

# DucoBox Energy Premium

The **QUIETEST** MVHR!



## Extremely quiet

Lowest sound power  
(55 dB at 325 m<sup>3</sup>/h)



## 2-zone control

Up to 40%  
energy savings



## Auto calibration

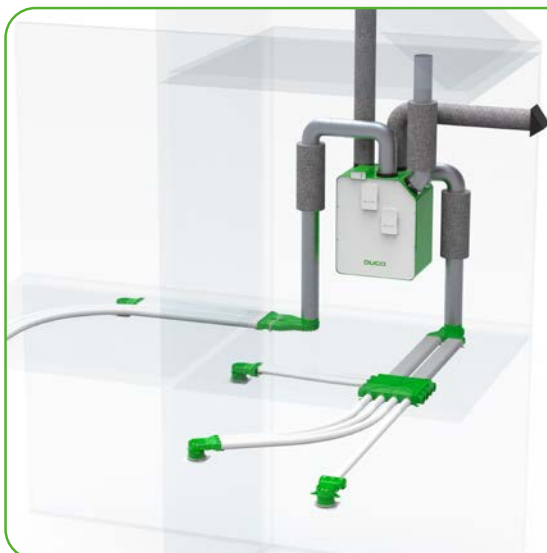
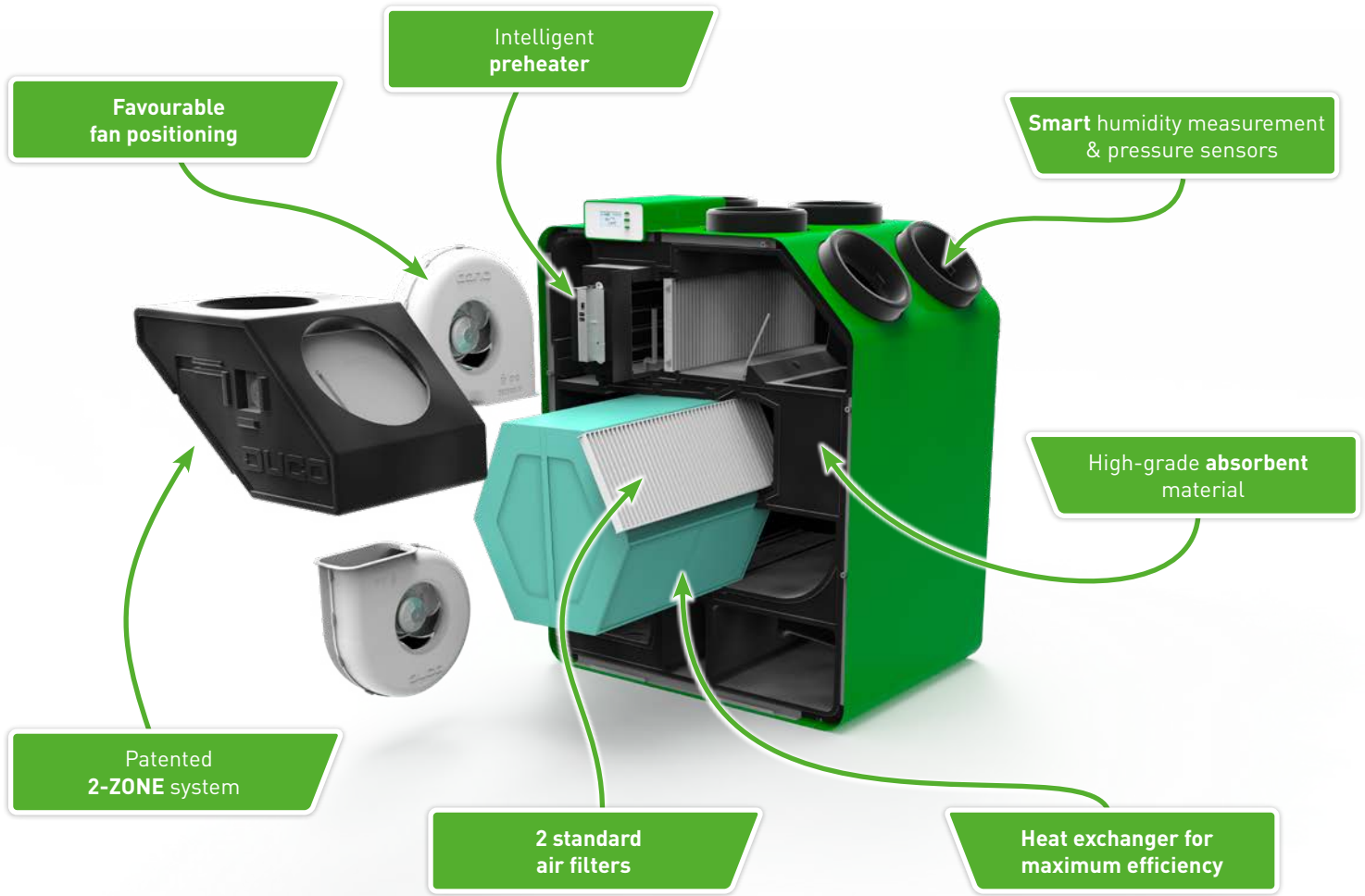
Save up to € 30 per  
installation

# DUCO

We inspire at [www.duco.eu](http://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<sub>2</sub> / humidity). The DucoBox Energy Premium ensures ultra-quiet, intelligent and energy-conscious operations!



