# DucoBox Energy Premium The *QUIETEST* MVHR!

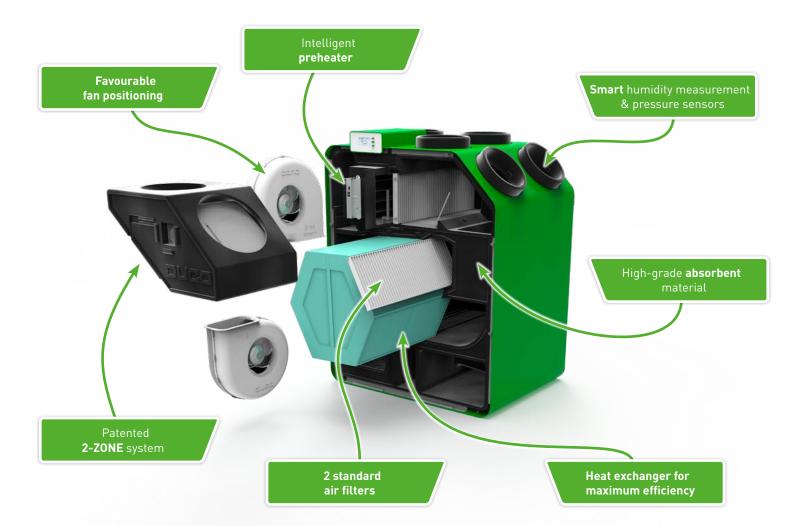


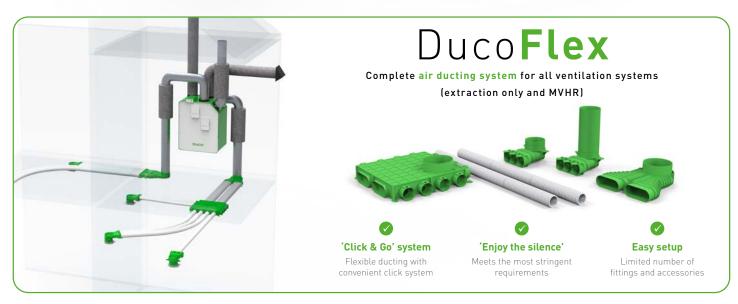


We inspire at www.duco.eu

## DUCOBOX ENERGY PREMIUM IN THE SPOTLIGHT

The **DucoBox Energy Premium** takes MVHR-systems to the next level. Ideal for installations in an "energy-neutral" or "passive" home. The unit comes with automatic calibration and an (optional) integrated 2-zone operation, based on time- or demand control ( $CO_2$  / humidity). The DucoBox Energy Premium ensures ultra-quiet, intelligent and energy-conscious operations!





#### The most quiet MVHRsolution!

The favourable positioning of the fan as well as the use of high-grade absorbent material and a steel casing guarantee a **whisper-quiet operation**, especially in the living areas where this matters most (bedrooms and living room)!

#### 2-zone control (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<sub>2</sub> or humidity measurements, thereby **significantly improving the energy efficiency**!

### AUTO 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%! This quickly means a **saving of 40€ on the installation cost** for a standard calibration!







### **Distinguishing features**

- ★ Quietest sound power (air supply) on the market
- ★ Patented 2-zone control guarantees maximum energy efficiency (60.5 W)
- ★ Automatic calibration reduces setup time by at least 50%
- ★ Modular surface mounted, all components are accessible at the front of the device
- ★ Smart communication via connection through REST API (locally or via the cloud) or Modbus TCP
- \* Generate a ventilation report immediately after calibration through the Duco Installation App

#### A DucoBox for every home

Choose the DucoBox that fits your requirement based on the following possibilities:

Ventilation capacity	Two types of units with extraction and supply (at 150 Pa): either up to <b>325 m³/h</b> , either up to <b>400 m³/h</b> .			
Zonal control	Available <b>with or without the internally integrated 2-zone valve</b> allowing 2-zone control.			
Frost protection	Via unbalance or combined with pre-heater.			
Left / right version	The <b>sloping side can be either left or right</b> (on the slope side, one finds SUP "zone 1" and ETA connection).			
Type of plug	With <b>G plug</b> [].			

## 2-ZONE VENTILATION SYSTEM

Sensors closely monitor the occupant's presence and activity in the dwelling by means of  $CO_2$  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**.



**ZONE 2** 

Discover the magic of zonal ventilation

**ZONE 1** 



duco.eu/zonal-ventilation

#### **Physical characteristics**

Width x Height x Depth (mm)	740 x 957 x 585 mm
Casing	Coated sheet steel
Colours	White + green
Connections	Internal diameter: $\varnothing$ 160 mm External diameter: $\varnothing$ 190 mm
Condensate drain	Ø 32 mm (1 ¼")
Heat exchanger	PET / Polystyrene
Material of inside section	EPP / PP / ABS
Weight	47 kg
Power cable length	2 m (to be connected to top of device)
Mounting	Wall mounting (standard) Floor mounting as an option using a support frame

