

Residential ventilation



Table of contents

- Introduction 3**
 - Why DUCO 3
 - Only at Daikin 3

- DucoBox Energy Comfort 4**
 - First choice for project construction 4
 - Total ventilation package 5
 - Technical specifications 7
 - Dimensions 9

- DucoBox Energy Premium 10**
 - DucoBox Energy Premium in the spotlight 10
 - Two-zone ventilation system 12
 - Technical specifications 13
 - Dimensions 15

- DucoFlex 16**
 - Complete air duct system for Centralized HRV ventilation 16

- Material list 18**

Why DUCO?

DUCO offers end-to-end solutions

One-stop-shop for your end-to-end ventilation solution

Duco systems from Daikin offer a complete range of Centralized Heat Recovery Ventilation (CHRV) units, ducts & accessories.

Smart demand control

The room is only ventilated when necessary and in the correct amount. CO₂ concentration and air humidity are used as indicators. This helps avoiding unnecessary heat loss while guaranteeing an optimal indoor climate.

One of the quietest systems

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

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

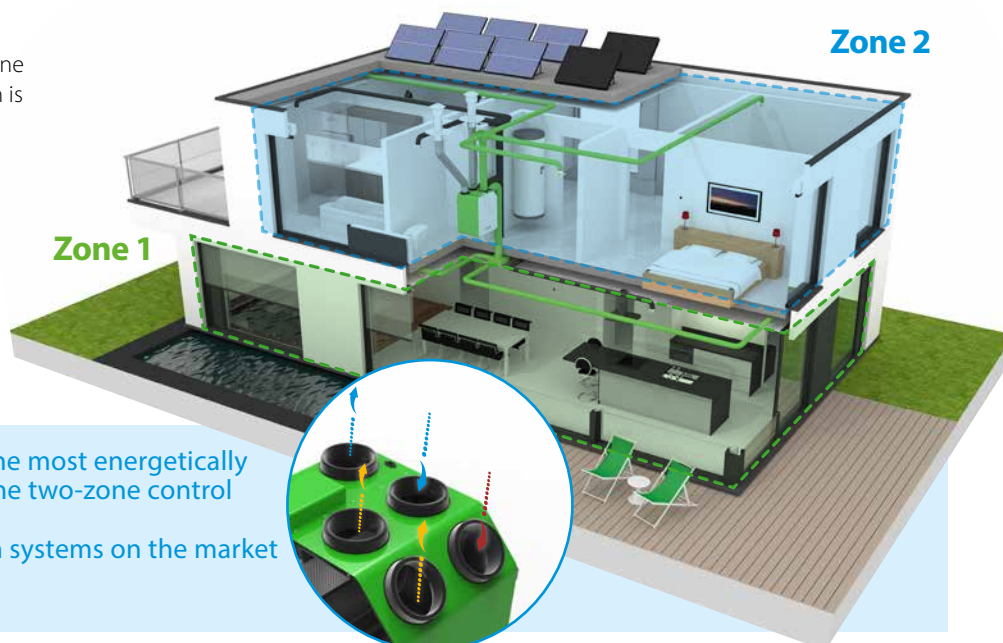
The combination of dynamic air distribution filters and high performance heat exchangers result in very high efficiency ratio.

Only at Daikin

Thanks to DUCO, Daikin offers Centralized HRV systems with an integrated two-zone valve. With the two-zone version of the DucoBox Energy Premium, Daikin's product range is extended with a unique ventilation system with embedded two-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 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.



- ✓ Optimal indoor air quality in the most energetically optimised manner thanks to the two-zone control
- ✓ One of the quietest ventilation systems on the market
- ✓ Automatic calibration

