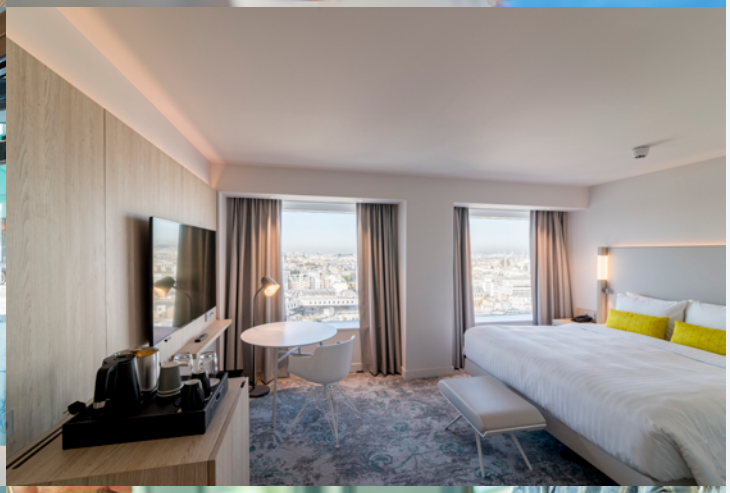
Commercial and residential ventilation 2025

Product catalogue for professionals



Fresh air for the commercial and residential sector
Heat recovery ventilation and air handling applications


System monitoring
BZ04-875
A01

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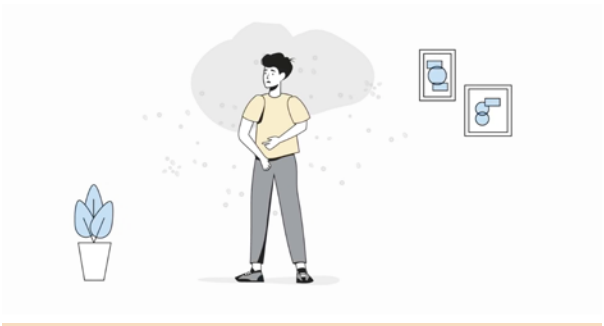
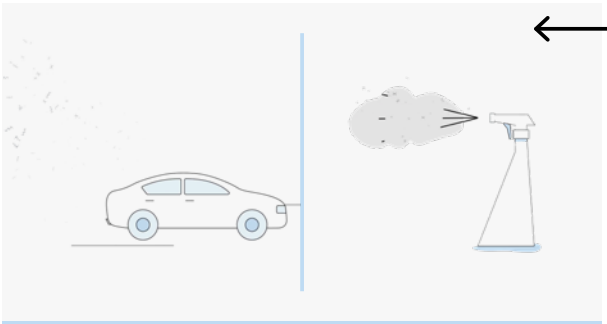
Why Indoor Air Quality?

We spend 90% of our time indoors in closed spaces such as schools, buildings, offices, etc.



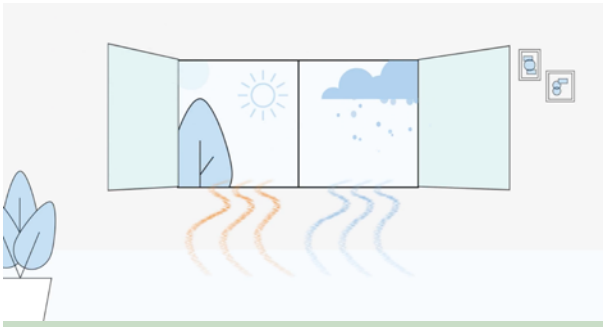
But did you know that the indoor air can be up to **2-5 times worse** than the air outside?

Due to growing urbanization and high insulation of the buildings, pollutants get trapped inside leading to poor indoor air quality causing moisture increase and other health issues.



Sources of indoor air pollution are more common than we think. VOCs released from cleaning products, furniture, or even from new building materials can linger inside. Pollution from the outside released from vehicles, etc. can also be a potential source of indoor air pollution.

Poor IAQ is linked to respiratory short-term issues like allergies, asthma, and also in the long term to diseases such as respiratory infections, and cardiovascular disease. The risk is greatest for the elderly and young children who tend to spend more time indoors.



Opening windows could also lead to ingress of pollutants and substantial energy losses. Moreover, many situations linked to security, acoustic, outside pollution, etc… do not allow to make use of them.

The solution? **A combination of various components** such as ventilation, air processing, filtration & air purification can contribute to better indoor air quality.

Watch our indoor air quality video on YouTube **to learn more** about sources and consequences of poor air quality.

5 components for ensuring good indoor air quality

Air processing

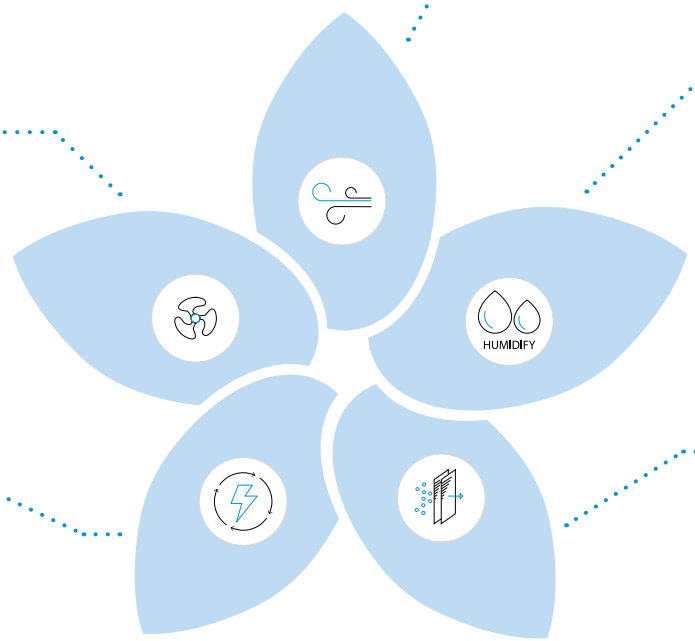
Delivers the required conditioned air to **optimise the energy efficiency** of indoor HVAC equipment

Humidification

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

Ventilation

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



Energy & recovery

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

Filtration & purification

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.

Commercial ventilation

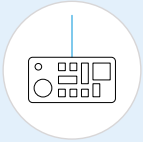
Widest range of DX integrated ventilation on the market

Daikin offers a variety of solutions from small energy recovery ventilation to large-scale Air Handling Units for the provision of fresh air ventilation for commercial premises.

Unique portfolio within DX manufacturers that can easily be integrated into any project

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** (Compact L/ Compact 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.

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

Market leading controls & connectivity

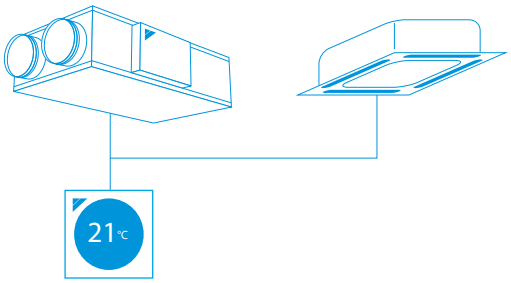
- Interlock of ventilation and air conditioning system
  - Control ERV/HRV and air conditioning from the same controller
  - Aligns the operation mode between the systems to save energy
- Easy integration in the total solution
  - Online control and monitoring via the Daikin Cloud Service
  - Full portfolio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

Madoka

DAIKIN CLOUD PLUS

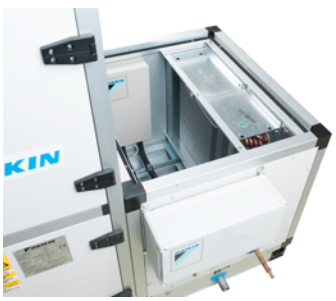
DESIGN AWARD 2018

reddot award 2018 winner



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/Compact L Smart, Compact T and the electrical heater
- Daikin AHU and condensing unit connect Plug & Play thanks to same pipe diameters, factory mounted controls, expansion valves, etc.



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

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)

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:

Please refer to our dedicate page on Indoor Air Quality for more information.

Cognitive function scores …

+ 61%
in green building conditions

+ 101%
in enhanced green building conditions

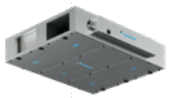
Products overview

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

Decentralised systems

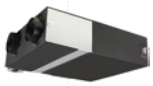
- Superior IAQ level: up to three stage filtration on supply side
- DX coil integration for a unique Daikin fresh air package
- Plug&Play control solution, for a quick and easy start-up

Compact T 200 m³/h up to 4,200 m³/h



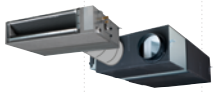
- High efficiency counterflow heat exchanger
- VDI 6022 Compliant
- Compact design for false ceiling installation

Compact L 150 m³/h up to 4,000 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-J8 150 m³/h up to 2,000 m³/h



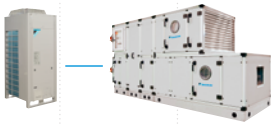
- DX coil for post-treatment of fresh air
- Split up concept increases application flexibility
- Integrates both in R-32 and R-410A VRV systems

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 controls
- With DX or water coil option

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

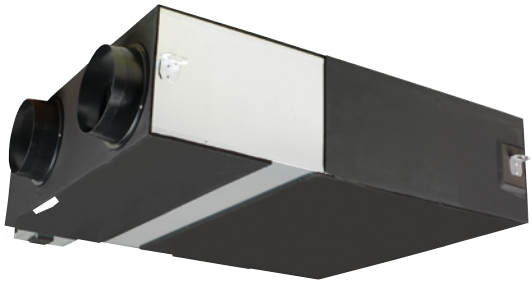
- Rotary heat exchanger (sorption and sensible technology)
- Pre-configured sizes
- Plug & Play controls
- With DX or water coil option

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

Decentralised ventilation

VAM – energy reclaim ventilation

Boost energy efficiency and indoor air quality with Daikin's VAM units. Designed for seamless A/C integration, easy installation, and smart control features, they deliver powerful performance in a compact, space-saving design.

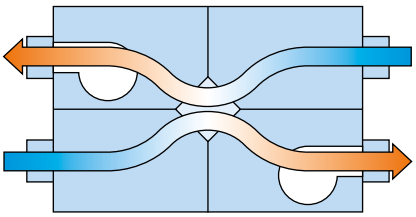


Benefits:

☑ Efficient Energy Recovery

Daikin's proprietary crossflow heat exchanger (HEP) allows both temperature and humidity exchange, significantly improving energy recovery from exhaust air.

☑ High Indoor Air Quality



Optional high-performance filters (up to ePM1 70%) ensure excellent air purification, and an optional CO_2 sensor enables automatic airflow adjustment based on room air quality.

☑ Advanced Control Functions

- **Free Cooling:** Automatically uses outdoor air when conditions allow, including nighttime operation to reduce morning cooling load.
- **Precool/Preheat:** Starts ventilation shortly after A/C activation for enhanced comfort.
- **Fresh-Up Mode:** Enables over- or under-pressure in the room by adjusting fan speeds.

☑ Optimized Supply Air Control

Compatible with the EKVDX DX coil module for precise supply air temperature regulation.

☑ Flexible Installation

Compact design makes the VAM one of the slimmest units on the market, with adaptable mounting positions and direct duct connection to Daikin indoor units.

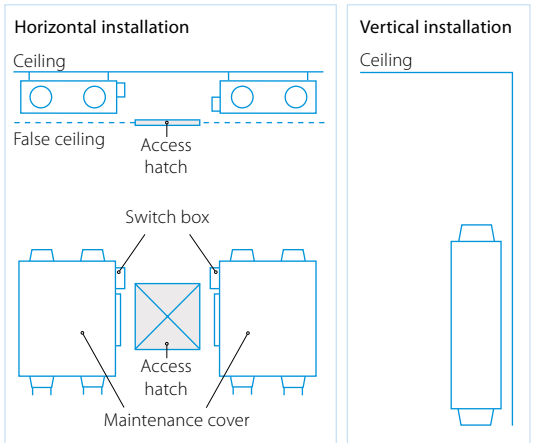
☑ Smart Integration with A/C

The VAM system operates in sync with Daikin indoor units via a single remote controller. It also supports delayed ventilation start-up to reduce load from morning fresh air intake.

☑ Easy Commissioning

Automatic ESP (external static pressure) selection streamlines setup by adapting to actual ductwork conditions.

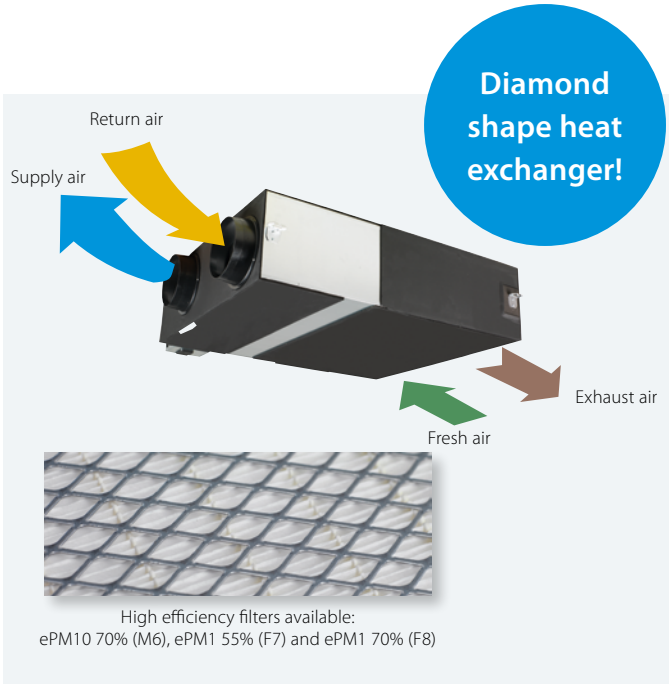
Flexible Installation



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 create under/over-pressure conditions in the served room
- 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)



High efficiency filters available:
ePM10 70% (M6), ePM1 55% (F7) and ePM1 70% (F8)

ErP COMPLIANT

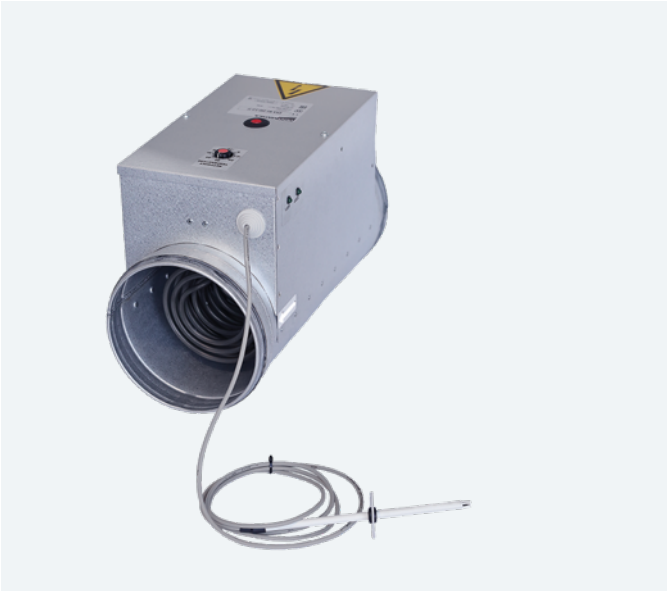
VAM-FC9 VAM-J8

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



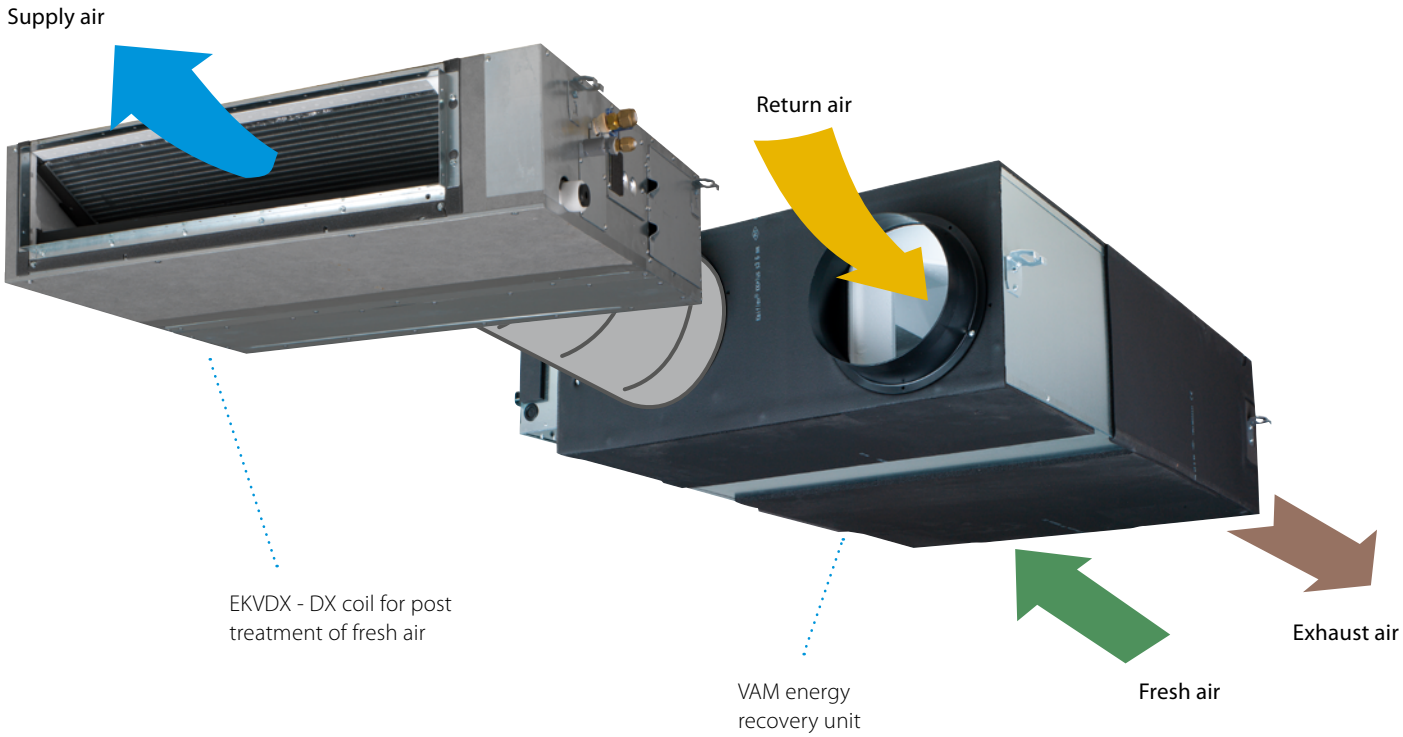
GSIEKA

	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

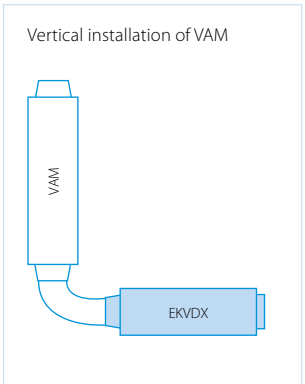
				GSIEKA10009	GSIEKA15018	GSIEKA20024	GSIEKA25030	GSIEKA35530
Dimensions		Height	mm	171	221	271	321	426
		Depth	mm	100	150	200	250	355
		Width	mm	370	370	370	370	373
Minimum air velocity / airflow			m/s	1.5				
			m^3/h	45	100	170	265	535
Power supply				1~230 VAC/50Hz				
Nominal current			A	4.1	8.2	10.9	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 operating				
		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				

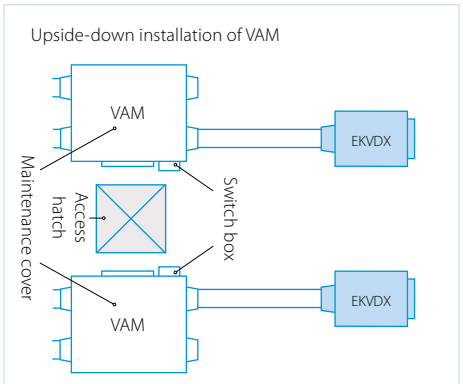
EKVDX-A

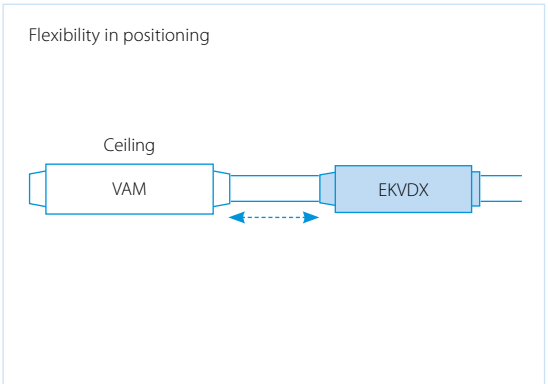
DX coil for post treatment of fresh air



- 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





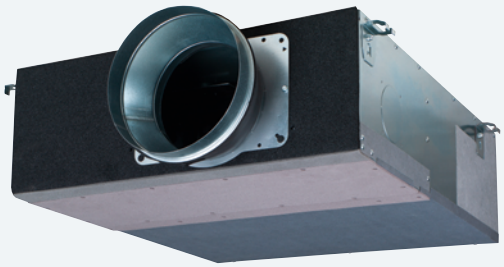


- Fresh air flows from 500 up to 2,000 m^3/h
- High ESP up to 150 Pa
- Can be integrated in both R-32/R-410A VRV systems
- Replaces VKM-GB range, delivering increased capacity range and reduced sound levels

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

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			

Possible Combination VAMJ8 + EKDVX					**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

VKM80-100GBM

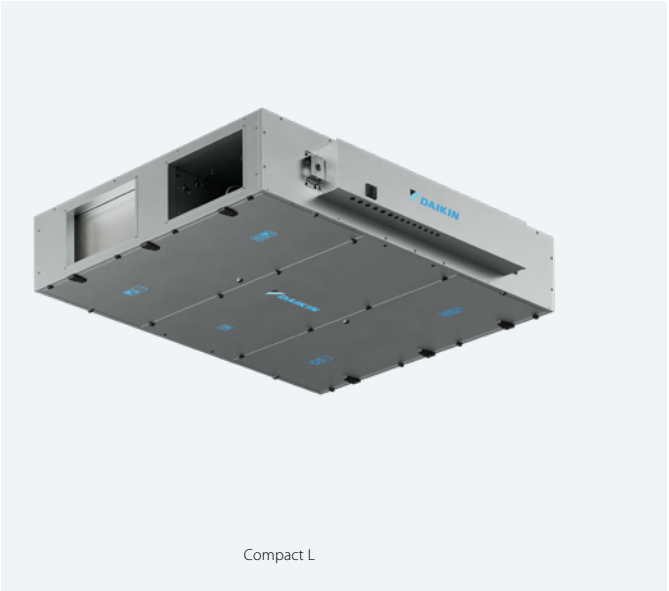
Post heating or cooling of fresh air for lower load on the air conditioning system

- 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

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		

False ceiling heat recovery unit

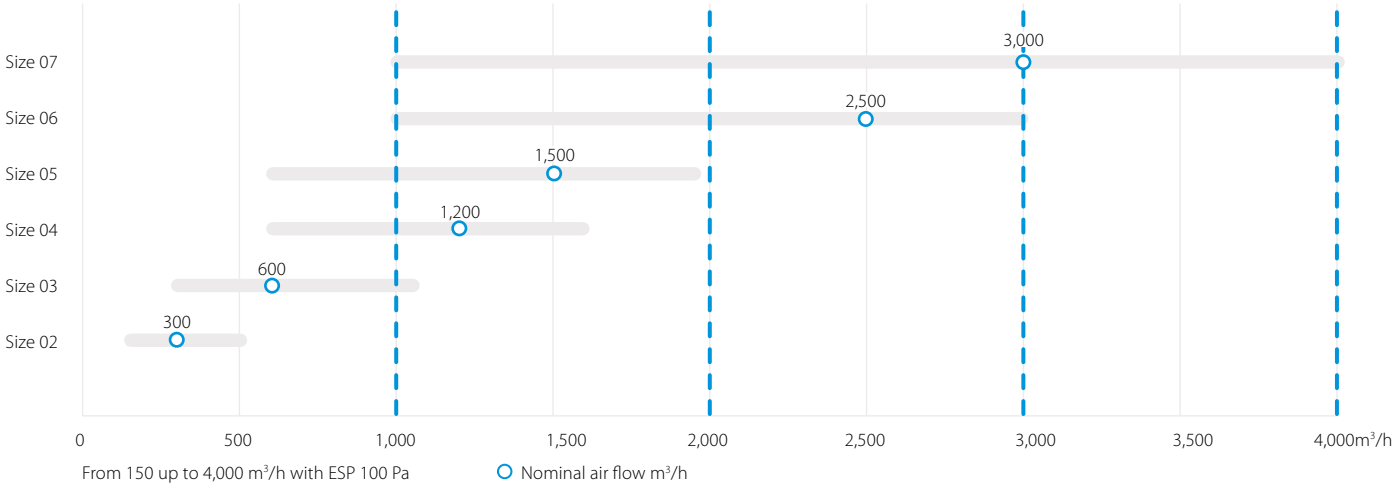


Compact L

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 4,000 m³/h
- Right and left configuration
- Pro (open control platform) and Smart (Daikin control platform) version
- Excellent indoor air quality (IAQ). Double filtration stage on supply and return side
- DX and water coil available as option
- BIM file available at **www.daikin.eu/BIM**

Air flow range



Compact L and Compact T offer its customers two control options:

- the "Pro" platform is a flexible and advanced control solution to meet different project requirements. It can operate in automatic mode as a variable or constant air volume system, and can also manage temperature, CO_2 and
- humidity control, thanks to the cutting-edge software developed by Daikin.

The "Smart" controls, instead, allow for a direct integration into the Daikin ecosystem.

COMPACT L PRO COMPACT L SMART

Compact L			ALB02*C* (1)	ALB03*C*	ALB04*C*	ALB05*C*	ALB06*C*	ALB07*C*
Airflow	Nominal	m³/h	300	600	1,200	1,500	2,500	3,000
Electrical supply	Phase	ph	1					
	Frequency	Hz	50/60					
	Voltage	V	220/240					
	Ampere	A	16					
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			
Weight unit	Net weight	kg	115	170	255	265	310	320
	Gross weight	kg	125	180	270	280	325	335
Duct dimensions		mm	250	400	500	500	700	700
		mm	150	200	300	300	400	400

(1) ALB02*C* refers to all configuration available for Compact L size 02 (Smart or Pro version and right or left handing)

Please refer to Databook or Astra selection software for more details.

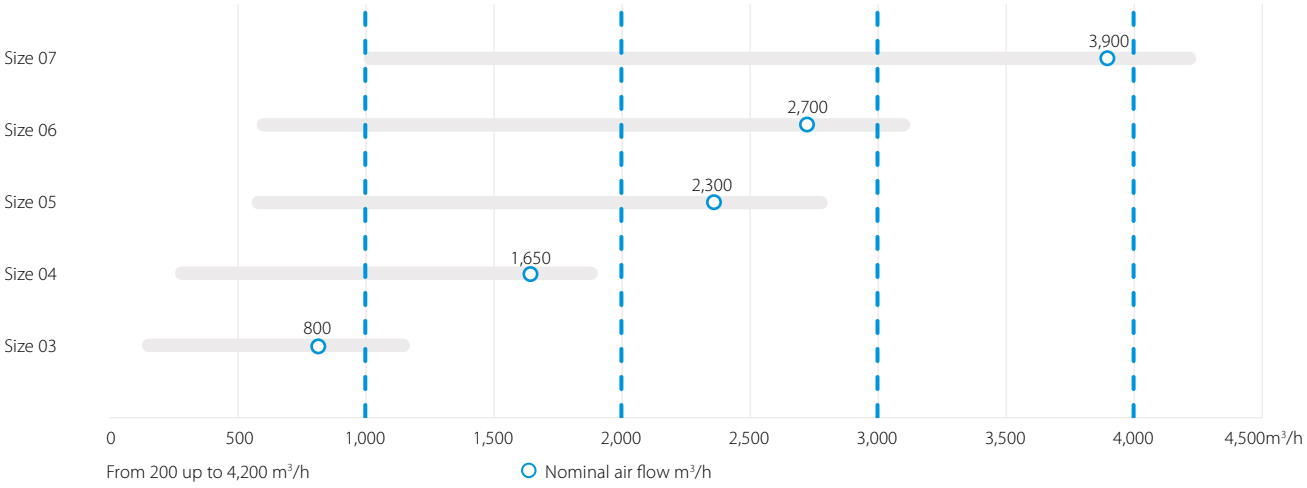
Top connected heat recovery unit

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**

Compact T

Air flow range



COMPACT T PRO COMPACT T SMART

Compact T			ATB03*B* (1)	ATB04*B*	ATB05*B*	ATB06*B*	ATB07*B*
Airflow	Nominal	m³/h	800	1,650	2,300	2,700	3,900
Electrical supply	Phase	ph	1				
	Frequency	Hz	50				
	Voltage	V	230				
	Max internal fuse	A	16				
Main unit dimensions	Width	mm	550		790		890
	Height	mm	1,600		1,900	1,850	2,050
	Length (2)	mm	1,580	1,650	2,170	2,620	2,950
Duct dimensions		mm	250	315	355	400	500
Weight unit	Net weight	kg	185	230	370	475	580
	Gross weight	kg	195	240	390	505	610

(1) ATB03*B* refers to all configuration available for Compact T size 03 (Smart or Pro version and right or left handing)
(2) Size 05 is provided in two sections while Size 06 and 07 are provided in three sections.

Please refer to Databook or Astra selection software for more details.

Electrical heater for Compact L Smart

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

ALD-HEFB

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

Centralised ventilation

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

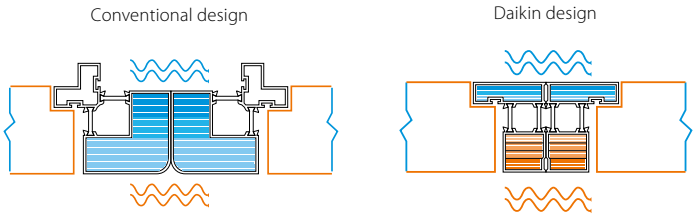
Humidifiers
- Evaporative humidifier without pump (loss water)
- Evaporative humidifier with re-circulating pump
- Steam humidifier with direct steam production
- Steam humidifier with local distributor
- Atomized water spray humidifier

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)



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
- …

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 (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
- Inner and outer panels available in different materials (pre-painted, aluminium, stainless steel, etc.) to meet all project specifications

Gasket
- Liquid gasket technology drastically reduces unit air leakage

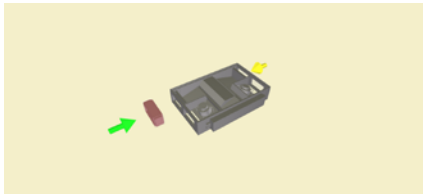
Frame
- All anodized aluminium which has the highest corrosion resistance compared to natural aluminium
- Unique Daikin thermal break (35 mm or 27 mm thermal break). Polyamide bars design to enhance thermal break unit performances
- Distinctive Section to section thermal break profile to ensure thermal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

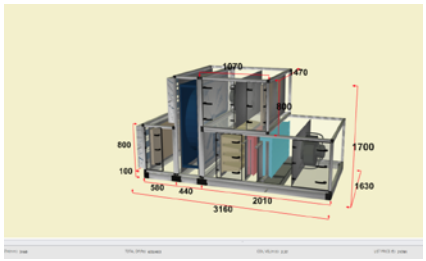
IAQ
- Flush internal surface and rounded corner flush surface to avoid the retention of dirt and to be easily cleanable
- Wide filtration possibility to reduce pollution

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

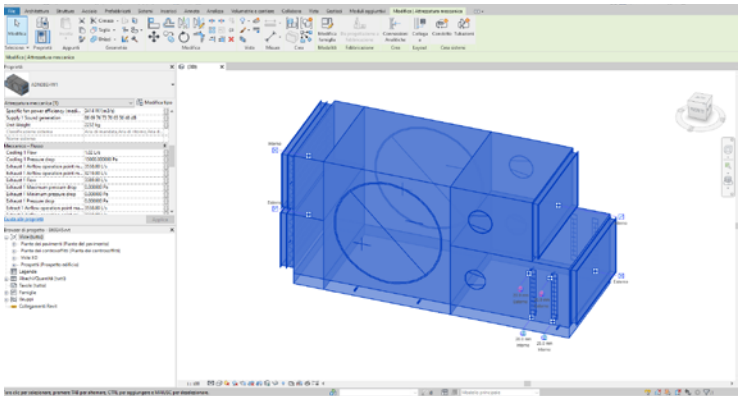
- Watch the time-lapse video of a Daikin AHU construction on **www.youtube.com/daikineurope**
- Watch the Compact L promotional video on **www.youtube.com/daikineurope**
- Download our brochure on Air Handling Units from **my.daikin.eu**
- Get the access to the selection tool **http://tools.daikinapplied.eu** to select your air handling units in a few clicks.
- Consult the "Argue Card" document to support in promoting the Compact L and T range (available on request – refer to your Daikin AHU specialist)





BIM models

- Get the Compact 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 Compact 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

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

Selection software

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, Compact L and Compact 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.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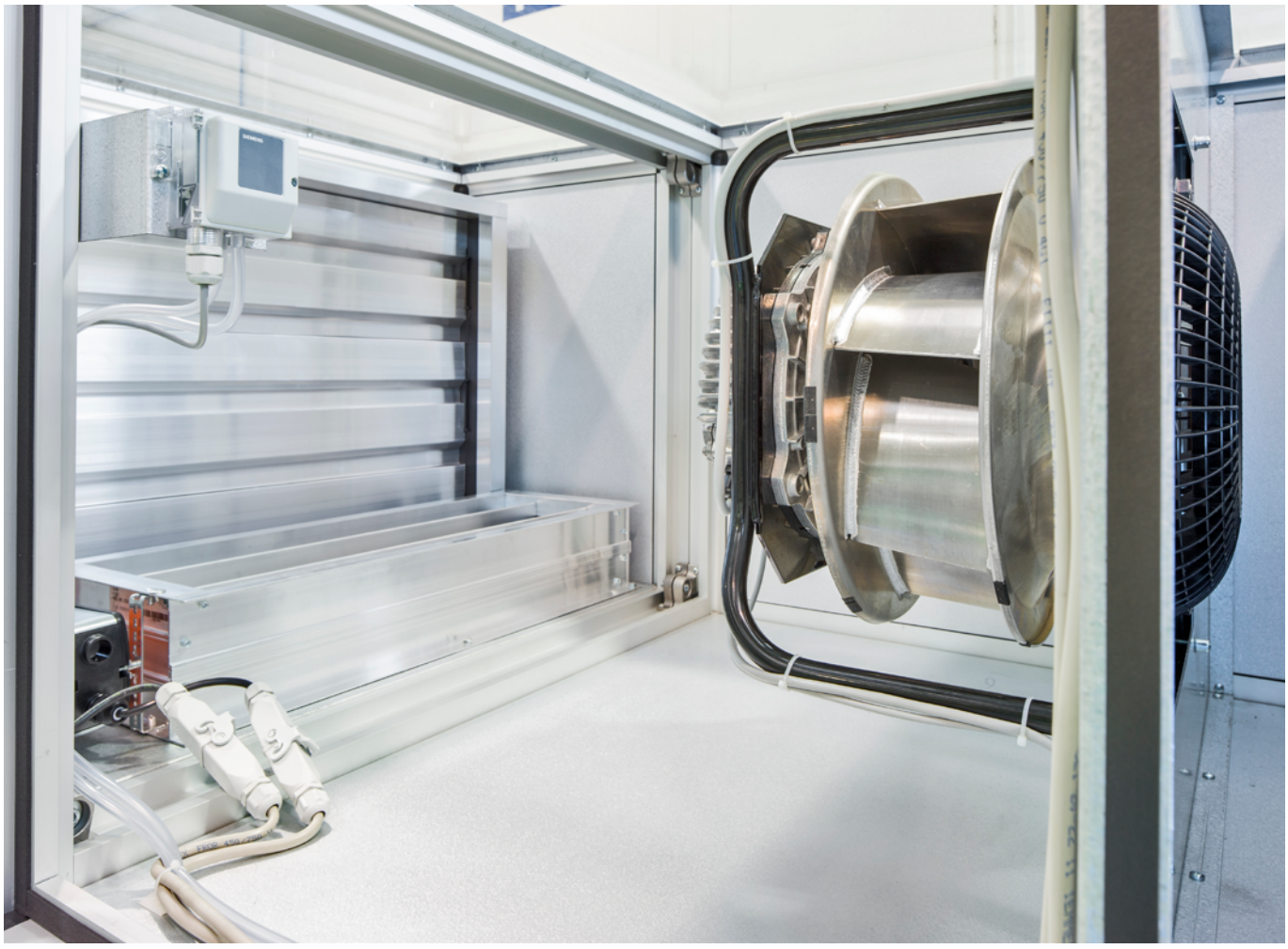
Smart controls



Damper and EC fan

D-AHU Modular R installation

Heat recovery wheel and filter

D-AHU Professional installation

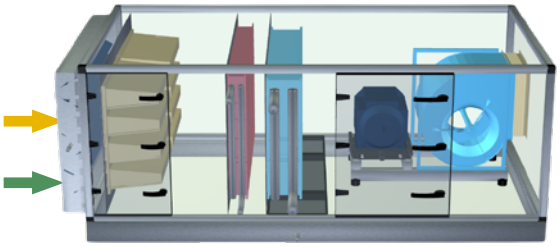
Flexible solution for custom applications

Highlights

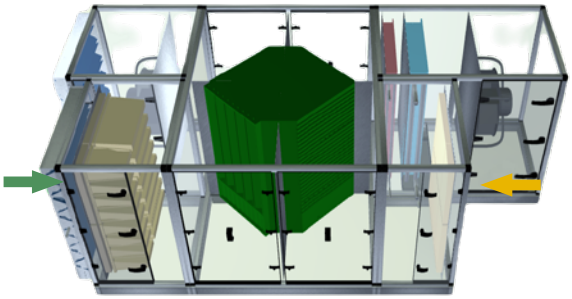
- Air flow from 750 m^3/h to 144,000 m^3/h, for all customer needs
- Indoor and outdoor versions
- Custom designed to facilitate the transport and the assembly on site
- Smooth interior surface with improved IAQ (Indoor Air Quality)
- DX cooling system integration (VRV IV and ERQ coupling capability)
- 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**

Configurations

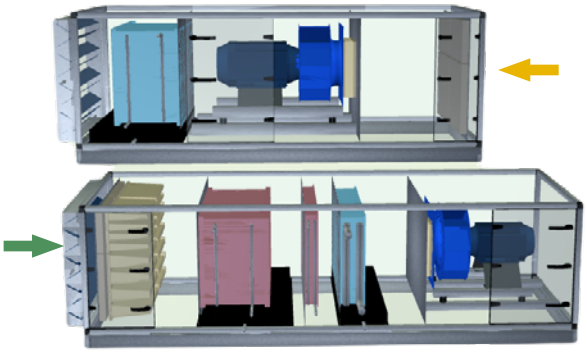
Beside dimensioning the cross section by 1 cm, Professional AHUs can be designed for any configuration to comply with any space limitation and project specification. All configurations allow to fit any HRS, fan technology or component.



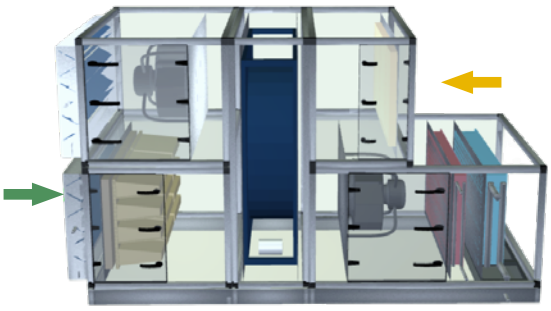
Single Deck



Side by Side



2x Horizontal



Double Deck

Hygienic Standards

Professional air handling units are engineered to meet the highest standards of indoor air quality and hygiene, ensuring a clean and safe environment for the most demanding applications.
Daikin factories are tested and certied as manufacturer by TÜV NORD Systems GmbH & Co. KG according to German standards VDI 6022-Part 1 and DIN 1946-4, which are essential for facilities such as hospitals, laboratories, and food processing plants.
By strictly adhering to these rigorous certifications, Professional AHUs ensure exceptional performance, durability, and quality. They are the optimal choice for environments where maintaining high standards of hygiene and air quality are crucial.

TÜV NORD
TÜV NORD Systems GmbH & Co. KG
Freiwillige Produktprüfung nach DIN 1946-4:2018 und VDI 6022-1:2018
Geprüfte Hygieneeigenschaften
Lüftungszentralgeräte-Baureihe "D-AHU"
SEIT/2038/16

BREAM & LEED certification

Daikin Professional AHU contributes in scoring points in several categories for the LEED, WELL and Breeam certification programmes.

CODE FOR A SUSTAINABLE BUILT ENVIRONMENT
BREEAM
★★★★☆

LEED
LEADERSHIP IN ENERGY AND ENVIRONMENTAL DESIGN

Daikin Digital Control

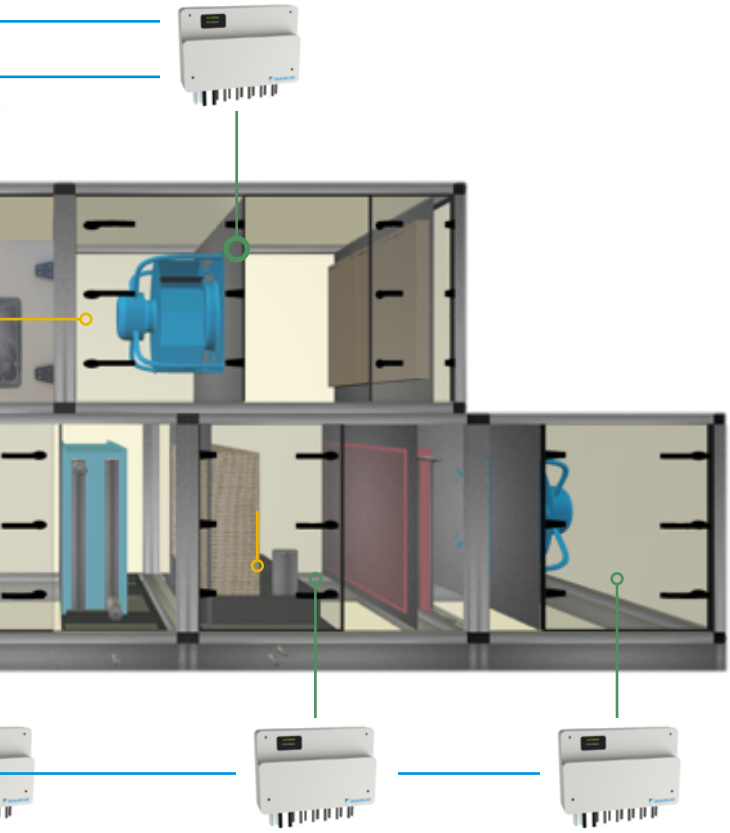
Designed to offer maximum flexibility and scalability, the Daikin Digital control system is the ideal solution for advanced management of air handling units. Digital control can monitor and control every aspect of an AHU operation, optimizing energy consumption and ensuring reliable performance.

Microtech 4

NTC

CO_2 Probe

Humidity Probe



This innovative control design relies on sectional Daikin patented I/O modules: each AHU section is equipped with one or more dedicated module that collect analog or digital signals. The modules are interconnected in a continuous loop up to the central controller (Microtech 4), ensuring smooth and reliable communication among all system components by means of only one cable running through the unit, allowing for the easiest on-site setup and reducing downtime and management costs.

Technical Specifications:

- Number of I/O: Supports over 300 inputs and outputs, both analog or digital.
- Communication Protocols: Compatible with Building Management Systems (BMS) via Modbus or BACnet, ensuring seamless integration with existing infrastructures.
- Advanced Setpoint Control: The Digital® controller precisely ensure setpoints. Setpoints are pre-configured during factory testing based on the selections made.
- Monitoring and Alarms: Constantly monitors AHU operation, identifying malfunctions and activating alarms for prompt intervention.
- Energy Consumption Optimization: With its monitoring and control capabilities, Digital® controls helps to reduce energy consumption, improving overall system efficiency.
- Installation and Commissioning: The pre-configuration of setpoints during factory testing streamlines installation and commissioning processes. Only one cable runs through the air handling unit, simplifying on-site setup. Male-female connectors are the only plugs required for joining on-site, further enhancing ease of installation.
- Flexibility and Scalability: The sectional design and the large number of I/O allow the system to be adapted to any configurations, providing a tailored space-saving solution for every need.

Daikin I/O module

HMI

VFD

Damper Actuator

Water Coil Valve

Smoke Detector

Side connected rotary heat recovery air handling unit

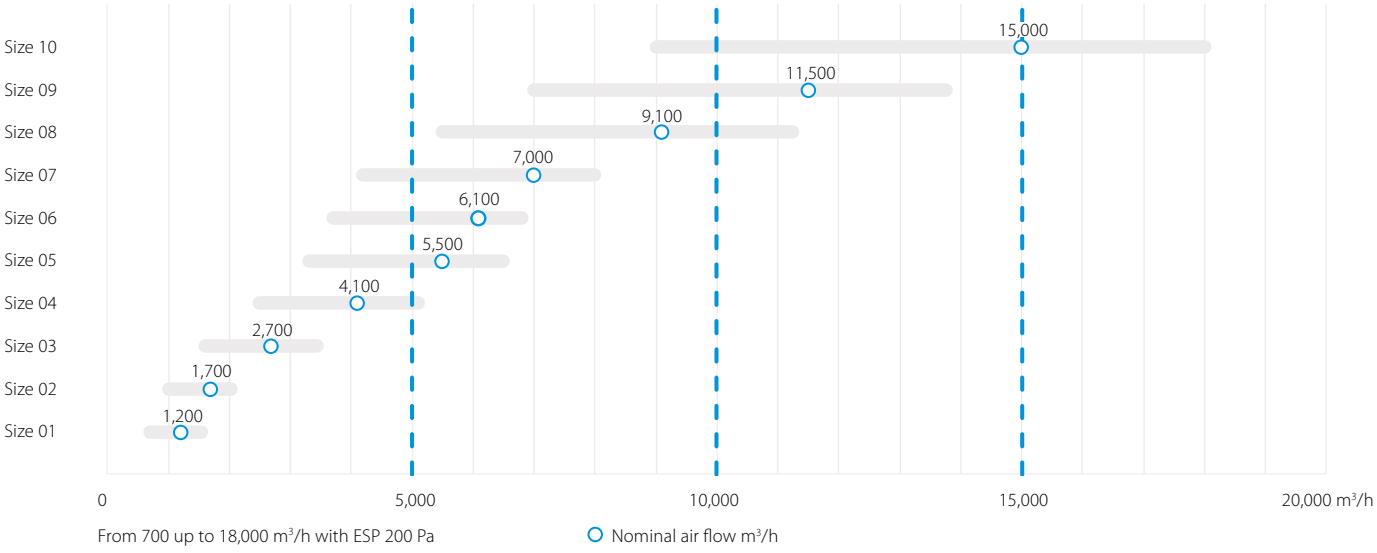
Modular R

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
- Air flow or pressure control (Variable Air Volume - Constant Air Volume)
- Possibility to import BIM objects in Autodesk® Revit

Modular R

Air flow range



Additional module for Modular R&P

Sound attenuator on outdoor and/or indoor connections

Additional filtration stage to achieve high IAQ level

Pre heating electric coil for extremely cold climate region

Electric heater for post heating treatment

Side connected plate heat recovery air handling unit

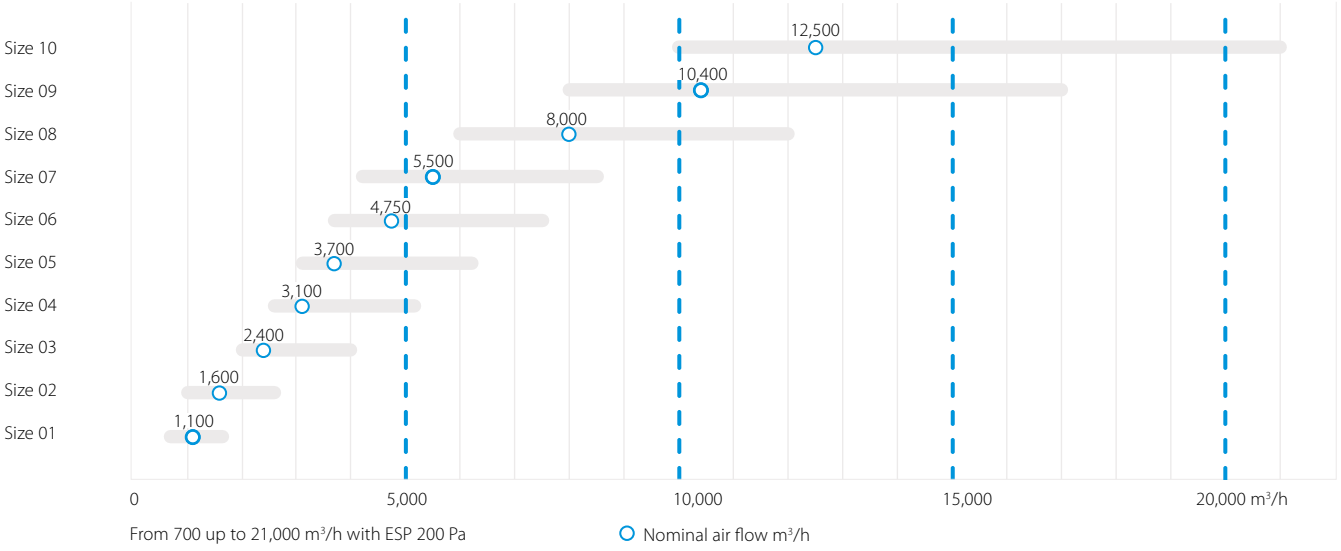
Modular P

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
- Air flow or pressure control (Variable Air Volume - Constant Air Volume)
- Possibility to import BIM objects in Autodesk® Revit

Modular P

Air flow range



Additional module for Modular R&P

HUMIDIFY

Humidifier for humidity level control

Mixing box to allow recirculation mode

Water or DX coil for air a fully treatment

Water heating coil for post heating or heating mode only

Why use DX outdoor units with Air Handling Units?

