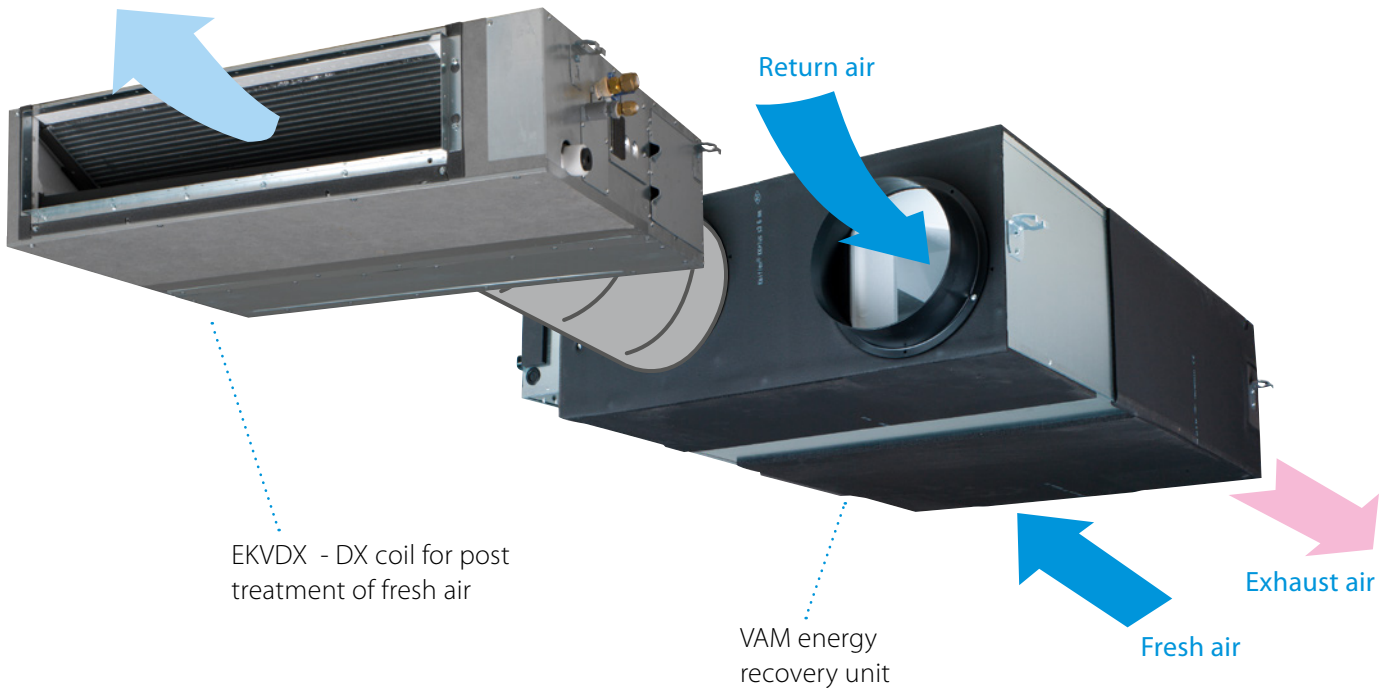
	GSIEKA	10009	15018	20024	25030	35530 ⁽¹⁾
Capacity	kW	0.9	1.8	2.4	3.0	3.0
Duct diameter	mm	100	150	200	250	355
Connectable VAM		VAM150FC9	VAM250FC9	VAM350,500J8	VAM650J8, VAM800J8, VAM1000J8	VAM1500J8, VAM2000J8

			GSIEKA10009	GSIEKA15018	GSIEKA20024	GSIEKA25030	GSIEKA35530
Dimensions	Height	mm	171	221	271	321	426
	Depth	mm	100	150	200	250	355
	Width	mm	370	370	370	370	373
Minimum air velocity / airflow		m/s	1.5				
		m³/h	45	100	170	265	535
Power supply			1~230 VAC/50Hz				
Nominal current	A		4.1	8.2	10.9	13.1	13.1
Heating power	kW		0.9	1.8	2.4	3.0	3.0
Connection duct diameter	mm		100	150	200	250	355
Operation range	Min.	°C	-40°C				
	Max.	°C	40°C				
	Rel. Humidity	%	90%				
Temperature sensor			10 kΩ at +25°C / TJ-K10K				
Temperature sensor range			- 30°C to 105°C				
Temperature set point range			- 10°C to 50°C				
LED indicators	LED 1	flashing every 5 seconds	heater is starting up				
		flashing every second	air flow detected, heating allowed				
		OFF	no power supply or no flow				
	LED 2	ON	problem with duct temperature sensor, set point potentiometer or PTC airflow sensor				
		OFF	heater is not operation				
		ON	heater is operating				
Ambient temperature adjacent to controller			0°C to +50°C				
Auto high temperature cut-out			50°C				
Manual reset high temperature cut-out			100°C				

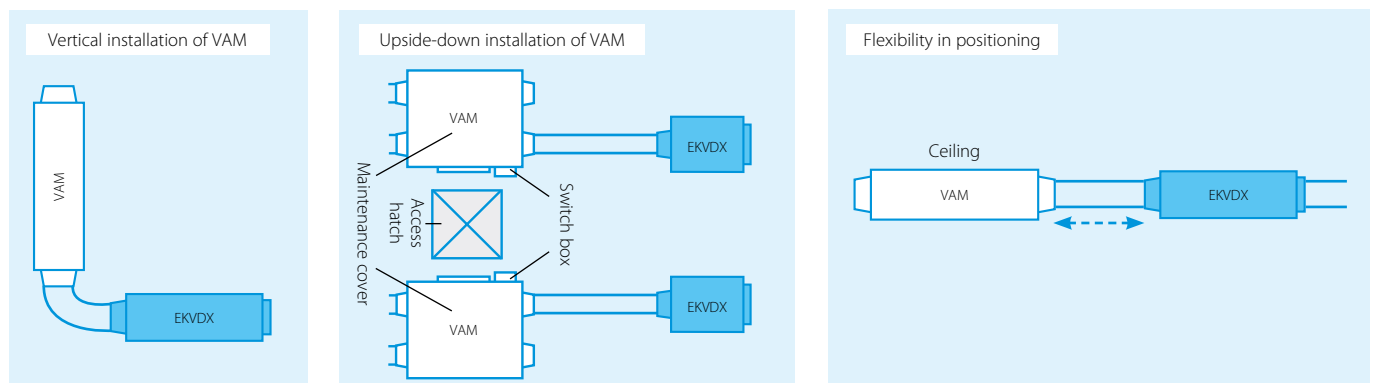
EKVDX-A

DX coil for post treatment of fresh air

Supply air



- › Creates a high quality indoor environment by pre conditioning of incoming fresh air
- › Maximum installation flexibility thanks to separate DX coil
 - Different installation possibilities to suit the application

