

225 Compact (LE)

Description

The 225 Compact is a heat recovery ventilation unit (HRVU) for residential applications.

It continuously and mechanically supplies fresh air to the dwelling and continuously and mechanically extracts stale air by means of integrated continuously operating fans.

The heat from the extracted air is recovered and transferred to the incoming fresh air.

This unit has been approved in accordance with:

- ✓ EN308 / EN13141-7 and for Belgium this is also in accordance with EN 308 with appendix G. whereby the device is included in the EPB product data database '4.4 fan and ventilation unit' with code 4.4.2 Double air flow with heat recovery.
- ✓ BCRG quality declaration and declaration of equivalence for the Netherlands.
- ✓ Passive House Institute.

The ventilation units bear the CE mark and comply with the following directives: 2014/53/EU (Radio Equipment Directive). 2011/65/EU (RoHS). 2009/125/EU (ERP Directive).

General characteristics

- Extremely compact ventilation unit suitable for wall mounting
- Painted metal enclosure with internal airtight EPP construction (expanded polypropylene)
- Reversible airflows through mirrored mounting
- Supply of indoor air via duct connection at the top or bottom
- High-efficiency plastic heat exchanger

Ventilation & control

- Energy-efficient EC DC radial fans with constant volume control
- Double bypass function for free cooling and free heating
- Internal moisture sensor for automatic flow control

Management & communication

- RF 3-position switch:
 - Wall mounting (surface-mounted)
 - 3 ventilation speeds + Timer function + Auto mode
 - Adjustable maximum airflow
 - LED feedback
 - Battery powered (3V Lithium CR2450N)
- 3-position contact. control via e.g. building management system
- 1 – 10 V contact. control via e.g. building management system
- Modbus contact. control via e.g. building management system
- Alarm contact closes in case of malfunction or dirty filters

Filters

- ISO16890 ePM1 55% (=F7 according to EN779) for supply air
- ISO16890 ePM10 50% (=M5 according to EN779) for extract air

Included accessories

- Dry siphon included
- Plastic sleeves Ø 125 mm
- RF 3-position switch



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Optional extensions

- Electric preheating element:
 - PTC element
 - Modulating control
 - Power: 1 kW
- 2-zone control via external dampers and RF CO₂ switch (CO₂ ZoneControl)
- Additional RF 3-position switches
- Demand control via RF RH (humidity) switch (powered by 2x1.5V AA)
- Demand control via RF CO₂ flush-mounted and surface-mounted switches (power supply 1x230V + N)
- Control via RF control display (power supply 1x230V + N)
- Control via Vasco Climate Control App via Gateway



CO₂ ZoneControl



Gateway for
Vasco Climate Control App



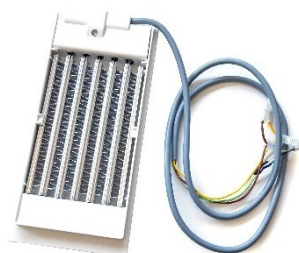
RF remote control display



RF 3-position switch



RF CO₂ switch
flush-mounted



Preheating element



RF RH switch



RF CO₂ switch
surface-mounted

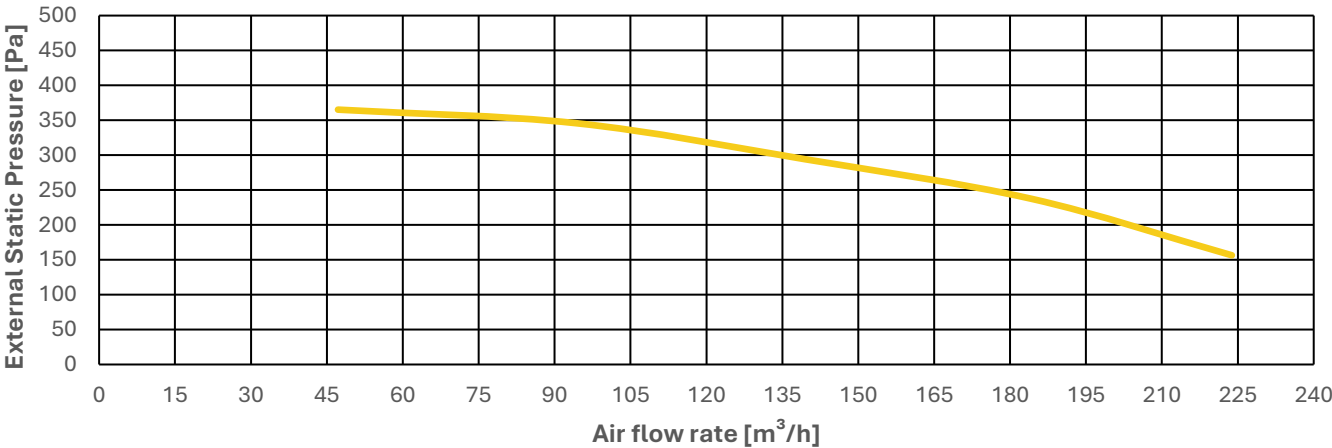
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Technical data