High comfort levels

- Rapid response of supply air temperature to changing loads, results in a steady indoor temperature
- VRV offers the ultimate comfort thanks to continuous heating, also during defrost

Low carbon footprint and operating costs

- DX heat pumps are highly efficient inverter units using a lower GWP refrigerant
- By integrating a VRV heat recovery system, excess heat from rooms in cooling can be reused to heat up incoming fresh air

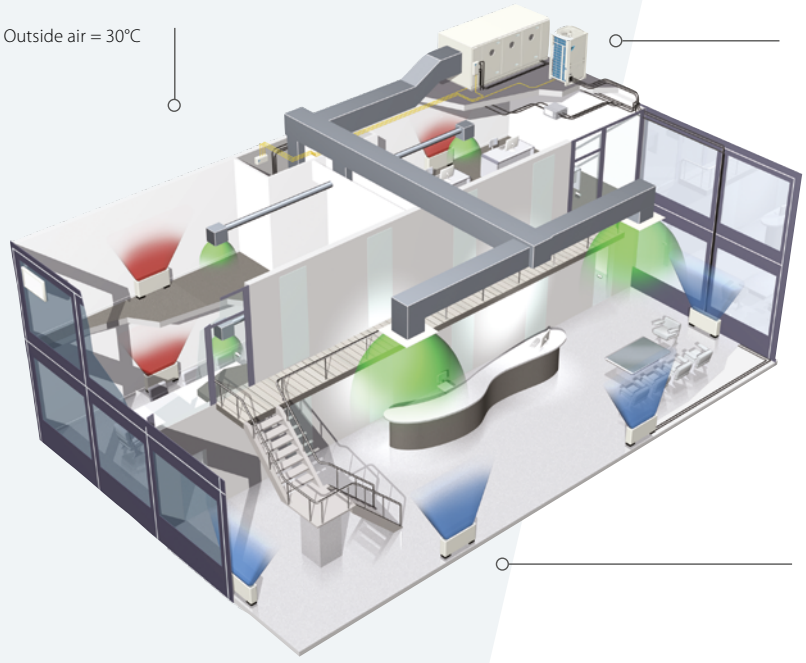
Easy design, all components integrated

- A DX system is an all-in-one system, no boilers, tanks or pumps are needed reducing the total investment cost

One-stop shop, Daikin's fresh air package

- A plug & play package with a Daikin DX outdoor unit and Daikin Air Handling Unit
- One point of contact for the design, installation and commissioning, streamlining the process

Total solution operation example



Daikin Air Handling Unit kits for connection to DX outdoor units

R-32

NEW Expansion valve kits

- **3 new capacities** (300, 350, 400) offer a complete range of expansion valve kits **from 5 to 69.3kW**
- **Improved flexibility** thanks to combination ratio from 65% up to 110%
- Unified range connectable both to **R-32 and R-410A** systems
- Can be used in the most **extreme outdoor conditions**, down to -20°C
- F**ully compliant to IEC60335-2-40**, thanks to Shîrudo Technology

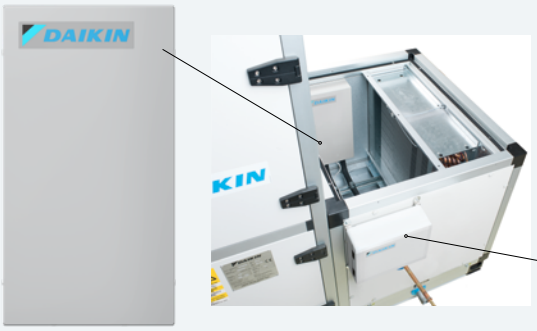
Extended operation range
-20°CWB > 52°CDB

NEW Control box

- Complete offer of **5 control possibilities**
- Daikin **integrated** or **third-party controller**
- Control of return air or fresh air supply temperature
- All **control methods** unified in **one box**
- Hinged door for **easy servicing**

Expansion valve set (EKEXVA*)

- Controls the refrigerant flow in the AHU DX coil
- Fully brazed and wired in case of a Daikin AHU



Control box (EKEACB)

- Controls the expansion valve set and outdoor unit(s) capacity
- Mounted and wired in case of a Daikin AHU

Specifications

EKEXVA – Expansion valve kit

Ventilation	EKEXVA				50	63	80	100	120	140	200	250	300	350	400	450	500
Dimensions	Unit			mm	404x217x80.5												
Weight	Unit			kg	2.9												
Operation range	On coil temperature	Heating	Min.	°CDB	10.0												
		Cooling	Max.	°CDB	35.0												
Ambient installation conditions	Min.			°CDB	-20.0												
	Max			°CDB	52.0												
Sound pressure level	Cooling	Nom.		dBA	36.5	37.5	38.6	39.5	40.5	41.1	42.5	43.5	44.3	45.1	45.6	46.1	46.5
	Nom.			dBA	24.8	25.8	26.8	27.8	28.8	29.4	30.8	31.8	32.5	33.3	33.8	34.3	34.8
Refrigerant	Type / GWP				R-32 / 675 R-410A / 2,087.5												
Piping connections	Liquid	Type		mm	Braze connection (only liquid line connected)												
		OD		mm	6.35			9.52					12.7				

EKEACB – Control box

			EKEACB
Layout			Pair | Multi | Mix
Dimensions	Unit	mm	300x400x150
Weight	Unit	kg	5.1
Ambient installation conditions	Min	°CDB	-20
	Max	°CDB	52
Power supply	Phase		1~
	Frequency	Hz	50/60
	Voltage	V	220-240/220

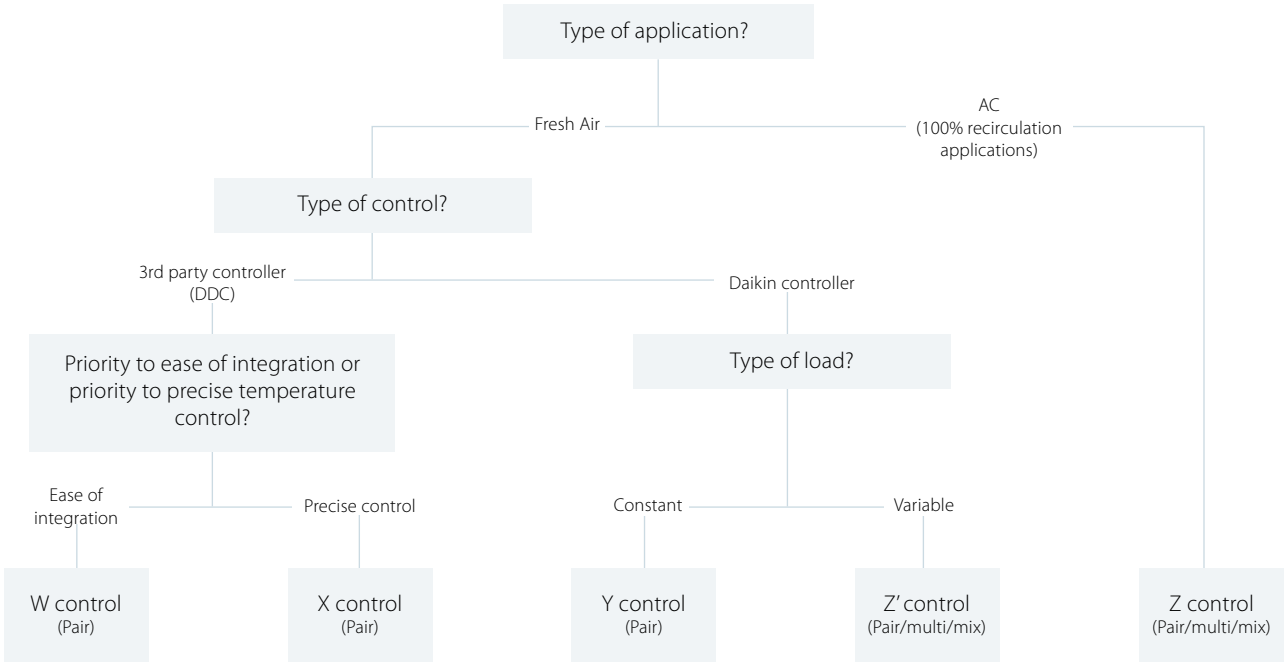
Click for more information on **EKEACB** or **EKEXVA** outdoor units

Air Handling Unit kits

Control possibilities

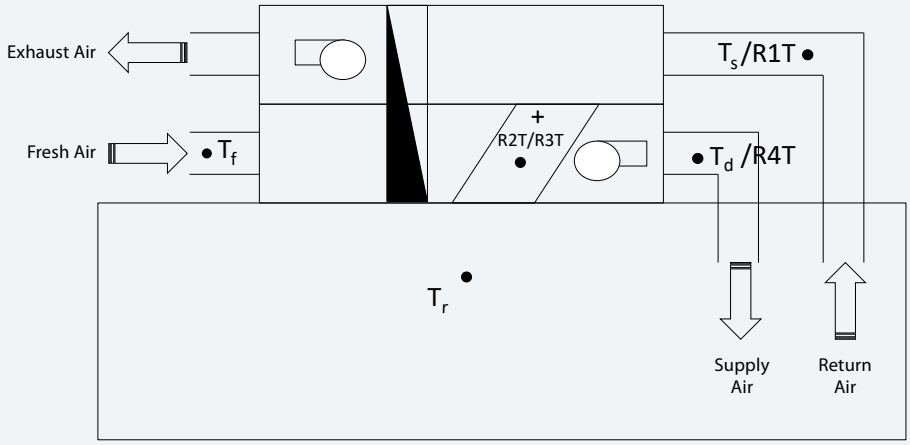
Every application is different. Is there a constant load or not, how to control your temperature and which controls are available? **With our complete offering of 5 control possibilities**, anything is possible.

Flow chart to select your control type



Control type benefits	Sensor Used	Controller
W control – control of supply or return air temperature ▪ **Responds to load variation** (capacity is changed as a function of measured temperature, but slower than X- control) ▪ **Air temperature control** ▪ **Easy to integrate, as no additional programming** is needed for most standard AHU controllers	**Td, Ts/f or Tr** (field supplied)	External controller (DDC) using a proportional 0~10 V signal for capacity control **(5 steps)**
X control – control of supply or return air temperature ▪ **Fastest response to load variation** (capacity is immediately changed as a function of measured temperature) ▪ **Precise air temperature control** ▪ **Ideal for comfort sensitive applications.** This is also used **by default** in Daikin AHU controls	**Td, Ts/f or Tr** (field supplied)	External controller (DDC) using a proportional 0~10 V signal for capacity control **(Stepless)**
Y control – control of evaporating/condensing temperature ▪ **Cost effective and simple solution**, no additional DDC controller required ▪ **Fixed evaporating/condensing temperature**, no direct temperature control ▪ **Ideal for applications with a constant cooling/heating load**	**R2T/R3T** (Daikin supplied)	**3rd party thermostat** (Daikin controller for field settings)

Sensors used



Legend

T_d : discharge (supply) air temperature
T_s : suction (return) air temperature
T_f : fresh air temperature
T_r : room air temperature
R2T/R3T: Refrigerant (liquid/gas line) temperature

Control type benefits	Sensor Used	Controller
Z' control – control of supply air temperature ▪ **Cost efficient and simple** solution, no additional DDC controller required ▪ You can **combine VRV indoor units and AHUs** in one system or connect **several AHUs to 1 outdoor unit** ▪ **Ideal for pre-conditioning of fresh air** via Td temperature control ▪ Less accurate room temperature control compared to X/W/Z control	**R4T** Daikin supplied)	Daikin controller (set point can be set via field setting)
Z control – return air temperature control ▪ Cost **efficient and simple solution**, no additional DDC controller required ▪ You **can combine VRV indoor units** and AHUs in one system or connect **several AHUs to 1 outdoor unit** ▪ **Ideal for AHU's that operate at 100% recirculation** like indoor units or if no particular supply temperature required ▪ **No supply temperature control**	**R1T** (Daikin supplied)	Daikin controller (set point can be set via remocon or via C1C2)

Air Handling Unit kits

Layout possibilities

With our wide capacity range and different control options, a variety of layout possibilities to match your application:

- **Pair layout:** one or more outdoor units combined with 1 air handling unit
- **Multi layout:** one outdoor unit combined with multiple air handling units
- **Mix layout:** one outdoor unit combined with an air handling unit AND indoor units

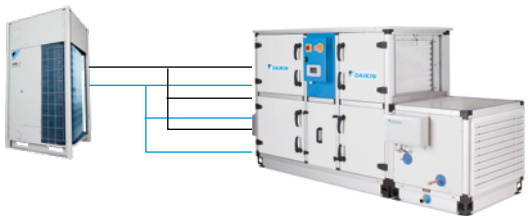
Pair layout

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

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

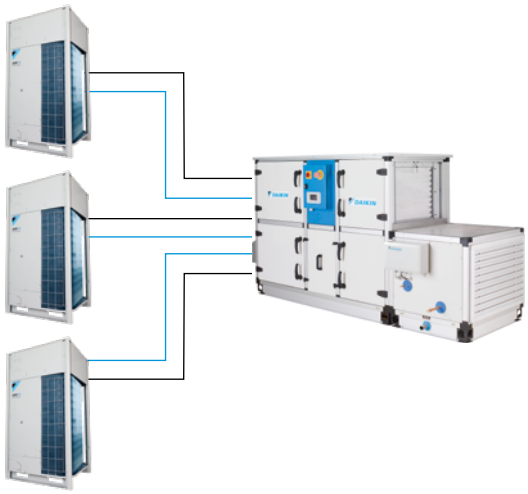
One VRV heat pump (system) connected to the interlaced coil of one AHU through several refrigerant circuits

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



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

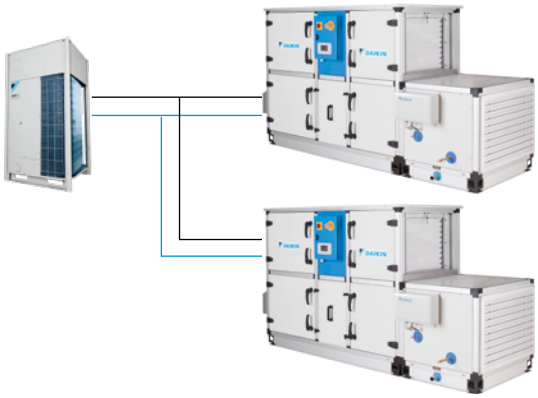
- with W, X, Y control
- not allowed for VRV H/R and VRV-i



Multi layout

One VRV heat pump connected to several AHUs

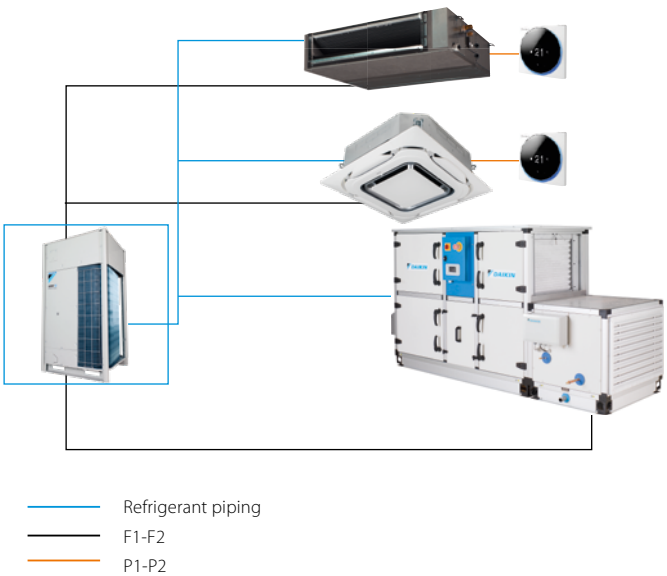
- with Z, Z' control and field supplied controls on AHU side.
- not allowed for VRV H/R
- no interlaced coil possible



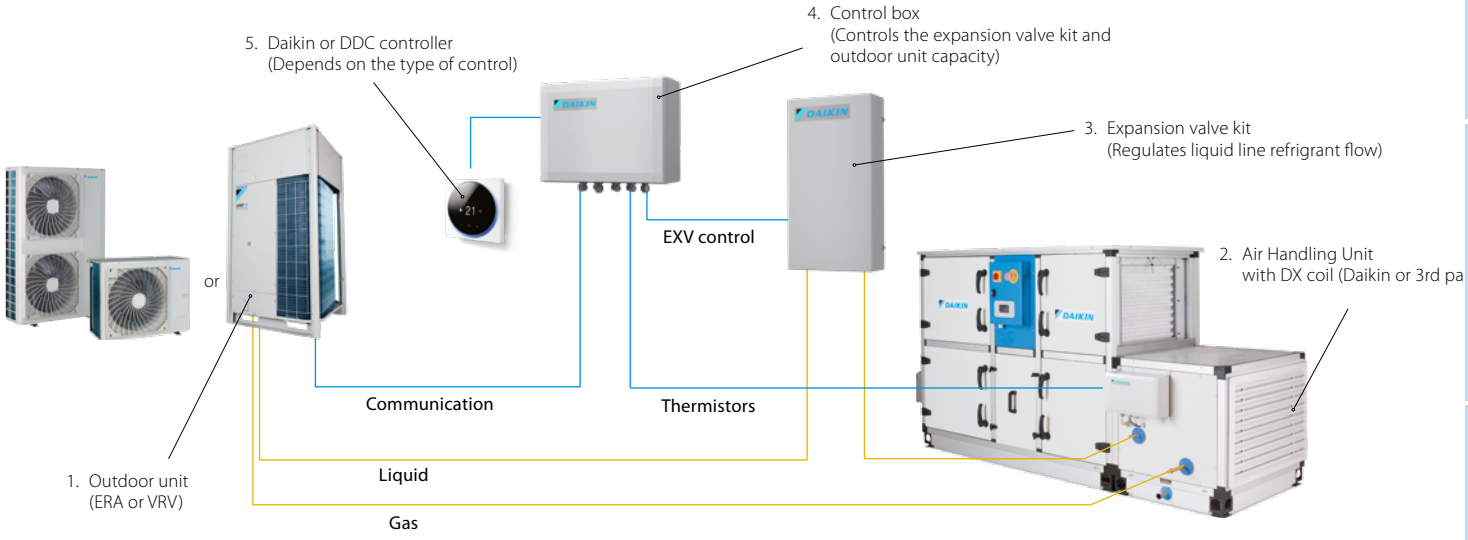
Mix layout

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

- with Z, Z' control and field supplied controls on AHU side
- no interlaced coil possible
- hydrobox not possible



Main components with detailed piping and wiring principle



Detailed combination table

Range	Outdoor Unit	Control box	Expansion valve kits EKEXVA												
		EKEACBVE	50	63	80	100	125	140	200	250	300	350	400	450	500
ERA	ERA100A7V1B	P	-	P(a)	P(b)	P(b)	-	-	-	-	-	-	-		
	ERA125A7V1B	P	-	-	-	P(b)	P(b)	-	-	-	-	-	-		
	ERA140A7V1B	P	-	-	-	P(a)	P(b)	P(b)	-	-	-	-	-		
	ERA100A7Y1B	P	-	P(a)	P(b)	P(b)	-	-	-	-	-	-	-	-	-
	ERA125A7Y1B	P	-	-	-	P(b)	P(b)	-	-	-	-	-	-	-	-
	ERA140A7Y1B	P	-	-	-	P(a)	P(b)	P(b)	-	-	-	-	-	-	-
	ERA200AMYFB	P	-	-	-	-	-	P(b)	P(b)	-	-	-	-	-	-
	ERA250AMYFB	P	-	-	-	-	-	-	P(b)	P(b)	-	-	-	-	-
	ERA250AMYFB	P	-	-	-	-	-	-	P(a)	P(b)	P(b)	-	-	-	-

DX coil volume limitations when combined with ERA:
Please follow the AHU HEX volume limitations according to the table below:

Capacity class	Minimum heat exchanger volume [dm³]		Maximum heat exchanger volume [dm³]
	Pair combination (a)	Pair combination (b)	Pair combination
63	1.18	1.02	2.08
80	1.64	1.42	2.64
100	1.74	1.51	3.30
125	2.29	1.98	4.12
140	2.94	2.54	4.62
200	3.49	3.02	6.60
250	4.58	3.97	8.25
300	5.23	4.53	9.90

VRV IV & VRV IV+	H/P (RYYQ, RXYQ, RXYSQ, RXYTQ, RXYLQ, RXYS(C)Q, RWEYQ (H/P))	P/M	Pair and multi: 65% (1) < CR < 110% Mix: CR < 110% and 50% < IU CR < 110%
	VRV-i (RKXYQ)	P(2)/M	Pair and multi: 65%(1) < CR < 110% Mix: CR < 110% and 50% < IU CR < 110%
	H/R (REYQ, RWEYQ (H/R))	M(3)	Multi(3): 65%(1) < CR < 110% Mix: CR < 110% and 50% < IU CR < 110%
VRV 5	H/P (RXYSA, RXYA)	P/M	Pair and multi: 65%(1) < CR < 110% Mix: CR < 110% and 50% < IU CR < 110%
	H/R REYA	M(3)	Multi(3): 65%(1) < CR < 110% Mix: CR < 110% and 50% < IU CR < 110%

P: Pair layout - One or more outdoor units connected to an (interlaced) coil of one AHU
M: Mix or multi layout - Combination of (multiple) AHU(s) with (mix combination) or without (multi combination) VRV DX indoor(s). Only Z or Z' control possible (no interlaced coils)
(1): For 65%<CR<75% please refer to the specifically required coil size
(2): Only Z or Z' control possible (no interlaced coils)
(3): Technically is possible to connect H/R in pair combination, but there's no benefit to do it

R-32

Growing together towards a sustainable future

ERA-AYF

ERA-AY/AV

Condensing unit range connectable to Air Curtains and Direct Expansion (DX) Air Handling Units (AHUs) for fresh air and recirculation applications.

Range based on inverter technology with the use of lower GWP R-32 refrigerant for capacities from 6.3 kW up to 30 kW.

Securing the highest comfort conditions due to the quick response of DX systems and the available control logics.

NEW

Presenting the Daikin ERA

- New line up with low GWP refrigerant R-32 up to 12 HP
- Immediate cooling and heating under any ambient or room conditions
- Better management of load for medium size spaces due to VRV technology
- Benefit from the high efficiency and fast response time of ERA units for changing loads
- Energy saving due to inverter technology
- Wide range of expansion valve kits available for capacities of 6.3 to 30 kW

ERA-AYF ERA-AY/AV

ERA-AV ERA-AY ERA-AYF

				ERA100AV	ERA125AV	ERA140AV	ERA100AY	ERA125AY	ERA140AY	ERA200AYF	ERA250AYF	ERA300AYF
Capacity range			HP	4	5	6	4	5	6	8	10	12
Cooling capacity	Prated,c		kW	12.1	14.0	15.5	12.1	14.0	15.5	22.4	28.0	33.5
Heating capacity	Prated, h		kW	12.1	14.0	15.5	12.1	14.0	15.5	22.4	28.0	33.5
	Max.		kW	14.2	16.0	18.0	14.2	16.0	18.0	25.0	31.5	37.5
Dimensions	HxWxD		mm	869x1,100x460						1,430x940x320	1,615x940x460	
Weight			kg	102						144	180	
Sound power level	Cooling		dB(A)	67.0	68.1	69.0	67.0	68.1	69.0	73.2	74.0	76.1
	Heating		dB(A)	69.0	70.0	71.0	69.0	70.0	71.0	73.5	74.0	76.0
Sound pressure level	Cooling		dB(A)	49.0	51.0		49.0	51.0		58.1	57.0	60.0
Operation range	Cooling	Min °C	°CDB	-5 ~ 46						-5 ~ 52		
	Heating	Max °C	°CWB	-20 ~ 16						-20 ~ 15.5		
Refrigerant	Type/GWP			R-32 / 675.0						R-32 / 675.0		
	Charge	tCO2eq/ kg	kg	3.40/2.30						5.2/3.51	7/4.73	7.1/4.79
Piping connections	Liquid OD		mm	9.52						9.5		12.7
	Gas OD		mm	15.9						19.1		22.2
	Max piping length		m	50						50		
Power supply	Phase/Freq./ Voltage		Hz/V	1~/50/220-240			3N~/50/380-415			3N~/50/380-415		
Current - 50Hz	Max. fuse amps (MFA)		A	32			16			25		32

Daikin Fresh Air package

What is included?

- A **plug & play package** with a Daikin DX outdoor unit and Daikin Air Handling Unit
- Factory fitted and welded **DX coil, expansion valve kit** and **control box**
- **One point of contact**

VRV or ERA
outdoor condensing unit

Daikin Air Handling Unit

Factory fitted and welded DX coil, expansion valve kit and control box

Simplified business

- Unique **total solution approach** of heating, cooling and ventilation
- Off-the-shelf **compatibility** between Daikin outdoor unit and Daikin AHU
- Plug&play control for **outstanding reliability**
- **Peace-of-mind** thanks to a single point of contact

Simple selection in 2 steps

STEP 1

Select your design in ASTRA software

Share with Xpress

STEP 2

Add the AHU design in Xpress (including capacity, dimensions, refrigerant connection location,…)

Complete range of possibilities

750 m³/h up to 144,000 m³/h

D-AHU Professional

- Infinite variable sizes
- Tailored to the individual customer

500 m³/h up to 25,000 m³/h

D-AHU
Modular R

- Pre-configured sizes
- Plug and play concept
- EC Fan technology
- Heat recovery wheel (sorption and sensible technology)
- Modular design

500 m³/h up to 25,000 m³/h

D-AHU
Modular P

- Pre-configured sizes
- Plug and play concept
- EC Fan technology
- High efficiency aluminium counter flow PHE
- Modular design

Integration with 3rd party Air Handling Units

Also for the integration with 3rd party AHU's Daikin provides expert support for the design and installation.

Selection of the expansion valve kit – Fresh air application

- Define the required heating/cooling load of your project
- Define 3rd party AHU heat exchanger capacity
- Use the Xpress selection software or the below table to select the correct expansion valve kit
- The 3rd party AHU design should respect the allowed heat exchanger volume
- Xpress selection software will select the correct outdoor unit at the design ambient temperatures.

Cooling

	EKEXVA Class	Allowed heat exchanger capacity (kW)			Allowed heat exchanger volume (dm³)*		
					Minimum		Maximum
		Minimum	Nominal	Maximum	General Limits	(65%<CR<75%) Only for pair and multi layout	Maximum
	50	5.0	5.6	6.2	0.95	1.09	1.65
	63	6.3	7.1	7.8	1.02	1.18	2.08
	80	7.9	9.0	9.9	1.42	1.64	2.64
	100	10.0	11.2	13.1	1.51	1.74	3.30
	125	13.2	14.0	15.4	1.98	2.29	4.12
	140	15.5	16.0	21.0	2.54	2.94	4.62
	200	21.1	22.4	24.6	3.02	3.49	6.60
	250	24.7	28.0	30.8	3.97	4.58	8.25
NEW	300	30.9	33.5	36.9	4.53	5.25	9.9
NEW	350	37.0	40.0	44.0	5.48	6.32	11.55
	400	44.1	45.0	49.5	6.04	6.97	13.2
NEW	450	49.6	50.4	55.4	6.99	8.07	14.5
	500	55.5	56.0	61.6	7.55	8.72	16.5

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

* Applicable when connected to VRV outdoor units. For the corresponding DX coil limitations when the DX coil is connected to ERA units, please refer to the table on page 43.

Heating

	EKEXVA Class	Allowed heat exchanger capacity (kW)			Allowed heat exchanger volume (dm³)*		
					Minimum		Maximum
		Minimum	Nominal	Maximum	General Limits	(65%<CR<75%) Only for pair and multi layout	Maximum
	50	5.6	6.3	7.0	0.95	1.09	1.65
	63	7.1	8.0	8.8	1.02	1.18	2.08
	80	8.9	10.0	11.1	1.42	1.64	2.64
	100	11.2	12.5	14.7	1.51	1.74	3.30
	125	14.8	16.0	17.3	1.98	2.29	4.12
	140	17.4	18.0	23.6	2.54	2.94	4.62
	200	23.7	25.0	27.7	3.02	3.49	6.60
	250	27.8	31.5	34.7	3.97	4.58	8.25
NEW	300	34.8	37.5	41.5	4.53	5.23	9.9
NEW	350	41.6	45.0	49.5	5.48	6.32	11.55
	400	49.6	50.0	55.7	6.04	6.97	13.2
NEW	450	55.8	56.5	62.4	6.99	8.07	14.85
	500	62.5	63.0	69.3	7.55	8.72	16.5

Saturated evaporating temperature: +46°C
Air temperature: +20°C DB

* Applicable when connected to VRV outdoor units. For the corresponding DX coil limitations when the DX coil is connected to ERA units, please refer to the table on page 43.

Selection of the expansion valve kit – Recirculation application

- Define the required heating/cooling load of your project
- Use the Xpress selection software or the below table to select the correct expansion valve, following the procedure used as for standard VRV indoor units
- The 3rd party AHU design should respect the allowed heat exchanger (DX coil) volume limitations which in are in place for VRV (above on this page) and ERA (page "ERA-AV/AY/AYF" on page 45
- Xpress selection software will select the correct outdoor unit at the design ambient temperatures

Cooling

	EKEXVA Class	On-coil air temperature [°C]						
		14WB 20DB	16WB 23DB	18WB 26DB	19WB 27DB	20WB 28DB	22WB 30DB	24WB 32DB
		kW	kW	kW	kW	kW	kW	kW
	50	3.8	4.5	5.2	5.6	5.9	6.0	6.2
	63	4.8	5.7	6.6	7.1	7.5	7.7	7.8
	80	6.1	7.2	8.4	9.0	9.5	9.7	9.9
	100	7.6	9.0	10.5	11.2	11.8	12.1	12.3
	125	9.5	11.3	13.1	14.0	14.8	15.1	15.4
	140	10.8	12.9	15.0	16.0	16.9	17.3	17.6
	200	15.1	18.0	21.0	22.4	23.6	24.2	24.6
	250	18.9	22.5	26.2	28.0	29.5	30.2	30.8
NEW	300	22.6	26.9	31.3	33.5	35.3	36.1	36.9
NEW	350	27.0	32.2	37.4	40.0	42.1	43.1	44.0
	400	30.4	36.2	42.1	45.0	47.4	48.5	49.5
NEW	450	34.0	40.5	47.2	50.4	53.1	54.3	55.4
	500	37.8	45.0	52.4	56.0	59.0	60.4	61.6

Heating

	EKEXVA Class	On-coil air temperature [°C]						
		10.0	16.0	18.0	20.0	21.0	22.0	24.0
		kW	kW	kW	kW	kW	kW	kW
	50	6.6	6.6	6.6	6.3	6.1	5.9	5.5
	63	8.4	8.4	8.4	8.0	7.7	7.5	7.0
	80	10.5	10.5	10.5	10.0	9.7	9.4	8.7
	100	13.1	13.1	13.1	12.5	12.1	11.7	10.9
	125	16.8	16.8	16.8	16.0	15.5	15.0	13.9
	140	18.9	18.9	18.9	18.0	17.4	16.8	15.7
	200	26.2	26.2	26.2	25.0	24.2	23.4	21.8
	250	33.1	33.1	33.1	31.5	30.5	29.5	27.5
NEW	300	39.4	39.4	39.4	37.5	36.3	35.1	32.7
NEW	350	47.2	47.2	47.2	45.0	43.6	42.1	39.2
	400	52.4	52.4	52.4	50.0	48.4	46.8	43.6
NEW	450	59.2	59.2	59.2	56.5	54.7	52.9	49.3
	500	66.0	66.0	66.0	63.0	61.0	59.0	54.9

Customised solutions for various applications

Creating the perfect indoor climate is essential — whether it's in a private residence, a modern office, a boutique hotel, or a healthcare facility. In this chapter, we present a comprehensive range of HVAC solutions designed to meet the diverse needs of residential and light commercial environments. Our systems combine energy efficiency, quiet operation, and advanced control options to ensure optimal comfort, reliability, and sustainability in every setting.

Residential

Air renewal = healthier indoor air

Ventilation is all about allowing a house to breath. It is useful for allowing fresh, healthy outdoor air to come inside.
Ventilation takes place through the action of dedicated devices which act like actual lungs.
To guarantee the health of its inhabitants and of the house itself, it is critical that the indoor air is replenished (removing contaminants and letting outdoor fresh air in).
Indoor air can be up to 5 times more polluted than outdoor air.

DUCO Energy Premium

Strengths

- Demand-controlled balanced system with heat recovery
- Low sound power
- Patented 2-zone control ensures maximum energy efficiency (60.5W)
- Automatic calibration reduces installation time by at least 50 %
- Smart communication with home automation systems via ModBus or ethernet

DUCO Comfort

Strenghts

- Interchangeable: left/right installation through an on-site switch
- Easy-to-install
- Energy efficiency: demand control based on modulary coupled sensors around the house (Temperature, Relative Humidity, CO_2)
- Easy to service: all components accessible from the front
- Smart communication with home automation systems via Modbus or Ethernet

DUCO Sky

Strenghts

- Easy installation - very lightweight (19 kg) and compact (30cm height), making it easy to install by one person.
- Flexible solution - optional pre-heater and multizone valve available
- Low noise performance - maximum emission from casing of 54dB, it is among the quietest ceiling units on the market.
- Thermal efficiency up to 91.2% (A+ Energy Label)

VAM 350FC9

Strengths

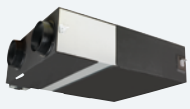
- Ventilation that saves energy through enthalpic recovery
- Free cooling possible when outdoor temperature is below indoor temperature (eg. during nighttime)
- Ventilation which saves energy through sensible and enthalpic recovery
- Free cooling operation is possible in function with the ambient temperature
- Sensor allowing monitoring and visualization of CO_2 levels but also automatic operation to encounter elevated CO_2 levels
- Can be used as standalone or integrated in a Sky Air or VRV system
- Can create over- and under pressure conditions in the room
- Possibility of fitting a direct expansion coil connected to a VRV system allowing for detailed discharge air temperature control
- Low-profile unit that can be installed in concealed ceilings
- CO_2 sensor operation
- Can be used as standalone or integrated in the Sky Air or VRV system
- Can operate in over- and under pressure
- Possibility of fitting a direct expansion battery coil associated with the VRV air conditioning system
- Low-profile unit that can be installed in concealed ceilings

DUCO Energy Premium 400

DucoBox Energy Comfort

DucoBox Energy Comfort Plus

DucoBox Energy Sky



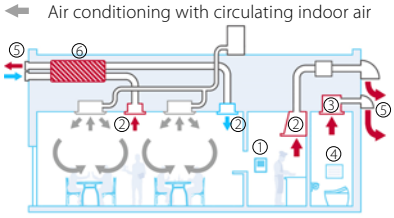
VAM FC9

Restaurants
Small shops

In restaurants and small shops, indoor air quality and the right comfort temperature are of paramount importance. The installed equipment must be maintained and operated as to guarantee a safe and comfortable environment.

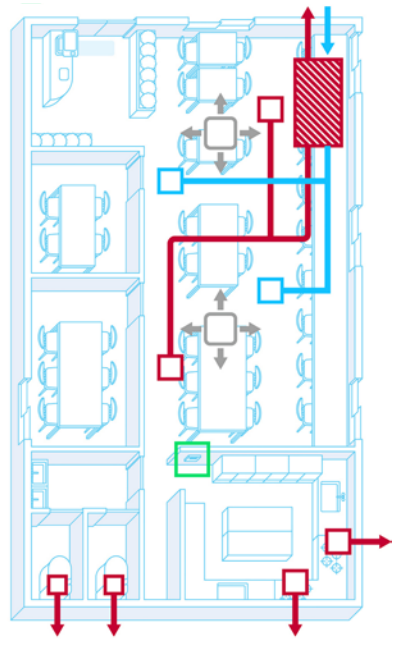
Solution

- Fresh air (intake/supply)*
- Extraction and discharge of stale air
- Air conditioning with circulating indoor air



1. Remote Controller
2. Extraction hood/supply and extraction grille
3. Extraction valve
4. Passage grille
5. Outdoor grilles/duckbills
6. Heat reclaim ventilation unit

*Fresh air = Outdoor air



- Air Conditioning
- Stale air extraction
- Remote Controller
- Ventilation box with heat recovery
- Diffusers

Source: Expert Ventilation Methods for Offices and Stores, Daikin Industries, 2020

How to improve indoor air quality?

- Ensure adequate ventilation for air renewal
- Ensure sanitisation/maintenance of AC/ventilation systems
- Clean the filters more often

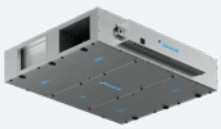
Solutions

- Compact L / Modular / P / R Ventilation
- Use of cassettes for air conditioning with a self-cleaning panel (SkyAir or VRV)

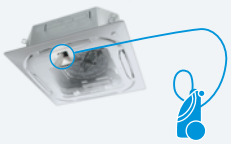
Assumptions	Fresh air flow (example)	Solution
Area: 100m² Occupancy: 50 people	1,500m³/h (30m³/h/person)	Compact L Size 5
Area: 250m² Occupancy: 130 people	3,900m³/h (30m³/h/person)	Modular P Size 4

Note: Examples with indicative values only. Each solution must be studied on a case-by-case basis, depending on the specific conditions.

Modular R / P



Air Handling Units



New Round Flow Cassette and the auto cleaning filter

Daikin Air Sense Pro+

Supermarkets
Cinemas
Large shops

What should I do?

- Whenever possible, ensure air conditioning with 100% fresh air
- Ensure adequate ventilation for air renewal
- Ensure sanitisation/maintenance of AC/ventilation systems
- Clean the filters more often

System

Daikin AHU (with integrated control)

- Complete solution for air conditioning and air renewal
- Various levels and types of filtration
- Silencers
- DX or water coils

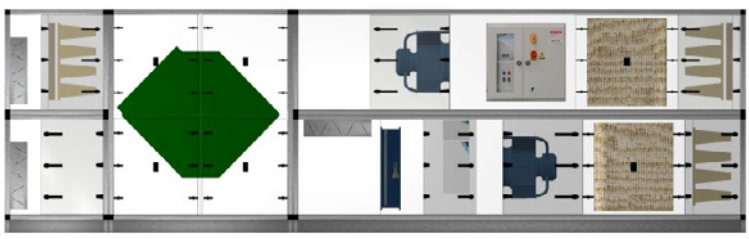
Strengths

- Unique equipment for air conditioning and air renewal
- Dilution of contaminants
- Ensuring the thermal comfort of the space
- Simplified integration into the existing Daikin controller

Assumptions	Fresh Air		Air Conditioning	Flow Rate		Solution
	Fresh air flow (example)		Thermal Load	Fresh Air	Total Flow	
	By area	By occupancy				
Air conditioning and air renewal Supermarket: 500m² Occupancy: 100 People City: Porto	1,625m³/h	3,000 m³/h	44kW	3,000 m³/h	10,000 m³/h	Professional AHU

Note: Examples with indicative values only. Each solution must be studied on a case-by-case basis, depending on the specific conditions.

Daikin Air Sense Pro+

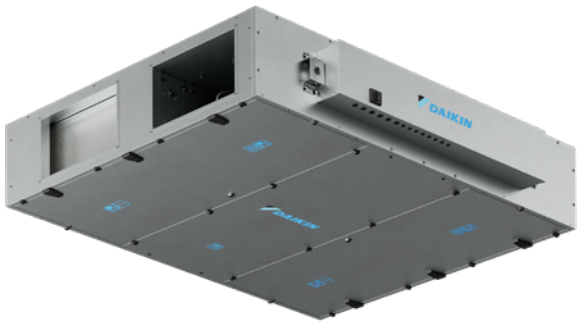


Rooftop compact units, which we also have in our product range, can also be used for this type of application. If you have any questions, please contact us so that we can find the best solution for you on a case-by-case basis.

Doctor's offices Waiting rooms

What should I do?

- Ensure adequate ventilation for air renewal
- Ensure sanitisation/maintenance of AC/ventilation systems
- Clean the filters more often



Solutions

- Compact L / Modular P / R Ventilation
- In addition, some systems can be used to improve IAQ, such as:
  - Air purifier
  - Cassettes with auto cleaning filter system
  - Concealed ceiling units with auto cleaning filter system
  - Waiting room with **indoor air quality sensor (AirSense Pro +)**

Strengths

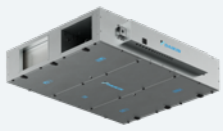
- Adequate air renewal and dilution of contaminants
- Automatic daily filter cleaning without the need for specialised personnel
- Programmable filter cleaning intervals
- Purification with HEPA Filter and Flash Streamer
- Elimination of contaminants
- Automatic daily filter cleaning without the need for specialised personnel
- Programmable filter cleaning intervals
- Real-time consultation and monitoring of parameters
- Creation of a report to check for possible IAQ problems

Application examples

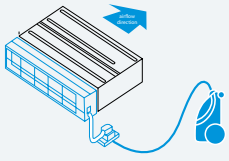
	Assumptions	Fresh air flow (example)	Solution
Ventilation	Doctor's office: 18m² Waiting room: 40m² 7 people	250m³/h (25m³/h/person)	Compact L Size 2

Note: Examples with indicative values only. Each solution must be studied on a case-by-case basis, depending on the specific conditions.

New Air Purifier models



Air Handling Units



Auto cleaning filter for Concealed Ceiling Units

New Round Flow Cassette and the auto cleaning filter

Daikin Air Sense Pro+

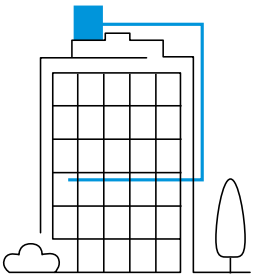
Hospital, Cliniques

What should I do?

- Define equipment to ensure compliance with current regulations
- Ensure adequate ventilation for air renewal
- Ensure sanitisation/maintenance of AC/ventilation systems
- Clean the filters more often

Solutions

- Compact L / Modular R/P / Ventilation
- In addition, some systems can be used to improve IAQ, such as:
  - High-flow air purifier
  - Cassettes with auto cleaning filter system
  - Concealed ceiling units with auto cleaning filter system
  - Waiting room with **indoor air quality sensor (AirSense Pro +)**



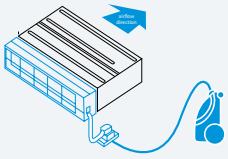
Centralised Ventilation

Strengths

- Adequate air renewal and dilution of contaminants
- Efficient energy recovery for Fresh Air
- Better safety through a correct Filtering
- Modular P and R units in accordance with VDI 6022 standard
- Professional units with the possibility of compliance with VDI 6022 and DIN 1946-4 standards
- Units from the Professional range allow to adapt the construction to the needs, accessible components for maintenance and washing, stainless steel panels, inspection glasses, lighting, absolute filters, epoxy panels, etc.
- Possibility of setting heat recovery systems such as plates, heat wheels and battery coils (in the professional range units)
- Automatic daily filter cleaning
- Purifier with HEPA Filter and Flash Streamer to ensure the elimination of contaminants
- Automatic daily filter cleaning
- Programmable filter cleaning intervals
- **Indoor air quality sensor (AirSense Pro +)** allows real-time consultation and monitoring of parameters and creates reports to check for possible IAQ problems

Modular R / P

D-AHU Professional



Auto cleaning filter for Concealed Ceiling Units

New Round Flow Cassette and the auto cleaning filter

Daikin Air Sense Pro+

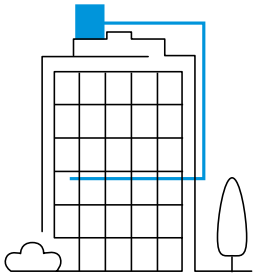
Hotels

In order to improve indoor air quality, there are two **ventilation solutions for hotels**:

- **Centralised solution**, based on an air handling unit with energy recovery.
- **Decentralised solution**, based on several smaller units with heat recovery and air pre-handling, distributed throughout the building.

The system can be improved through the use of:

- **Rooms**, a solution with low-profile concealed ceiling units and a auto cleaning filter.
- **Common spaces**, a solution with round flow cassettes and a self-cleaning panel.

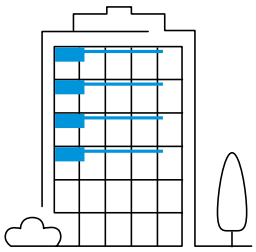


Centralised Ventilation

- AHU Professional / Ventilation / Modular P/R
- Use of air conditioning units:
  - Cassettes with auto cleaning filter system
  - Concealed ceiling units with auto cleaning filter system

Strengths

- Adequate air renewal and dilution of contaminants
- Efficient energy recovery for Fresh Air
- Better safety through a correct Filtering



Decentralised Ventilation

- Compact L / Modular T / Ventilation
- Use of air conditioning units.
  - Cassettes with auto cleaning filter system
  - Concealed ceiling units with auto cleaning filter system

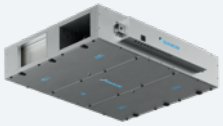
Strengths

- Automatic daily filter cleaning
- No need for specialised personnel
- Programmable filter cleaning intervals

Modular R / P

Modular T

D-AHU Professional



Air Handling Units

New Round Flow Cassette and the auto cleaning filter

Daikin Air Sense Pro+

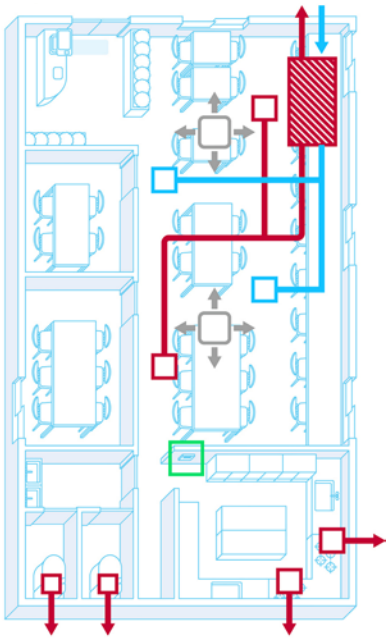
Offices & Schools

The same Air Conditioning and Ventilation Solutions can be used in Schools and Offices

Depending on the architecture and specific use of the buildings, ventilation can be centralised or decentralised. As these are spaces with a high concentration of people, it is essential to renew the air to ensure better air quality and safety for the occupants.

Ventilation type:

- **Centralised**, based on an air handling unit with energy recovery;
- **Decentralised**, based on several smaller units with heat recovery and air pre-handling, distributed throughout the building.
- As far as **Air Conditioning** is concerned, the solution should be based on the use of Round Flow Cassettes with a self-cleaning panel.