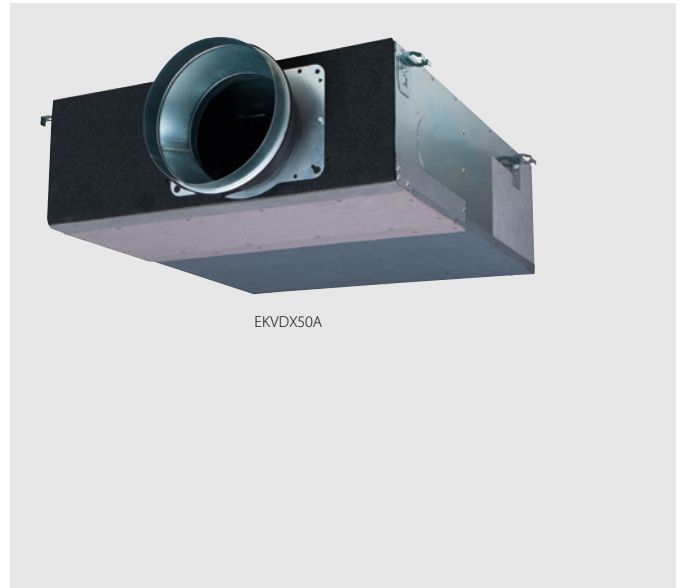


- › Fresh air flows from 500 up to 2,000 m³/h
- › High ESP up to 150 Pa
- › Can be integrated in both R-32/R-410A VRV systems
- › Replaces VKM-GB range, delivering increased capacity range and reduced sound levels

DX coil for air processing

Post heating or cooling of fresh air to lower the load on the air conditioning system

- › Creates a high quality indoor environment by pre conditioning of incoming fresh air
- › Maximum installation flexibility thanks to separate DX coil
- › Wide range of units covering fresh air flows of 500 up to 2,000 m³/h
- › High ESP up to 150 Pa
- › Can be integrated in both R-32/R-410A VRV systems



More details and final information can be found by scanning or clicking the QR codes.



EKVDX-A

				EKVDX32A	EKVDX50A	EKVDX80A	EKVDX100A
Power input - 50Hz	Cooling	Nom.	kW	0.035	0.035	0.035	0.035
	Heating	Nom.	kW	0.035	0.035	0.035	0.035
Casing	Material			Galvanised steel plate			
Insulation material				Opcell and anti-sweat material			
Dimensions	Unit	Height	mm	250			
		Width	mm	550	700	1,000	1,400
		Depth	mm	809			
Weight	Unit		kg	19	23.4	30.1	37.7
Operation range	Around unit		°CDB	10°C~40°CDB, 80% RH or less			
	On coil	Cooling	Max.	°CDB	35		
	temperature	Heating	Min.	°CDB	11		
Piping connections	Liquid	OD	mm	6.35			
	Gas	OD	mm	12.7			
	Drain			VP20 (I.D. 20/O.D. 26), drain height 625 mm			
Refrigerant	Type			R410A/R32			
	GWP			2,087.5/675			
Heat exchange system				Direct expansion			
Power supply	Phase			single phase			
	Frequency			50/60			
	Voltage			220-240/220			

				EKVDX32A + VAM500J8	EKVDX50A + VAM650J8	EKVDX80A + VAM800J8	EKVDX100A + VAM1000J8	EKVDX100A + VAM1500J8	EKVDX100A + VAM2000J8
Cooling capacity	Total (VAM+DX coil)	At ultra high fan speed	kW	5.1	7.1	8.6	9.3	15.4	18.4
		At ultra high fan speed	kW	3.4	4.8	5.5	5.7	9.5	11.2
		At high fan speed	kW	2.7	4.1	4.4	4.5	8.8	9.2
Heating capacity	Total (VAM+DX coil)	At ultra high fan speed	kW	6.7	8.5	11	11.9	18.7	22.9
		At ultra high fan speed	kW	4.2	5.1	6.9	7	10.8	13
		At high fan speed	kW	3.6	4.6	5.8	6.3	9.6	11.7
Fan	Air flow rate - 50Hz	Heat exchange mode	Ultra high	m ³ /h	500	650	800	1,000	1,500
			High	m ³ /h	425	550	680	850	1,275
		Bypass mode	Ultra high	m ³ /h	500	650	800	1,000	1,500
			High	m ³ /h	425	550	680	850	1,275
	External static pressure - 50Hz	Maximum	Pa	81.9	73.0	133.7	106.0	153.6	92.1
		Ultra high	Pa	51.9	43.0	23.7	26.0	43.6	12.1
Sound pressure level - 50Hz	Cooling	Ultra high	dB(A)	32	34	35.5	40.5	38.5	43.5
			dB(A)	30.5	32	34	38	37	40
		High	dB(A)	32.5	34.5	36	40.5	39	44
			dB(A)	31.5	32	34	38.5	37	40.5
	Heating	Ultra high	dB(A)	32	34	35.5	40.5	38.5	43.5
		High	dB(A)	30.5	32	34	38	37	40
Current	Maximum fuse amps (MFA)			A	6	6	6	16	16

The heat reclaim ventilation unit and the EKVDX indoor unit MUST share the same electrical safety devices and power supply

Energy recovery ventilation, humidification and air processing

Post heating or cooling of fresh air for lower load on the air conditioning system

- › Energy saving ventilation using indoor heating, cooling and moisture recovery
- › Creates a high quality indoor environment by pre conditioning of incoming fresh air
- › Humidification of the fresh air results in comfortable indoor humidity level, even during heating
- › Free cooling possible when outdoor temperature is below indoor temperature (eg. during nighttime)
- › Low energy consumption thanks to DC fan motor
- › Prevent energy losses from over-ventilation while improving indoor air quality with optional CO₂ sensor
- › Shorter installation time thanks to easy adjustment of nominal air flow rate, so less need for dampers compared with traditional installation
- › Specially developed heat exchange element with High Efficiency Paper (HEP)
- › Can operate in over- and under pressure



More details and final information can be found by scanning or clicking the QR codes.