	225 Compact	225 Compact LE
Dimensions (h x w x d)	800 x 547 x 300 mm	
Dimensions incl. packaging (h x w x d)	850 x 680 x 360 mm	
Weight	28 kg	
Weight incl. packaging	32 kg	
Power supply	230V AC	
Maximum air flow rate at 150 Pa	225 m³/h	
Maximum pressure loss at Qmax	150 Pa	
Thermal efficiency according to EN13141-7	88.6%	
Thermal efficiency according to EN308 Annex G	81% at 222 m³/h 82% at 195 m³/h 84% at 150 m³/h	
Power consumption	2 x 65 W	
Energy label	A	
Energy label with 2 sensors (CO ₂ or RH (moisture))	A+	
Unit noise level emission (70% Qmax @50 Pa)	42.7 dB(A)	
Noise level supply duct (70% Qmax @50 Pa)	64.6 dB(A)	
Exhaust duct noise level (70% Qmax @50 Pa)	50.9 dB(A)	

Indicative electrical power consumption		
Q [m³/h]	P [Pa]	P [W]
225	150	126
	125	119
	100	116
200	150	107
	125	101
	100	91
180	150	94
	125	85
	100	76

Characteristic curve



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Sound data

Sound power: housing

	64 m³/h @ 16 Pa	80 m³/h @ 25 Pa	96 m³/h @ 36 Pa	112 m³/h @ 49 Pa	128 m³/h @ 64 Pa	144 m³/h @ 81 Pa	160 m³/h @ 100 Pa	176 m³/h @ 121 Pa	192 m³/h @ 144 Pa	208 m³/h @ 169 Pa
63 Hz										
125 Hz	31.10	33.40	35.20	38.30	39.20	40.20	41.80	43.60	45.30	45.60
250 Hz	35.40	36.90	38.90	41.20	43.30	45.30	46.90	48.50	50.00	49.70
500 Hz	29.90	31.30	33.70	36.40	38.60	40.80	42.50	44.00	45.60	45.10
1000 Hz	27.90	29.30	31.10	33.70	35.50	37.10	38.40	39.90	41.20	40.90
2000 Hz	17.50	19.50	23.20	27.90	31.80	35.10	37.60	38.90	39.50	40.20
4000 Hz	5.00	9.40	12.90	16.80	19.90	22.50	25.10	27.30	29.30	29.20
8000 Hz	9.50	9.10	10.10	9.90	12.60	15.40	18.30	20.90	22.90	22.80
	40.90	32.30	33.80	36.00	38.80	41.10	43.10	45.00	46.40	47.80

