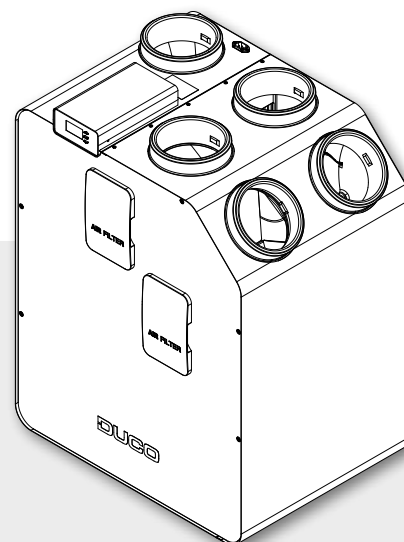


TECHNICAL DATA SHEET

DucoBox Energy Premium 400 (UK)



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

The optional, integrated **2-zone system** with demand control ensures extremely **quiet, intelligent and energy-efficient operation**. Control components can be paired with the DucoBox Energy Premium (= master unit). The DucoBox Energy Premium features a frost protection system (with or without heater), a bypass function and constant flow. **Semi-automatic configuration** ensures the device can be installed quickly.

Versions

Type	Supply and discharge capacity at 150 Pa in m³/h	2-zone control	Frost protection	Article number	
				 LEFT	 RIGHT
DucoBox Energy Premium 400-1ZS (UK)	400	no	imbalance	0000-4464	0000-4468
DucoBox Energy Premium 400-1ZH (UK)			imbalance + heater	0000-4465	0000-4469
DucoBox Energy Premium 400-2ZS (UK)		yes	imbalance	0000-4466	0000-4470
DucoBox Energy Premium 400-2ZH (UK)			imbalance + heater	0000-4467	0000-4471

Physical characteristics

Width x Height x Depth (mm)	740 x 957 x 585
Casing	Coated sheet steel
Colours	White + green
Connections	Internal diameter: Ø 160 mm External diameter: Ø 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

Electrical characteristics

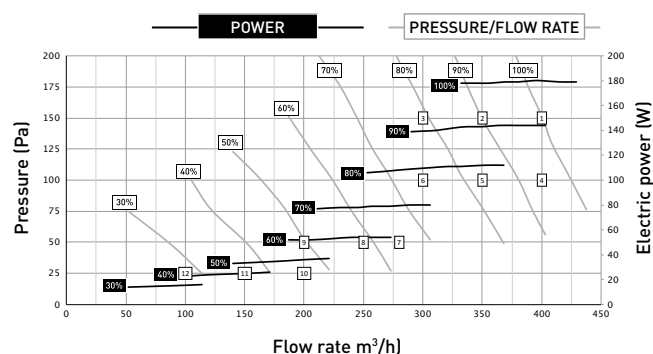
Maximum power at 50 Pa	160,4 W
Maximum heater power	1000 W
Power supply	230 V, 50 Hz via 3-core power cable with earthed plug
Type of motor	DC
IP class	IP40
Energy conversion efficiency	88 % (EN 13141-7)

Optional accessories

Product	Article number
Mounting chair standing (Energy Premium)	0000-4421
Mounting chair hanging (Energy Premium)	0000-4422
Siphon flat (Energy)	0000-4376
Duco Connectivity Board	0000-4810
Humidity Box Sensor (Energy Premium)	0000-4374

Miscellaneous characteristics

Energy class	Control factor 0.65: A+ Other: A
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	Fully (100% modulating)
Frost protection	Imbalance Via proportional heater as an option
Fans	EC fan with backward curved blades
Automatic calibration	Yes (constant pressure)
Constant flow regulation	Yes
Operation	Integrated display Use via remote controls and CO ₂ or Humidity Sensors
Sensors	Integrated: pressure, temperature, humidity (via optional Box sensor), onboard switch sensor External: CO ₂ (via optional Sensor), Humidity (via optional Sensor), external Switch Sensor (voltage-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



Systems with rigid ductwork only SAP 2005 results

Exhaust terminal configuration	Specific power of fan (W/l/s)	Heat exchange efficiency (%)
Kitchen + 1 additional wet room	0,62	91
Kitchen + 2 additional wet rooms	0,54	91
Kitchen + 3 additional wet rooms	0,53	91
Kitchen + 4 additional wet rooms	0,56	90
Kitchen + 5 additional wet rooms	0,61	90
Kitchen + 6 additional wet rooms	0,66	89
Kitchen + 7 additional wet rooms	0,79	88

Systems with rigid ductwork only SAP 2012 results

Exhaust terminal configuration	Specific power of fan (W/l/s)	Heat exchange efficiency (%)
Kitchen + 1 additional wet room	0,59	91
Kitchen + 2 additional wet rooms	0,59	91
Kitchen + 3 additional wet rooms	0,63	91
Kitchen + 4 additional wet rooms	0,77	90
Kitchen + 5 additional wet rooms	0,89	90
Kitchen + 6 additional wet rooms	1,07	90
Kitchen + 7 additional wet rooms	1,30	90