DucoBox Energy Comfort



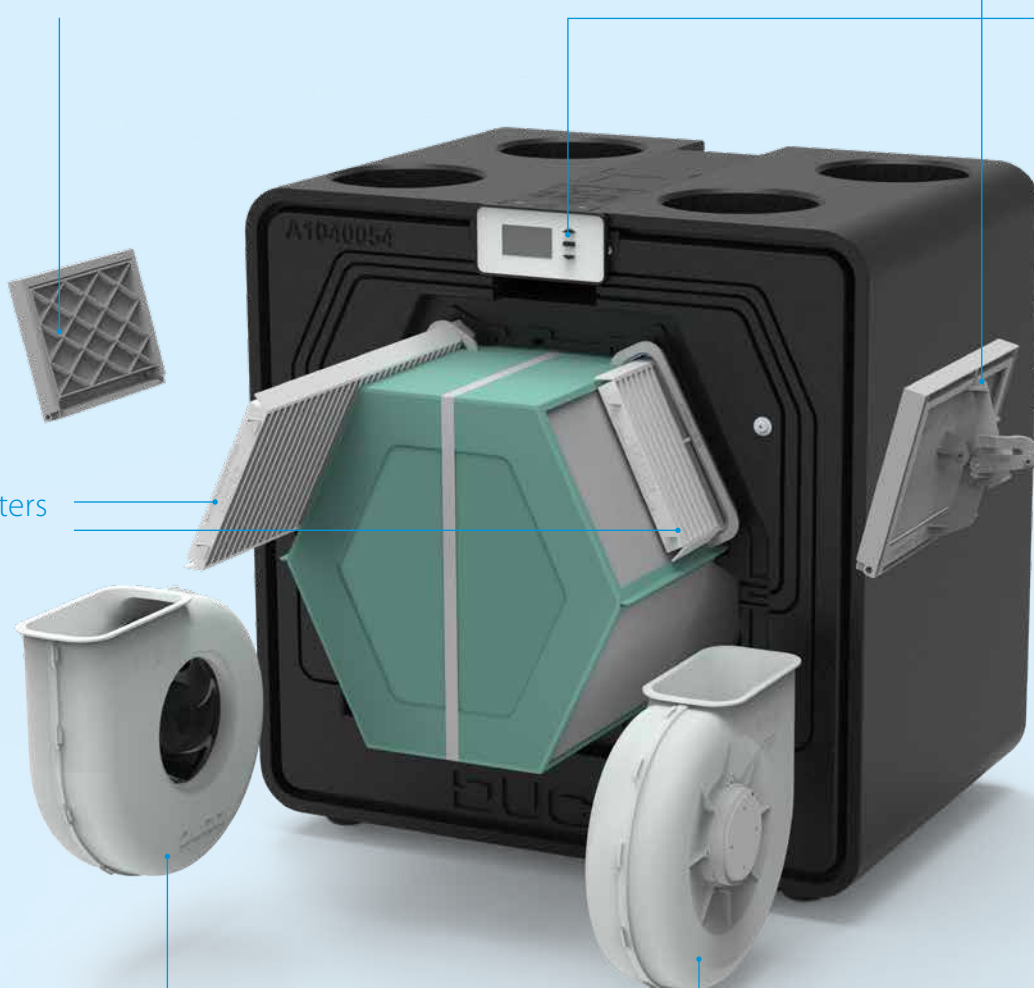
Making life easy for installers

- ✓ Patented principle of double bypass

- ✓ Dynamic Airflow Filters

For maximum efficiency.

- ✓ Low power consumption due to energy-efficient EC motors



First choice for building projects

With its adjustable capacity of up to 325 m³/h, this smart and silent ventilation unit is the ideal solution for apartments and houses due to its compact size.

The left/right switch is 100% software-driven, thanks to the patented principle of double bypass. The dynamic air distribution filters, together with the smart demand control based on CO₂ and humidity, ensure exceptional efficiency within this compact unit.

✓ 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: 705 x 700 x 525 mm



This lightweight unit of 21kg, can easily be installed by one person. With its compact dimensions, the unit is ideal for a small technical space.

✓ Smart copy function

Thanks to a 'copy' function integrated on a software level, the installer can 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.

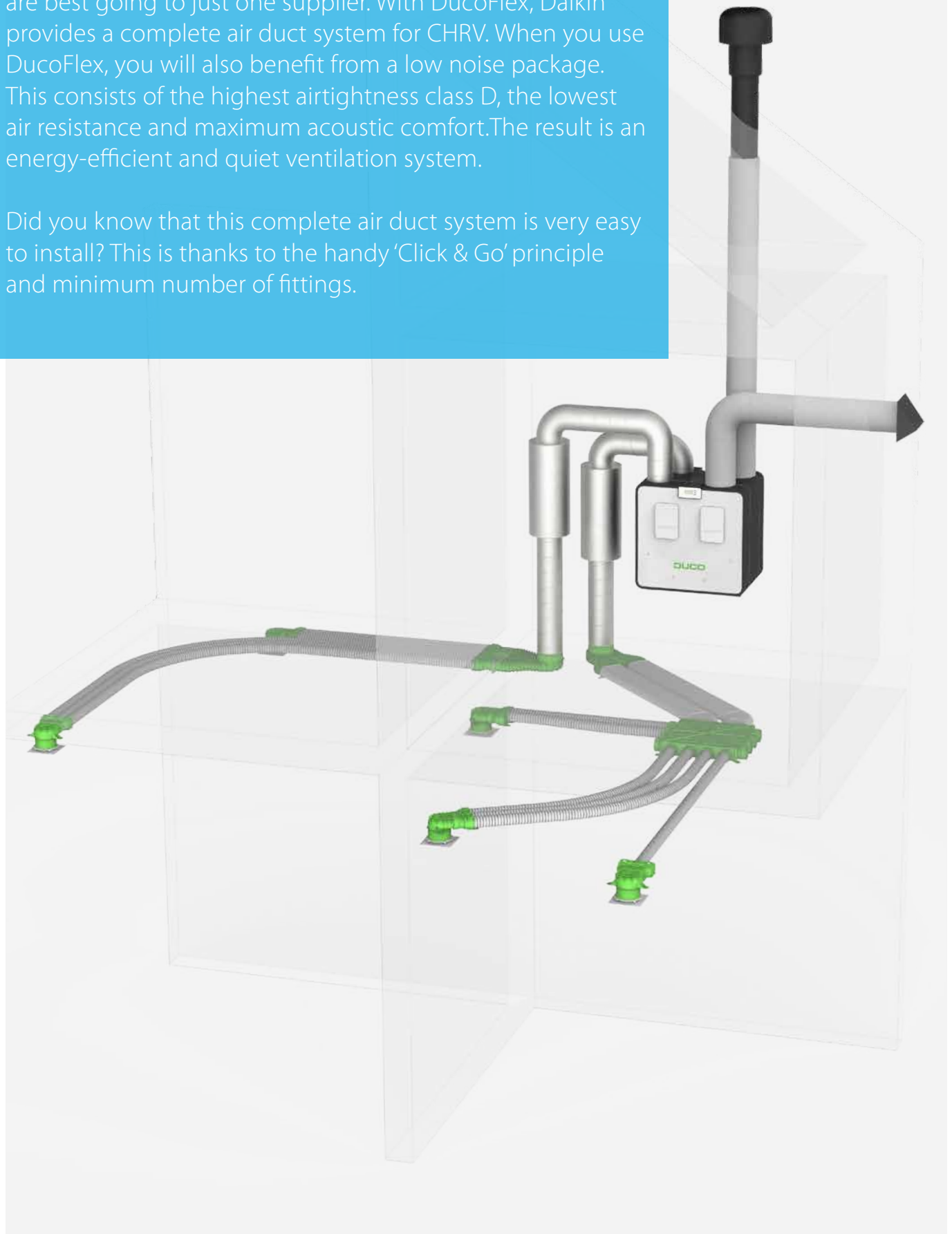
✓ Smart demand control based on CO₂ and/or humidity measurement



Total ventilation package

Are you looking for a total ventilation package? Then you are best going to just one supplier. With DucoFlex, Daikin provides a complete air duct system for CHRV. When you use DucoFlex, you will also benefit from a low noise package. This consists of the highest airtightness class D, the lowest air resistance and maximum acoustic comfort. 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.