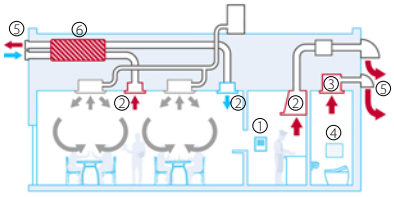


- Air Conditioning
- Stale air extraction
- Remote Controller
- Ventilation box with heat recovery
- Diffusers

Source: Expert Ventilation Methods for Offices and Stores, Daikin Industries, 2020

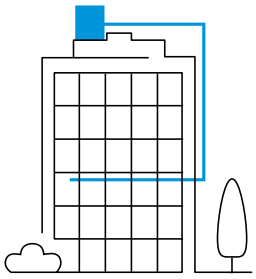
Solution

- Fresh air (intake/supply)*
- Extraction and discharge of stale air
- Air conditioning with circulating indoor air



1. Remote Controller
2. Extraction hood/supply and extraction grille
3. Extraction valve
4. Passage grille
5. Outdoor grilles/duckbills
6. Heat reclaim ventilation unit

*Fresh air = Outdoor air

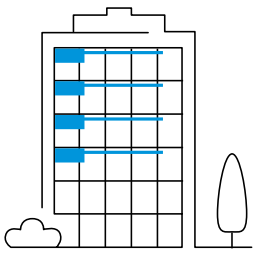


Centralised Ventilation

- Modular P / R
- In addition, some systems can be used to improve IAQ, such as:
  - High-flow air purifier
  - Cassettes with auto cleaning filter system
  - Concealed ceiling units with auto cleaning filter system
  - Waiting room with **indoor air quality sensor (AirSense Pro +)**

Strengths

- Adequate air renewal and dilution of contaminants
- Efficient energy recovery for Fresh Air
- Better safety through a correct Filtering



Decentralised Ventilation

- Compact L / Compact T
- In addition, some systems can be used to improve IAQ, such as:
  - High-flow air purifier
  - Cassettes with auto cleaning filter system
  - Waiting room with **indoor air quality sensor (AirSense Pro +)**

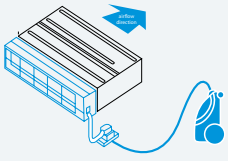
Strengths

- Automatic daily filter cleaning
- No need for specialised personnel
- Programmable filter cleaning intervals

Modular R / P

D-AHU Professional

Commercial Air Purifier



Auto cleaning filter for Concealed Ceiling Units

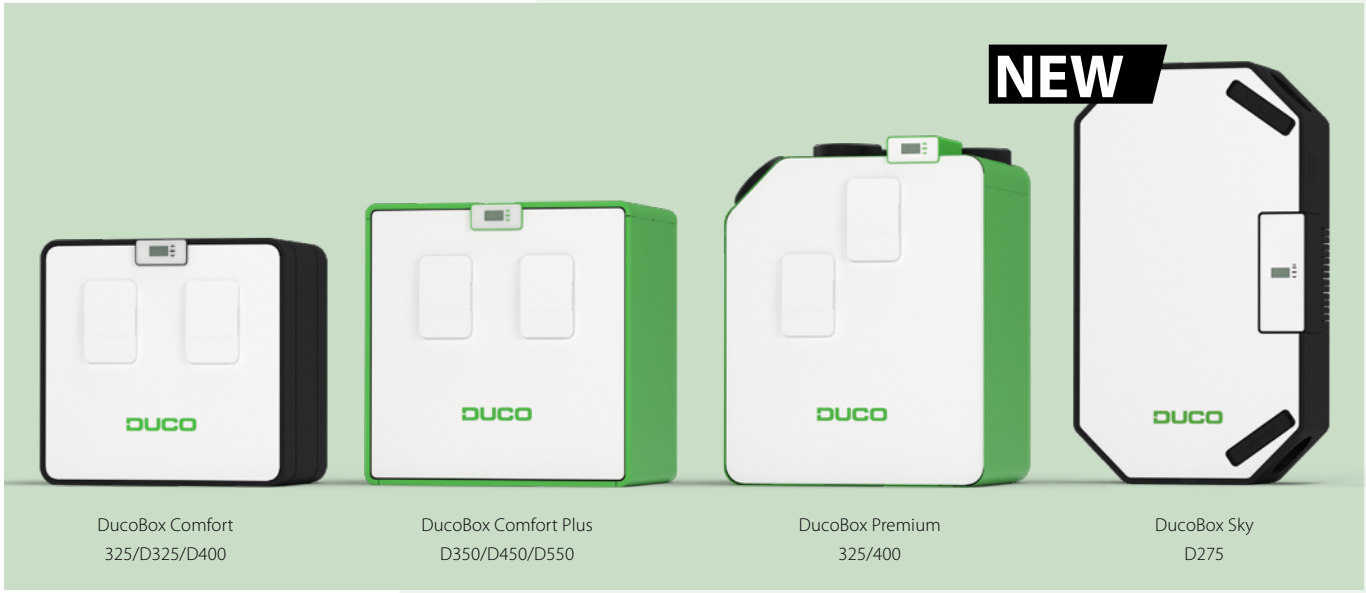
New Round Flow Cassette and the auto cleaning filter

Daikin Air Sense Pro+

Residential ventilation

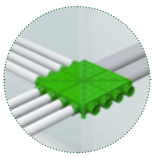
A complete portfolio for various ventilation solutions

The energy family. **Priority to energy savings**



DucoBox Comfort 325/D325/D400 | DucoBox Comfort Plus D350/D450/D550 | DucoBox Premium 325/400 | DucoBox Sky D275

A one-stop-shop solution: Easy to install ducts, vents, and accessories


DucoFlex


Vents


Intelligent control valve

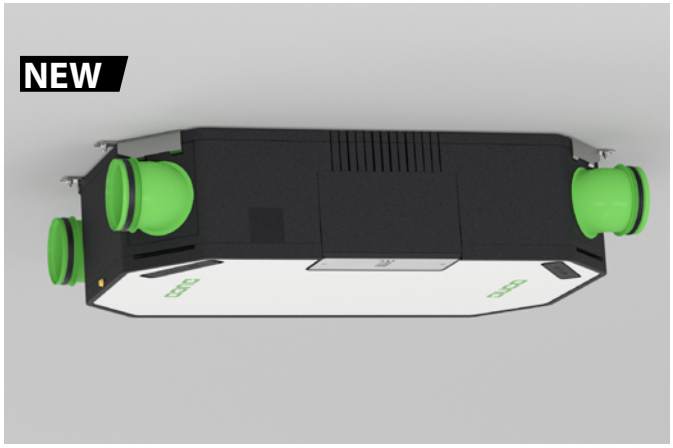

Control components


Accessories


Feed-through vents

Centralised heat recovery ventilation

for residential applications



DucoBox Energy Sky

Designer Duco Vents

DucoBox Energy Comfort Plus

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The growing need for home ventilation systems

Air quality is crucial for our health and well-being. Indoor air pollution can be even more damaging than the pollution in the air outside, given that people in Europe spend up to 90% of their time indoors. This has a real effect on our health, especially given that indoor air quality can be five times more polluted than outdoor air.

Moreover, in order to make houses, apartments and other dwellings more energy efficient and eco-conscious, they are being built as air-tight as possible – limiting the amount of natural ventilation. As the number of well insulated homes continues to grow, the need for effective residential ventilation becomes more prominent.

4 Reasons to choose a ventilation system for your home:

1. Moisture and condensation
Condensation occurs when humid air is cooled quickly. Moisture forms on windows, walls and other surfaces, resulting in mildew, dampness or even mould. It happens during everyday activities such as showering or cooking when rooms aren't well-ventilated. It's one of the most common problems with indoor air quality. A ventilation system offers a solution. It helps regulate temperature and controls moisture levels.

2. Asthma and respiratory problems
People with asthma, bronchitis and other respiratory problems have more sensitive lungs. Polluted air can trigger these conditions. Dust and mites can cause flare-ups, as can mould. These problems can occur if the air inside our homes is too damp or humid.

3. Reactions to pollution
Poor ventilation causes a build-up of pollutants in indoor air. It can also lead to an accumulation of dirt and dust mites, which may result in unpleasant skin reactions or respiratory issues. Furthermore, inadequate ventilation and accumulation of stale air and CO_2 can contribute to fatigue and headaches.

4. VOC and other chemical dangers
Every day, we use potentially hazardous chemicals in our homes. Volatile organic compounds (VOCs) are emissions from household chemicals that can be toxic at high concentrations. Proper storage of these chemicals is essential, and it is important to ensure that the room where they are stored is well-ventilated. Additionally, carbon monoxide is present in many buildings that use coal or gas-burning appliances. A build-up of this gas can lead to poisoning, but adequate ventilation helps minimise the risk.

Our homes are like lungs. They need consistent circulation of fresh, clean air. That helps protect both the property and the health of the people living there. Discover how a heat recovery ventilation unit can make the air inside your home as clean and healthy as it can be, giving you lasting peace of mind.

What is centralised heat recovery ventilation?

Centralised heat recovery ventilation (CHRV) combines the best of both worlds by keeping air fresh and warm at a low cost. To do this, CHRV systems pump out stale air and renew the indoor atmosphere with clean, fresh air.

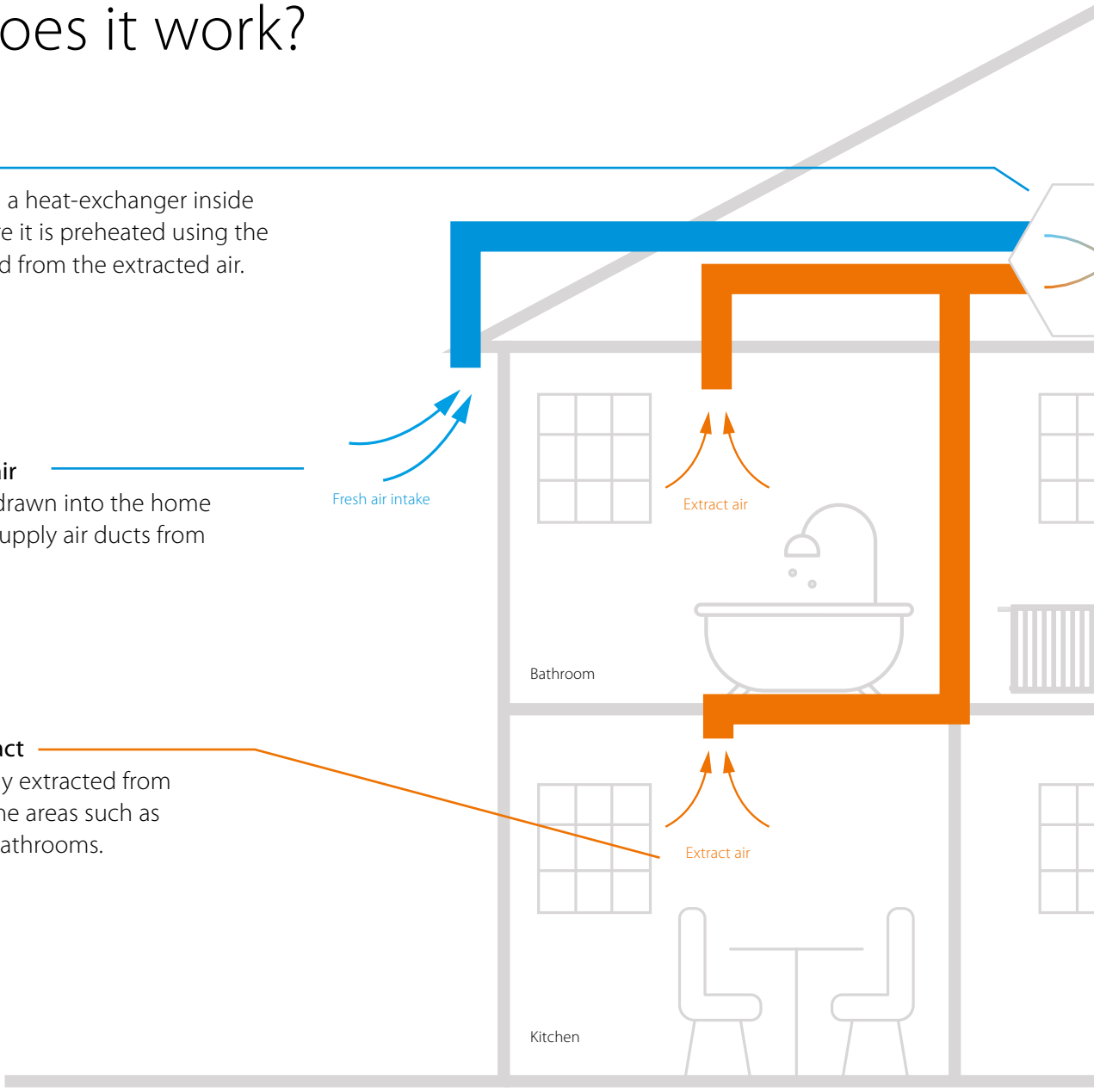
Before the stale air is completely exhausted from the building, a heat exchanger within these two airflows transfer the warmth leaving the property to the fresh air coming in. By doing this heat transfer, centralised heat recovery ventilation systems can help keep homes at a consistent temperature efficiently and cost-effectively.

How does it work?

1. **Fresh air** flows through a heat-exchanger inside the unit, where it is preheated using the heat recovered from the extracted air.

2. **Fresh, clean air** is constantly drawn into the home through the supply air ducts from the outside.

3. **Stale air extract** is continuously extracted from moisture-prone areas such as kitchen and bathrooms.



The benefits of ventilation

Proper ventilation is essential for maintaining a healthy, comfortable, and energy-efficient indoor environment in a house.

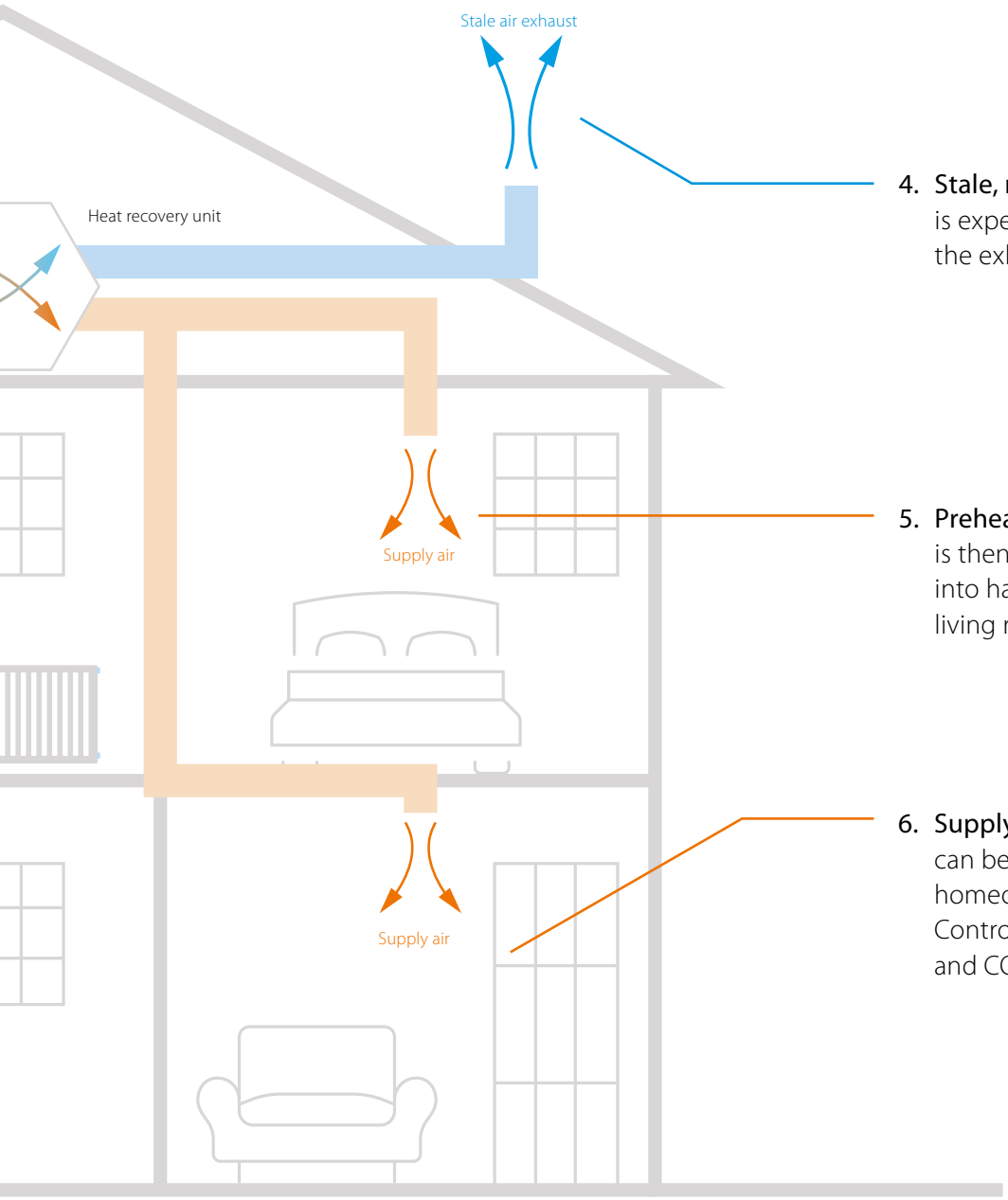
Improved indoor air quality
Ventilation helps to circulate fresh air into the house, which reduces indoor air pollution and the buildup of harmful pollutants, resulting in a healthier living environment and reducing the risk of health problems resulting from poor indoor air quality such as allergies, and other respiratory issues.

Longevity of building materials
Good ventilation helps to prevent damage to building materials due to moisture buildup, which can extend the life of a house and reduce repair and maintenance costs.

Reduce excess moisture
Proper ventilation can help to reduce excess moisture in the house, which can prevent mould growth, dampness, and other associated health problems.

Reduced energy bills
Recovering heat from the outgoing stale air results in avoiding large heat losses in buildings, therefore contributing to the overall energy performance of a building and allowing households to save up to 30%* of their heating costs.

*As calculated by European Ventilation Industry Association



4. **Stale, moisture-laden air**
is expelled from the home through the exhaust vent/ grille.

5. **Preheated air**
is then continuously distributed into habitable rooms such as living rooms and bedrooms.

6. **Supply air**
can be boosted at any time by the homeowner using control options. Controls options for humidity and CO_2 can also be used.

Why DUCO?

DUCO offers end-to-end solutions

One-stop-shop for your end-to-end ventilation solution
Complete range of Centralised Heat Recovery Ventilation (CHRV) units, ducts & accessories.

Smart demand control
The room is only ventilated when necessary and in the correct amount. CO_2 concentration and relative humidity are used as indicators. This helps avoiding unnecessary heat loss while guaranteeing an optimal indoor climate.

Low noise guaranteed
A comfortable indoor climate is created by whisper-quiet ventilation systems. DUCO excels in acoustics both in its supply and exhaust channels.

Intuitive quotation process
Upon request, Daikin can provide an easy-to-use tool to calculate the units and accessories needed for your specific projects.
A complete calculation request can also be carried out on Daikin Heating Solutions Navigator Platform.

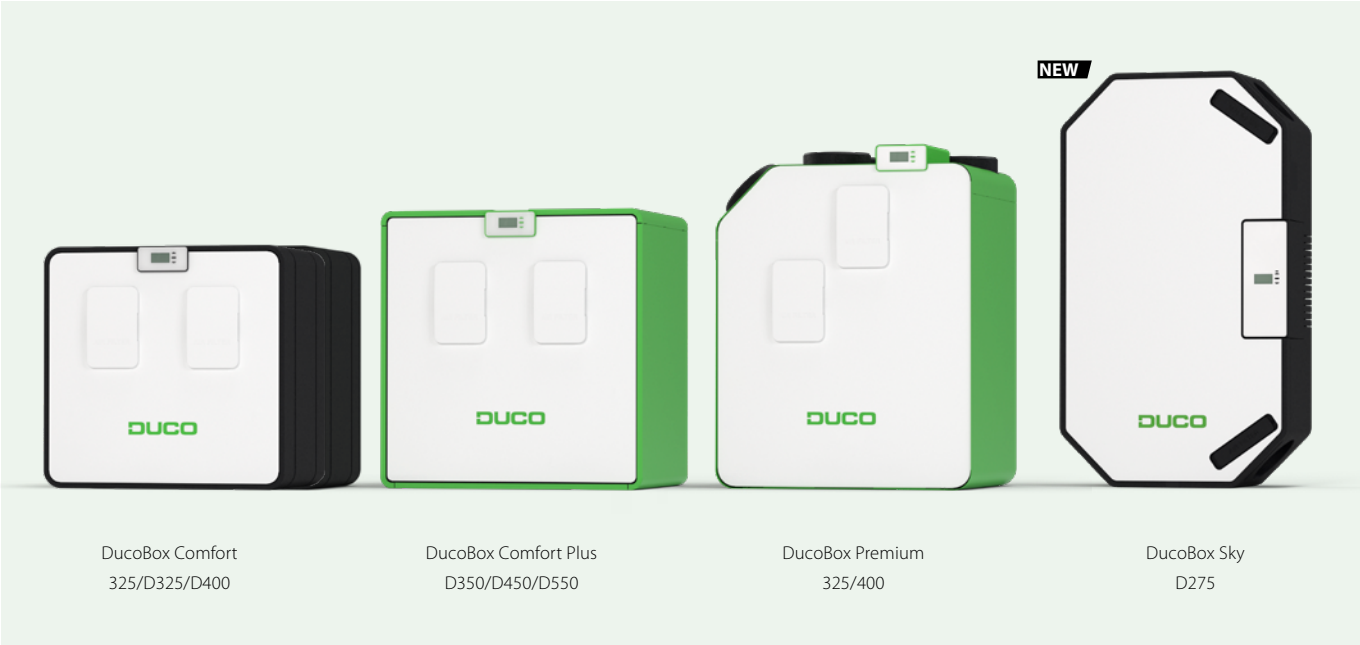
Automatic calibration
The automatic calibration, whereby the measuring and adjustment technology is based on the principles of calibration under constant pressure, always offers a 100% guarantee of a qualitative end result and translates into a 50% saving in set-up time for the installer.

Connectivity
With the optional Communication Print you have the option of allowing the DUCO ventilation systems to communicate via Modbus and/or Ethernet. Modbus integration enables them to be linked to a building management system.

High energy conversion efficiency
The combination of dynamic air distribution filters and high performance heat exchangers result in very high efficiency ratio.

The energy family

Priority to energy savings



DucoBox Comfort
325/D325/D400

DucoBox Comfort Plus
D350/D450/D550

DucoBox Premium
325/400

DucoBox Sky
D275

Quiet

The freshest air without distracting background noise? With the DucoBox Energy Comfort Plus and Energy Premium, it becomes a reality, thanks to the excellent **sound-absorbing sleeve** (additional attenuation 10 dB).
Our innovative units are equipped with the **quietest fans on the market**, making them virtually silent.

Smart 2-zone control

All CHRV units are available with smart 2-zone control. A dynamic valve optimally distributes the air flows between two zones based on CO_2 and humidity measurement. The 2-zone control provides better **acoustics and energy savings**. With the DucoBox Energy Premium, internal control offers additional convenience thanks to the plug & play concept: only basic wiring for power supply is required.

Install in no time

The **automatic calibration** of our units speeds up installation and **saves installers up to 50% calibration time**, saving at least 30 minutes of installation time. The copy function in the DucoBox Energy Comfort (Plus) and Energy Sky makes it easy to copy settings in serial construction, which saves a lot of time and subsequently save money on installation. These units are also **100% by software L/R exchangeable**.

A complete portfolio for complete ventilation solutions

Fresh air, whenever you need!

Europe's **quietest and smartest** CHRV!

DucoBox Energy Comfort & Comfort Plus

A solution for every situation
Flow rate up to 550m³/h (at 200 Pa)

Left/right exchangeable
Exchange between left and right variant is carried out 100% by software (by display)

Automatic calibration
Calibration at constant pressure saves up to 50% on the configuration time

DucoBox Energy Premium

Smart 2-zone control
Saving up to 40% energy through smart zone control

Quietest CHRV on the market
Enjoy a good night's sleep!

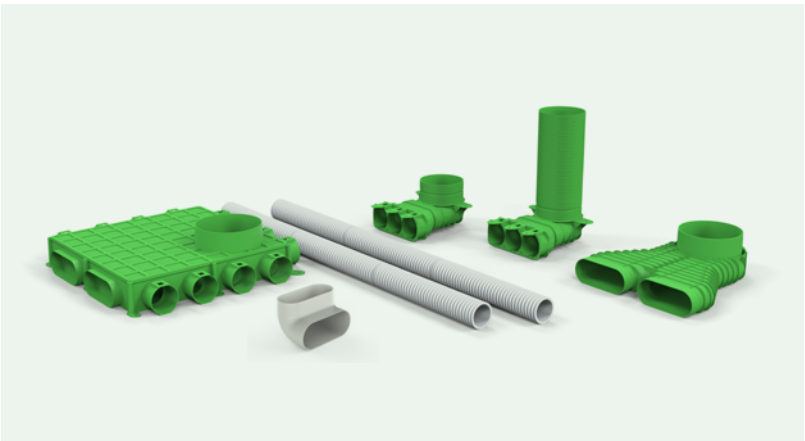
Automatic calibration
Calibration at constant pressure saves up to 50% on the configuration time

DucoBox Energy Sky

Easy installation
Very lightweight (19 kg) and compact (295 mm height)

Flexible solution:
Requires a limited space to be installed and can be either wall mounted, or ceiling mounted

All the advantages of the other DUCO CHRV systems are adopted, including the possibility of 2-zone control, automatic calibration, copy function, head-up display



DucoFlex

Thanks to DUCO, with DucoFlex, Daikin offers a complete air ducting **system**. If you use this **installation-friendly** air-duct system you will enjoy the **energy-efficient and quiet operation** of the ventilation system.

On-demand ventilation

Historically, CHRV-units were running **continuously**: 24 hours a day, 7 days a week. This was deemed to be "ok" as there was "heat recovery" anyway, and so the energy losses were deemed to be small.

DUCO feels that this **"old school"-way-of-thinking** is a thing of the past and decided to go a step beyond the "normal" operation-mode of a "traditional" CHRV-system.

So next to offering user control options on the display or via a remote control; next to offering the possibility to make the unit function on a time-schedule, DUCO also offers true "on demand" solutions which result in true energetically optimised ventilation-solutions: **only ventilate when necessary, where it is necessary and for as long as it's necessary.**

Local detection
Sensors in the room

CO_2 or humidity

Presence detection

Central detection
Sensors in the ventilation unit

CO_2 / humidity / presence detection

How does it work?

Sensors permanently measure the indoor air quality in a room (or centrally, depending on the need): if the indoor air quality (CO_2 or humidity) is found to be OK, **the ventilation is put to a strict minimum** (minimum energy consumption and minimum heat losses).

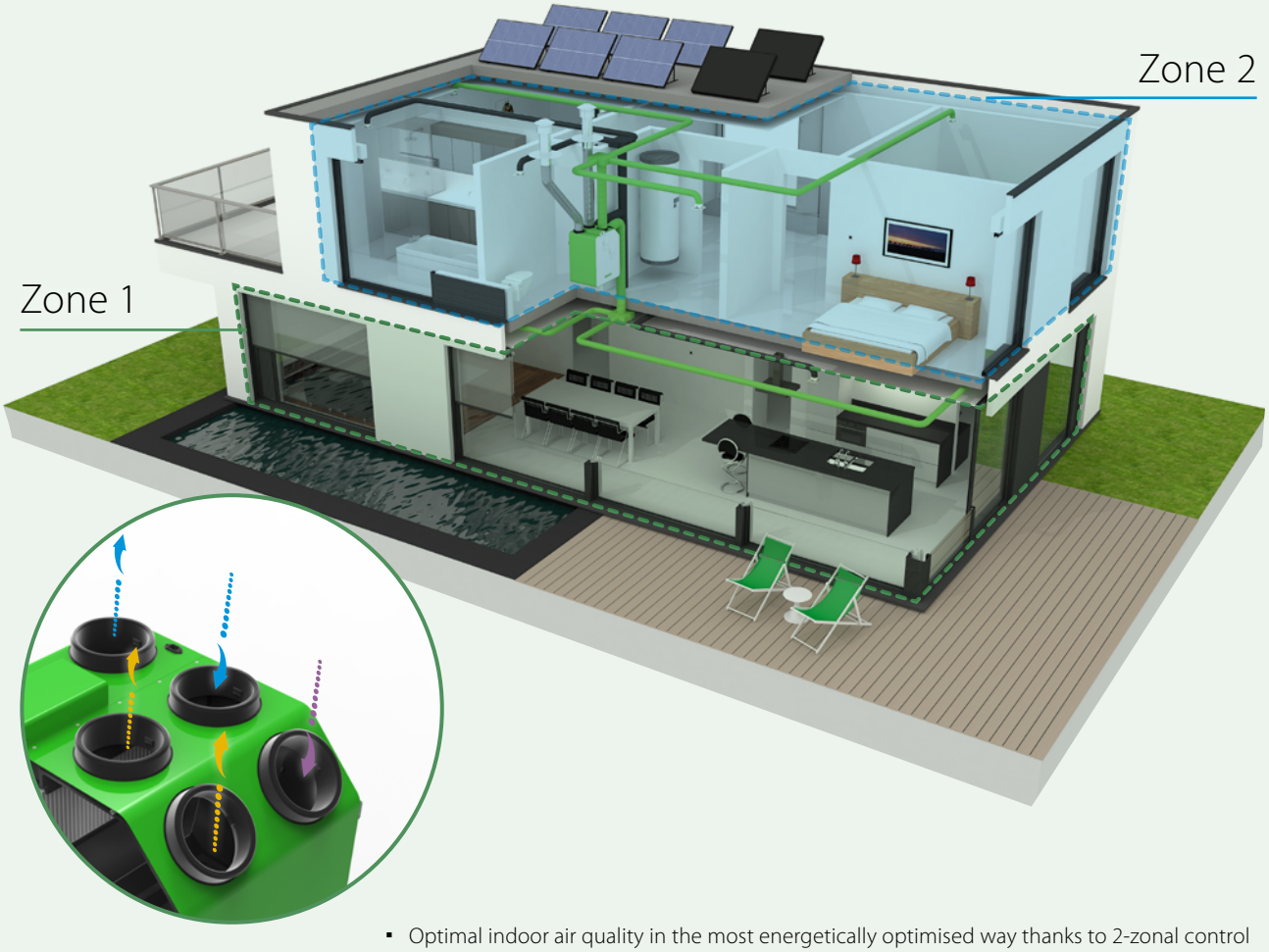
On the other hand, if the indoor air quality is found to be or become worry-some, the ventilation is triggered immediately in a modular way, i.e. more or less intense according to **intelligent algorithms** (energy is only used when needed to reach healthy indoor air).

With an **"on demand"** DUCO-system, the occupant can always be assured to breathe the best possible indoor air, whilst also using the least amount of energy! DUCO brings you the **smartest** ventilation solutions!

30% less noise

Discover the magic of zonal ventilation

Bring fresh air into your life,
at the right time, in the right room.



- Optimal indoor air quality in the most energetically optimised way thanks to 2-zonal control
- Low noise guaranteed by our ventilation system
- Automatic calibration

The magic of zonal ventilation

Thanks to DUCO, Daikin offers Centralised Heat Recovery Ventilation (CHRV) systems with an integrated 2-zone valve. With the 2-zone version of the DucoBox Energy Premium, the product range is extended with a unique ventilation system with embedded 2-zone control. If a certain zone does not require ventilation, that zone is not ventilated. Cost savings on heating, lower consumption and noise comfort of the unit itself (lower rpm) are the logical consequences.

Sensors meticulously detect the residents' movements throughout the home. This makes it possible to automatically determine where, when and in what amount ventilation is required.

By controlling the two zones separately with a built-in valve, the consumption of the EC fans is reduced considerably, which translates into an A+ energy label.

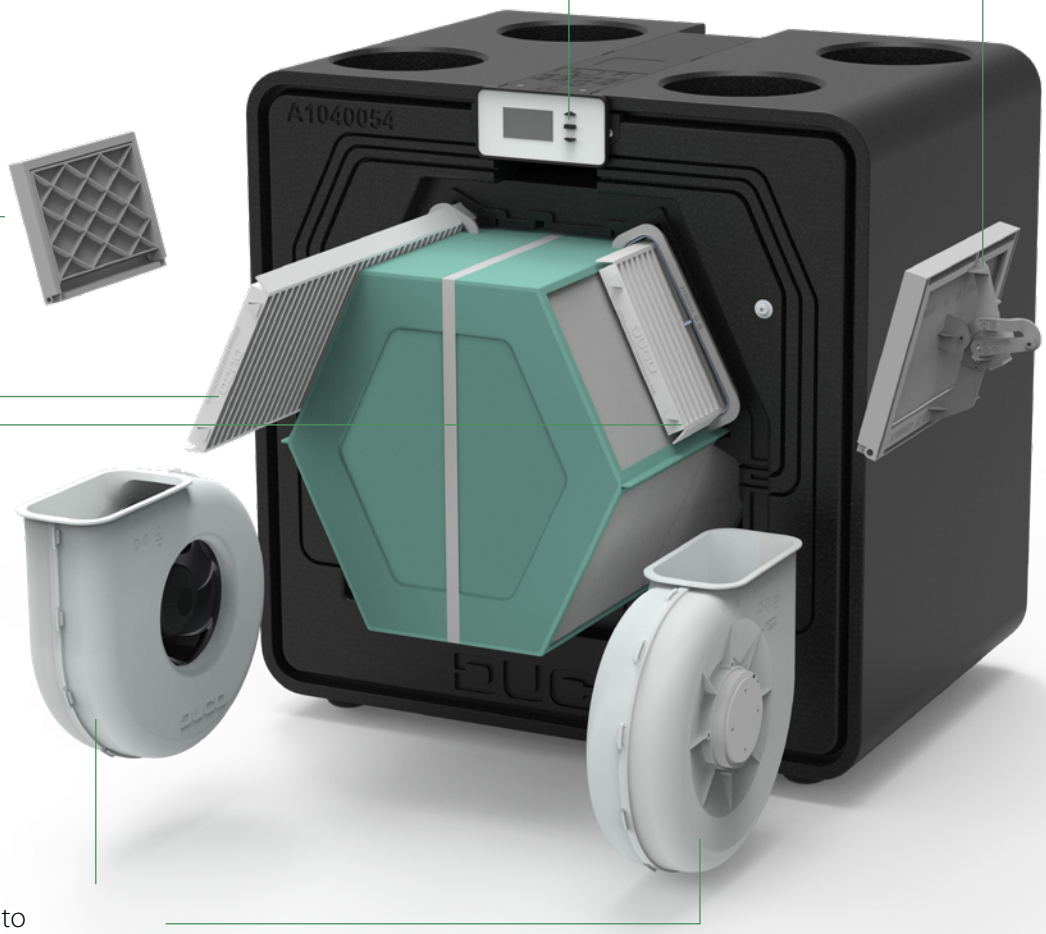
CHRV

DucoBox Energy Comfort

Making life easy for installers

This smart and silent ventilation unit is the ideal solution for apartments and houses due to its compact size. With the addition of DucoBox Energy Comfort D400 to our portfolio, this range now offers adjustable capacity of up to 325 m^3/h and 400 m^3/h.

Patented principle of double by-pass



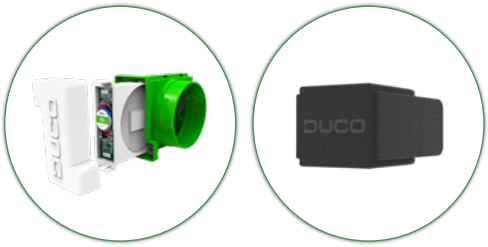
Dynamic Airflow Filters
For maximum efficiency

Low power consumption due to energy-efficient EC motors

Ventilation unit

Type of DucoBox	Max air flow at 150 Pa	Plug	Article reference
DucoBox Energy Comfort 325	325 m³/h	F	00004485
DucoBox Energy Comfort D325	325 m³/h	F	00004649
DucoBox Energy Comfort 325 FR (NF Unit: France only)	325 m³/h	F	00004657
DucoBox Energy Comfort D400	400 m³/h	F	00004707
DucoBox Energy Comfort 325 UK	325 m³/h	G	00004591
DucoBox Energy Comfort D325 UK	325 m³/h	G	00004658
DucoBox Energy Comfort D400 UK	400 m³/h	G	00004757

Optional pre-heater and optional multi-zoning valve



L/R switch - 100% software-based
This unit is very user-friendly because physical interventions are not necessary. The left/right switch is carried out 100% by software thanks to a patented principle of double by-pass.

Compact & light unit:
This lightweight unit starting from 21kg can easily be installed by 1 person. With its compact dimensions, the DucoBox Energy Comfort 325/D325 is ideal for a small technical space!

starting **21 kg**

Smart copy function
Thanks to a "copy" function which is integrated on software level, the installer has the possibility to copy the settings and parametrisation of one DucoBox Energy Comfort onto the next DucoBox Energy Comfort. This is particularly useful in a serial construction with the same types of houses.

Automatic calibration
Relying on the principles of calibration at constant pressure, this method achieves a 50% saving on calibration time. DUCO saves you time and money.

Smart demand control based on CO_2 and/or humidity measurement
Available in white/black colours to fit into any house interiors.

DucoBox Energy Comfort 325 - D325 - D400

DucoBox Energy Comfort

DucoBox Energy Comfort UK

DucoBox Energy Comfort FR

With 2 or more sensors

With 1 sensor/ manual/ clock

Physical Properties			**325/D325**	**D400**
Width x Height x Depth		mm	700 x 705 x 525	756 x 800 x 584
Casing			Coated sheet steel + EPP	
Colours			White + Black	
Connections			Inner Diameter: Ø 160 mm	Inner Diameter: Ø 180 mm
Condensate drain			Ø 32 mm (1 ¼") (2x)	
Heat exchanger			PET/ Polystryene	v1: PP - v2: PET/Alu
Material of inside section			EPP / PP / ABS	
Weight			21 kg	31 kg
Power cable length			2 m (from top of unit)	
Mounting			Wall mounting (standard) Floor mounting as an option using support frame	

Miscellaneous Properties			**325/D325**	**D400**
Energy class			With two sensors: A+ Other: A	
Specific energy consumption (SEC)	Cold	kWh/(m².a)	-83.6 (1)	-76.9 (1)
	Average		-43.9 (1)	-39.1 (1)
	Warm		-18.5 (1)	-14.8 (1)
Maximum flow rate at 100 Pa ESP		m³/h	325	400
Sound power level LWA		dBA	55	
Filters			Dynamic airflow filter supply air (460 x 185 x 15 mm) Standard: ISO 16890 Coarse 65 % (= G4) Optional: ISO 16890 ePM1 55% (= F7) Dynamic airflow filter exhaust air (460 x 185 x 15 mm) Standard: ISO 16890 Coarse 65 % (= G4)	Dynamic airflow filter supply air (520 x 190 x 15 mm) Standard: ISO 16890 Coarse 65 % (= G4) Optional: ISO 16890 ePM1 55% (= F7) Dynamic airflow filter exhaust air (520 x 190 x 15 mm) Standard: ISO 16890 Coarse 65 % (= G4)
Summer by-pass			Fully (100% modulating)	
Frost protection			Imbalance or optional external heater	
Fans			EC fan with backward curved blades	
Automatic Calibration			Yes (constant pressure)	
Constant flow regulation			Yes	
Passive cooling			Automatic passive cooling control	
Operation			Integrated display Use via User controllers and CO_2 or Humidity Sensors	
Sensors			Integrated: pressure, temperature, onboard switch sensor External: CO_2 (via optional Sensor), Humidity (via optional Sensor or measurement in ETA line), external Switch Sensor (voltage-free input) (optional)	
Communication			Standard: Duco RF, Duco Wired, Switch Sensor Expandable with Communication Print: Modbus, PWM-IN, PWM-OUT, Switch Sensor (3x), Ethernet, Micro SD-card slot	

Electrical Characteristics	**325/D325**	**D400**
Maximum electrical power	118 W (2 x 59 W)	145 W (2 x 72.5 W)
Power Supply	230 V, 50 Hz Via 3-core power cable with earthed plug	
Contacts	0-10 V in/output	
Type of motor	DC	
Energy conversion efficiency	At 325 m³/h: 85% At 279 m³/h: 86% At 277 m³/h: 88%	At 400 m³/h: 83% At 351 m³/h: 84% At 307 m³/h: 85%

(1) Manual control (no DCV)

DucoBox Energy Comfort Plus (D350/D450/D550)

First choice for building projects

This smart and even more silent ventilation unit with metallic casing can be chosen with a capacity of up to 550 m^3/h.

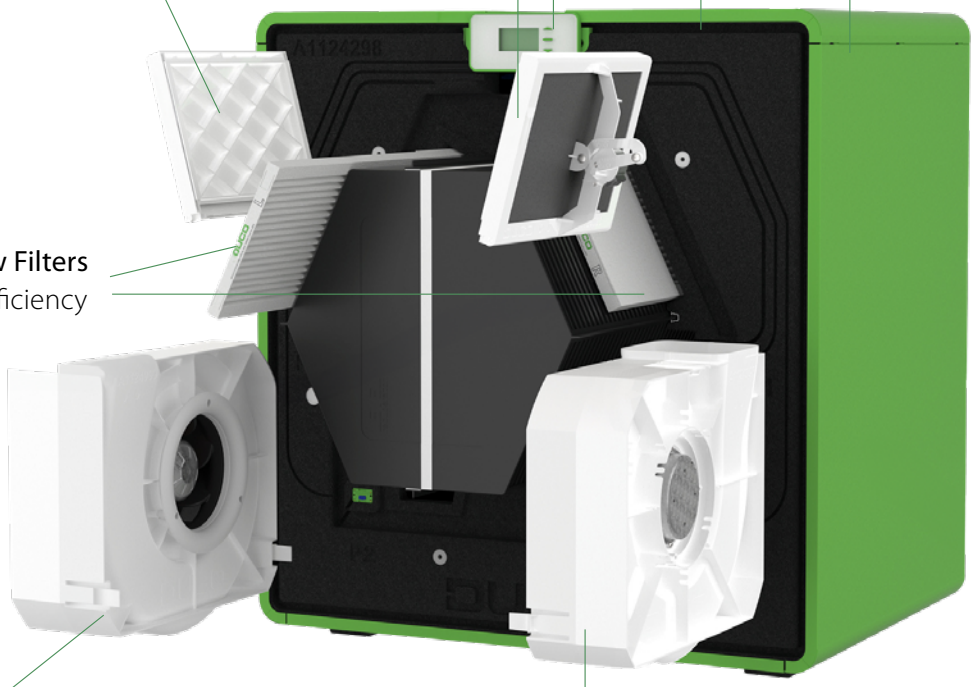
Unique for this range: **3 models for 3 different airflows**

L/R interchangeable
100% software-based

Patented principle
of double by-pass

Smart 2-zone control
with external valves

Comfort Plus with acoustic casing = 10dB quieter!



Dynamic Airflow Filters
For maximum efficiency

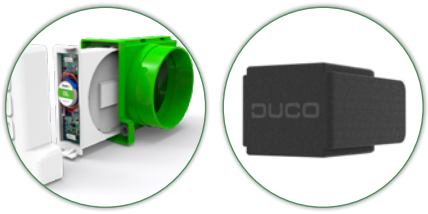
Low power consumption
due to energy-efficient EC motors

Smart demand management based on CO_2 and/or humidity measurement

DucoBox Energy Comfort Plus D350-D450-D550

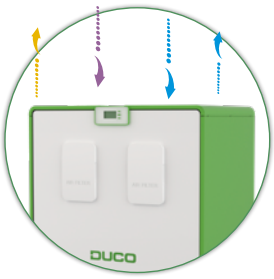
Type of DucoBox	Passive House Certified Component	Max air flow at 150 Pa	Plug	Article reference
DucoBox Energy Comfort Plus D350	✓	350 m³/h	F	00004704
DucoBox Energy Comfort Plus D450	✓	450 m³/h	F	00004705
DucoBox Energy Comfort Plus D550		550 m³/h	F	00004706
DucoBox Energy Comfort Plus D350 UK	✓	350 m³/h	G	00004758
DucoBox Energy Comfort Plus D450 UK	✓	450 m³/h	G	00004759
DucoBox Energy Comfort Plus D550 UK		550 m³/h	G	00004923

Optional pre-heater and optional multi-zoning valve



L/R switch - 100% software-based

This unit is very user-friendly because physical interventions are not necessary. The left/right switch is carried out 100% by software thanks to a patented principle of double by-pass.



Compact unit: 760 x 803 x 584 mm

With its compact dimensions, the DucoBox Energy Comfort is ideal for a small technical space!

Smart copy function

Thanks to a "copy" function which is integrated on software level, the installer has the possibility to copy the settings and parametrisation of one DucoBox Energy Comfort Plus onto the next DucoBox Energy Comfort Plus. This is particularly useful in a serial construction with the same types of houses.

Automatic calibration

Relying on the principles of calibration at constant pressure, this method achieves up to 50% saving on calibration time. DUCO saves you time.

Smart demand control based on CO_2 and/or humidity measurement

Available in white/black colours to fit into any house interiors.

DucoBox Energy Comfort Plus D350-D450-D550

DucoBox Energy Comfort Plus

DucoBox Energy Comfort Plus UK

With 2 or more sensors

With 1 sensor/ manual/ clock

Physical Properties			D350	D450	D550
Width x Height x Depth		mm	760 x 803 x 584		
Casing			Coated sheet steel		
Colours			White + Green		
Connections			Inner Diameter: Ø 180mm		
Condensate drain			Ø 32 mm (1 ¼") (2x)		
Heat exchanger			v1: PP - v2: PET/Alu		
Material of inside section			EPP / PP / ABS		
Weight			47 kg		
Power cable length			2 m (from top of unit)		
Mounting			Wall mounting (standard) Floor mounting as an option using support frame		

Miscellaneous Properties			D350	D450	D550
Energy class			With two sensors: A+ Other: A		
Specific energy consumption (SEC)	Cold	kWh/(m².a)	-77.8 (1)	-76.2 (1)	-72.8 (1)
	Average		-39.7 (1)	-38.5 (1)	-35.9 (1)
	Warm		-39.7 (1)	-38.5 (1)	-35.9 (1)
Maximum flow rate at 100 Pa ESP		m³/h	350	450	550
Sound power level LWA		dBA	48	49	54
Filters			Dynamic airflow filter supply air (520 x 190 x 15 mm) Standard: ISO 16890 Coarse 65 % (= G4) Optional: ISO 16890 ePM1 55% (= F7) Dynamic airflow filter exhaust air (520 x 190 x 15 mm) Standard: ISO 16890 Coarse 65 % (= G4)		
Summer by-pass			Fully (100% modulating)		
Frost protection			Imbalance or optional external heater		
Fans			EC fan with backward curved blades		
Automatic Calibration			Yes (constant pressure)		
Constant flow regulation			Yes		
Passive cooling			Automatic passive cooling control		
Operation			Integrated display Use via User controllers and CO_2 or Humidity Sensors		
Sensors			Integrated: pressure, temperature, onboard switch sensor External: CO_2 (via optional Sensor), Humidity (via optional Sensor or measurement in ETA line), external Switch Sensor (voltage free input) (optional)		
Communication			Standard: Duco RF, Duco Wired, Switch Sensor Expandable with Communication Print: Modbus, PWM-IN, PWM-OUT, Switch Sensor (3x), Ethernet, Micro SD-card slot		

Electrical Characteristics	D350	D450	D550
Maximum electrical power	117 W (2 x 58.5 W)	196 W (2 x 98 W)	276 W (2 x 133.5 W)
Power Supply	230 V, 50 Hz		
	Via 3-core power cable with earthed plug		
Contacts	0-10 V in/output		
Type of motor	DC		
Energy conversion efficiency	At 350 m³/h: 84% At 307 m³/h: 85% At 255 m³/h: 86%	At 450 m³/h: 81% At 418 m³/h: 82% At 377 m³/h: 83%	At 550 m³/h: 78% At 515 m³/h: 79% At 471 m³/h: 80%

(1) Manual control (no DCV)

Control components - DucoBox Energy Comfort/Comfort Plus

Humidity sensor

This sensor is placed in the extract air duct (ETA) of the DucoBox Energy Comfort and centrally measures the humidity of the air extracted from the house. A maximum of one Humidity Sensor (ETA) per unit.

Peak power:	Communication:	Power supply:
< 1 W	via supplied cable	From the DucoBox

Humidity Sensor DucoBox Energy Comfort (Plus) / Sky	00004723

The Humidity Sensor is installed in a borehole (Ø 10mm) in an extraction duct with diameter of your choice.

External 2-zone

The 2-zone control for the supply to the home is done quickly and discreetly by the compact iAV valves. A valve is provided for each branch to the various zones.

