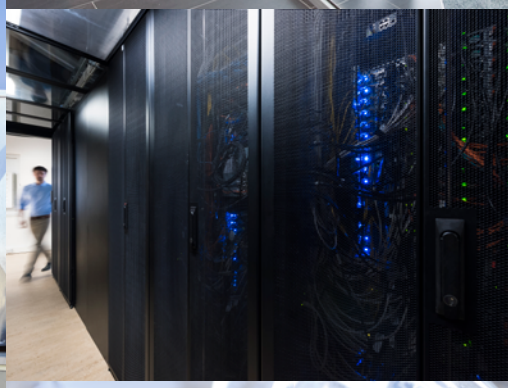
DAIKIN

Ventilation

Product catalogue 2023 for professionals

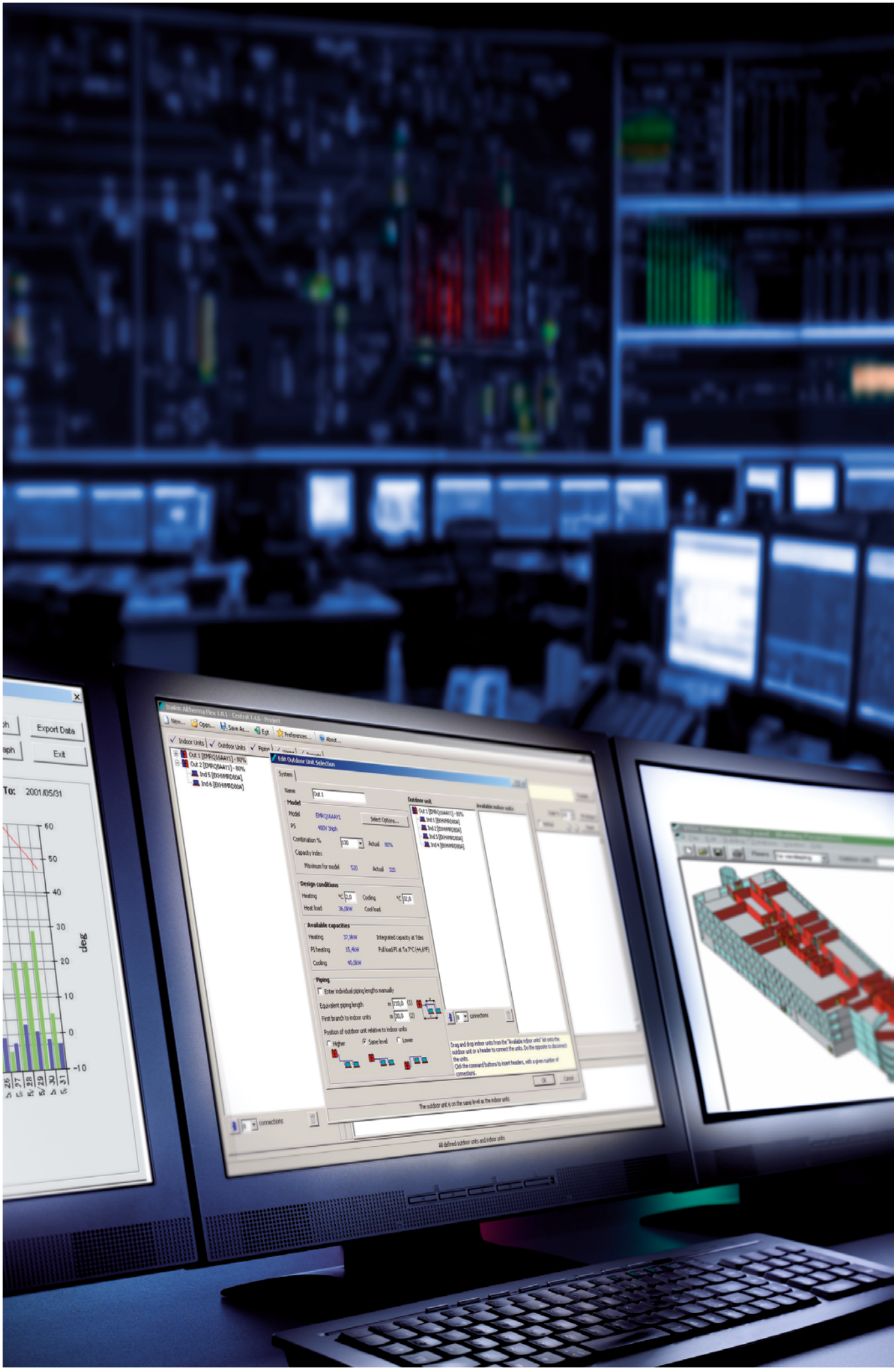




INTERACTIVE pdf

Fresh air for the commercial sector
Heat recovery ventilation and air handling applications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Edit Outdoor Unit Selection
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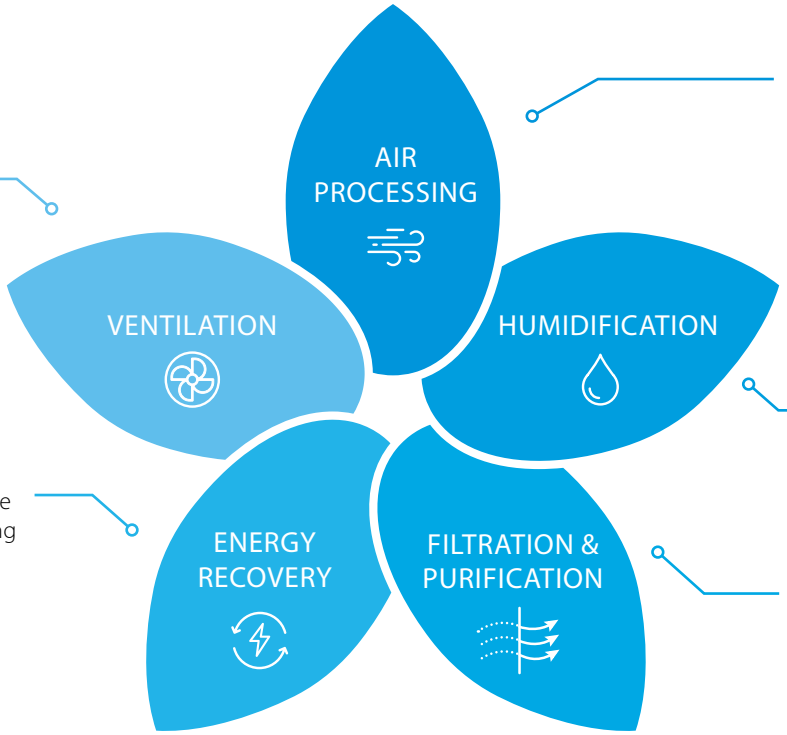
Why Indoor Air Quality?

- Indoor Air Quality (IAQ) is a measure of the air quality indoors, as breathed in by the building's occupants.
- New residential buildings, schools, offices or light commercial buildings often neglect indoor air quality.
- Because of pollutants, such as pollen, bacteria and others, the indoor air quality can be 2 to 5 times worse than outdoors.
- Since 90% of our lives is spent indoors, it is crucial to invest in good air quality.

5 components for ensuring good Indoor Air Quality



Delivers the required conditioned air to **optimise the energy efficiency** of indoor HVAC equipment

Ensures the provision of fresh and clean outdoor air and **removes contaminated air**

Ensures the **desired moisture level** in the conditioned space

Delivers **energy savings** by transferring heat and moisture between airflows, thus helping to condition the supply air to the required indoor temperature and humidity levels

Ensures **clean and healthy air** by filtering out pollen, dust, odours and other contaminants that are harmful to our health

Ventilation

Ventilation systems ensure **optimal climate conditions** by providing a **fresh, healthy and comfortable** environment for buildings of all sizes and applications. When a room is enclosed, air cannot easily enter or leave, allowing airborne pollutants to remain and accumulate within the space. This concentration could have an impact on the health of the room's occupants. **Ventilation is essential for diluting and removing these pollutants.**

A **well-maintained ventilation system** and **adequate air-exchange rate** have been demonstrated to be an effective solution to **protect people** from contaminants, including viruses.

Products overview

150 | 500 | 1,000 | 2,000 | 2,500 | 3,000 | 3,500 | 4,000 | 15,000 | 25,000 | 140,000 [m³/h]

Decentralised systems

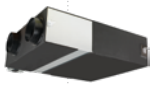
NEW

- Superior IAQ level: up to three stage filtration on supply side
- DX coil integration for a unique Daikin fresh air package
- Plug&Play control solution, for a quick and easy start-up

MODULAR T 200 m³/h up to 4,200 m³/h

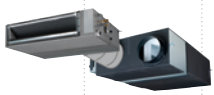
- High efficiency counterflow heat exchanger
- VDI 6022 Certified
- Compact design for false ceiling installation

MODULAR L 150 m³/h up to 3,400 m³/h



- Compact size
- High energy efficient paper recovering sensible and latent heat
- EC fan motors
- Filter clogging alarm based on pressure

VAM-FC9 / VAM-J 150 m³/h up to 2,000 m³/h



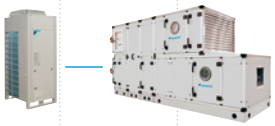
- DX coil for post-treatment of fresh air
- Split up concept increases application flexibility
- Integrates both in R-32 and R-410A VRV systems

VAM + DX COIL 500 m³/h up to 2,000 m³/h

- With DX coil for post-treated fresh air
- Increased comfort
- Humidifier option

VKM-GBM 500 m³/h up to 1,000 m³/h

Centralised systems



- Fully customizable
- Daikin Digital Plug & Play Control as option
- With DX or water coil option

D-AHU PROFESSIONAL 750 m3/h up to 144,000 m3/h

- High efficiency aluminium plate heat exchanger
- Pre-configured sizes
- Plug & Play pre-configured controls
- With DX or water coil option

D-AHU MODULAR P 500 m³/h up to 25,000 m³/h

- Rotary heat exchanger (sorption and sensible technology)
- Pre-configured sizes
- Plug & Play pre-configured controls
- With DX or water coil option

D-AHU MODULAR R 500 m³/h up to 25,000 m³/h

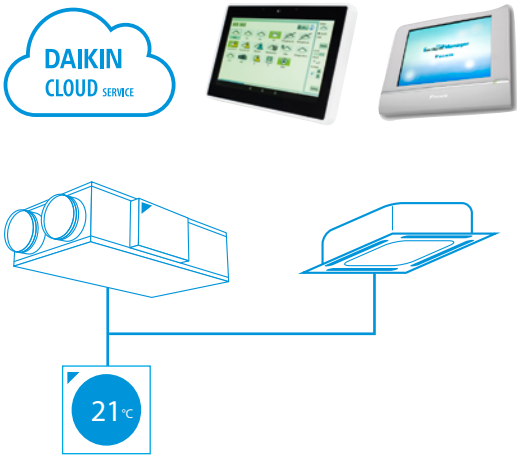
5 reasons why Daikin's ventilation range is unique in the market

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

DESIGN AWARD 2018

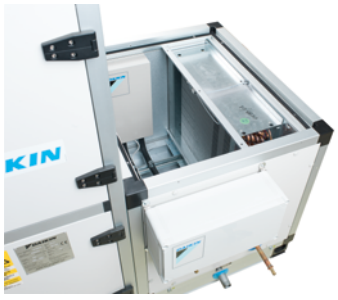
reddot award 2018
winner

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 T 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 ePM_1 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

ErP COMPLIANT

Did you know?

CO_2 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 / Modular T) or **total (sensible + latent) energy** (VAM/EKVDX/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.

Modular T

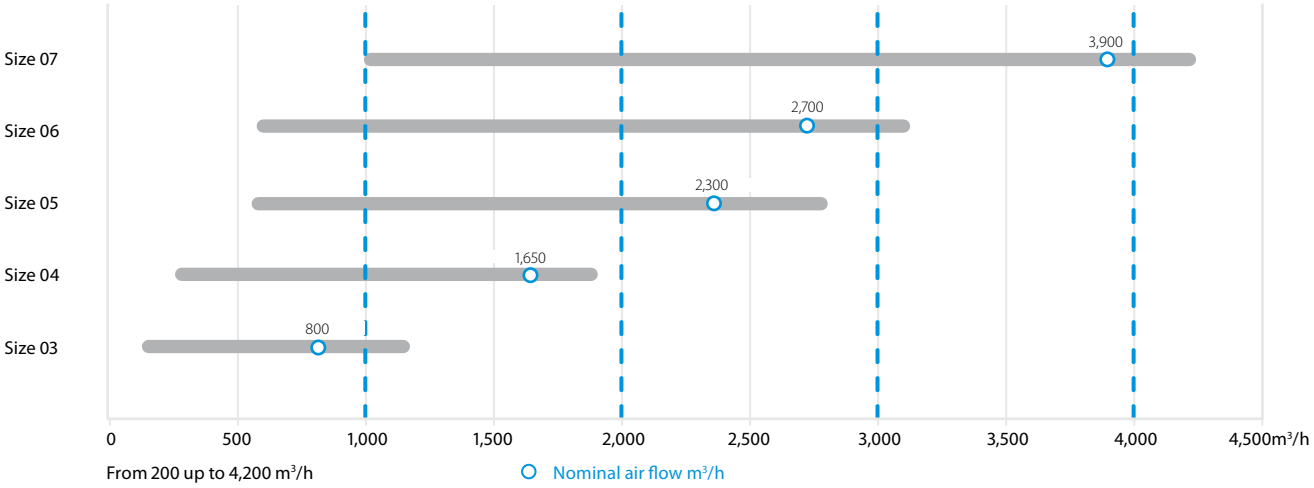
Top connected heat recovery unit

Modular T

Highlights

› 5 Predefined sizes
› Plug & Play control solution
› Compact unit from 550 mm width (for unit up to 1,100 m³/h)
› Wide air flow coverage from 200 to 4,200 m³/h
› Right and left configuration
› Pro (open control platform) and Smart (Daikin control platform) version
› Excellent indoor air quality (IAQ). Up to three filtration stages: more than 90% PM1 in outdoor air are deleted achieving the best IAQ
› DX and water coil available as option
› Recirculation mixing damper (option)
› › BIM file available at www.daikin.eu/BIM

Air flow range



Technical details

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

Modular T

Modular T			ATB03*A*	ATB04*A*	ATB05*A*	ATB06*A*	ATB07*A*
Size[1]			03	04	05	06	07
Airflow		m³/h	800	1,650	2,300	2,700	3,900
Heat exchanger 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[5]		kW/m³/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	790	790	890
	Heigth	mm³	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

Modular L

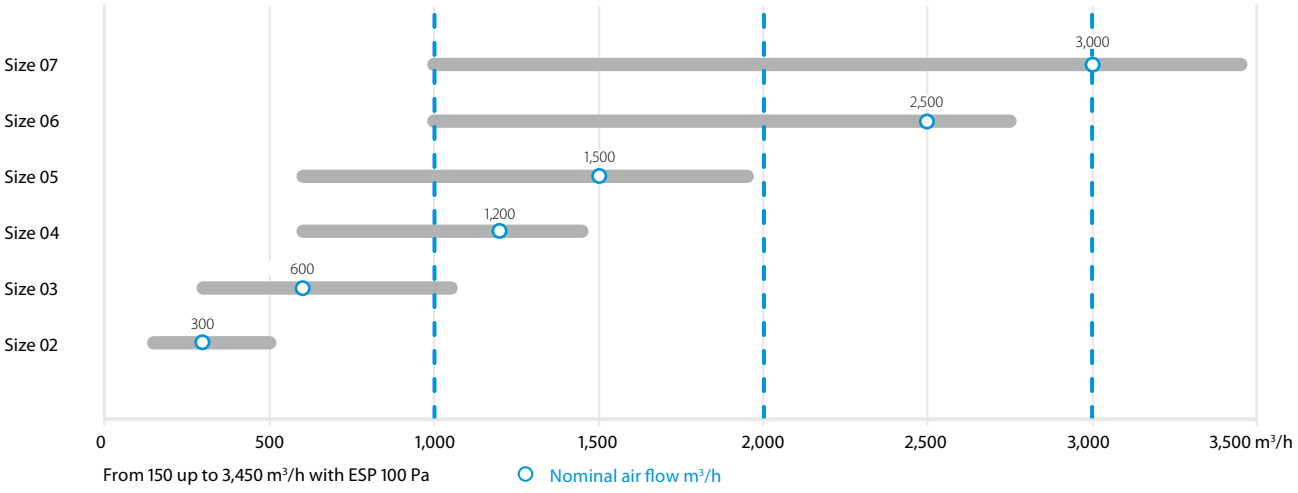
False ceiling heat recovery unit

Highlights

- 6 Predefined sizes
- Plug & Play control solution
- Compact unit from 280 mm height (for air flow up to 550 m³/h)
- Wide air flow coverage from 150 to 3,400 m³/h
- Right and left configuration
- Pro (open control platform) and Smart (Daikin control platform) version
- Excellent indoor air quality (IAQ). Up to ePM1 80% (F9) filtration level with possibility to have a prefilter up to ePM1 50% (F7) for the best IAQ
- VDI 6022 Certified
- BIM file available at www.daikin.eu/BIM

Modular L

Air flow range



Technical details

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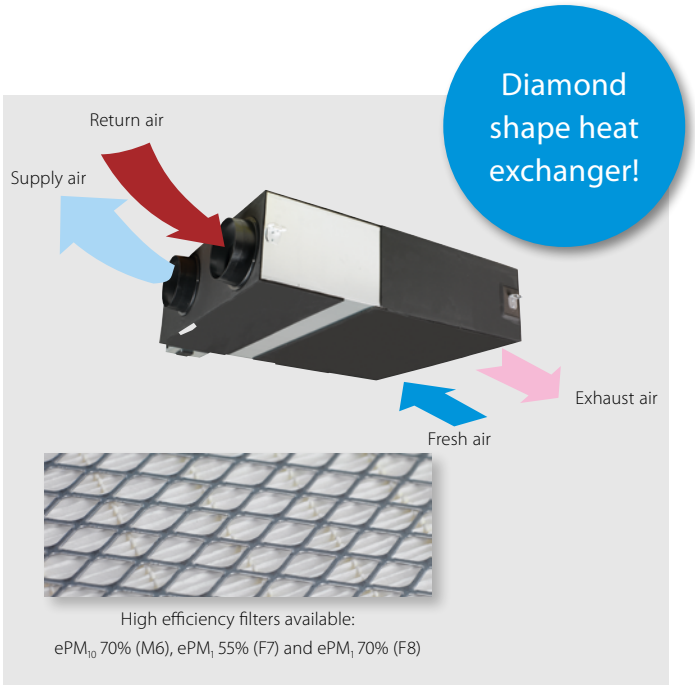
Modular L

Modular L			ALB02*B	ALB03*B	ALB04*B	ALB05*B	ALB06*B	ALB07*B
Airflow		m³/h	300	600	1,200	1,600	2,500	3,000
Heat exchanger thermal efficiency[1].		%	90		91	90	91	90
External static pressure	Nom.	Pa	100					
Current	Nom.	A	0.61	1.39	2.26	2.87	5.17	6.26
Power input	Nom.	kW	0.14	0.32	0.52	0.66	1.19	1.44
SFPv[2].		kW/m³/s	1.27	1.55	1.32	1.38	1.49	1.54
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: -10°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.
3. Electrical current is based on 230V | 4. All data in the table refer to Modular L Pro. For Modular L Smart can be different. Please refer to Databook or Astra selection software for more details.

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 CO_2 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 m^3/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 CO_2 concentration when combining VAM-J8 with optional BRYMA CO_2 sensor and Madoka remote controller (with or without EKVDX)

ErP COMPLIANT

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	m^3/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	m^3/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		Multidirectional fibrous fleeces (G3)						
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	-		0°C~40°CDB, 80% RH or less						
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/(m^2.a)	-56.0 (5)	-60.5 (5)	-						
	Average climate			kWh/(m^2.a)	-22.1 (5)	-27.0 (5)	-						
	Warm climate			kWh/(m^2.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			m^3/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.

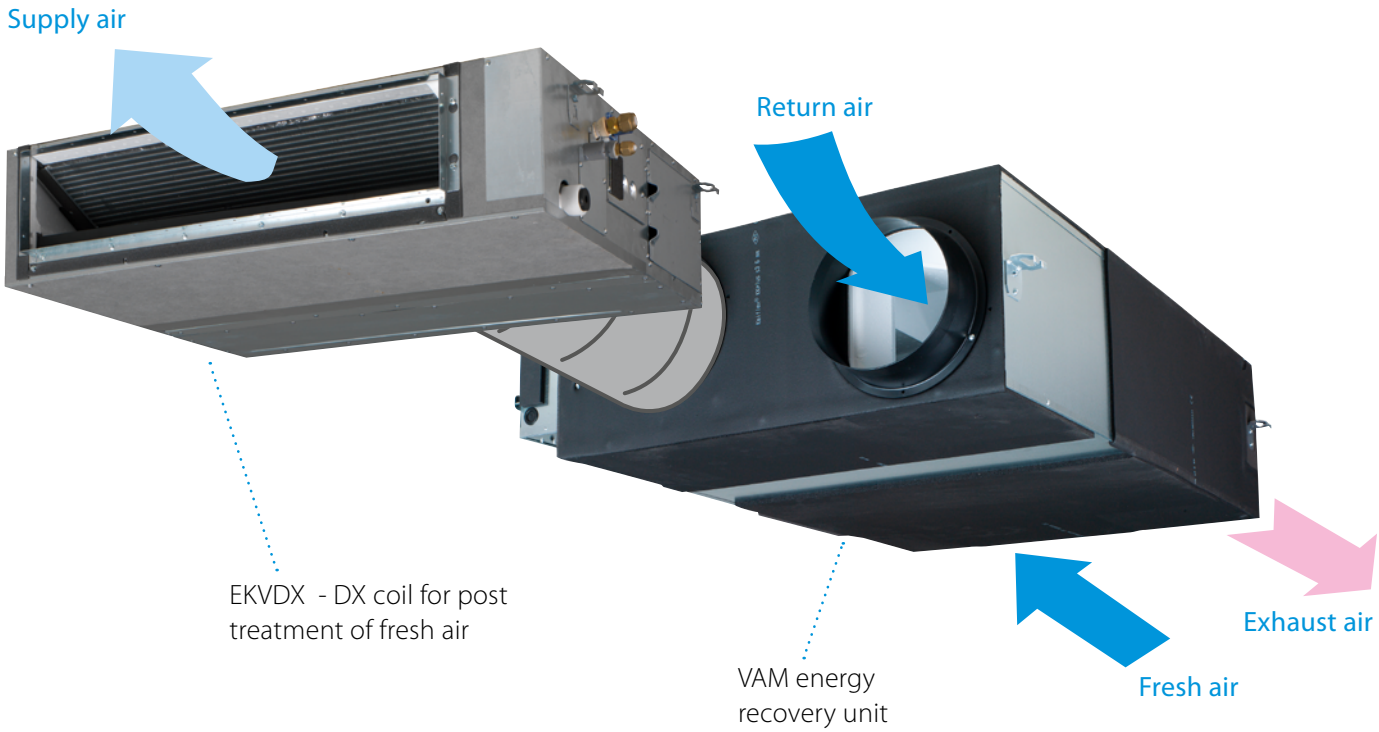
GSIEKA

		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				
		m^3/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				
		ON	problem with duct temperature sensor, set point potentiometer or PTC airflow sensor				
	LED 2	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

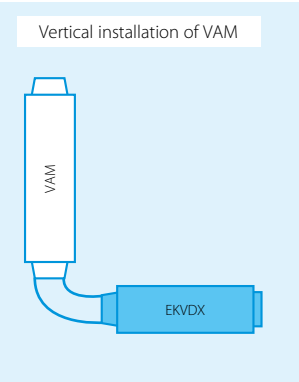
DX coil for post treatment of fresh air

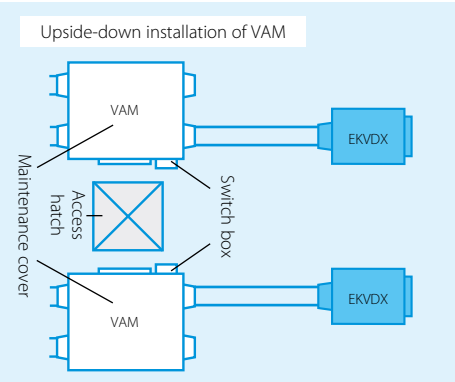


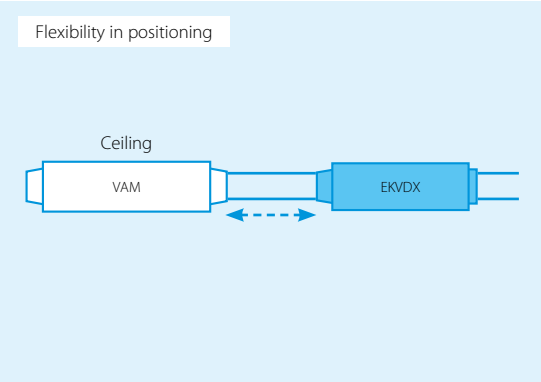
› Creates a high quality indoor environment by pre conditioning of incoming fresh air

› Maximum installation flexibility thanks to separate DX coil

• Different installation possibilities to suit the application







› Fresh air flows from 500 up to 2,000 m^3/h

› High ESP up to 150 Pa

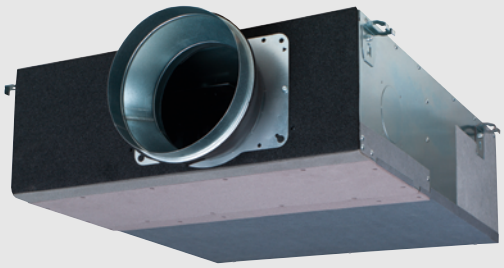
› Can be integrated in both R-32/R-410A VRV systems

› 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 m^3/h
- High ESP up to 150 Pa
- Can be integrated in both R-32/R-410A VRV systems



EKVDX50A

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 temperature	Cooling	Max.	°CDB	35			
		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			Hz	50/60			
	Voltage			V	220-240/220			

					EKVDX32A + VAM500J8	EKVDX50A + VAM650J8	EKVDX50A + VAM800J8	EKVDX80A + 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
	DX coil		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
	DX coil		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	2,000
			High	m^3/h	425	550	680	850	1,275	1,700
		Bypass mode	Ultra high	m^3/h	500	650	800	1,000	1,500	2,000
			High	m^3/h	425	550	680	850	1,275	1,700
	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
		High		Pa	39.0	33.9	19.4	21.4	35.1	11.9
Sound pressure level - 50Hz	Cooling		Ultra high	dBA	32	34	35.5	40.5	38.5	43.5
			High	dBA	30.5	32	34	38	37	40
	Heating		Ultra high	dBA	32.5	34.5	36	40.5	39	44
			High	dBA	31.5	32	34	38.5	37	40.5
Current	Maximum fuse amps (MFA)			A	6	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 CO_2 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

VKM80-100GBM

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	System				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		m^3/h	500/500/440	750/750/640	950/950/820
	Bypass mode	Ultra high/High/Low		m^3/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		

Options - Ventilation

		Energy recovery ventilation - VAM								
		VAM 150FC9	**VAM 250FC9**	**VAM 350J8**	**VAM 500J8**	**VAM 650J8**	**VAM 800J8**	**VAM 1000J8**	**VAM 1500J8**	**VAM 2000J8**
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)									
	ePM10 75% (M5)									
	ePM10 70% (M6)			EKAFVJ50F6	EKAFVJ50F6	EKAFVJ65F6	EKAFVJ100F6	EKAFVJ100F6	EKAFVJ100F6 x2	EKAFVJ100F6 x2
	ePM1 50% (F7)									
	ePM1 60% (F7)			EKAFVJ50F7	EKAFVJ50F7	EKAFVJ65F7	EKAFVJ100F7	EKAFVJ100F7	EKAFVJ100F7 x2	EKAFVJ100F7 x2
	ePM_1 70% (F8)			EKAFVJ50F8	EKAFVJ50F8	EKAFVJ65F8	EKAFVJ100F8	EKAFVJ100F8	EKAFVJ100F8 x2	EKAFVJ100F8 x2
	ePM1 80% (F9)									
	High efficiency filter									
	Replacement air filter									
Mechanical accessories	Rail									
	Rectangular to round duct transition									
	Separate plenum								EKPLEN200 (5)	EKPLEN200 (5)
CO_2 sensor				BRYMA65	BRYMA65	BRYMA65	BRYMA100	BRYMA100	BRYMA200	BRYMA200
Electrical heater for pre treatment of fresh air		GSIEKA10009	GSIEKA15018	GSIEKA20024	GSIEKA20024	GSIEKA25030	GSIEKA25030	GSIEKA25030	GSIEKA35530 (6)	
DX coil for post treatment of fresh air					EKVDX32A	EKVDX50A	EKVDX50A	EKVDX80A	EKVDX100A	EKVDX100A
Silencer (900mm depth)										
Electrical accessories	Wiring adapter for external monitoring/ control (controls 1 entire system)	KRP2A51 (2)	KRP2A51 (2)	KRP2A51 (2)	KRP2A51 (2)	KRP2A51 (2)	KRP2A51 (2)	KRP2A51 (2)	KRP2A51 (2)	KRP2A51 (2)
	Adapter PCB for humidifier									
	Adapter PCB for third party heater	BRP4A50A	BRP4A50A	BRP4A50A (4)	BRP4A50A (4)	BRP4A50A (3/4)	BRP4A50A (4)	BRP4A50A (4)	BRP4A50A (3/4)	BRP4A50A (3/4)
	External wired temperature sensor									
	Adapter PCB Mounting plate	EKMP25VAM	EKMP25VAM			EKMP65VAM			EKMPVAM	
	Installation box for adaptor PCB	KRP1BB101	KRP1BB101	KRP1BB101	KRP1BB101	KRP1BB101	KRP1BB101	KRP1BB101	KRP1BB101	KRP1BB101

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 VKM			Air handling unit applications		
VKM 50GBM	**VKM 80GBM**	**VKM 100GBM**	**EKEQFCBA (1)**	**EKEQDCB (1)**	**EKEQMCBA (1)**
•	•	•	•	•	•
•	•	•	•	•	•
•	•	•	•	•	•
•	•	•	•	•	•
•	•	•	•	•	•
•	•	•			
•	•	•			
•	•	•	•	•	•
•	•	•	•	•	•
•	•	•			
•	•	•			
KAF242H80M	KAF242H100M	KAF242H100M			
KAF241H80M	KAF241H100M	KAF241H100M			
BRYMA65	BRYMA100	BRYMA100			
GSIEKA20024 (8)	GSIEKA20024 (8)	GSIEKA20024 (8)			
BRP4A50A (4)	BRP4A50A (4)	BRP4A50A (4)			
BRP4A50A (4)	BRP4A50A (4)	BRP4A50A (4)			
BRP4A50A (4)	BRP4A50A (4)	BRP4A50A (4)			
				KRCS01-1	