DucoBox Energy Comfort 325

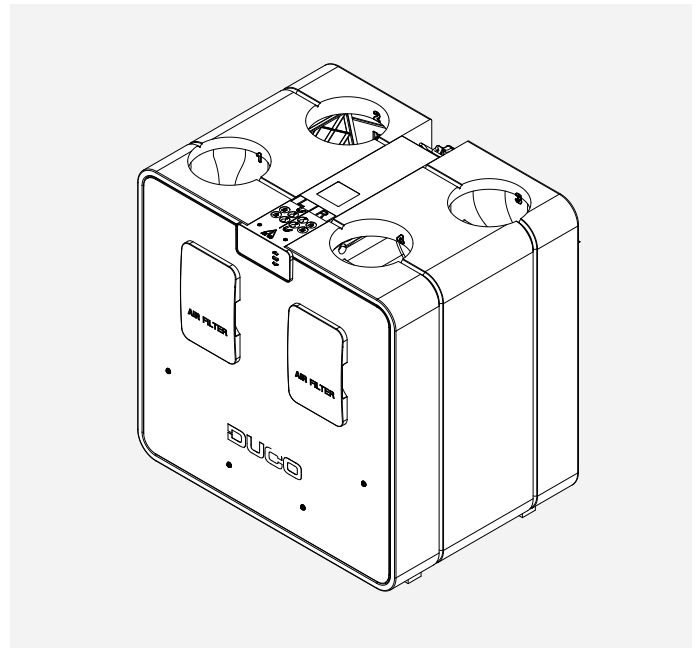
The DucoBox Energy Comfort is a compact and light mechanical ventilation unit with heat recovery. With a capacity of up to 325 m³/h, this is the balanced ventilation solution for apartments and serial housing construction.

The **demand control** of the DucoBox Energy Comfort results in intelligent and energy-efficient operation.

Together with the **smart demand control** based on CO₂ and humidity, the dynamic air distribution filters ensure exceptional efficiency within this compact unit.

The **left/right switch** is carried out 100% by software thanks to a patented principle of double bypass.

Moreover, this lightweight unit weighs just 21 kg. In other words: it is easy to install by one person. The **automatic configuration** ensures the device can be installed quickly and professionally.



Versions

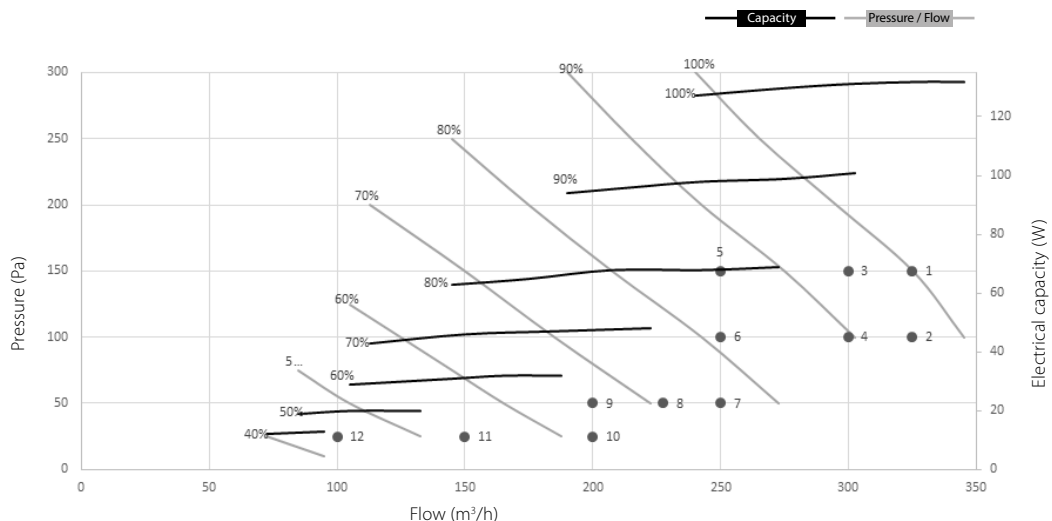
Type	Supply / Extract Airflow Rate at 150 Pa	Frost protection	Reference number
DucoBox Energy Comfort 325	325 m ³ /h	Imbalance*	00004591

* Supply flow rate slows down so that more warm air passes across the heat exchanger to prevent freezing up.

Optional accessories

Product	Reference number
Siphon flat	00004376
Communication Print*	00004251
Humidity Box Sensor	00004545
Filter set 2 x Coarse 65%	00004547

* Optional PCB to communicate via Modbus, PWM-IN / PWM-OUT, 3 x Switch Sensor (volt-free input), Ethernet, Micro SD card slot.



DucoBox

Energy Comfort 325

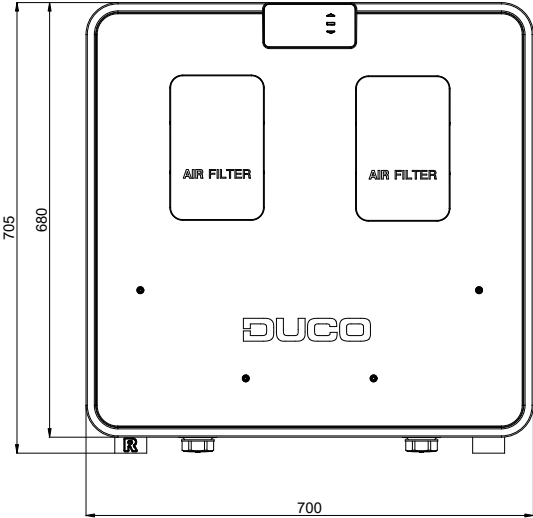
Physical Properties			
Dimensions	Height x Width x Depth	mm	705 x 700 x 525
Weight		kg	21
Casing	Coated sheet steel + EPP		
Colours	White + black		
Connections	Interior diameter: Ø 160 mm		
Condensate drain	Ø 32 mm (1 ¼") (2x)		
Heat exchanger	PET / Polystyrene		
Interior material	EPP / PP / ABS		
Power plug cable length	2 m (from top of device)		
Mounting	Wall mounting (standard) - Floor mounting optional		
Electrical Characteristics			
Maximum electrical capacity 325 m³/h at 150 Pa	111.5W		
Power supply	230 V, 50 Hz via 3-core power cable with earthed plug		
Plugs	0-10 V in/outputs		
Motor type	DC		
IP class	IP40		
Efficiency	91.1 % (EN 13141-7)		
Miscellaneous			
Energy Class	With 2 sensors: A+. Others: A		
Filters	Supply air: Standard: ISO 16890 Coarse 65 % (= G4) Exhaust air: Standard: ISO 16890 Coarse 65 % (= G4)		
Summer bypass	Full (100% modulating)		
Frost protection	Imbalance		
Fans	EC fan with curved blades		
Automatic configuration	Yes (constant pressure)		
Constant flow control	Yes		
Controls	Integrated display Use via control switches and room sensors Optionally via smartphone / tablet (if communication print in device*)		
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		

* Optional PCB to communicate via Modbus, PWM-IN / PWM-OUT, 3 x Switch Sensor (volt-free input), Ethernet, Micro SD card slot.