Peak power:	Communication:	Power supply:
< 7 W	Wired connection to DucoBox	24 VDC (to be provided externally)

Multizone Valve DucoBox Energy Comfort (Plus) (Sensorless) Ø125	00004761
Multizone Valve DucoBox Energy Comfort (Plus) (Sensorless) Ø160	00004760

NEW

Duco Coupling device (Ø180 → 2x Ø160) for Multi-zone valves	00004995 (expected in Q1 FY25)

The Duco Coupling device (Ø180 → 2x Ø160) has been developed to allow multi-zone valves to be quickly fitted to DucoBox Energy Comfort (Plus) / Sky. Thanks to the well-thought-out design, the pressure build-up is evenly distributed over both zones. This improves the acoustics of the overall system! By using the connection pieces with joint, the coupling device can be fitted to any type of DUCO ventilation system. The multi-zone valves D160 can also be mounted airtight without additional material. Save time = save money!

External control components

The DucoBox Energy Comfort/Comfort Plus can be linked with the following external control components.

User controllers and room sensors	Please refer to dedicated chapter on control components
Switch sensor (for switch detection)	Please refer to dedicated chapter on control components

Options & accessories - DucoBox Energy Comfort / Comfort Plus

Mounting chair standing (Energy Comfort)	00004546
Mounting chair standing (Energy Comfort D400/Plus/Premium)	00004740

In situations where wall mounting of the DucoBox Energy Comfort (Plus) is not possible, this support frame enables floor mounting.
Use of a flat siphon is required.

Width x Height x Depth (incl. DucoBox Energy Comfort D325): 700 x 828 x 525 mm
Width x Height x Depth (incl. DucoBox Energy Comfort D400): 700 x 933 x 525 mm
Width x Height x Depth (incl. DucoBox Energy Comfort Plus): 700 x 936 x 525 mm

Siphon flat (Energy)	00004376

This flat diaphragm siphon with a height of 64 mm saves space and reduces the risk of air leaks.
The siphon can be installed 'dry' and does not dry out on warm days.

Filter set 2 x Coarse 65 % (Energy Comfort)	00004547
Filterset Coarse 65% /ePM1 55% (Energy Comfort D325)	00004661
Filterset 2 x Coarse 65 % (Energy Comfort D400 & Plus D350/D450/D550)	00004741
Filterset Coarse 65% /ePM1 55% (Energy Comfort D400 & Plus D350/D450/D550)	00004742

The filter sets for the DucoBox Energy Comfort (Plus) include the following filters: For supply air (SUP): choice between Coarse 65 % (≈ G4) or ePM1 55 % filter (≈ F7). The ePM1 55% filter lets fewer fine particles through, which has a positive influence on air quality (e.g. for people who have allergies). For extract air (ETA): Coarse 65 % filter (≈ G4)

Coaxial cable set 8m	00004418

The set comprises an 8 m long coaxial cable with pre-fitted connectors at both ends. This set can be used to relocate DucoBox Energy Comfort / Premium antenna, if necessary, to a spot where the RF range is optimal.

Connectivity Board Modbus and WIFI	0004810 (Reference to be changed to 00004945)

The optional Duco Connectivity Board can be applied within the DucoBox Energy. This PCB enables interfacing towards home automation and building management systems via REST API (locally or via the cloud) or Modbus TCP (locally). Both are possible via Ethernet or Wi-Fi.

Muff with rubber D160/D160 (M/M) [connection piece with joint]	00004724
Muff with rubber D180/D160 (M/M) [connection piece with joint]	00004725
Muff with rubber D180/D180 (M/M) [connection piece with joint]	00004726
Muff with rubber D200/D180 (M/M) [connection piece with joint]	00004727
NEW Connection piece 45° with joint D160/D160 (M/M)	00004949

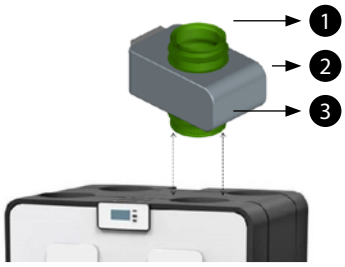
The connection pieces with rubber are used to make a quick and good connection between ducts (exhaust and/or supply) or between a duct and a DucoBox. Thanks to the pre-fitted rubber seal, an airtightness class of up to D can be guaranteed at the connection! They are available in 4 versions: Ø160/Ø160, Ø160/Ø180, Ø180/Ø180 and Ø180/Ø200... a solution for every situation!

Pre-Heater DucoBox Energy Comfort (Plus) - 1,425W	00004807
Pre-Heater DucoBox Energy Comfort (Plus) UK - 1,425W	00004825
NEW Pre-Heater DucoBox Energy Comfort (Plus) / Sky (UK) 1,150W	00005011 (expected in Q1 FY25)
NEW Pre-heater Energy Comfort (Plus) / Sky - 1,150W	00007003 (expected in Q1 FY25)

The Pre-heater is a frost protection based on an electrical resistance of up to 1,150W or 1,425W that can optionally be applied in the ODA connection of DucoBox Energy Comfort (Plus) and DucoBox Energy Sky. The resistance is modulatively controlled based on various temperature readings in the ventilation unit.

The heater is attached between the unit and the air duct via connectors. The connectors depend on the type of unit and the flow rate. Refer to the table below for the right combination.

Type of unit	Flow rate	1 Connector	2 Heater	3 Connector
D325	Up to 250 m³/h	D160/D160 00004724	Pre-Heater 1,150 W 00005011 00007003	D160/D160 00004724
	Up to 325 m³/h	D180/D160 00004725		D160/D160 00004724
D400 Plus D350 Plus D450 Plus D550	Up to 250 m³/h	D160/D160 00004724	Pre-Heater 1,150 W 00005011 00007003	D180/D160 00004725
	Up to 325 m³/h	D180/D160 00004725		D180/D160 00004725
	Up to 350 m³/h	D180/D180 00004726	Pre-Heater 1,450 W 00004807 00004825	D180/D180 00004726
	Up to 550 m³/h	D180/D200 00004727		D180/D180 00004726



Power supply 230VAC-24VDC/20W + casing	00004763

The Duco Power Supply 230VAC-24VDC/20W is the best solution to power Duco Wired components from a central 230V connection. The component comes with a surface-mounted junction box as standard. The sum of the peak power of all connected DUCO components can be 20W at most when using one Power Supply.

Duco Wired power adapter 230VAC-24VDC/20W	00004762

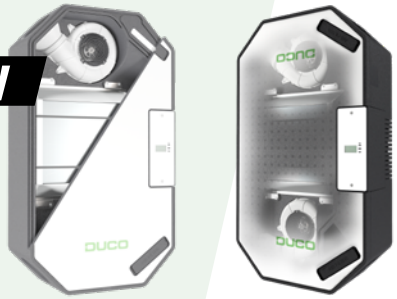
The Duco Power Adapter 230VAC-24VDC/20W is the solution to power Duco Wired components from a 230V socket. The sum of the peak power of all connected DUCO components can be 20W at most when using one Power Supply.

Flow regulator 15-50 m³/h Ø80	00004722
Flow regulator 15-50 m³/h Ø125	00004836
Flow regulator 50-100 m³/h Ø125	00004837

The adjustable flow regulator is an element that is placed in a duct to obtain a constant flow in a pressure range between 50 and 250 Pascal. It is used for both supply and extraction. Specifically for French market.

DucoBox Energy Sky D275

NEW



Flexible, compact, saves you installation time!

The Sky really has no limit with this compact ventilation box and its various mounting options. In addition, you save more than 50% on calibration time thanks to features such as automatic calibration, copy function and 100% interchangeability via display. Smart demand control also ensures that the unit operates very energy-efficiently. The device is extremely light (19 kg), making it easy to install by one person. Despite its light weight, the unit is still very quiet. With a maximum emission from casing of 54dB, it is among the quietest ceiling units on the market.

Patented principle

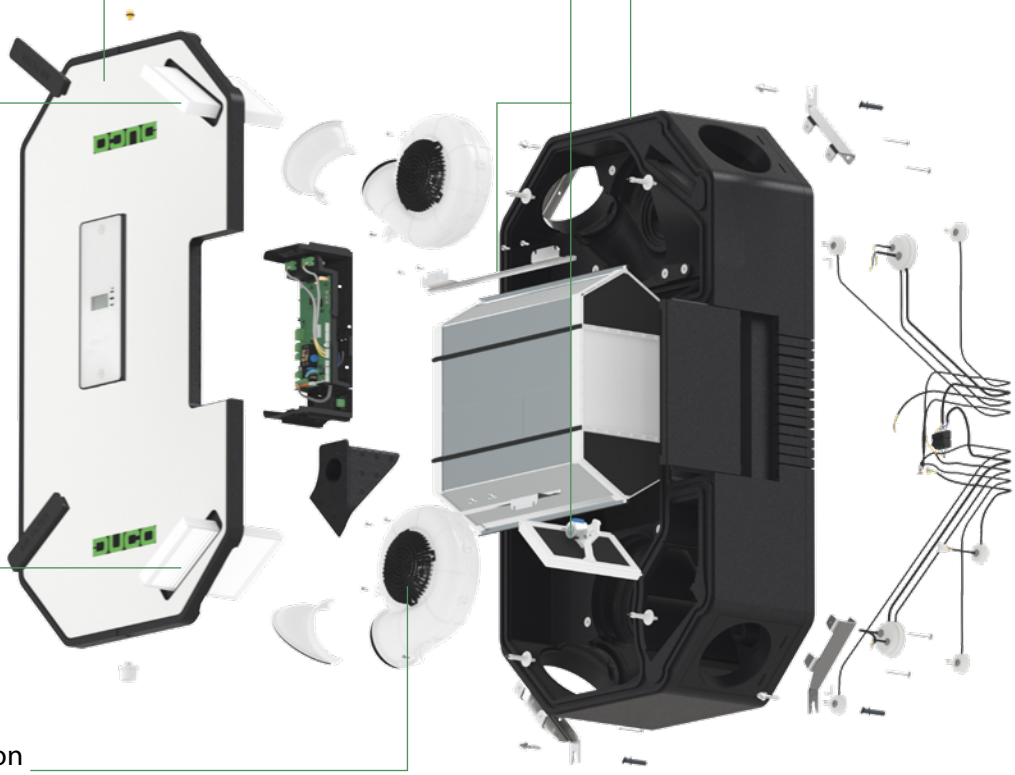
of double by-pass

L/R interchangeable

100% software-based

Smart 2-zone control

With external valves



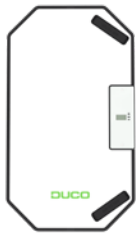
Dynamic Airflow Filters

For maximum efficiency

Low power consumption

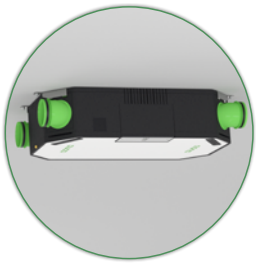
due to energy-efficient EC motors

Compact design, lightweight, silent!



Type of DucoBox	Max air flow at 150 Pa	Plug	Article reference
DucoBox Energy Sky D275	275 m³/h	F	00004939
DucoBox Energy Sky D275 UK	275 m³/h	G	00004940

Flexible solution:
Thanks to a compact dimension of 670 x 1,180 x 295 mm, the unit requires a limited space to be installed, and can be either wall mounted or ceiling mounted. The unit can also support various configurations (standard or flipped), thus making it an ideal adaptable solution for all types of rooms and spaces. The 45 degree spigots offer great flexibility and space savings.



L/R switch - 100% software-based
This unit is very user-friendly because physical interventions are not necessary. The left/right switch is carried out 100% by software thanks to a patented principle of double by-pass.

Compact and lightweight:
This lightweight ceiling model (19 kg) perfectly complements our Energy Family (Centralised Heat Recovery Ventilation) and, thanks to its limited height of 295 mm, also fits seamlessly into suspended ceilings. The unit can also be wall-mounted.

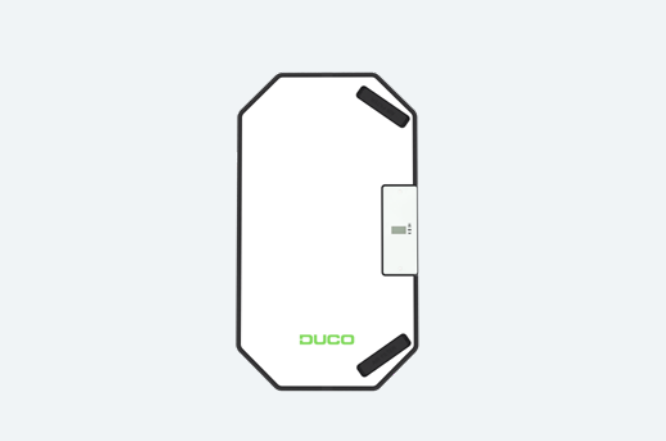
Only **19 kg**

Smart copy function
Thanks to a "copy" function which is integrated on software level, the installer has the possibility to copy the settings and parametrisation of one DucoBox Energy Sky onto the next DucoBox Energy Sky. This is particularly useful in a serial construction with the same types of houses.

Automatic calibration
Relying on the principles of calibration at constant pressure, this method achieves a 50% saving on calibration time. DUCO saves you time and money.

Intelligent demand control
The DucoBox Energy Sky automatically adjusts the ventilation to the actual need using the optional integrated 2-zone control. You thus automatically control the ventilation system based on CO_2 and humidity, allowing you to ventilate even more efficiently. This results to 40% energy savings and 30% less noise!

DucoBox Energy Sky D275



DucoBox Energy Sky

DucoBox Energy Sky UK

With 2 or more sensors

With 1 sensor/ manual/ clock

Physical Properties			D275
Width x Height x Depth		mm	670 x 1,180 x 295
Casing			EPP + Polystyrene
Colours			White + black
Connections Inner Diameter: Ø 180mm			Internal diameter: Ø 160 mm
Condensate drain			Ø 32 mm (1 ¼")
Heat exchanger			Polystyrene
Material of inside section			EPP / PP / ABS
Weight			19 kg
Power cable length			2 m (from side of unit)
Mounting			Ceiling mounting Wall mounting (vertical)

Miscellaneous Properties			D275
Energy class			With 2 sensors (control factor 0.65): A+ Other: A
Specific energy consumption (SEC)	Cold	kWh/(m².a)	-79.6
	Average		-41.2
	Warm		-16.6
Maximum flow rate at 100 Pa ESP		m³/h	275
Sound power level LWA		dBA	45
Filters			Filter supply air (175 x 500 x 25 mm) Standard: ISO 16890 Coarse 65 % (= G4) Optional: ISO 16890 ePM1 55 % (= F7) Filter exhaust air (240 x 170 x 27 mm) Standard: ISO 16890 Coarse 65 % (= G4)
Summer by-pass			Fully (100% modulating)
Frost protection			Imbalance or optional external heater
Fans			EC fan with backward curved blades
Automatic Calibration			Yes (constant pressure)
Constant flow regulation			Yes
Passive cooling			Automatic passive cooling control via 'NightBoost' function
Operation			Integrated display Use via remote controls and Room CO_2 or Humidity Sensors Optional via smartphone/tablet (provided Duco Connectivity Board in device
Sensors			Integrated: pressure, temperature, onboard switch sensor External: CO_2 (via optional Sensor), Humidity (via optional Sensor or measurement in ETA line), external Switch Sensor (voltage free input) (optional)
Communication			Standard: Duco RF, Duco Wired, Switch Sensor Expandable with Duco Connectivity Board: Modbus TCP (local), REST API (local or via cloud) - both via Ethernet or Wi-Fi

Electrical Characteristics	D275
Maximum electrical power	130 W (2 x 65W)
Power Supply	230 V, 50 Hz
	Via 3-core power cable with earthed plug
Contacts	0-10 V in/output
Type of motor	DC
Energy conversion efficiency	At 274 m³/h: 85% At 231 m³/h: 86% At 180 m³/h: 87% At 140 m³/h: 88%

(1) Central demand control

Control components - DucoBox Energy Sky

Humidity sensor

This sensor is placed in the extract air duct (ETA) of the DucoBox Energy Comfort and centrally measures the humidity of the air extracted from the house. A maximum of one Humidity Sensor (ETA) per unit.

Peak power:	Communication:	Power supply:
< 1 W	via supplied cable	From the DucoBox

Humidity Sensor DucoBox Energy Comfort (Plus) / Sky	00004723

The Humidity Sensor is installed in a borehole (Ø 10mm) in an extraction duct with diameter of your choice.

External 2-zone

The 2-zone control for the supply to the home is done quickly and discreetly by the compact iAV valves. A valve is provided for each branch to the various zones.

Peak power:	Communication:	Power supply:
< 7 W	Wired connection to DucoBox	24 VDC (to be provided externally)

Multizone Valve DucoBox Energy Comfort (Plus) (Sensorless) Ø125	00004761
Multizone Valve DucoBox Energy Comfort (Plus) (Sensorless) Ø160	00004760

NEW

Duco Coupling device (Ø180 → 2x Ø160) for Multi-zone valves 00004995 (expected in Q1 FY25)

The Duco Coupling device (Ø180 → 2x Ø160) has been developed to allow multi-zone valves to be quickly fitted to DucoBox Energy Comfort (Plus) / Sky. Thanks to the well-thought-out design, the pressure build-up is evenly distributed over both zones. This improves the acoustics of the overall system! By using the connection pieces with joint, the coupling device can be fitted to any type of DUCO ventilation system. The multi-zone valves D160 can also be mounted airtight without additional material. Save time = save money!

External control components

The DucoBox Energy Sky can be linked with the following external control components.

User controllers and room sensors	Please refer to dedicated chapter on control components
Switch sensor (for switch detection)	Please refer to dedicated chapter on control components

Optional accessories - DucoBox Energy Sky

Siphon flat (Energy)	00004376

This flat diaphragm siphon with a height of 64 mm saves space and has less of a risk of air leaks. The siphon can be installed 'dry' and does not dry out on warm days.

Filterset 2 x Coarse 65% (Energy Sky D275)	00004950
Filterset Coarse 65% / ePM1 55% (Energy Sky D275)	00004951

The filter sets for the DucoBox Energy Sky include the following filters: For supply air (SUP): choice between Coarse 65% (≈ G4) or ePM1 55% filter (≈ F7). The ePM1 55% filter allows less fine particles to pass through and thus has a beneficial effect on air quality (e.g. in case of possible allergic reactions). For extract air (ETA): Coarse 65% filter (≈ G4)

Coaxial cable set 8m	00004418

The set comprises an 8 m long coaxial cable with pre-fitted connectors at both ends. This set can be used to relocate the DucoBox Silent Connect, DucoBox Focus or DucoBox Energy Comfort (Plus) / Sky / Premium antenna, if necessary, to a spot where the RF range is optimal.

Muff with rubber D160/D160 (M/M) [connection piece with joint]	00004724
Muff with rubber D180/D160 (M/M) [connection piece with joint]	00004725
Muff with rubber D180/D180 (M/M) [connection piece with joint]	00004726
Muff with rubber D200/D180 (M/M) [connection piece with joint]	00004727
NEW **Connection piece 45° with joint D160/D160 (M/M)**	00004949

NEW **Pre-Heater DucoBox Energy Comfort (Plus) / Sky 1,150 W**	00005011 (expected in Q1 FY25)
NEW **Pre-Heater DucoBox Energy Comfort (Plus) / Sky (UK) 1,150 W**	00007003 (expected in Q1 FY25)

The Pre-heater is a frost protection based on an electrical resistance of up to 1,150W that can optionally be applied in the ODA connection of DucoBox Energy Sky. The resistance is modulatively controlled based on various temperature readings in the ventilation unit.

The heater is attached between the unit and the air duct via connectors. The connectors depend on the type of unit and the flow rate. Refer to the table below for the right combination.

Type of unit	Flow rate	1 Connector	2 Heater	3 Connector
Sky D275	Up to 250 m³/h	**D160/D160** 00004724	**Pre-Heater 1,150 W** 00005011 00007003	**D160/D160** 00004724
	Up to 275 m³/h	**D180/D160** 00004725		**D160/D160** 00004724

Duco Power supply 230VAC-24VDC/20W + casing	00004763

The Duco Power Supply 230VAC-24VDC/20W is the best solution to power Duco Wired components from a central 230V connection. The component comes with a surface-mounted junction box as standard. The sum of the peak power of all connected DUCO components can be 20W at most when using one Power Supply.

Duco Power Adapter 230VAC-24VDC/20W	00004762

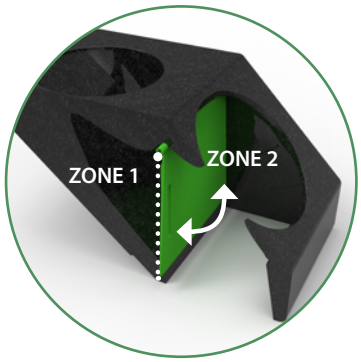
The Duco Power Adapter 230VAC-24VDC/20W is the solution to power Duco Wired components from a 230V socket. The sum of the peak power of all connected DUCO components can be 20W at most when using one Power Supply.

Flow regulator 15-50 m³/h Ø80	00004722
Flow regulator 15-50 m³/h Ø125	00004836
Flow regulator 50-100 m³/h Ø125	00004837

The adjustable flow regulator is an element that is placed in a duct to obtain a constant flow in a pressure range between 50 and 250 Pascal. It is used for both supply and extraction.

DucoBox Energy Premium

The DucoBox Energy Premium raises CHRV with heat recovery to the next level. Ideal for installation in an energy-neutral home of the future, automatic calibration and integrated 2-zone control with demand control ensure ultra-quiet, intelligent and energy-saving operation.



Patented 2-zone system (optional)

The day and night zone are being controlled separately by a valve which is integrated in the unit itself. Steering can happen based on time schedules or based on CO_2 or humidity measurements, thereby significantly improving the energy efficiency!

Favourable fan positioning

2 standard air filters

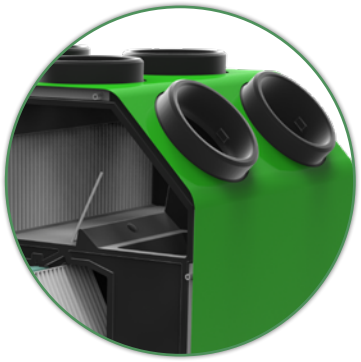
DucoBox Energy Premium

Distinguishing features

- Demand-controlled balanced system with heat recovery
- Lowest sound power (air supply) in the market
- Patented 2-zone control guarantees maximum energy efficiency
- Automatic calibration reduces installation time by at least 50%
- Modular set-up of on-demand components
- Minimum number of components
- Smart communication with domotic systems through Modbus or ethernet

Smart humidity measurement and pressure sensors

Intelligent preheater

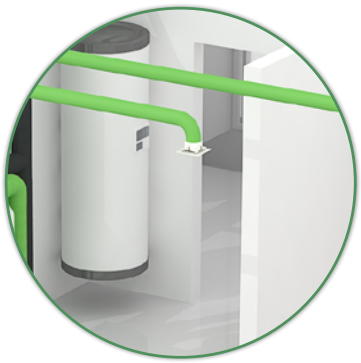


Heat exchanger
for maximum efficiency

Low noise guaranteed

Automatic calibration

The automatic calibration, which is based on the principle of constant pressure, allows for a very fast and accurate calibration. This easily reduces set-up time to 50%! DUCO saves you time and money.



DucoBox Energy Premium 325 - 400

DucoBox Energy Premium

DucoBox Energy Premium UK

With 2 or more sensors

With 1 sensor/ manual/ clock

Physical Properties			**325**	**400**
Width x Height x Depth (mm)		mm	740 x 957 x 585 mm	
Casing			Coated sheet steel	
Colours			White + green	
Connections			Interior diameter: Ø 160 mm - Exterior diameter: Ø 190 mm	
Condensate drain			Ø 32 mm (1 ¼")	
Heat exchanger			PET / Polystyrene	
Interior material			EPP / PP / ABS	
Weight			47 kg	
Power plug cable length			2 m (connected at the top side of the unit)	
Mounting			Wall mounting (standard) Floor mounting as an option using support frame	

Miscellaneous Properties			**325**	**400**
Energy class			With two sensors: A+ Other: A	
Specific energy consumption (SEC)	Cold	kWh/(m².a)	-82.9 (1)	-82.1 (1)
	Average		-43.6 (1)	-43 (1)
	Warm		-43 (1)	-18 (1)
Maximum flow rate at 100 Pa ESP		m³/h	327	405
Sound power level LWA		dBA	41	46
Filters			Filter supply air (175 x 500 x 25 mm) Standard: ISO 16890 Coarse 65 % (≈ G4) Optional: ISO 16890 ePM1 70% (≈ F7) Filter exhaust air (175 x 500 x 25 mm) Standard: ISO 16890 Coarse 65% (≈ G4)	
Summer by-pass			Full (100% modulating)	
Frost protection			Imbalance - Optional via proportional Heater	
Fans			EC fan with curved blades	
Automatic configuration			yes	
Constant flow control			Yes	
Controls			Integrated display Use via control switches and room sensors	
Sensors			Integrated: pressure, temperature, humidity (via optional box sensor), onboard switch contact External: CO_2 (via optional room sensor), humidity (via optional room sensor), external switch contact (voltage-free input) (optional)	
Communication			Standard: DUCO RF, DUCO Wired, Switch contact Can be expanded with Communication Print: Modbus, PWM-IN, PWM-OUT, Switch contact (3x), Ethernet, Micro SD-card slot	

Electrical Characteristics	**325**	**400**
Maximum electrical capacity at 150 Pa	120 W (2 x 60 W)	183 W (2 x 91.5 W)
Maximum electrical capacity heater	1,000 W	
Power supply	230 V, 50 Hz - via 3-core cable with earth plug	
Plugs	0-10 V in/outputs	
Motor type	DC	
IP class	IP40	
Efficiency	At 228 m³/h: 87 % At 275 m³/h: 86 % At 332 m³/h: 85 %	At 301 m³/h: 85 % At 351 m³/h: 85 % At 401 m³/h: 84 %

(1) Manual control (no DCV)

Ventilation unit

The DucoBox Energy Premium is available in a left-hand variant (= bevelled side left) and right-hand variant (= bevelled side right). On the bevelled side, an exhaust duct and supply duct are connected to the house (ETA and SUP).

The DucoBox Energy Premium is provided with frost protection through an imbalance method, which may be supplemented with an optional heater.

1-Zone Variant

Type of DucoBox	Passive House Certified Component	Max air flow at 150 Pa	Pre-Heater included	Plug	Left	Right
DucoBox Energy Premium 325-1ZS		325 m³/h		F	00004358	00004359
DucoBox Energy Premium 325-1ZH		325 m³/h	•	F	00004360	00004361
DucoBox Energy Premium 400-1ZS		400 m³/h		F	00004366	00004367
DucoBox Energy Premium 400-1ZH		400 m³/h	•	F	00004368	00004369
DucoBox Energy Premium 325-1ZS (UK)		325 m³/h		G	00004456	00004460
DucoBox Energy Premium 325-1ZH (UK)		325 m³/h	•	G	00004457	00004461
DucoBox Energy Premium 400-1ZS (UK)		400 m³/h		G	00004464	00004468
DucoBox Energy Premium 400-1ZH (UK)		400 m³/h	•	G	00004465	00004469

2-Zone Variant

Type of DucoBox	Passive House Certified Component	Max air flow at 150 Pa	Pre-Heater included	Plug	Left	Right
DucoBox Energy Premium 325-2ZS		325 m³/h		F	00004362	00004363
DucoBox Energy Premium 325-2ZH		325 m³/h	•	F	00004364	00004365
DucoBox Energy Premium 400-2ZS		400 m³/h		F	00004370	00004371
DucoBox Energy Premium 400-2ZH		400 m³/h	•	F	00004372	00004373
DucoBox Energy Premium 325-2ZS (UK)		325 m³/h		G	00004458	00004462
DucoBox Energy Premium 325-2ZH (UK)		325 m³/h	•	G	00004459	00004463
DucoBox Energy Premium 400-2ZS (UK)		400 m³/h		G	00004466	00004470
DucoBox Energy Premium 400-2ZH (UK)		400 m³/h	•	G	00004467	00004471

1Z = 1 zone | 2Z = 2 zones
S = without heater | H = with heater

Control components - DucoBox Energy Premium

Box sensor

This sensor is fitted in the DucoBox Energy Premium and it measures the humidity content of the air extracted from the dwelling. A maximum of one Humidity Box sensor per unit.

Peak power:	Stand-by power:	Power supply:
< 1 W	< 1 W	From the DucoBox

Humidity sensor (Energy Premium)	00004374

External control components

The DucoBox Energy Premium can be linked with the following external control components.

User controllers and room sensors	Please refer to dedicated chapter on control components
Switch sensor (for switch detection)	Please refer to dedicated chapter on control components

Options & accessories - DucoBox Energy Premium

Standing chair (Energy Premium) 00004740

In situations where wall mounting of the DucoBox Energy Premium is not possible, this support frame makes floor mounting possible.
Use of a flat siphon is required.
Width x Height x Depth (incl. DucoBox Energy Premium): 740 x 1,110 x 570 mm

Mounting chair hanging (Energy Premium) 00004422

In situations where it is not possible to mount the DucoBox to a wall, this support frame makes floor-mounting possible.
Use of a standard siphon is possible.
Width x Height x Depth (incl. DucoBox Energy Premium): 740 x 1,290 x 640 mm

Filter set 2 x Coarse 65 % (Energy Premium) 00004417

Filter set Coarse 65 % / ePM1 70 % (Energy Premium) 00004416

The filter sets for the DucoBox Energy Comfort (Plus) include the following filters: For supply air (SUP): choice between Coarse 65 % (≈ G4) or ePM1 55 % filter (≈ F7). The ePM1 55% filter lets fewer fine particles through, which has a positive influence on air quality (e.g. for people who have allergies). For extract air (ETA): Coarse 65 % filter (≈ G4)

Siphon flat (Energy Premium) 00004376

This flat diaphragm siphon with a height of 64 mm saves space and reduces the risk of air leaks. The siphon can be installed 'dry' and does not dry out on warm days.

Connectivity Board Modbus and WIFI 0004810 (Reference to be changed to 00004945)

The optional Duco Connectivity Board can be applied within the DucoBox Energy. This PCB enables interfacing towards home automation and building management systems via REST API (locally or via the cloud) or Modbus TCP (locally). Both are possible via Ethernet or Wi-Fi.

Coaxial cable set 8m 00004418

The set comprises an 8 m long coaxial cable with pre-fitted connectors at both ends. This set can be used to relocate the DucoBox Energy Comfort / Premium antenna, if necessary, to a spot where the RF range is optimal.

Muff with rubber D160/D160 (M/M) [connection piece with joint]	00004724
Muff with rubber D180/D160 (M/M) [connection piece with joint]	00004725
Muff with rubber D180/D180 (M/M) [connection piece with joint]	00004726
Muff with rubber D200/D180 (M/M) [connection piece with joint]	00004727
Connection piece 45° with joint D160/D160 (M/M)	00004949

Power supply 230VAC-24VDC/20W + casing 00004763

The Duco Power Supply 230VAC-24VDC/20W is the best solution to power Duco Wired components from a central 230V connection.
The component comes with a surface-mounted junction box as standard. The sum of the peak power of all connected DUCO components can be 20W at most when using one Power Supply.

Duco Wired power adapter 230VAC-24VDC/20W 00004762

The Duco Power Adapter 230VAC-24VDC/20W is the solution to power Duco Wired components from a 230V socket. The sum of the peak power of all connected DUCO components can be 20W at most when using one Power Supply.

Flow regulator 15-50 m^3/h Ø80	00004722
Flow regulator 15-50 m^3/h Ø125	00004836
Flow regulator 50-100 m^3/h Ø125	00004837

The adjustable flow regulator is an element that is placed in a duct to obtain a constant flow in a pressure range between 50 and 250 Pascal. It is used for both supply and extraction. Specifically for French markets.

Control components

User controls and room controls

User controllers and room sensors contain **one or both** of the following functions:

User controller: Using the buttons, the user sets the operation of the ventilation system to the desired level:
- **Automatic mode (recommended):** CO_2 and/or humidity measurements determine the operation of the ventilation system via intelligent algorithms. This guarantees optimum air quality in the most efficient way.
- **Manual settings:** The ventilation system ventilates at 10% (setting 1), 50% (setting 2) or 100% (setting 3) of the maximum ventilation capacity.(changeable according to user's preference).
- **Measuring air quality:** Sensors continuously measure the CO_2 or humidity level (as well as temperature) in the rooms where they are installed. The measurements determine the operation of the ventilation system when it is in automatic mode.

All controls and room sensors also function as RF repeaters to amplify the wireless signal (except battery-operated controls).

RF/ Wired models
Power supply: RF: 230 VAC | Wired: 24 VDC
Width x Height x Depth: 69 x 69 x 55 mm
Display: 4 RGB LEDs
Peak power: 1.8 W | Stand-by power: 1.2 W
Communication: RF and wired
Colour: Control: black or white | Supplied cover plate: white

Battery-powered model
Battery: CR2430 3V coin cell battery
Width x Height x Depth: 69 x 69 x 17 mm
Display: 1 bicolor LED
Communication: RF
Colour: Control: black or white | Supplied cover plate: white

User controllers + air quality measurement

These contain both a user controller and room sensors (CO_2 or humidity) for air quality measurement.

	Black	White
CO_2 Sensor RF / Wired (User control + Air quality measurement)	00004603	00004604
Humidity Sensor RF / Wired (User control + Air quality measurement)	00004605	00004606

User controller only

These contain only a user controller. Ideal in rooms where measurement is not required, or where measurement is done by other means (in the duct).

	Black	White
User controller RF / Battery	00004175	00004600
User controller RF / Wired	00004601	00004602

Air quality measurement only

Room sensors that are only equipped with a CO_2 sensor. Ideal for bedrooms where no user controller is necessary.

	Black	White
CO_2 Room sensor without control RF/Wired (Air quality measurement only)	00004636	00004637

Wired components:
Wired / 24 VDC components require a transformer from 230 VAC to 24 VDC. It is possible to work with a Duco Power supply as a central power supply, or with a Duco Power Adapter to power the component from the wall socket.
See "Options & accessories" for the ventilation unit.

Switch Sensor

The Switch Sensor can perform either or both of the following functions:

Switch detection: the ventilation system will perform a function when closing a (two-pole) dry contact. Suitable for toilet detection or overrule setting (only one function per switch sensor).

Repeater: the switch sensor is ideally suited as a repeater (amplifier) to strengthen the signal in the event of RF communication problems. In that case the switch sensor must be positioned in such a way that the distance to be bridged and/or interference by obstacles is reduced.

A switch sensor is easy to conceal thanks to its small size.

Switch sensor	00004174
Dimensions (Width x Height x Depth)	41 x 37 x 20 mm
Weight	21 g
Colour	White
Connection diameter	125 mm
Peak power	0.5 W
Standby power	0.4 W
Power supply	230 VAC
Communication	RF

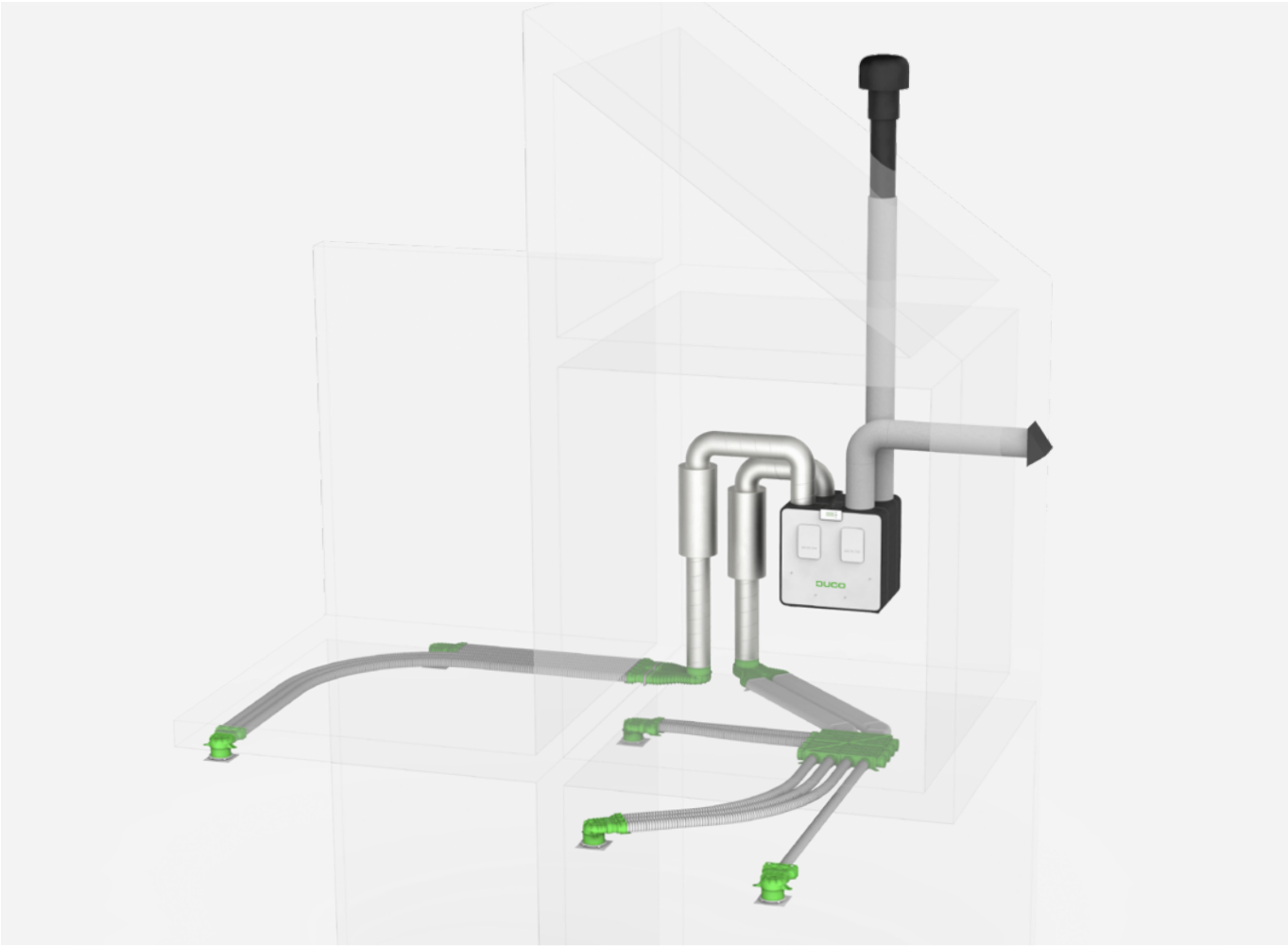
Note: An external switch sensor is not required if a switch is connected to the onboard dry contact on the circuit board of the 'master' unit (DucoBox or IQ unit).
Use a double-pole switch or relay and a 2 x 0.8 mm^2 cable for this.

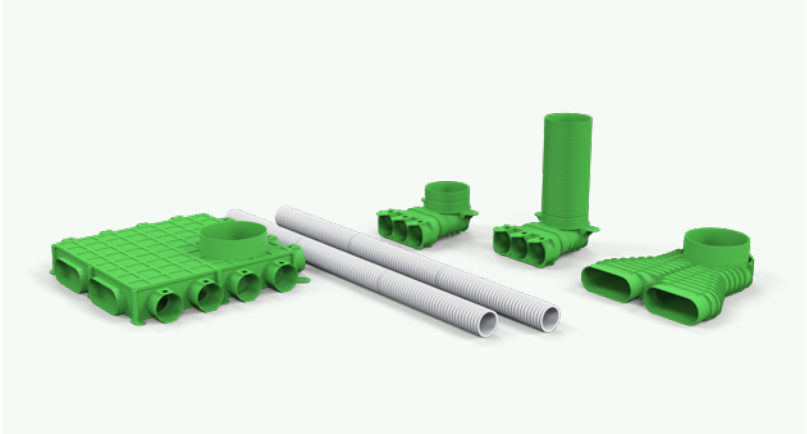
Air ducts

Total ventilation package

Are you looking for a total ventilation package? Then you are best going to just one address. With DucoFlex, Daikin provides a complete air duct system for CHRV. When you use DucoFlex, you will also benefit from the 'Zero Noise' guarantee package. This consists of the highest airtightness class D, the lowest air resistance and maximum acoustic comfort with the quietest ventilation system in Europe! The result is an energy-efficient and quiet ventilation system.

Did you know that this complete air duct system is very easy to install? This is thanks to the handy 'Click & Go' principle and minimum number of fittings. Daikin, a one-stop-shop with 100 % service provision.





DucoFlex
Complete air ducting system for CHRV

Click & Go' system
Flexible ducting with convenient click system without screws

'Zero noise' guarantee
Meets the most stringent requirements

Airtight
Class D airtightness

100% service
Complete ventilation package with support

Standard components

DucoFlex round semi-rigid ducting D63 (50 m)	00004552
DucoFlex round semi-rigid ducting D75 (50 m)	00004674
DucoFlex round semi-rigid ducting D90 (50 m)	00004692

DucoFlex antistatic and antibacterial air ducting, being round and flexible, is easy to fit. When fitted correctly, its low internal resistance will contribute to an energy-efficient ventilation system.

DucoFlex rubber O-ring D63 (10 pieces)	00004553
DucoFlex rubber O-ring D75 (10 pieces)	00004675
DucoFlex rubber O-ring D90 (10 pieces)	00004676

The DucoFlex O-ring provides a quick and perfectly airtight joint between air ducts and fittings.

DucoFlex Coupling D63	00004554
DucoFlex Coupling D75	00004677
DucoFlex Coupling D90	00004678

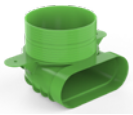
The coupling enables an airtight connection to be made between DucoFlex ducts. A built-in stop prevents the ducts from being inserted too far.

DucoFlex Elbow 90° D75	00004679
DucoFlex Elbow 90° D90	00004680

The bend in the standard configuration enables a 90° bend to be made in flexible ducting.

DucoFlex 90° Bend splitter vent connector long - oval/D125	00004681

The DucoFlex 90° Bend splitter vent connector long can be utilised multifunctionally. This makes it possible to connect a DucoFlex connector 3x63, 2x75, 3x75 or 2x90 to it.

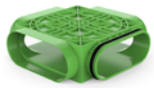


DucoFlex 90° Bend splitter vent connector short - oval/D125	00004682

The DucoFlex 90° Bend splitter vent connector short can be used multifunctionally. This makes it possible to connect a DucoFlex connector 3x63, 2x75, 3x75 or 2x90 to it.

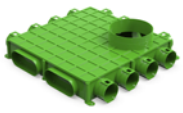
DucoFlex Manifold box (floor and ceiling) 4 x oval air ducts (F) D160	00004687

The ceiling and floor manifold box can be utilised multifunctionally. It is a box with 4 oval connexions and a D160 riser duct. Combined with connectors D63, D75 or D90, it becomes a floor/ceiling plenum.



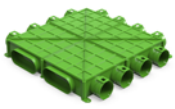
DucoFlex Manifold box (floor and ceiling) 3 x oval air ducts (F) + 1 x oval air duct (M)	00004701

The ceiling and floor manifold box can be utilised multifunctionally. It is a manifold box with 3 oval connexions (F) and 1 oval connection (M). This offers the possibility to connect it to the ceiling and floor manifold box 4x oval (F) and so expand to 6x oval connections (F).



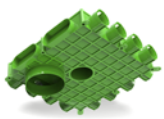
DucoFlex Manifold box (floor) 12x63 D180	00004563

The D180 floor manifold box is the adapter between a maximum of 12 DucoFlex D63 ducts and a direct connection to a D180 riser duct. The smart 'Click & Go' system provides a quick and perfectly airtight joint between DucoFlex ducts.



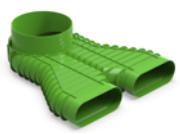
DucoFlex Manifold box (floor) 12x63 + 2 x oval air ducts	00004565

The 2x oval floor manifold box is the adapter between up to a maximum of 12 D63 ducts and 2x DucoFlex oval. This enables the manifold box to be positioned more accessibly. The smart 'Click & Go' system provides a quick and perfectly airtight joint between DucoFlex ducts.



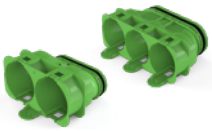
DucoFlex Manifold box (ceiling) 12x63 D180	00004564

The D180 ceiling manifold box is the adapter between up to a maximum of 12 DucoFlex D63 ducts and a direct connection to a D180 riser duct. The smart 'Click & Go' system provides a quick and perfectly airtight joint between DucoFlex ducts.



DucoFlex connector riser round D160 - 2 oval	00004566

The riser duct connector can be utilised multifunctionally. It is an adapter between 2x DucoFlex oval and a D160 riser duct. Combined with connectors D63, D75 or D90, it becomes a floor/ceiling plenum.



DucoFlex Adapter 3x63 oval	00004684
DucoFlex Adapter 2x75 oval	00004685
DucoFlex Adapter 3x75 oval	00004841
DucoFlex Adapter 2x90 oval	00004686

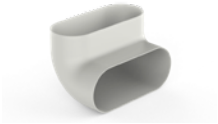
The adapter allows connecting 3x DucoFlex D63/D75 or 2x DucoFlex D75/D90 to a DucoFlex oval connection. The smart "Click & Go" system provides a quick and perfectly airtight joint between DucoFlex ducts.

DucoFlex oval air duct B163xH68xL1150	00004567

Rigid DucoFlex oval ducting combined with the D160 - 2x oval connector enables a manifold box to be provided in a favourable location.

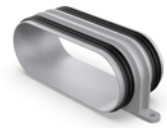
DucoFlex horizontal elbow 90°/45° rigid oval duct	00004609

The horizontal bend in the standard configuration enables a 90° bend to be made in rigid oval ducting. It is possible to cut this component down to a 45° bend.



DucoFlex vertical elbow 90° rigid oval duct	00004699

The vertical bend in the standard configuration enables a vertical 90° bend to be made in rigid oval ducting.



DucoFlex oval duct coupling	00004568

The oval coupling provides a quick and perfectly airtight connection between DucoFlex oval ducting and connections.

DucoFlex horizontal connector oval - D125	00004638

The D125 oval connector provides a horizontal connection between D125 round duct and DucoFlex oval duct or an optional connector for DucoFlex.

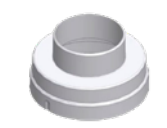
DucoFlex horizontal connector D160 2x oval	00004700

The D160 2x oval connector provides a horizontal connection between D160 round duct and 2x DucoFlex oval duct or an optional connector for DucoFlex.

DucoFlex Oval Cap	00004713

The DucoFlex End cap oval makes it possible to close an oval connection of a plenum

Reducer 160 / 125	00004543



Reducer 125/80	00004542

Tools

DucoFlex Duct cutter D63	00004599
DucoFlex Duct cutter D75	00004688
DucoFlex Duct cutter D90	00004689

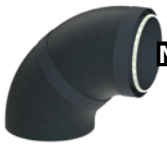
The DucoFlex duct cutter ensures that ducting can be cut easily as well as nice and straight.
This is recommended for airtight system assembly.

Insulated ducting

NEW

DucoFlex insulated circular duct with integrated coupler D160 L1000	00004569
DucoFlex insulated circular duct with integrated coupler D180 L1000	0004570 (Reference to be changed to 00004909)
DucoFlex insulated circular duct with integrated coupler D200 L1000	00004905

The DucoFlex insulated circular duct is a smooth and insulated ventilation duct made of EPS. The good insulating properties of this product prevent a thermal bridge and therefore condensation when polluted air is extracted or outside air is pulled in. Energy losses are also avoided. In addition to the good thermal insulation value, the material used also dampens noise and is very easy to handle. A connection piece is supplied as standard which connects the various EPS components quickly and airtight.



NEW

DucoFlex insulated 90° bend with integrated coupler D160	00004571
DucoFlex insulated 90° bend with integrated coupler D180	0004572 (Reference to be changed to 00004910)
DucoFlex insulated 90° bend with integrated coupler D200	00004906

The DucoFlex insulated 90° bend is a smooth and insulated elbow for ventilation ducts made of EPS. The good insulating properties of this product prevent a thermal bridge and therefore condensation when polluted air is extracted or outside air is pulled in. Energy losses are also avoided. In addition to the good thermal insulation value, the material used also dampens noise and is very easy to handle. A connection piece is supplied as standard which connects the various EPS components quickly and airtight.