Sound data

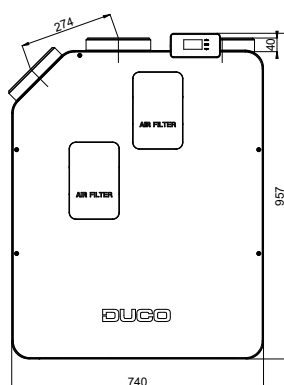
Standards: ISO 5135:2020

Fan Speed	Test mode	Pa	Watts	Induct Sound Power Levels, dB re. 1pW									
				Octave bands, Hz								LwA	SPL @ 3m
				63	125	250	500	1k	2k	4k	8k		
100%	Supply	300	157	75.3	61.1	58.9	56.6	47.7	43.1	33.6	26.8	57.0	39,5
	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
80%	Supply	160	94	74.4	56.6	60.6	48.6	41.6	38.6	27.7	24.2	54.7	37,2
	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		50.3	32,8
60%	Supply	100	46	64.4	50.7	53.5	41.6	35.0	31.0	21.7	23.5	47.1	29,6
	Extract	100	48	60.9	54.5	50.6	46.2	37.9	31.4	22.3	23.7	47.3	29,8
	Breakout	100	46	45.1	44.4	48.1	41.0	36.4	31.7	24.1	24.6	43.4	25,9
40%	Supply	60	19.5	58.5	48.3	41.2	32.7	26.9	21.7	19.1	23.6	38.4	20,9
	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
20%	Supply	15	8.5	51.4	39.8	30.6	24.4	20.6	17.9	18.9	23.6	30.9	13,4
	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

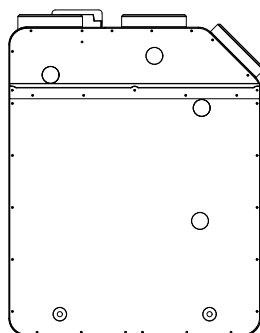
Dimensions of DucoBox Energy Premium

LEFT model

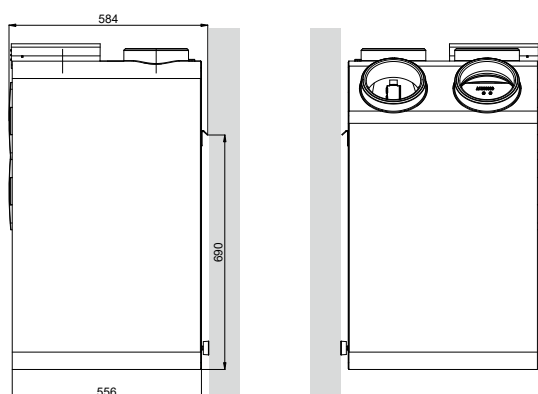
Front view



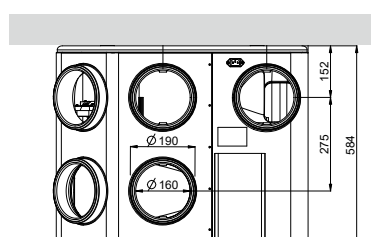
Rear view



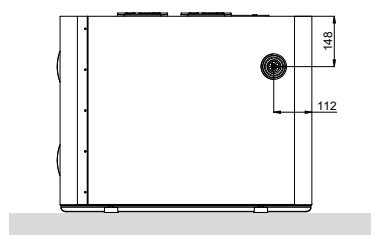
Side view



Top view

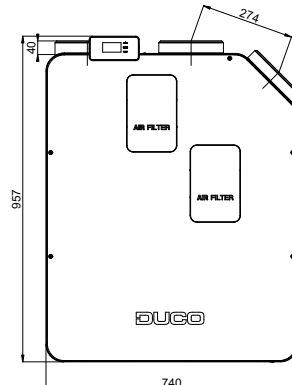


Bottom view

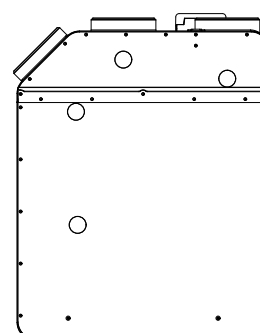


RIGHT model

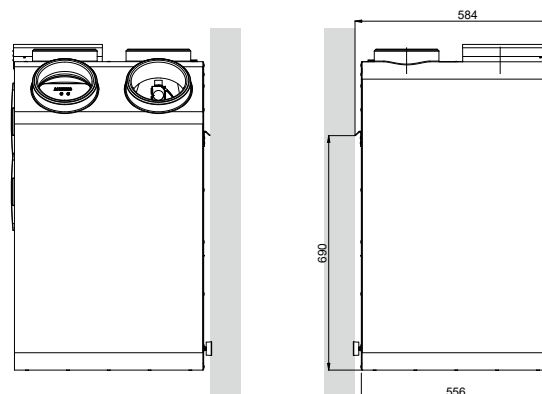
Front view



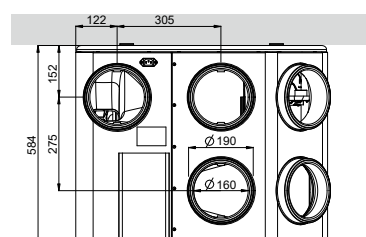
Rear view



Side view



Top view



Bottom view