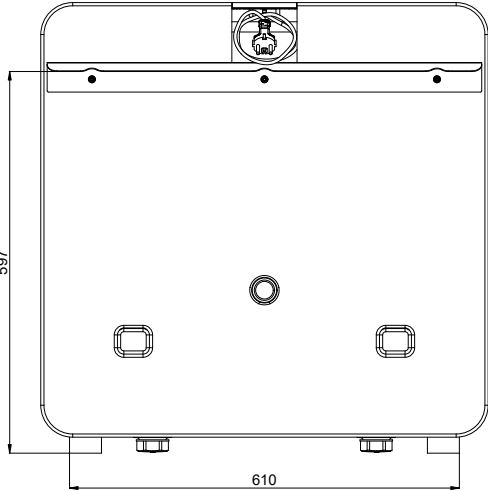
Measurement #	Flow Qv m³/h	Pressure Pa	Rated input P W	SFP Wh/m³	Sound level Lw*		
					Supply dB(A)	Exhaust dB(A)	Sound power level dB(A)
1	325	150	131	0,40	69	58,5	63
2	325	100	115	0,35	69	59	62
3	300	150	113	0,38	67,5	57,5	62
4	300	100	96	0,32	66,5	56	61
5	250	150	82	0,33	65	55	60
6	250	100	71	0,28	63,5	54,5	58,5
7	250	50	59	0,24	62,5	53	56
8	227,5	50	49	0,22	60	49	55
9	200	50	40	0,20	58,5	50	53
10	200	25	35	0,18	57,5	48,5	51,5
11	150	25	23	0,15	52	41,5	47
12	100	25	15	0,15	47,5	39,5	42

* Sound power level measured in accordance with ISO 3741: 2010. Supply and exhaust sound level according to ISO 5135: 1997 (with channel correction)

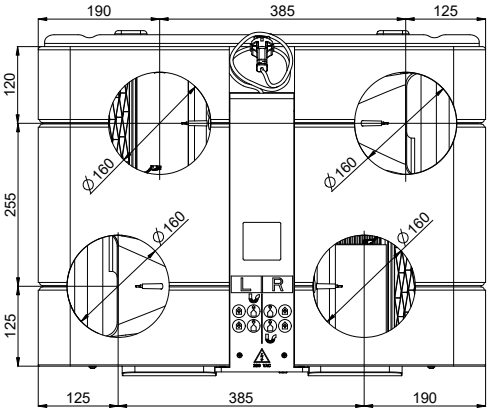
Front view



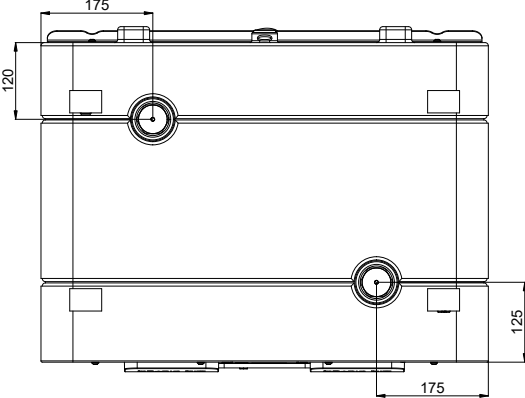
Rear view



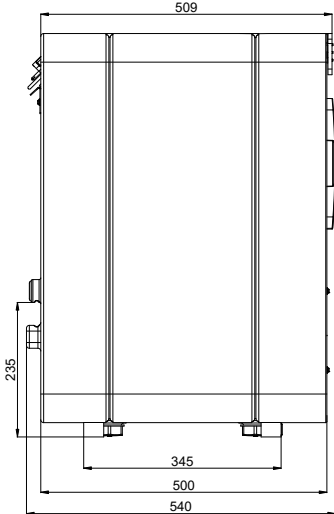
Top view



Bottom view



Side view



DucoBox Energy Premium

This CHRV with heat recovery is ideal for installation in an energy-neutral home. The automatic calibration and integrated two-zone control with versions demand control ensure ultra-quiet, intelligent and energy-saving operation.



Distinguishing features

- › **Demand-controlled** balanced system with **heat recovery**
- › One of the **lowest** sound power (air supply) in the market
- › Patented **two-zone control** guarantees maximum energy efficiency (60.5 W)
- › 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 & pressure sensors