## DucoFlex

Complete **air ducting system** for all ventilation systems  
(extraction only and MVHR)



✓ **'Click & Go' system**  
Flexible ducting with convenient click system

✓ **'Enjoy the silence'**  
Meets the most stringent requirements

✓ **Easy setup**  
Limited number of fittings and accessories

## The most quiet MVHR-solution!

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 machine 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 € 30 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

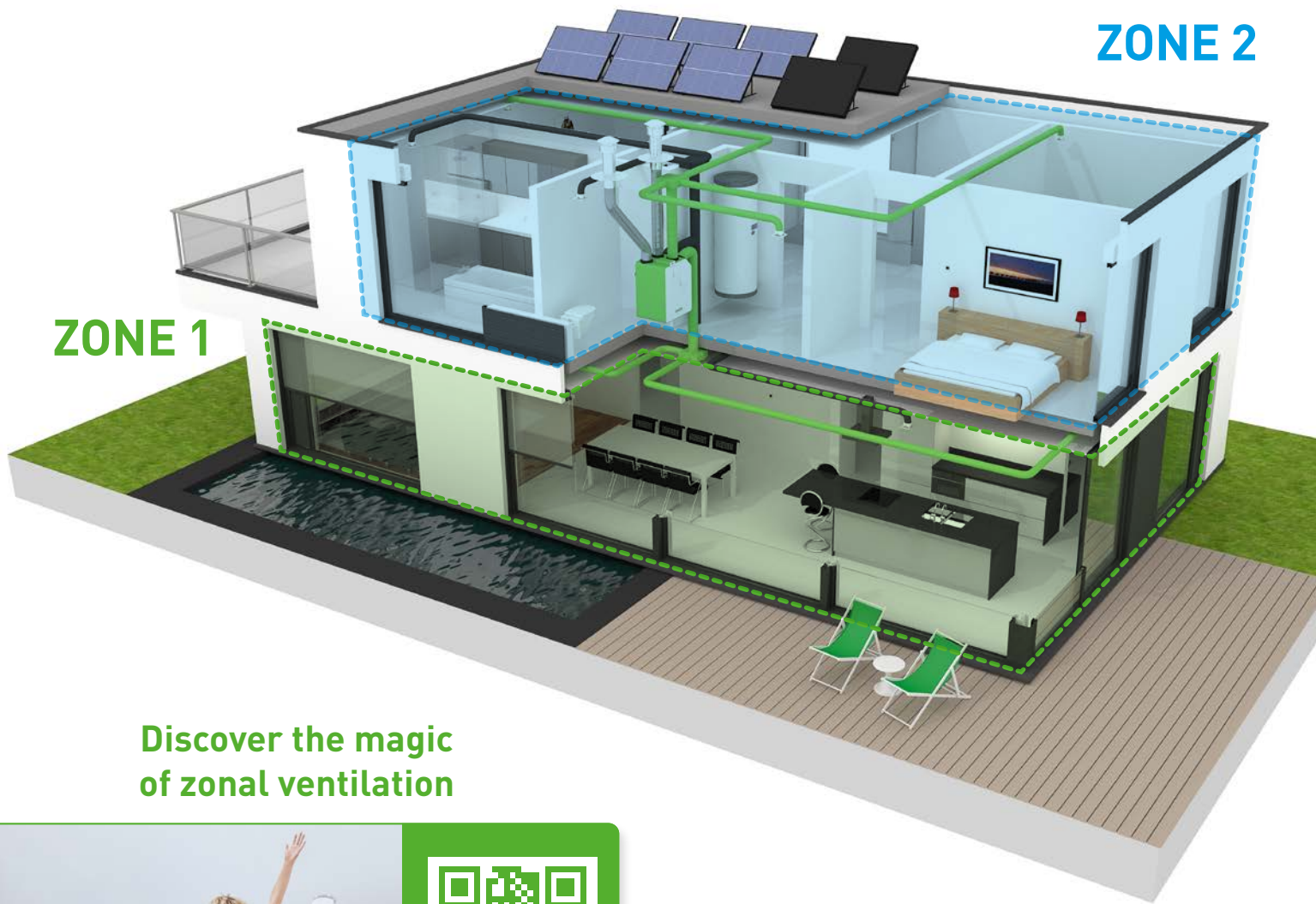
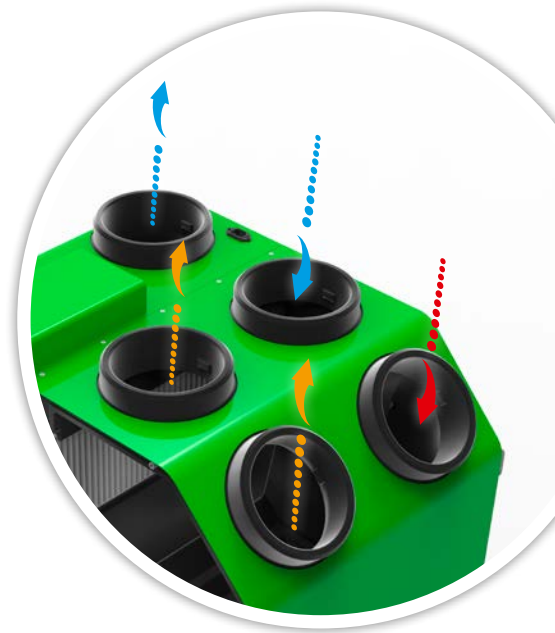
Choose the DucoBox that fits your requirement based on the following possibilities:

<b>Ventilation capacity</b>	Two types of units with extraction and supply (at 150 Pa): either up to <b>325 m<sup>3</sup>/h</b> , either up to <b>400 m<sup>3</sup>/h</b> .
<b>Zonal control</b>	Available <b>with or without the internally integrated 2-zone valve</b> allowing 2-zone control.
<b>Frost protection</b>	Via <b>unbalance</b> or <b>combined with pre-heater</b> .
<b>Left / right version</b>	The <b>sloping side can be either left or right</b> (on the slope side, one finds SUP "zone 1" and ETA connection). 
<b>Type of plug</b>	With <b>plug type G</b>  (UK) or <b>plug type F</b>  (other European countries).

# 2-ZONE VENTILATION SYSTEM

Sensors closely monitor the occupant's presence and activity in the dwelling by means of CO<sub>2</sub> 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**.



Discover the magic of zonal ventilation



[duco.eu/zonal-ventilation](https://duco.eu/zonal-ventilation)

# DUCOBOX ENERGY PREMIUM IN FIGURES

## Physical characteristics

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

## Electrical characteristics

<b>Maximum power at 150 Pa</b>	DucoBox Energy Premium 325: 120 W (2 x 60 W)  DucoBox Energy Premium 400: 183 W (2 x 91,5 W)
<b>Maximum heater power</b>	1000 W
<b>Power supply</b>	230 V, 50 Hz via 3-wire supply cable with safety plug
<b>Type of motor</b>	DC
<b>IP class</b>	IP40
<b>Efficiency in accordance with EU 1253/2014</b>	Types 325: 89% Types 400: 88%
<b>Passive House efficiency</b>	Types 325: 88%

## Acoustic properties

Measurement #	Flow rate Qv m³/h	Pressure Pa	Absorbed power P W	SFP Wh/m³	Noise level Lw*		
					emission from housing dB(A)	supply dB(A)	extraction dB(A)
<b>DucoBox Energy Premium 400</b>							
1	400	150	180	0,45	52,5	57,0	55,0
2	350	150	135	0,39	51,0	56,0	53,5
3	300	150	100	0,33	51,0	55,0	50,0
4	400	100	159	0,40	52,0	56,5	54,5
5	350	100	120	0,34	51,5	55,5	51,5
6	300	100	93	0,31	48,0	52,5	50,5
7	280	50	68	0,24	46,0	47,0	46,0
8	250	50	55	0,22	44,0	46,0	43,0
9	200	50	37	0,19	39,0	44,5	40,0
10	200	25	35	0,18	36,0	40,5	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
<b>DucoBox Energy Premium 325</b>							
1	325	150	118	0,36	52,0	54,5	51,0
2	300	150	100	0,33	51,0	55,0	50,0
3	250	150	80	0,32	46,5	48,5	48,0
4	325	100	104	0,32	51,0	56,5	50,5
5	300	100	93	0,31	48,0	52,5	50,5
6	250	100	67	0,27	45,0	46,5	46,0
7	227,5	50	47	0,21	41,0	45,5	41,5
8	200	50	37	0,19	39,0	44,5	40,0
9	150	25	26	0,17	31,0	36,0	39,5
10	100	25	16	0,16	28,5	35,5	39,0

## Miscellaneous characteristics

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

\* Casing emission from housing measured in accordance with ISO 3741:2010  
Supply and extraction noise level in accordance with ISO 5135:1997 (with channel correction)

# 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](http://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](http://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](http://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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[www.duco.eu/yourproject](http://www.duco.eu/yourproject)

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