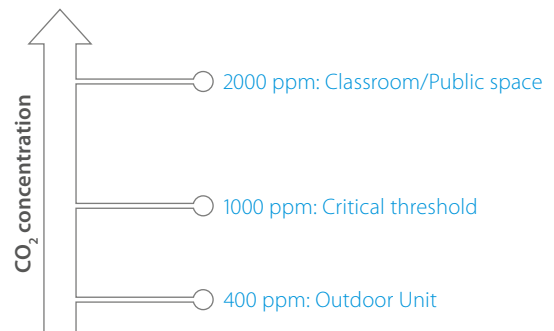
VKM-GBM

Ventilation		VKM-GBM		50GBM		80GBM		100GBM			
Power input - 50Hz	Heat exchange mode	Nom.	Ultra high/High/Low	kW	0.270/0.230/0.170		0.330/0.280/0.192		0.410/0.365/0.230		
	Bypass mode	Nom.	Ultra high/High/Low	kW	0.270/0.230/0.170		0.330/0.280/0.192		0.410/0.365/0.230		
Fresh air conditioning load	Cooling			kW	4.71 / 1.91 / 3.5		7.46 / 2.96 / 5.6		9.12 / 3.52 / 7.0		
	Heating			kW	5.58 / 2.38 / 3.5		8.79 / 3.79 / 5.6		10.69 / 4.39 / 7.0		
Temperature exchange efficiency - 50Hz	Ultra high/High/Low			%	76/76/77.5		78/78/79		74/74/76.5		
Enthalpy exchange efficiency - 50Hz	Cooling	Ultra high/High/Low		%	64/64/67		66/66/68		62/62/66		
	Heating	Ultra high/High/Low		%	67/67/69		71/71/73		65/65/69		
Operation mode				Heat exchange mode / Bypass mode / Fresh-up mode							
Heat exchange system				Air to air cross flow total heat (sensible + latent heat) exchange							
Heat exchange element				Specially processed non-flammable paper							
Humidifier				Natural evaporating type							
Dimensions		Unit	HeightxWidthxDepth	mm	387x1,764x832		387x1,764x1,214				
Weight		Unit		kg	100		119		123		
Casing		Material		Galvanised steel plate							
Fan-Air flow rate - 50Hz	Heat exchange mode	Ultra high/High/Low		m³/h	500/500/440		750/750/640		950/950/820		
	Bypass mode	Ultra high/High/Low		m³/h	500/500/440		750/750/640		950/950/820		
Fan-External static pressure - 50Hz	Ultra high/High/Low			Pa	200/150/120		205/155/105		110/70/60		
Air filter		Type		Multidirectional fibrous fleeces							
Sound pressure level - 50Hz	Heat exchange mode	Ultra high/High/Low		dBA	38/36/34		40/37.5/35.5		40/38/35.5		
	Bypass mode	Ultra high/High/Low		dBA	39/36/34.5		41/38/36		41/39/35.5		
Operation range	Around unit			°CDB	0°C~40°CDB, 80% RH or less						
	Supply air			°CDB	-15°C~40°CDB, 80% RH or less						
	Return air			°CDB	0°C~40°CDB, 80% RH or less						
	On coil temperature			Cooling/Max./Heating/Min.	°CDB	-15/43					
Refrigerant	Control			Electronic expansion valve							
	Type			R-410A							
	GWP			2,087.5							
Connection duct diameter				mm	200		250				
Piping connections	Liquid	OD		mm	6.35						
	Gas	OD		mm	12.7						
	Water supply			mm	6.4						
	Drain				PT3/4 external thread						
Power supply	Phase/Frequency/Voltage			Hz/V	1~/50/220-240						
Current	Maximum fuse amps (MFA)			A	15						



For Schools and light commercial applications with an immediate need for fresh air

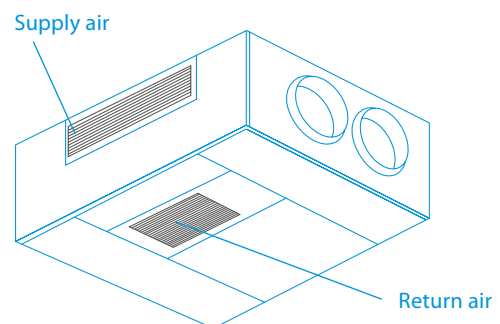
In a public space without ventilation the CO₂ concentrations will quickly rise above 2,000ppm, while a safe and comfortable treshhold is around 1,000ppm. Staying regularly in a space above this treshhold leads to fatigue and lower concentration, and can result in long-term health consequences ranging from mild allergies to serious respiratory illnesses.



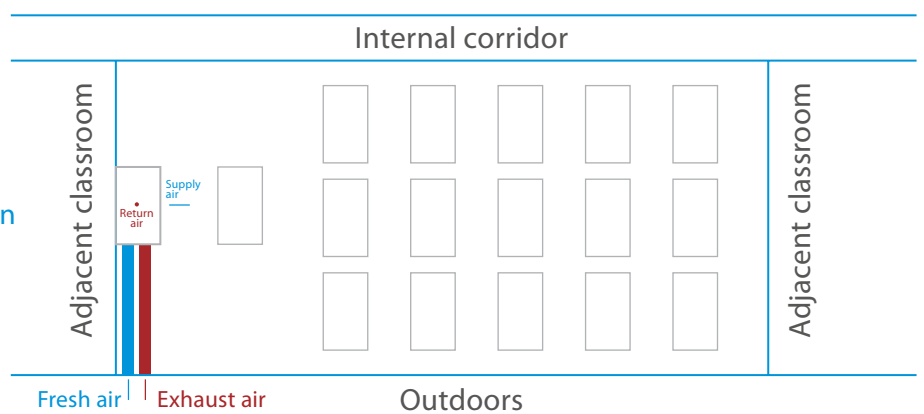
The Plug & Play Heat Recovery Ventilation Unit solves your fresh air needs without the need for renovation

- › Quick installation gives your building fast access to fresh air
- › Unit does not require any ductwork for supply or return air keeping interior works to a minimum
- › Premium quality counter flow plate heat exchanger recovering indoor thermal energy
- › Ceiling mounted installation
 - › Does not require space on the floor
 - › Unit is out of reach of persons or children
- › Air flow range up to 930m³/h covering the typical need of a class room
- › Double skin insulated panel for a maximum sound insulation
- › Left and right version for maximum flexibility
- › Free cooling allows to cool down the room at night
- › Optional CO₂ sensor and electrical heater

Left connection unit



Typical layout with right connection



Daikin's air handling units solutions

You will find your match

Why choose Daikin air handling units with a DX connection?



Simplifying business

The unique total solution approach by Daikin helps businesses to propose better cross-pillar solutions, to increase their success ratio by providing unmatched product combinations to the end-user and to simplify the life of installers by supplying high-quality products coming from the same manufacturer. Contrary to other manufacturers, Daikin does not use OEM products in its AHU with DX offer. Many competitors are either offering OEM DX outdoor units or OEM AHU which create additional problems when warranties or faults arise. **Having a single interface for your business makes Daikin the right choice.**

One-stop shop

Daikin is the only global manufacturer in the market **capable of offering a true Plug & Play solution** where Daikin AHUs manufactured by Daikin Applied Europe and certified by Eurovent, offer off-the-shelf compatibility with Daikin's unique VRV outdoor unit range for the best performance in the market. This unique integration of cross-pillar products under the same umbrella, gives the customer both peace-of-mind and added value when promoting a total solution approach.

Complete range of possibilities

Thanks to the **most complete offer in the market**, Daikin has the solution for all types of commercial applications requiring fresh air. Daikin provides ventilation solutions based on AHU from 2,500 m³/h up to 140,000 m³/h either with natural heat recovery or more advanced ventilation solutions where a VRV outdoor unit can be connected to the Daikin AHU for ultimate climate control. The harmonized control, between the VRV outdoor unit and the AHU, offer outstanding reliable operation of the system when connected to an iTM.