Options - Ventilation

Accessories	Modular L Pro						Modular T Pro				
	ALB02LB ALB02RB	**ALB03LB ALB03RB**	**ALB04LB ALB04RB**	**ALB05LB ALB05RB**	**ALB06LB ALB06RB**	**ALB07LB ALB07RB**	**ATB03RA ATB03LA**	**ATB04RA ATB04LA**	**ATB05RA ATB05LA**	**ATB06RA ATB06LA**	**ATB07RA ATB07LA**
Iso Coarse 55% (G4) Filter	ALF02G4A	ALF03G4A	ALF05G4A		ALF07G4A		ATF03G4A	ATF04G4A	ATF05G4A	ATF06G4A	ATF07G4A
ePM10 75% (M5) Filter	ALF02M5A	ALF03M5A	ALF05M5A		ALF07M5A		ATF03M5A	ATF04M5A	ATF05M5A	ATF06M5A	ATF07M5A
ePM1 50% (F7) Filter	ALF02F7A	ALF03F7A	ALF05F7A		ALF07F7A		ATF03F7A	ATF04F7A	ATF05F7A	ATF06F7A	ATF07F7A
ePM1 80% (F9) Filter	ALF02F9A	ALF03F9A	ALF05F9A		ALF07F9A		ATF03F9A	ATF04F9A	ATF05F9A	ATF06F9A	ATF07F9A
Sound attenuator	ALS0290A	ALS0390A	ALS0590A		ALS0790A		ATS0360A	ATS0460A	ATS0560A	ATS0660A	ATS0760A
Rails for door	ALA02RLA	ALA03RLA	ALA05RLA		ALA07RLA						
Duct transition	ALA02RCA	ALA03RCA	ALA05RCA		ALA07RCA						
Mixing damper							ATA03MDA	ATA04MDA	ATA05MDA	ATA06MDA	ATA07MDA
External damper							ATA03EDA	ATA04EDA	ATA05EDA	ATA06EDA	ATA07EDA
Electric pre heater [1]	ALD02HEFA	ALD03HEFA	ALD05HEFA		ALD07HEFA		ATD03HEFAU	ATD04HEFAU	ATD05HEFAU	ATD06HEFAU	ATD07HEFAU
Electric post heater [1]	ALD02HESA	ALD03HESA	ALD05HESA		ALD07HESA		ATD03HESAU	ATD04HESAU	ATD05HESAU	ATD06HESAU	ATD07HESAU
DX coil [2]							ATD03UDSAR	ATD04UDSAR	ATD05UDSAR	ATD06UDSAR	ATD07UDSAR
							ATD03UDSAL	ATD04UDSAL	ATD05UDSAL	ATD06UDSAL	ATD07UDSAL
WATER coil [2]	ALD02CWSA	ALD03CWSA	ALD05CWSA		ALD07CWSA		ATD03UWSAR	ATD04UWSAR	ATD05UWSAR	ATD06UWSAR	ATD07UWSAR
							ATD03UWSAL	ATD04UWSAL	ATD05UWSAL	ATD06UWSAL	ATD07UWSAL
Water pre heating coil	ALD02HWUA	ALD03HWUA	ALD05HWUA		ALD07HWUA		ATD03HWFAU	ATD04HWFAU	ATD05HWFAU	ATD06HWFAU	ATD07HWFAU
Water post heating coil [2]	ALD02HWUA	ALD03HWUA	ALD05HWUA		ALD07HWUA		ATD03HWSAR	ATD04HWSAR	ATD05HWSAR	ATD06HWSAR	ATD07HWSAR
							ATD03HWSAL	ATD04HWSAL	ATD05HWSAL	ATD06HWSAL	ATD07HWSAL
Water valve 2 way cooling	ALV02CW2A	ALV03CW2A	ALV05CW2A		ALV07CW2A		ATV03CW2A	ATV04CW2A	ATV05CW2A	ATV06CW2A	ATV07CW2A
Water valve 2 way heating	ALV02HW2A	ALV03HW2A	ALV05HW2A		ALV07HW2A		ATV03HW2A	ATV04HW2A	ATV05HW2A	ATV06HW2A	ATV07HW2A
Water valve 3 way cooling	ALV02CW3A	ALV03CW3A	ALV05CW3A		ALV07CW3A		ATV03CW3A	ATV04CW3A	ATV05CW3A	ATV06CW3A	ATV07CW3A
Water valve 3 way heating	ALV02HW3A	ALV03HW3A	ALV05HW3A		ALV07HW3A		ATV03HW3A	ATV04HW3A	ATV05HW3A	ATV06HW3A	ATV07HW3A
Valve modulating actuator	ALE00AMVA						ATE00AMVA				
Damper modulating actuator							ATE00AMDA				
Digital PCB							ATE00DPUA				
Frost switch							ATE00FSUA				
CO_2 sensor	ALP00COA										
Humidity sensor	ALP00HUA										
Temperature probe	ALP00TEA										
Room Interface	ALC00822A (POL 822)										
Commissioning module	ALC00895A (POL 895)										
Modbus RTU module	ALC00902A (POL 902)										
Bacnet IP module	ALC00908A (POL 908)										
LonWorks Interface											
Intelligent Touch Manager											
Intelligent Tablet Controller											
Intelligent Touch Controller											
Central remote control											
Unified ON/OFF control											

Notes

(1) For modular T pro only, both electric heater can be used as pre and post heater

(2) For modular T pro only, sixth digit on main unit material name has to be aligned with last digit of the coil material name
ATB0***R**A --> ATD00*UDSA**R**
ATB0***L**A --> ATD00*UDSA**L**
ATB0***R**A --> ATD00*UWSA**R**
ATB0***L**A --> ATD00*UWSA**L**
ATB0***R**A --> ATD00*HWSA**R**
ATB0***L**A --> ATD00*HWSA**L**

(3) Please refer to the selection software for more details on accessories and their incompatibilities.

Modular L Smart						Modular T Smart				
ALB02LBS ALB02RBS	**ALB03LBS ALB03RBS**	**ALB04LBS ALB04RBS**	**ALB05LBS ALB05RBS**	**ALB06LBS ALB06RBS**	**ALB07LBS ALB07RBS**	**ATB03RAS ATB03LAS**	**ATB04RAS ATB04LAS**	**ATB05RAS ATB05LAS**	**ATB06RAS ATB06LAS**	**ATB07RAS ATB07LAS**
ALF02G4A	ALF03G4A	ALF05G4A		ALF07G4A		ATF03G4A	ATF04G4A	ATF05G4A	ATF06G4A	ATF07G4A
ALF02M5A	ALF03M5A	ALF05M5A		ALF07M5A		ATF03M5A	ATF04M5A	ATF05M5A	ATF06M5A	ATF07M5A
ALF02F7A	ALF03F7A	ALF05F7A		ALF07F7A		ATF03F7A	ATF04F7A	ATF05F7A	ATF06F7A	ATF07F7A
ALF02F9A	ALF03F9A	ALF05F9A		ALF07F9A		ATF03F9A	ATF04F9A	ATF05F9A	ATF06F9A	ATF07F9A
ALS0290A	ALS0390A	ALS0590A		ALS0790A		ATS0360A	ATS0460A	ATS0560A	ATS0660A	ATS0760A
ALA02RLA	ALA03RLA	ALA05RLA		ALA07RLA						
ALA02RCA	ALA03RCA	ALA05RCA		ALA07RCA						
ALD02HEFB	ALD03HEFB	ALD05HEFB		ALD07HEFB		ATD03HEFBU	ATD04HEFBU	ATD05HEFBU	ATD06HEFBU	ATD07HEFBU
BRYMA200										
BRC301B61 / BRC1H52W / BRC1H52S / BRC1H52K / BRC1E53A / BRC1E53B / BRC1E53C / BRC1D52										
EKMBDXB										
DMS502A51										
DMS504B51										
DCM601A51										
DCC6011A51										
DCC6011C51										
DCS302C51										
DCS301B51										

Daikin air handling units

Why choose Daikin air handling units?

› Maximum energy efficiency and indoor air quality
› Wide range of functions and options
› **High quality** components
› **Innovative** technology: Unique features and state of the art technology for short payback
› Operation **efficiency** and **energy savings**
› Outstanding **reliability** and **performance**
› Various applications are possible including air conditioning applications, industry-type process cooling, and large-scale district heat source systems
› Plug and play concept for easy installation and commissioning
› Unique Daikin fresh air package available for connection of AHU to VRV or ERQ

Certifications

› Eurovent certified performances
› Exceeding 2018 ErP – ECODESIGN requirements
› Certified according to the Hygiene Directive VDI 6022 (Modular L and Professional ranges)
› Certified according to the Hygiene Directive DIN 1946 (Professional range)
› RLT certified performances

The unique quality of Daikin AHU is accomplished by:

Panels
› The outer panel is Pre-painted with Corrosion Class RC5
› The inner panel is made of Aluzinc with Corrosion Class RC4

Gasket
› Liquid gasket technology drastically reduces unit air leakage

Frame
› All anodized aluminium which has the highest corrosion resistance compared to natural aluminium
› Unique Daikin thermal break (35 mm or 27 mm thermal break). Polyamide bars design to enhance thermal break unit performances
› Distinctive Section to section thermal break profile to ensure thermal break design on the whole unit
› Rounded profile for increased ease of cleaning

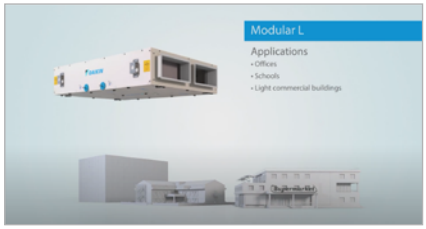
IAQ
› Flush internal surface and rounded corner flush surface to avoid the retention of dirt and to be easily cleanable
› Wide filtration possibility to reduce pollution

Plug & Play Controls
› Pre-commissioned and Factory-tested control for quicker on site commissioning
› Sole manufacturer to provide a complete AHU DX solution from a single manufacturer available for connection of AHU to VRV or ERQ (everything factory-mounted)

Marketing tools

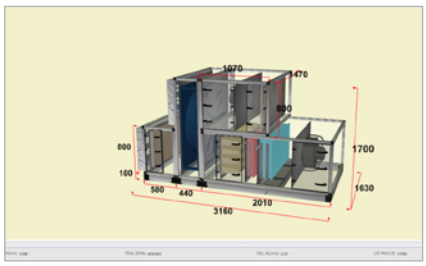
› Watch the time-lapse video of a Daikin AHU construction on www.youtube.com/daikineurope

› Watch the Modular L promotional video on www.youtube.com/daikineurope



› Download our brochure on air handling units from my.daikin.eu

› Get the access to the selection tool http://tools.daikinapplied.eu to select your air handling units in a few clicks.



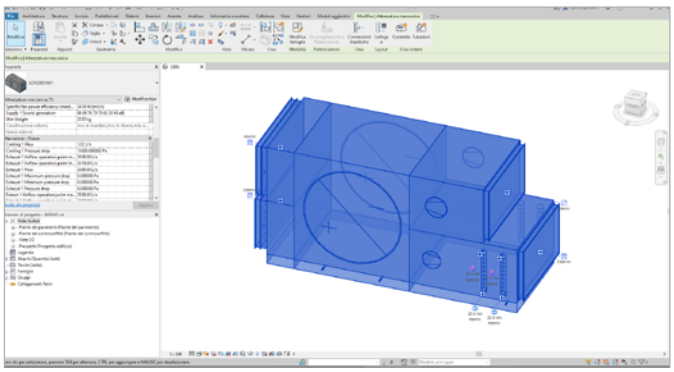
› Download the Modular L "Daikin Air Design" App on the App stores for iOS and Android

Available on the App Store | GET IT ON Google Play

› Consult the "Argue Card" document to support in promoting the Modular L range *(available on request – refer to your Daikin AHU specialist)*

BIM models

› Get the Modular L and T BIM models on bim.daikin.eu
› Get the BIM tool plugin for Revit for Professional and Modular R/P series



Benefits for the installer

Plug and play design
› Pre-programmed and factory-tested controls for an easier and fast commissioning
› Low voltage fast connectors between AHU sections
› Flush mounted or external electrical control panel

Daikin Fresh air package
› Plug & Play connection of Professional or Modular AHU to Daikin VRV and ERQ
› Factory-mounted package contains expansion valves, electronic interface and sensors

Benefits for the consultant

Quick selection tool
› In-house developed web software with improved user interface and preset parameters ensure that you can always find the optimum and most energy efficient product for your application
› Extremely flexible design
› Infinite variable sizes (increments of 1 cm)

BIM models
› Regardless if your AHU is standard or fully customized, BIM models are available and can be downloaded with just a few clicks

Benefits for the end user

Customized or standard
› Amazing tailor-made capability to meet the specific customer needs with the Professional range or fast availability thanks to the "make to stock" standard Modular L and T range

Efficient control logic
› Open communication protocols (BACnet and Modbus) that guarantee BMS, and iTM compatibility
› Energy efficient controls with reduced energy and operating cost
› Highest efficiency ensure savings on energy consumption costs

D-AHU MODULAR R INSTALLATION

SMART CONTROLS

DAMPER AND EC FAN

HEAT RECOVERY WHEEL AND FILTER

COMFORTABLE INDOOR CLIMATE

D-AHU MODULAR R

Pre configured unit with side connection and rotary heat exchanger (sensible or sorption)

D-AHU MODULAR P

Pre configured unit with side connection and aluminium counter flow plate heat exchanger

D-AHU PROFESSIONAL

Fully customize solution to meet all projects demand

Eurovent certification

Daikin Applied Europe S.p.A. participates in the Eurovent Certified Performance programme for Air Handling Units. Check ongoing validity of certificate: www.eurovent-certification.com or www.certiflash.com

Result Energy TermiC° S2&F2		Eurovent Classification according to EN1886				
D1	Casing strength class	D1	D2	D3		
	Max. relative deflection mm x m^{-1}	4.00	10.00	Exceeding10		
L1	Casing air leakage class at -400 Pa	L1	L2	L3		
	Max. leakage rate (f_{400}) l x s^{-1} x m^{-2}	0.15	0.44	1.32		
L1	Casing air leakage lass at +700 Pa	L1	L2	L3		
	Max. leakage rate (f_{700}) l x s^{-1} x m^{-2}	0.22	0.63	1.90		
ePM_1 80% (F9)	Filter bypass leakage class	ePM_1 80% (F9)	ePM_1 70% (F8)	ePM_1 50% (F7)	$ePM_{2,5}$ 50% (M6)	ISO Coarse
	Max. filter bypass leakage rate k in % of the volume flow rate	0.50	1	2	4	6
T2	Thermal transmittance	T1	T2	T3	T4	T5
	(U) W x m^{-2} x K^{-1}	U <= 0.5	0.5 < U <= 1	1 < U <= 1.4	1.4 < U <= 2	No requirements
TB2	Thermal bridging factor	TB1	TB2	TB3	TB4	TB5
	(kb)	0.75 < K_b <= 1	0.6 < K_b <= 0.75	0.45 < K_b <= 0.6	0.3 < K_b <= 0.45	No requirements

The working principle at a glance

Typical configurations for Daikin air handling units provide a versatile range of functions.
Our system offers numerous options for customisation through an extensive range of variations and added functionality.

Supply side

› › Damper section including ventilation grilles, factory-mounted actuators

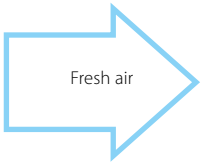
› › Premium efficiency filters with factory-mounted differencial pressure manometer

› › Heat recovery system (cross flow and counter flow plate heat exchanger or rotary heat exchanger)

› › Mixing box with damper and factory-mounted actuators

› › Heating/cooling coil section with stainless steel condensate tray and drip protection

› › Supply air fan, EC technology (with hinged door, opening drive monitoring, mounted and cabled lighting and ON/OFF switch)



Fans
› EC plug fan
› Forward curved fan
› Backward curved fan
› Backward airfoil blades fan
› Plug fan

Exchangers
› Water coils
› Steam coils
› Direct expansion coil
› Superheated water coils
› Electric coils

Humidifiers
› Evaporative humidifier without pump (loss water)
› Evaporative humidifier with re-circulating pump
› Steam humidifier with direct steam production
› Steam humidifier with local distributor
› Atomized water spray humidifier

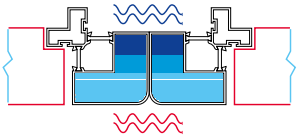
Plug and Play control solution

› Air flow control
› Air temperature control
› Chilled water and DX cooling system control
› Free cooling
› CO_2 automatic control
› Air temperature control (supply, return, ambient)
› Variable Air Volume (VAV) and Constant Air Volume (CAV) systems

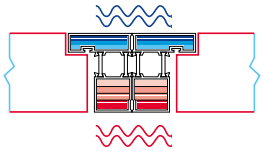
Unique section to section thermal break profile

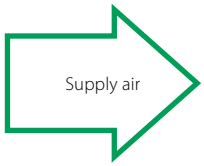
› Thermal bridge free for the entire AHU
› Smooth interior surface with improved IAQ (Indoor Air Quality)

Conventional design



Daikin design





Return side

› › Premium efficiency filters with factory-mounted differencial pressure manometer

› › Exhaust air fan, EC technology (with hinged door, opening drive monitoring, mounted and cabled lighting and ON/OFF switch)

› › Mixing box with damper and factory-mounted actuators

› › Heat recovery system (cross flow and counter flow plate heat exchanger or rotary heat exchanger)

› › Damper section including ventilation grilles, factory-mounted actuators

Heat recovery systems
› Heat wheel, sensible or sorption
› Cross flow and Counter flow plate heat exchangers
› Run-around coils

Other section
› Attenuator section
› Mixing box section with actuators or manual controlled dampers
› Empty section

Filters
› Synthetic pleated filter
› Flat filter aluminium mesh
› Rigid bag filter
› Soft bag filter
› High efficiency filter
› Carbon absorption filter
› Carbon deodorizing filter

Accessories
› Control features
› Frost protection
› Manometers
› Drive guard
› Roof
› …

Professional

Flexible solution for custom applications

Highlights

- Air flow from 750 m^3/h to 144,000 m^3/h, for all customer needs
- Indoor and outdoor versions
- Custom designed to facilitate the transport and the assembly on site
- Smooth interior surface with improved IAQ (Indoor Air Quality)
- DX cooling system integration (VRV IV and ERQ coupling capability)
- Daikin Digital Control compatible
- Different heat recovery systems: heat wheel (sensible, enthalpy or sorption), cross flow and counter flow plate heat exchangers, run-around coils
- Wide range of fans selectable: EC, AC plug, belt driven (forward curved, backward curved and backward airfoil blades)
- Heating/cooling coil section with stainless steel condensate tray and drip protection
- Different humidifiers available depending on customer needs
- Premium efficiency filters with factory mounted differential pressure manometer
- Profile in anodized aluminum with or without thermal break
- Base frame in Galvanized steel, Aluminium, Stainless Steel 430 or 316
- Panel insulation in polyurethane foam or mineral wool
- Different material options selectable for internal, external panel skin: Pre-coated, Aluzinc, Aluminum, Stainless Steel 304 or 316
- Wide range of accessories
- Possibility to import BIM objects in Autodesk® Revit, thanks to a dedicated free plug-in available for download

Daikin Digital Control

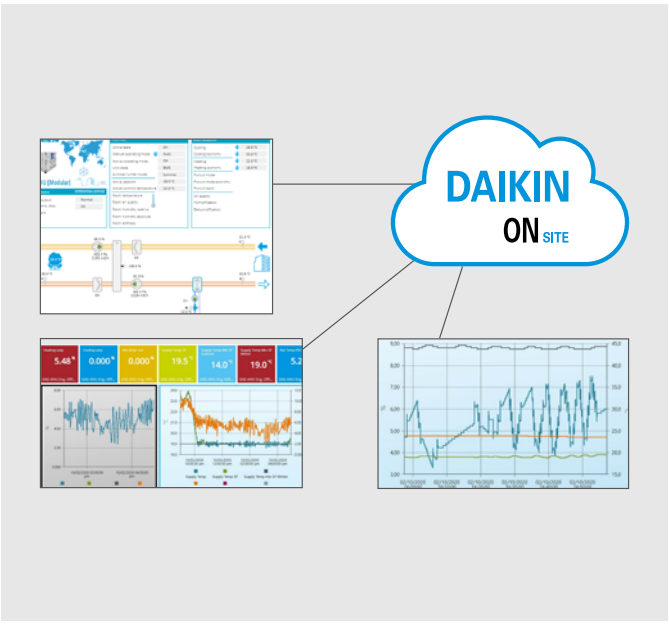
patented solution

Highlights

- Plug and play control system
- Free cooling/free heating management
- VRV direct expansion systems management
- Chilled water system control
- Eco and reduced night modes
- Up to 310 I/O (inputs/outputs)
- All components internally wired
- Fast connection between sections
- Programming schedule
- Indoor Air Quality (IAQ) controlled by CO_2 Probe
- Regulation logic: Temperature Supply, Return, Ambient
- Preloaded control parameters simplify the field commissioning
- Unit delivered tested and programmed in the factory ensuring high quality level
- Time and cost savings thanks to easy assembly on site
- Minimum maintenance required
- No involvement of external company or need of a third-party warranty thanks to integration of low and high voltage
- User friendly control interface
- Supervision and Control management local, remote options (Modbus, Bacnet)
- Maximum flexibility in selecting the product and control feature directly from selection software

Daikin On Site

The Daikin On Site platform offers different features and functions to monitor and control the unit.
The monitoring system makes available dashboards,remote access, scheduling, online graphics, diagnostics, software upgrade.



Modular P

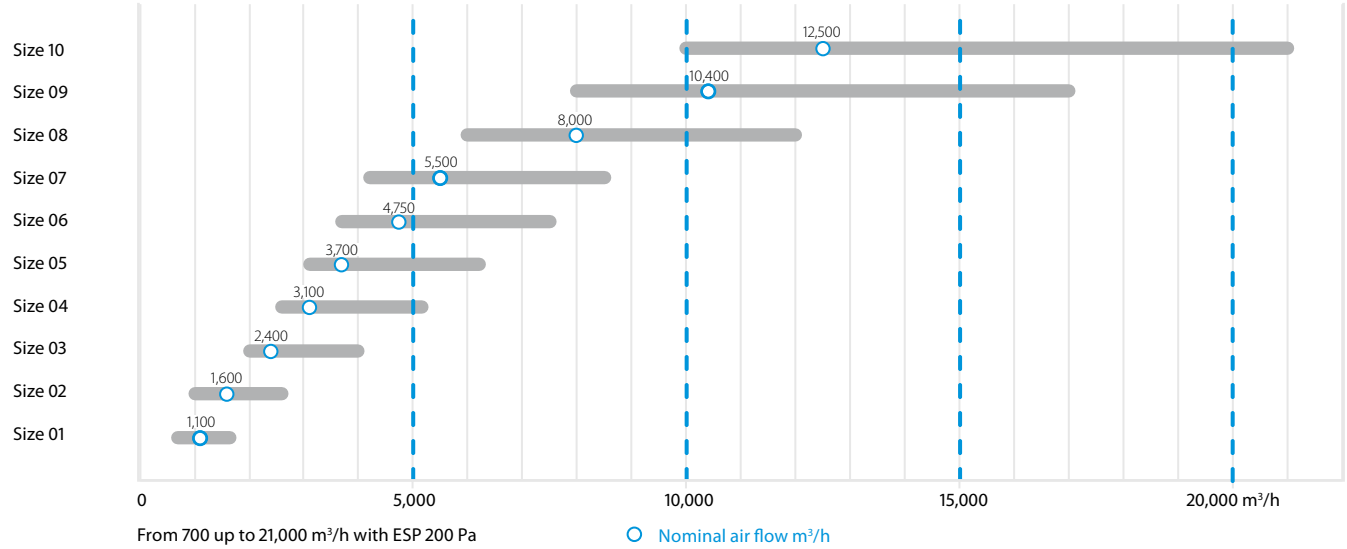
Side connected plate heat recovery air handling unit

Highlights

- 10 predefined sizes
- Airflow from 700 m³/h to 21,000 m³/h (ErP 2018)
- Counterflow plate heat recovery
- Compact design (only 720 mm depth)
- Indoor and outdoor versions
- Thermal bridge free for the entire AHU
- Smooth interior surface with improved IAQ (Indoor Air Quality)
- Indoor air quality compliant with VDI 6022 hygiene guideline
- Chilled water system control
- DX cooling system integration (VRV IV and ERQ coupling capability)
- Advanced control features
- Monitoring and control through Daikin iTM
- Nominal air flow programmed at factory
- Air flow or pressure control (Variable Air Volume - Constant Air Volume)
- Free cooling capability
- Economy and Night mode operation
- Possibility to import BIM objects in Autodesk® Revit, thanks to a dedicated free plug-in available for download

Modular P

Air flow range



From 700 up to 21,000 m³/h with ESP 200 Pa

○ Nominal air flow m³/h

Technical details

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

Modular P

Modular P			1	2	3	4	5	6	7	8	9	10
Airflow		m³/h	1,100	1,600	2,400	3,100	3,700	4,750	5,500	8,000	10,400	12,500
Heat exchanger thermal efficiency[1]		%	88.1	87	87.2	87.1		92.1		91.8	92.9	
External static pressure	Nom.	Pa	200									
Current[2]	Nom.	A	1.78	2.48	2.08	2.73	3.45	4.58	5.25	7.53	9.55	11.55
Power input[2]	Nom.	kW	0.41	0.57	0.83	1.09	1.38	1.83	2.10	3.01	3.82	4.62
SFPv[3]		kW/m³/s	1.183	1.092	1.090	1.113	1.118	1.210	1.207	1.216	1.148	1.166
Electrical supply	Phase	ph	1		3							
	Frequency	Hz	50									
	Voltage	V	230		400							
Dimensions unit	Width	mm	720	820	990	1,200	1,400		1,600	1,940		2,300
	Height	mm	1,320		1,540	1,740		1,920		2,180	2,460	2,570
	Length	mm	2,030	2,200	2,610	2,660	2,800	3,210	3,340	3,840	4,060	4,190
Weight unit		kg	343	358	512	604	785	852	964	1,449	1,700	2,071

1. Winter design condition: Outdoor: -10°C, 90% Indoor: 22°C, 50% | 2. Measured with dirty filters | 3. SFPv is a parameter that quantifies the fan efficiency (the lower it is, the better will be). This reduces if airflow decreases.

Modular R

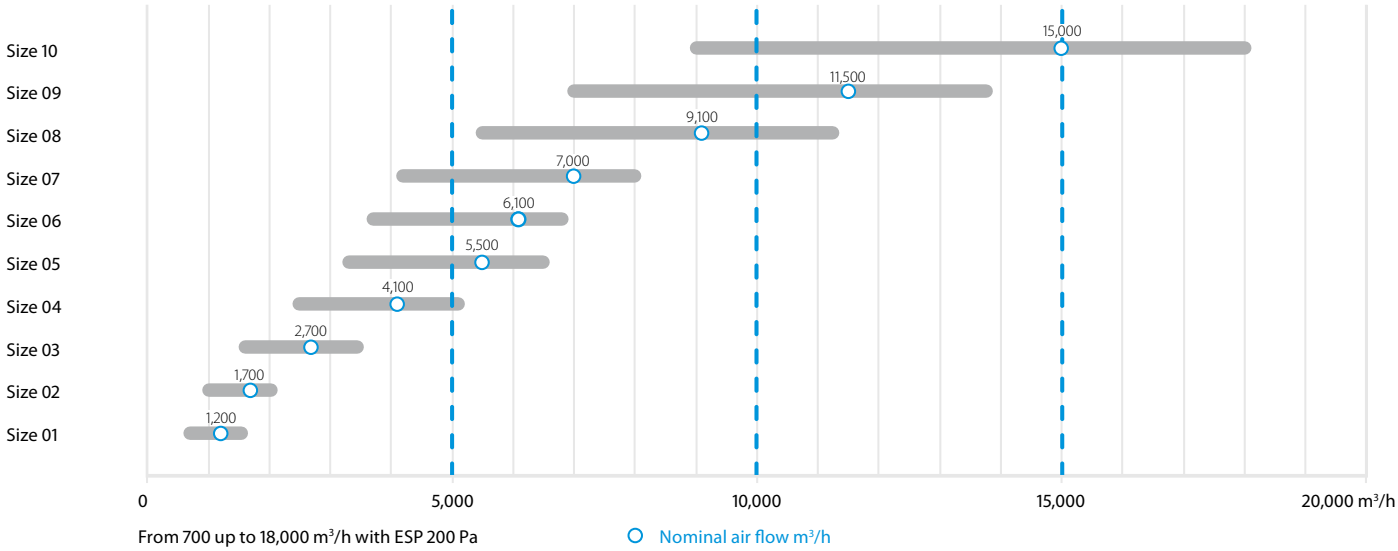
Side connected rotary heat recovery air handling unit

Highlights

- 10 predefined sizes
- Airflow from 700 m³/h to 18,000 m³/h (ErP 2018)
- Rotary heat recovery (Sensible or Sorption)
- Compact design (only 720 mm depth)
- Indoor and outdoor versions
- Thermal bridge free for the entire AHU
- Smooth interior surface with improved IAQ (Indoor Air Quality)
- Indoor air quality compliant with VDI 6022 hygiene guideline
- Chilled water system control
- DX cooling system integration (VRV IV and ERQ coupling capability)
- Advanced control features
- Monitoring and control through Daikin iTM
- Nominal air flow programmed at factory
- Air flow or pressure control (Variable Air Volume - Constant Air Volume)
- Free cooling capability
- Economy and Night mode operation
- Possibility to import BIM objects in Autodesk® Revit, thanks to a dedicated free plug-in available for download

Modular R

Air flow range



From 700 up to 18,000 m³/h with ESP 200 Pa

○ Nominal air flow m³/h

Technical details

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

Modular R

Modular R			1	2	3	4	5	6	7	8	9	10
Airflow		m³/h	1,200	1,700	2,700	4,100	5,500	6,100	7,000	9,100	11,500	15,000
Temp. efficiency winter		%	76.9	76.7	77	77.2	78.5	77	78.4	78.7	77.9	78.2
External static pressure	Nom.	Pa	200									
Current[1]	Nom.	A	2.6	3.65	2.24	3.27	4.23	5.14	5.79	6.92	9.39	12.56
Power input[1]	Nom.	kW	0.6	0.84	1.36	1.98	2.56	3.11	3.51	4.19	5.69	7.61
SFPv[2]		kW/m³/s	1.553	1.507	1.451	1.521	1.387	1.549	1.525	1.432	1.487	1.551
Electrical supply	Phase	ph	1		3							
	Frequency	Hz	50									
	Voltage	V	230		400							
Dimensions unit	Width	mm	720	820	990	1,200	1,400		1,600	1,940		2,300
	Height	mm	1,320		1,540	1,740		1,920		2,180	2,460	2,570
	Length	mm	1,700		1,800	1,920	2,080	2,280	2,400	2,450	2,280	2,400
Weight unit		kg	325	350	475	575	750	790	950	1,330	1,410	1,750

1. Measured with dirty filters | 2. SFPv is a parameter that quantifies the fan efficiency (the lower it is the better will be). This reduces if airflow decreases.

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 unmatchable 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 m^3/h up to 140,000 m^3/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.