- ✓ Heat exchanger for maximum efficiency

- ✓ One of the quietest CHR V solutions

- ✓ Automatic calibration

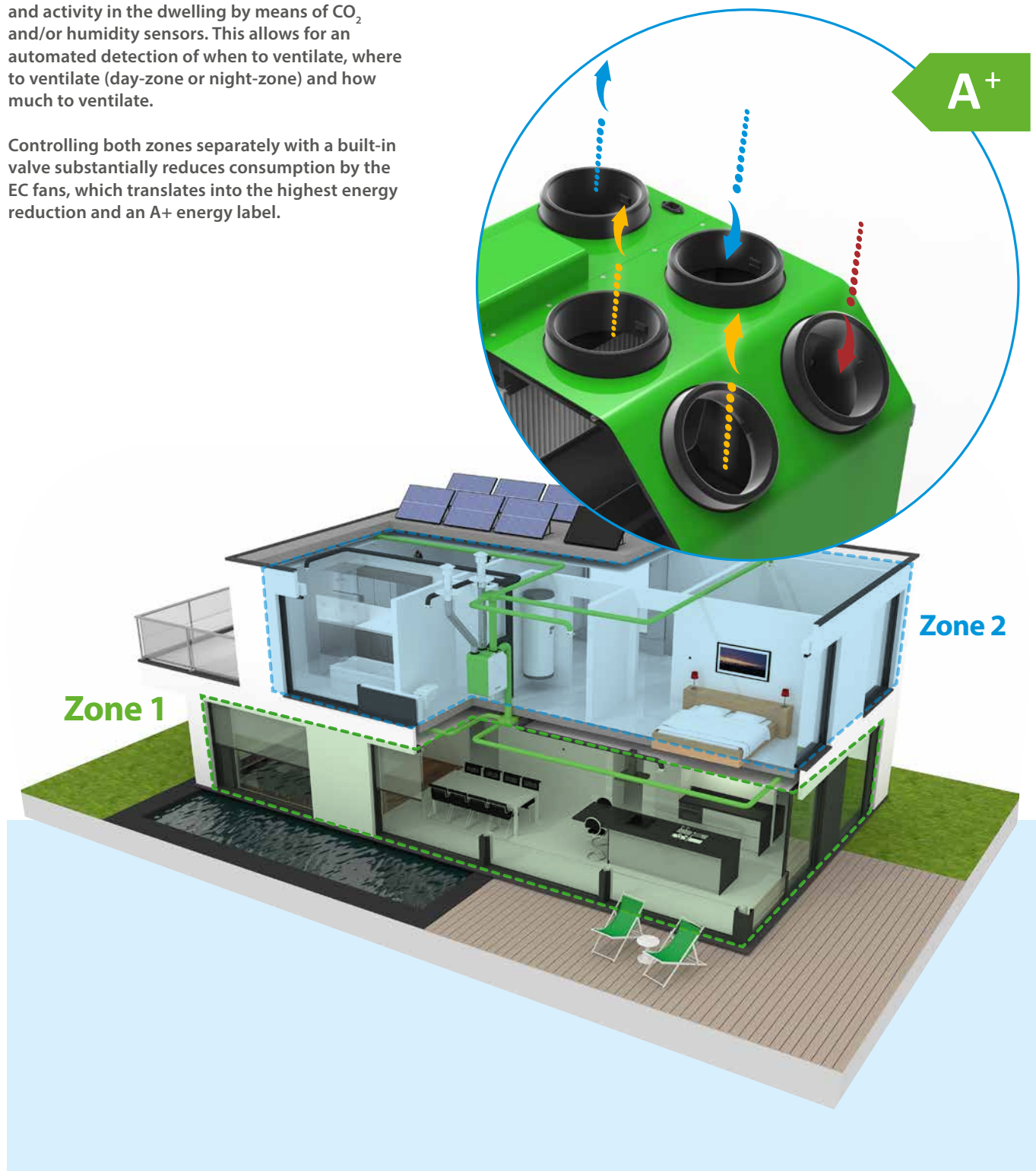
The automatic calibration, based on the principle of constant pressure, allows for a very fast and accurate calibration. This efficiently reduces set-up time to 50%! saving you time and money.



Two-zone ventilation system

Sensors closely monitor the occupant's presence and activity in the dwelling by means of CO₂ and/or humidity sensors. This allows for an automated detection of when to ventilate, where to ventilate (day-zone or night-zone) and how much to ventilate.

Controlling both zones separately with a built-in valve substantially reduces consumption by the EC fans, which translates into the highest energy reduction and an A+ energy label.



DucoBox Energy Premium 325 - 400

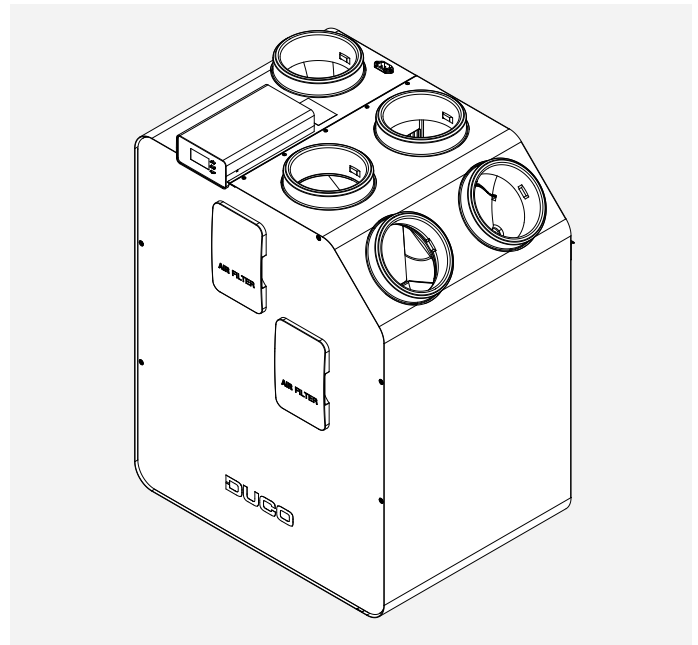
The DucoBox Energy Premium is a mechanical ventilation unit with heat recovery. It mechanically supplies fresh air to the house and mechanically extracts contaminated air from it with the help of integrated fans. During this process, the heat is recovered from the extracted air and transferred to the supplied air.

The **smart demand control** of the DucoBox Energy Premium results in quiet, intelligent and energy efficient operation.

Control components can be paired with the DucoBox Energy Premium (= master unit), which features a **100% bypass function** and constant flow.

The **automatic calibration** ensures the device can be installed quickly.

The DucoBox Energy Premium is available as **both a one-zone and a two-zone variant**, with the latter providing even quieter and more energy-efficient operation.