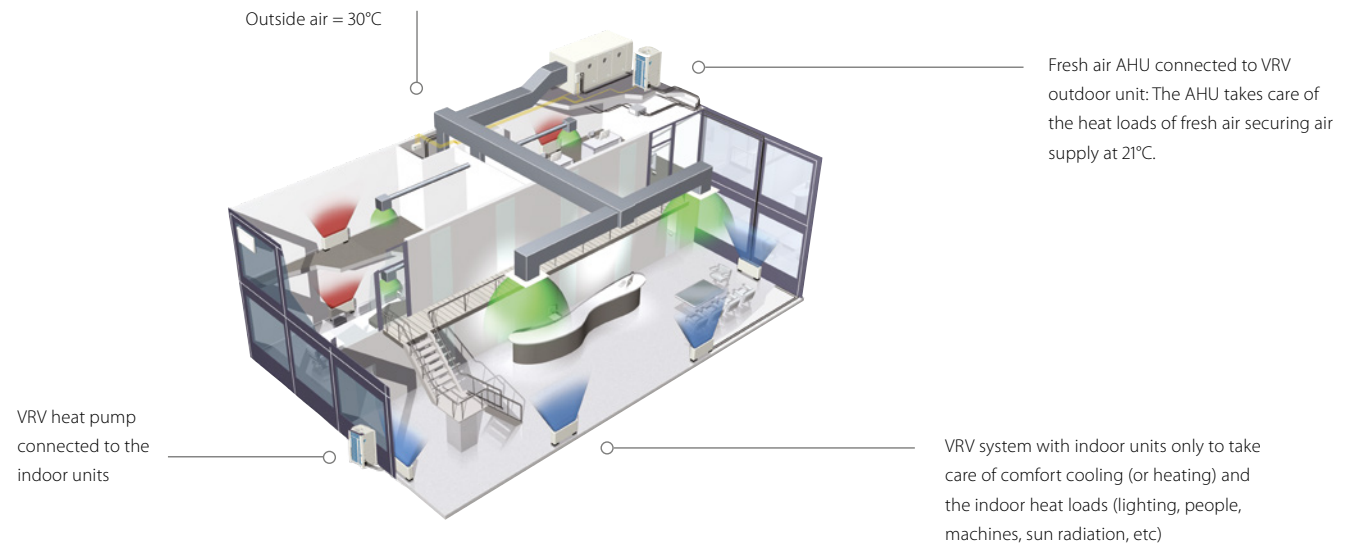
Advantages

- › Unique manufacturer offering a complete range
- › Plug & Play solution
- › Direct iTM compatibility

Why use VRV and ERQ condensing units for connection to air handling units?

High Efficiency

Daikin heat pumps are renowned for their high energy efficiency. Integrating the AHU with a high efficiency heat pump system lower the carbon footprint of the building.



Fast response to changing loads resulting in high comfort levels

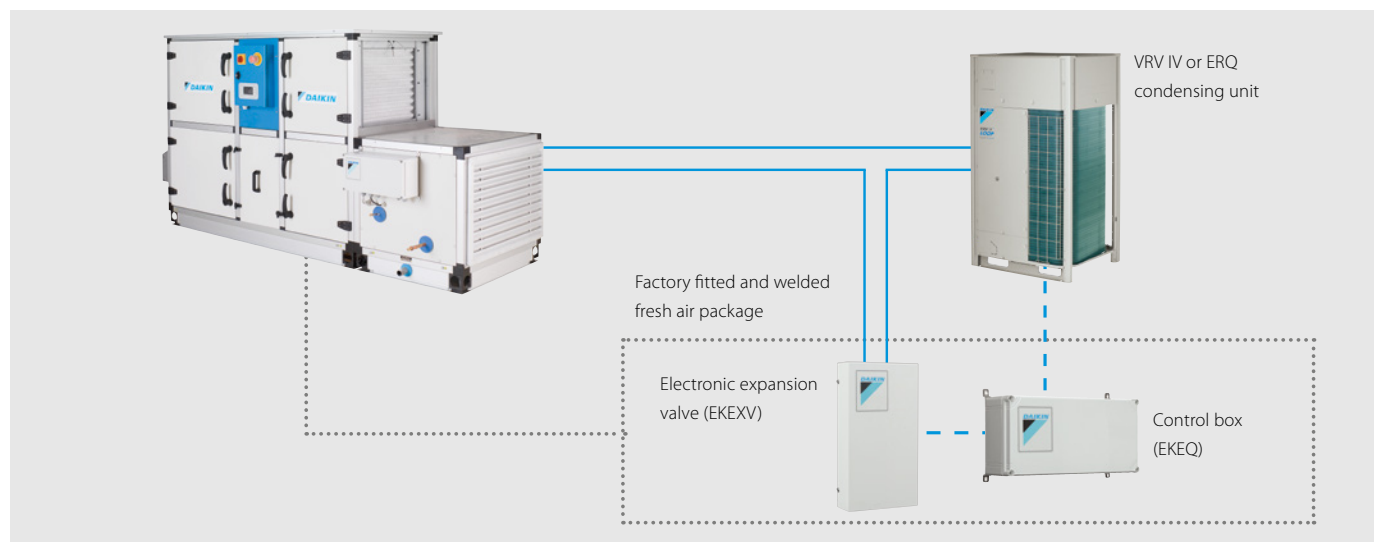
Daikin ERQ and VRV units respond rapidly to fluctuations in supply air temperature, resulting in a steady indoor temperature and resultant high comfort levels for the end user. The ultimate is the VRV range which improves comfort even more by offering continuous heating, also during defrost.

Easy Design and Installation

The system is easy to design and install since no additional water systems such as boilers, tanks and gas connections etc. are required. This also reduces both the total system investment and running cost.

Daikin Fresh air package

- › Plug & Play connection between VRV/ERQ and the entire D-AHU modular range.
- › Factory fitted and welded DX coil control and expansion valve kits.



In order to maximise installation flexibility, 4 types of control systems are offered

W control: Off the shelf control of air temperature (discharge temperature, suction temperature, room temperature) via any DDC controller, easy to setup

X control: Precise control of air temperature (discharge temperature, suction temperature, room temperature) requiring a preprogrammed DDC controller (for special applications)

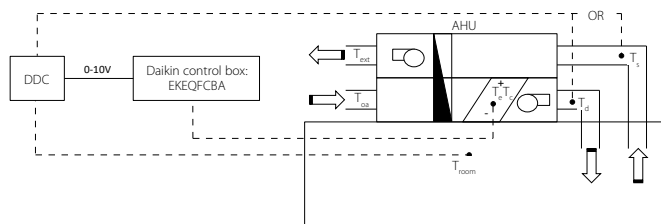
Z control: Control of air temperature (suction temperature, room temperature) via Daikin control (no DDC controller needed)

Y control: Control of refrigerant (T_e/T_c) temperature via Daikin control (no DDC controller needed)

1. W control ($T_d/T_s/T_{room}$ control):

Air temperature control via DDC controller

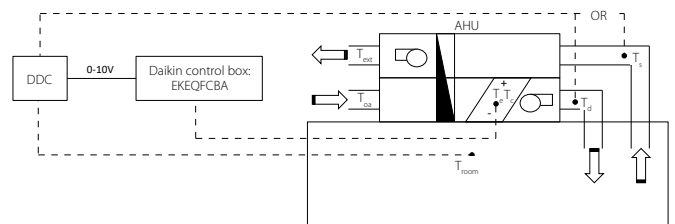
Room temperature is controlled as a function of the air handling unit suction or discharge air (customer selection). The DDC controller is translating the temperature difference between set point and air suction temperature (or air discharge temperature or room temperature) into a proportional 0-10V signal which is transferred to the Daikin control box (EKEQFCBA). This voltage modulates the capacity requirements of the outdoor unit.



2. X control ($T_d/T_s/T_{room}$ control):

Precise air temperature control via DDC controller

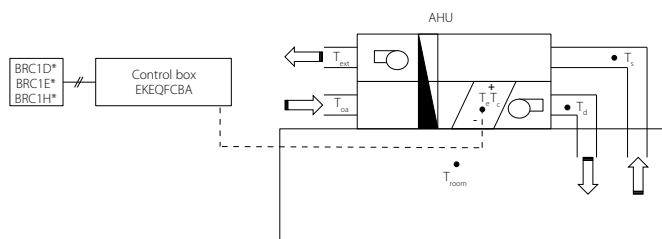
Room temperature is controlled as a function of the air handling unit suction or discharge air (customer selection). The DDC controller is translating the temperature difference between set point and air suction temperature (or air discharge temperature or room temperature) into a reference voltage (0-10V) which is transferred to the Daikin control box (EKEQFCBA). This reference voltage will be used as the main input value for the compressor frequency control.