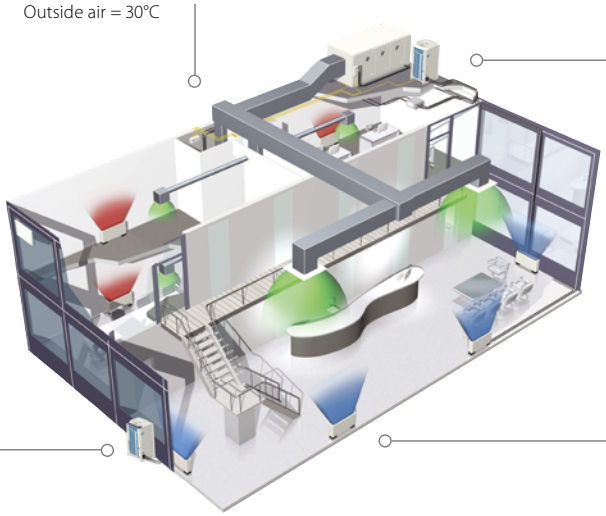
Advantages

- 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

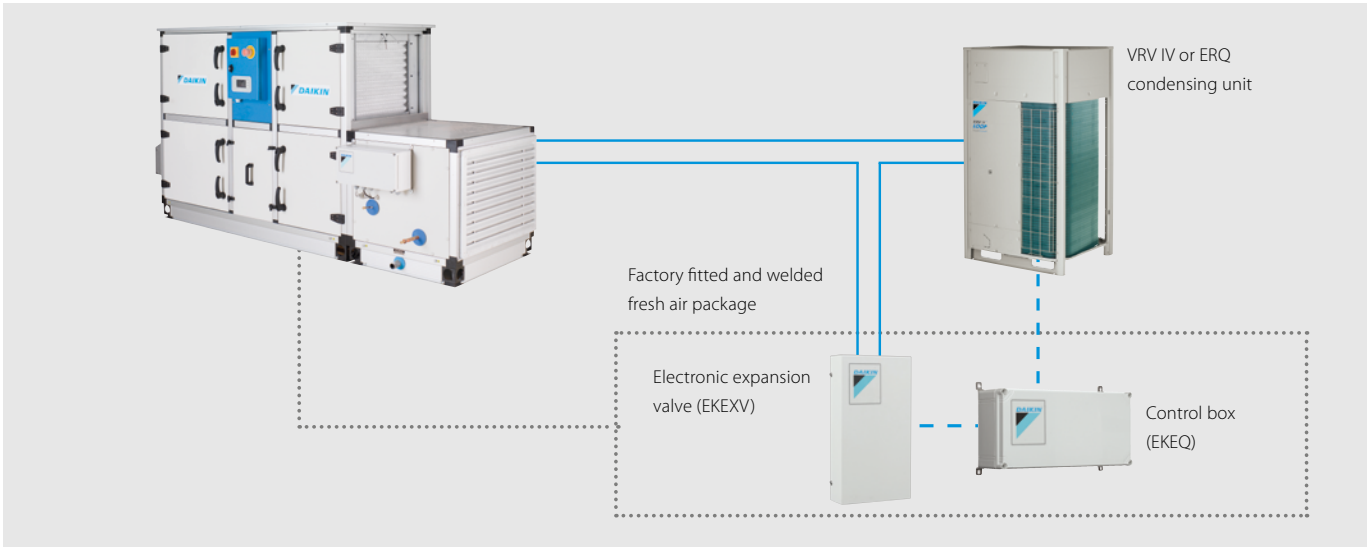
Daikin ERQ and VRV units respond rapidly to fluctuations in supply air temperature, resulting in a steady indoor temperature and resultant high comfort levels for the end user. The ultimate is the VRV range which improves comfort even more by offering continuous heating, also during defrost.

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.



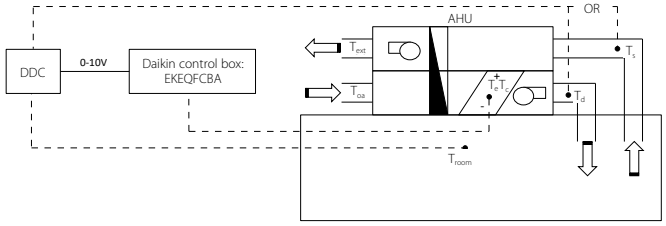
In order to maximise installation flexibility, 4 types of control systems are offered

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 (Te/Tc) temperature via Daikin control (no DDC controller needed)

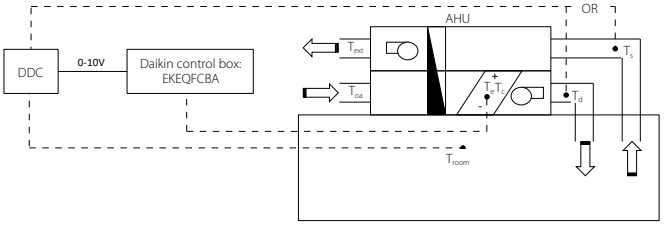
1. W control (T_d/T_s/T_{room} control):

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.



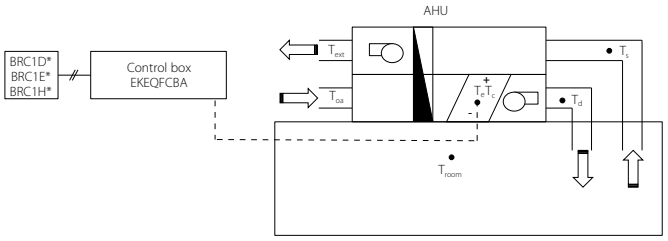
2. X control (T_d/T_s/T_{room} control):

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.



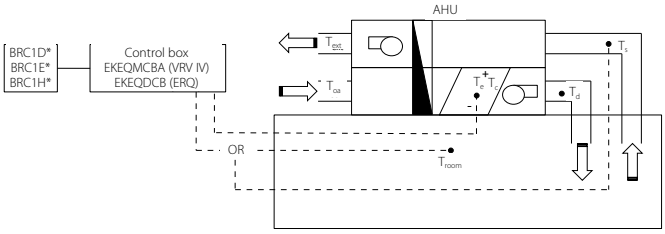
3. Y control (T_e/T_c control):

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_s / 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_s = Suction (return) air temperature
T_{oa} = Outdoor air temperature
T_{room} = Room air temperature
T_{ext} = Extraction air temperature
T_e = Evaporating temperature
T_c = Condensing 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)

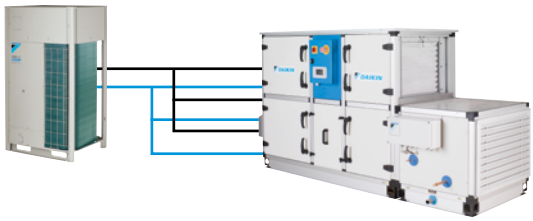
An advanced solution for both pair and multi application

› 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)

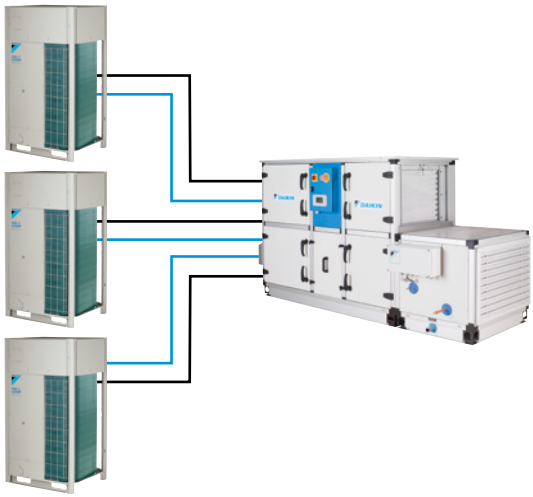
Pair application

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

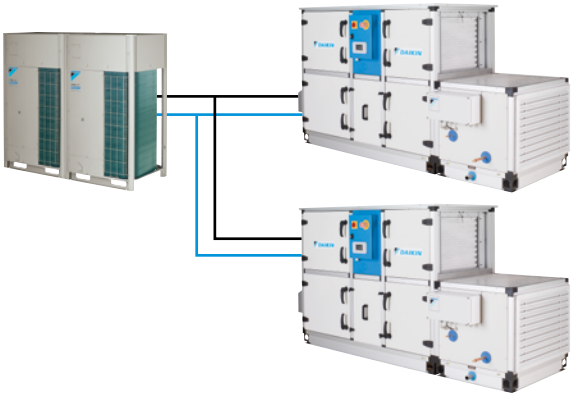


Several ERQ or VRV IV **heat pumps** connected to the **interlaced coil** of one AHU through **several** refrigerant **circuits**
› with W, X and Y control
› not allowed for VRV H/R and VRV-i



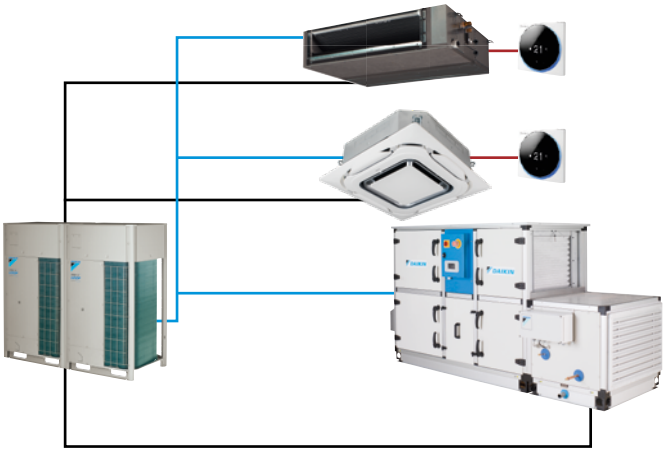
Multi application

One VRV IV **heat pump** connected to **several AHUs**
› with Z control and field supplied controls on AHU side.
› 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 and field supplied controls on AHU side
› no interlaced coil possible
› hydrobox not possible



Refrigerant piping
F1-F2
P1-P2

For more information on the limitations applying on all the above application types, please refer to the relevant databooks of EKEXV and EKEQ with guidelines and other information on the selection process.

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.

ERQ-AW1

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

ERQ-AV1

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		3.42
COP				4.56	4.15	3.94
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_2eq	8.4		
	GWP			2,087.5		
	Control			Expansion valve (electronic type)		
Piping connections	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_2eq	12.9	16.1	17.5
	GWP			2,087.5		
	Control			Electronic expansion valve		
Piping connections	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	EKEXV50	EKEXV63	EKEXV80	EKEXV100	EKEXV125	EKEXV140	EKEXV200	EKEXV250	EKEXV400	EKEXV500	
		Z control	W,X,Y control	Z control	-	-	-	-	-	-	-	-	-	-	
1-phase	ERQ100	P (1)	P	-	-	P	P	P	P	-	-	-	-	-	Not possible
	ERQ125	P (1)	P	-	-	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, RWEYQ)		-	P	P (1) / n2 (1)											Possible (not mandatory)
VRV IV i-series		-	-												
VRV IV H/R		-	-	n1											Mandatory (no hydrobox)

- 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

EKEXV Class	Allowed heat exchanger capacity (kW)			Allowed heat exchanger volume (dm³)	
	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

EKEXV Class	Allowed heat exchanger capacity (kW)			Allowed heat exchanger volume (dm³)	
	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

EKEXV - Expansion valve kit for air handling applications

Ventilation			EKEXV	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.	°CDB	10 (1)									
		Cooling Max.	°CDB	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.

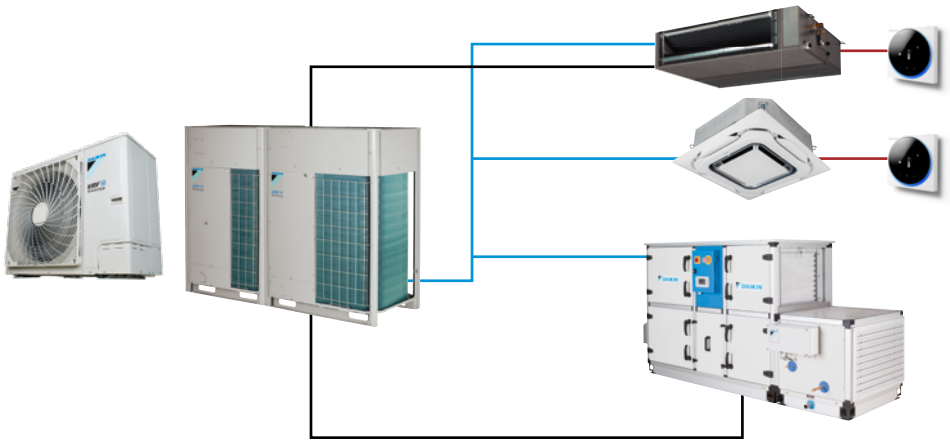
For more information refer to the **EKEXV** or **EKEQ** databooks

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



Refrigerant piping
F1-F2
P1-P2

› 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

SHÎRUDO TECHNOLOGY

Options - Ventilation

		Air handling unit applications		
		EKEQFCBA (1)	EKEQDCB (1)	EKEQMCBA (1)
Individual control systems	**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	•	•	•
Building Management System & Standard protocol interface	**DCM601A51** intelligent Touch Manager	•	•	•
	EKMBDXB Modbus interface	•	•	•
Electrical accessories	External wired temperature sensor		KRCS01-1	

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

NUTRITHÉRAPIE
PRÉVENTION DES CYSTITES
AROMATHÉRAPIE

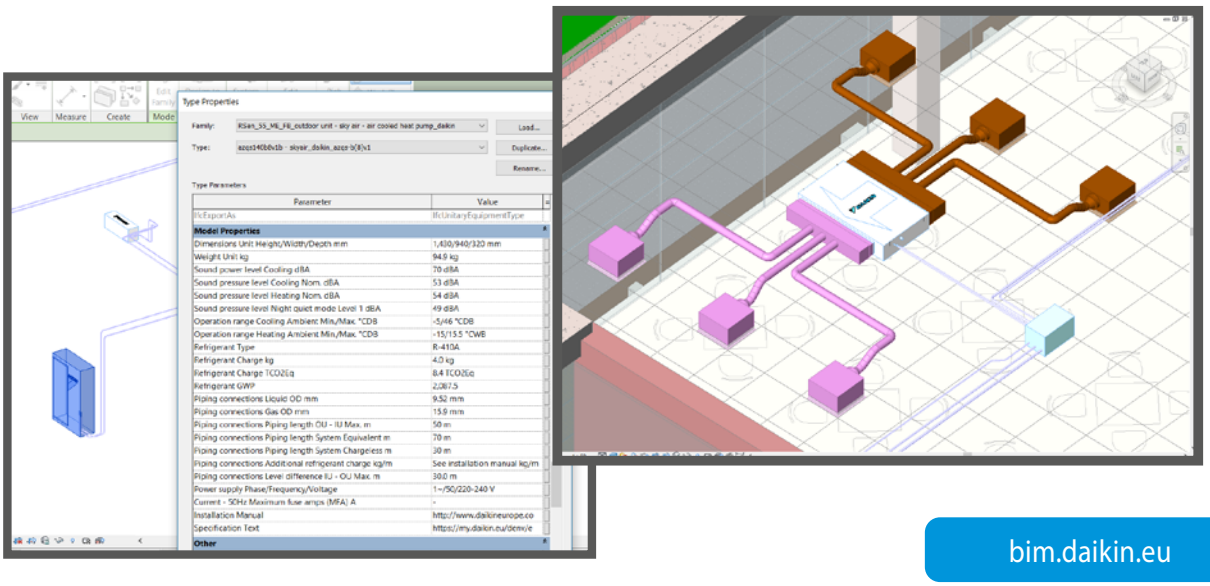
We're here to help you!
Online and offline

Online and offline VRV selection software

Business portal via mobile or desktop

my.daikin.eu

Full BIM object library available



bim.daikin.eu

Tools and platforms

Literature overview

for professional network

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Reference catalogue
Daikin commercial and industrial references

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VRV IV S-series
Main benefits, application examples and specs of VRV IV S-series product range

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Water-to-air heat pump
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VRV 5
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Detailed info on BRC1H* remote control

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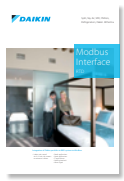

RTD modbus interface
Detailed info on RTD controls and applications

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Sky Air Catalogue
Detailed technical information & benefits on Sky Air

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VRV Catalogue
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for your customers

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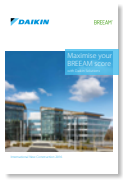

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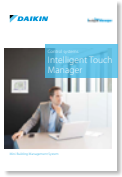

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Technical documentation:
Download all technical documentation such as engineering databooks, selection software, installation and operation manuals and service manuals directly from our business portal: my.daikin.eu

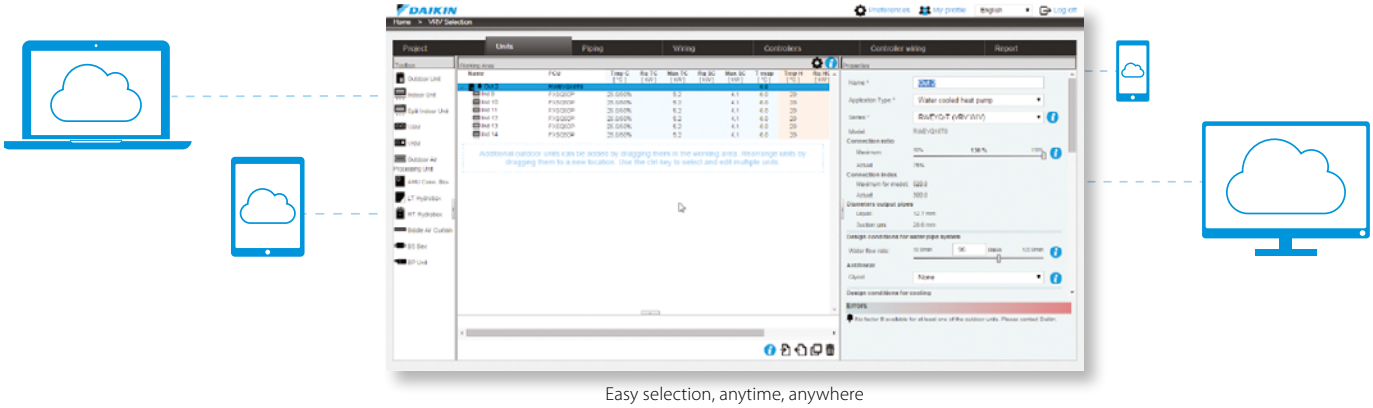
Supporting
tools, software and apps

www.daikineurope.com/
support-and-manuals/
software-downloads

Web based Xpress selection software

Making selection easy, anytime, anywhere

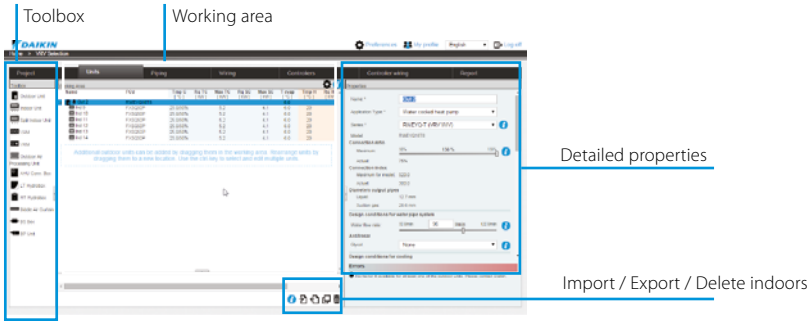
› Web & cloudbased, access to your projects from anywhere, anyplace…
› Platform (Windows, Mac, …) and hardware (laptop, desktop, tablet) independent
› Re-engineered GUI for maximum easy of use
› No need to do local installation
› No tool updates required (always latest version available)
› Possibility to copy / share projects



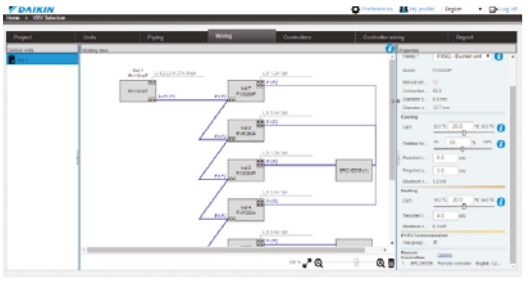
Easy selection, anytime, anywhere

Main functions

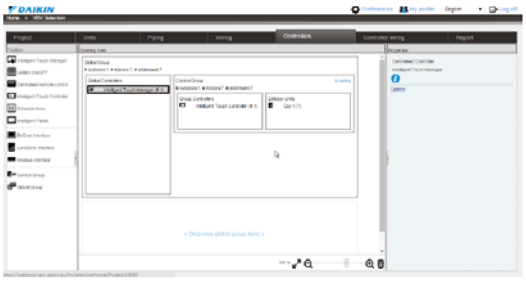
Easy editing of piping



Intuitive interface



Clear wiring overview, easy to make control groups



Clear overview of control groups and central controls

Integrated features

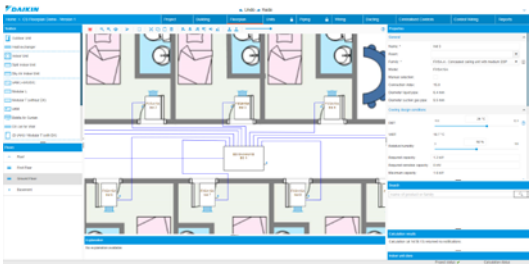
2D floorplan

How does it work?

1. Import 2D floorplan
2. Define reference point & scale
3. Position units
4. Draw pipes

--> Pipe lengths and heights are automatically determined!

› Accurate pipe design
› Work faster
› Easy compliance check

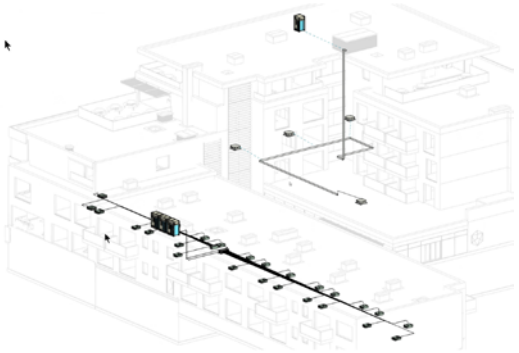


REVIT import

How does it work?

1. Design your building/rooms in revit
2. Define loads (optional)
3. Place Daikin BIM objects & Draw pipes
4. Export to Xpress
5. Xpress calculates

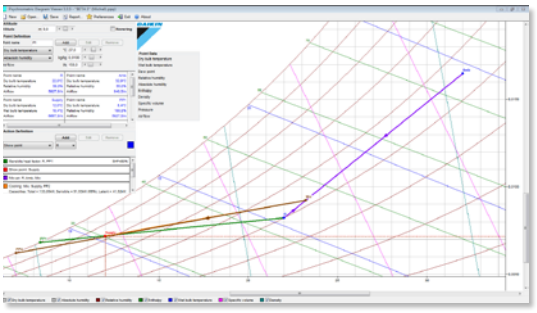
› Model selection
› Pipe diameters
› and validates selection



VRV Xpress integrates seamlessly with our ventilation selection softwares

Ventilation Xpress

Selection tool for ventilation devices (VAM, VKM). The selection is based on given supply/extract airflows (including fresh up and given ESP of supply/extract ducting:
› Determines size of electrical heaters
› Visualisation of psychrometric chart
› Visualisation of selected configuration
› Required field settings mentioned in the report



ASTRA Web

› Quick AHU selection that will save you precious time, drastically reducing selection time through the new software interface.
› Very competitive solution available within the Wizard thanks to pre-uploaded parameters.
› High selection quality, thanks to the intelligence embedded within the software core.

Quickly select your air handling unit by following the wizard:

1. Select the series: D-AHU Professional, D-AHU Modular R, D-AHU Modular P, Modular L and Modular T
2. Insert the air flow supply and return
3. Insert the summer/winter air supply setpoint
4. Insert the summer/winter outdoor and extract temperature

You will get immediately your 3D result and it's ready to customize!

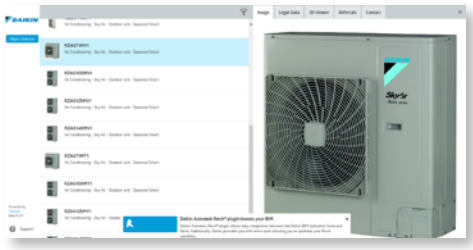
Now, you will be able to modify your unit (adding or changing components) in order to have a product that meets all your needs.

When finished a technical report, price list, fan curve chart can be generated.
These final reports can be downloaded in different formats.

Plugins and third-party software tools

Building Information Modelling (BIM) support

› BIM improves efficiency of design and build phase
› Daikin is among the first to supply a full library of BIM objects for its VRV products



www.daikin.eu/bim

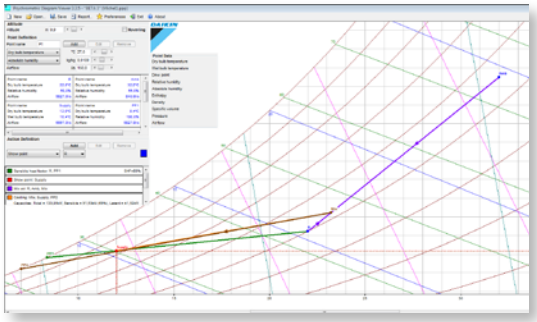
Energy simulation and design aid tools

Seasonal simulator

› The Seasonal Simulator is an innovative software tool that calculates and compares potential seasonal efficiency ratings.
› This user-friendly tool compares various Daikin systems, annual power consumption, CO_2 emissions, and much more, to present an accurate ROI calculation in a matter of minutes.

Psychrometrics diagram NEW

› The Psychrometrics Diagram Viewer demonstrates the changing properties of moist air.
› With this tool, users can choose two points with specific conditions, plot them on the diagram and select actions to change the conditions, i.e. heat, cool and mix air.



Software service tools

Error code app

Quickly know the meaning of fault codes, for each product family and the potential cause

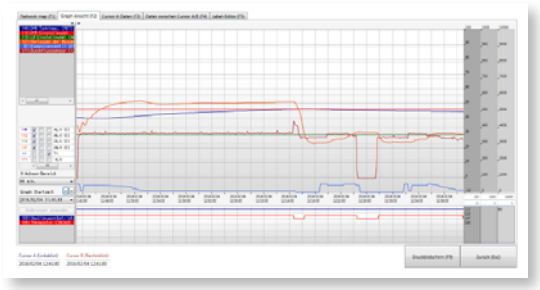
D-Checker

D-checker is a software application used to record and monitor operation data of Daikin applied, split, Multi-split, Sky-air units, Daikin Altherma LT, ground source heat pump, Hybrid, ZEAS, Conveni-pack & R410A Booster unit

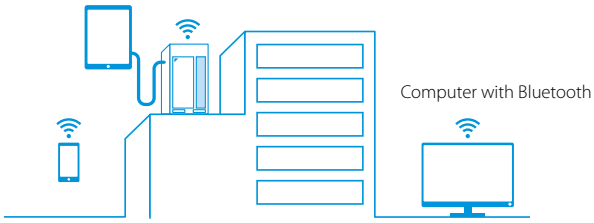
Bluetooth adaptor NEW

Monitoring of Split, Sky Air and VRV data via any bluetooth device

› No need to access the outdoor unit
- Connects with D-Checker software (for laptops)
- Connects with monitoring app (for tablets or smartphones)



Diagnosis of the Bluetooth system possible:



VRV Service-Checker

› Connected via F1/F2 bus to check multiple systems at the same time
› Connection of external pressure sensors possible

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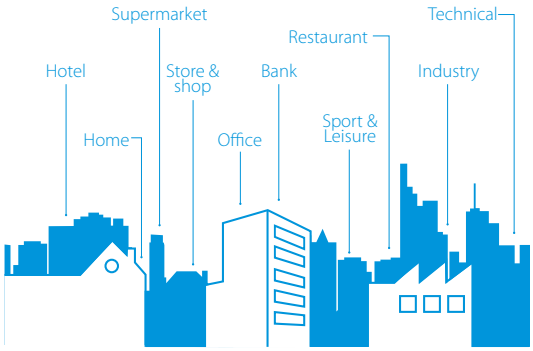

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› See our references

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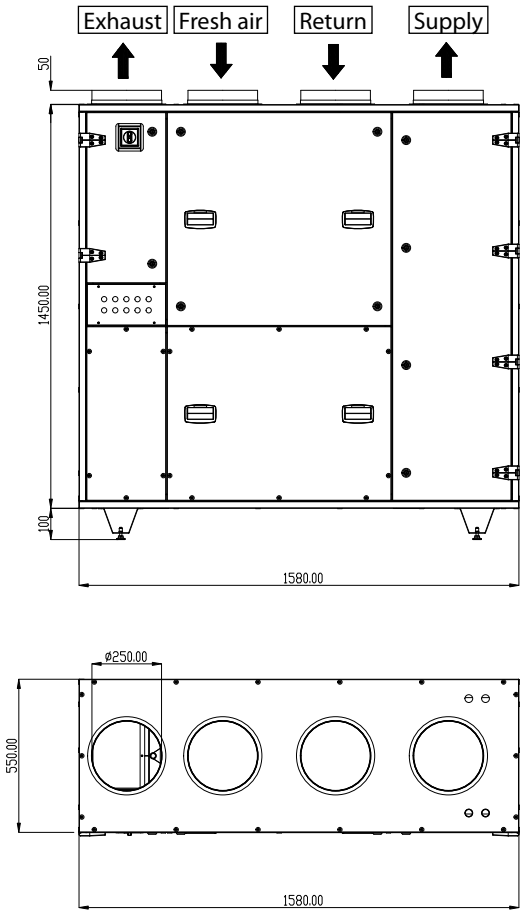
Technical drawings

Detailed technical drawings

ATB03RA(S)

Right



ATB03LA(S)

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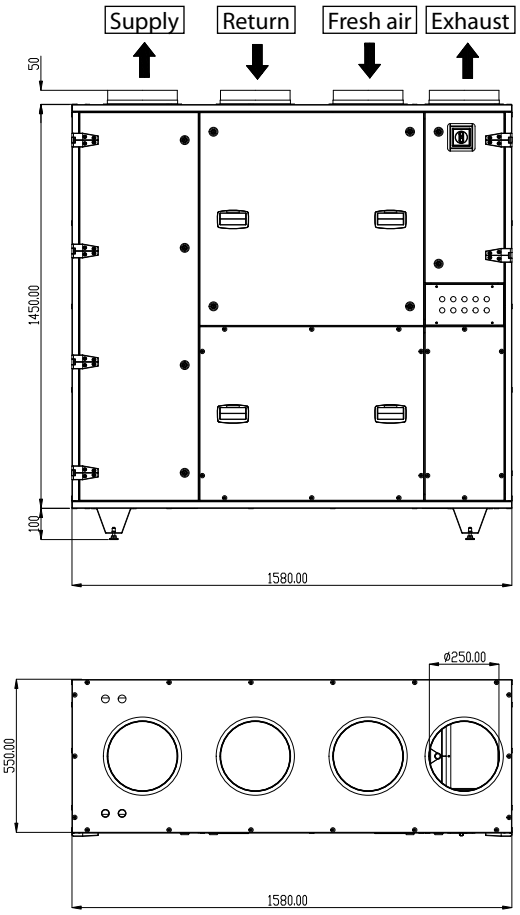

ATB04RA(S)