Versions

Type	Supply / Extract Airflow Rate at 150 Pa	2- Zone System	Frost protection	Orientation	Reference number
DucoBox Energy Premium 325	325 m ³ /h	No	Imbalance*	Left	00004456
				Right	00004460
		Yes		Left	00004458
				Right	00004462
DucoBox Energy Premium 400	400m ³ /h	No		Left	00004464
				Right	00004468
		Yes		Left	00004466
				Right	00004470

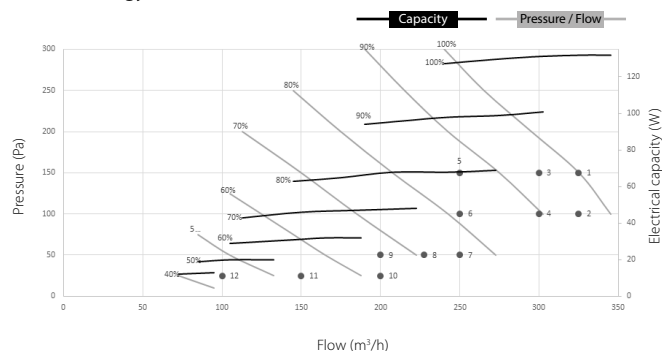
* Supply flow rate slows down so that more warm air passes across the heat exchanger to prevent freezing up.

Optional accessories

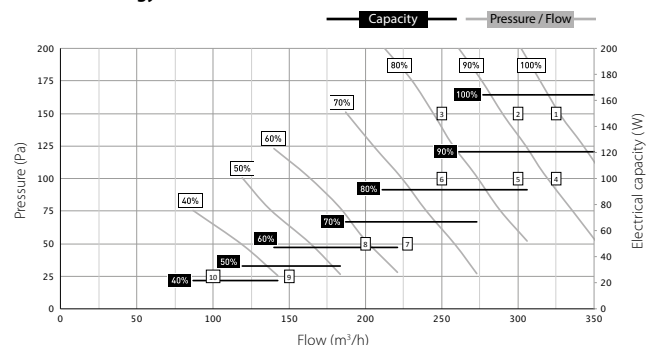
Product	Reference number
Siphon flat	00004376
Communication Print*	00004251
Humidity Box Sensor	00004374

* Optional PCB to communicate via Modbus, PWM-IN / PWM-OUT, 3 x Switch Sensor (volt-free input), Ethernet, Micro SD card slot.

DucoBox Energy Premium 325



DucoBox Energy Premium 400



DucoBox

Energy Premium 325 - 400

Physical Properties			
Dimensions	Height x Width x Depth	mm	957 x 740 x 585
Weight		kg	47
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		
Power plug cable length	2 m (connected at the top side of the unit)		
Mounting	Wall mounting (standard) - Floor mounting optional		
Electrical Characteristics		325	400
Maximum electrical capacity at 150 Pa		120 W (2 x 60 W)	183 W (2 x 91,5 W)
Power supply	230 V, 50 Hz via 3-core power cable with earthed plug		
Plugs	0-10 V in/outputs		
Motor type	DC		
IP class	IP40		
Efficiency		89.0% (EN 13141-7)	88.0 % (EN 13141-7)
Miscellaneous			
Energy Class	With 2 sensors: A+. Others: A		
Filters	Supply air: Standard: ISO 16890 Coarse 65 % (≈ G4) Supply air: Optional: ISO 16890 ePM1 70% (≈ F7) Exhaust air: Standard: ISO 16890 Coarse 65 % (≈ G4)		
Summer bypass	Full (100% modulating)		
Frost protection	Imbalance		
Fans	EC fan with curved blades		
Automatic configuration	Yes (constant pressure)		
Constant flow control	Yes		
Controls	Integrated display Use via control switches and room sensors Optionally via smartphone / tablet (if communication print in device*)		
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		

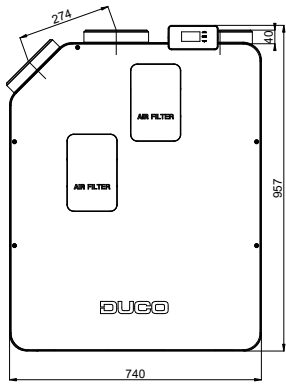
* Optional PCB to communicate via Modbus, PWM-IN / PWM-OUT, 3 x Switch Sensor (volt-free input), Ethernet, Micro SD card slot

Measurement #	Flow Qv m ³ /h		Pressure Pa		Rated input P W		SFP Wh/m ³		Sound level Lw*					
	325	400	325	400	325	400	325	400	Supply dB(A)		Exhaust dB(A)		Sound power level dB(A)	
1	325	400	150	150	118	180	0,36	0,45	52,0	52,5	54,5	57,0	51,0	55,0
2	300	350	150	150	100	135	0,33	0,39	51,0	51,0	55,0	56,0	50,0	53,5
3	250	300	150	150	80	100	0,32	0,33	46,5	51,0	48,5	55,0	48,0	50,0
4	325	400	100	100	104	159	0,32	0,40	51,0	52,0	56,5	56,5	50,5	54,5
5	300	350	100	100	93	120	0,31	0,34	48,0	51,5	52,5	55,5	50,5	51,5
6	250	300	100	100	67	93	0,27	0,31	45,0	48,0	46,5	52,5	46,0	50,5
7	227,5	280	50	50	47	68	0,21	0,24	41,0	46,0	45,5	47,0	41,5	46,0
8	200	250	50	50	37	55	0,19	0,22	39,0	44,0	44,5	46,0	40,0	43,0
9	150	200	25	50	26	37	0,17	0,19	31,0	39,0	36,0	44,5	39,5	40,0
10	100	200	25	25	16	35	0,16	0,18	28,5	36,0	35,5	40,5	39,0	40,0
11	-	150	-	25	-	26	-	0,17	-	31,0	-	36,0	-	39,5
12	-	100	-	25	-	16	-	0,16	-	28,5	-	35,5	-	39,0

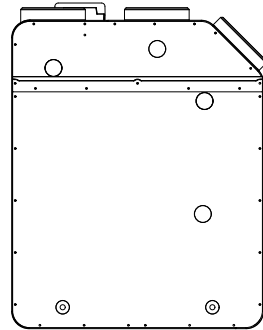
* Sound power level measured in accordance with ISO 3741: 2010. Supply and exhaust sound level according to ISO 5135: 1997 (with channel correction)

Left model

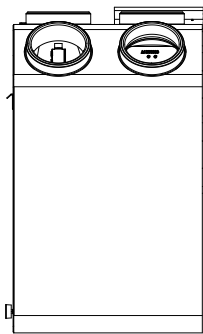
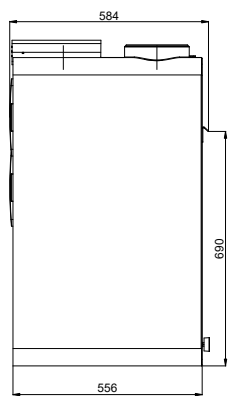
Front view