3. Y control (T_e/T_c control):

By fixed evaporating /condensing temperature

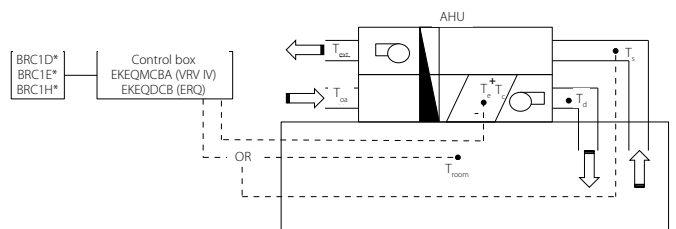
A fixed target evaporating or condensing temperature can be set by the customer. In this case, room temperature is only indirectly controlled. A Daikin wired remote control (BRC1* - optional) have to be connected for initial set-up but not required for operation.



4. Z control (T_d/T_{room} control):

Control your AHU just like a VRV indoor unit (100% recirculation air application)

Allows the possibility to control the AHU just like a VRV indoor unit. Meaning temperature control will be focused on return air temperature from the room into the AHU. Requires BRC1* for operation. The only control that allows the combination of other indoor units to the AHU at the same time.



T_d = Discharge (supply) air temperature
 T_{ext} = Extraction air temperature

T_s = Suction (return) air temperature
 T_e = Evaporating temperature

T_{oa} = Outdoor air temperature
 T_c = Condensing temperature

T_{room} = Room air temperature

	Option kit	Features
Possibility W	EKEQFCBA	Off-the-shelf DDC controller that requires no pre-configuration
Possibility X		Pre-configured DDC controller required
Possibility Y		Using fixed evaporating temperature, no set point can be set using remote control
Possibility Z	EKEQDCB EKFQMCBA*	Using Daikin infrared remote control BRC1* Temperature control using air suction temperature or room temperature (via remote sensor)

* EKEQMCB (for 'multi' application)



VRV IV+ in mix application
with VRV indoor units and
Modular R AHU

VRV - for larger capacities (from 8 to 54HP)

An advanced solution for both pair and multi application

- › Inverter controlled units
- › Heat pump
- › Heat recovery only for mix application with indoor units without hydrobox. For 100% recirculation AHUs only used as a VRV indoor unit.
- › R-410A
- › Control of room temperature via Daikin control
- › Large range of expansion valve kits available
- › BRC1H* is used to set the set point temperature (connected to the EKEQMCBA).
- › Connectable to all VRV heat recovery and heat pump systems (VRV H/R and VRV-i only connectable with Z control)

Pair application

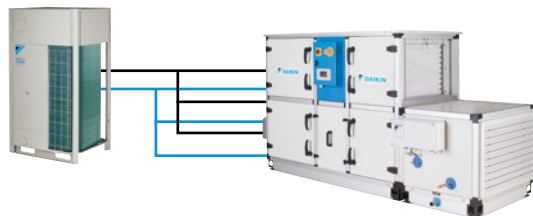
One ERQ or VRV IV heat pump (system) connected to one AHU through one refrigerant circuit

- › with W, X, Y and Z control
- › not allowed for VRV H/R



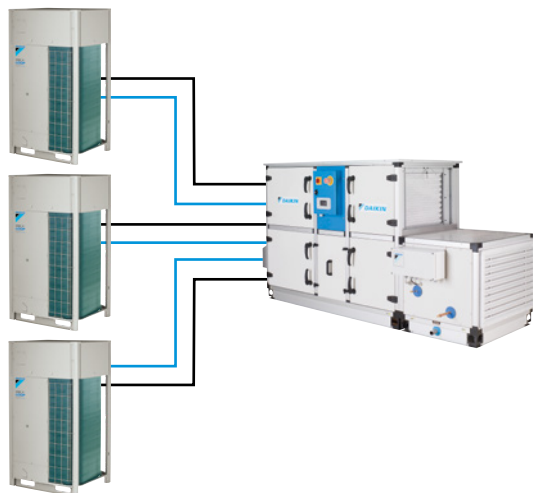
One VRV IV heat pump (system) connected to the interlaced coil of one AHU through several refrigerant circuits

- › with W, X and Y control
- › not allowed for VRV H/R and VRV-i



Several ERQ or VRV IV heat pumps connected to the interlaced coil of one AHU through several refrigerant circuits

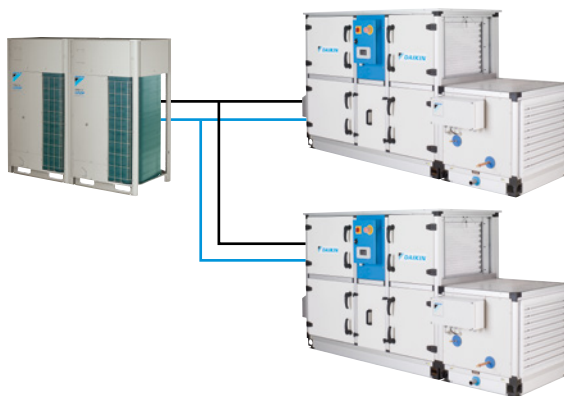
- › with W, X and Y control
- › not allowed for VRV H/R and VRV-i



Multi application

One VRV IV heat pump connected to several AHUs

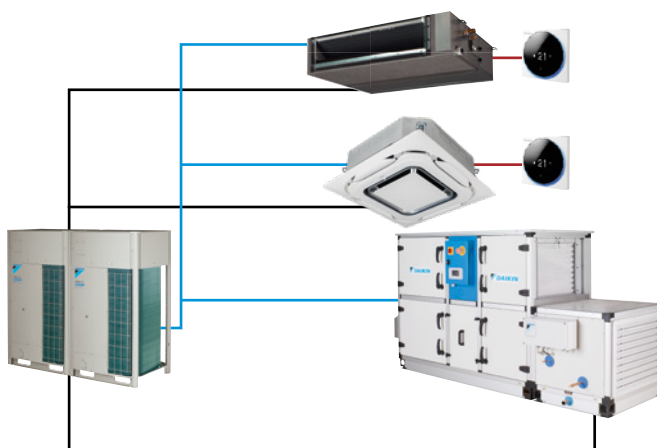
- › with Z control
- › not allowed for VRV H/R
- › no interlaced coil possible



Mix application

VRV indoor units and AHU(s) mixed in the same VRV IV heat pump or heat recovery system

- › with Z control
- › no interlaced coil possible
- › hydrobox not possible



- Refrigerant piping
- F1-F2
- P1-P2



ERQ - for smaller capacities (from 100 to 250 class)

A basic fresh air solution for pair application

- › Inverter controlled units
- › Heat pump
- › R-410A
- › Wide range of expansion valve kits available
- › Perfect for the Daikin Modular air handling unit

The "Daikin Fresh Air Package" provides a complete Plug & Play Solution including AHU, ERQ or VRV Condensing Unit and all unit control (EKEQ, EKEX, DDC controller) factory mounted and configured. The easiest solution with only one point of contact.

More details and final information can be found by scanning or clicking the QR codes.