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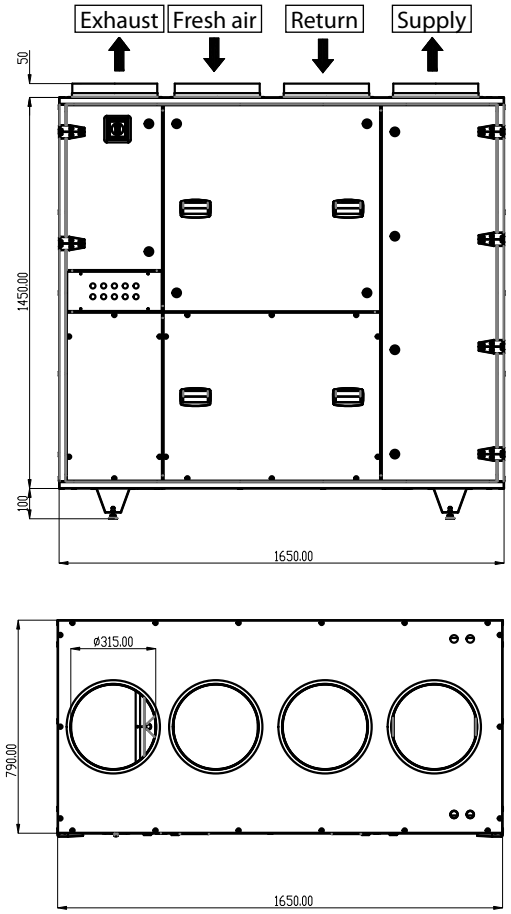

ATB04LA(S)

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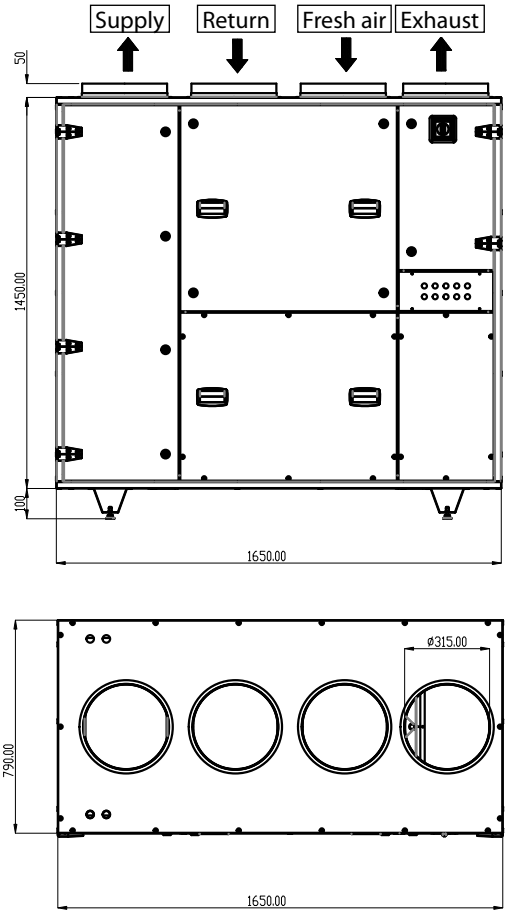

ATB05RA(S)

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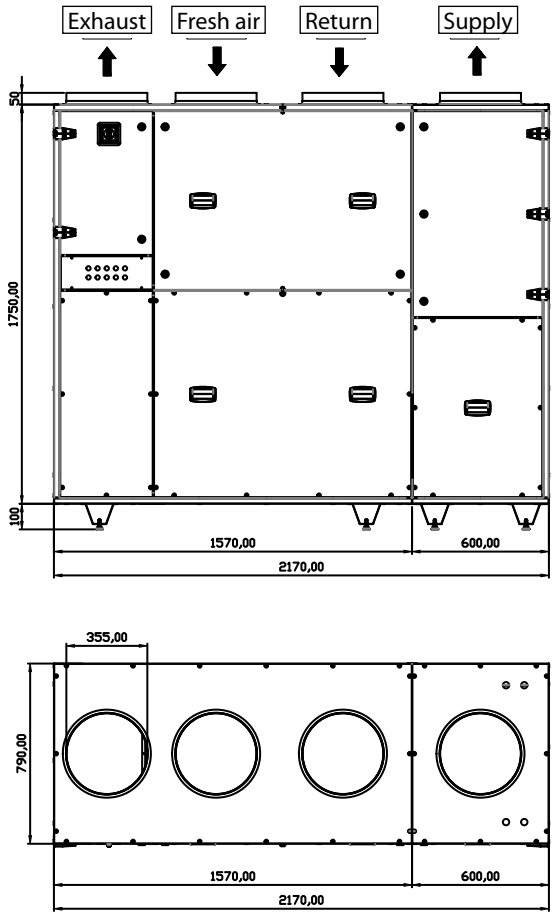

ATB05LA(S)

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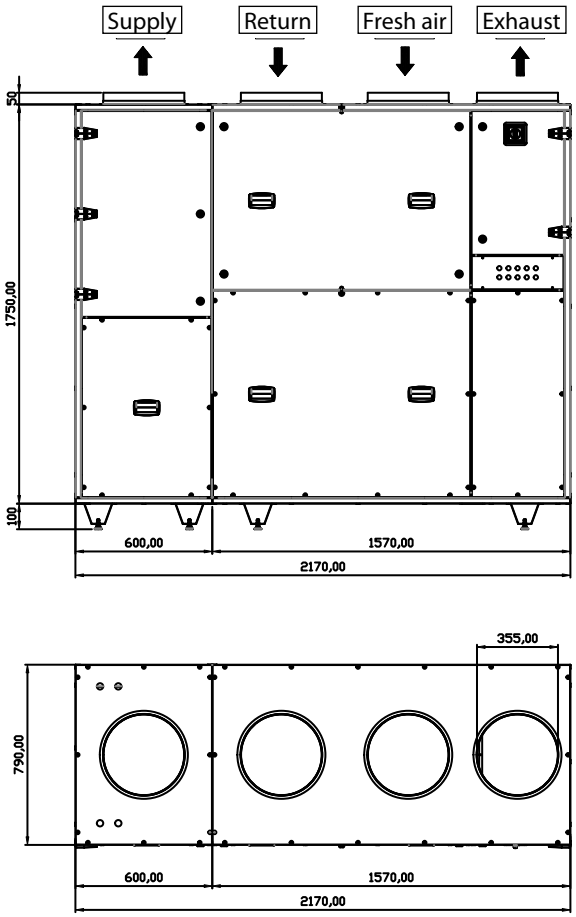

ATB06RA(S)

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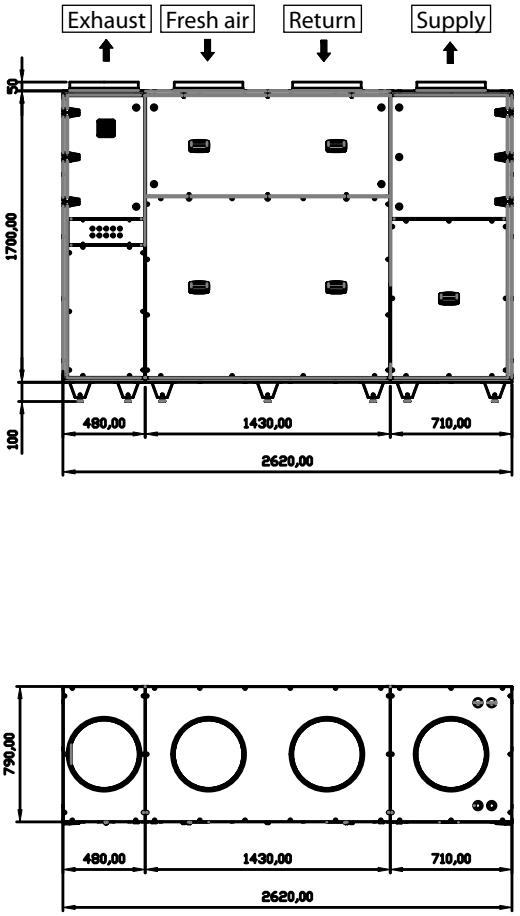

ATB06LA(S)

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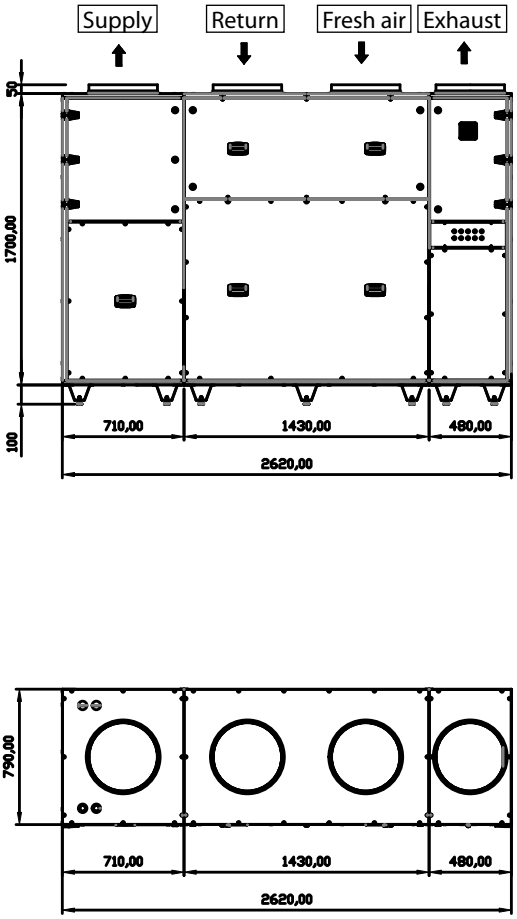

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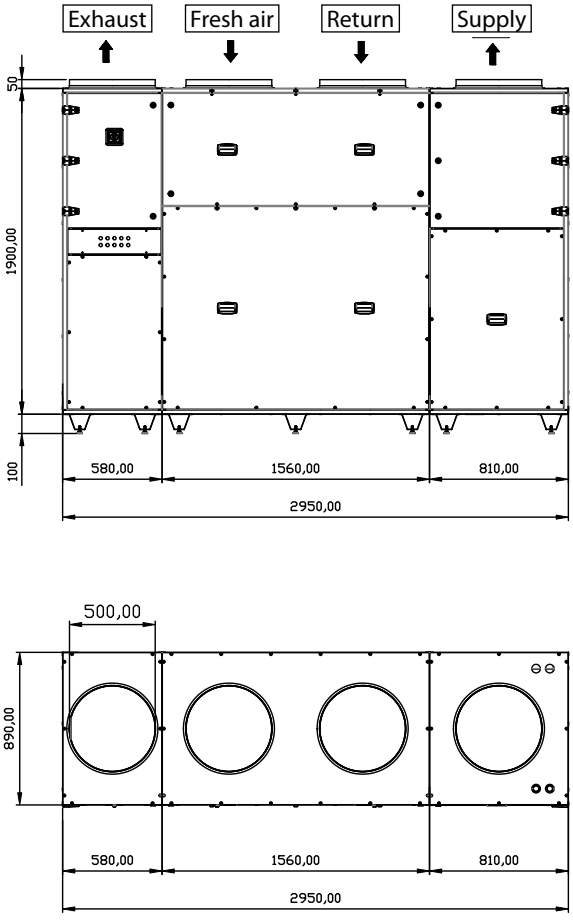
ATB07RA(S)

Right



ATB07LA(S)

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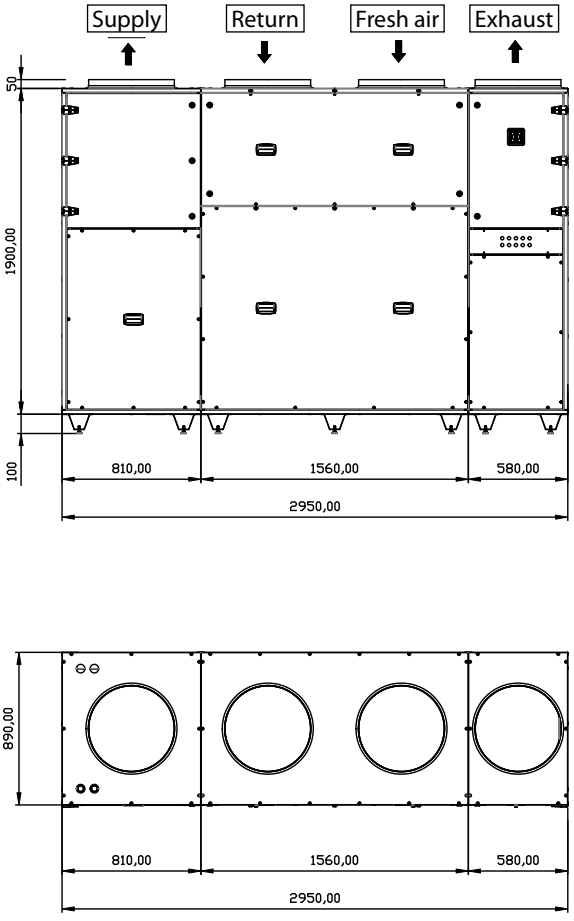
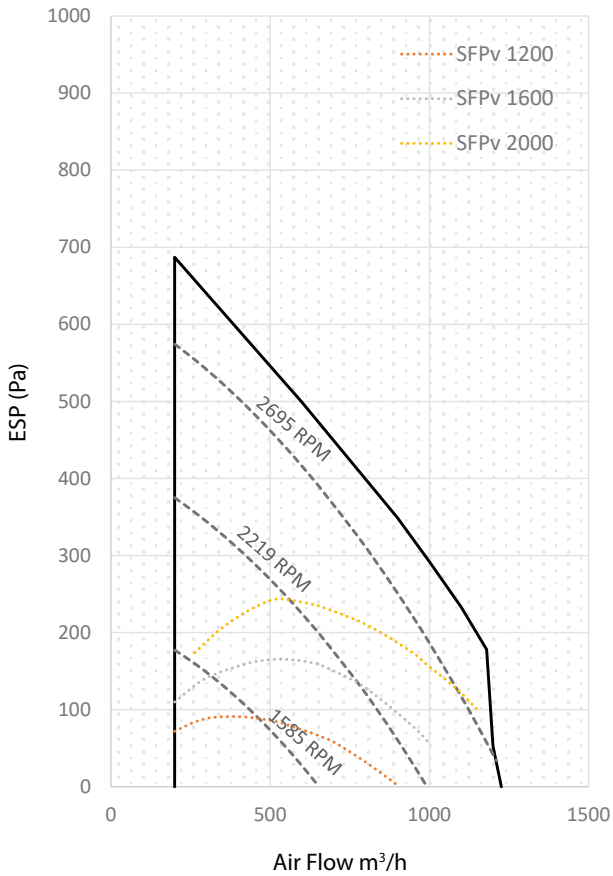


ATB03RA(S)/ATB03LA(S)

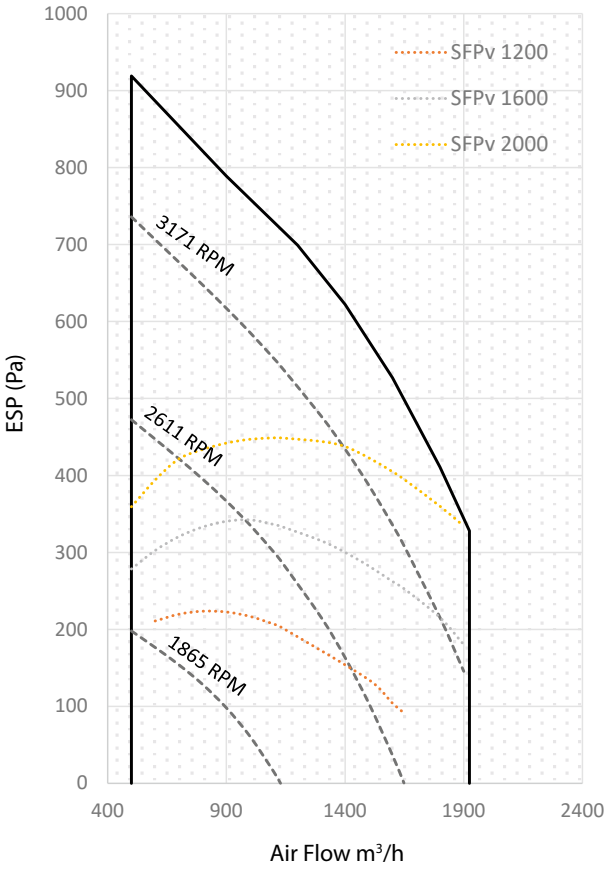


The diagram shows the available external pressure for the duct system given an airflow.

SFPv = Specific Fan Power (W/m³/s)

The SFPv curves are referring to the complete unit. Moreover, it includes power to both supply and extract fan divided by either the supply or extract volume whichever is the greater.

ATB04RA(S)/ATB04LA(S)



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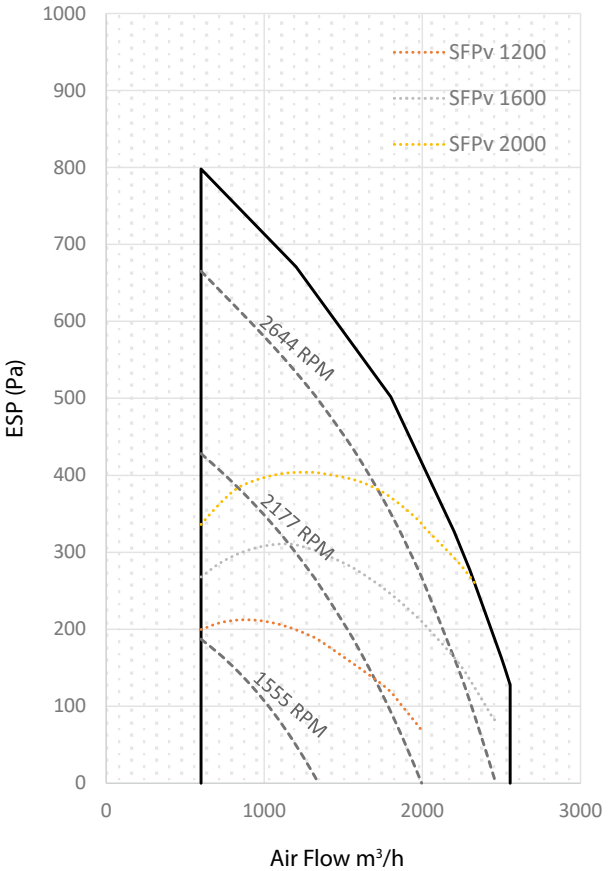
ATB05RA(S)/ATB05LA(S)



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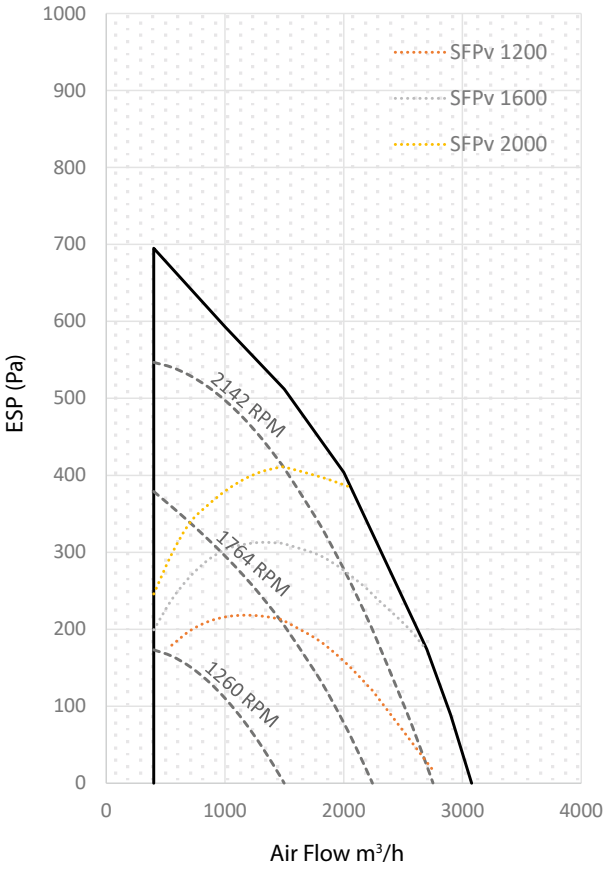
ATB06RA(S)/ATB06LA(S)



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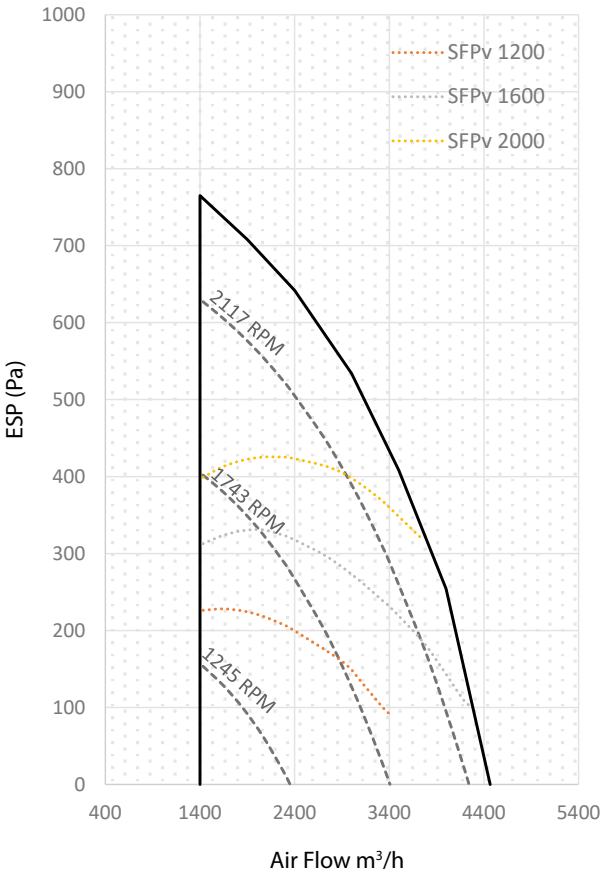
ATB07RA(S)/ATB07LA(S)



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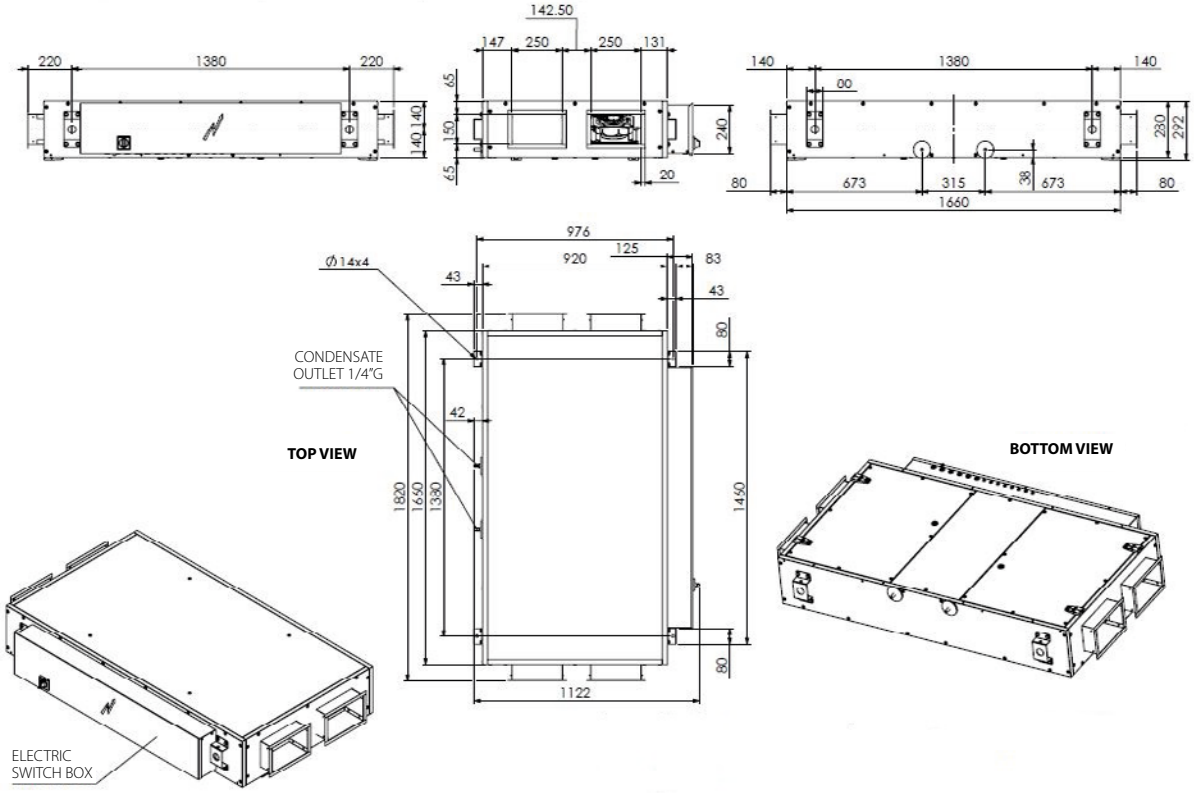
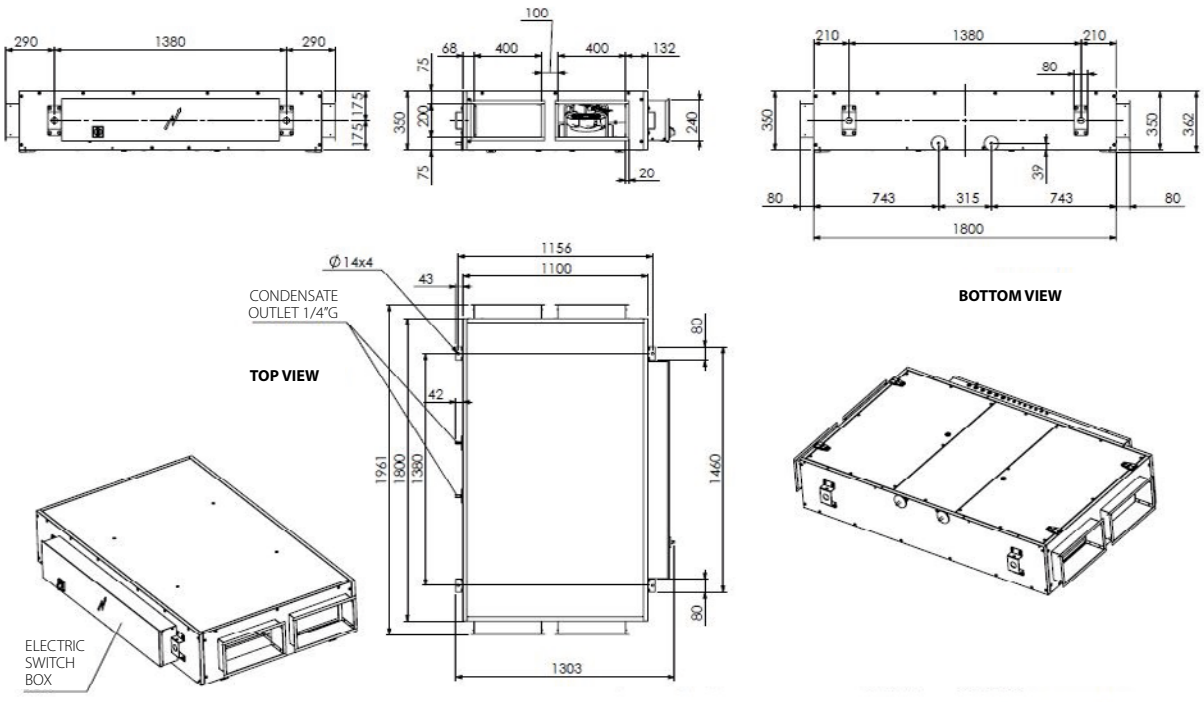
Detailed technical drawings

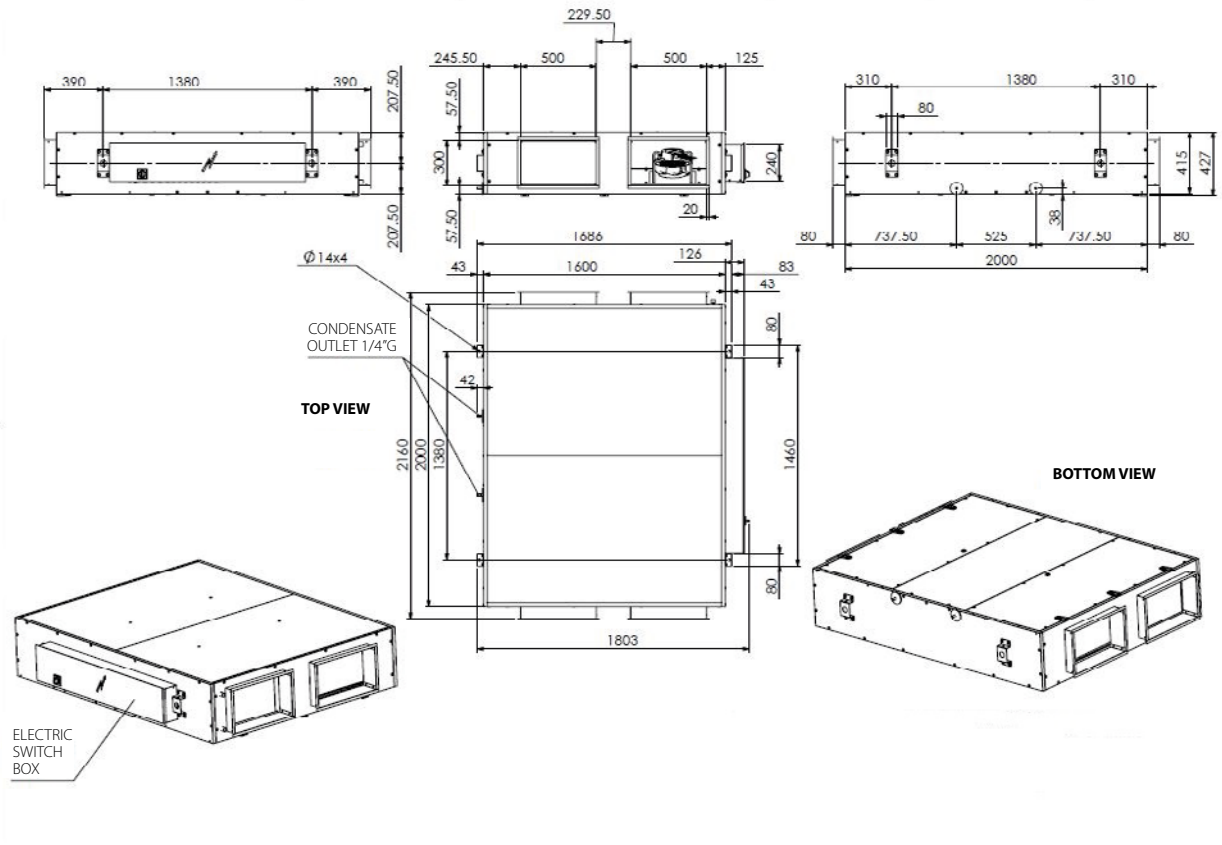
ALB02RB(S)/ALB02LB(S)