Sound power: supply air from outside

	64 m³/h @ 16 Pa	80 m³/h @ 25 Pa	96 m³/h @ 36 Pa	112 m³/h @ 49 Pa	128 m³/h @ 64 Pa	144 m³/h @ 81 Pa	160 m³/h @ 100 Pa	176 m³/h @ 121 Pa	192 m³/h @ 144 Pa	208 m³/h @ 169 Pa
63 Hz	48.20	48.50	50.10	52.00	52.60	53.60	56.10	57.80	59.10	58.60
125 Hz	55.30	56.00	58.50	60.50	61.80	63.30	65.80	66.20	66.90	66.00
250 Hz	45.20	46.50	49.10	51.60	53.70	56.50	57.40	59.50	60.50	60.50
500 Hz	35.90	36.90	39.70	42.40	44.40	46.40	48.40	50.00	51.50	50.80
1000 Hz	30.50	31.50	33.60	35.80	37.60	39.50	41.40	42.60	44.10	44.20
2000 Hz	18.70	19.60	23.00	26.80	29.80	33.10	36.00	37.80	39.10	39.60
4000 Hz	16.00	16.00	16.90	18.40	19.90	22.40	25.00	27.00	28.80	29.40
8000 Hz	15.90	15.90	16.00	16.10	16.50	17.50	18.80	20.00	21.30	21.40
	40.90	41.70	44.30	46.60	48.50	50.60	52.60	53.90	55.00	54.80

Sound power: supply air to home

	64 m³/h @ 16 Pa	80 m³/h @ 25 Pa	96 m³/h @ 36 Pa	112 m³/h @ 49 Pa	128 m³/h @ 64 Pa	144 m³/h @ 81 Pa	160 m³/h @ 100 Pa	176 m³/h @ 121 Pa	192 m³/h @ 144 Pa	208 m³/h @ 169 Pa
63 Hz	65.60	67.20	69.60	72.10	73.40	75.00	77.10	78.50	81.50	81.00
125 Hz	60.70	62.10	64.60	67.20	68.70	70.30	72.00	73.40	74.60	74.20
250 Hz	59.10	60.30	63.00	66.70	67.30	69.80	71.30	73.20	74.70	74.40
500 Hz	50.30	51.30	54.00	56.90	59.10	61.30	63.20	64.90	66.20	65.40
1000 Hz	49.40	50.10	52.00	54.30	55.90	57.50	59.10	60.50	61.80	61.50
2000 Hz	38.80	40.10	44.00	48.60	52.50	56.60	59.00	59.80	60.90	61.20
4000 Hz	32.10	33.20	37.10	41.10	44.00	47.00	49.50	51.40	53.20	53.10
8000 Hz	21.10	22.90	29.00	35.60	40.10	44.20	47.50	49.70	51.70	51.50
	41.80	54.30	55.40	57.90	61.10	62.70	65.10	67.00	68.50	69.90