ERQ-AV1



ERQ-AW1



ERQ-AW1

Ventilation				ERQ	100AV1	125AV1	140AV1
Capacity range				HP	4	5	6
Cooling capacity	Nom.			kW	11.2	14.0	15.5
Heating capacity	Nom.			kW	12.5	16.0	18.0
Power input	Cooling	Nom.		kW	2.81	3.51	4.53
	Heating	Nom.		kW	2.74	3.86	4.57
EER						3.99	
COP					4.56	4.15	3.42
Dimensions	Unit	HeightxWidthxDepth	mm			1,345x900x320	
Weight	Unit		kg			120	
Casing	Material					Painted galvanized steel plate	
Fan-Air flow rate	Cooling	Nom.	m ³ /min			106	
	Heating	Nom.	m ³ /min		102		105
Sound power level	Cooling	Nom.	dBA		66	67	69
Sound pressure level	Cooling	Nom.	dBA		50	51	53
	Heating	Nom.	dBA		52	53	55
Operation range	Cooling	Min./Max.	°CDB			-5/46	
	Heating	Min./Max.	°CWB			-20/15.5	
	On coil temperature	Heating/Min./Cooling/Max.	°CDB			10/35	
Refrigerant	Type					R-410A	
	Charge		kg			4.0	
			TCO ₂ eq			8.4	
	GWP					2,087.5	
Piping connections	Control					Expansion valve (electronic type)	
	Liquid	OD	mm			9.52	
	Gas	OD	mm			15.9	19.1
	Drain	OD	mm			26x3	
Power supply	Phase/Frequency/Voltage		Hz/V			1N~/50/220-240	
Current	Maximum fuse amps (MFA)		A			32.0	

Ventilation				ERQ	125AW1	200AW1	250AW1
Capacity range				HP	5	8	10
Cooling capacity	Nom.			kW	14.0	22.4	28.0
Heating capacity	Nom.			kW	16.0	25.0	31.5
Power input	Cooling	Nom.		kW	3.52	5.22	7.42
	Heating	Nom.		kW	4.00	5.56	7.70
EER					3.98	4.29	3.77
COP					4.00	4.50	4.09
Dimensions	Unit	HeightxWidthxDepth	mm		1,680x635x765	1,680x930x765	
Weight	Unit		kg		159	187	240
Casing	Material					Painted galvanized steel plate	
Fan-Air flow rate	Cooling	Nom.	m ³ /min		95	171	185
	Heating	Nom.	m ³ /min		95	171	185
Sound power level	Nom.		dBA		72		78
Sound pressure level	Nom.		dBA		54	57	58
Operation range	Cooling	Min./Max.	°CDB			-5/43	
	Heating	Min./Max.	°CWB			-20/15	
	On coil temperature	Heating/Min./Cooling/Max.	°CDB			10/35	
Refrigerant	Type					R-410A	
	Charge		kg		6.2	7.7	8.4
			TCO ₂ eq		12.9	16.1	17.5
	GWP					2,087.5	
Piping connections	Control					Electronic expansion valve	
	Liquid	OD	mm			9.52	
	Gas	OD	mm		15.9	19.1	22.2
Power supply	Phase/Frequency/Voltage		Hz/V			3N~/50/400	
Current	Maximum fuse amps (MFA)		A		16		25

Integration of ERQ and VRV in third party air handling units

a wide range of expansion valve kits and control boxes

Combination table

		Control box			Expansion valve kit										Mixed connection with VRV indoor units
		EKEQDCB	EKEQFCBA	EKEQMCBA	EKE XV50	EKE XV63	EKE XV80	EKE XV100	EKE XV125	EKE XV140	EKE XV200	EKE XV250	EKE XV400	EKE XV500	
		Z control	W,X,Y control	Z control	-	-	-	-	-	-	-	-	-	-	Not possible
1-phase	ERQ100	P (1)	P	-	-	P	P	P	P	-	-	-	-	-	
	ERQ125	P (1)	P	-	-	P	P	P	P	-	-	-	-	-	
	ERQ140	P (1)	P	-	-	-	P	P	P	P	-	-	-	-	
3-phase	ERQ125	P (1)	P	-	-	P	P	P	P	P	-	-	-	-	
	ERQ200	P (1)	P	-	-	-	-	P	P	P	P	P	-	-	
	ERQ250	P (1)	P	-	-	-	-	-	P	P	P	P	-	-	
VRV IV H/P (RYYQ, RXYQ, RXYSQ, RXYTQ, RXYLQ, RWVEYQ)		-	P	P (1) / n2 (1)										Possible (not mandatory)	
VRV IV i-series		-	-											Mandatory (no hydrobox)	
VRV IV H/R		-	-	n1											

- P (pair application) - One or more outdoor units connected to an (interlaced) coil of one AHU. To determine exact configuration please refer to the engineering data book.
- n1 (only mix application) - Combination of (multiple) AHU(s) and VRV DX indoor(s) is mandatory. To determine the exact configuration please refer to the engineering data book.
- n2 (mix or multi application) - Combination of (multiple) AHU(s) with (mix application) or without (multi application) VRV DX indoor(s). To determine the exact configuration please refer to the engineering data book.
- Control box EKEQFA can be connected to some types of VRV IV outdoor units (with a maximum of 3 boxes per unit). Do not combine EKEQFA control boxes with VRV DX indoor units, RA indoor units or hydroboxes
- (1) No interlaced coil possible with Z control

Capacity table

Cooling

EKE XV Class	Allowed heat exchanger capacity (kW)			Allowed heat exchanger volume (dm ³)	
	Minimum	Standard	Maximum	Minimum	Maximum
50	5.0	5.6	6.2	1.33	1.65
63	6.3	7.1	7.8	1.66	2.08
80	7.9	9.0	9.9	2.09	2.64
100	10.0	11.2	12.3	2.65	3.30
125	12.4	14.0	15.4	3.31	4.12
140	15.5	16.0	17.6	4.13	4.62
200	17.7	22.4	24.6	4.63	6.60
250	24.7	28.0	30.8	6.61	8.25
400	35.4	45.0	49.5	9.26	13.2
500	49.6	56.0	61.6	13.2	16.5

Saturated evaporating temperature: 6°C
Air temperature: 27°C DB / 19°C WB

Heating

EKE XV Class	Allowed heat exchanger capacity (kW)			Allowed heat exchanger volume (dm ³)	
	Minimum	Standard	Maximum	Minimum	Maximum
50	5.6	6.3	7.0	1.33	1.65
63	7.1	8.0	8.8	1.66	2.08
80	8.9	10.0	11.1	2.09	2.64
100	11.2	12.5	13.8	2.65	3.30
125	13.9	16.0	17.3	3.31	4.12
140	17.4	18.0	19.8	4.13	4.62
200	19.9	25.0	27.7	4.63	6.60
250	27.8	31.5	34.7	6.61	8.25
400	39.8	50.0	55.0	9.26	13.2
500	55.1	63.0	69.3	13.2	16.5

Saturated condensing temperature: 46°C
Air temperature: 20°C DB

EKE XV - Expansion valve kit for air handling applications

Ventilation		EKE XV	50	63	80	100	125	140	200	250	400	500
Dimensions	Unit	mm	401x215x78									
Weight	Unit	kg	2.9									
Sound pressure level	Nom.	dBA	45									
Operation range	On coil temperature	Heating Min.	10 (1)									
		Cooling Max.	35 (2)									
Refrigerant	Type / GWP		R-410A / 2,087.5									
Piping connections	Liquid OD	mm	6.35	9.52						12.7	15.9	

(1) The temperature of the air entering the coil in heating mode can be reduced to -5°CDB. Contact your local dealer for more information. (2) 45% Relative humidity.