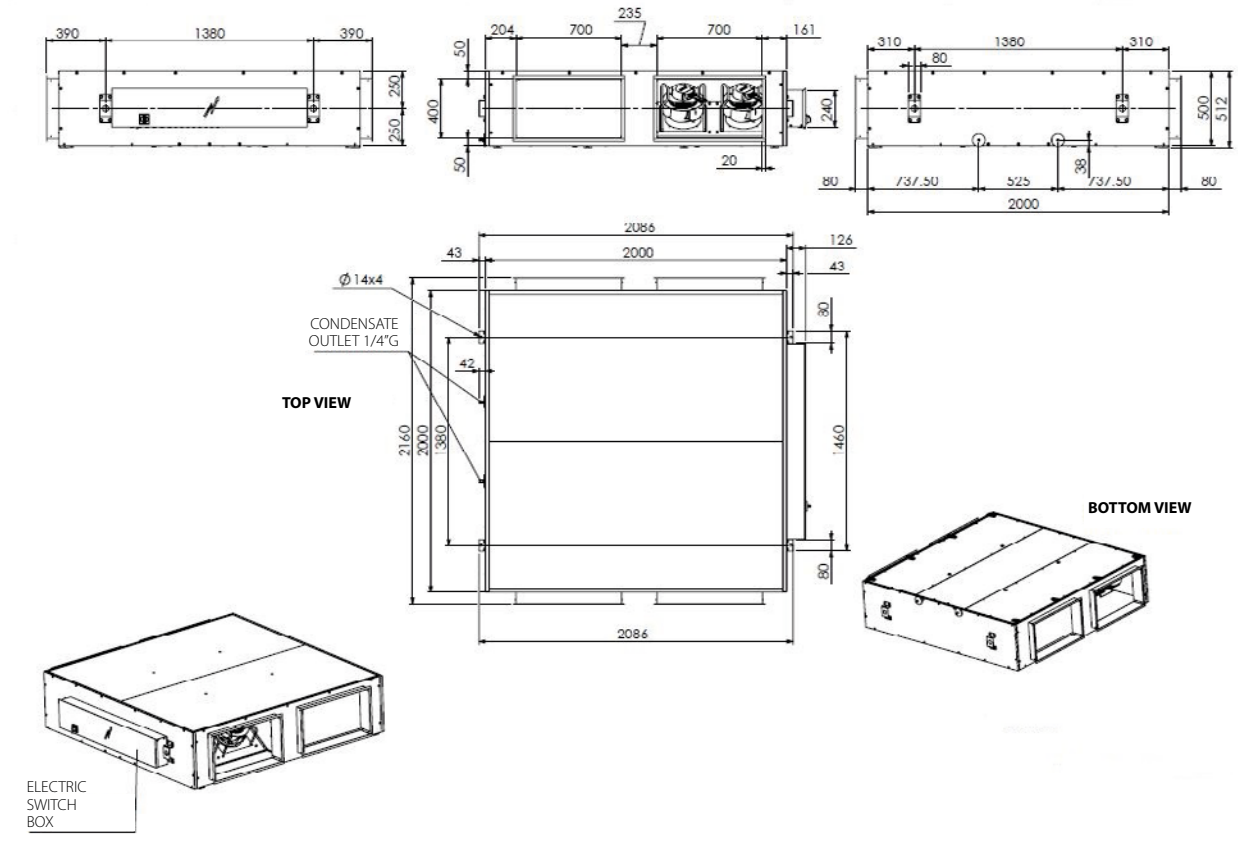
ALB03RB(S)/ALB03LB(S)



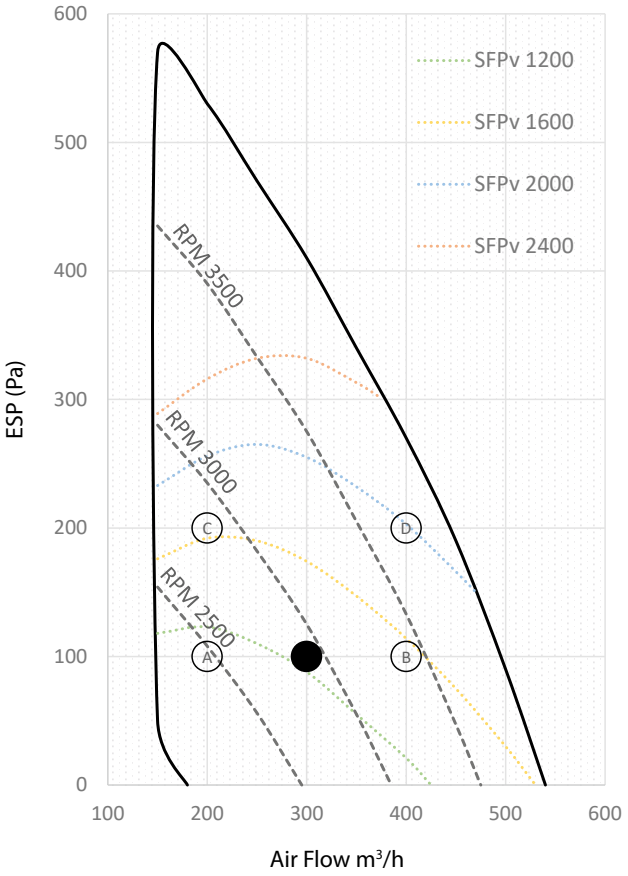
ALB04RB(S)/ALB04LB(S)
ALB05RB(S)/ALB05LB(S)



ALB06RB(S)/ALB06LB(S)
ALB07RB(S)/ALB07LB(S)



ALB02RB(S)/ALB02LB(S)



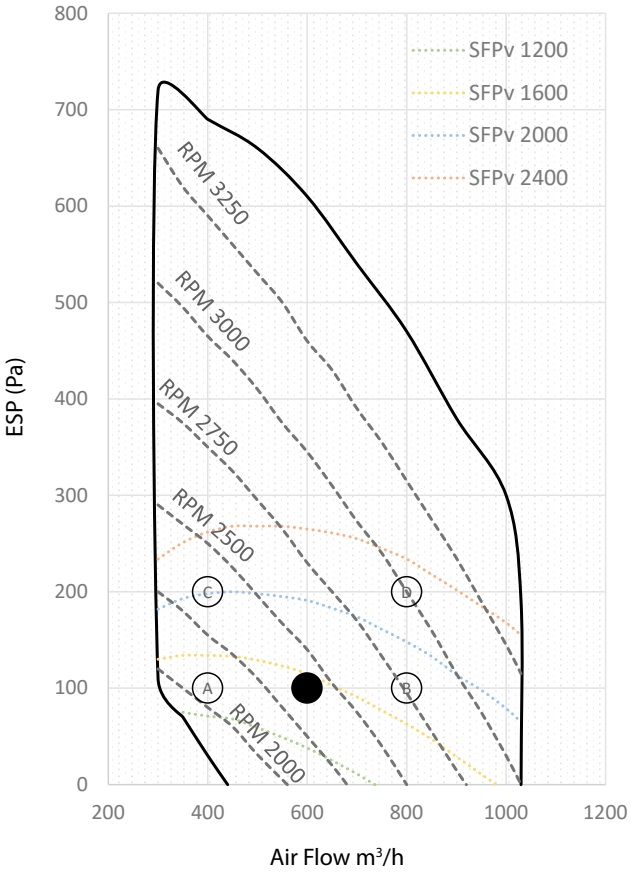
The diagram shows the available external pressure for the duct system given an airflow.

SFPv = Specific Fan Power (W/m³/s)

The SFPv curves are referring to the complete unit. Moreover, it includes power to both supply and extract fan divided by either the supply or extract volume whichever is the greater.

● Nominal working point

ALB03RB(S)/ALB03LB(S)



The diagram shows the available external pressure for the duct system given an airflow.

SFPv = Specific Fan Power (W/m³/s)

The SFPv curves are referring to the complete unit. Moreover, it includes power to both supply and extract fan divided by either the supply or extract volume whichever is the greater.

● Nominal working point

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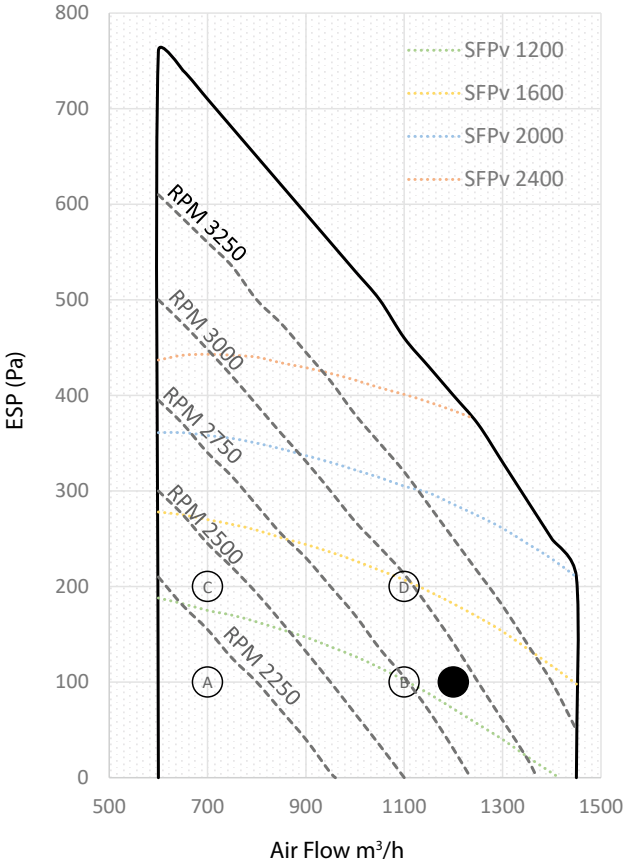
Detailed technical drawings

ALB04RB(S)/ALB04LB(S)



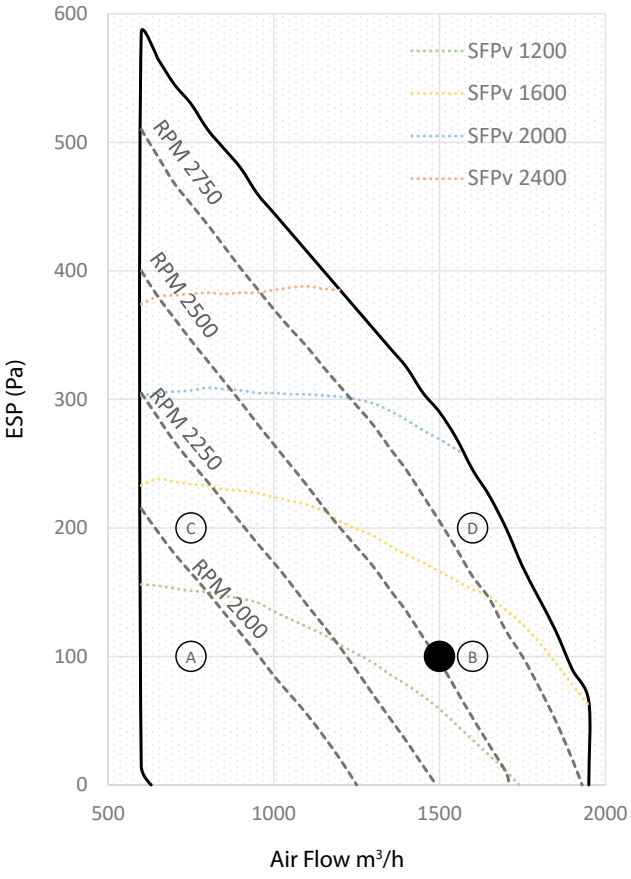
The diagram shows the available external pressure for the duct system given an airflow.

SFPv = Specific Fan Power (W/m³/s)

The SFPv curves are referring to the complete unit. Moreover, it includes power to both supply and extract fan divided by either the supply or extract volume whichever is the greater.

● Nominal working point

ALB05RB(S)/ALB05LB(S)



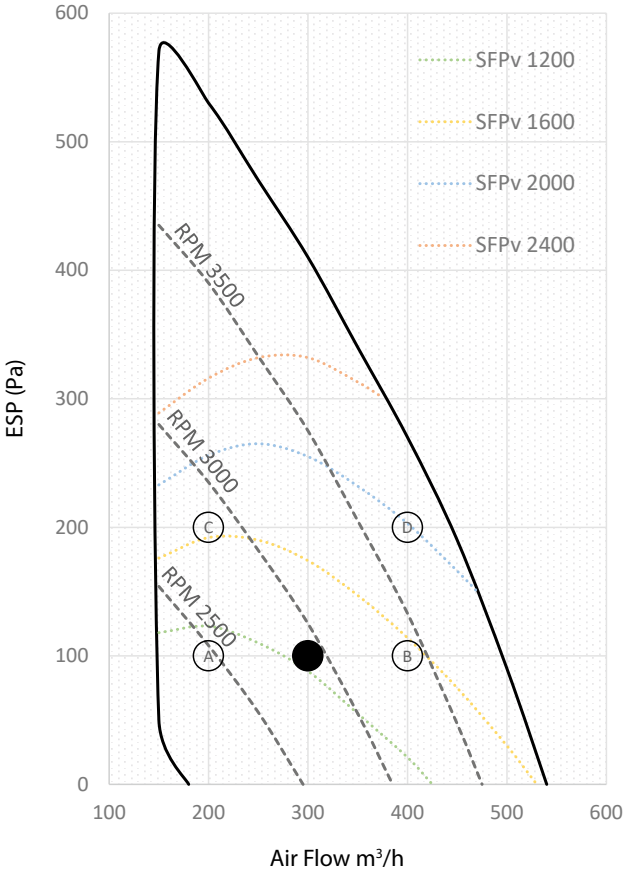
The diagram shows the available external pressure for the duct system given an airflow.

SFPv = Specific Fan Power (W/m³/s)

The SFPv curves are referring to the complete unit. Moreover, it includes power to both supply and extract fan divided by either the supply or extract volume whichever is the greater.

● Nominal working point

ALB06RB(S)/ALB06LB(S)



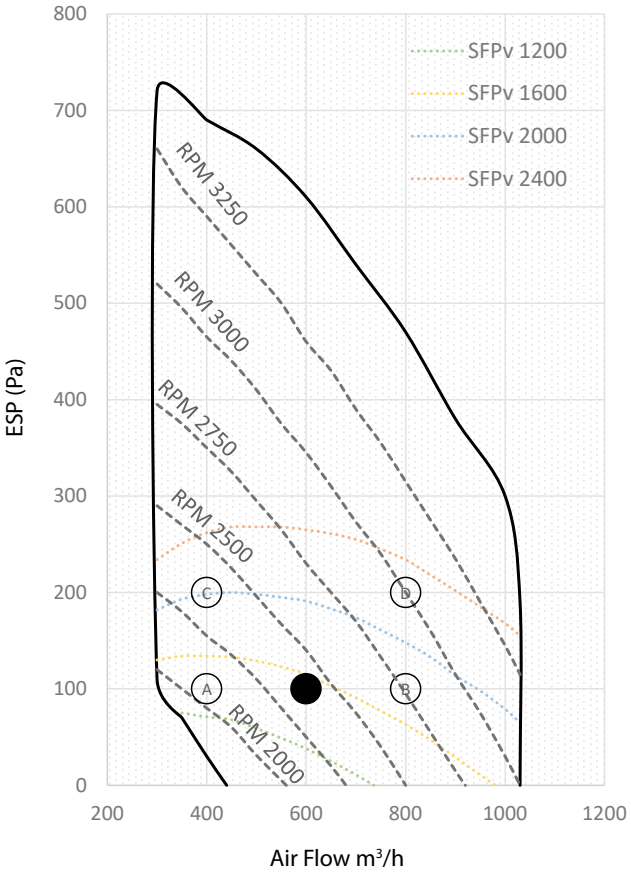
The diagram shows the available external pressure for the duct system given an airflow.

SFPv = Specific Fan Power (W/m³/s)

The SFPv curves are referring to the complete unit. Moreover, it includes power to both supply and extract fan divided by either the supply or extract volume whichever is the greater.

● Nominal working point

ALB07RB(S)/ALB07LB(S)



The diagram shows the available external pressure for the duct system given an airflow.

SFPv = Specific Fan Power (W/m³/s)

The SFPv curves are referring to the complete unit. Moreover, it includes power to both supply and extract fan divided by either the supply or extract volume whichever is the greater.

● Nominal working point

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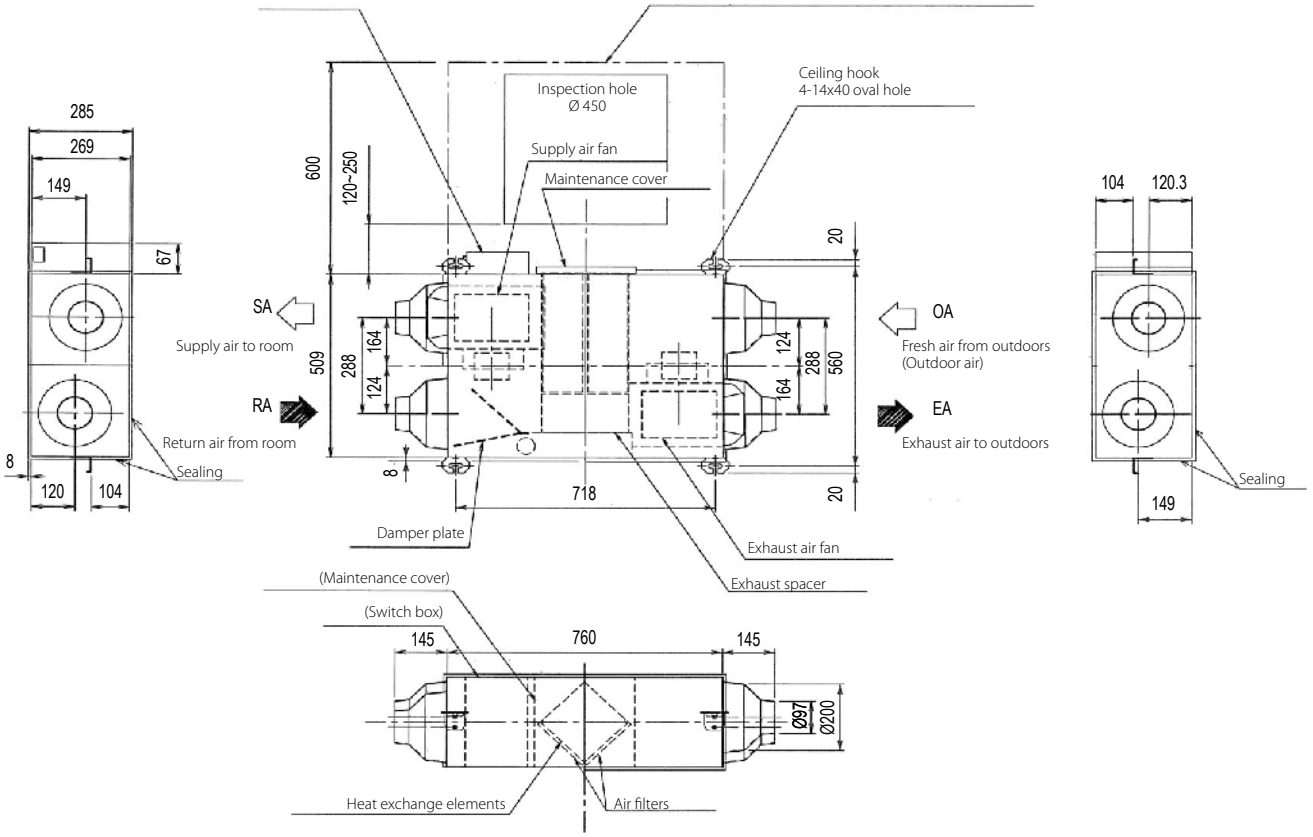
VAM150FC9