Sound power: exhaust air from home

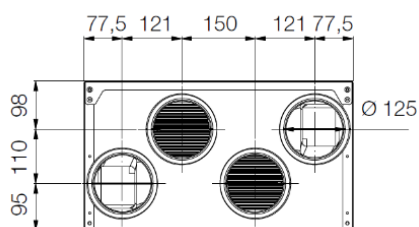
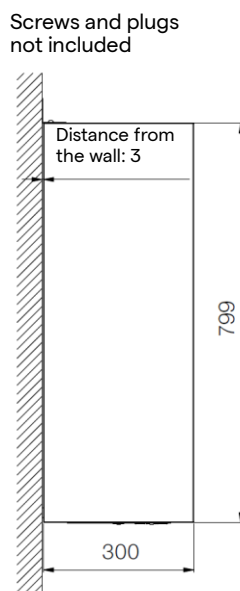
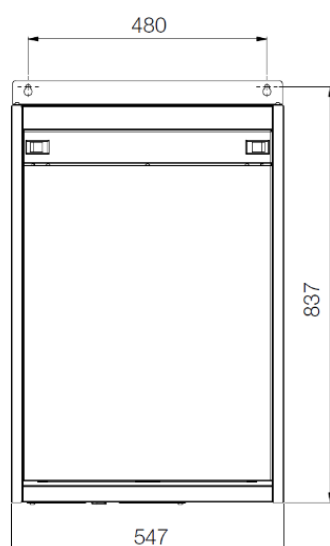
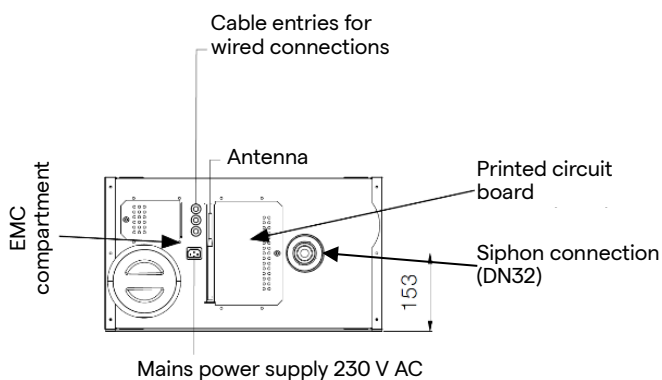
	64 m³/h @ 16 Pa	80 m³/h @ 25 Pa	96 m³/h @ 36 Pa	112 m³/h @ 49 Pa	128 m³/h @ 64 Pa	144 m³/h @ 81 Pa	160 m³/h @ 100 Pa	176 m³/h @ 121 Pa	192 m³/h @ 144 Pa	208 m³/h @ 169 Pa
63 Hz	47.70	49.80	48.70	51.40	51.10	53.30	55.30	56.70	58.50	58.80
125 Hz	56.10	56.50	58.90	60.90	62.10	63.10	64.50	66.10	66.50	66.40
250 Hz	45.60	47.20	49.50	52.10	53.90	56.50	57.80	59.90	60.80	60.90
500 Hz	36.40	37.80	40.40	43.10	44.90	47.00	49.00	50.70	52.20	51.40
1000 Hz	32.30	33.60	37.00	38.80	40.10	41.70	43.30	44.70	46.10	45.80
2000 Hz	22.70	24.00	27.80	31.80	35.10	38.00	40.50	41.70	42.90	42.90
4000 Hz	16.80	17.10	18.90	21.70	24.30	26.80	29.30	31.00	32.90	32.90
8000 Hz	16.90	16.00	16.10	16.80	18.30	20.10	22.60	24.60	26.60	26.70
	41.80	42.80	45.40	47.70	49.50	51.30	52.90	54.50	55.60	55.50

Sound power: exhaust air to the outside

	64 m³/h @ 16 Pa	80 m³/h @ 25 Pa	96 m³/h @ 36 Pa	112 m³/h @ 49 Pa	128 m³/h @ 64 Pa	144 m³/h @ 81 Pa	160 m³/h @ 100 Pa	176 m³/h @ 121 Pa	192 m³/h @ 144 Pa	208 m³/h @ 169 Pa
63 Hz	63.30	62.90	65.90	68.30	70.10	72.50	74.20	75.70	77.40	77.50
125 Hz	56.00	57.80	60.40	62.50	64.80	66.70	68.50	70.20	72.00	71.20
250 Hz	56.80	56.40	59.30	61.40	63.50	65.50	67.30	68.70	70.90	70.10
500 Hz	49.90	49.30	52.60	54.80	56.90	58.90	61.00	62.60	64.40	62.70
1000 Hz	49.10	48.00	51.40	53.00	54.40	56.20	57.70	59.00	60.40	60.00
2000 Hz	37.50	36.50	40.80	44.50	47.60	52.30	56.20	58.30	59.10	59.20
4000 Hz	31.10	29.60	34.70	38.30	40.70	44.00	46.70	48.80	50.80	50.30
8000 Hz	20.30	19.00	25.00	31.70	36.20	41.20	44.60	47.00	49.20	48.80
	53.20	52.40	55.80	57.80	59.80	62.10	64.20	65.80	67.40	66.80

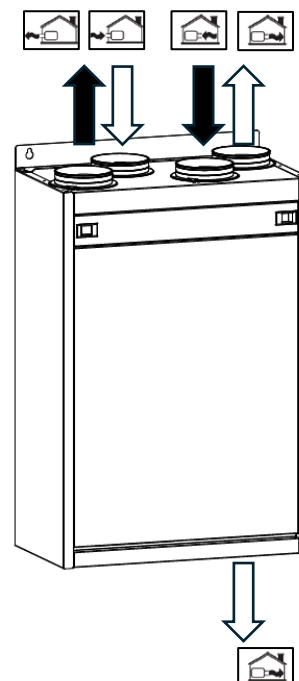
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Dimension drawings and connections



Dimensions in millimetres.

Standard configuration Right



Mirrored configuration Left