EKEQ - Control box for air handling applications

Ventilation		EKEQ	FCBA	DCB	MCBA
Application			Pair	Pair	Pair/Multi/Mix
Outdoor unit			ERQ / VRV	ERQ	VRV
Dimensions	Unit	mm	132x400x200		
Weight	Unit	kg	3.9	3.6	
Power supply	Phase/Frequency/Voltage	Hz/V	1~/50/230		

The combination of EKEQFCBA and ERQ is in pair application. The EKEQFCBA can be connected to some type of VRV IV outdoor units with a maximum of 3 control boxes. The combination with DX indoor units, hydroboxes, RA outdoor units, ... is not allowed. Refer to the combination table drawing of the outdoor unit for details.

For more information refer to the EKE XV or EKEQ databooks



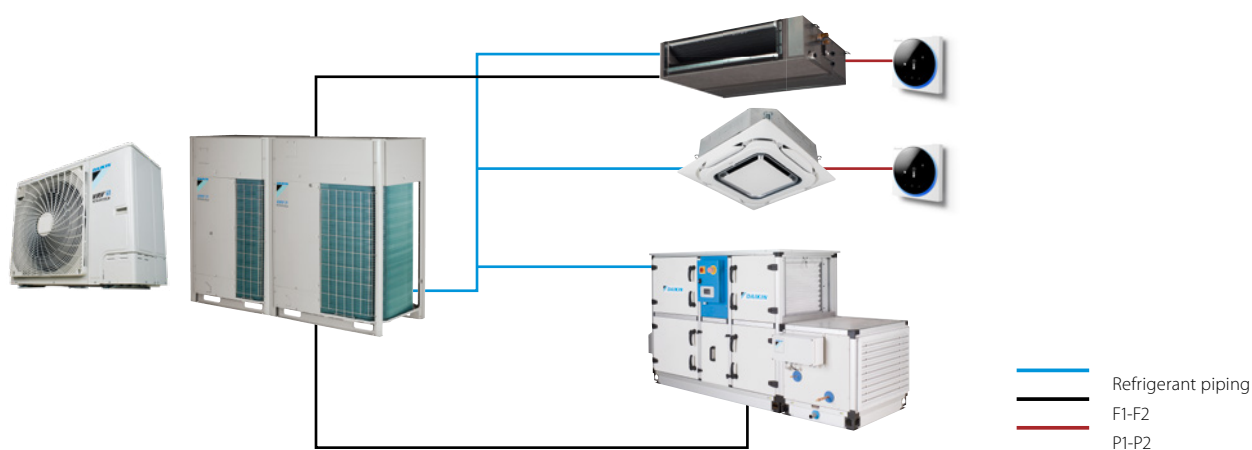
New generation of expansion valve kits and control boxes



Available from
**Autumn
2023**

Integrating third party Air Handling Units in the VRV 5 total solution (EKEXVA* / EKEA*)

VRV 5
BLUEVOLUTION



- › Unified EXV range connectable to both VRV 5 R-32 and VRV IV / ERQ R-410A units
- › 3 new EXV capacities: 300, 350 and 450, allowing maximum flexibility
- › Unified control box, offering all existing W,X,Y,Z controls + new advanced Z control
- › Complete peace of mind as Daikin provides all required tools to ensure compliance to the IEC product standard
- › Extension of operation range of EKEA: Outside installation possible down to -25°C
- › Lower connection ratio limit for pair application





Astropure 2000, Air Purifier for Commercial Applications

Plug & play, mobile recirculation unit with high efficiency filtration – for better indoor air quality in commercial spaces

- › For areas where additional, extra high, filtration performance is needed.
- › Airflow rate up to 2,000 m³/h
- › HEPA H14 filter in accordance with EN1822
- › Pre-filter options up to ISO Coarse 70%
- › Insulated double-wall construction provides whisper-quiet operation down to 35 dB(A)
- › Easy installation, operation, and maintenance in a totally self-contained system
- › For commercial areas up to 200m²



Models

Model	BR00000554	BR00000749	BR00000676	BR00000751
Plug type	EU	UK	EU	UK
HEPA Filter (H14)		✓		✓
LCD Screen				✓
Activ. Carbon (Gas phase) pre-filter				✓

Applications



Schools and Universities



Commercial Buildings



Healthcare



Hospitality



Shops and Shopping malls

Providing high-efficiency 2-stage filtration

Standard prefilter

All units are delivered with a prefilter, increasing filter life and protecting the installed HEPA filter

RedPleat - 4531002424

- › Delivered with BR00000554/749
- › ISO 16890: ISO coarse 70%
- › Available with Antimicrobial treated media (RedPleat ULTRA)



RedPleat Carb - 4139002424

- › Delivered with BR00000676/751
- › ISO 16890: ISO coarse 65%
- › Effectively removes offensive odors



Main filter

The HEPA filter features eFRM filtration media which combines ultra-high efficiency and particulate loading to remove 99.99% of dust, pollen, mold, bacteria, viruses, and any airborne particle with a size of 0.3 microns or greater.

AstroCel III - 1493299990

- › H14 filtration efficiency according EN 1822
- › V-shaped filter configuration, combined with microglass media, delivers higher flow and the lowest possible pressure drop vs traditional box style HEPA filters
- › Compatible with Discrete Particle Counter (DPC) and photometric test methods as access and instrumentation allow



Astropure 2000, Air Purifier for Commercial Applications

Plug & play, mobile recirculation unit with high efficiency filtration – for better indoor air quality in commercial spaces

- › Airflow rate up to 2,000 m³/h
- › HEPA H14 filter in accordance with EN1822
- › Optional touch sensitive LCD Display (BR00000676/751)
- › Insulated double-wall construction provides whisper-quiet operation
- › Activated carbon filter
- › Sliding tray design provides easy access and servicing of filters
- › Designed with internal variable fan speed (electronically commutated) to meet specific application requirements
- › Suitable for in-room use or sheltered outdoor installation
- › CE-compliance, VDI 6022 guided design



More details and final information can be found by scanning or clicking the QR codes.



BR00000554



BR00000676

Ventilation				BR00000554	BR00000749	BR00000676	BR00000751
Features	Plug type			EU	UK	EU	UK
	HEPA Filter (H14)			✓		✓	
	LCD Screen					✓	
	Activ. Carbon (Gas phase) pre-filter					✓	
Design air flow rate			m³/h	2,000			
Application				Floor standing type			
Casing	Colour			Painted galvanized steel finish			
Dimensions	Unit	HxWxD	mm	1,628x720x770			
Weight	Unit	kg		150 (depending on version)			
Pre-filter	Dust collecting method			Prefilter RedPleat, ISO Coarse 70%		Prefilter RedPleat Carb, ISO Coarse 65% gas phase filter	
HEPA filter	Bacteria filtering method			Astrocel III HEPA H14			
Air purifying operation	Power input	High fan speed	kW	0.379			
Sound pressure level	Air purifying operation	High fan speed	dBA	55.9			
Fan Motor				Stepless adjustable			
Safety devices	Item			Safety switch (operation stops when the back door is open)			
Standard Accessories	Prefilter			1			
	HEPA filter			1			
	Quick Start and Maintenance Guide			1			
Installation and Operation Manual			1 (download)				
Power cord			m	3			
Power supply	Phase			1~			
	Frequency			50/60			
	Voltage			230			
Running current	Air purifying operation	High fan speed	A	1.73			