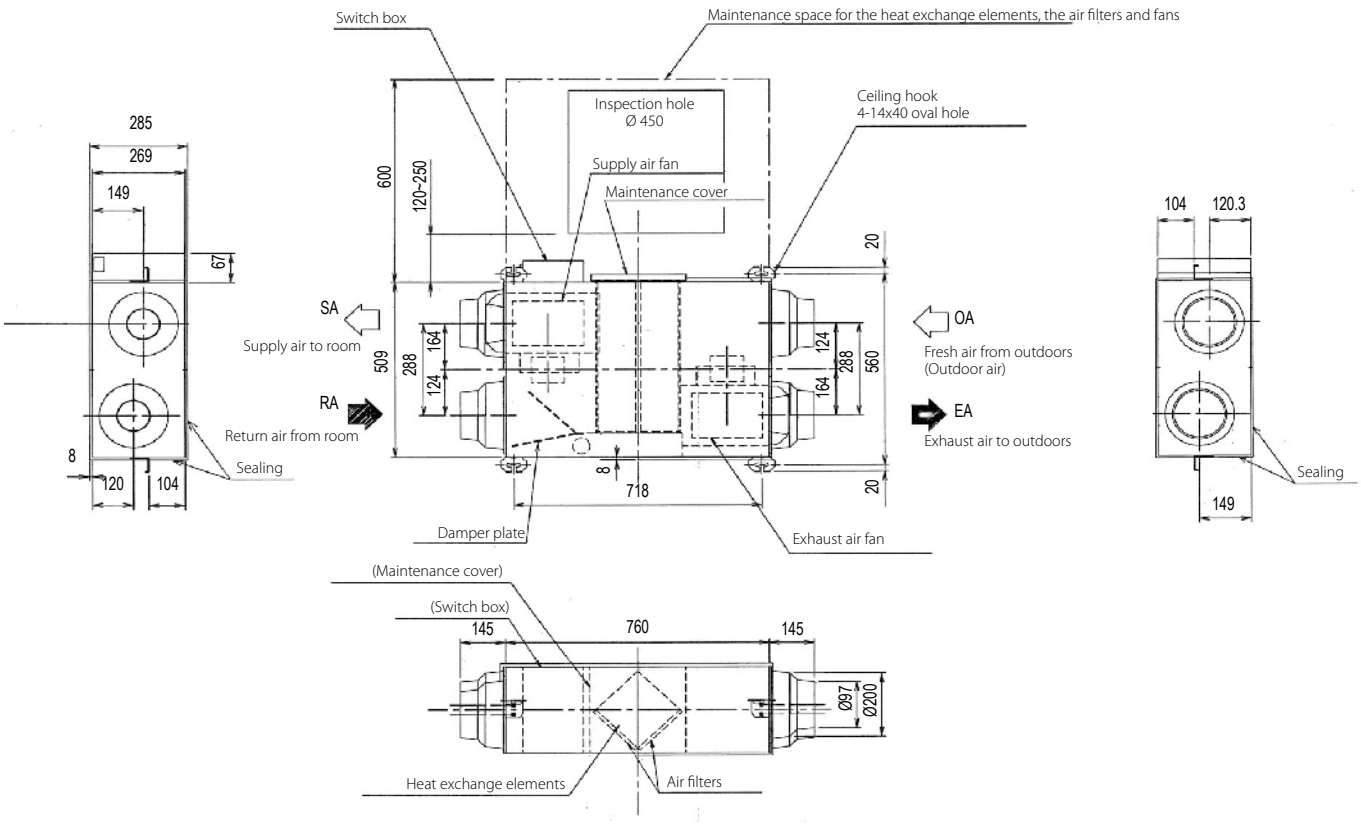


NOTES

1. Be sure to provide the inspection hole (450x450 mm) to inspect the air filters, the exchange elements and fans.

3TW27874-1

VAM250FC9

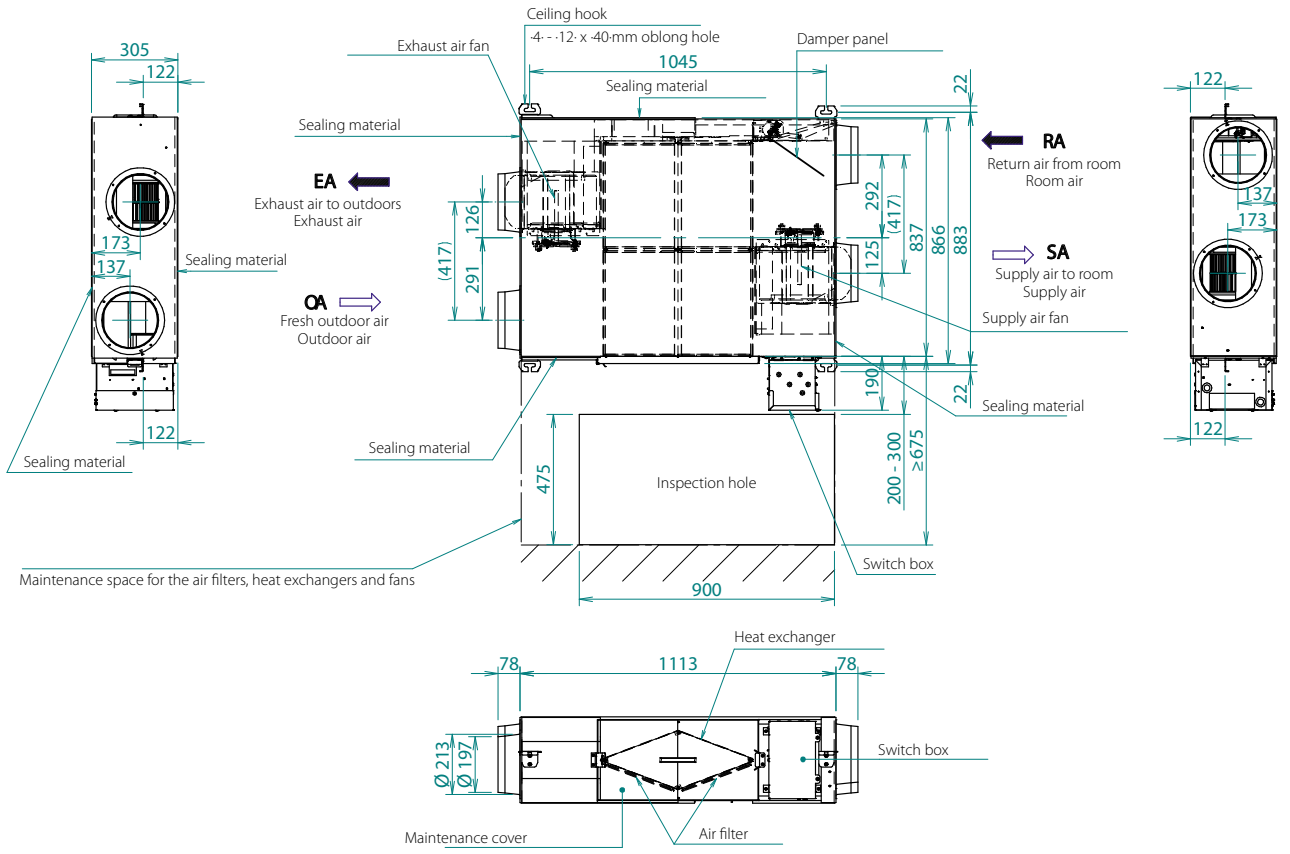


NOTES

1. Be sure to provide the inspection hole (450x450 mm) to inspect the air filters, the exchange elements and fans.

3TW27884-1

VAM350-500J8

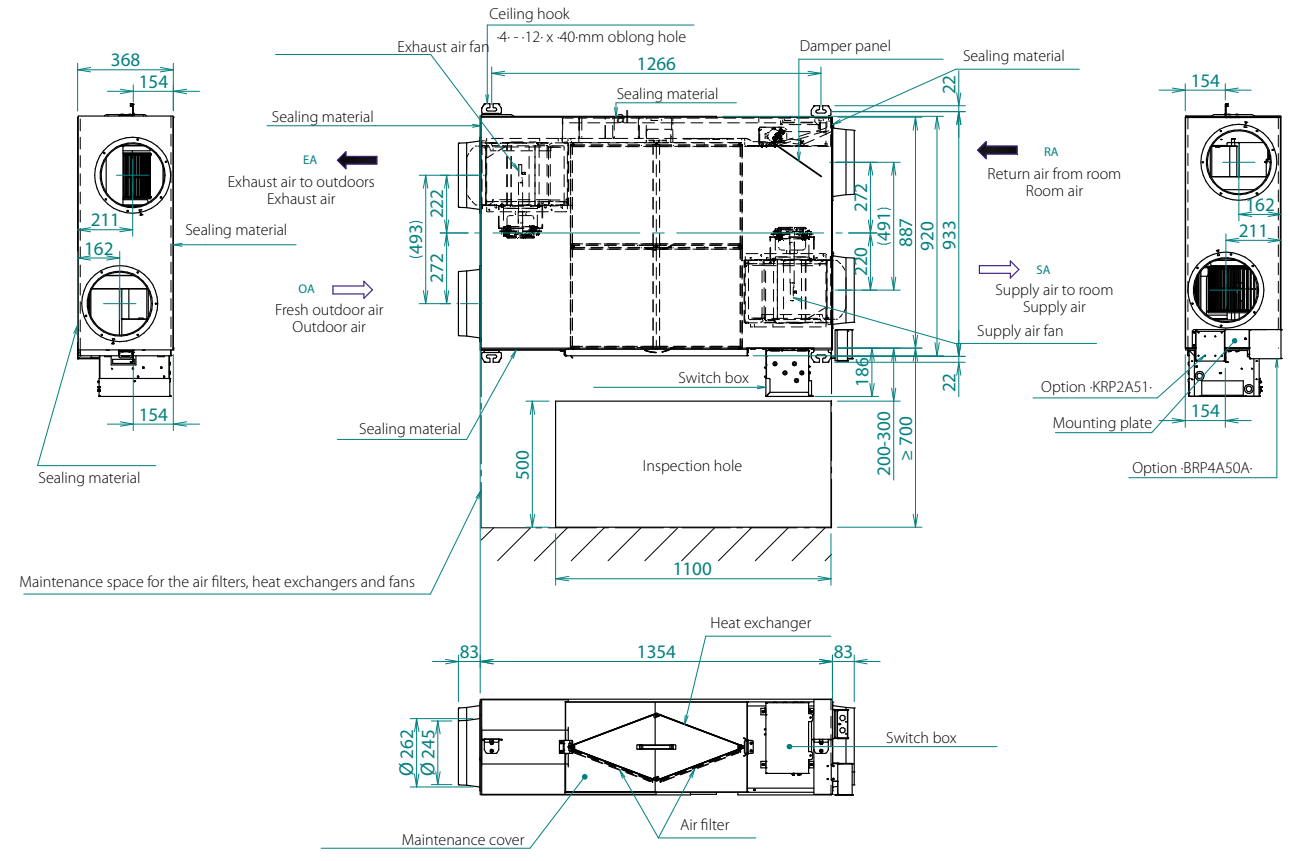


NOTES

1. To allow for the inspection of the air filters, heat exchangers, and fans, be sure to provide the inspection hole.

3D112815C

VAM650J8

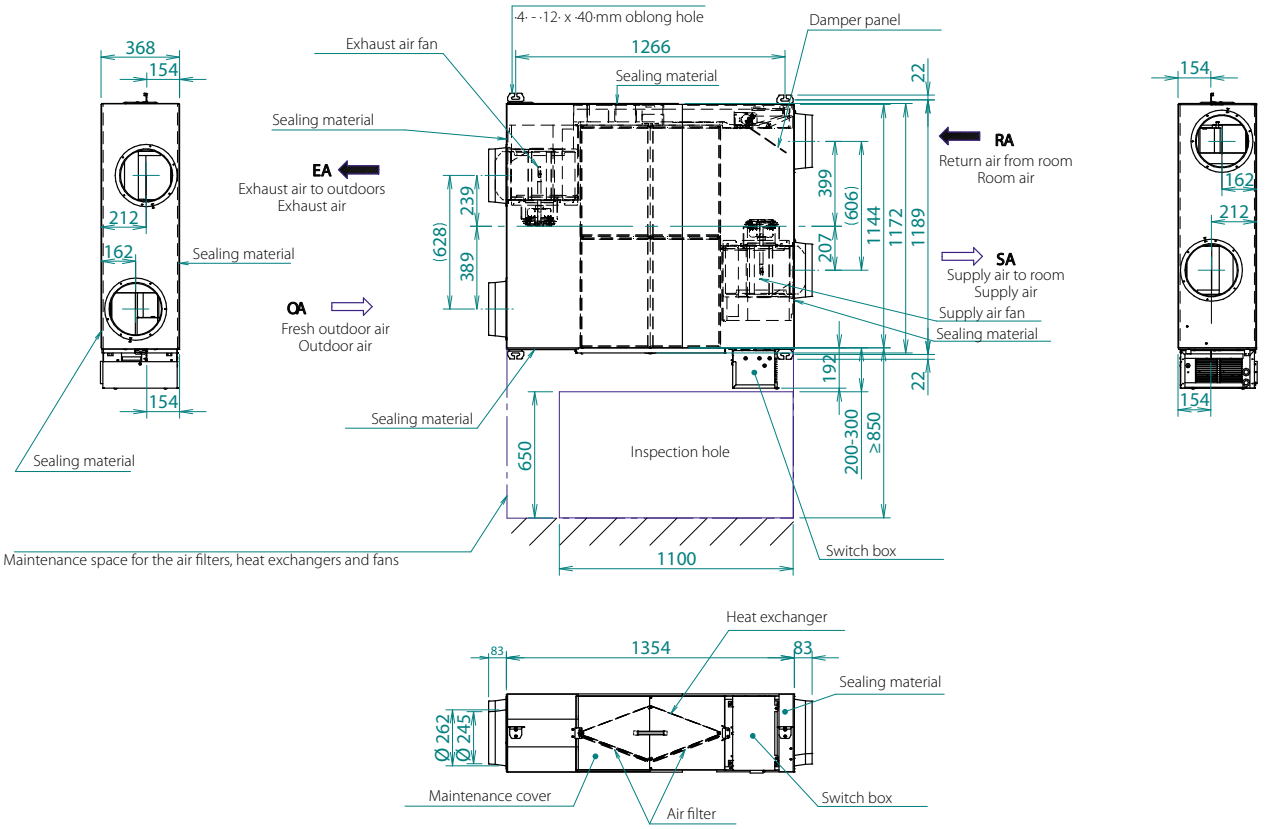


NOTES

1. To allow for the inspection of the air filters, heat exchangers, and fans, be sure to provide the inspection hole.

3D113502A

VAM800-1000J8

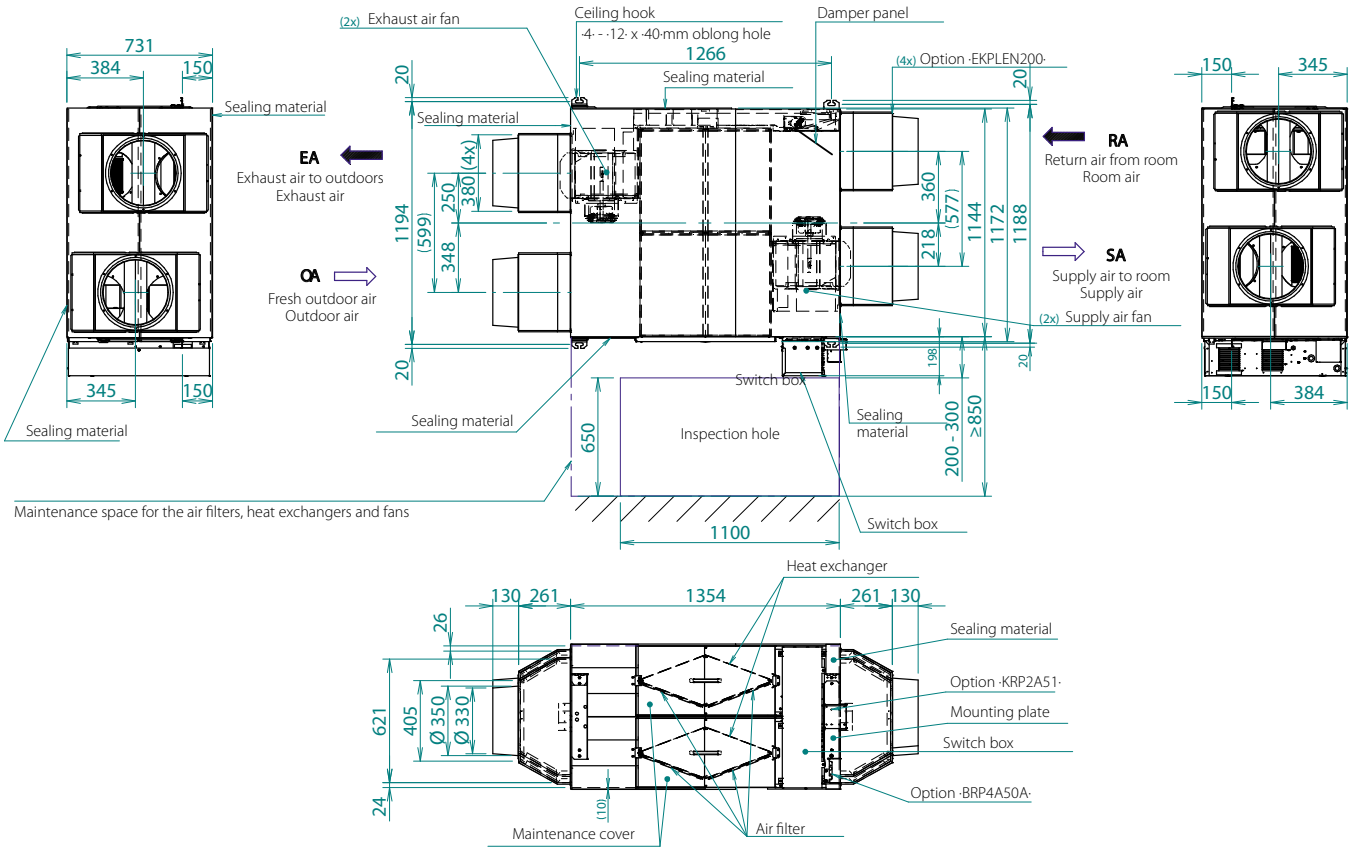


NOTES

1. To perform maintenance on the air filter, it is required to provide a service access panel.

3D112817D

VAM1500-2000J8

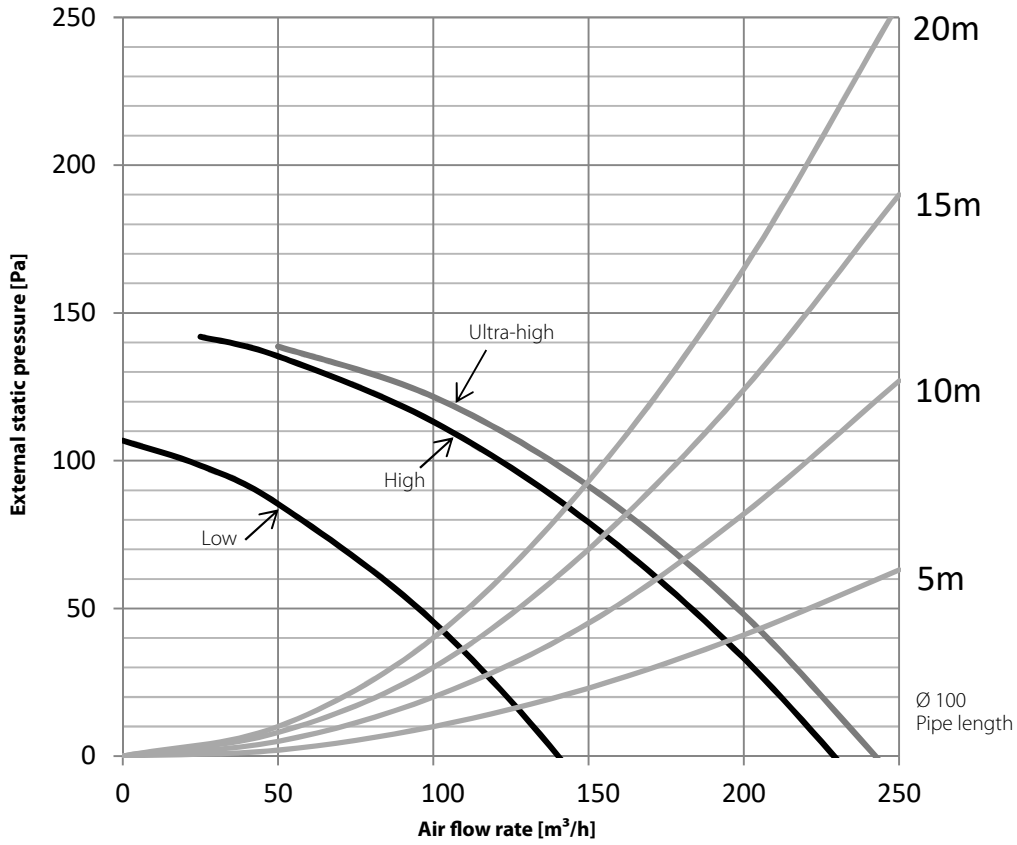


NOTES

1. To allow for the inspection of the air filters, heat exchangers, and fans, be sure to provide the inspection hole.

3D112818C

VAM150FC9

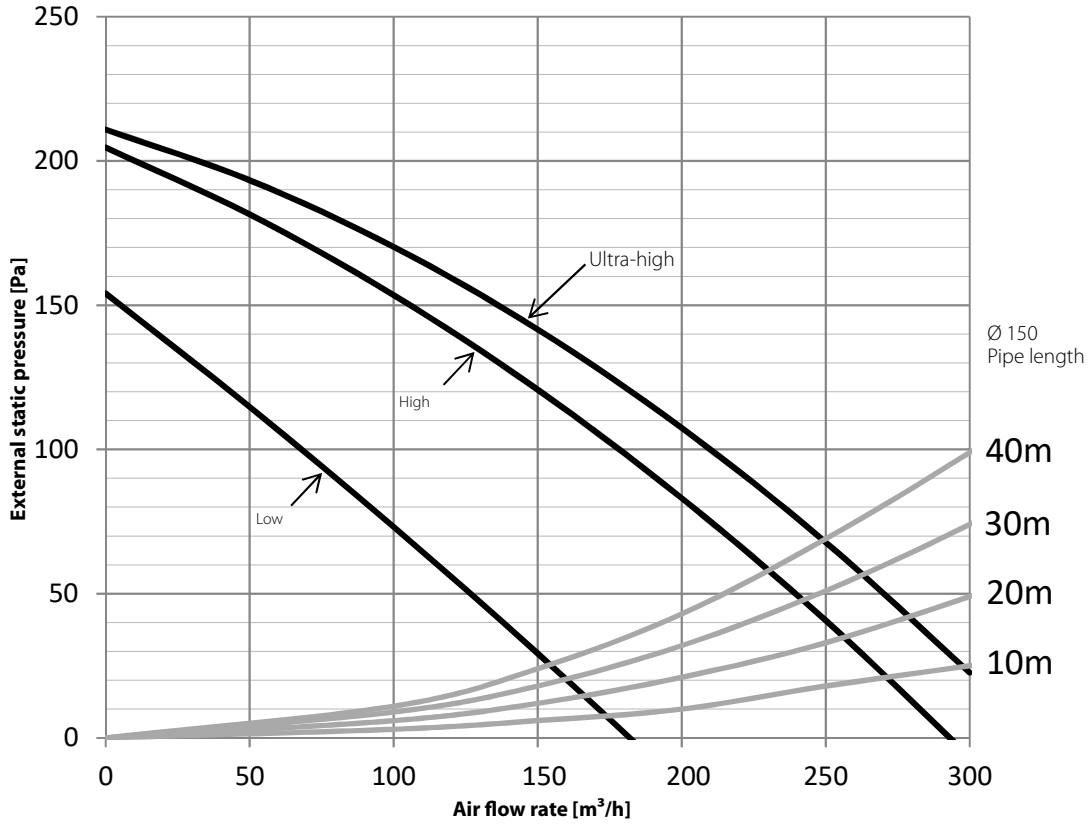


NOTES

1. The fan speeds are valid for ·230·V, ·50·Hz power supply.

4D100379A

VAM250FC9

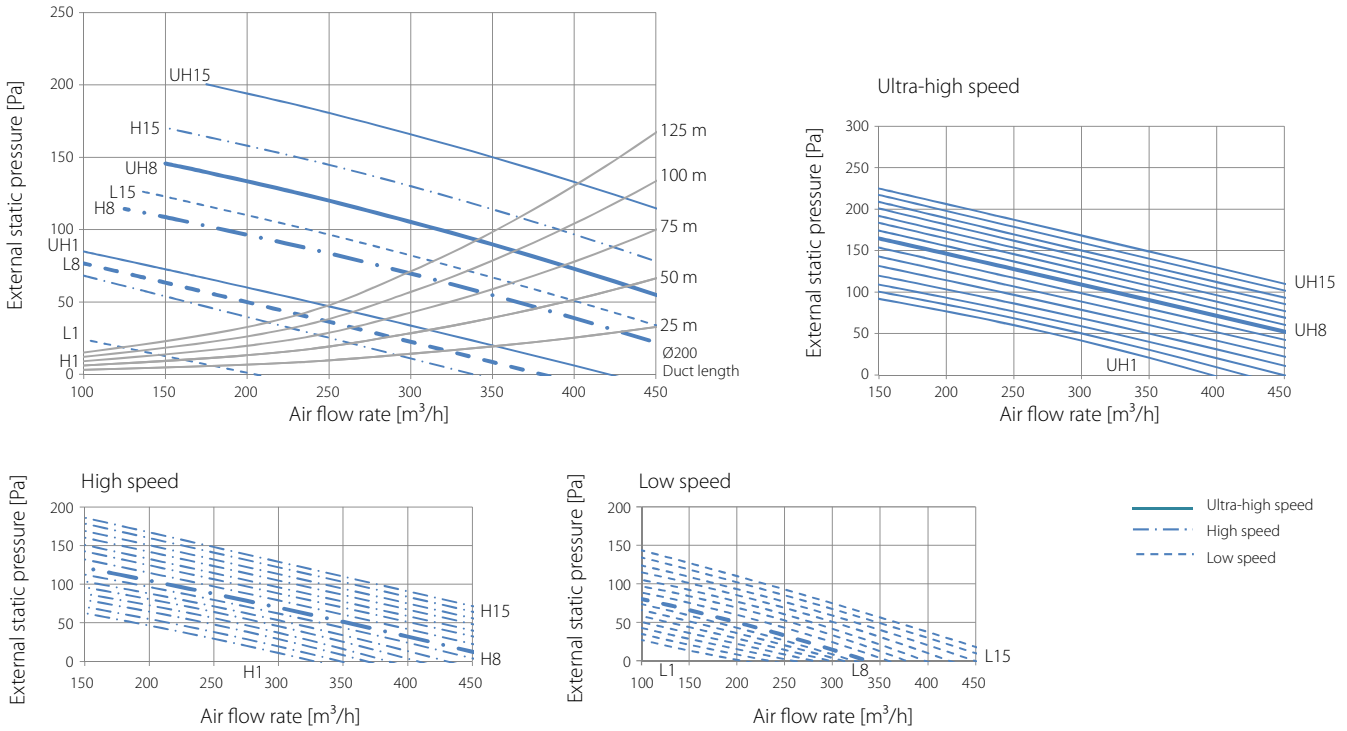


NOTES

1. The fan speeds are valid for ·230·V, ·50·Hz power supply.

4D100380A

VAM350J8



NOTES

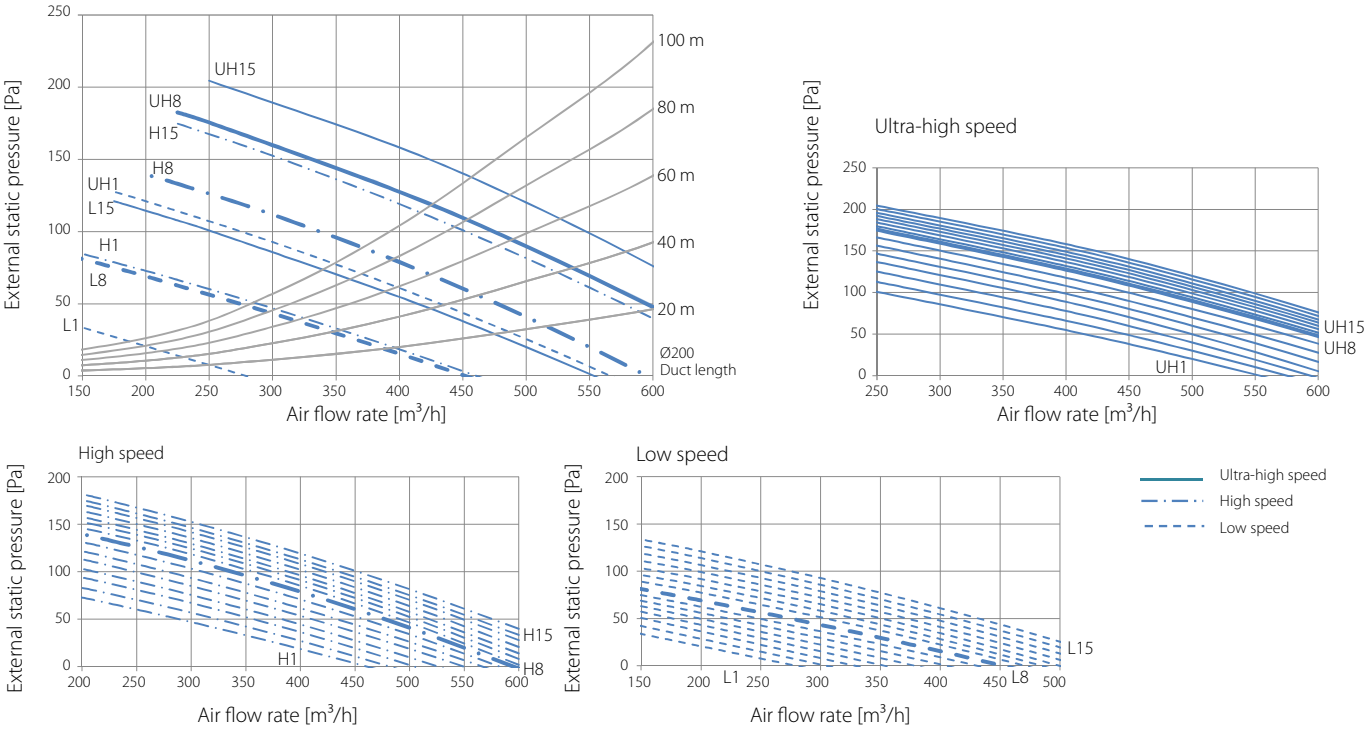
1. The fan curves are determined with ·1/3· of the ESP on the outdoor side (·EA & OA·), and ·2/3· of the ESP on the indoor side (·RA & SA·).
   EA = Exhaust air
   OA = Outdoor air
   RA = Room air
   SA = Supply air
2. Measured according to ·JIS B 8628 - 2003·

LEGEND

L1 = Low speed lower limit
L8 = Low speed factory setting
L15 = Low speed upper limit
H1 = High speed lower limit
H8 = High speed factory setting
H15 = High speed upper limit
UH1 = Ultra-high speed lower limit
UH8 = Ultra-high speed factory setting
UH15 = Ultra-high speed upper limit

3D113493B

VAM500J8



NOTES

1. The fan curves are determined with ·1/3· of the ESP on the outdoor side (·EA & OA·), and ·2/3· of the ESP on the indoor side (·RA & SA·).
   EA = Exhaust air
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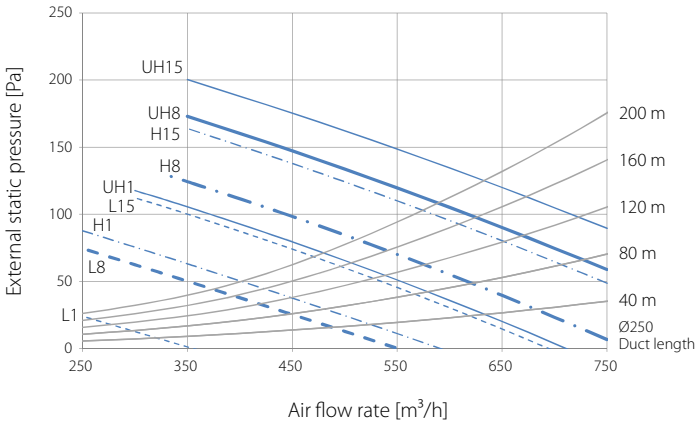
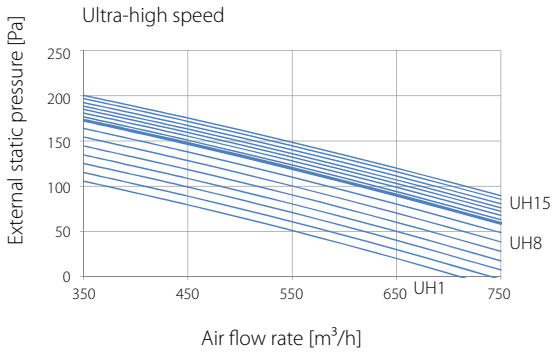
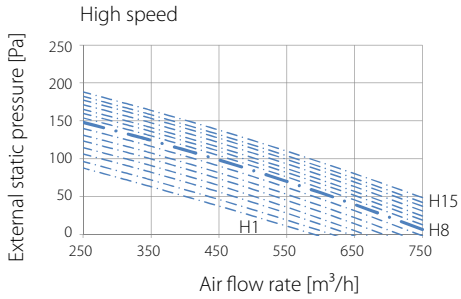
H15 = High speed upper limit
UH1 = Ultra-high speed lower limit
UH8 = Ultra-high speed factory setting
UH15 = Ultra-high speed upper limit

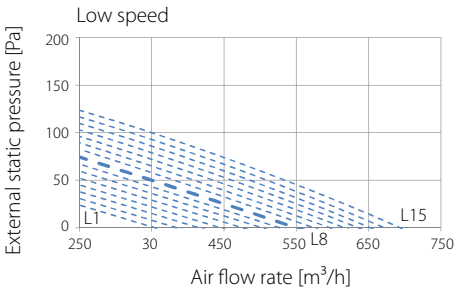
3D113494B

VAM650J8









Ultra-high speed
High speed
Low speed

NOTES

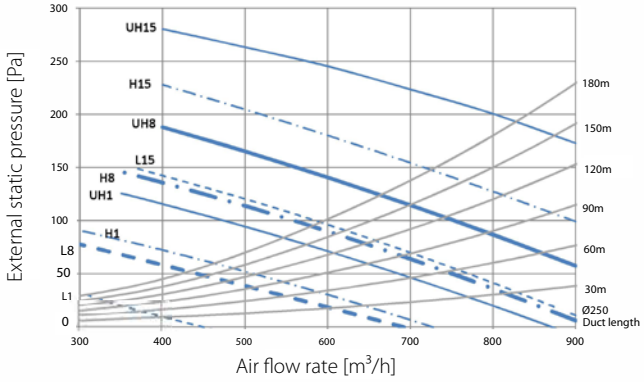
1. The fan curves are determined with 1/3 of the ESP on the outdoor side (EA & OA), and 2/3 of the ESP on the indoor side (RA & SA).
   EA = Exhaust air
   OA = Outdoor air
   RA = Room air
   SA = Supply air
2. Measured according to ·JIS B 8628 - 2003·

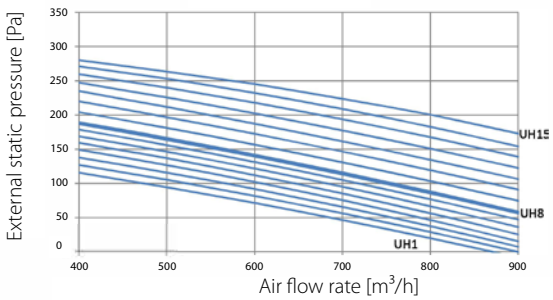
LEGEND

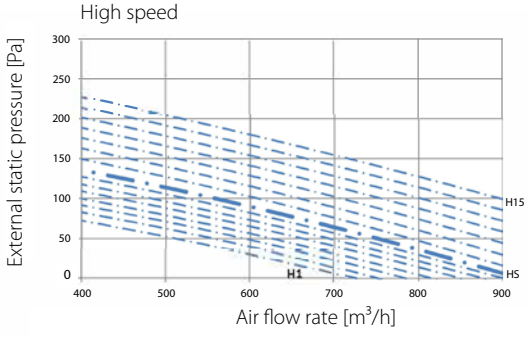
L1 = Low speed lower limit
L8 = Low speed factory setting
L15 = Low speed upper limit
H1 = High speed lower limit
H8 = High speed factory setting
H15 = High speed upper limit
UH1 = Ultra-high speed lower limit
UH8 = Ultra-high speed factory setting
UH15 = Ultra-high speed upper limit

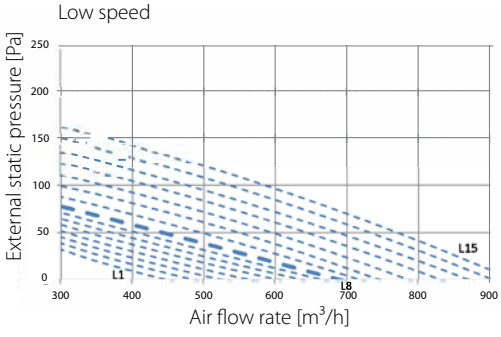
3D113495B

VAM800J8









Ultra-high speed
High speed
Low speed

NOTES

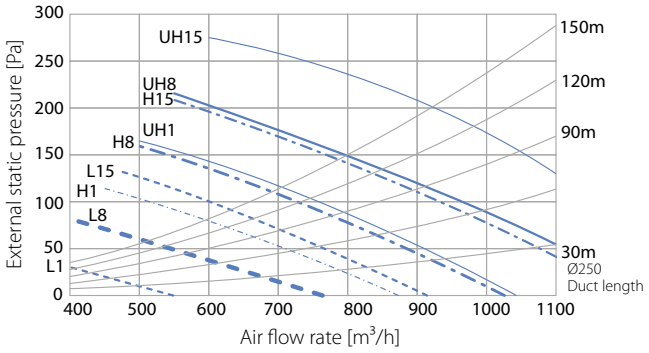
1. The fan curves are determined with 1/3 of the ESP on the outdoor side (EA & OA), and 2/3 of the ESP on the indoor side (RA & SA).
   EA = Exhaust air
   OA = Outdoor air
   RA = Room air
   SA = Supply air
2. Measured according to ·JIS B 8628 - 2003·

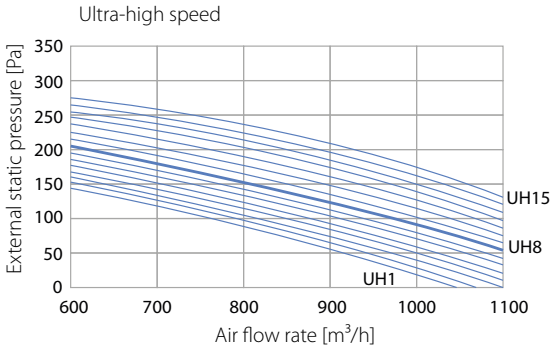
LEGEND

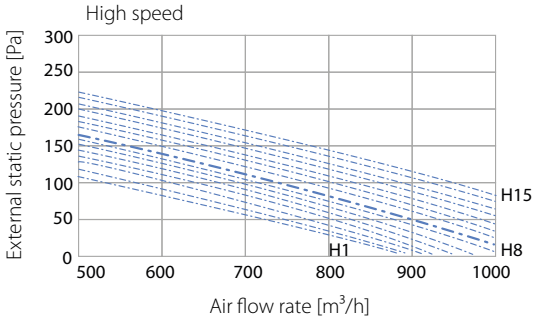
L1 = Low speed lower limit
L8 = Low speed factory setting
L15 = Low speed upper limit
H1 = High speed lower limit
H8 = High speed factory setting
H15 = High speed upper limit
UH1 = Ultra-high speed lower limit
UH8 = Ultra-high speed factory setting
UH15 = Ultra-high speed upper limit

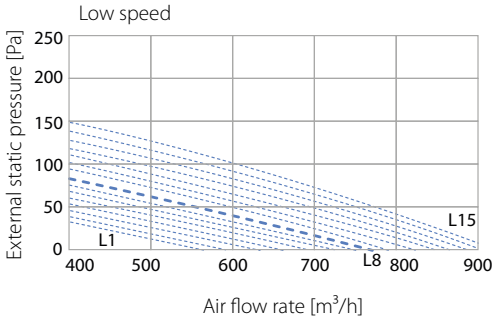
3D112837A

VAM1000J8









Ultra-high speed
High speed
Low speed

NOTES

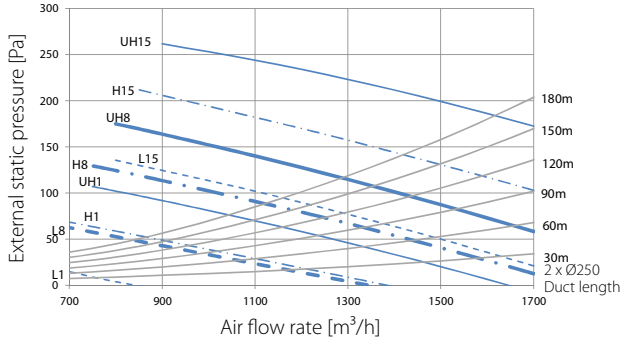
1. The fan curves are determined with 1/3 of the ESP on the outdoor side (EA & OA), and 2/3 of the ESP on the indoor side (RA & SA).
   EA = Exhaust air
   OA = Outdoor air
   RA = Room air
   SA = Supply air
2. Measured according to ·JIS B 8628 - 2003·

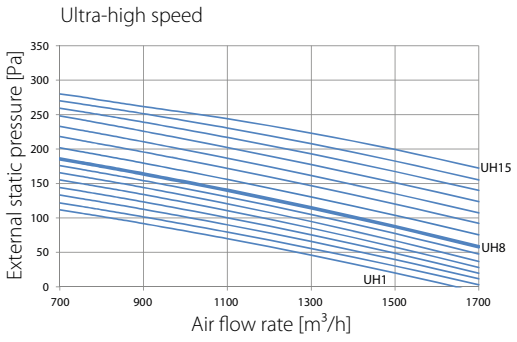
LEGEND

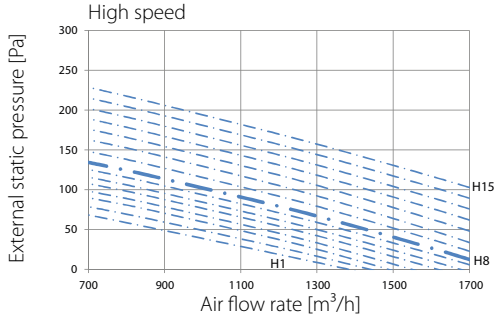
L1 = Low speed lower limit
L8 = Low speed factory setting
L15 = Low speed upper limit
H1 = High speed lower limit
H8 = High speed factory setting
H15 = High speed upper limit
UH1 = Ultra-high speed lower limit
UH8 = Ultra-high speed factory setting
UH15 = Ultra-high speed upper limit