NEW

DucoFlex insulated 45° bend with integrated coupler D160	00004573
DucoFlex insulated 45° bend with integrated coupler D180	0004574 (Reference to be changed to 00004911)
DucoFlex insulated 45° bend with integrated coupler D200	00004907

The DucoFlex insulated 45° bend is a smooth and insulated elbow for ventilation ducts made of EPS. The good insulating properties of this product prevent a thermal bridge and therefore condensation when polluted air is extracted or outside air is pulled in. Energy losses are also avoided. In addition to the good thermal insulation value, the material used also dampens noise and is very easy to handle. A connection piece is supplied as standard which connects the various EPS components quickly and airtight.

NEW

DucoFlex insulated coupler D160	00004575
DucoFlex insulated coupler D180	0004576 (Reference to be changed to 00004912)
DucoFlex insulated coupler D200	00004908

The DucoFlex insulated coupler is a practical connection piece that connects the various EPS components in a quick and airtight manner.

Silencers

DucoFlex Silencer flexible D125 L1000	00004586

The DucoFlex Silencer D125 is a (semi-) flexible silencer composed of a flexible antibacterial inner duct (non-woven) and a polyester-laminated aluminium outer jacket. The space between the inner and outer jacket is filled with 25 mm sound absorbing material.
Both ends are taped to allow the silencer to be easily connected to the ventilation unit or the rigid ventilation ducts of diameter D125.

NEW

DucoFlex Silencer flexible D125 (M/F) L1000	00004630
DucoFlex Silencer flexible D200 (M/F) L1000	00004918

The DucoFlex Silencer (M/F) is a (semi-)flexible silencer consisting of a flexible antibacterial inner channel (non-woven) and an aluminium outer jacket laminated in polyester. The space between the inner and outer jacket is filled with 25 mm sound absorbing material.
The silencer comes standard with stainless steel caps on both ends of which 1 M and 1 F connection. This allows quick, easy and airtight connection of the damper to the ventilation unit or rigid ventilation ducts of diameter D125 or D200.

DucoFlex Silencer flexible D160 (M/M) L1000	00004631
DucoFlex Silencer flexible D180 (M/M) L1000	00004632

The DucoFlex Silencer (M/M) is a (semi-) flexible silencer composed of a flexible antibacterial inner duct (non-woven) and a polyester-laminated aluminium outer jacket. The space between the inner and outer jacket is filled with 25 mm sound absorbing material. The silencer is provided with stainless steel caps on both ends (2 x M connection). This allows the silencer to be connected quickly, easily and airtight to the ventilation unit or the rigid ventilation ducts of diameter D160 or D180.

NEW

DucoFlex Silencer semi rigid D160 (M/M) L1000	00004587
DucoFlex Silencer semi rigid D180 (M/M) L1000	00004588
DucoFlex Silencer semi rigid D200 (M/M) L1000	00004919

The DucoFlex Silencer semi-rigid (M/M) is a semi-rigid (bendable) silencer composed of a profiled and perforated aluminium inner duct and a two-layered profiled outer jacket. The space between the inner and outer jacket is filled with 50 mm sound absorbing material. The silencer is provided with aluminium caps on both ends (2 x M connection). This allows quick, easy and airtight connection of the damper to the ventilation unit or rigid ventilation ducts of diameter D160, D180 or D200.

Connection pieces

NEW

Muff with rubber D160/D160 (M/M) [connection piece with joint]	00004724
Muff with rubber D180/D160 (M/M) [connection piece with joint]	00004725
Muff with rubber D180/D180 (M/M) [connection piece with joint]	00004726
Muff with rubber D200/D180 (M/M) [connection piece with joint]	00004727
Connection piece 45° with joint D160/D160 (M/M)	00004949

Vents

Which vents to choose?

The vents are installed in ducts for the extraction of stale air or supply of fresh air. DUCO does not lose sight of the aesthetic or the functional aspect here either.

	DucoVent Basic	DucoVent Comfort	DucoVent Design	DucoVent Premium
				
Type of DucoBox	DucoBox Energy Comfort and Comfort Plus DucoBox Energy Premium DucoBox Energy Sky			
Type of vent	Supply Extraction	Supply Extraction	Supply* Extraction * With the exception of 'Standard' vents	Supply Extraction
Air flow	Up to 75 m^3/h	Extraction: up to 75 m^3/h Supply: up to 75 m^3/h	Extraction: up to 75 m^3/h Supply: up to 50 m^3/h	Up to 50 m^3/h
Design	★	★★★	★★★★	★★★★★
Shape	Round	Round	Round Square Standard and XL Rounded Square Standard and XL	Round (trimless)
Material	Plastic	Plastic (ASA)	Aluminium	Plastic
Colour	White	White	All RAL	White (can be painted)
Sound absorption	★	★★★★	★★★★★	★★★★
Ease of maintenance	★★	★★★	★★★★★	★★★
Fitting	To be clamped in DucoFlex	Sealing joint in DucoFlex	To be clamped in DucoFlex	Sealing joint in DucoFlex + plastering
Setting flow rate	Fine adjustment via rotary adjuster	11 adjustable positions	Preregulation with flow rings + Fine adjustment via rotary adjuster	36 adjustable positions

Standard vents - All systems

DucoVent Basic (Supply & Exhaust)		00004178
Maximum flow rate	75 m^3/h	
Colour	White	
Connection diameter	125 mm	
Suitable for	Extraction + Supply	
The DucoVent Basic is the standard vent that is manufactured from plastic and is suitable for ceiling and wall mounting. Fine adjustment is by means of a cone that screws in and out. Suitable for both extraction and supply.		

DucoVent Comfort (Supply & Exhaust)		00004769
Maximum flow rate	75 m^3/h	
Colour	White	
Connection diameter	125 mm	
Suitable for	Extraction + Supply	
A vent where both aesthetics and ease of adjustment are central. This is what DucoVent Comfort stands for! Thanks to a clever principle of adjustment positions, the vent can be adjusted both in advance and during installation. The ideal addition to all Duco ventilation systems in serial construction where the copy function saves a lot of time!		

DucoVent Premium (Supply & Exhaust)		00004903
Maximum flow rate	50 m^3/h	
Colour	White (can be painted over)	
Connection diameter	125 mm	
Suitable for	Extraction + Supply	
The DucoVent Premium is by far the finest vent in the market that can be used for both supply and extraction. A 'trimless' integration in the plasterwork makes the vent almost invisible. The well-thought-out design ensures a diffuse air supply via the Coanda effect and therefore guarantees optimal comfort. Aesthetics and quality in one product! A perfect combination with DUCO's high-quality ventilation solutions!		

Simple vents for French market

DucoVent Auréa (80) + manchon (80)	00004619
DucoVent Auréa (125) + manchon (125)	00004620

Bouche Alizé Auto 15 m^3/h (80)	00004834
Bouche Alizé Auto 30 m^3/h (80)	00004835

Sound absorbing design vents - All systems

The DucoVent Design is an aesthetic vent, available with five different cover plates: square (standard and XL), rounded square (standard and XL) or fully circular. The sleek design, combined with simple installation thanks to its magnetic fastening, ensures virtually invisible integration into any room where air extraction or supply is provided. The acoustic rings provide optimal sound absorption and easy calibration. Suitable for ceiling and wall mounting. Easy to clean without disturbing the settings.

The DucoVent Design Round and all XL models are also suitable for use as supply vents. Two inserts are included which can be used to reduce the exhaust angle, when positioning the vent close to a wall or in a corner for example.

DucoVent Design square standard AK (exhaust)	00004179 (Reference to be changed to 00007006 in FY2025)	
Maximum flow rate	Extraction: 75 m^3/h	Supply: 50 m^3/h
Noise level	<15 dB(A) at 50 m^3/h	
Colour	White (RAL 9010 structure (AE03059901020))	
Duct diameter	125 mm	
Dimensions (Width x Height x Depth)	180 x 180 x 52 mm	
Suitable for	Extraction	

DucoVent Design square XL AK (supply and exhaust)	0004226 (Reference to be changed to 00007007 in FY2025)	
Maximum flow rate	Extraction: 75 m^3/h	Supply: 50 m^3/h
Noise level	<15 dB(A) at 50 m^3/h	
Colour	White (RAL 9010 structure (AE03059901020))	
Duct diameter	125 mm	
Dimensions (Width x Height x Depth)	215 x 215 x 52 mm	
Suitable for	Extraction + Supply	

DucoVent Design round AK (supply and exhaust)	0004210 (Reference to be changed to 00007008 in FY2025)	
Maximum flow rate	Extraction: 75 m^3/h	Supply: 50 m^3/h
Noise level	<15 dB(A) at 50 m^3/h	
Colour	White (RAL 9010 structure (AE03059901020))	
Duct diameter	125 mm	
Dimensions (Width x Height x Depth)	215 x 215 x 52 mm	
Suitable for	Extraction + Supply	

DucoVent Design rounded square standard AK (exhaust)	0004211 (reference to be changed to 00007012 in FY2025)	
Maximum flow rate	Extraction: 75 m^3/h	Supply: 50 m^3/h
Noise level	<15 dB(A) at 50 m^3/h	
Colour	White (RAL 9010 structure (AE03059901020))	
Duct diameter	125 mm	
Dimensions (Width x Height x Depth)	180 x 180 x 52 mm	
Suitable for	Extraction	

DucoVent Design rounded square XL AK (supply and exhaust)	0004227 (Reference to be changed to 00007013 in FY2025)	
Maximum flow rate	Extraction: 75 m^3/h	Supply: 50 m^3/h
Noise level	<15 dB(A) at 50 m^3/h	
Colour	White (RAL 9010 structure (AE03059901020))	
Duct diameter	125 mm	
Dimensions (Width x Height x Depth)	215 x 215 x 52 mm	
Suitable for	Extraction + Supply	

Air flow

DUCO supplies a wide range of grilles for extraction and supply for every conceivable use.

Feed-through via facade outside DucoFlex Wall feed-through

The DucoFlex Wall feed-through can be used as a supply and extraction point with very low pressure losses. The fitted flange with a diameter of 160 or 180 provides a quick and air-tight connection to the DucoFlex ISO D160 or D180 pipes without any need for connecting pieces. The pre-fitted condensation strip prevents possible undesired deposits of dripping condensation water. The sleek design and black or white colour enable the unit to be used discretely in any type of façade.

	Black	White
DucoFlex Wall feed-through D160	00004584	00004627
DucoFlex Wall feed-through D180	00004585	00004628
NEW **DucoFlex Wall feed-through D200**	00004914	00004913

Feed-through via door DoorVent

The DoorVent is a transfer grille that can be installed discretely in internal doors. Unlike gaps under the door, the DoorVent thereby avoids draughts and attenuates intrusive noise.

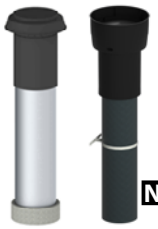
Airflow	70 cm^2	
Dimensions (Width x Height)	Overall: 436 x 58 mm	Recessed fitting: 417 x 48 mm
Door thickness	37-47 mm	

DoorVent RAL 9001	10300800
DoorVent RAL 9010	10300700

Feed-through via flat & sloping roof DucoFlex Roof feed-through

The DucoFlex Roof feed-through Compact can be used as a supply and extraction point. The dark grey or terracotta colour and the design allow this unit to be used very discretely in a sloping roof. The pre-fitted lead sheet ensures quick and water-tight installation. The smart design ensures that this compact roof feed-through is hardly sensitive to atmospheric turbulences. The connection piece fits seamlessly into DucoFlex ISO ducting D160 or D200.

DucoFlex Roof feed-through Compact D160 - Slate	00004582
DucoFlex Roof feed-through Compact D160 - Terracotta	00004580
NEW **DucoFlex Roof feed-through Compact D200 - Slate**	00004920
NEW **DucoFlex Roof feed-through Compact D200 - Terracotta**	00004921



Feed-through via flat & sloping roof DucoFlex Roof feed-through

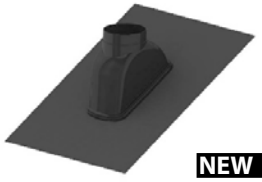
The DucoFlex Universal Roof feed-through can be used as a supply and extraction point on both flat and sloping roofs. This unit can also be used at higher air flow rates thanks to its low air-resistance. The pre-assembled connection piece is 635 mm, allowing the roof feed-through to be used in any possible situation. The insulated end piece fits for DucoFlex ISO D160 ducts, D180 ducts as well as D200 ducts.

DucoFlex Universal Roof feed-through D160/180 (1.0m)	00004578
NEW **DucoFlex Universal Roof feed-through D200 (1.0m)**	00004915

Feed-through via flat & sloping roof DucoFlex Roof feed-through

The DucoFlex Roof feed-through plate flat roofs can be combined with the Universal Roof feedthrough D160/D180 or D180/D200. The base plate has a diameter of 420 mm (D204) or 644 mm (D263). It is made completely of aluminium, making it suitable for all standard finishes of roof feed-throughs in flat roofs.

DucoFlex Roof feed-through plate flat roof D204	00004581
NEW **DucoFlex Roof feed-through plate flat roof D263**	00004916



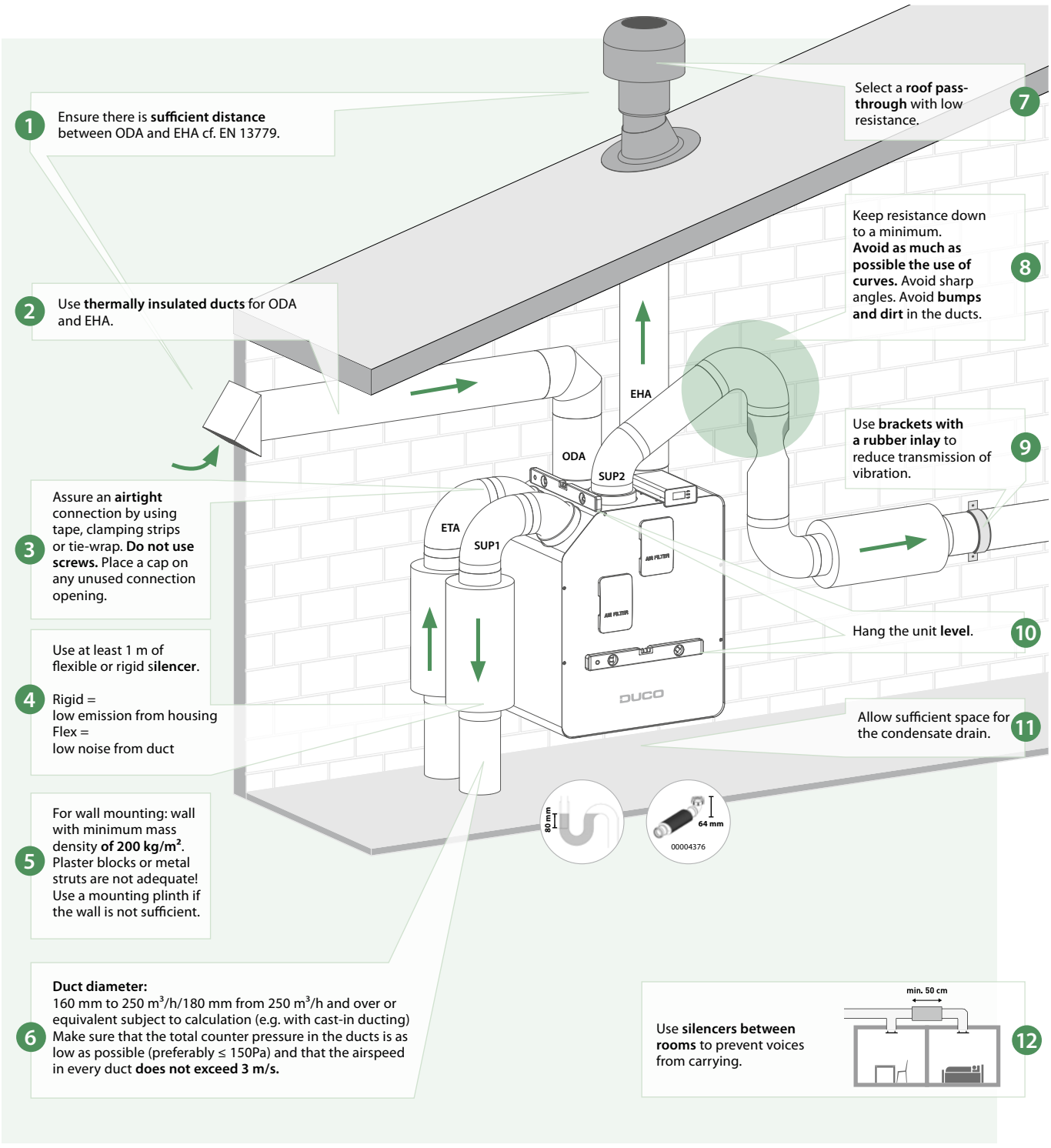
Feed-through via flat & sloping roof DucoFlex Roof feed-through

The DucoFlex Universal Roof feed-through tile can be combined with the Universal Roof feed through D160/D180 or D180/D200. The unit is a 2-tile solution which is suitable for sloping roofs with a pitch between 25° and 50°. The pre-mounted plastic flashing flange ensures quick and water-tight installation.

DucoFlex Universal Roof feed-through tile D205	00004579
NEW **DucoFlex Universal Roof feed-through tile D263**	00004917

12 Unmissable installation tips

The correct operation of your DUCO ventilation system is entirely dependent on the **choice and build quality of the supply and exhaust ducts**! Has the duct system been optimised? Ask professional advice from your duct supplier. It saves you time, ensures quality and provides energetic advantage for the end user!

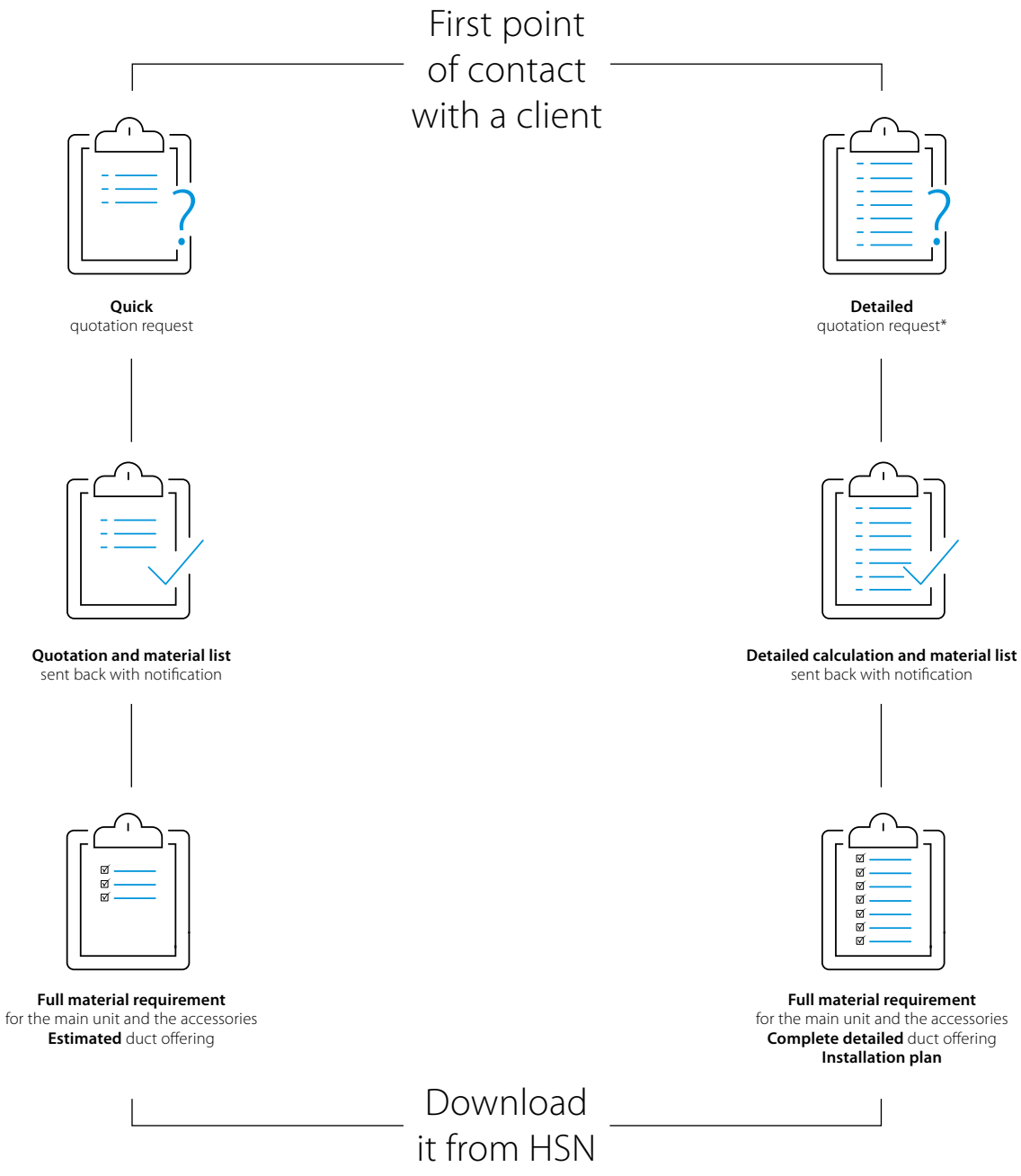



VENTILATION
AUTO
DUCO

Experience the ultimate customer service with the Heating Solutions Navigator

As part of the Stand by Me service programme, the **Heating Solutions Navigator (HSN)** provides the best fit solution for your customer's home.

As installer, you will be able to request a **quick quotation** (list of materials) for DUCO units, or get a **detailed calculation** (including drawings and installation plans) based on your customer's home plan that you will provide.



*On condition that commitment to purchase is made.

Compatibility table

	Material reference	Material description	Premium	Premium UK	Comfort Plus		
			325/400	325/400	D550	D450	D350
	00004810	Connectivity Board Modbus and WIFI (Reference to be changed to 00004945)	•	•	•	•	•
	00004376	Siphon flat (Energy)	•	•	•	•	•
	00004417	Filter set 2 x Coarse 65 % (Energy Premium)	•	•			
	00004416	Filter set Coarse 65 % /ePM1 70 % (Energy Premium)	•	•			
	0000461	Filter set Coarse 65% /ePM1 55% (Energy)					
	00004547	Filter set 2 x Coarse 65 % (Energy Comfort D325)					
	00004741	Filter set 2 x Coarse 65 % (Energy Comfort D400 & Plus D350/D450/D550)			•	•	•
	00004742	Filter set Coarse 65% /ePM1 55% (Energy Comfort D400 & Plus D350/D450/D550)			•	•	•
NEW	0004950	Filter set 2 x Coarse 65 % (Energy Sky D275)					
NEW	0004951	Filter set Coarse 65% /ePM1 55% (Energy Sky D275)					
	00004422	Mounting chair hanging (Energy Premium)	•	•			
	00004546	Mounting chair standing (Energy Comfort D325)					
	00004740	Standing chair (Energy Premium / Comfort D400/Plus)	•	•	•	•	•
	00004418	Coaxial cable set 8m (Energy Premium / Comfort / Comfort Plus)	•	•	•	•	•
	00004807	Pre-Heater DucoBox Energy Comfort (Plus) - 1,425W			•	•	•
NEW	00005011	Pre-heater Energy Comfort (Plus) / Sky - 1,150 W	•	•	•	•	•
	00004825	Pre-Heater DucoBox Energy Comfort (Plus) UK - 1,425W					
NEW	00007003	Pre-Heater DucoBox Energy Comfort (Plus) / Sky (UK) 1,150 W					
	00004761	Multizone Valve DucoBox Energy Comfort (Plus) (Sensorless) Ø125			•	•	•
	00004760	Multizone Valve DucoBox Energy Comfort (Plus) (Sensorless) Ø160			•	•	•
	00004762	Duco Wired power adapter 230VAC-24VDC/20W	•		•	•	•
	00004763	Power supply 230VAC-24VDC/20W + casing	•	•	•	•	
	Sensors for DucoBox Energy series						
	00004174	Switch sensor	•	•	•	•	•
	00004374	Humidity Sensor (Energy Premium)	•	•			
	00004723	Humidity Sensor DucoBox Energy Comfort (Plus) / Sky			•	•	•
	00004603	CO_2 Sensor RF / Wired (User control + Air quality measurement - Black)	•	•	•	•	•
	00004604	CO_2 Sensor RF / Wired (User control + Air quality measurement - White)	•	•	•	•	•
	00004605	Humidity Sensor RF / Wired (User control + Air quality measurement - Black)	•	•	•	•	•
	00004606	Humidity Sensor RF / Wired (User control + air quality measurement - White)	•	•	•	•	•
	00004175	User controller RF / Battery (Black)	•	•	•	•	•
	00004600	User controller RF / Battery (White)	•	•	•	•	•
	00004601	User controller RF / Wired (Black)	•	•	•	•	•
	00004602	User controller RF / Wired (White)	•	•	•	•	•
	00004636	CO_2 Room sensor without control RF/Wired (Air quality measurement only - Black)	•	•	•	•	•
	00004637	CO_2Room sensor without control RF/Wired (Air quality measurement only - White)	•	•	•	•	•
	Various						
	00004809	Duco Installation Kit (Comfort (Plus) / Premium)	•	•	•	•	•
NEW	00004946	Duco Installation Kit (Comfort (Plus), Premium, Sky)	•	•	•	•	•

Comfort Plus UK			Comfort		Comfort UK		Comfort FR	DucoSky	DucoSky UK
D550	D450	D350	D400	325/D325	D400	325/D325	325	D275	D275
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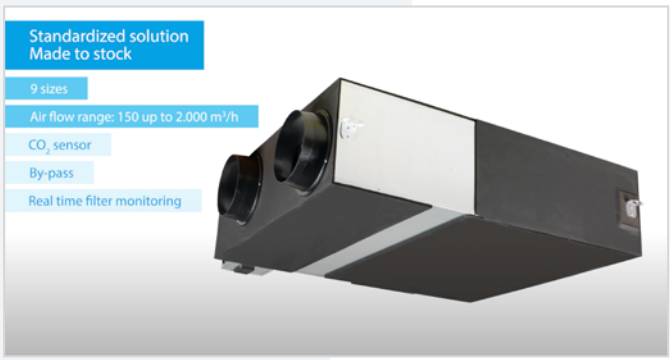
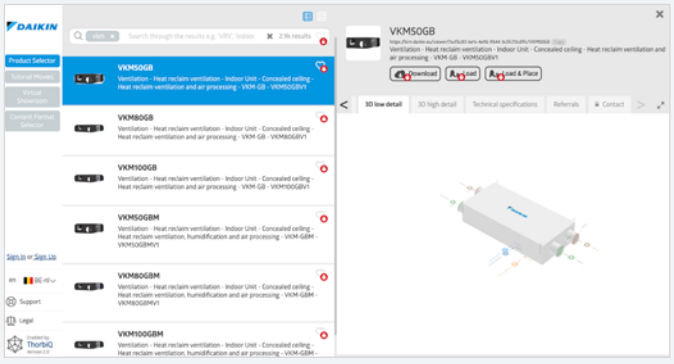
Marketing tools

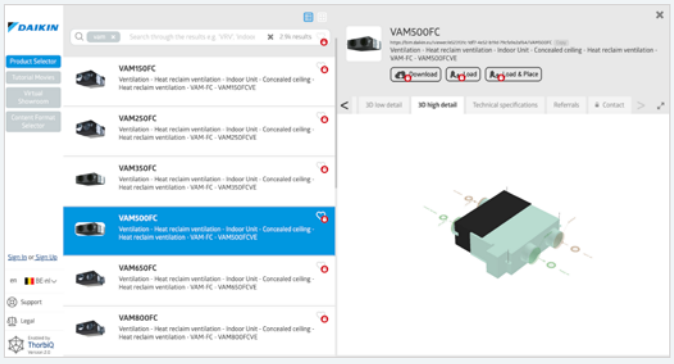
- Watch the explanation of VAM range, its USPs from our Indoor Air Quality Seminar **www.youtube.com/daikineurope**
- Watch the Compact T promotional video: www.youtube.com/daikineurope
- Download our brochure on Commercial Ventilation from **my.daikin.eu**
- Get access to our selection tool **bim.daikin.eu** to find your ventilation unit in a few click.
- Consult the "Argue Card" document to support in promoting
- the Compact L and Compact T range (available on request)



BIM models

- Get the VAM, Compact L and T BIM tools on **bim.daikin.eu**





Benefits for the installer

Plug and play design

- Pre-programmed and factory-tested controls for an easier and fast commissioning
- Lightweight, low height and small footprint units
- Easy access for servicing

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
- Interconnection with other product groups (e.g. automatic introduction of ventilation selection into a VRV Web Xpress selection)
- Extremely flexible design

BIM models

- BIM models are available and can be downloaded with just a few clicks

Benefits for the end user

Best comfort

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

Easy control and visualization

- Wide and easy functionality with the use of Madoka remote controllers
- Possibility to visualize the CO_2 concentration (with combination of VAM-J8 unit/BRYMA sensor/Madoka remote controller)

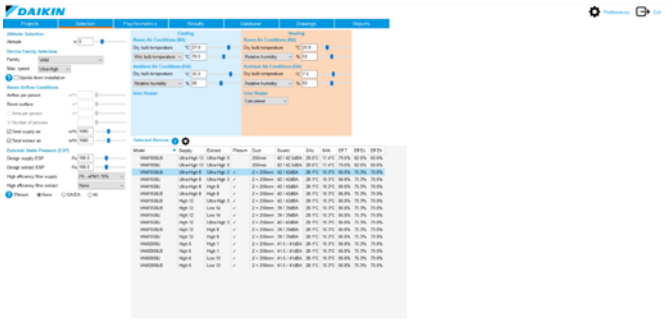
Supporting tools, software and apps

Web based selection tools dedicated to the Daikin ventilation portfolio

Ventilation Web Xpress

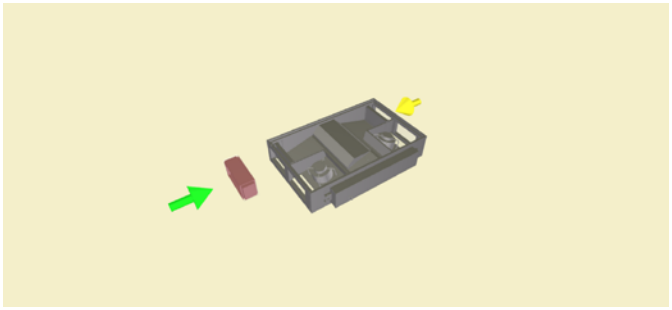
Selection tool for ventilation devices (VAM (+EKVDX) and VKM). The selection is based on given supply/extract airflows (including fresh up and given ESP of supply/extract ducting:

- Easy calculation of fresh air per person or per area
- Visualisation of psychrometric chart
- Visualisation of selected configuration
- Required field settings mentioned in the report



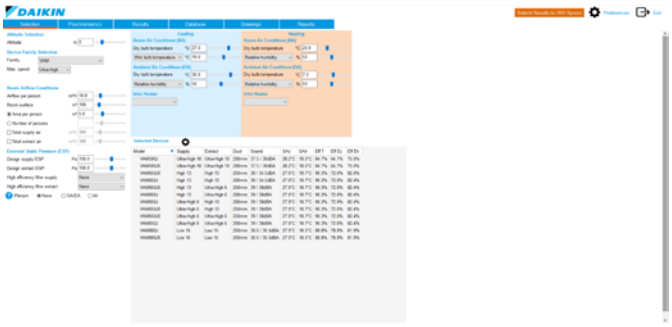
ASTRA Web

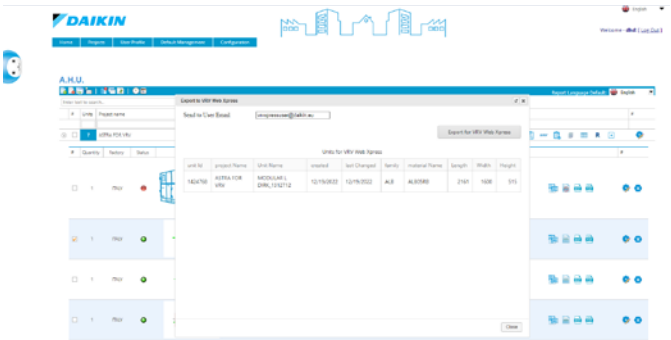
- Quick Compact L/T selection that will save you precious time, drastically reducing selection time through the ASTRA software interface.
- Very competitive solution available within the Wizard thanks to pre-uploaded parameters.
- High selection quality, thanks to the intelligence embedded within the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

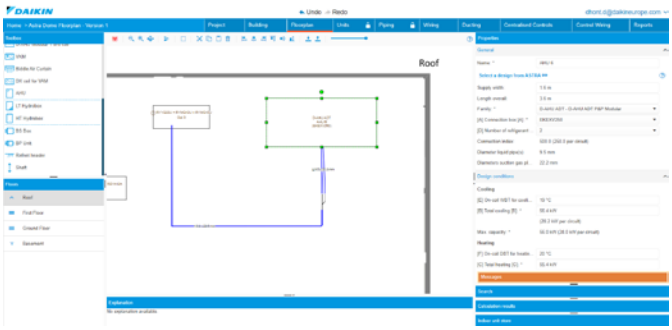


VRV Xpress integrates seamlessly with our ventilation selection software

- The ventilation selection meant for a VRV project can be initiated directly from VRV Web Xpress.
- The selected ventilation products -either on Ventilation Web Xpress or ASTRA- can be introduced into the VRV selection on VRV Web Xpress.
- Integration of ventilation selection into 2D Floorplan.







https://my.daikin.eu/denv/en_US/home/sales/ventilation-software.html

Technical drawings

Compact T	106
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DucoBox Energy Sky	136
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Click here to view all ATB technical drawings on my.daikin.eu

Click here to view all ATB-S technical drawings on my.daikin.eu

ATB03RA(S)

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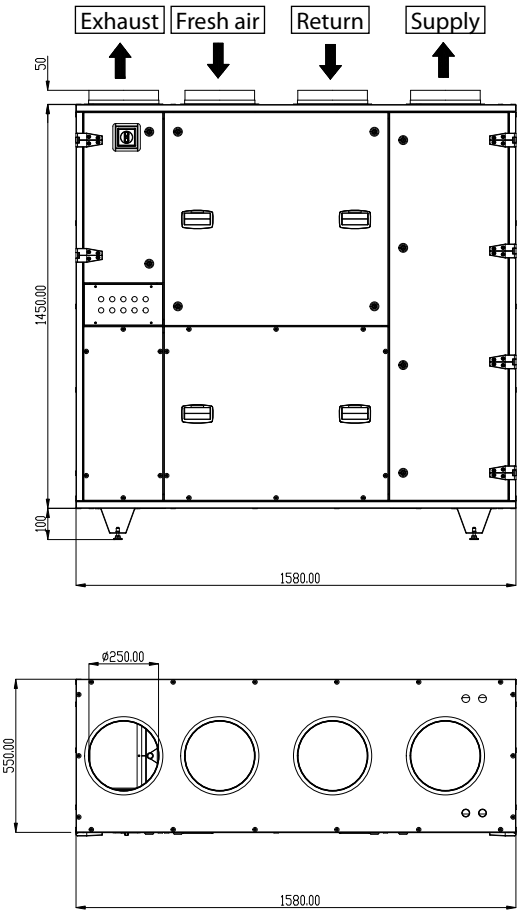

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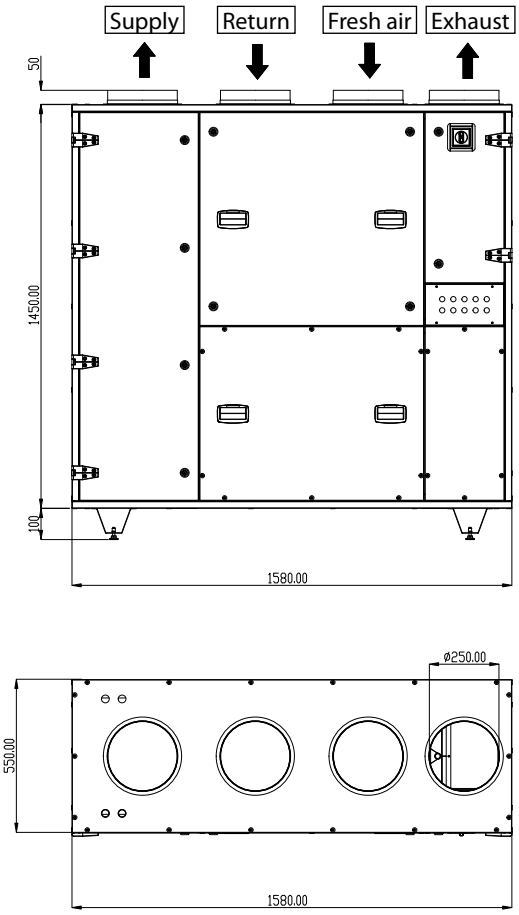

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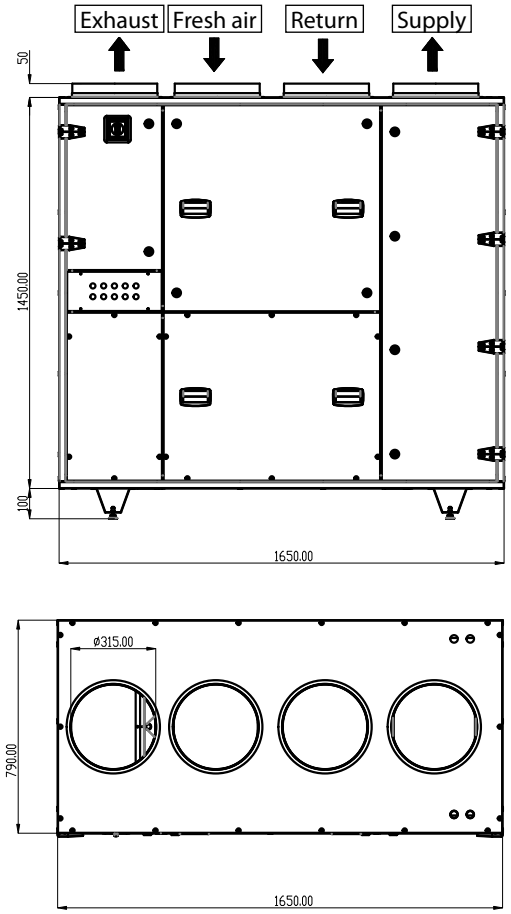

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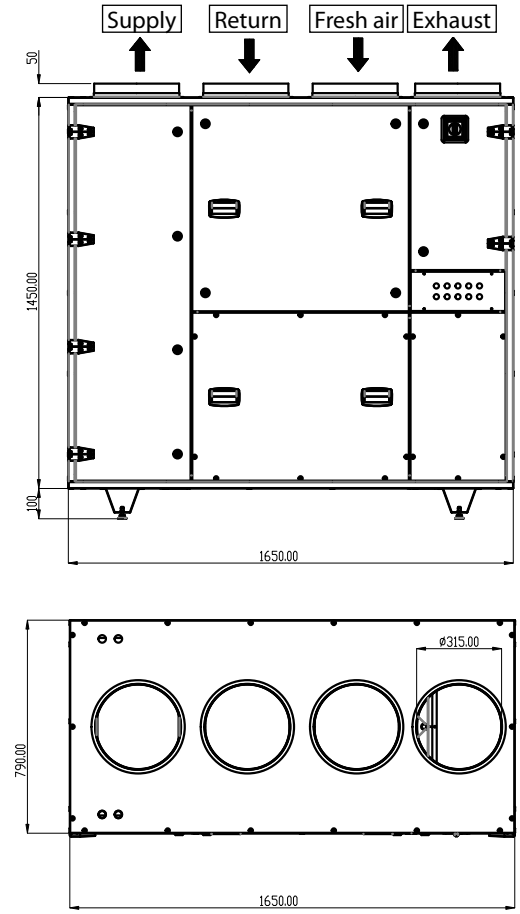

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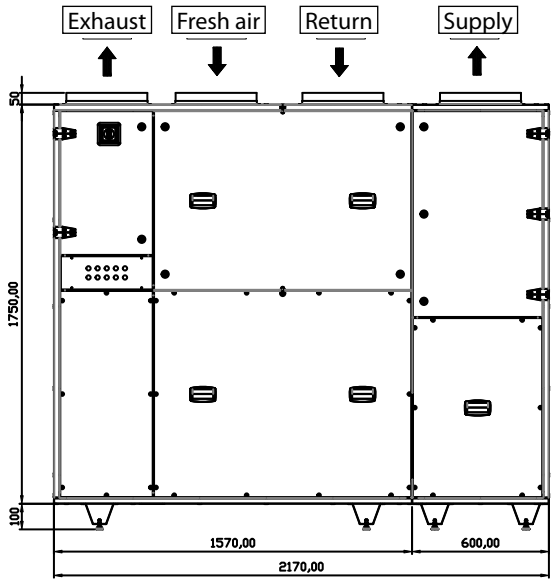

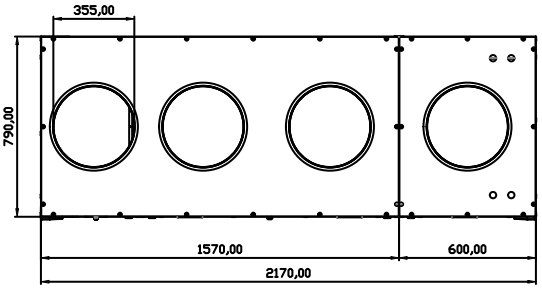

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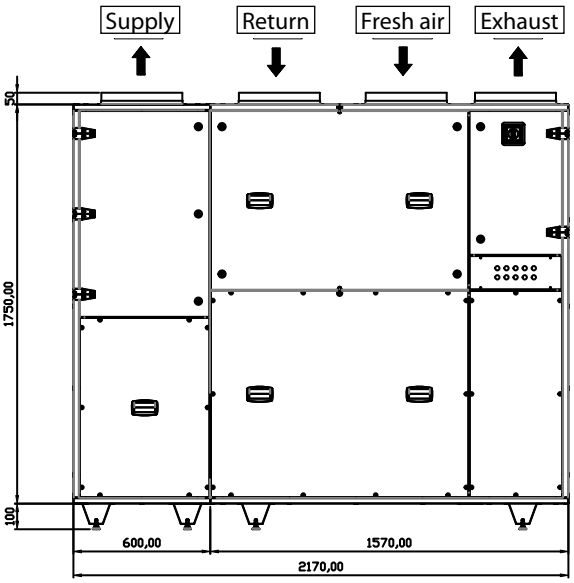

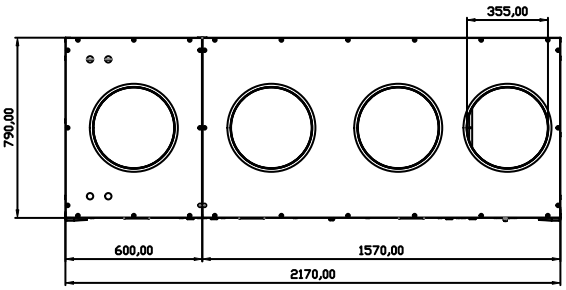

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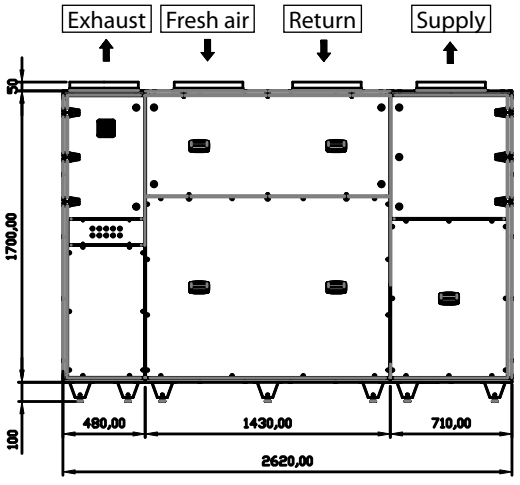

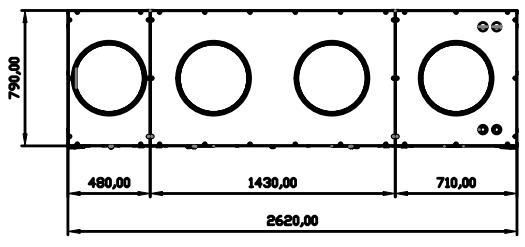

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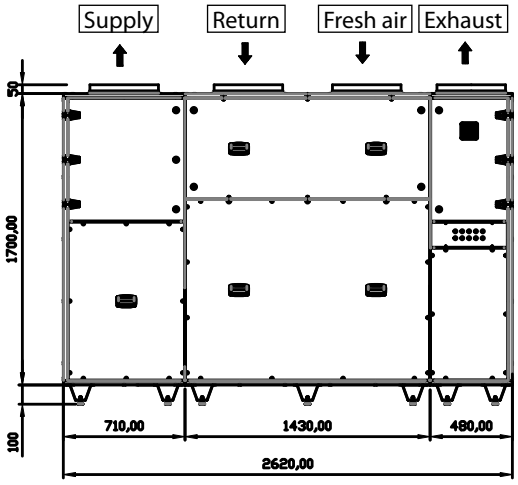

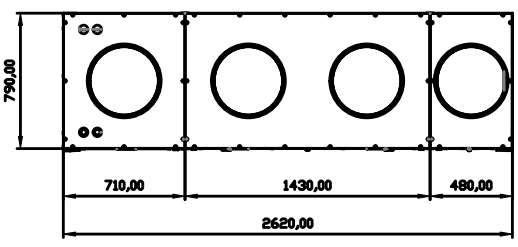

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ATB07RA(S)

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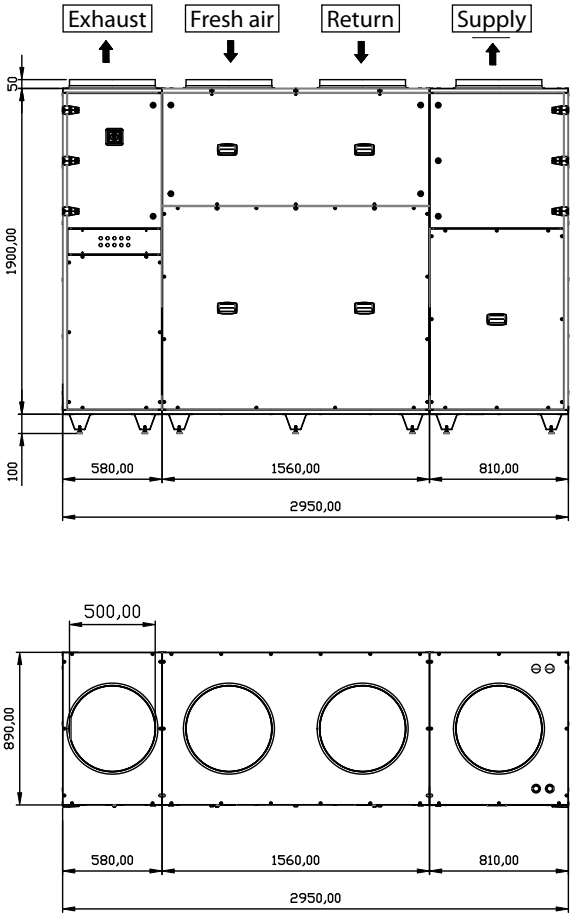

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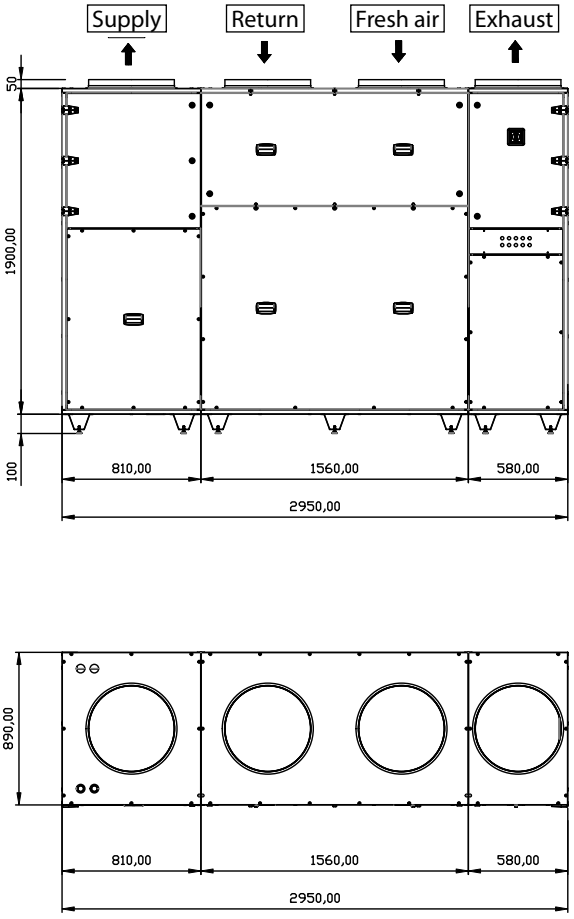
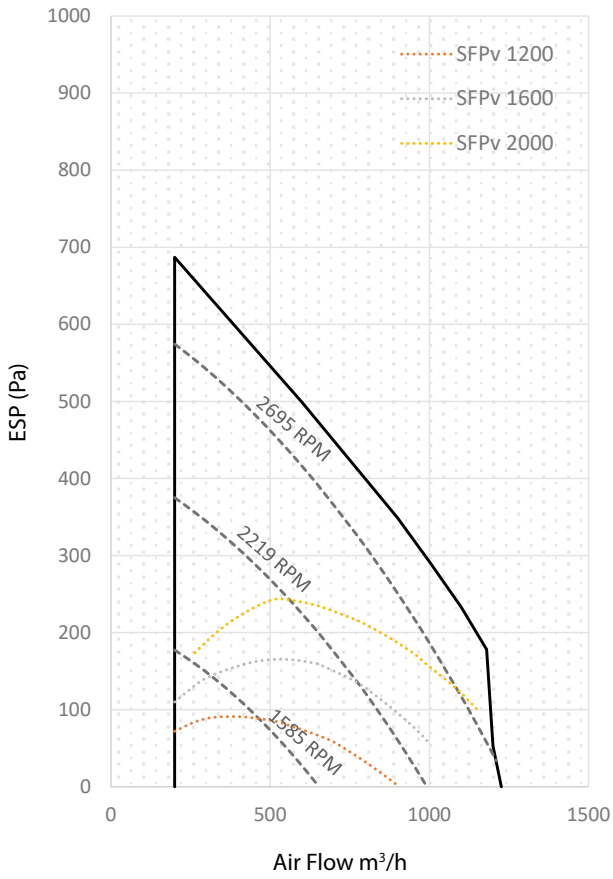


ATB03RA(S)/ATB03LA(S)

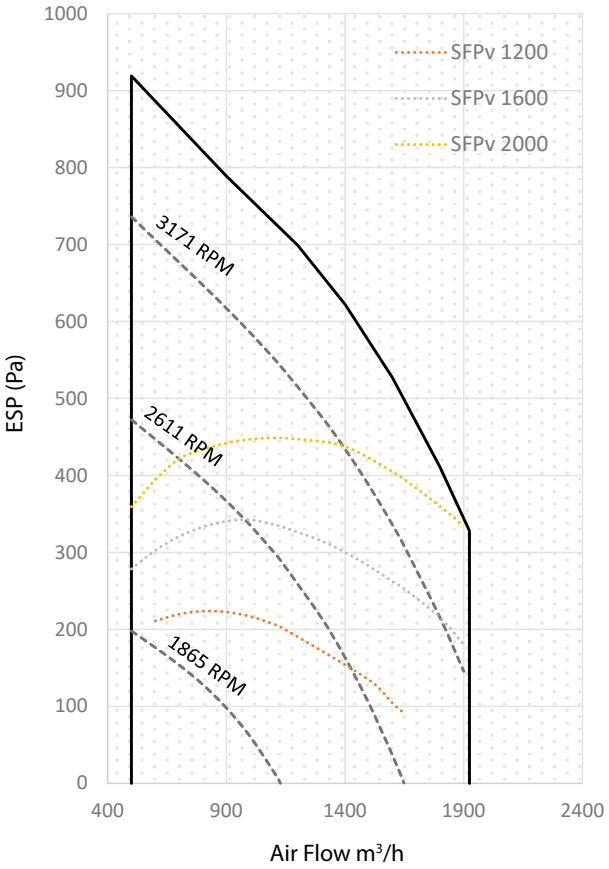


The diagram shows the available external pressure for the duct system given an airflow.