#### Acoustic properties

pa	Test mode	Pa	Pa Watts	Noise level Lw*									
Fan Speed				Octave bands, Hz								Ā	a 3m
Fal				63	125	250	500	1k	2k	4k	8k	LwA	SPL @ 3m
			D	ucoB	ox En	ergy	Prem	nium 4	400				
0	Supply	300	157	75.3	61.1	58.9	56.6	47.7	43.1	33.6	26.8	57.0	39,5
100%	Extract	300	155	71.8	64.3	59.5	56.8	50.1	41.4	32.0	24.3	57.5	40
_	Breakout	300	159	55.8	55.0	54.5	56.1	47.2	42.8	35.4	29.4	54.6	37,1
	Supply	160	94	74.4	56.6	60.6	48.6	41.6	38.6	27.7	24.2	54.7	37,2
80%	Extract	150	95	67.3	61.7	63.4	54.5	42.5	38.0	28.2	23.7	57.4	39,9
	Breakout	150	99	53.2	51.6	54.1	47.7	41.4	38.4	30.3	25.2	50.3	32,8
	Supply	100	46	64.4	50.7	53.5	41.6	35.0	31.0	21.7	23.5	47.1	29,6
%09	Extract	100	48	60.9	54.5	50.6	46.2	37.9	31.4	22.3	23.7	47.3	29,8
Ũ	Breakout	100	46	45.1	44.4	48.1	41.0	36.4	31.7	24.1	24.6	43.4	25,9
	Supply	60	19.5	58.5	48.3	41.2	32.7	26.9	21.7	19.1	23.6	38.4	20,9
40%	Extract	60	20.5	56.0	52.3	44.3	38.3	29.4	22.3	19.1	23.5	41.4	23,9
	Breakout	60	20	37.2	39.3	35.4	32.9	30.3	23.4	19.7	23.2	35.1	17,6
	Supply	15	8.5	51.4	39.8	30.6	24.4	20.6	17.9	18.9	23.6	30.9	13,4
20%	Extract	15	8.5	50.4	40.7	31.9	25.1	19.9	17.3	18.6	23.4	31.0	13,5
	Breakout	15	8.5	32.7	28.9	26.1	23.1	22.2	17.2	18.6	23.1	28.0	10,5
			D	ucoB	ox En	ergy	Prem	nium (	325				
	Supply	300	108	74.7	57.5	60.7	50.8	43.0	39.4	29.7	25.6	55.3	37,8
%00	Extract	300	107	69.1	61.9	63.5	55.6	44.9	39.2	29.2	24.2	57.9	40,4
-	Breakout	300	105	53.9	50.9	54.7	50.2	43.5	40.3	32.7	25.5	51.5	34
	Supply	200	62	69.0	53.8	59.8	44.4	38.4	33.9	24.3	24.2	52.5	35
80%	Extract	200	61	62.3	57.3	56.1	48.9	40.3	34.5	24.5	24.0	51.0	33,5
0	Breakout	200	60	49.0	48.0	51.2	45.0	39.5	35.8	28.0	24.0	46.9	23,4
	Supply	100	32	61.7	48.9	50.2	37.6	31.5	26.5	20.2	23.7	43.6	26,1
90%	Extract	100	31	58.8	54.7	49.7	44.9	34.1	27.3	20.3	23.8	45.9	28,4
\$	Breakout	100	32	42.0	43.3	43.2	38.6	33.9	28.9	22.2	23.4	40.1	22,6
	Supply	40	15.5	53.2	43.8	38.2	29.4	24.6	18.8	18.7	23.1	34.9	17,4
40%	Extract	40	15	54.6	46.9	40.7	34.4	26.4	19.2	18.4	23.1	37.5	20
4	Breakout	40	16	36.0	36.2	32.4	30.4	27.8	20.8	19.2	23.2	32.7	15,2
20%	Supply	10	7.5	49.7	37.8	28.8	22.1	18.9	16.5	18.4	22.8	29.5	12
	Extract	10	7.5	51.9	41.1	31.1	24.4	20.6	16.0	17.9	22.7	31.2	13,7
2	Breakout	10	7.5	33.2	29.0	24.8	21.8	21.9	16.7	18.8	23.1	27.6	10,1

#### **Electrical characteristics**

DucoBox Energy Premium 325: 120 W (2 x 60 W)
DucoBox Energy Premium 400: 183 W (2 x 91,5 W)
1000 W
230 V, 50 Hz via 3-wire supply cable with safety plug
DC
IP40
Types 325: 89% Types 400: 88%

#### Miscellaneous characteristics

Energy class	Control factor 0.65: <b>A+</b> Other: <b>A</b>			
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 (175 x 500 x 25 mm)			
	Standard: ISO 16890 Coarse 65% (≈ G4)			
Summer by-pass	Fully (100% modulating)			
Frost protection	Imbalance Optional via proportional heater			
Fans	EC fan with backward curved blades			
Automatic calibration	Yes (with constant flow)			
Operation	Integrated display Use via remote controls and CO <sub>2</sub> or Humidity Sensors			
Sensors	Integrated: pressure, temperature, humidity (via optional Box sensor), onboard switch sensor External: CO <sub>2</sub> (via optional room sensor), Humidity (via optional room sensor), external Switch Sensor (volt-free input) (optional)			
Communication	Standard: DUCO RF, DUCO Wired, Switch Sensor Expandable with Duco Connectivity Board: connection possible via REST API (locally or via the cloud) or Modbus TCP			

## **SERVICE PLEASE!**

#### 100% SERVICE

#### Tailored advice

Thanks to **years of experience** and know-how in the field of natural ventilation, our engineering department has all the expertise to offer the most suitable installation for your project.

www.duco.eu/yourproject



### **DUCO INSTALLATION APP**

Ready-made ventilation report

Unburdening the installer is a priority at DUCO. Thanks to the Duco Installation App, the installer not only gets **step-by-step guidance during the calibration** of the ventilation system, but is also offered a solution to deliver a ventilation report quickly and easily.

en.duco.eu/**duco-installation-app** 

## CATALOGUE

#### Your guide to ventilation systems

Are you looking for a user-friendly tool to guide you quickly and simply through **DUCO's Demand-Controlled Ventilation Systems and associated components**? Then the DUCO Catalogue is the solution of choice, bundling all information accurately in a single document!



www.duco.eu/catalogue

LET'S CONNECT! SEND US YOUR PROJECT!

DUCO offers project support from A to Z. Contact one of our advisers (digitally).



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