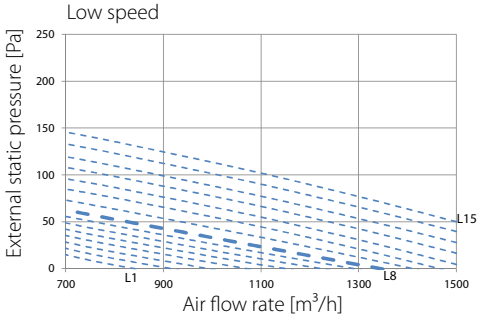
3D112832A

VAM1500J8









Ultra-high speed
High speed
Low speed

NOTES

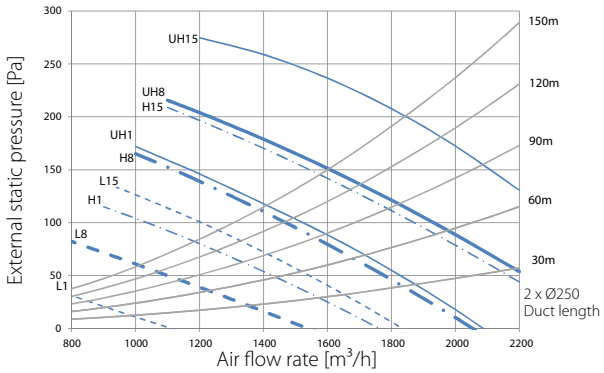
1. The fan curves are determined with 1/3 of the ESP on the outdoor side (EA & OA), and 2/3 of the ESP on the indoor side (RA & SA).
   EA = Exhaust air
   OA = Outdoor air
   RA = Room air
   SA = Supply air
2. Measured according to ·JIS B 8628 - 2003·

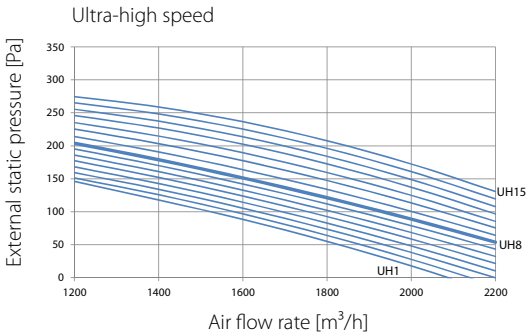
LEGEND

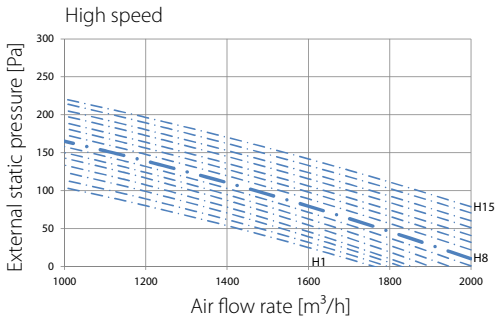
L1 = Low speed lower limit
L8 = Low speed factory setting
L15 = Low speed upper limit
H1 = High speed lower limit
H8 = High speed factory setting
H15 = High speed upper limit
UH1 = Ultra-high speed lower limit
UH8 = Ultra-high speed factory setting
UH15 = Ultra-high speed upper limit

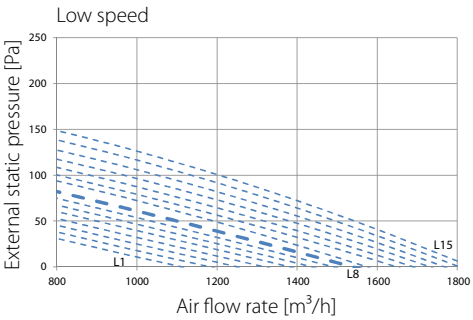
3D112838A

VAM2000J8









Ultra-high speed
High speed
Low speed

NOTES

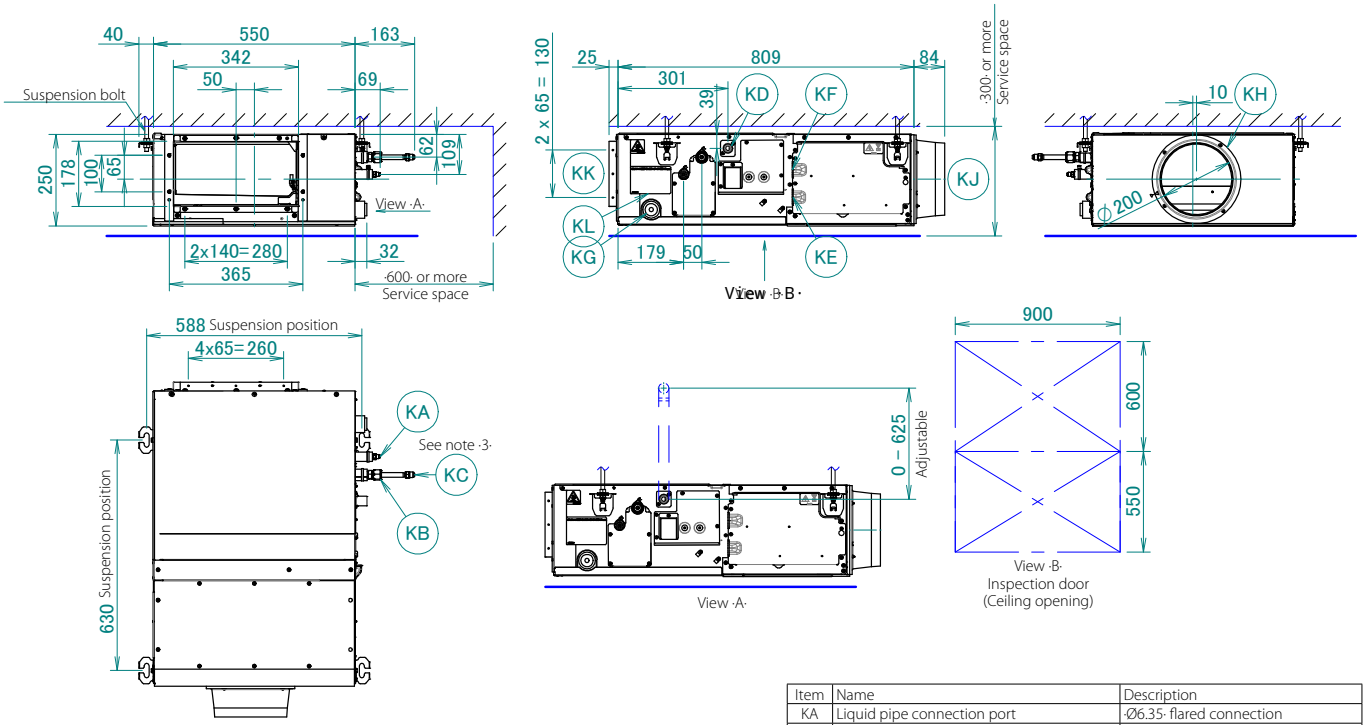
1. The fan curves are determined with 1/3 of the ESP on the outdoor side (EA & OA), and 2/3 of the ESP on the indoor side (RA & SA).
   EA = Exhaust air
   OA = Outdoor air
   RA = Room air
   SA = Supply air
2. Measured according to ·JIS B 8628 - 2003·

LEGEND

L1 = Low speed lower limit
L8 = Low speed factory setting
L15 = Low speed upper limit
H1 = High speed lower limit
H8 = High speed factory setting
H15 = High speed upper limit
UH1 = Ultra-high speed lower limit
UH8 = Ultra-high speed factory setting
UH15 = Ultra-high speed upper limit

3D112839A

EKVDX32A



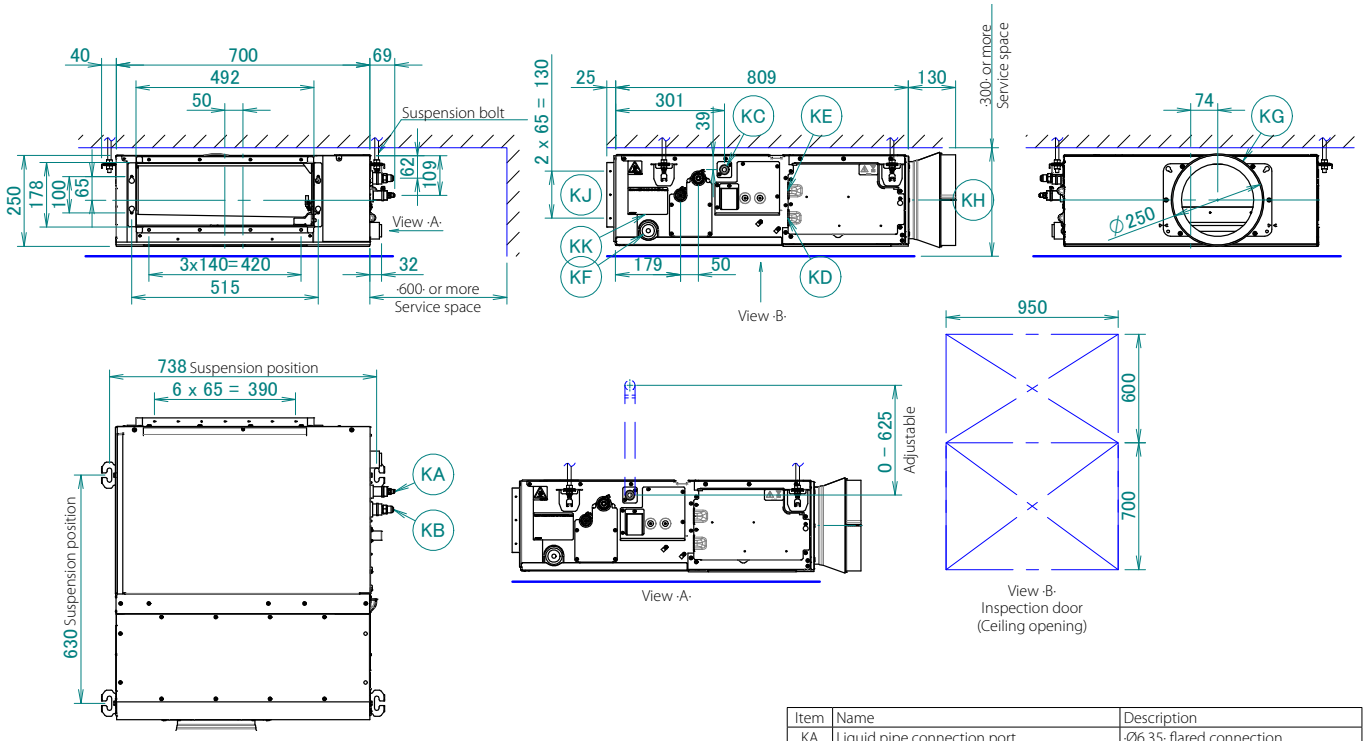
Item	Name	Description
KA	Liquid pipe connection port	·Ø6.35· flared connection
KB	Gas pipe connection port	·Ø12.70· flared connection
KC	Accessory pipe	·Ø9.52· flared connection
KD	Drain pipe connection	VP20 (OD Ø26, ID Ø20)
KE	Wiring connection	/
KF	Power supply connection	/
KG	Drain outlet	VP20 (OD Ø26, ID Ø20)
KH	Air inlet flange	/
KJ	Air suction side	/
KK	Air discharge side	/
KL	Nameplate	/

NOTES

1. When installing optional accessories, refer to their respective documentation.
2. The ceiling depth varies according to the documentation of the specific system.
3. Mandatory in case of using ·R32· refrigerant

3D127967

EKVDX50A



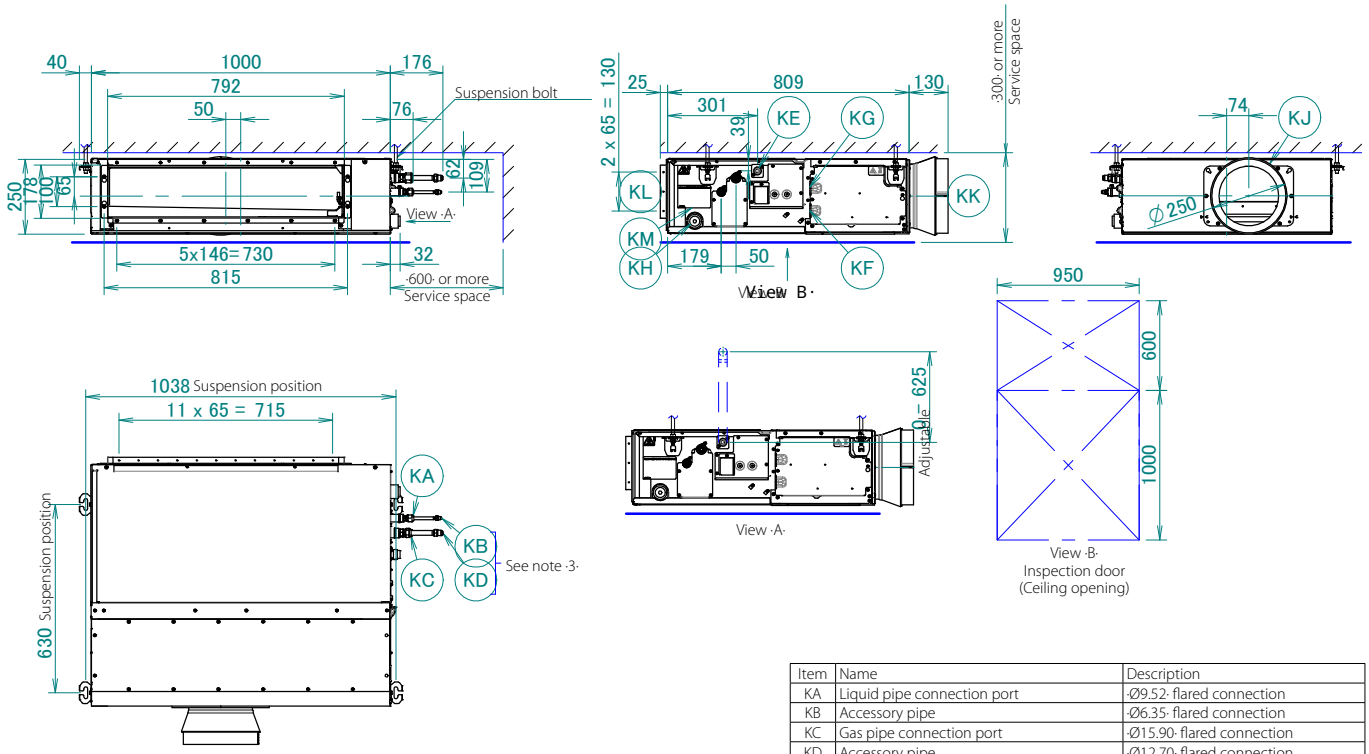
Item	Name	Description
KA	Liquid pipe connection port	·Ø6.35· flared connection
KB	Gas pipe connection port	·Ø12.70· flared connection
KC	Drain pipe connection	VP20 (OD Ø26, ID Ø20)
KD	Wiring connection	/
KE	Power supply connection	/
KF	Drain outlet	VP20 (OD Ø26, ID Ø20)
KG	Air inlet flange	/
KH	Air suction side	/
KJ	Air discharge side	/
KK	Nameplate	/

NOTES

1. When installing optional accessories, refer to their respective documentation.
2. The ceiling depth varies according to the documentation of the specific system.

3D127968

EKVDX80A



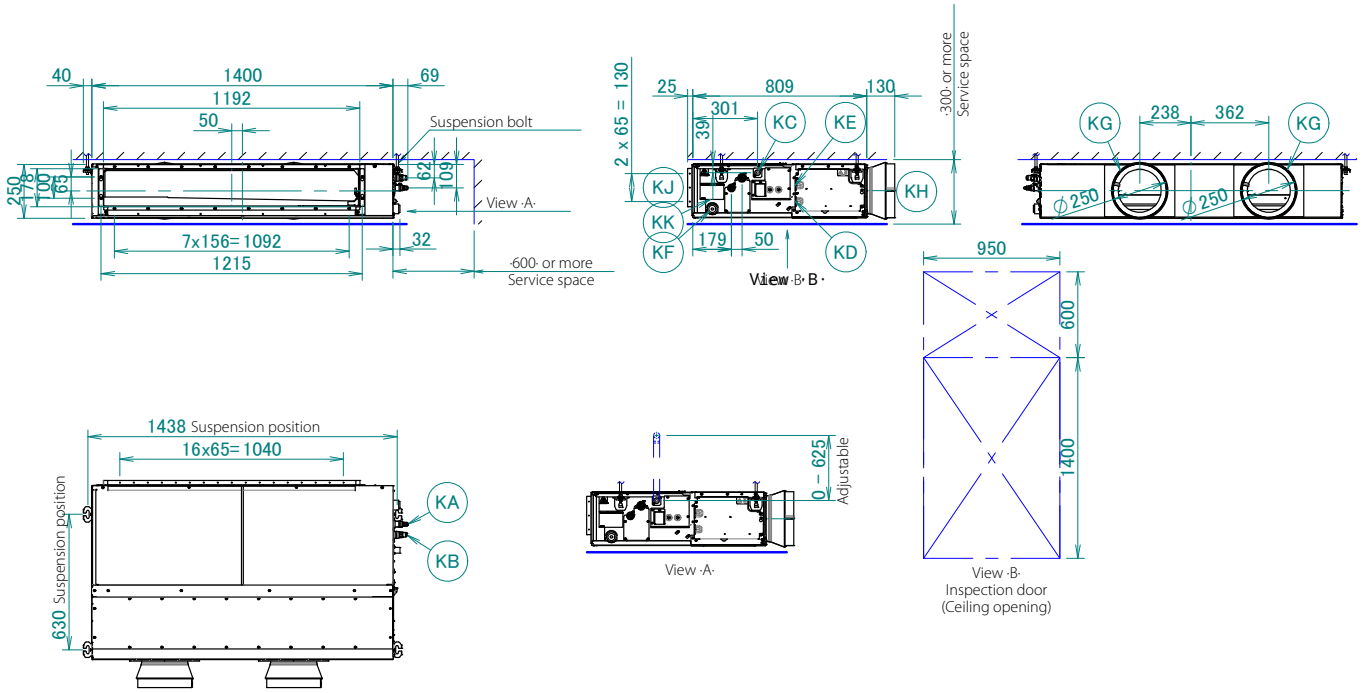
Item	Name	Description
KA	Liquid pipe connection port	·Ø9.52· flared connection
KB	Accessory pipe	·Ø6.35· flared connection
KC	Gas pipe connection port	·Ø15.90· flared connection
KD	Accessory pipe	·Ø12.70· flared connection
KE	Drain pipe connection	VP20 (OD Ø26, ID Ø20)
KF	Wiring connection	/
KG	Power supply connection	/
KH	Drain outlet	VP20 (OD Ø26, ID Ø20)
KJ	Air inlet flange	/
KK	Air suction side	/
KL	Air discharge side	/
KM	Nameplate	/

NOTES

1. When installing optional accessories, refer to their respective documentation.
2. The ceiling depth varies according to the documentation of the specific system.
3. Mandatory in case of using ·R32· refrigerant

3D127969

EKVDX100A



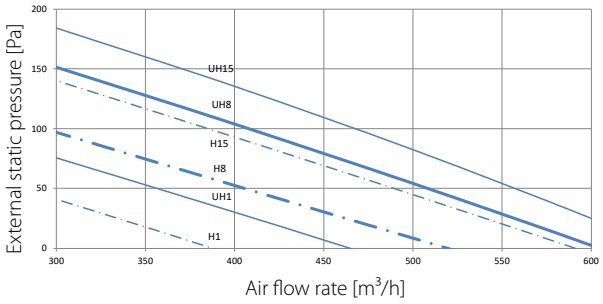
Item	Name	Description
KA	Liquid pipe connection port	·Ø9.52· flared connection
KB	Gas pipe connection port	·Ø15.90· flared connection
KC	Drain pipe connection	VP20 (OD Ø26, ID Ø20)
KD	Wiring connection	/
KE	Power supply connection	/
KF	Drain outlet	VP20 (OD Ø26, ID Ø20)
KG	Air inlet flange	/
KH	Air suction side	/
KJ	Air discharge side	/
KK	Nameplate	/

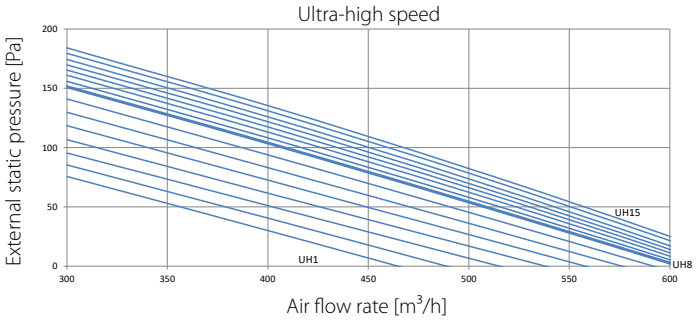
NOTES

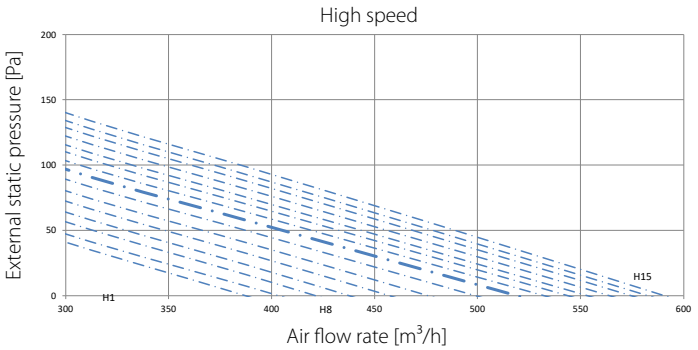
1. When installing optional accessories, refer to their respective documentation.
2. The ceiling depth varies according to the documentation of the specific system.

3D127970

EKVDX32A







LEGEND

H1 = High speed lower limit
H8 = High speed factory setting
H15 = High speed upper limit
UH1 = Ultra-high speed lower limit
UH8 = Ultra-high speed factory setting
UH15 = Ultra-high speed upper limit

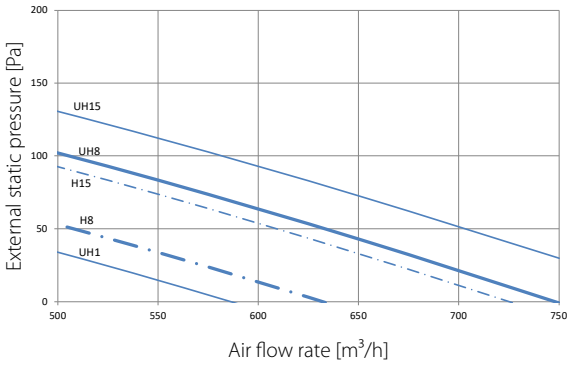
Ultra-high speed
High speed

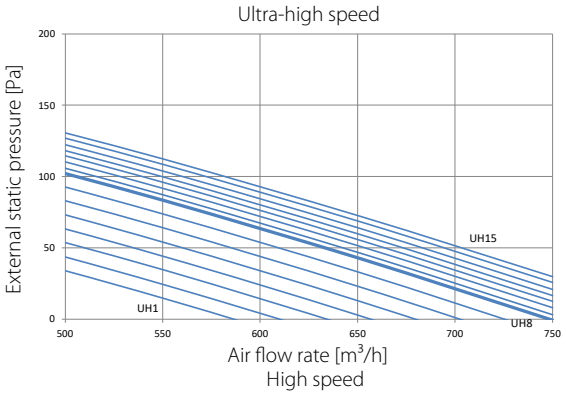
NOTES

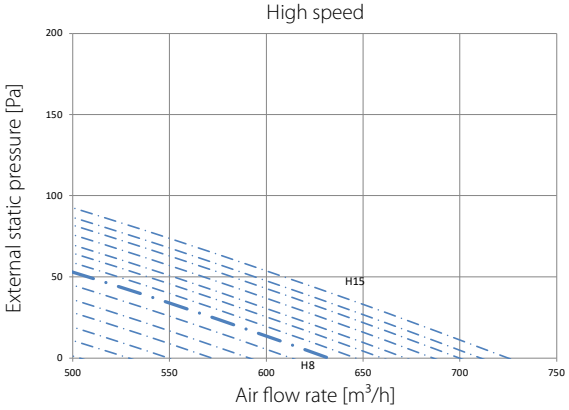
1. The fan curves are determined with ·1/3· of the ESP on the outdoor side (·EA & OA·), and ·2/3· of the ESP on the indoor side (·RA & SA·).
   EA = Exhaust air
   OA = Outdoor air
   RA = Room air
   SA = Supply air
2. The designed airflow of the system at H and UH tap should be kept as shown in the graphs. If the ·VAM· airflow is out of this range, the compressor of the outdoor unit may stop for selfprotection purposes.
3. Unit operation with R32 refrigerant is possible in the shaded area of the graphs, but the R32 safety alarm will be triggered if the system airflow drops within this area during operation. No selection in this area is allowed.
4. Measured according to ·JIS B 8628 - 2003·

3D138264

EKVDX50A







LEGEND

H1 = High speed lower limit
H8 = High speed factory setting
H15 = High speed upper limit
UH1 = Ultra-high speed lower limit
UH8 = Ultra-high speed factory setting
UH15 = Ultra-high speed upper limit

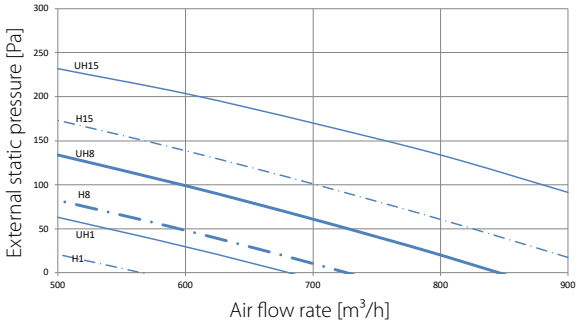
Ultra-high speed
High speed

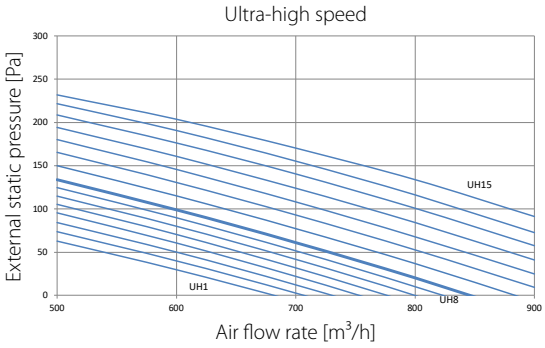
NOTES

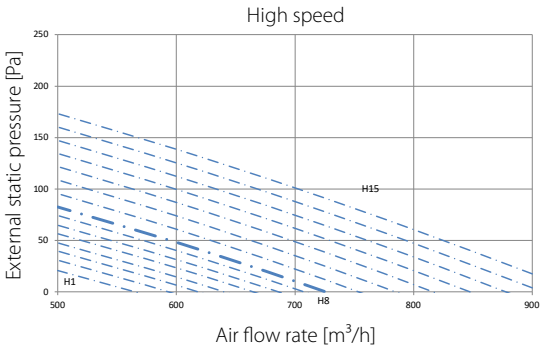
1. The fan curves are determined with ·1/3· of the ESP on the outdoor side (·EA & OA·), and ·2/3· of the ESP on the indoor side (·RA & SA·).
   EA = Exhaust air
   OA = Outdoor air
   RA = Room air
   SA = Supply air
2. The designed airflow of the system at H and UH tap should be kept as shown in the graphs. If the ·VAM· airflow is out of this range, the compressor of the outdoor unit may stop for selfprotection purposes.
3. Measured according to ·JIS B 8628 - 2003·

3D138265

EKVDX50A







LEGEND

H1 = High speed lower limit
H8 = High speed factory setting
H15 = High speed upper limit
UH1 = Ultra-high speed lower limit
UH8 = Ultra-high speed factory setting
UH15 = Ultra-high speed upper limit

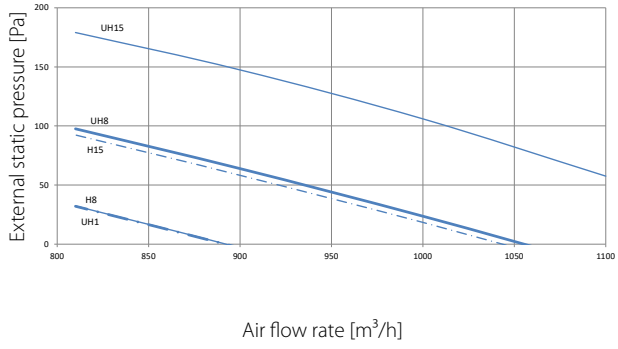
Ultra-high speed
High speed

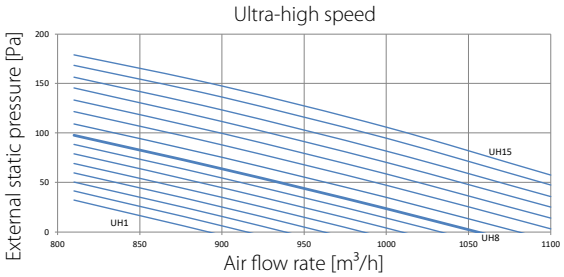
NOTES

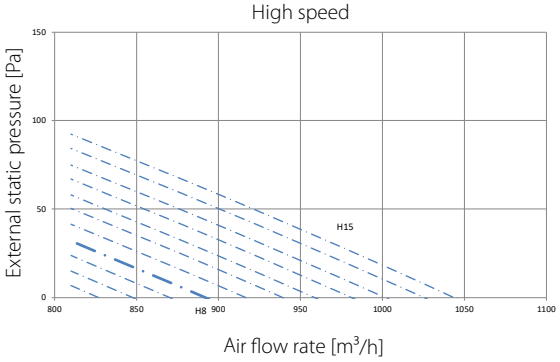
1. The fan curves are determined with ·1/3· of the ESP on the outdoor side (·EA & OA·), and ·2/3· of the ESP on the indoor side (·RA & SA·).
   EA = Exhaust air
   OA = Outdoor air
   RA = Room air
   SA = Supply air
2. The designed airflow of the system at H and UH tap should be kept as shown in the graphs. If the ·VAM· airflow is out of this range, the compressor of the outdoor unit may stop for self-protection purposes.
3. Measured according to ·JIS B 8628 - 2003·

3D138266

EKVDX80A







LEGEND

H1 = High speed lower limit
H8 = High speed factory setting
H15 = High speed upper limit
UH1 = Ultra-high speed lower limit
UH8 = Ultra-high speed factory setting
UH15 = Ultra-high speed upper limit