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)

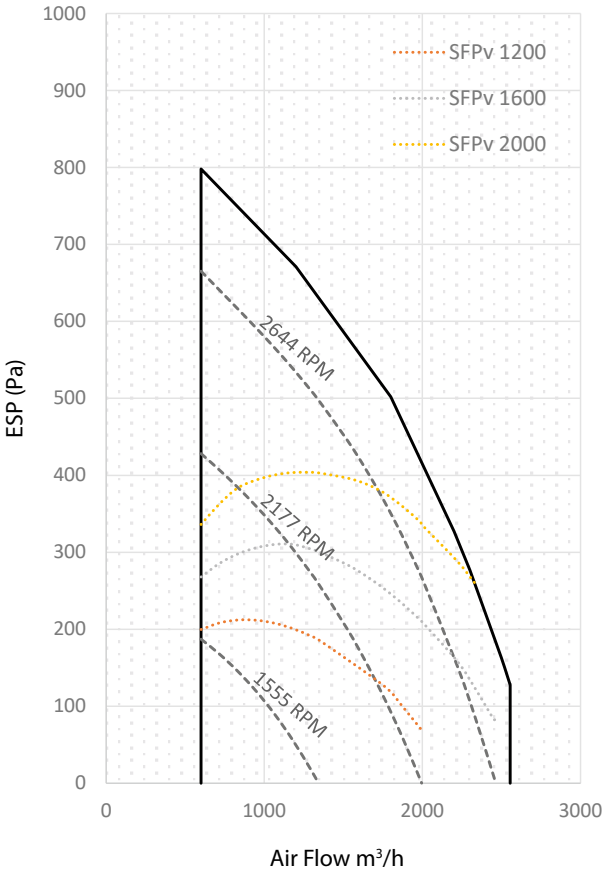


The diagram shows the available external pressure for the duct system given an airflow.

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.

ATB05RA(S)/ATB05LA(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.

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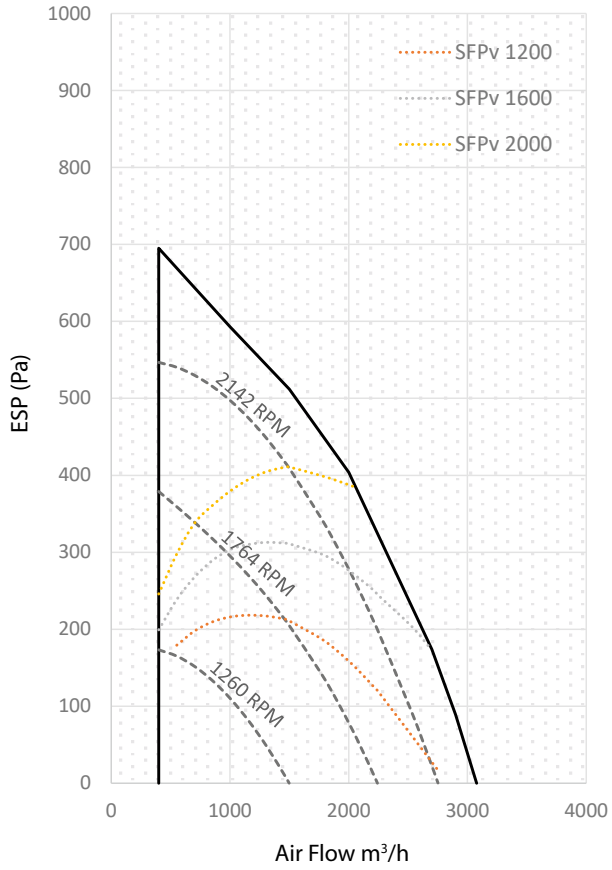
ATB06RA(S)/ATB06LA(S)

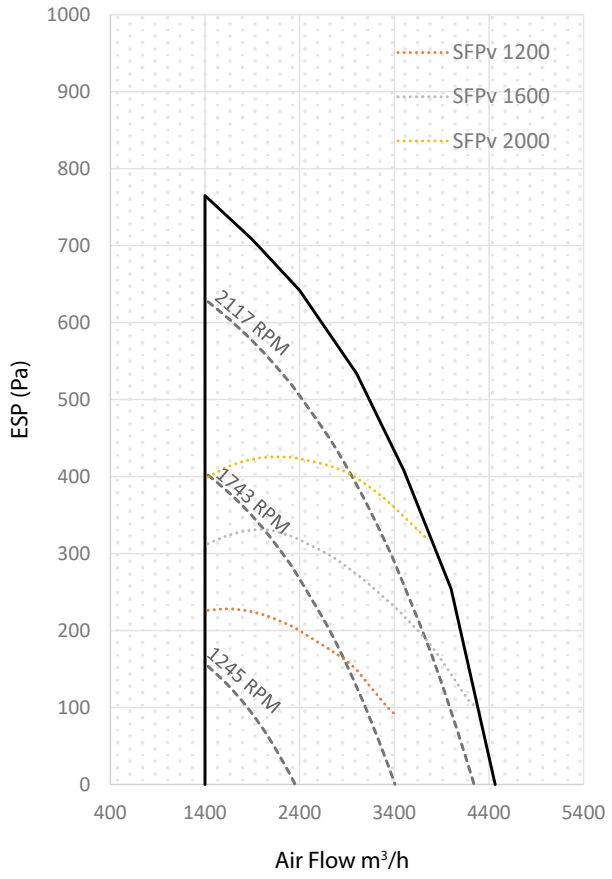


The diagram shows the available external pressure for the duct system given an airflow.

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.

ATB07RA(S)/ATB07LA(S)



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

SFPv = Specific Fan Power (W/m³/s)

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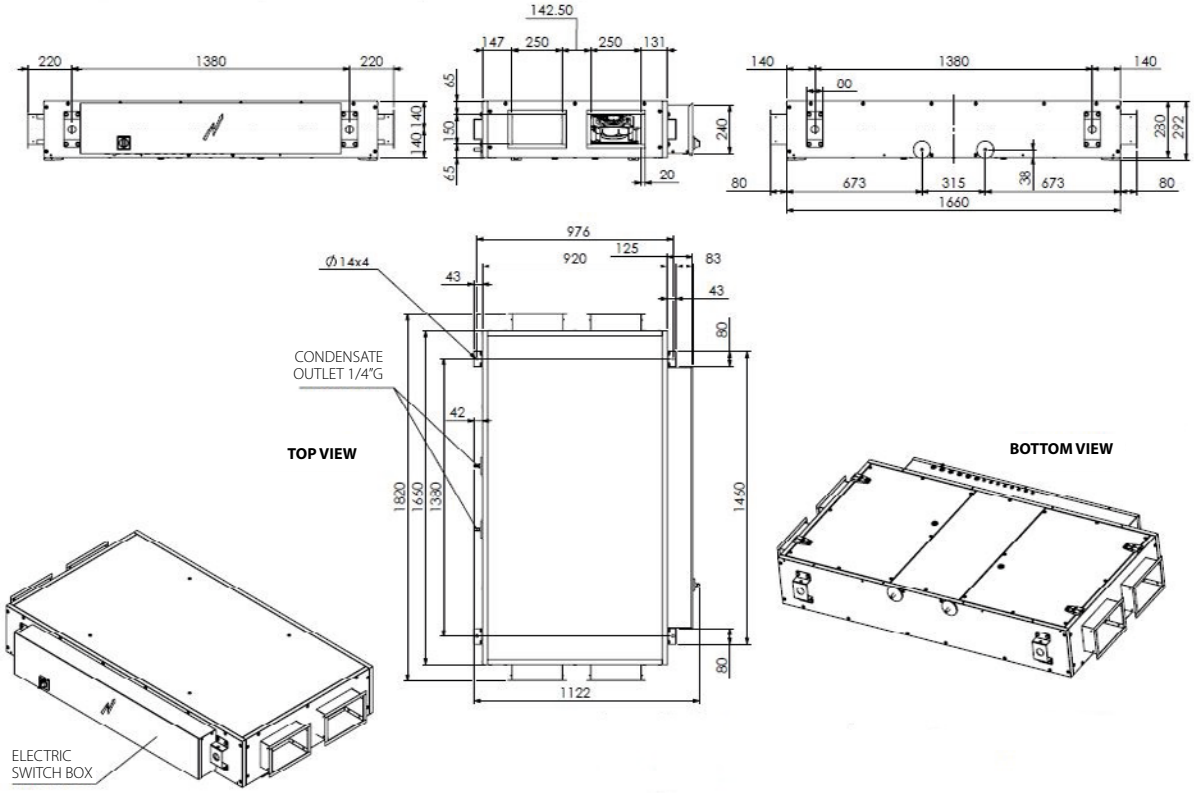
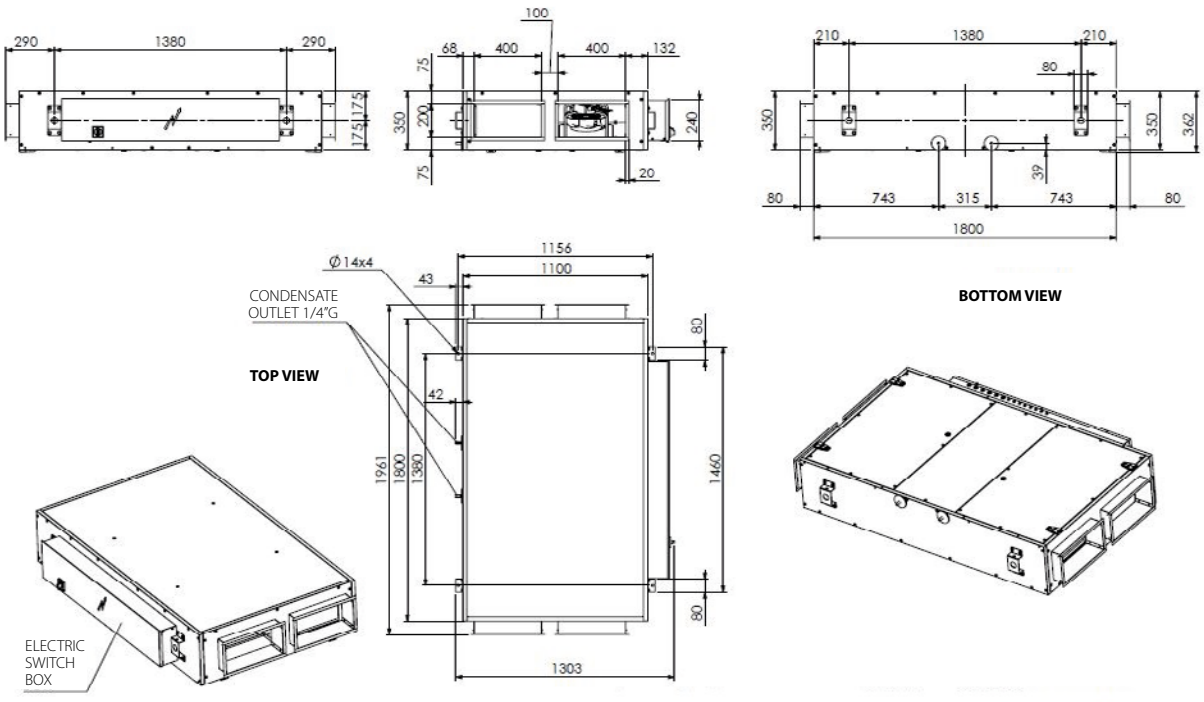
Click here to view all ALB-RB technical drawings on my.daikin.eu

ALB02RB(S)/ALB02LB(S)



ALB03RB(S)/ALB03LB(S)



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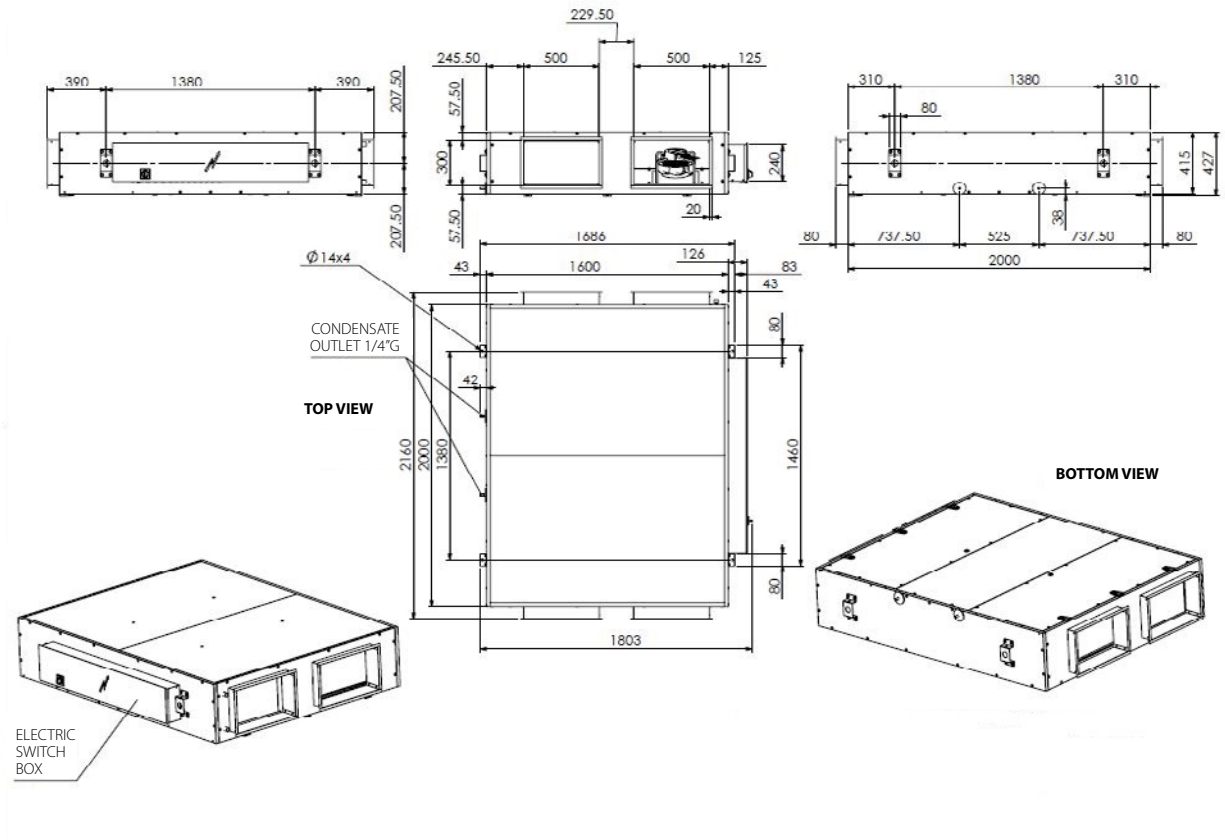
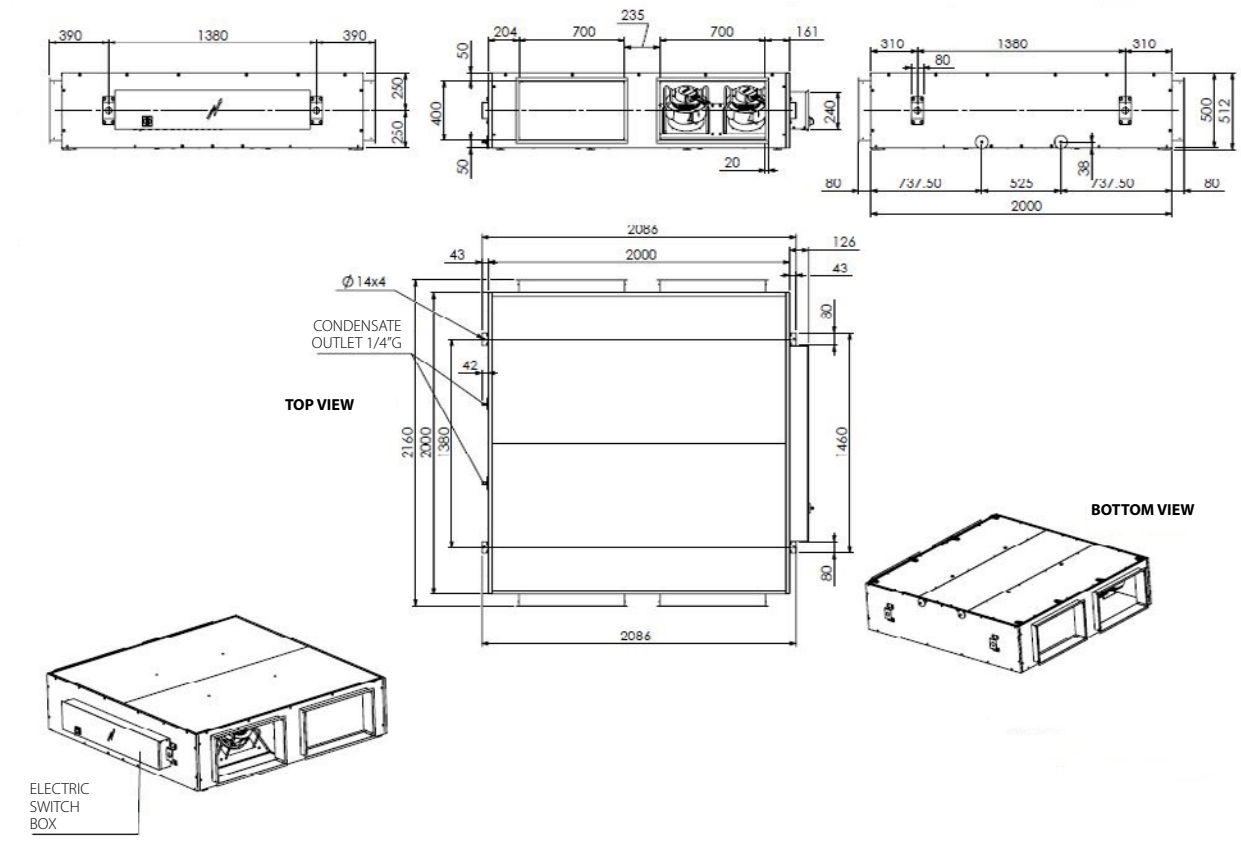
Click here to view all ALB-RB technical drawings on my.daikin.eu

Detailed technical drawings

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



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



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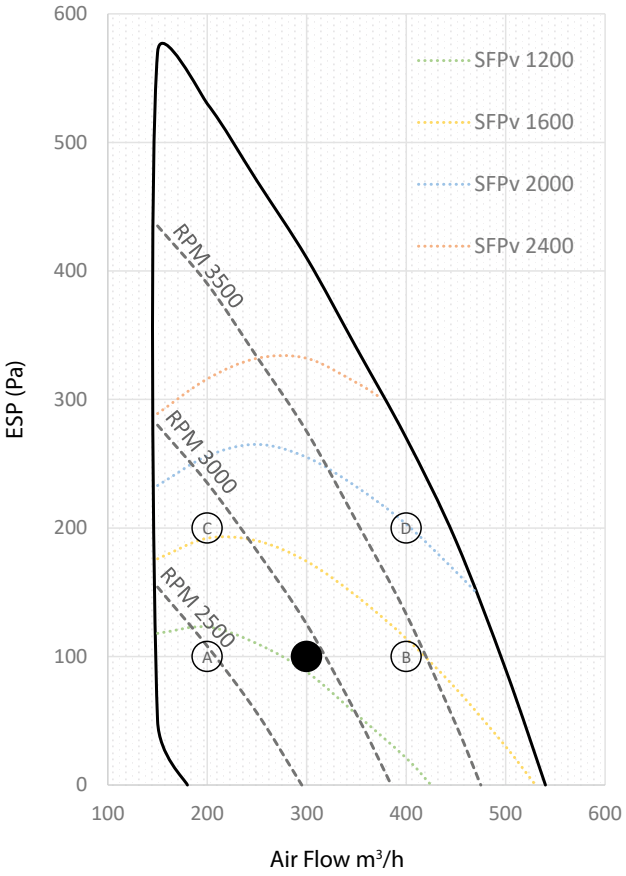
Click here to view all ALB-LB technical drawings on my.daikin.eu

Click here to view all ALB-RB technical drawings on my.daikin.eu

ALB02RB(S)/ALB02LB(S)



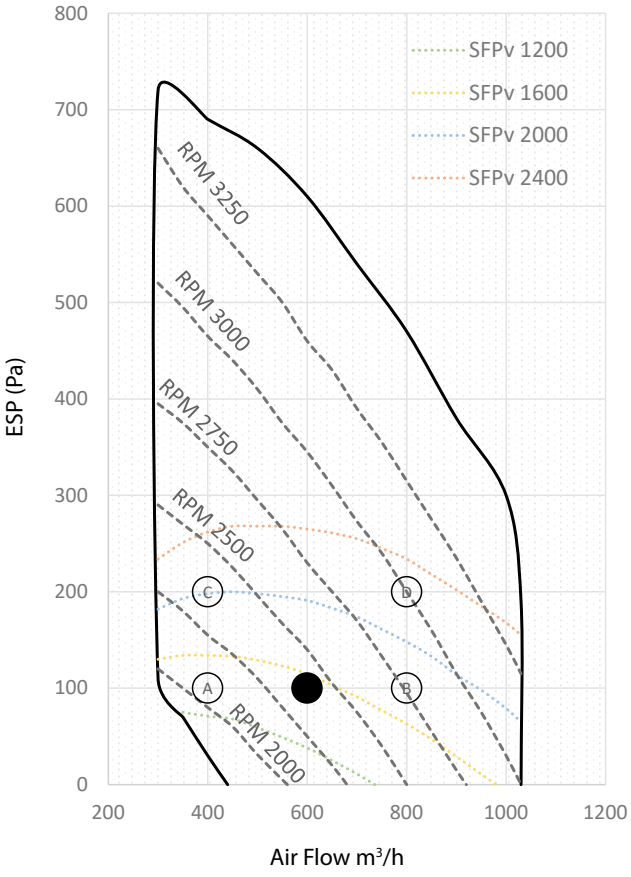
The diagram shows the available external pressure for the duct system given an airflow.

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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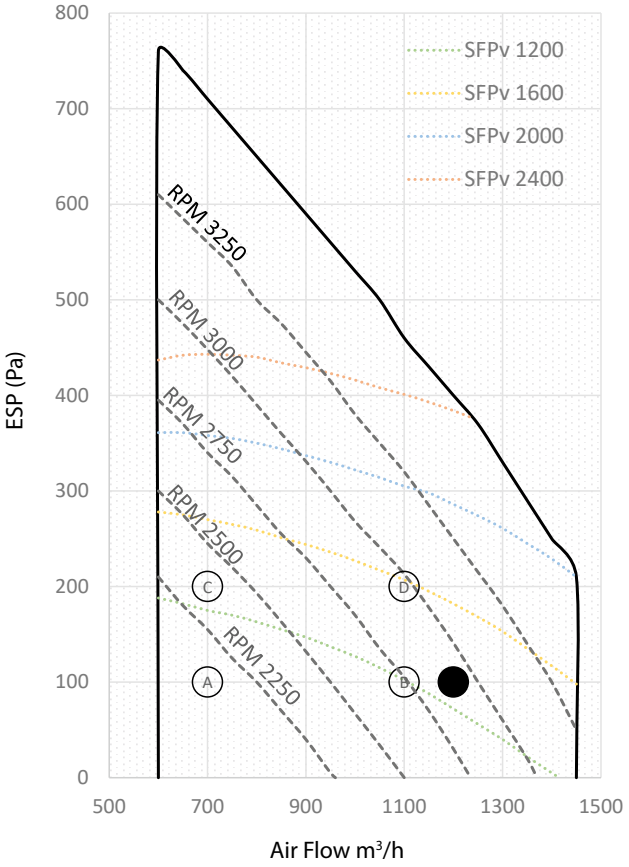
Click here to view all ALB-RB technical drawings on my.daikin.eu

Detailed technical drawings

ALB04RB(S)/ALB04LB(S)



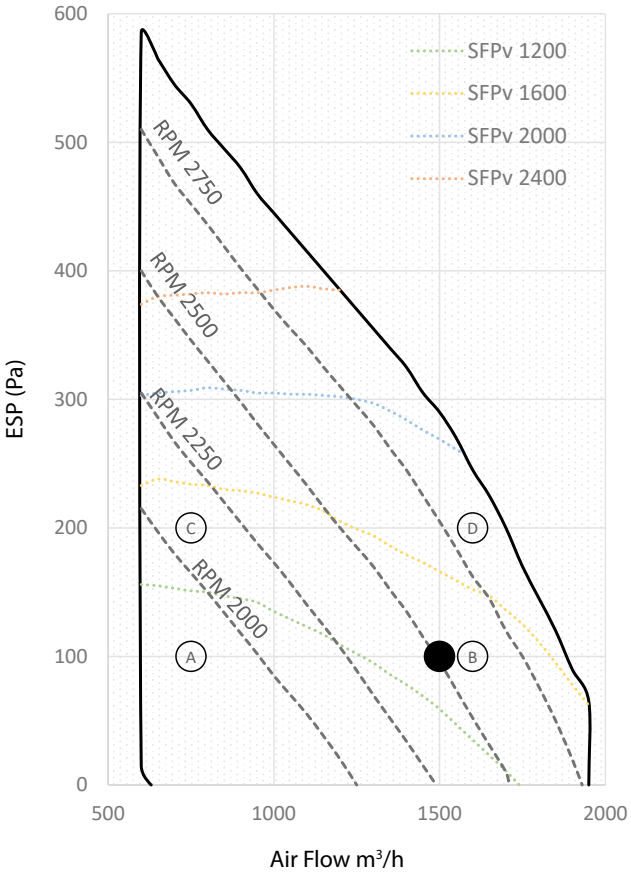
The diagram shows the available external pressure for the duct system given an airflow.

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

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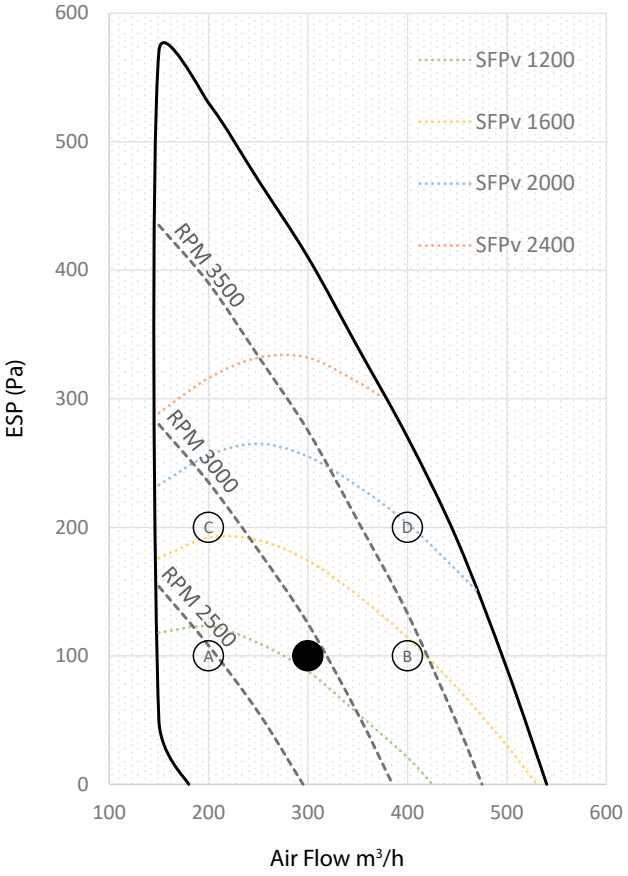
Click here to view all ALB-LB technical drawings on my.daikin.eu

Click here to view all ALB-RB technical drawings on my.daikin.eu

ALB06RB(S)/ALB06LB(S)



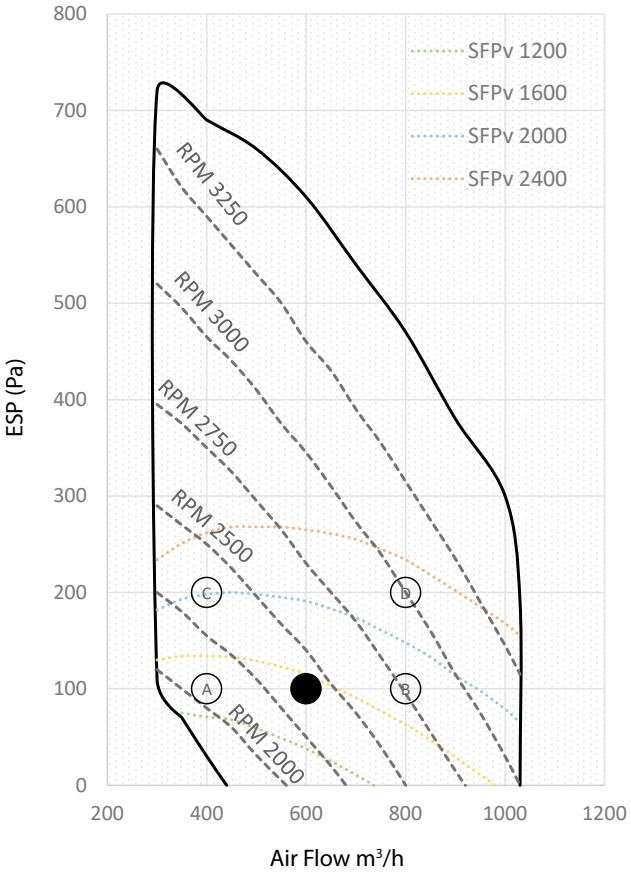
The diagram shows the available external pressure for the duct system given an airflow.

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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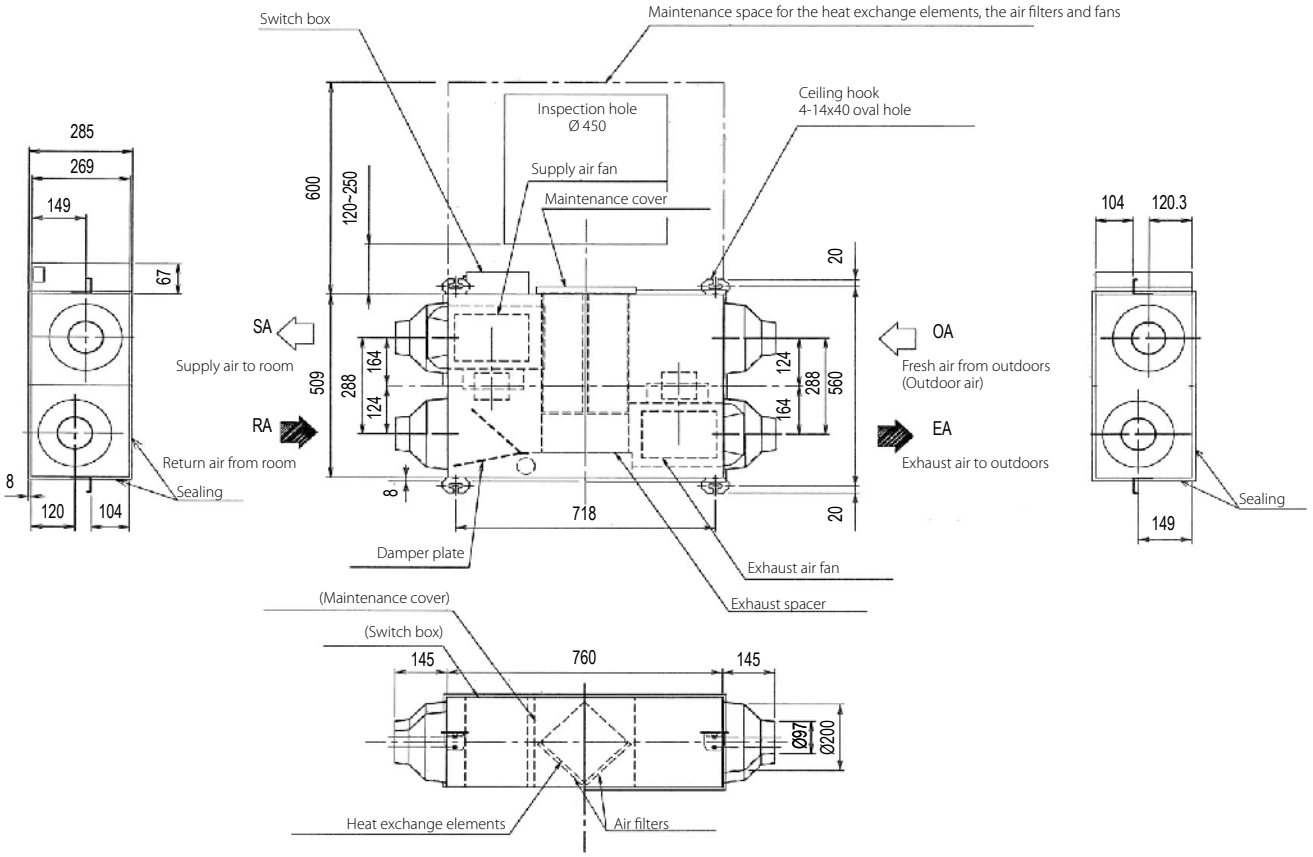
VAM150FC9

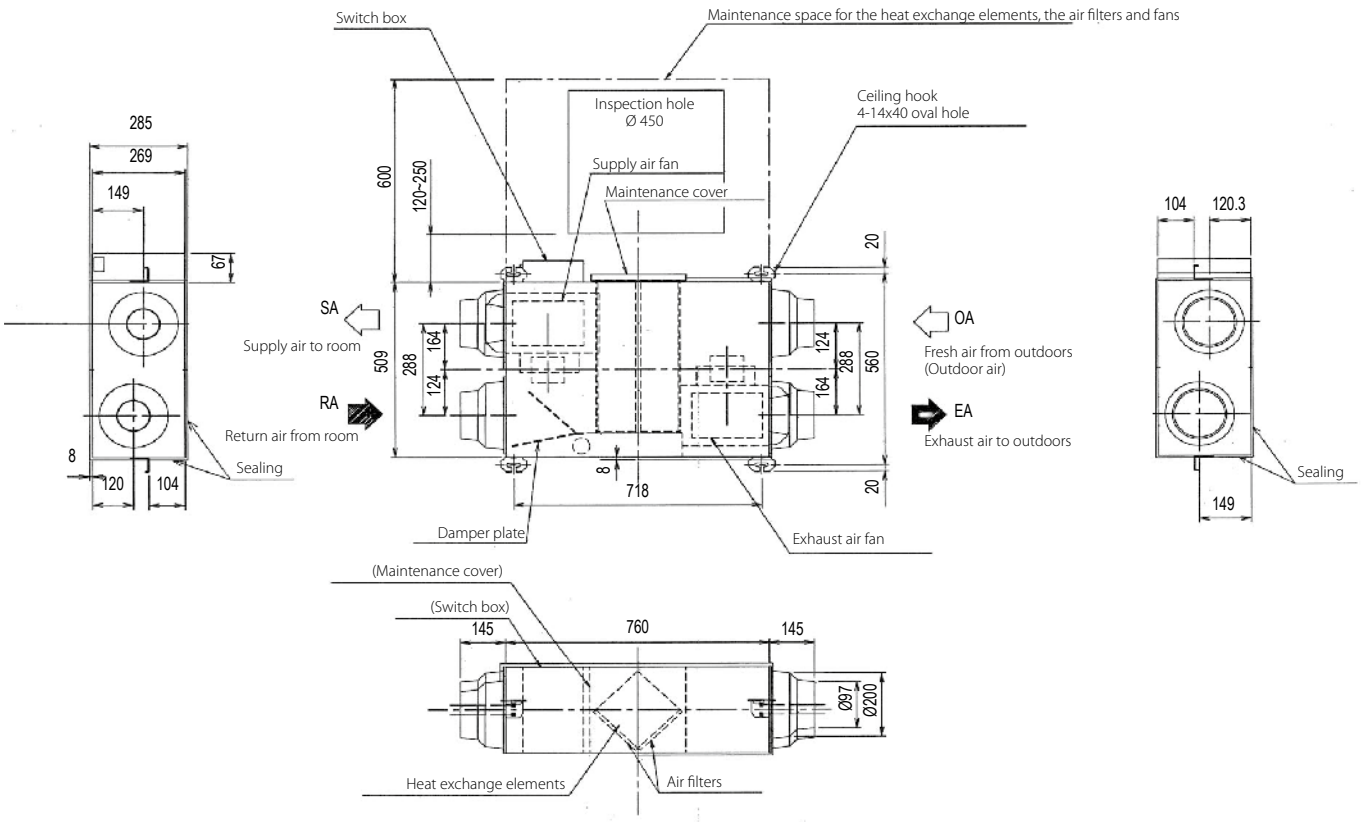


NOTES

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

3TW27874-1

VAM250FC9

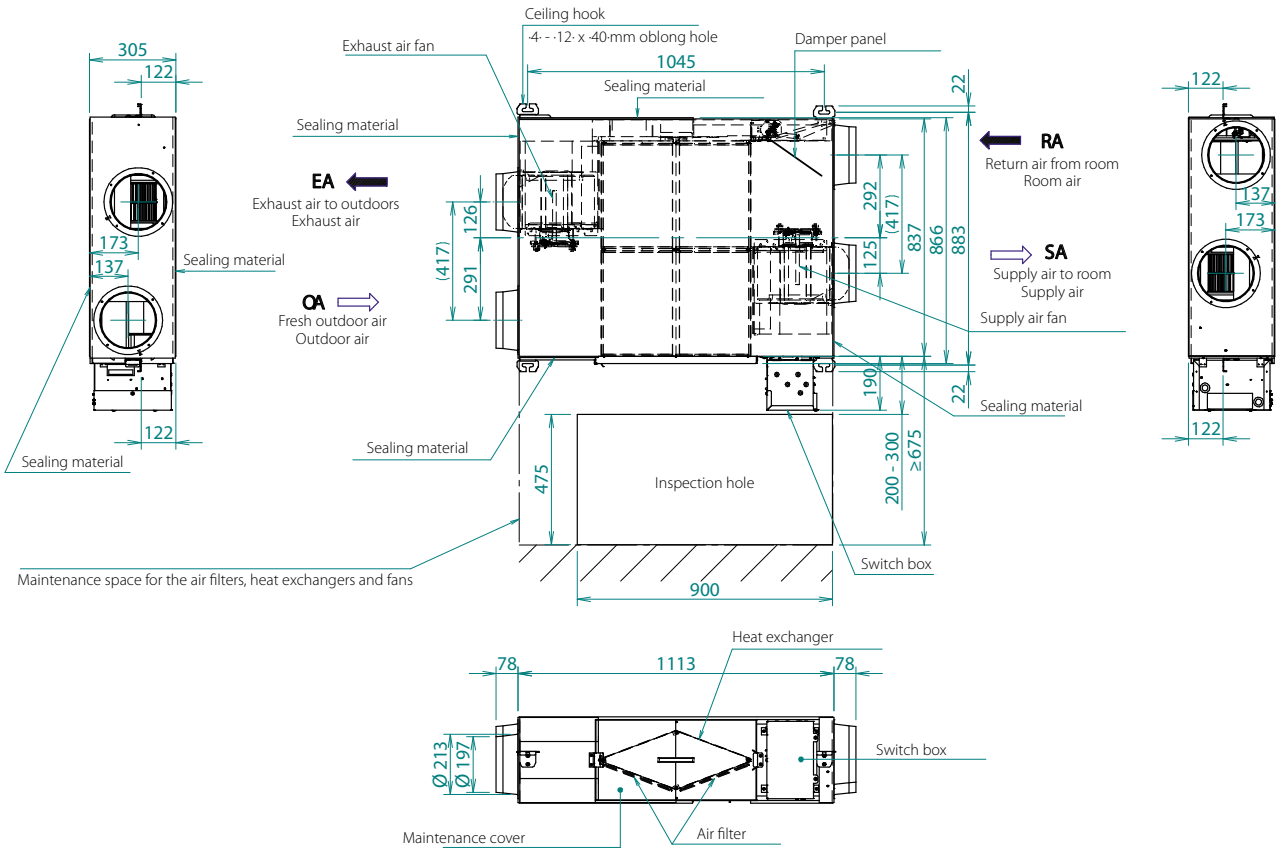


NOTES

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

3TW27884-1

VAM350-500J8

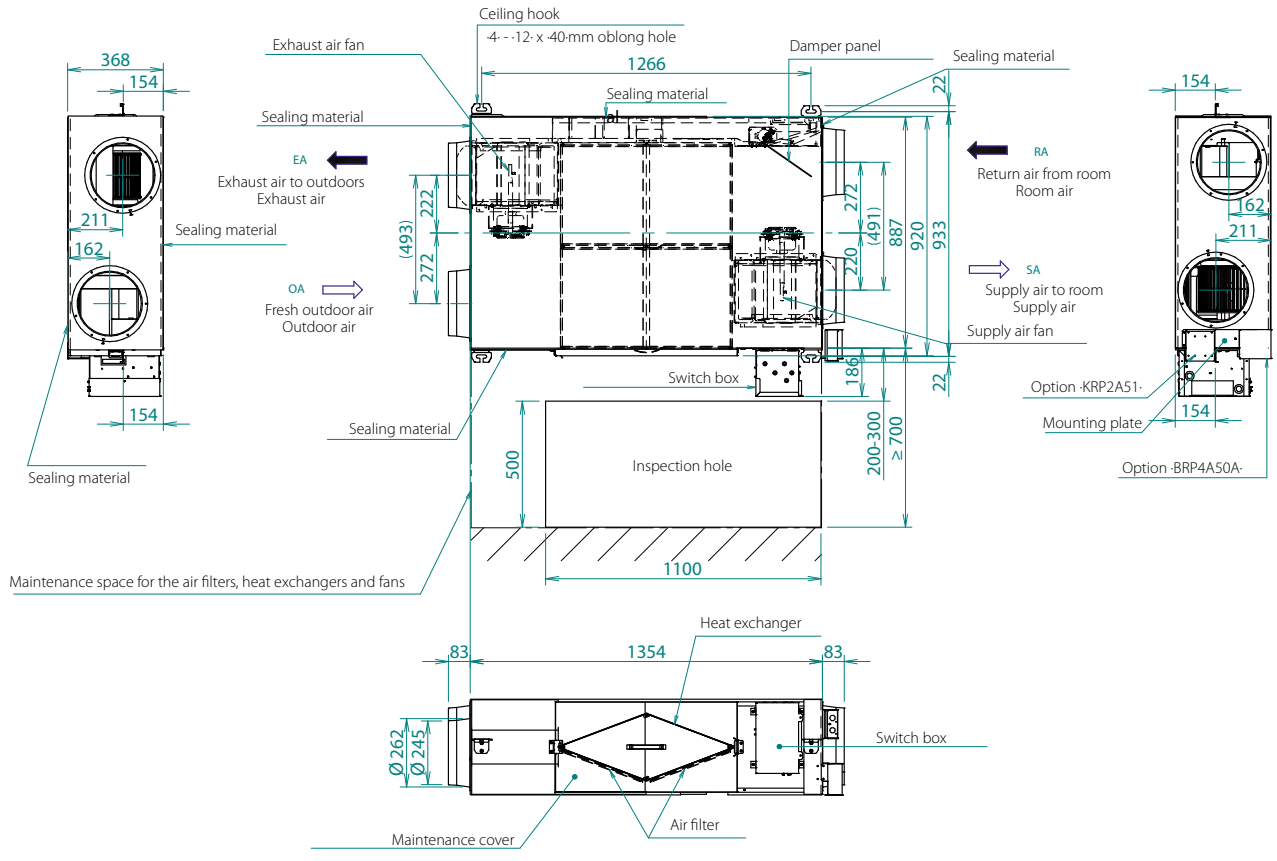


NOTES

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

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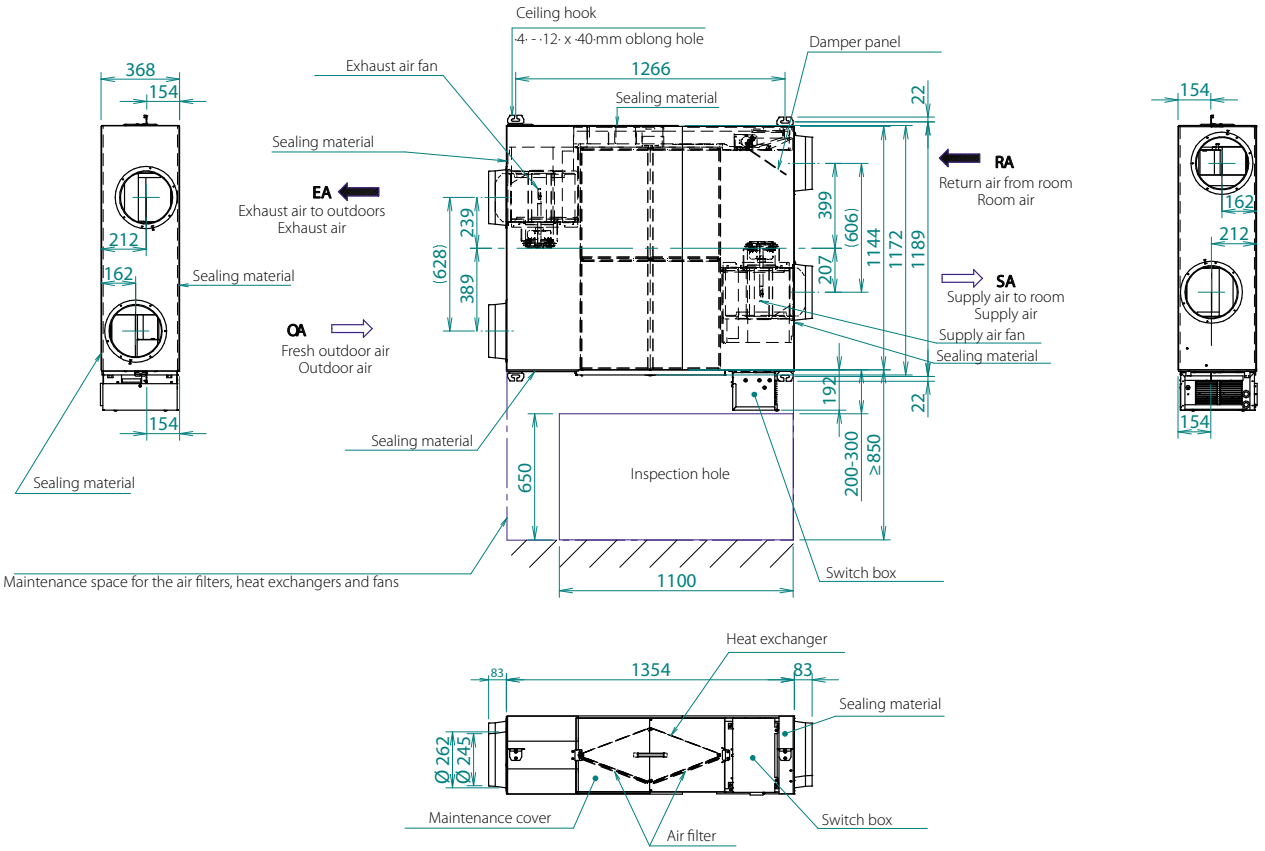
VAM800-1000J8