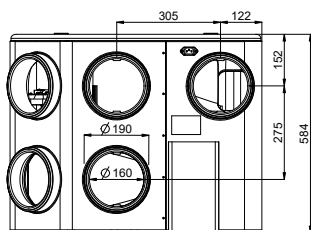
Rear view



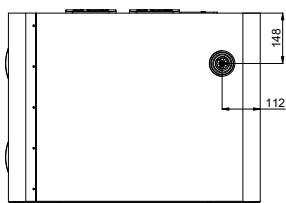
Side view



Top view

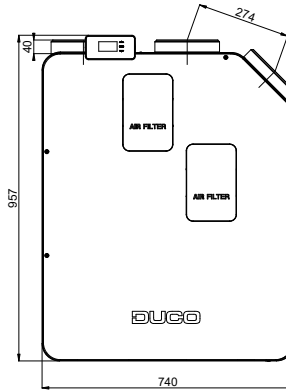


Bottom view

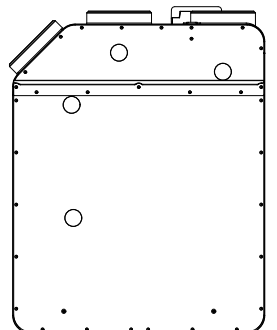


Right model

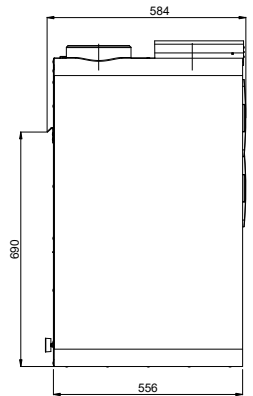
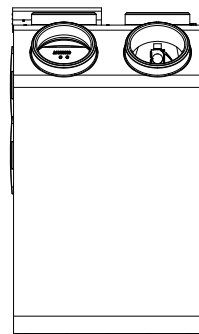
Front view



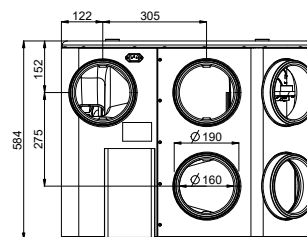
Rear view



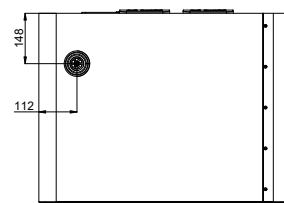
Side view



Top view

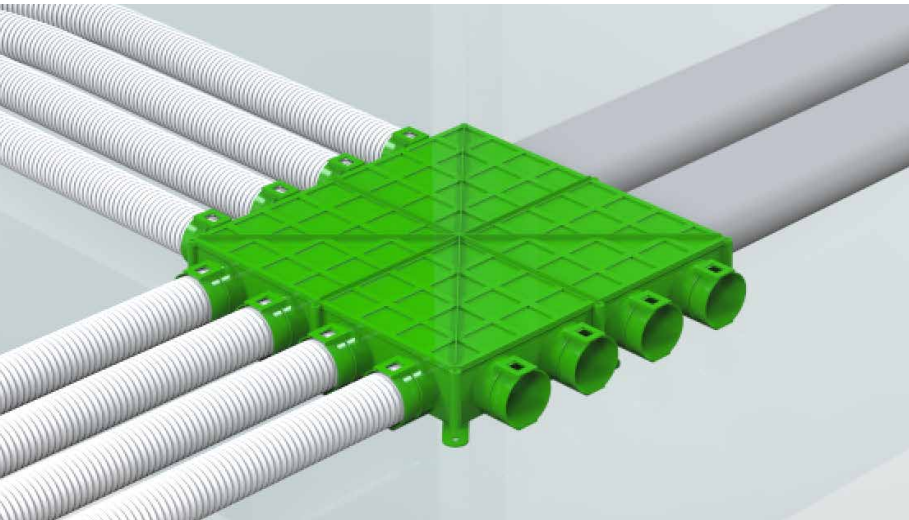


Bottom view



DucoFlex

Complete air duct system for CHRV systems



Silencers

Flexible or rigid silencers have pre-fitted connectors. Thanks to their sound-reducing properties, the DucoFlex silencers are an essential part of the low noise ductwork.



✓ Low Noise Air Ducts

- > Low air-resistance
- > Maximum comfort

✓ Complete Air Duct System

- > One solution for every type of ventilation system
- > Suitable for CHRV units

✓ 'Click & Go' system

- > Handy click system
- > Minimum parts and fittings














Insulated ducting

The range of insulated EPP and EPS ducts with a diameter of Ø160 mm or Ø180 mm are simple to connect to DUCO's air duct system. With a limited number of parts, it is easy to create a thermally insulated connection between the ventilation unit and the roof/wall feed-through.






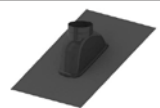




Material list

Type	Reference	Description	
CHRV	00004591	Comfort 325	
	00004456	Premium 325 / 1 Zone LEFT	
	00004460	Premium 325 / 1 Zone RIGHT	
	00004458	Premium 325 / 2 Zone LEFT	
	00004462	Premium 325 / 2 Zone RIGHT	
	00004464	Premium 400 / 1 Zone LEFT	
	00004468	Premium 400 / 1 Zone RIGHT	
	00004466	Premium 400 / 2 Zone LEFT	
	00004470	Premium 400 / 2 Zone RIGHT	