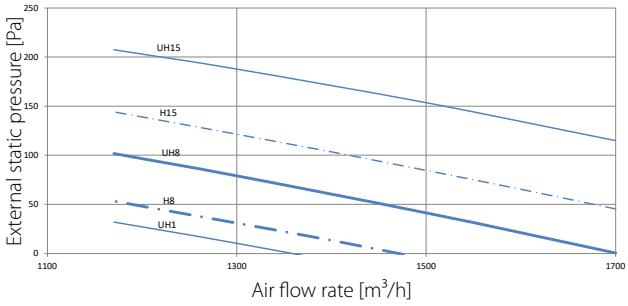
Ultra-high speed
High speed

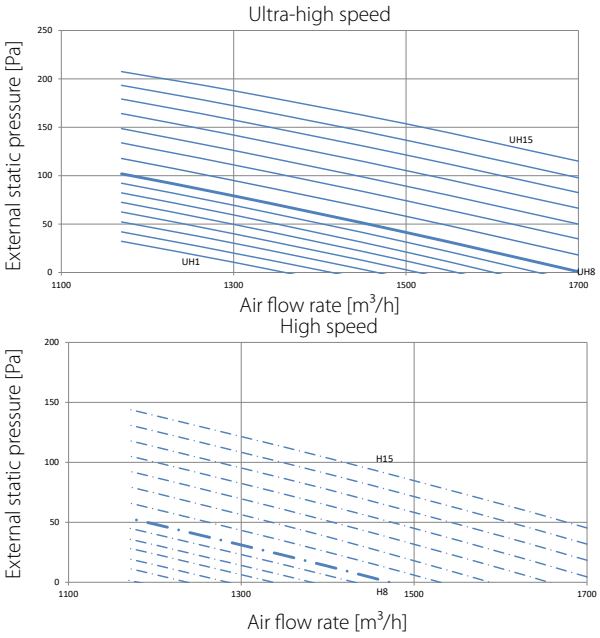
NOTES

1. The fan curves are determined with ·1/3· of the ESP on the outdoor side (·EA & OA·), and ·2/3· of the ESP on the indoor side (·RA & SA·).
   EA = Exhaust air
   OA = Outdoor air
   RA = Room air
   SA = Supply air
2. The designed airflow of the system at H and UH tap should be kept as shown in the graphs. If the ·VAM· airflow is out of this range, the compressor of the outdoor unit may stop for selfprotection purposes.
3. Measured according to ·JIS B 8628 - 2003·

3D138267

EKVDX100A





LEGEND

H1 = High speed lower limit
H8 = High speed factory setting
H15 = High speed upper limit
UH1 = Ultra-high speed lower limit
UH8 = Ultra-high speed factory setting
UH15 = Ultra-high speed upper limit

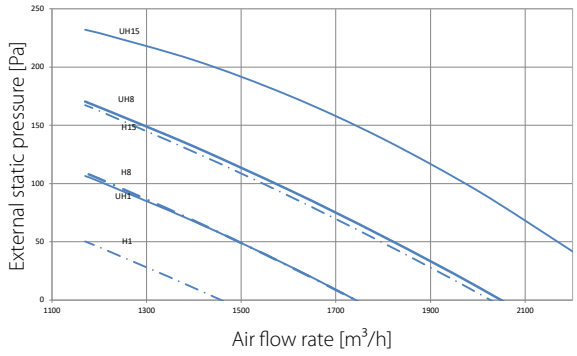
Ultra-high speed
High speed

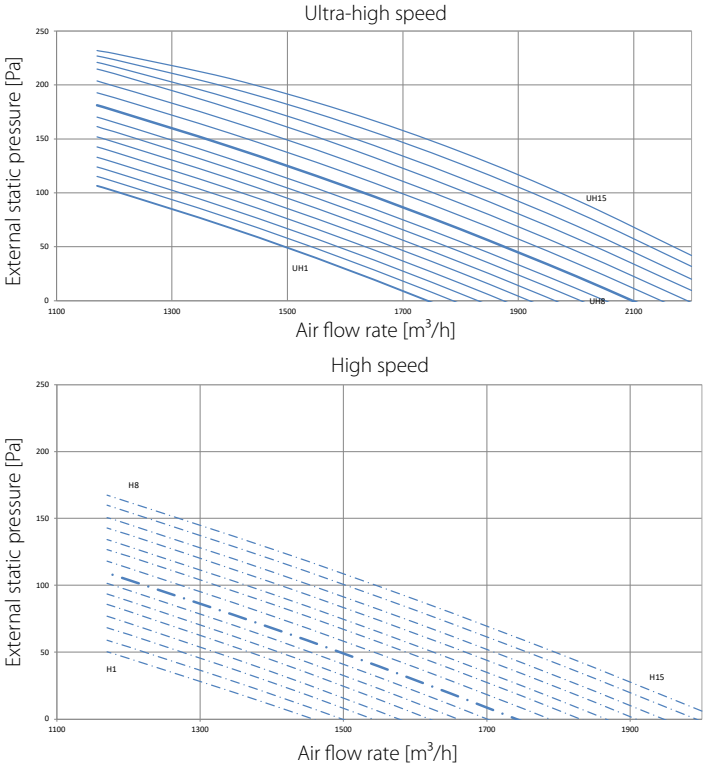
NOTES

1. The fan curves are determined with ·1/3· of the ESP on the outdoor side (·EA & OA·), and ·2/3· of the ESP on the indoor side (·RA & SA·).
   EA = Exhaust air
   OA = Outdoor air
   RA = Room air
   SA = Supply air
2. The designed airflow of the system at H and UH tap should be kept as shown in the graphs. If the ·VAM· airflow is out of this range, the compressor of the outdoor unit may stop for selfprotection purposes.
3. Measured according to ·JIS B 8628 - 2003·

3D138268

EKVDX100A





LEGEND

H1 = High speed lower limit
H8 = High speed factory setting
H15 = High speed upper limit
UH1 = Ultra-high speed lower limit
UH8 = Ultra-high speed factory setting
UH15 = Ultra-high speed upper limit

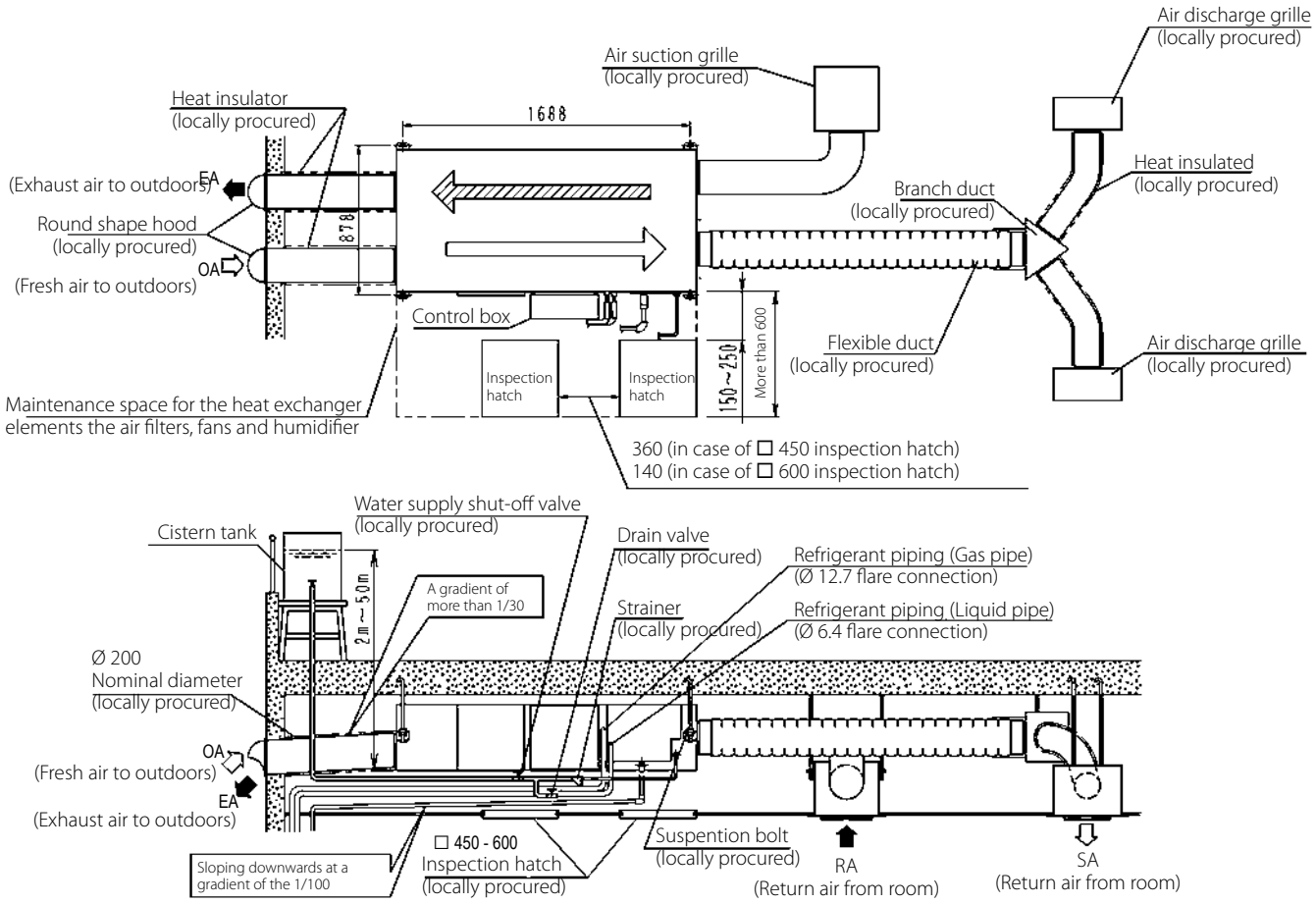
Ultra-high speed
High speed

NOTES

1. The fan curves are determined with ·1/3· of the ESP on the outdoor side (·EA & OA·), and ·2/3· of the ESP on the indoor side (·RA & SA·).
   EA = Exhaust air
   OA = Outdoor air
   RA = Room air
   SA = Supply air
2. The designed airflow of the system at H and UH tap should be kept as shown in the graphs. If the ·VAM· airflow is out of this range, the compressor of the outdoor unit may stop for selfprotection purposes.
3. Measured according to ·JIS B 8628 - 2003·

3D138269

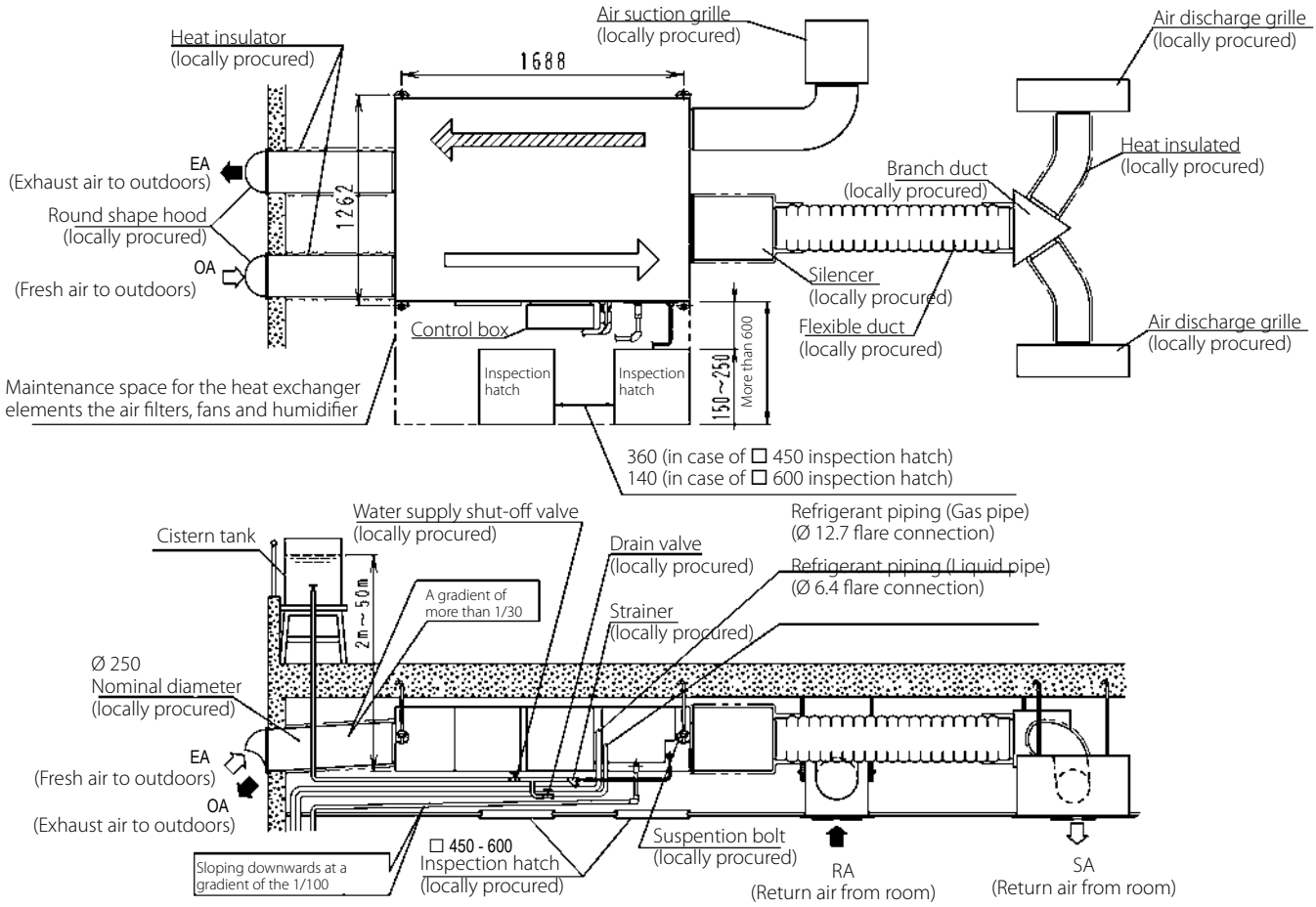
VKM50GBM



NOTES

1. Leave space for servicing the unit and include inspection hatch. (Always open a hole on the side of the control box so that the air filters heat exchange elements, and fans can easily be inspected and serviced.)
2. Install the two outdoor ducts with down slope (slope of 1/30 or more) to prevent entry of rain water, also, provide insulation for three ducts (outdoor ducts and indoor supply air duct) to prevent dew condensation. (Material: glass wool of 25mm thick)
3. Do not turn the unit upside down.
4. Use city water or clean water.
   Include water supply piping with strainer, a water supply shut-off valve, and a drain valve (both locally procured) somewhere along the water supply piping that can be reached from the inspection.
5. It is impossible to connect the water supply piping directly to public piping. Use a cistern tank (of the approved type), if you need to get your water supply from public piping.
6. Make sure the supply water 0.02MPa to 0.49MPa (0.2 kg/cm^2 to 5 kg/cm^2)
7. Make sure the supply water is between 5°C and 40°C in temperature.
8. Insulate the water supply piping to prevent condensation from forming.
9. Make sure to install drain piping, and insulate drain piping to prevent dew condensation.
10. Keep the drain pipe short and sloping downwards at a gradient of at least 1/100 to prevent air from forming.
11. Install in a location where the air around the unit or taken into the umidifier will not drop below 0°C.
12. Do not use a bent cap or a round hood as the outdoor hood if they might get rained on directly (we recommend using a deep hood) (optional accessory).
13. In areas where freezing may occur, always take steps to prevent the pipes from freezing.
14. Do not place something which shouldn't get wet at the below of this unit. The dew would fall at following case, where humidity is 80% more, or the exit of drain socket is choked up, or the air filter is very dirty.
15. Feed clean water. If the supply water is hard water, use a water softener because of short life.
    Life of humidifying element is about 3 years (4,000 hours), under the supply water conditions of hardness: 150 mg/L. (Life of humidifying element is about 1 years (1,500 hours), under the supply water conditions of hardness: 400 mg/L.)

VKM80GBM



NOTES

1. Leave space for servicing the unit and include inspection hatch. (Always open a hole on the side of the control box so that the air filters heat exchange elements, and fans can easily be inspected and serviced.)
2. Install the two outdoor ducts with down slope (slope of 1/30 or more) to prevent entry of rain water, also, provide insulation for three ducts (outdoor ducts and indoor supply air duct) to prevent dew condensation. (Material: glass wool of 25mm thick)
3. Do not turn the unit upside down.
4. Use city water or clean water.
   Include water supply piping with strainer, a water supply shut-off valve, and a drain valve (both locally procured) somewhere along the water supply piping that can be reached from the inspection.
5. It is impossible to connect the water supply piping directly to public piping. Use a cistern tank (of the approved type), if you need to get your water supply from public piping.
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11. Install in a location where the air around the unit or taken into the umidifier will not drop below 0°C.
12. Do not use a bent cap or a round hood as the outdoor hood if they might get rained on directly (we recommend using a deep hood) (optional accessory).
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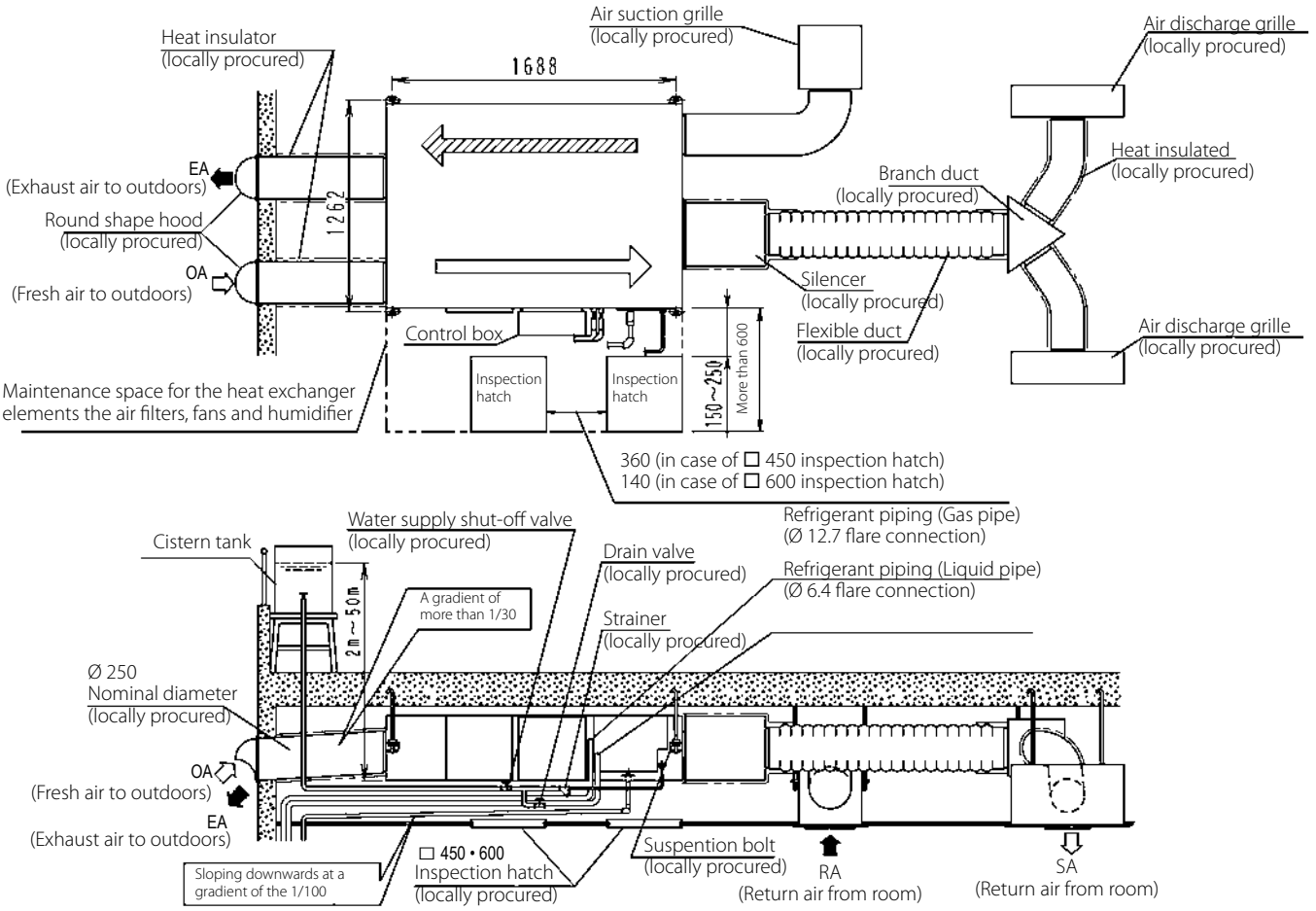
15. Feed clean water. If the supply water is hard water, use a water softener because of short life.
    Life of humidifying element is about 3 years (4,000 hours), under the supply water conditions of hardness: 150 mg/L. (Life of humidifying element is about 1 years (1,500 hours), under the supply water conditions of hardness: 400 mg/L.)

3D083012

VKM100GBM



NOTES

1. Leave space for servicing the unit and include inspection hatch. (Always open a hole on the side of the control box so that the air filters, heat exchange elements, fans and humidifier elements can easily be inspected and serviced.)
2. Install the two outdoor ducts with down slope (slope of 1/30 or more) to prevent entry of rain water. Also, provide insulation for three ducts (outdoor ducts and indoor supply air duct) to prevent dew condensation. (Material: glass wool of 25mm thick)
3. Do not turn the unit upside down.
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   Include water supply piping with strainer, a water supply shut-off valve, and a drain valve (both locally procured) somewhere along the water supply piping that can be reached from the inspection.
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8. Insulate the water supply piping to prevent condensation from forming.
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10. Keep the drain pipe short and sloping downwards at a gradient of at least 1/100 to prevent air from forming.
11. Install in a location where the air around the unit or taken into the umidifier will not drop below 0°C.
12. Do not use a bent cap or a round hood as the outdoor hood if they might get rained on directly (we recommend using a deep hood) (optional accessory).
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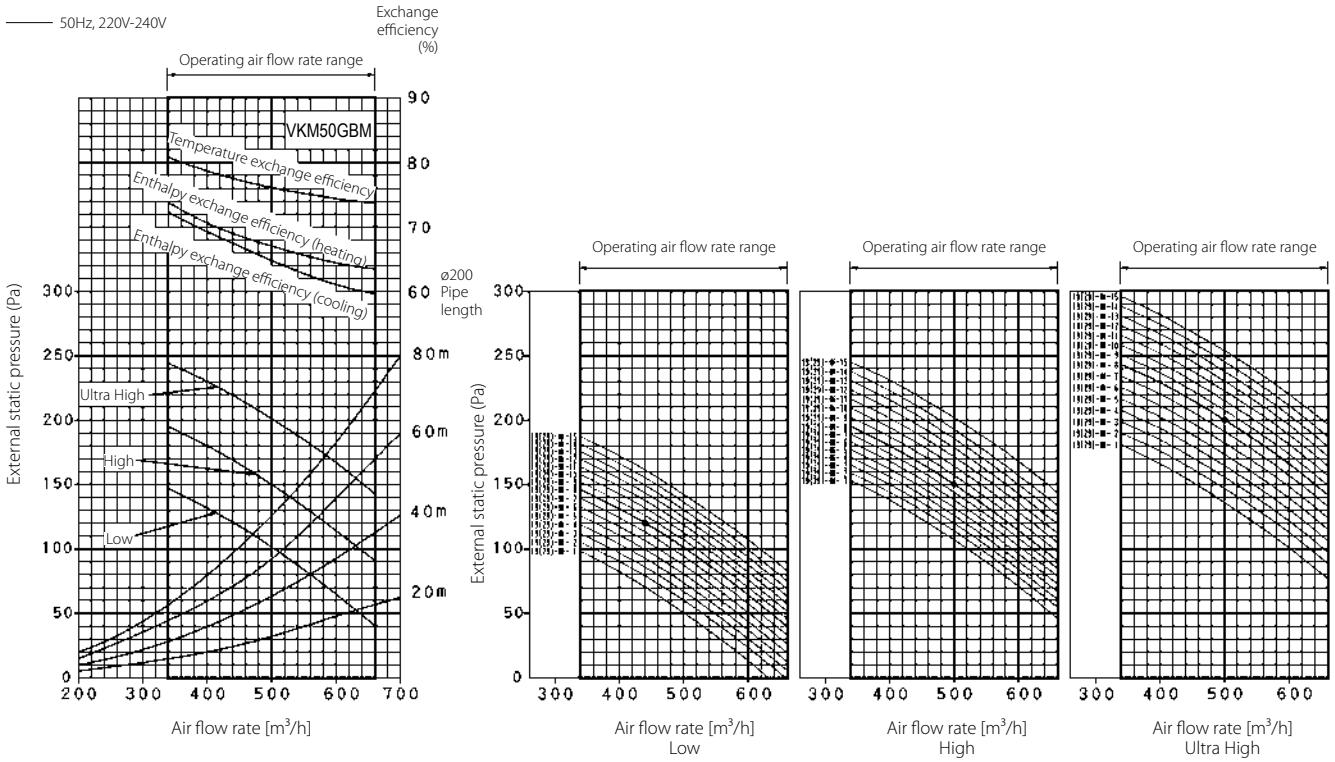
14. Do not place something which shouldn't get wet at the below of this unit. The dew would fall at following case, where humidity is 80% more, or the exit of drain socket is choked up, or the air filter is very dirty.
15. Feed clean water. If the supply water is hard water, use a water softener because of short life.
    Life of humidifying element is about 3 years (4,000 hours), under the supply water conditions of hardness: 150 mg/L. (Life of humidifying element is about 1 years (1,500 hours), under the supply water conditions of hardness: 400 mg/L.)

VKM50GBM



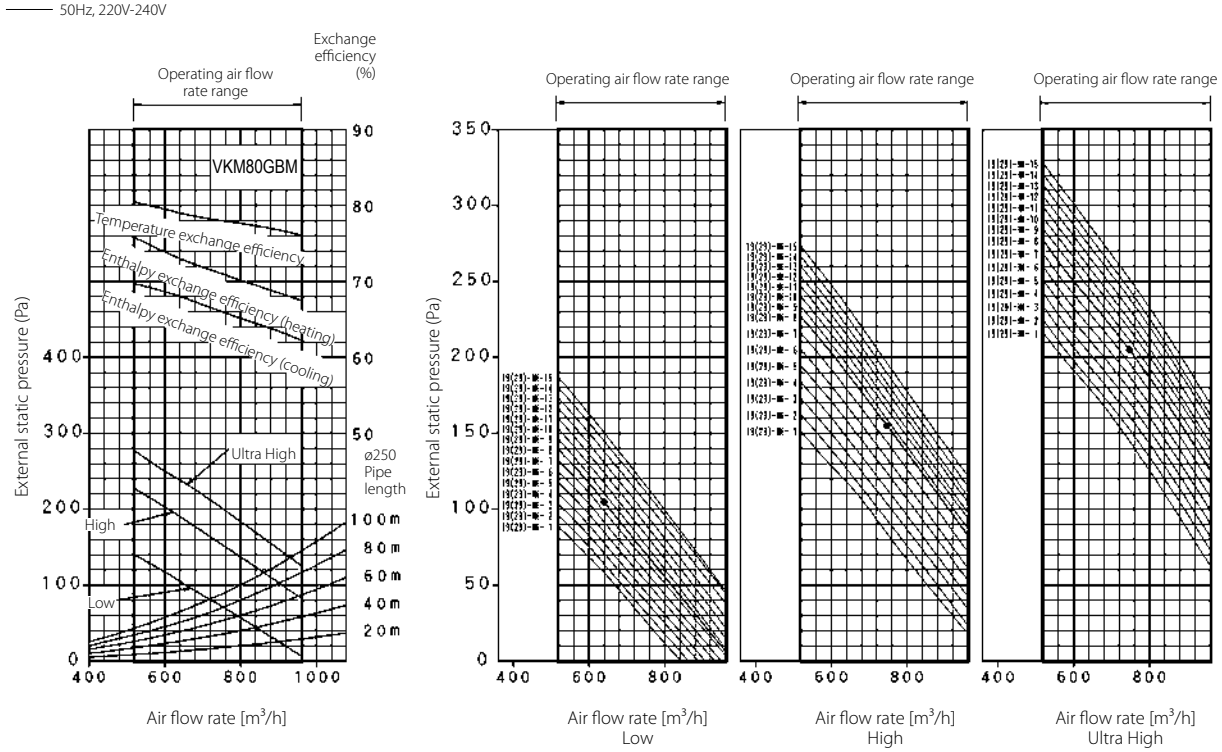
[READING OF PERFORMANCE CHARACTERISTICS]

1. For example: 19(29)-※-07
   Mode no.: 19(29)
   First code: ※ (Supply ⌈2⌋ Exhaust ⌈3⌋)
   Second code no.: 07
2. Rated point: ●
3. The characteristic of each tap becomes a setup of the characteristic of the same code number.

3D082901

VKM80GBM

VKM80GBM



[READING OF PERFORMANCE CHARACTERISTICS]

1. For example: 19(29)-※-07
   Mode no.: 19(29)
   First code: ※ (Supply ⌈2⌋ Exhaust ⌈3⌋)
   Second code no.: 07
2. Rated point: ●
3. The characteristic of each tap becomes a setup of the characteristic of the same code number.

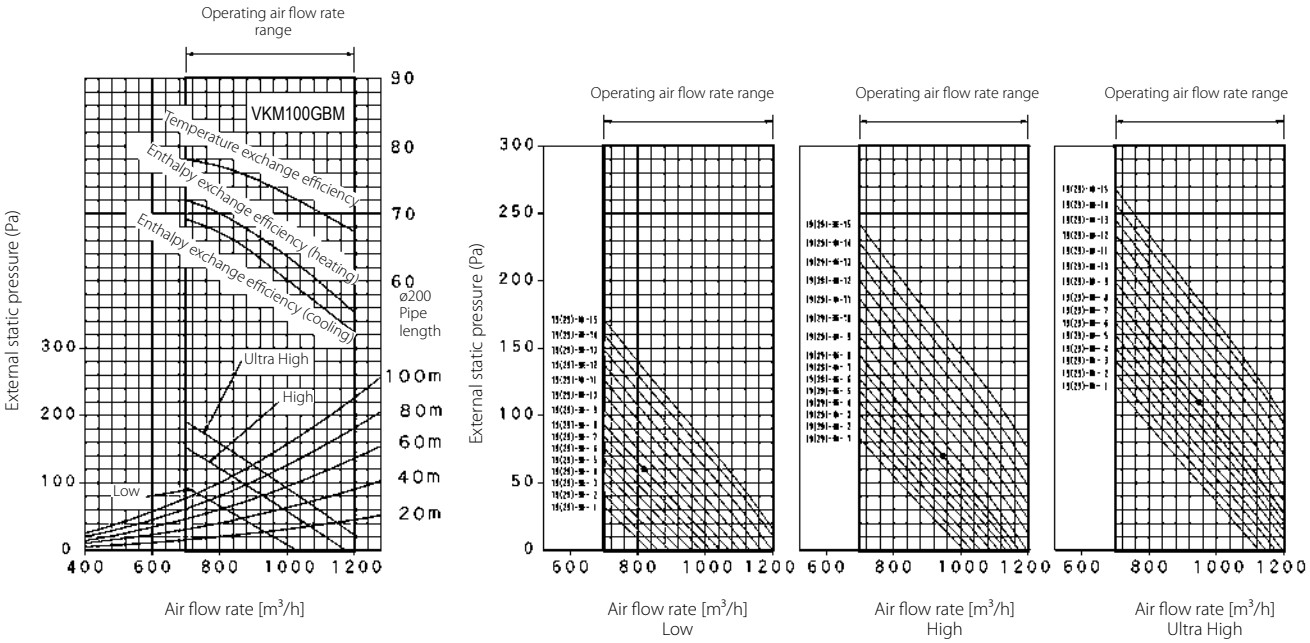
3D082902

CLICK HERE TO VIEW ALL VKM-GBM TECHNICAL DRAWINGS ON MY.DAIKIN.EU

VKM100GBM

50Hz, 220V-240V

Exchange efficiency (%)



[READING OF PERFORMANCE CHARACTERISTICS]

1. For example: 19(29)-※-07
   Mode no.: 19(29)
   First code: ※ (Supply ⌜2⌟ Exhaust ⌜3⌟)
   Second code no.: 07
2. Rated point: ●
3. The characteristic of each tap becomes a setup of the characteristic of the same code number.

3D082903

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