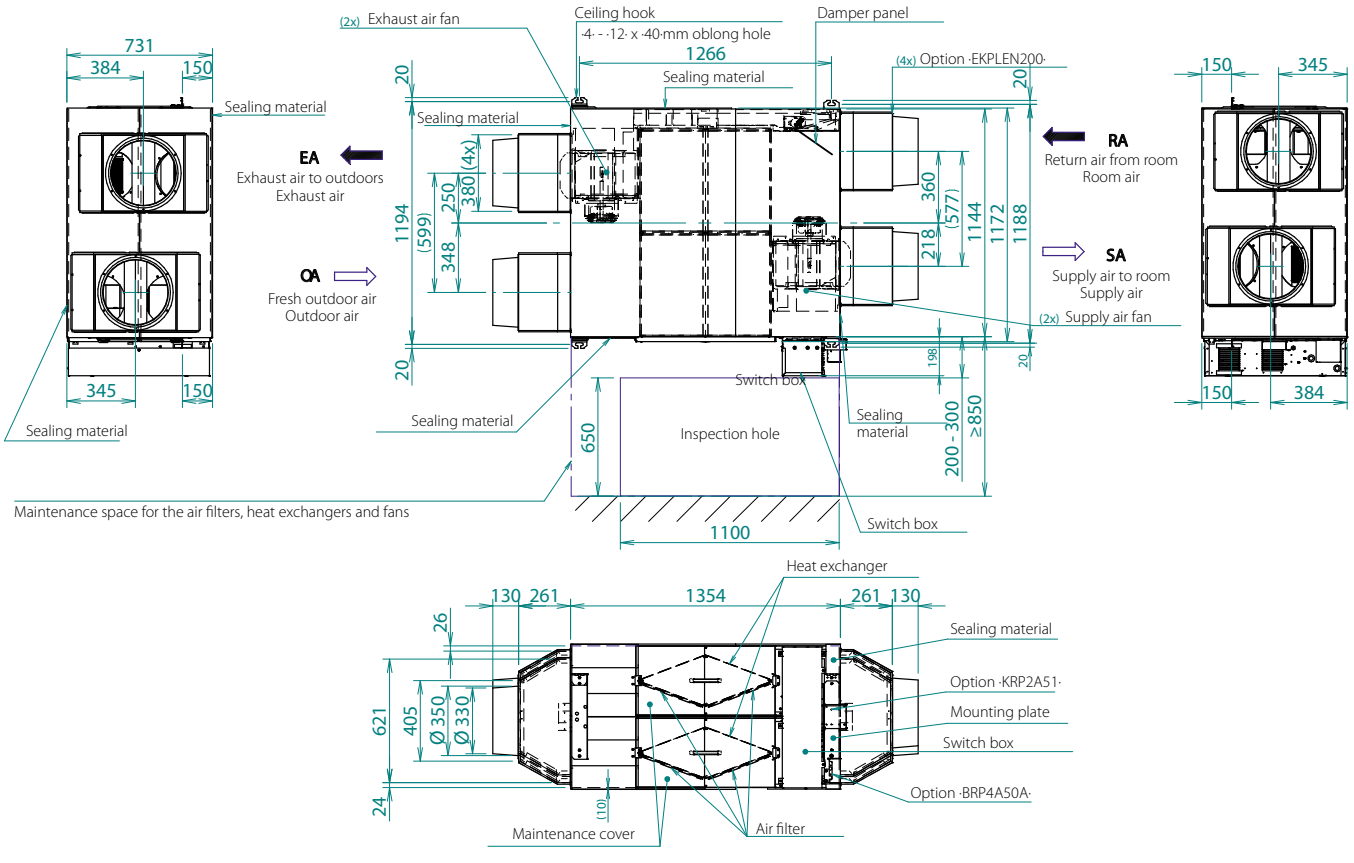


NOTES

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

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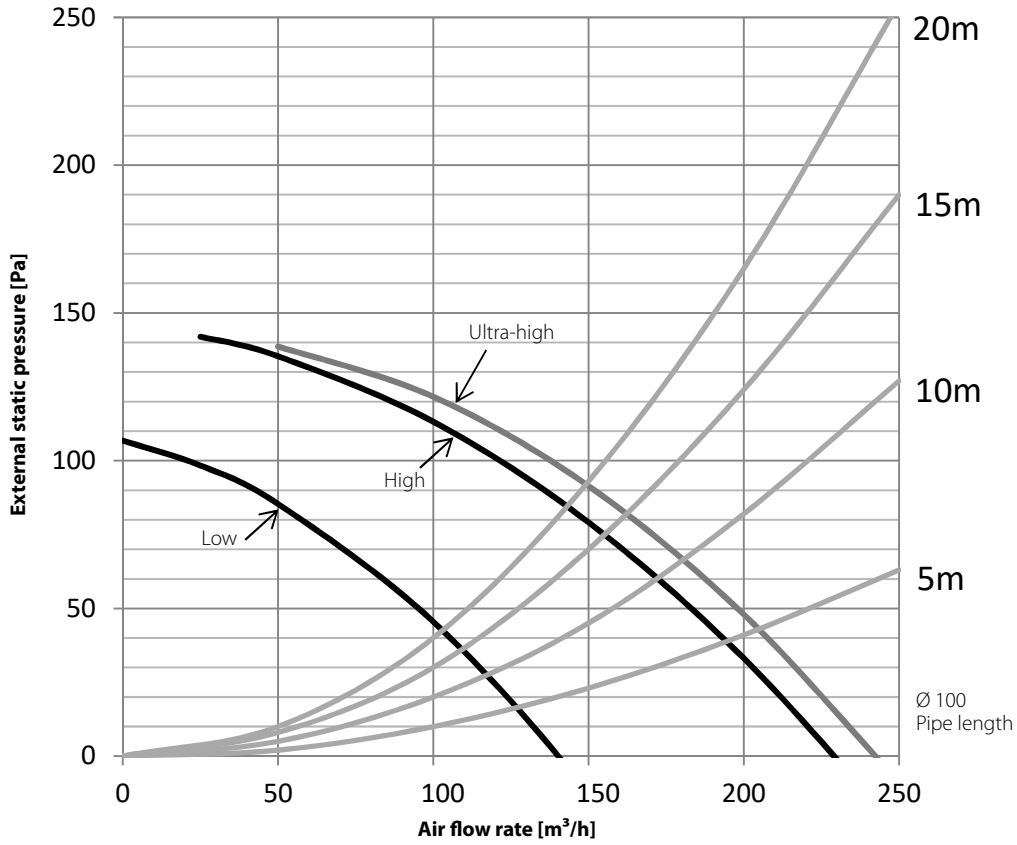
VAM150FC9

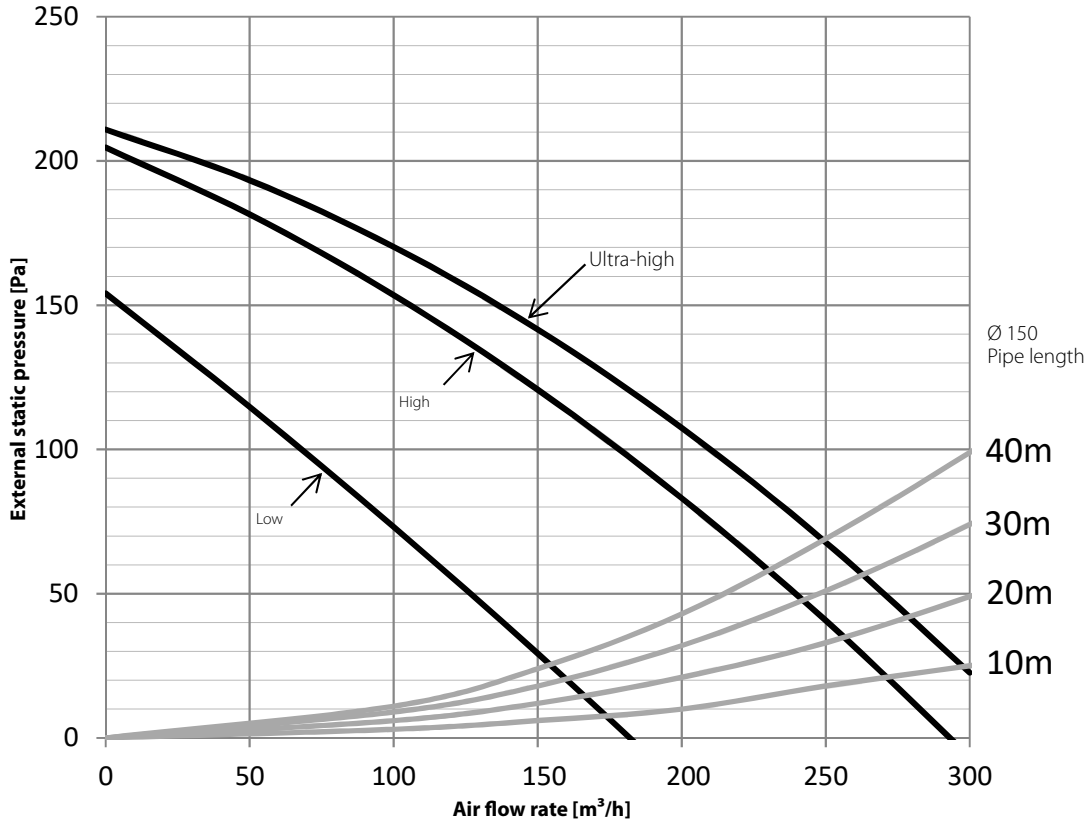


NOTES

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

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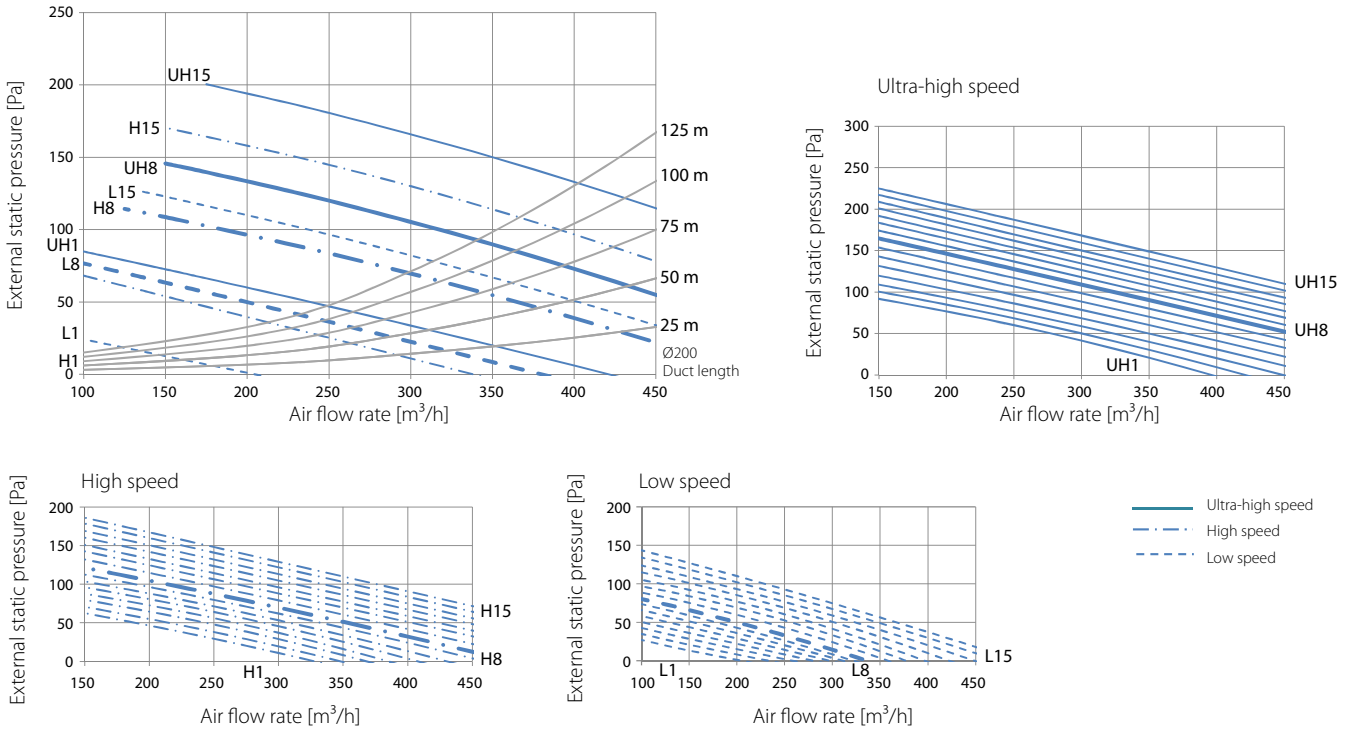
VAM350J8



NOTES

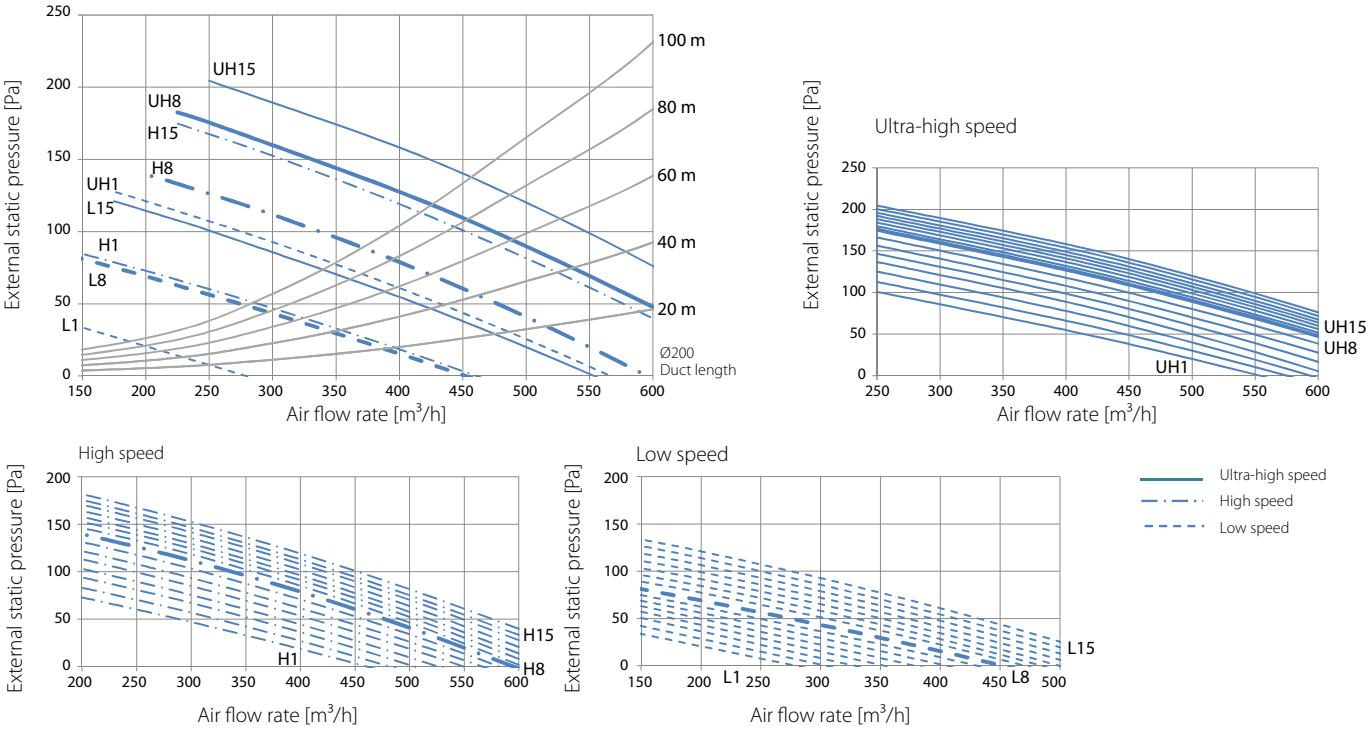
1. The fan curves are determined with ·1/3· of the ESP on the outdoor side (·EA & OA·), and ·2/3· of the ESP on the indoor side (·RA & SA·).
   EA = Exhaust air
   OA = Outdoor air
   RA = Room air
   SA = Supply air
2. Measured according to ·JIS B 8628 - 2003·

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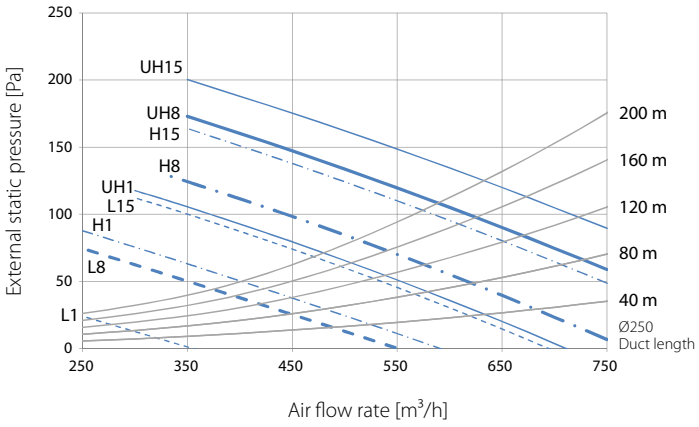
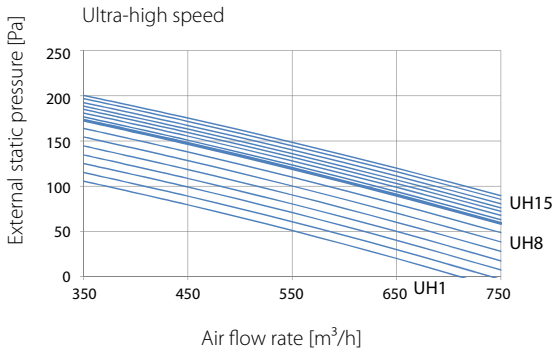
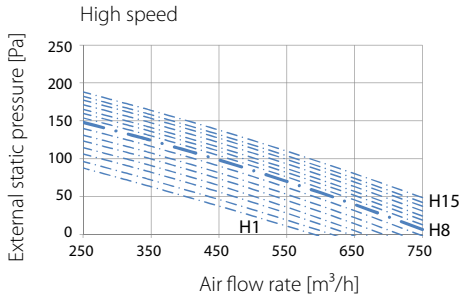
H1 = High speed lower limit
H8 = High speed factory setting
H15 = High speed upper limit
UH1 = Ultra-high speed lower limit
UH8 = Ultra-high speed factory setting
UH15 = Ultra-high speed upper limit

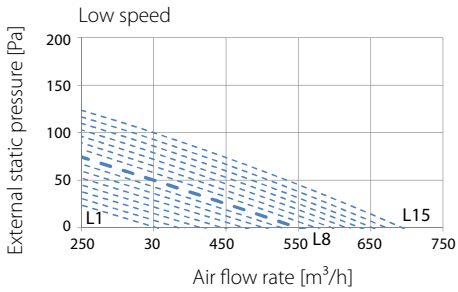
3D113494B

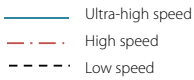
VAM650J8











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).
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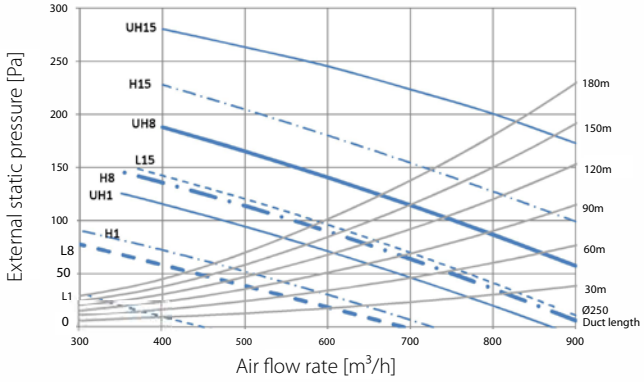
   SA = Supply air
2. Measured according to ·JIS B 8628 - 2003·

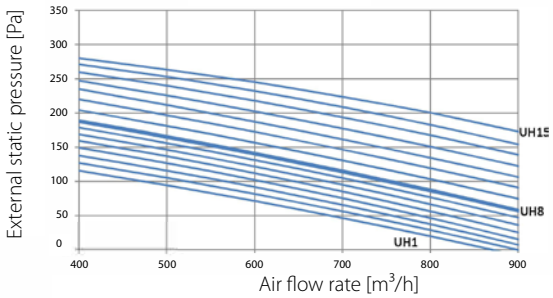
LEGEND

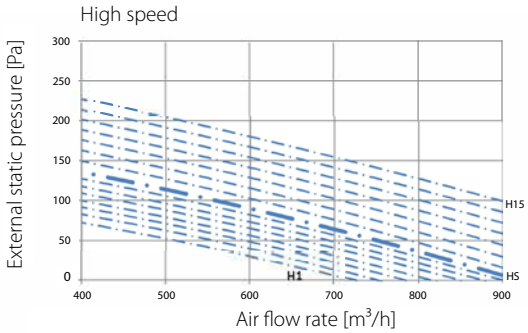
L1 = Low speed lower limit
L8 = Low speed factory setting
L15 = Low speed upper limit
H1 = High speed lower limit
H8 = High speed factory setting
H15 = High speed upper limit
UH1 = Ultra-high speed lower limit
UH8 = Ultra-high speed factory setting
UH15 = Ultra-high speed upper limit

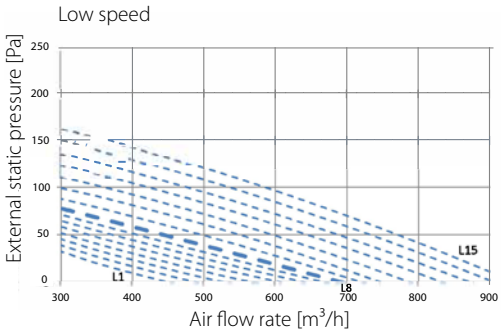
3D113495B

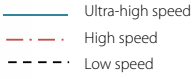
VAM800J8











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).
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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

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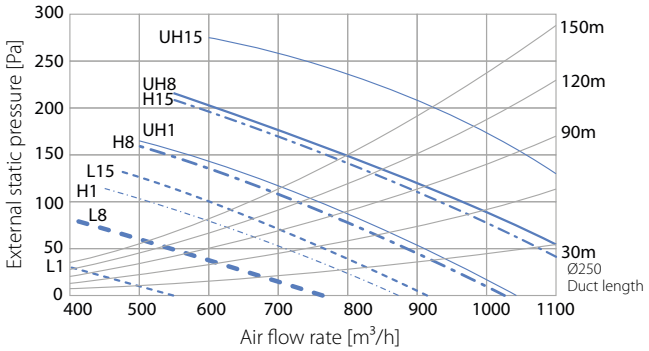
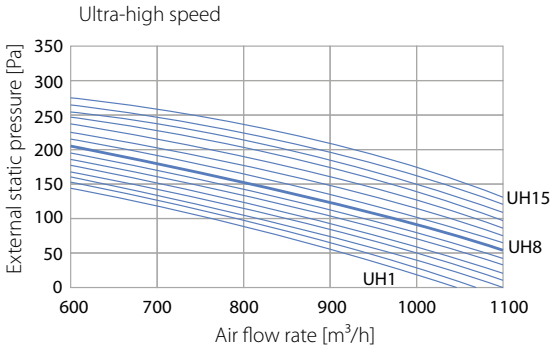
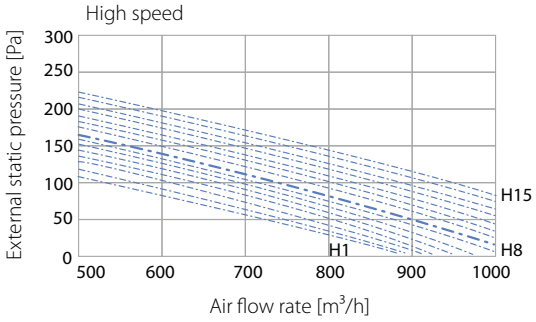
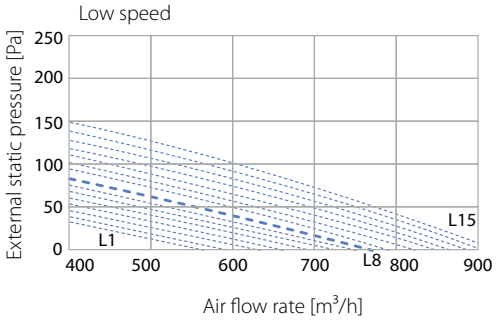
VAM1000J8









Ultra-high speed
High speed
Low speed

NOTES

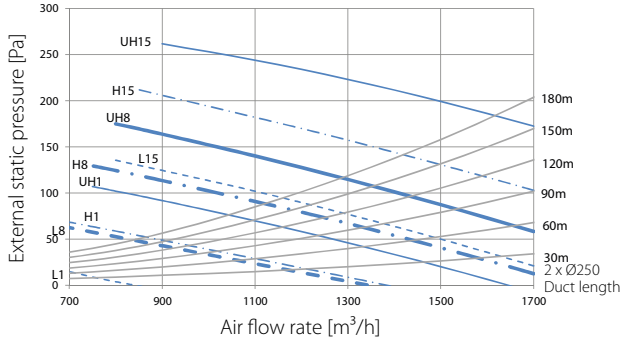
1. The fan curves are determined with 1/3 of the ESP on the outdoor side (EA & OA), and 2/3 of the ESP on the indoor side (RA & SA).
   EA = Exhaust air
   OA = Outdoor air
   RA = Room air
   SA = Supply air
2. Measured according to ·JIS B 8628 - 2003·

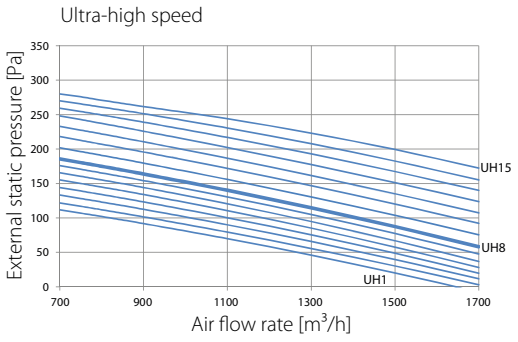
LEGEND

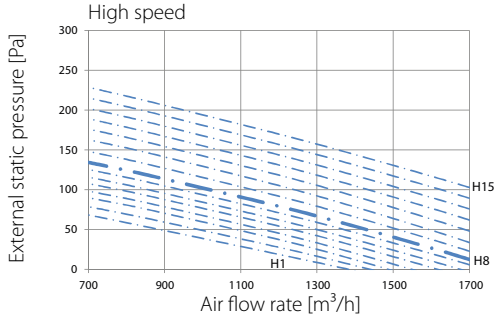
L1 = Low speed lower limit
L8 = Low speed factory setting
L15 = Low speed upper limit
H1 = High speed lower limit
H8 = High speed factory setting
H15 = High speed upper limit
UH1 = Ultra-high speed lower limit
UH8 = Ultra-high speed factory setting
UH15 = Ultra-high speed upper limit

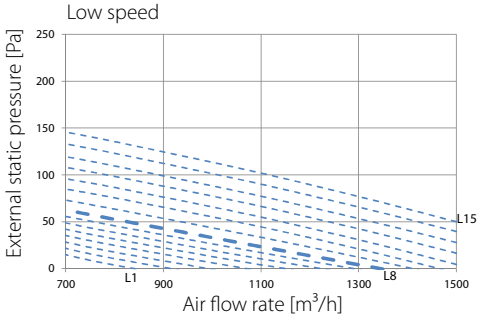
3D112832A

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
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2. Measured according to ·JIS B 8628 - 2003·

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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

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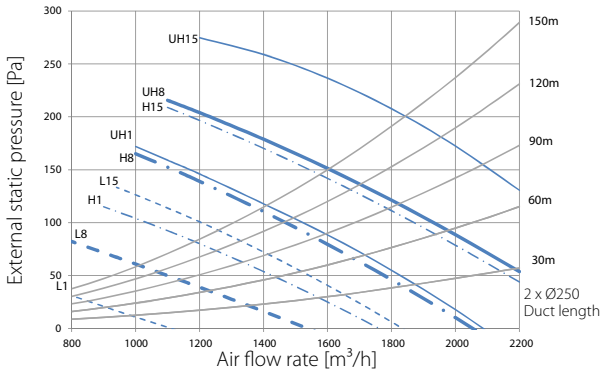
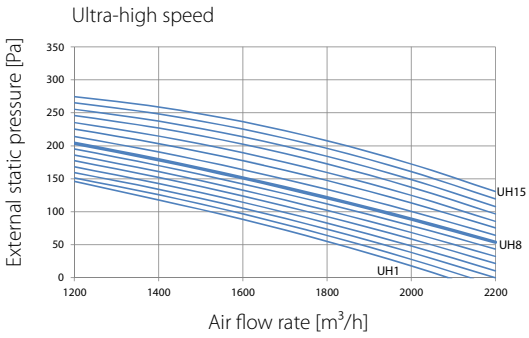
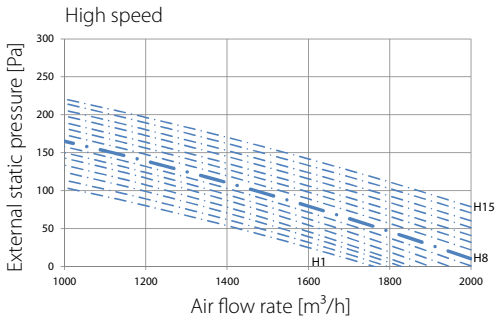
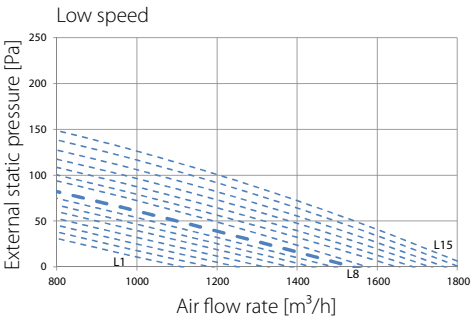
VAM2000J8









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

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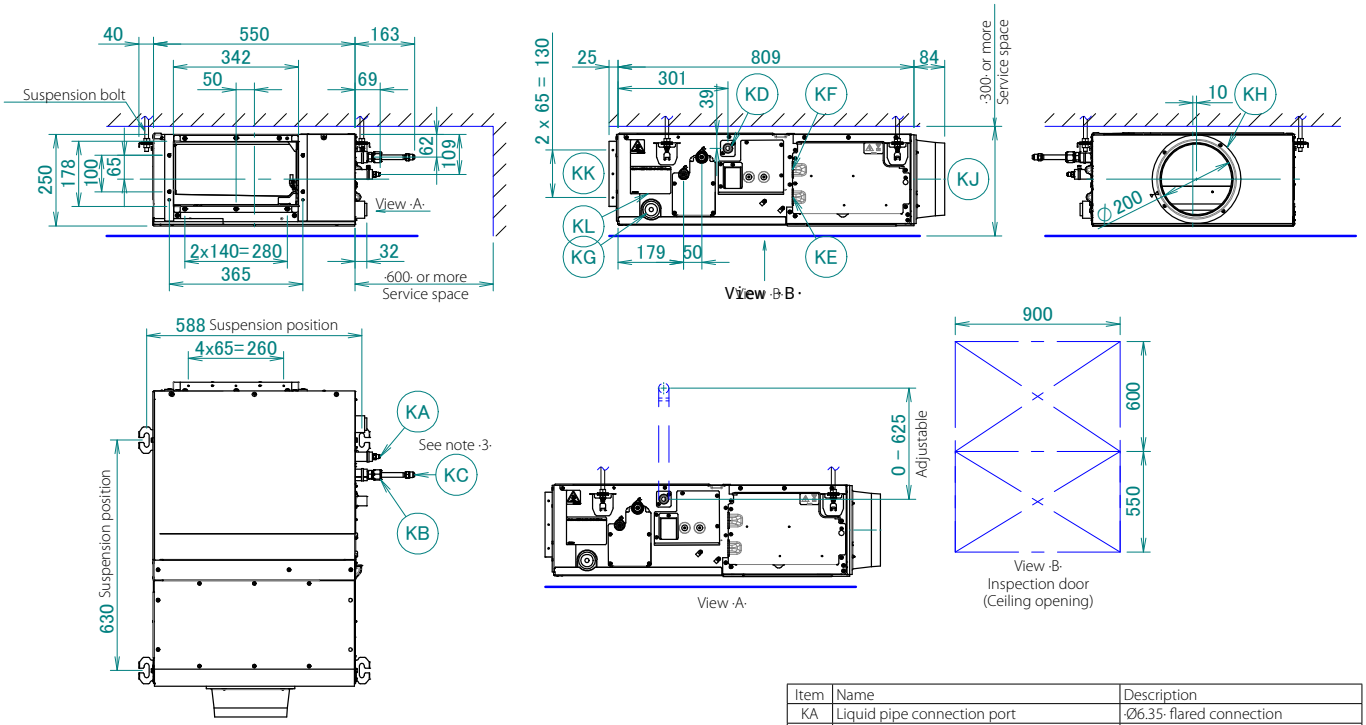
EKVDX32A



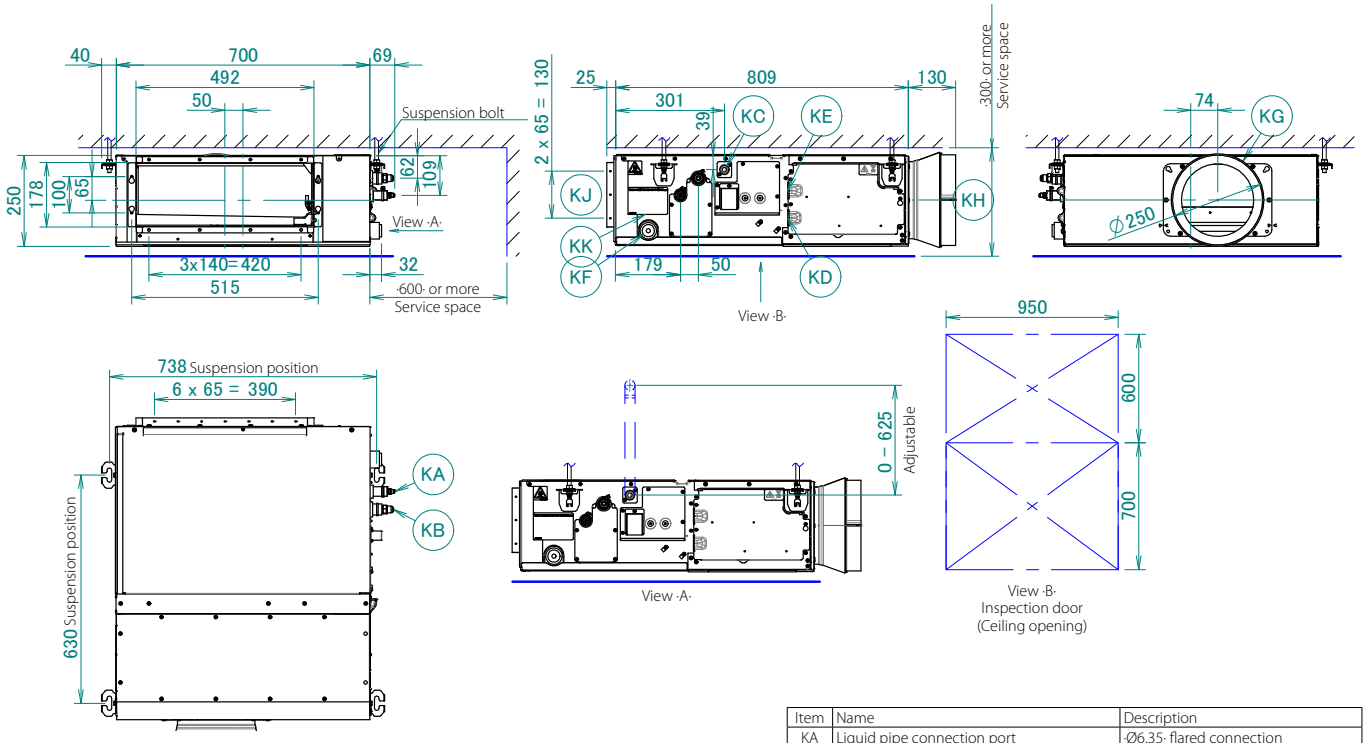
Item	Name	Description
KA	Liquid pipe connection port	·Ø6.35· flared connection
KB	Gas pipe connection port	·Ø12.70· flared connection
KC	Accessory pipe	·Ø9.52· flared connection
KD	Drain pipe connection	VP20 (OD Ø26, ID Ø20)
KE	Wiring connection	/
KF	Power supply connection	/
KG	Drain outlet	VP20 (OD 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



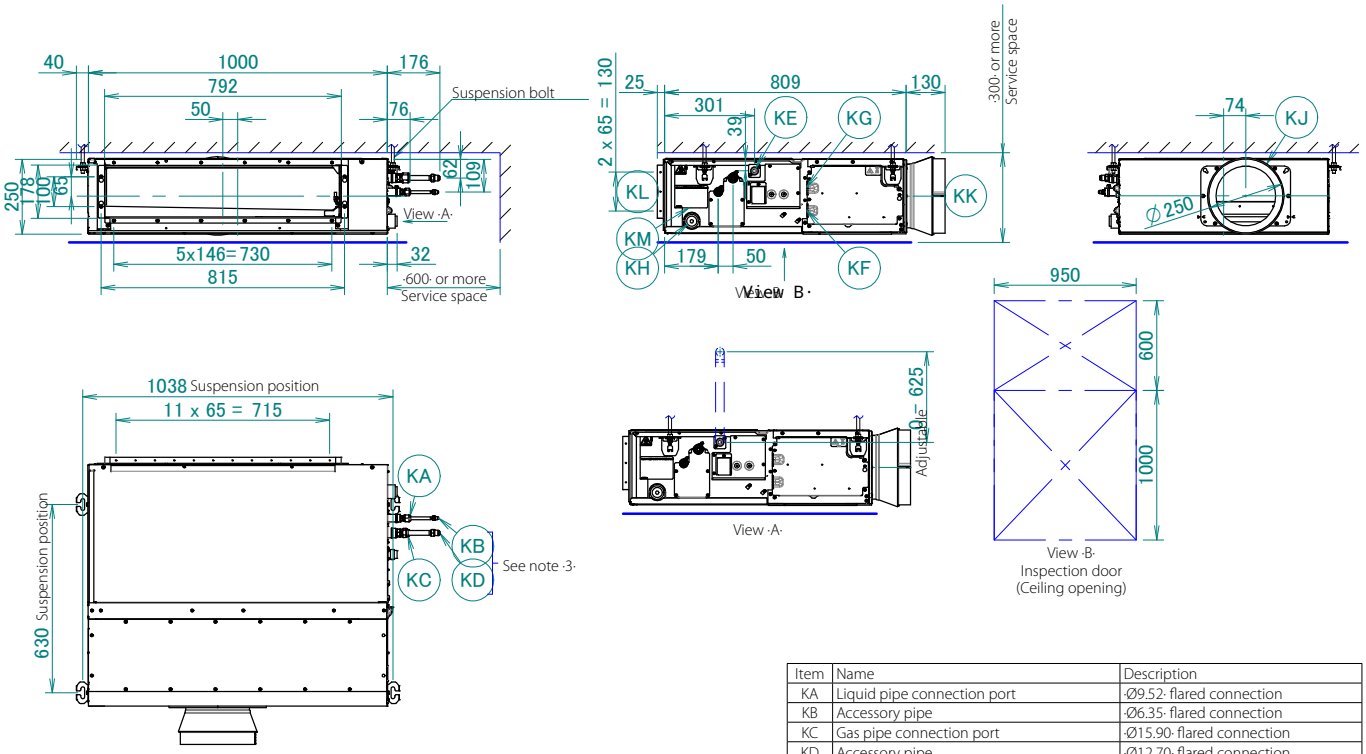
Item	Name	Description
KA	Liquid pipe connection port	·Ø6.35· flared connection
KB	Gas pipe connection port	·Ø12.70· flared connection
KC	Drain pipe connection	VP20 (OD Ø26, ID Ø20)
KD	Wiring connection	/
KE	Power supply connection	/
KF	Drain outlet	VP20 (OD Ø26, ID Ø20)
KG	Air inlet flange	/
KH	Air suction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



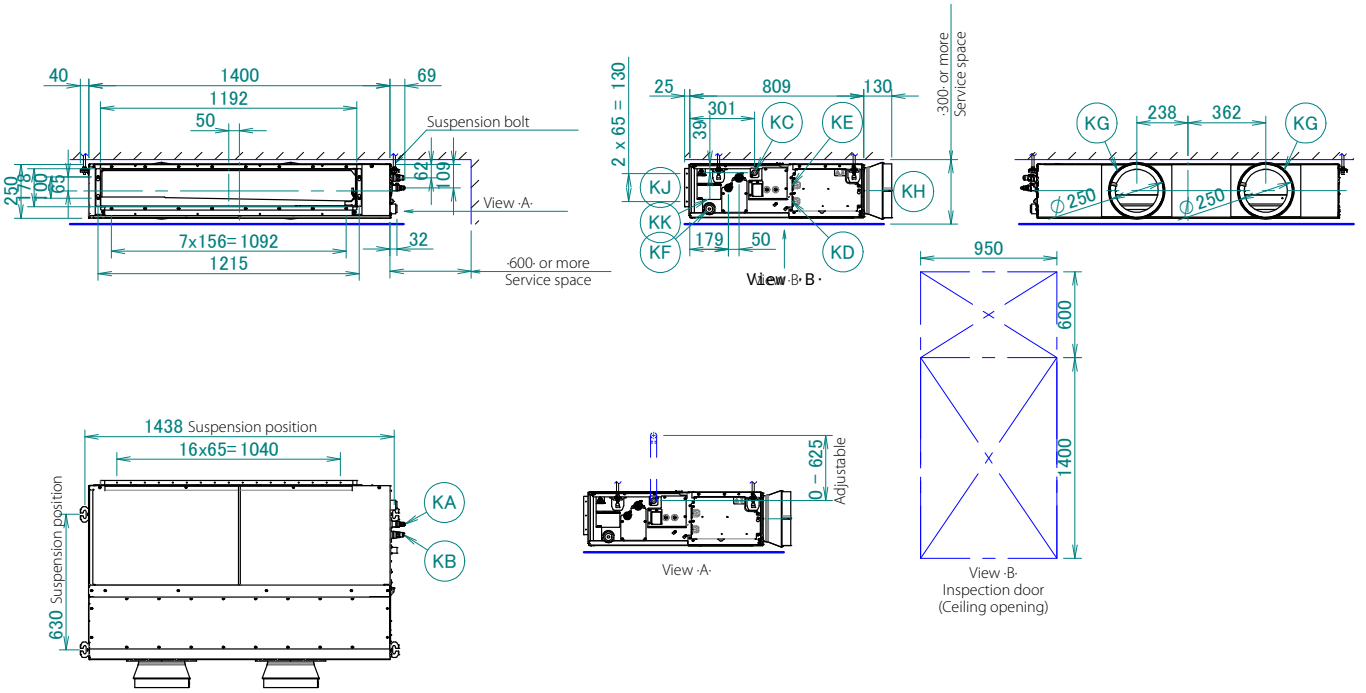
Item	Name	Description
KA	Liquid pipe connection port	·Ø9.52· flared connection
KB	Accessory pipe	·Ø6.35· flared connection
KC	Gas pipe connection port	·Ø15.90· flared connection
KD	Accessory pipe	·Ø12.70· flared connection
KE	Drain pipe connection	VP20 (OD Ø26, ID Ø20)
KF	Wiring connection	/
KG	Power 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

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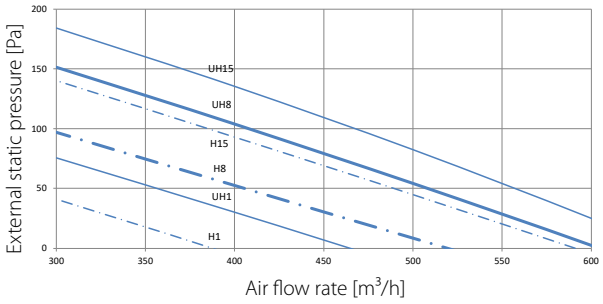
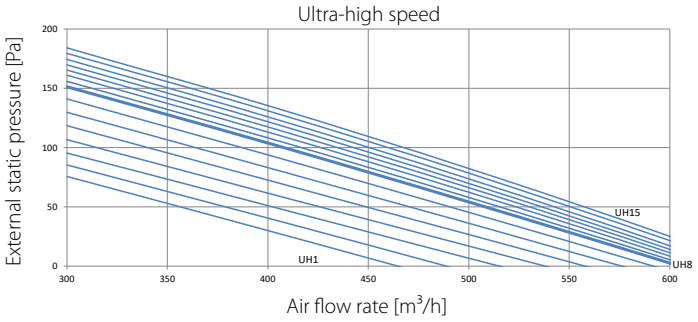
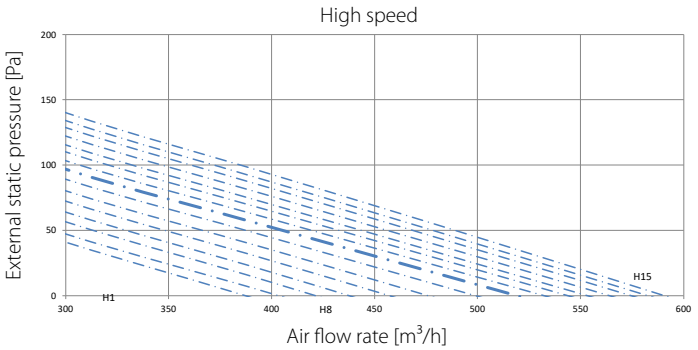
EKVDX32A