Options - Ventilation

		Heat Recovery Ventilation - Modular T (Smart)					Heat Recovery Ventilation - Modular L (Smart)			
		ATB03RAS/LAS	ATB04RAS/LAS	SB.ATB05RAS/LAS	SB.ATB06RAS/LAS	SB.ATB07RAS/LAS	ALB02LBS/RBS	ALB03LBS/RBS	ALB04,05LBS/RBS	ALB06,07LBS/RBS
Individual control systems	BRC301B61 VAM wired remote control	•	•	•	•	•	•	•	•	•
	Madoka BRC1H52W (White) / BRC1H52S (Silver) / BRC1H52K (Black) User-friendly wired remote controller with premium design	•	•	•	•	•	•	•	•	•
	BRC1E53A/B/C Wired remote control with full-text interface and back-light	•	•	•	•	•	•	•	•	•
	BRC1D52 Standard wired remote control with weekly timer	•	•	•	•	•	•	•	•	•
Centralised control systems	DCC601A51 intelligent Tablet Controller	•	•	•	•	•	•	•	•	•
	DCS601C51 intelligent Touch Controller	•	•	•	•	•	•	•	•	•
	DCS302C51 Central remote control	•	•	•	•	•	•	•	•	•
	DCS301B51 Unified ON/OFF control	•	•	•	•	•	•	•	•	•
Building Management System & Standard protocol interface	DCM601A51 intelligent Touch Manager	•	•	•	•	•	•	•	•	•
	EKMBDXB Modbus interface	•	•	•	•	•	•	•	•	•
	DMS502A51 BACnet Interface	•	•	•	•	•	•	•	•	•
	DMS504B51 LonWorks Interface	•	•	•	•	•	•	•	•	•
Filters	Coarse 55% (G4)	ATF03G4A	ATF04G4A	ATF05G4A	ATF06G4A	ATF07G4A	ALF02G4A	ALF03G4A	ALF05G4A	ALF07G4A
	ePM10 75% (M5)	ATF03M5A	ATF04M5A	ATF05M5A	ATF06M5A	ATF07M5A	ALF02M5A	ALF03M5A	ALF05M5A	ALF07M5A
	ePM10 70% (M6)									
	ePM1 50% (F7)	ATF03F7A	ATF04F7A	ATF05F7A	ATF06F7A	ATF07F7A	ALF02F7A	ALF03F7A	ALF05F7A	ALF07F7A
	ePM1 60% (F7)									
	ePM ₁ 70% (F8)									
	ePM1 80% (F9)	ATF03F9A	ATF04F9A	ATF05F9A	ATF06F9A	ATF07F9A	ALF02F9A	ALF03F9A	ALF05F9A	ALF07F9A
	High efficiency filter									
	Replacement air filter									
Mechanical accessories	Rail						ALA02RLA	ALA03RLA	ALA05RLA	ALA07RLA
	Rectangular to round duct transition						ALA02RCA	ALA03RC	ALA05RCA	ALA07RCA
	Separate plenum									
CO ₂ sensor		BRYMA200	BRYMA200	BRYMA200	BRYMA200	BRYMA200	BRYMA200	BRYMA200	BRYMA200	BRYMA200
Electrical heater for pre treatment of fresh air		ATD03HEFBU	ATD04HEFBU	ATD05HEFBU	ATD06HEFBU	ATD07HEFBU	ALD02HEFB	ALD03HEFB	ALD05HEFB	ALD07HEFB
DX coil for post treatment of fresh air										
Silencer (900mm depth)		ATA0360A	ATA0460A	ATA0560A	ATA0660A	ATA0760A	ALS0290A	ALS0390A	ALS0590A	ALS0790A
Electrical accessories	Wiring adapter for external monitoring/ control (controls 1 entire system)									
	Adapter PCB for humidifier									
	Adapter PCB for third party heater									
	External wired temperature sensor									
	Adapter PCB Mounting plate									
	Installation box for adaptor PCB									

Notes

- (1) Do not connect the system to DIII-net devices LONWorks interface, BACnet interface, ...; (intelligent Touch Manager, EKMBDXA are allowed)
- (2) Installation box needed
- (3) Adapter PCB mounting plate needed, applicable model can be found in the table above
- (4) 3rd party heater and 3rd party humidifier cannot be combined
- (5) Contains 1 plenum and can be used for half side of the unit (up to 4 plenums can be used on 1 unit)
- (6) Available only with optional plenum

Energy recovery ventilation - VAM									Energy recovery ventilation VKM			Air handling unit applications		
VAM 150FC9	VAM 250FC9	VAM 350J8	VAM 500J8	VAM 650J8	VAM 800J8	VAM 1000J8	VAM 1500J8	VAM 2000J8	VKM 50GBM	VKM 80GBM	VKM 100GBM	EKEQFCBA (1)	EKEQDCB (1)	EKEQMCBA (1)
•	•	•	•	•	•	•	•	•						
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•	•	•	•	•	•	•	•	•	•	•	•			
		EKAFVJ50F6	EKAFVJ50F6	EKAFVJ65F6	EKAFVJ100F6	EKAFVJ100F6	EKAFVJ100F6 x2	EKAFVJ100F6 x2						
		EKAFVJ50F7	EKAFVJ50F7	EKAFVJ65F7	EKAFVJ100F7	EKAFVJ100F7	EKAFVJ100F7 x2	EKAFVJ100F7 x2						
		EKAFVJ50F8	EKAFVJ50F8	EKAFVJ65F8	EKAFVJ100F8	EKAFVJ100F8	EKAFVJ100F8 x2	EKAFVJ100F8 x2						
									KAF242H80M	KAF242H100M	KAF242H100M			
									KAF241H80M	KAF241H100M	KAF241H100M			
							EKPLEN200 (5)	EKPLEN200 (5)						
		BRYMA65	BRYMA65	BRYMA65	BRYMA100	BRYMA100	BRYMA200	BRYMA200	BRYMA65	BRYMA100	BRYMA100			
GSIEKA10009	GSIEKA15018	GSIEKA20024	GSIEKA20024	GSIEKA25030	GSIEKA25030	GSIEKA25030	GSIEKA35530 (6)		GSIEKA20024 (8)	GSIEKA20024 (8)	GSIEKA20024 (8)			
			EKVDX32A	EKVDX50A	EKVDX50A	EKVDX80A	EKVDX100A	EKVDX100A						
KRP2A51 (2)	KRP2A51 (2)	KRP2A51 (2)	KRP2A51 (2)	KRP2A51 (2)	KRP2A51 (2)	KRP2A51 (2)	KRP2A51 (2)	KRP2A51 (2)	BRP4A50A (4)	BRP4A50A (4)	BRP4A50A (4)			
									BRP4A50A (4)	BRP4A50A (4)	BRP4A50A (4)			
BRP4A50A	BRP4A50A	BRP4A50A (4)	BRP4A50A (4)	BRP4A50A (3/4)	BRP4A50A (4)	BRP4A50A (4)	BRP4A50A (3/4)	BRP4A50A (3/4)	BRP4A50A (4)	BRP4A50A (4)	BRP4A50A (4)			
													KRCS01-1	
EKMP25VAM	EKMP25VAM			EKMP65VAM			EKMPVAM							
KRP1BB101	KRP1BB101	KRP1BB101	KRP1BB101	KRP1BB101	KRP1BB101	KRP1BB101	KRP1BB101	KRP1BB101						