Category	Reference	Description	Energy Comfort	Energy Premium	
Accessories	00004251	Communication print (PCB for communication via ModBus, PWM-IN/OUT, 3 x Switch Sensors, Ethernet, Micro SD)	✓	✓	
	00004376	Flat siphon	✓	✓	
	00004547	Filter set 2 x Coarse 65% (G4)	✓		
	00004416	Filter set 1 x Coarse 65% (G4) & 1 ePM1 70% (F7)		✓	
	00004417	Filter set 2 x Coarse 65% (G4)		✓	
Controls	00004174	Switching contact RF / 230V	✓	✓	
	00004545	Humidity Box Sensor	✓		
	00004374	Humidity Box Sensor		✓	
	00004600	User controller RF / BAT Wireless White	✓	✓	
	00004602	User controller RF / BAT Wired White	✓	✓	
	00004604	CO ₂ sensor + controller RF / Wired white	✓	✓	
	00004606	Humidity sensor + controller RF / Wired white	✓	✓	
	00004637	CO ₂ sensor without command RF / Wired white	✓	✓	
Vents	00004178	DucoVent Basic (supply / extract)	✓	✓	

Category	Reference	Description	Energy Comfort	Energy Premium	
DucoFlex	00004552	Circular air duct D63 - 50m	✓	✓	
	00004563	Floor plenum 12 x 63 - D180	✓	✓	
	00004565	Floor plenum 12 x 63 - 2 oval	✓	✓	
	00004564	Ceiling plenum 12 x 63 - D180	✓	✓	
	00004560	Valve connector right angled 3x63 - D125	✓	✓	
	00004561	Valve connector right angled short 3x63 - D125	✓	✓	
	00004562	Adaptor 3 x 63 oval	✓	✓	
	00004608	Connector riser round 3 x 63 - D125	✓	✓	
	00004566	Connector riser round D160 - 2 oval	✓	✓	
	00004567	Oval rigid W163 x H68 - 1.15m	✓	✓	
	00004568	Oval rigid - Connection Pieces	✓	✓	
	00004609	Oval Rigid - 90° horizontal (can be split into 45°)	✓	✓	
	00004553	O-ring D63 (10 units)	✓	✓	
	00004554	Coupling D63	✓	✓	
	00004599	Duct cutter	✓	✓	
	00004569	Star Round Rigid Duct D160 - 1000mm - Insulated EPP	✓	✓	
	00004570	Star Round Rigid Duct D180 - 1000mm - Insulated - EPS	✓	✓	
	00004571	Star Elbow 90° - D160 - Insulated - EPP	✓	✓	
	00004572	Star Elbow 90° - D180 - Insulated - EPS	✓	✓	
	00004573	Star Elbow 45° - D160 - Insulated - EPP	✓	✓	
	00004574	Star Elbow 45° - D180 - Insulated - EPS	✓	✓	
	00004575	Star Connection Piece D160 - Insulated - EPP	✓	✓	

Category	Reference	Description	Energy Comfort	Energy Premium	
DucoFlex	00004576	Star Connection D180 - insulated - EPS	✓	✓	
	00004627	Wall terminal white D160	✓	✓	
	00004582	Roof terminal Compact D160 - Slate	✓	✓	
	00004578	Roof terminal D160 / D180	✓	✓	
	00004581	Roof terminal for flat roofs D160 / D180	✓	✓	
	00004579	Roof terminal tile D160/180	✓	✓	
	00004631	Silencer D160 (M/M) - 1000mm	✓	✓	
	00004632	Silencer D180 (M/M) - 1000mm	✓	✓	
	00004587	Silencer Semi Rigid D160 - 1000mm	✓	✓	
	00004588	Silencer Semi Rigid D180 - 1000mm	✓	✓	



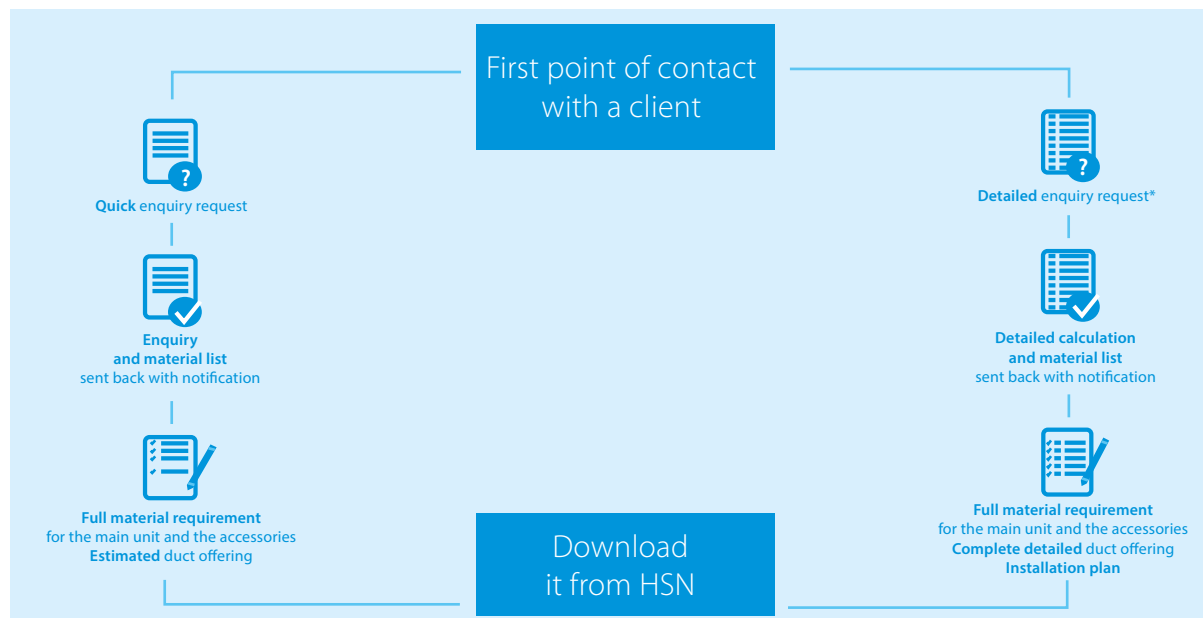
STAND BY ME

HEATING SOLUTIONS NAVIGATOR

Create customer quotes easily with the Heating Solutions Navigator

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

As an installer, you will be able to make a **quick enquiry** for DUCO units, or get a **detailed calculation** based on your customer's home plan that you will provide.



*On condition that commitment to purchase is made.

daikin.co.uk

National Heating Installer Hub: 01932 879070

Heating Services Contact Centre: 01932 879271

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