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

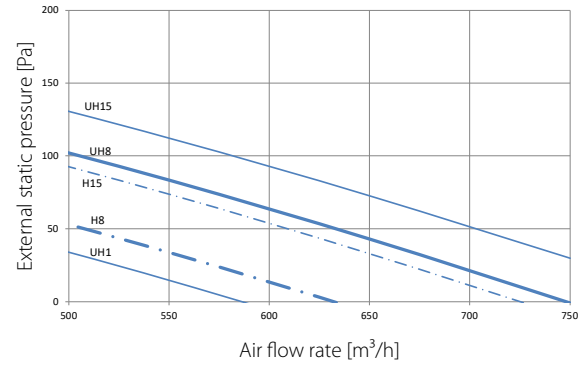
Ultra-high speed
High speed

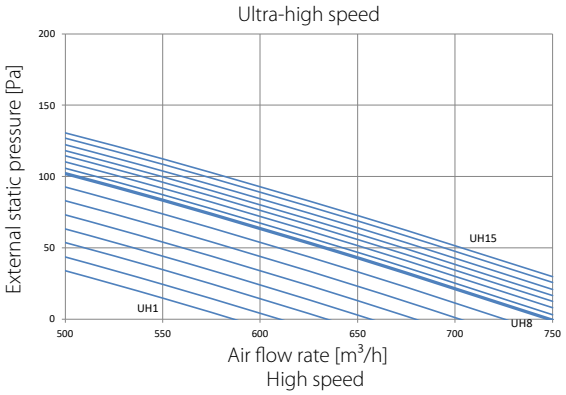
NOTES

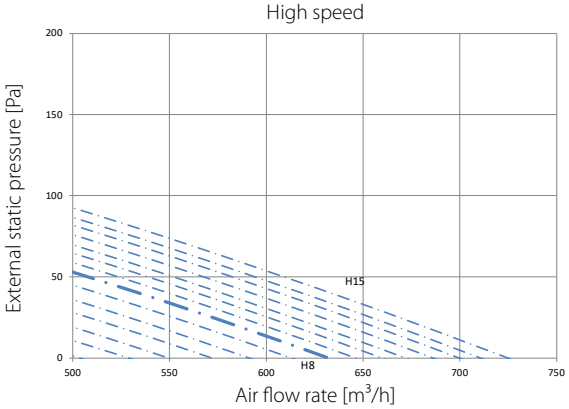
1. The fan curves are determined with ·1/3· of the ESP on the outdoor side (·EA & OA·), and ·2/3· of the ESP on the indoor side (·RA & SA·).
   EA = Exhaust air
   OA = Outdoor air
   RA = Room air
   SA = Supply air
2. The designed airflow of the system at H and UH tap should be kept as shown in the 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

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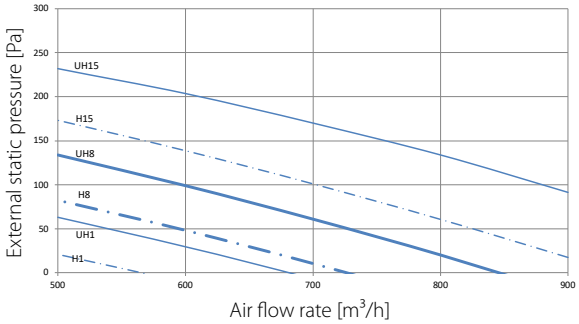
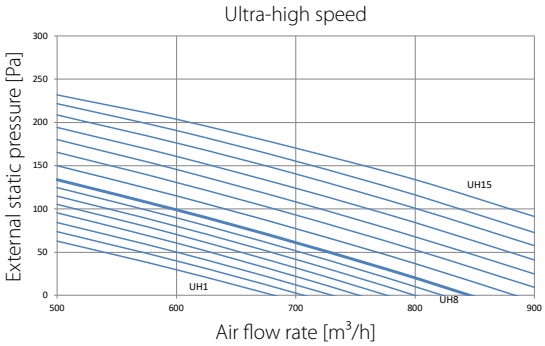
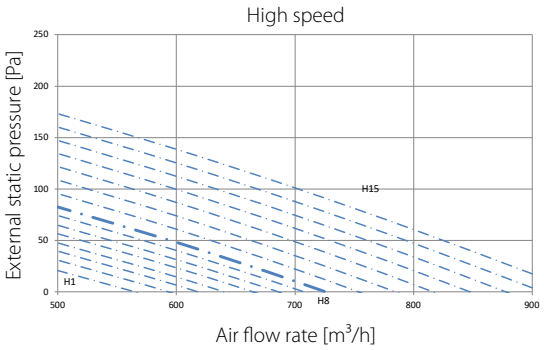
EKVDX50A







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
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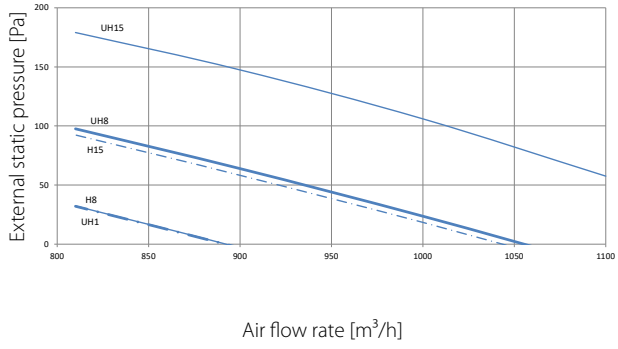
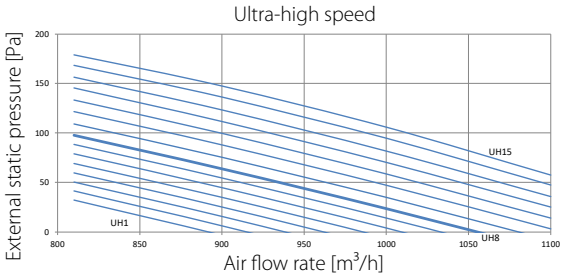
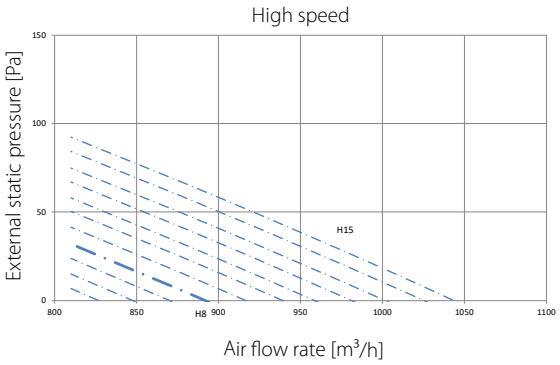
   SA = Supply air
2. The designed airflow of the system at H and UH tap should be kept as shown in the graphs. If the ·VAM· airflow is out of this range, the compressor of the outdoor unit may stop for self-protection purposes.
3. Measured according to ·JIS B 8628 - 2003·

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·).
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3. Measured according to ·JIS B 8628 - 2003·

3D138267

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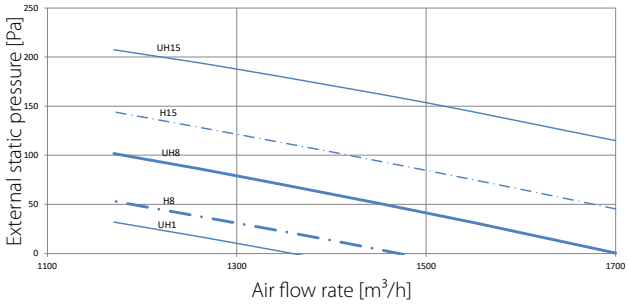
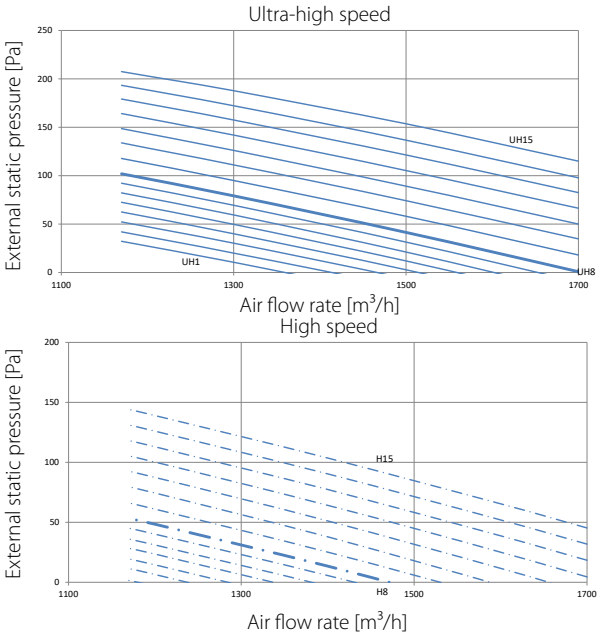
EKVDX100A





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

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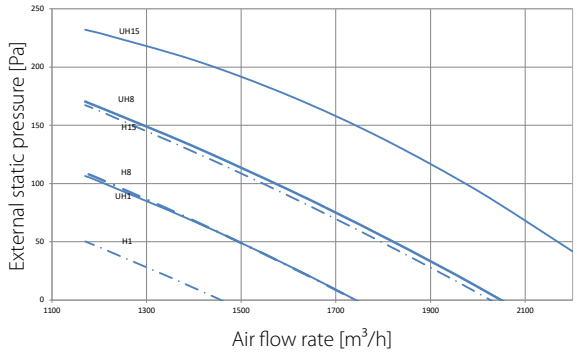
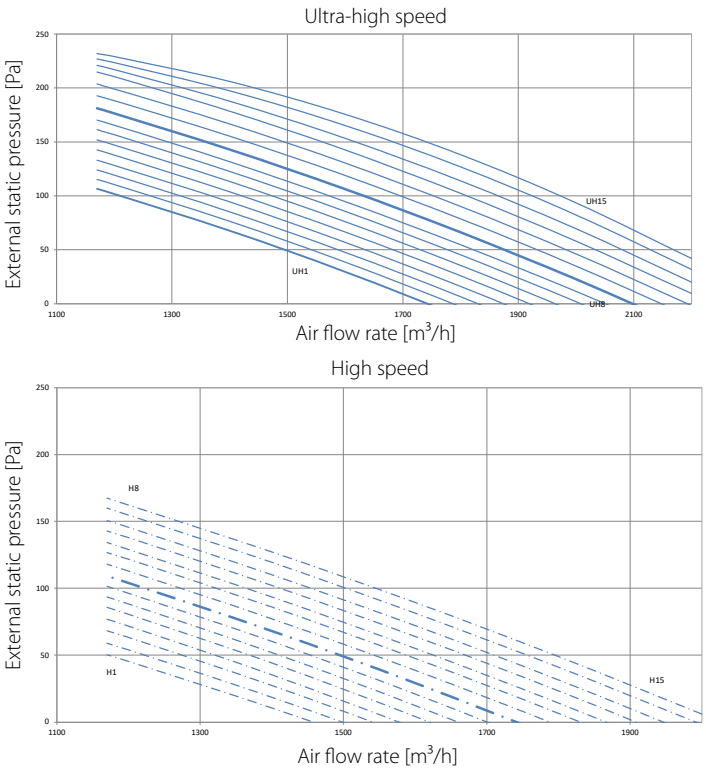
   SA = Supply air
2. The designed airflow of the system at H and UH tap should be kept as shown in the graphs. If the ·VAM· airflow is out of this range, the compressor of the outdoor unit may stop for selfprotection purposes.
3. Measured according to ·JIS B 8628 - 2003·

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

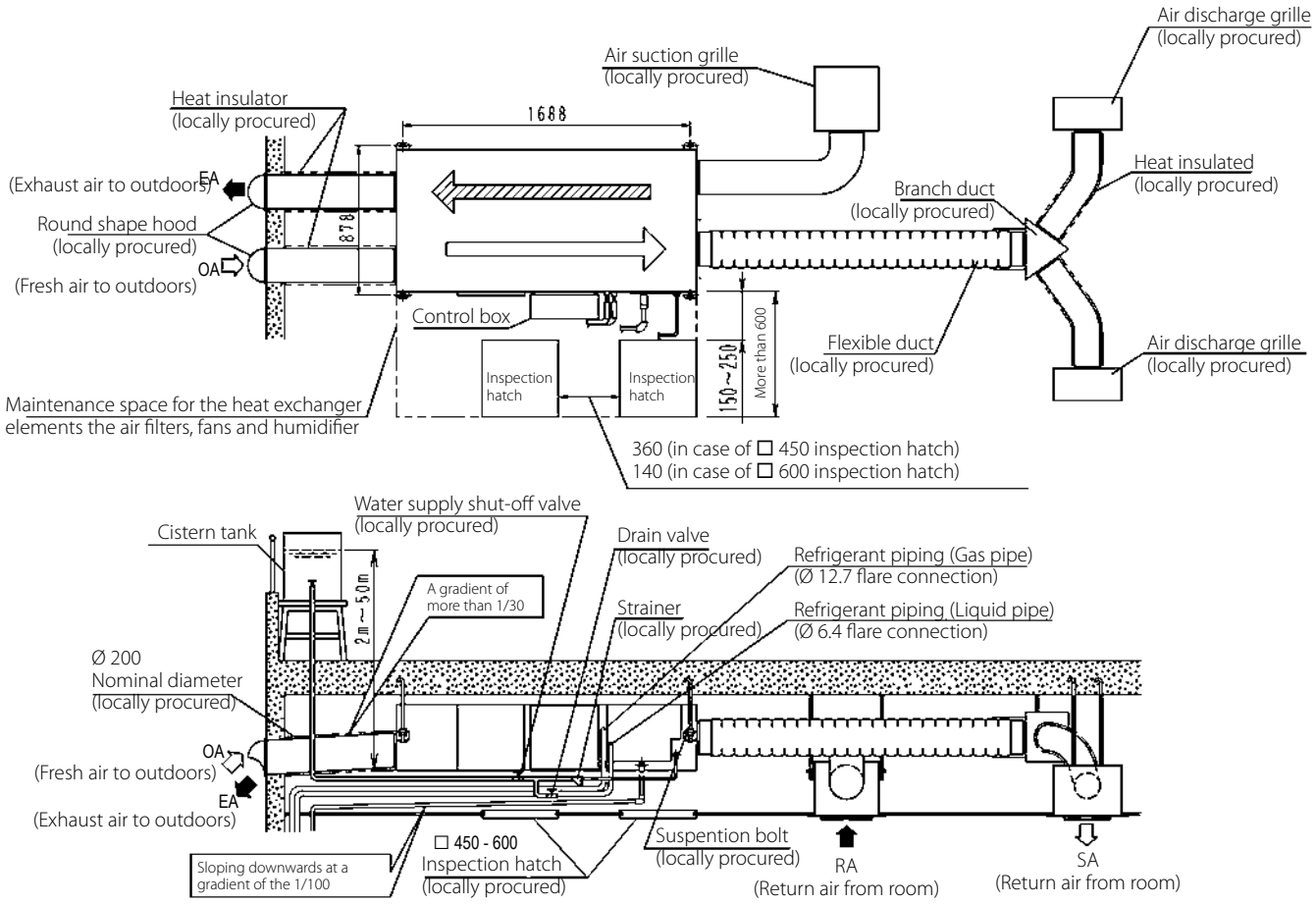
Ultra-high speed
High speed

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

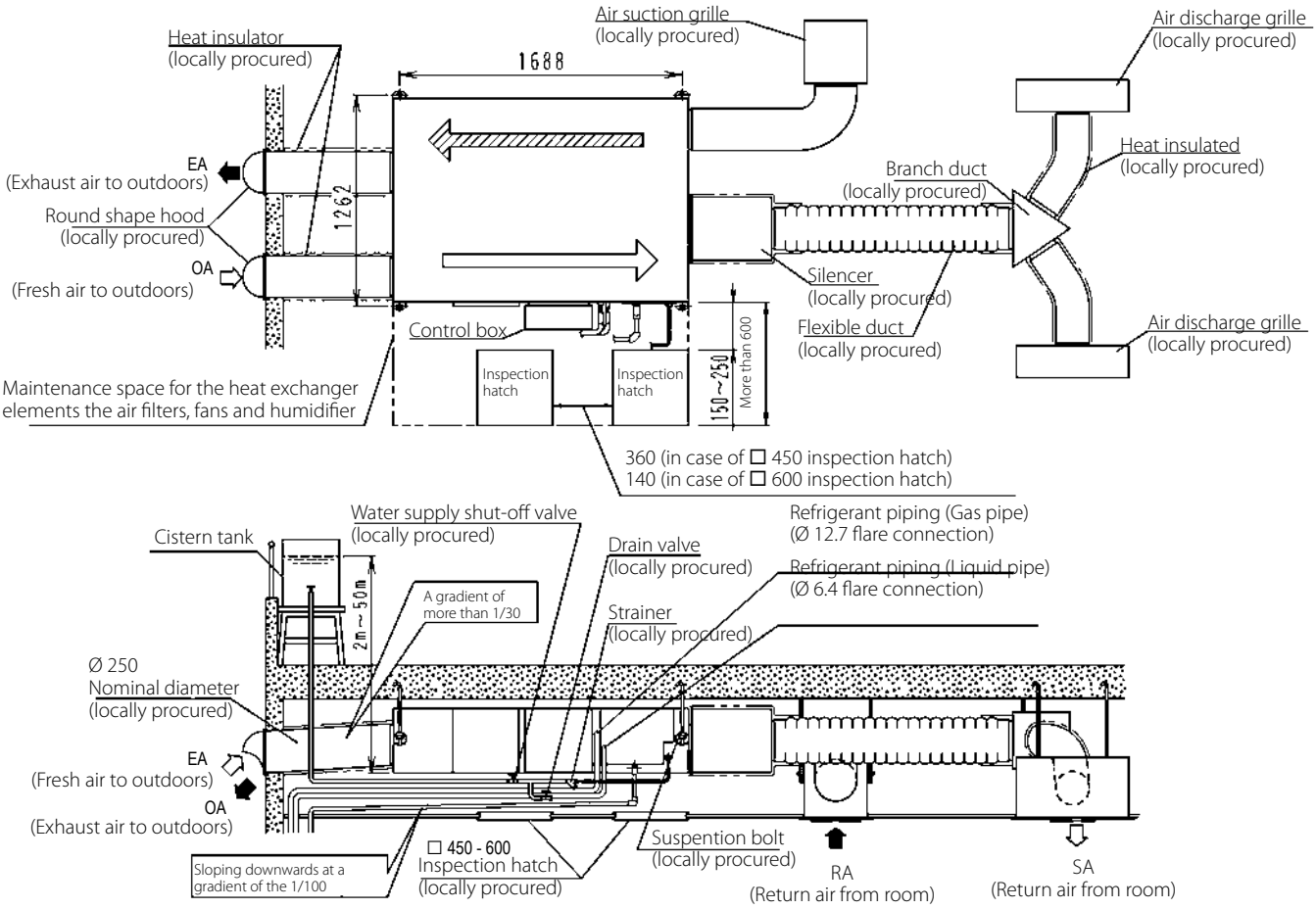
VKM50GBM



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

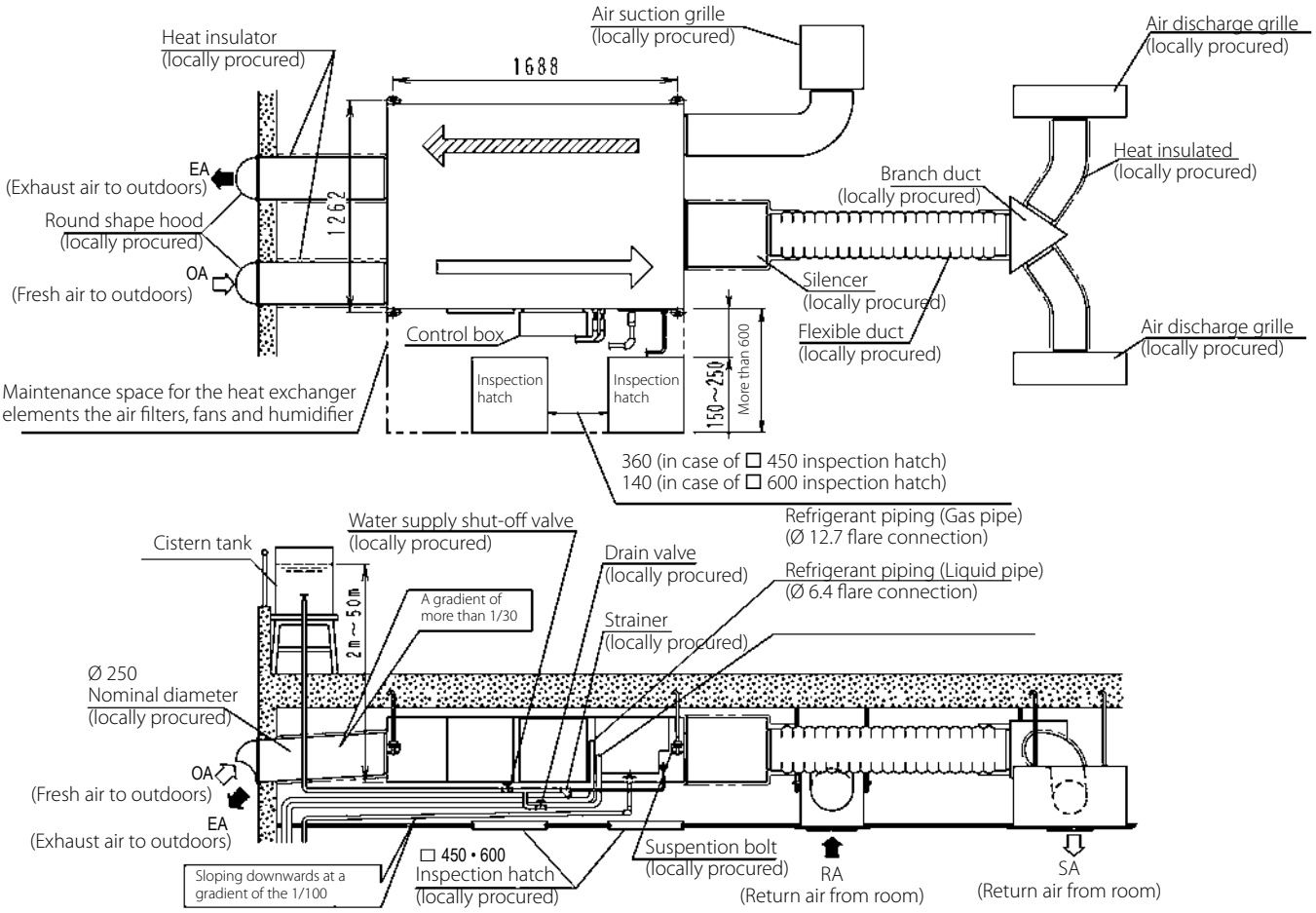


NOTES

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.
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.)

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.
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.
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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.
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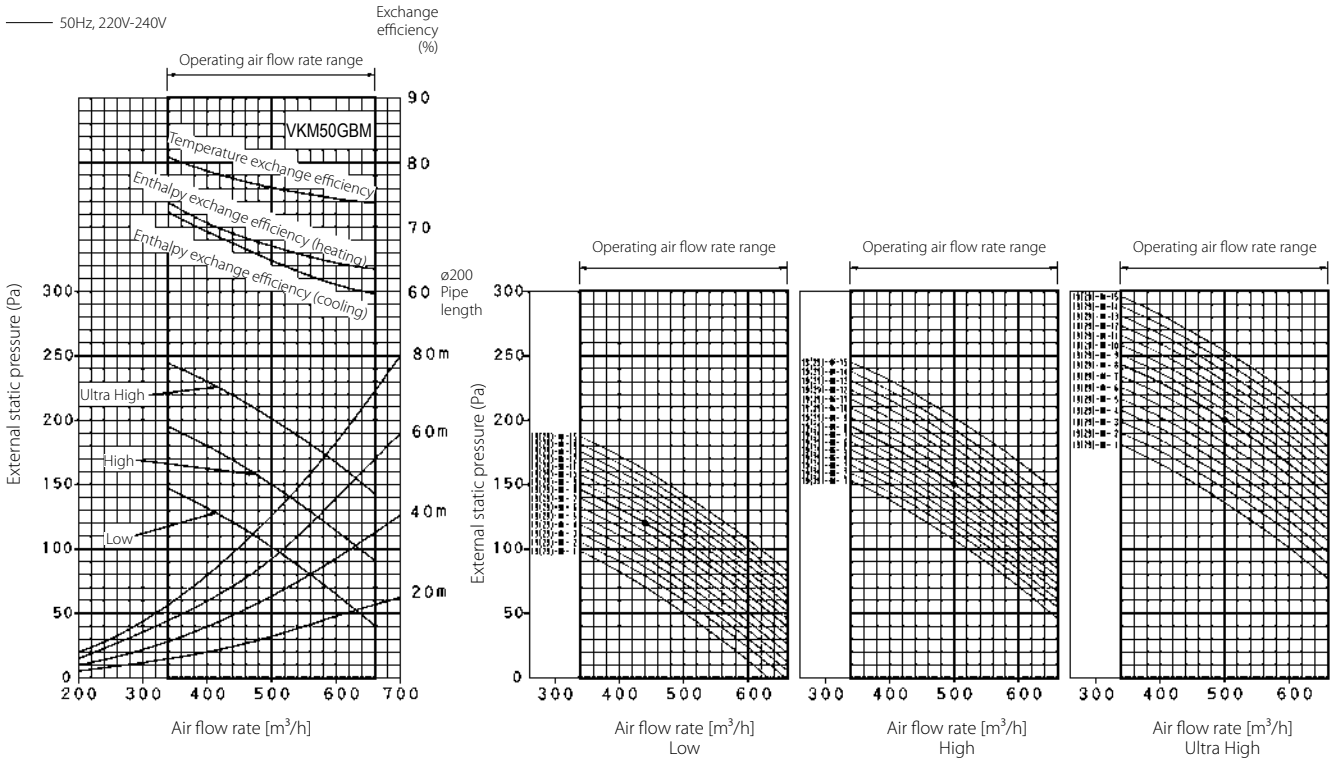
VKM50GBM

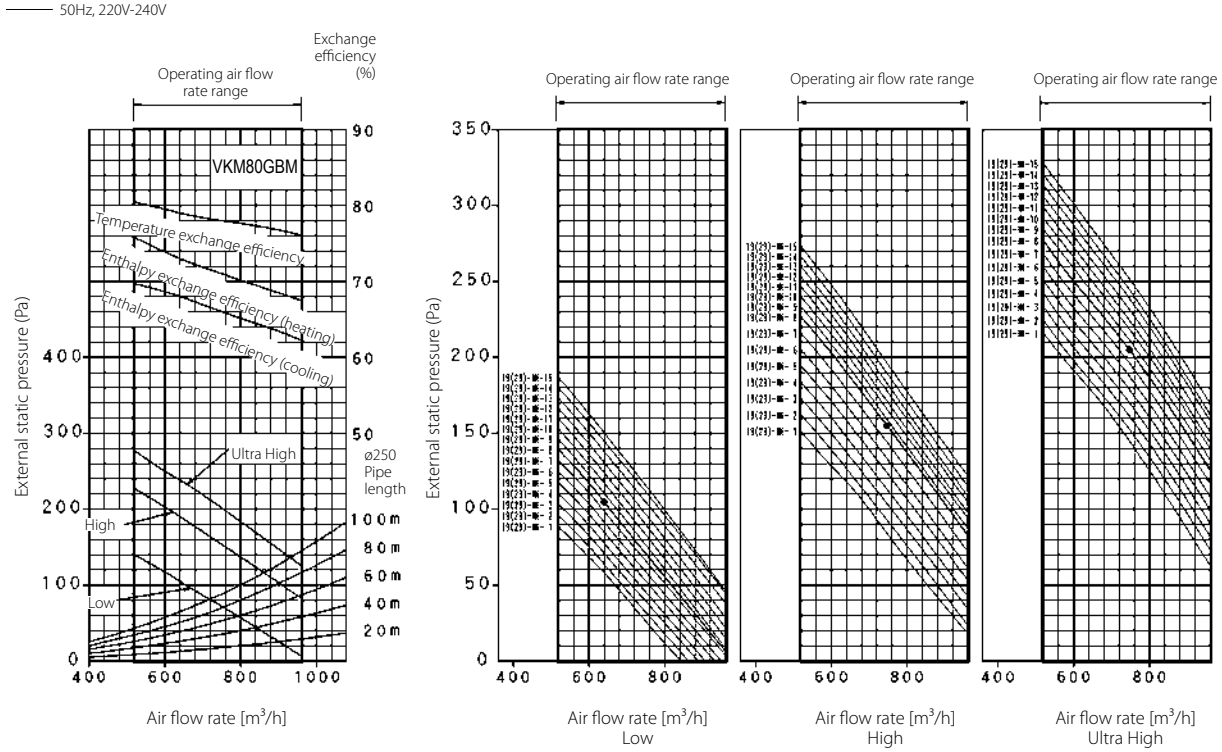


[READING OF PERFORMANCE CHARACTERISTICS]

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

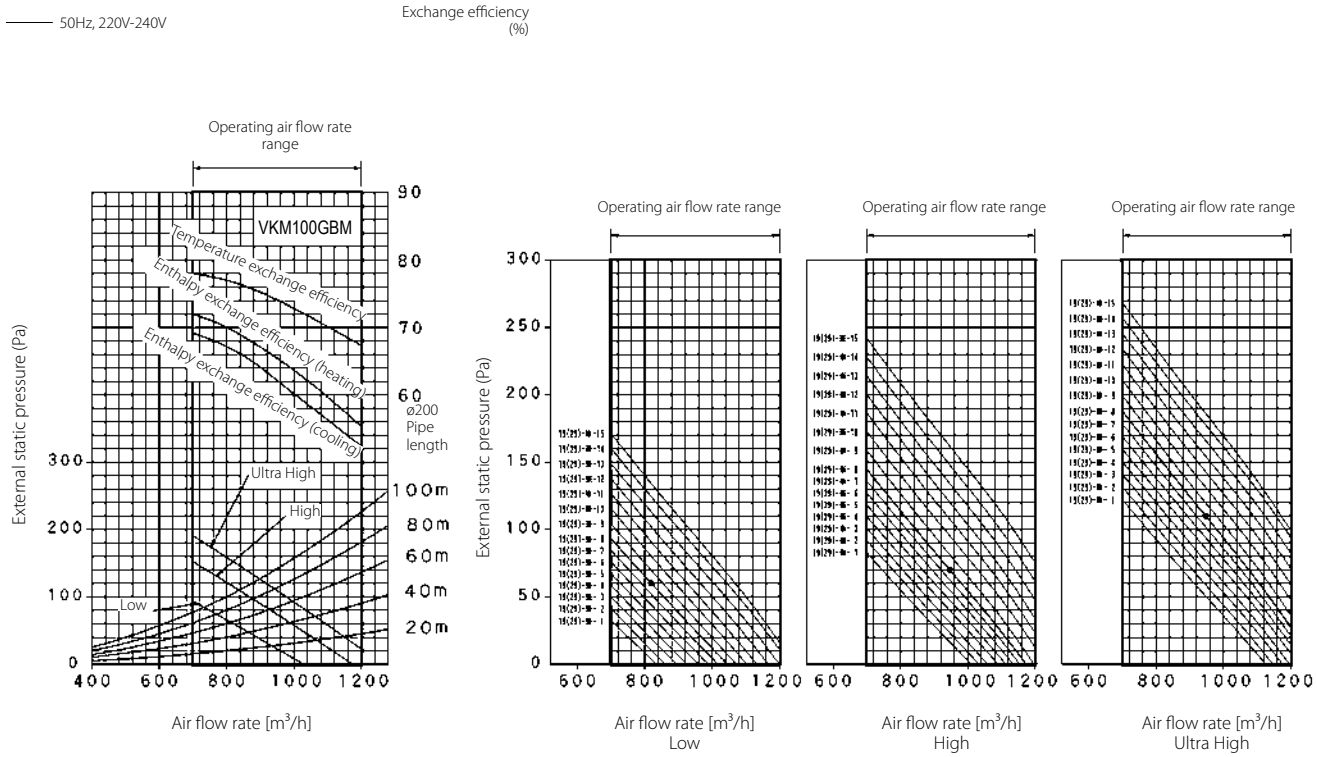


[READING OF PERFORMANCE CHARACTERISTICS]

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

VKM100GBM



[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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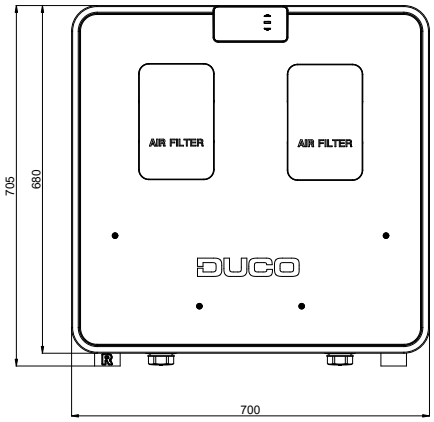
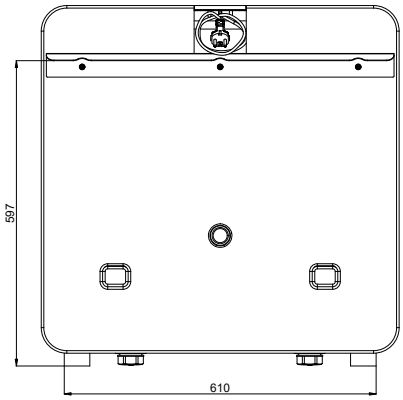
Dimensions DucoBox Energy Comfort 325/D325

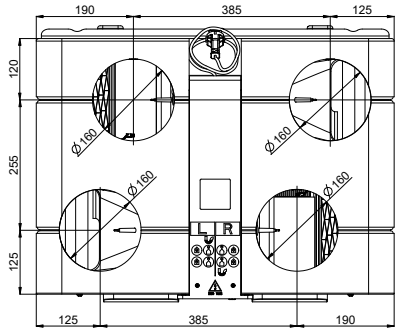
Front view



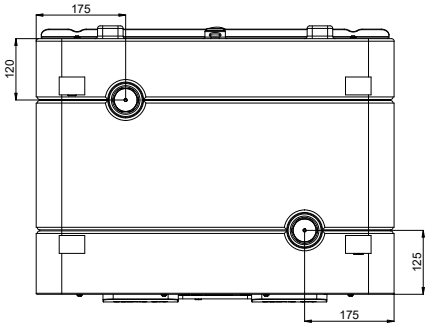
Rear view



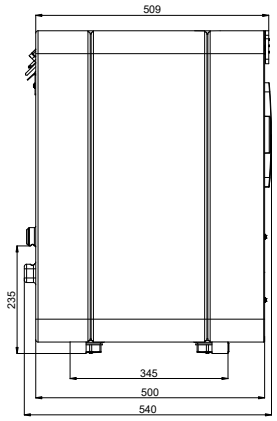
Top view



Bottom view

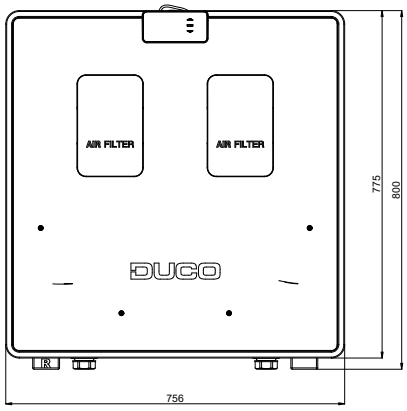


Side view

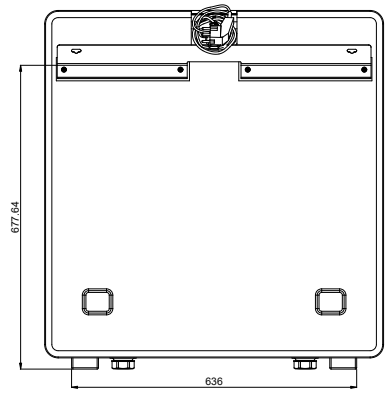


Dimensions DucoBox Energy Comfort D400

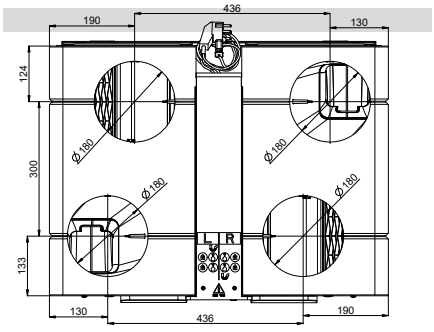
Front view



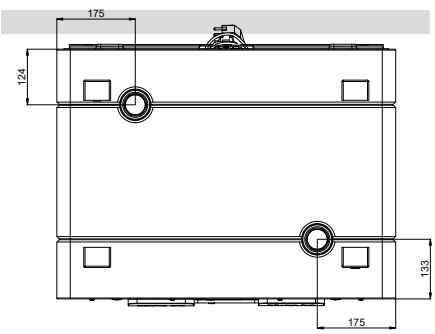
Rear view



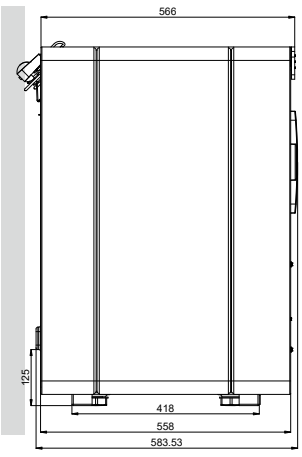
Top view



Bottom view



Side view



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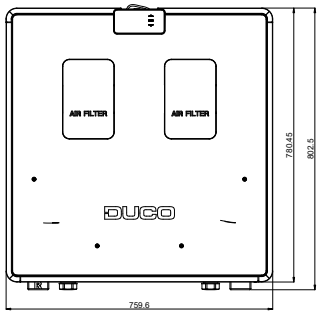
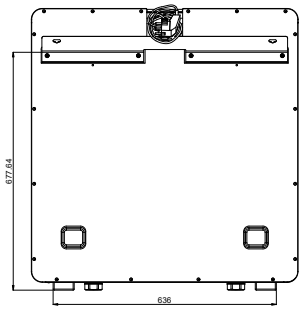
Dimensions DucoBox Energy Comfort Plus D350

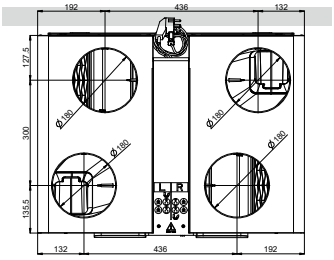
Front view



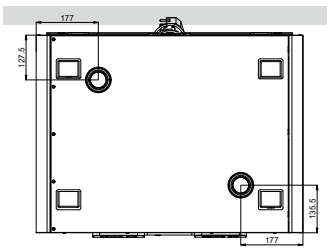
Rear view



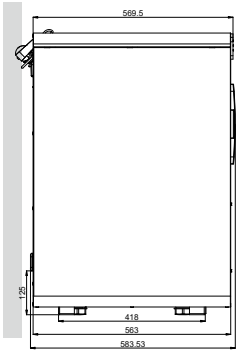
Top view



Bottom view

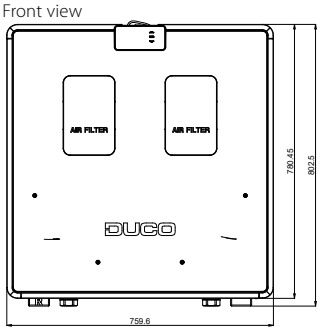


Side view

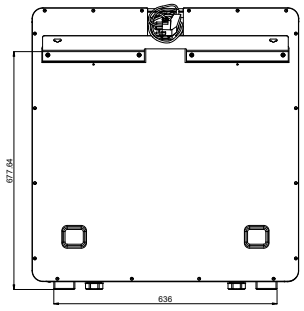


Dimensions DucoBox Energy Comfort Plus D450

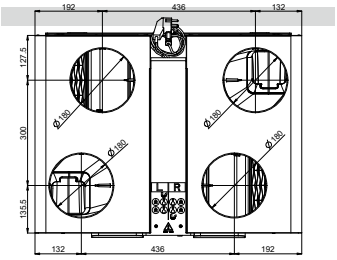
Front view



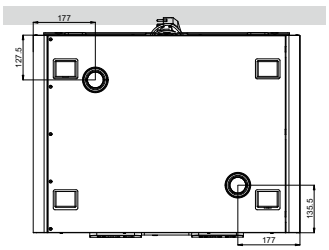
Rear view



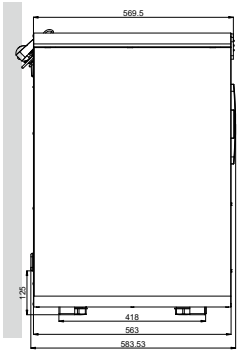
Top view



Bottom view

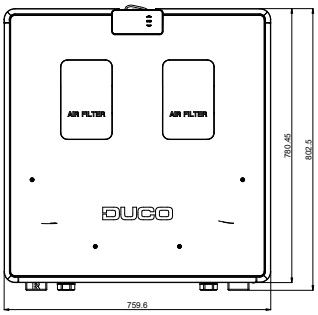


Side view

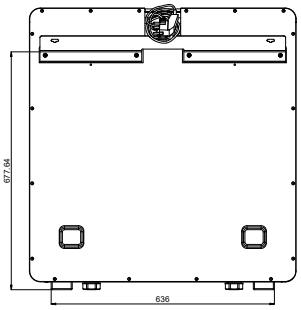


Dimensions DucoBox Energy Comfort Plus D550

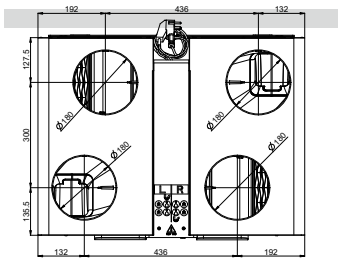
Front view



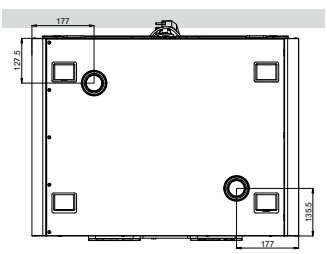
Rear view



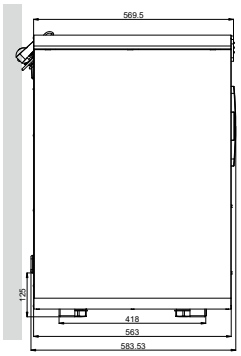
Top view



Bottom view



Side view



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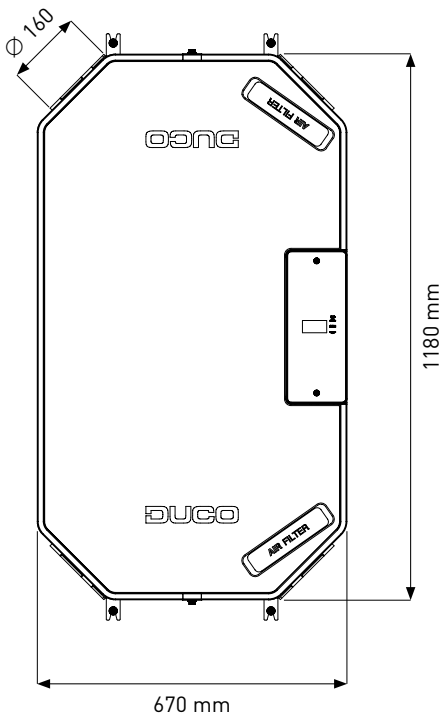
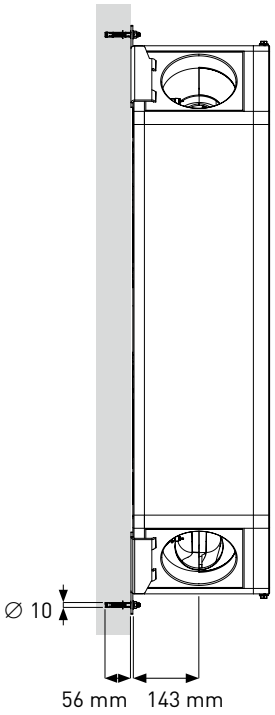
Dimensions DucoBox Energy Sky D275

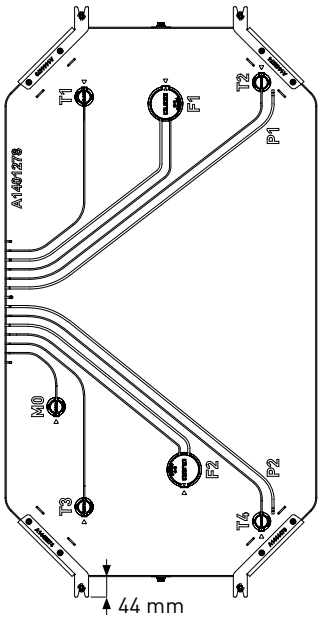
Front view



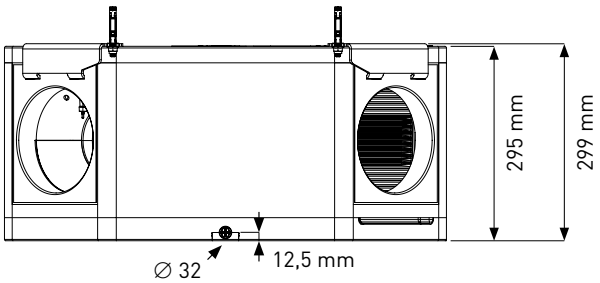
Side view



Rear view



Top view

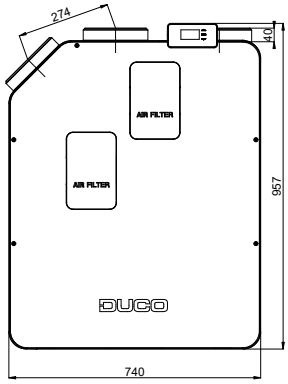


Click here to view all DucoBox Energy Premium technical drawings on my.daikin.eu

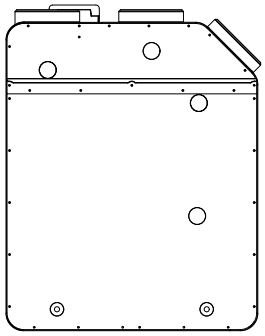
Dimensions DucoBox Energy Premium 325 - 400

Left model

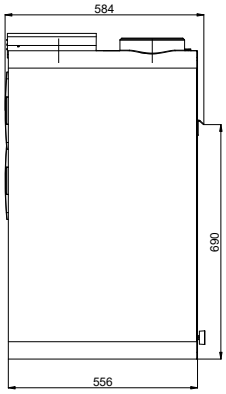
Front view

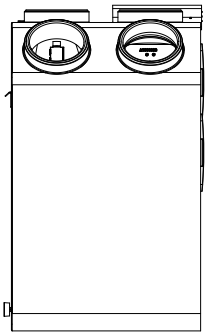


Rear view

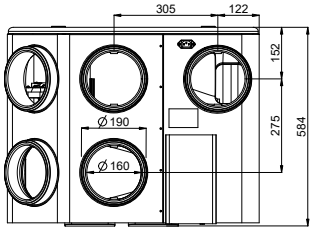


Side view

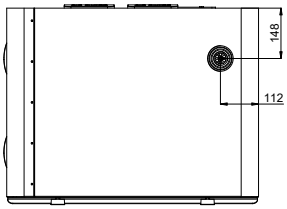




Top view

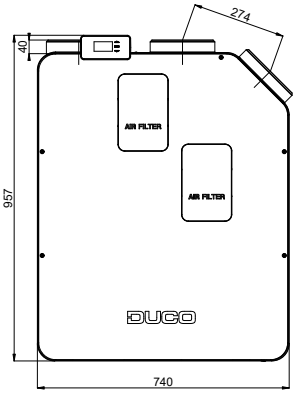


Bottom view

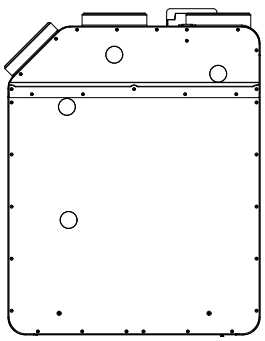


Right model

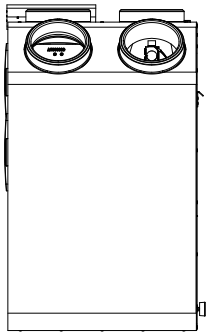
Front view

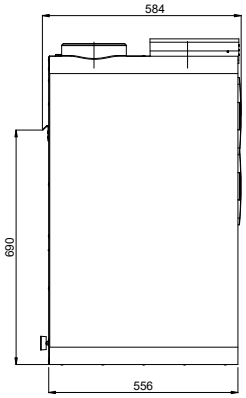


Rear view

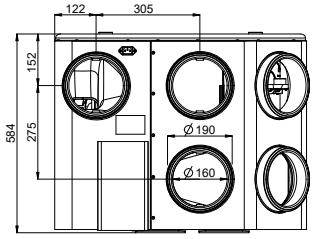


Side view

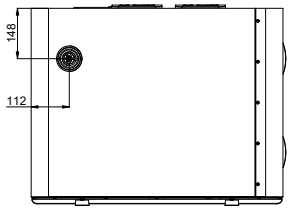




Top view



Bottom view



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