

# WS 170 RET



## Short description

Centralised ventilation unit with very effective heat recovery through enthalpy cross-counterflow exchanger, EC motors with constant volumetric flow regulation, supply and exhaust air on the right, 4 x DN 125, including RLS 1 WR control unit, 40 - 160 m<sup>3</sup>/h, 23 - 46 m<sup>3</sup>/h in interval mode, KNX connection possible, 4 x SVR 125 plug connector or 90° B90-125 elbow needed to connect folded spiral-seams ducts (order as accessories)

## Application examples

Low-energy house, Single-family house, Living room, Office

Article number 0095.0110

## Technical data

Model	Standard version - right-hand
Number of ventilation levels	4
Air flow volume	40 m <sup>3</sup> /h - 160 m <sup>3</sup> /h
Volumetric flow constant	yes
Speed controllable	-
SEC average	-34,28 kWh/(m <sup>2</sup> *a)
Energy efficiency class	A
Type of voltage	Alternating current
Rated voltage	230 V
Frequency	50 Hz/60 Hz
SPI value in accordance with DIN EN 13141-7 (A7)	0,28 Wh/m <sup>3</sup>
Power consumption	21 W - 80 W (At 100 Pa counter pressure)
Power consumption in accordance with DIN EN 13141-7 (A7)	36 W
Stand-by power consumption	< 5 W
I <sub>max</sub>	0,5 A
Degree of protection	IP 00
DIBT approval	yes
PHI certification	No
Installation site	Bathroom / Kitchen / Cellar / Storage tank / Jamb wall / Utility room / Heating room / Hall
System type	Centralised
Housing material	Sheet steel, powder coated
Heat exchanger material	Synthetic material
Inner coating material	Plastic EPP
Colour	white aluminium, similar to RAL 9006
Weight	40 kg
Weight including packaging	51 kg
Filter class	G4 / G4
Connection diameter	125 mm

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Connection diameter of condensation drain	3/4" hose connection or drain pipe with a diameter of 28 mm
Width	595 mm
Height	820 mm
Depth	375 mm
Width with packaging	640 mm
Height with packaging	990 mm
Depth with packaging	400 mm
Airstream temperature at I <sub>Max</sub>	-20 °C up to 60 °C
Ambient temperature	10 °C up to 40 °C
Max. degree of heat provision in accordance with DIN EN 13141-7 (A7)	90 %
Heat exchanger construction type	Enthalpy cross-counterflow
Bypass	No
Frost protection	External
Enthalpy heat exchanger	yes
Antifreeze circuit	yes
Summer circuit	Exhaust air with RLS D1 WR
Filter monitoring	with time control
Humidity control	-
CO <sub>2</sub> regulation	SKD
Air quality control (optional)	EAQ 10/2
KNX connection (optional)	to be supplied by the customer
MODBUS interface	No
Control unit included in scope of delivery.	RLS 1 WR
Control unit (optional)	RLS D1 WR
Wireless switch on/off (optional)	XE 1, XS 1
EnOcean wireless integration (optional)	No
Mobile control	No
Housing emission sound pressure level	42 dB(A) / 45 dB(A) / 47 dB(A) (Spacing 1m, sound absorption 10 m <sup>2</sup> )
Packing unit	1 piece
Range	K
GTIN (EAN)	4012799951100

## Sound power level in octave range

	63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz	Total
<b>L<sub>WA2</sub>, Step 1 (dB(A))</b>	22	36	38	38	39	31	20	5	44
<b>L<sub>WA5</sub>, Step 1 (dB(A))</b>	25	36	34	34	38	30	18	5	43
<b>L<sub>WA6</sub>, Step 1 (dB(A))</b>	25	36	37	35	42	32	20	6	45
<b>L<sub>WA2</sub>, Level 2 (dB(A))</b>	20	38	41	40	41	34	23	9	47

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	63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz	Total
<b>L<sub>WA5</sub>, Level 2 (dB(A))</b>	26	36	36	36	41	32	19	4	44
<b>L<sub>WA6</sub>, Level 2 (dB(A))</b>	26	37	39	37	44	35	23	8	46
<b>L<sub>WA2</sub>, Level 3 (dB(A))</b>	23	38	42	43	44	38	26	12	49
<b>L<sub>WA5</sub>, Level 3 (dB(A))</b>	18	35	37	37	44	37	22	8	46
<b>L<sub>WA6</sub>, Level 3 (dB(A))</b>	23	36	40	39	47	40	25	11	49

L<sub>WA2</sub>= housing sound power level in dB.

L<sub>WA5</sub>= free inlet sound power level in dB.

L<sub>WA6</sub>= free outlet sound power level in dB.

L<sub>WA5</sub>, L<sub>WA6</sub> = sound power level emitted to the free surroundings. Measured at a subsequent operating point on the connections facing the room. L<sub>WA5</sub> Exhaust air connections, L<sub>WA6</sub> Supply air connections.

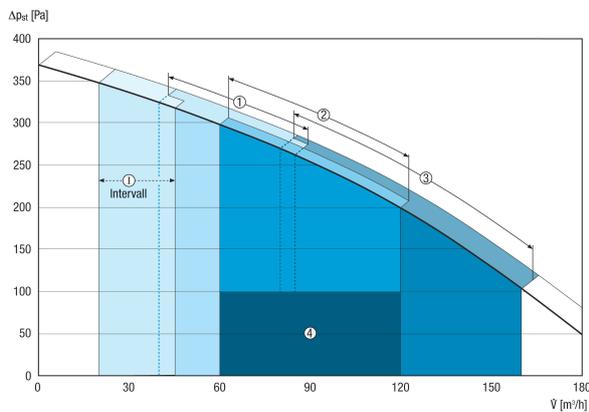
Operating point, level 1: Air volume 70 m<sup>3</sup>/h and external pressure 100 Pa

Operating point, level 2: Air volume 100 m<sup>3</sup>/h and external pressure 100 Pa

Operating point, level 3: Air volume 130 m<sup>3</sup>/h and external pressure 100 Pa

In accordance with DIN 45635, Part 38, April 1986.

## Characteristic curve

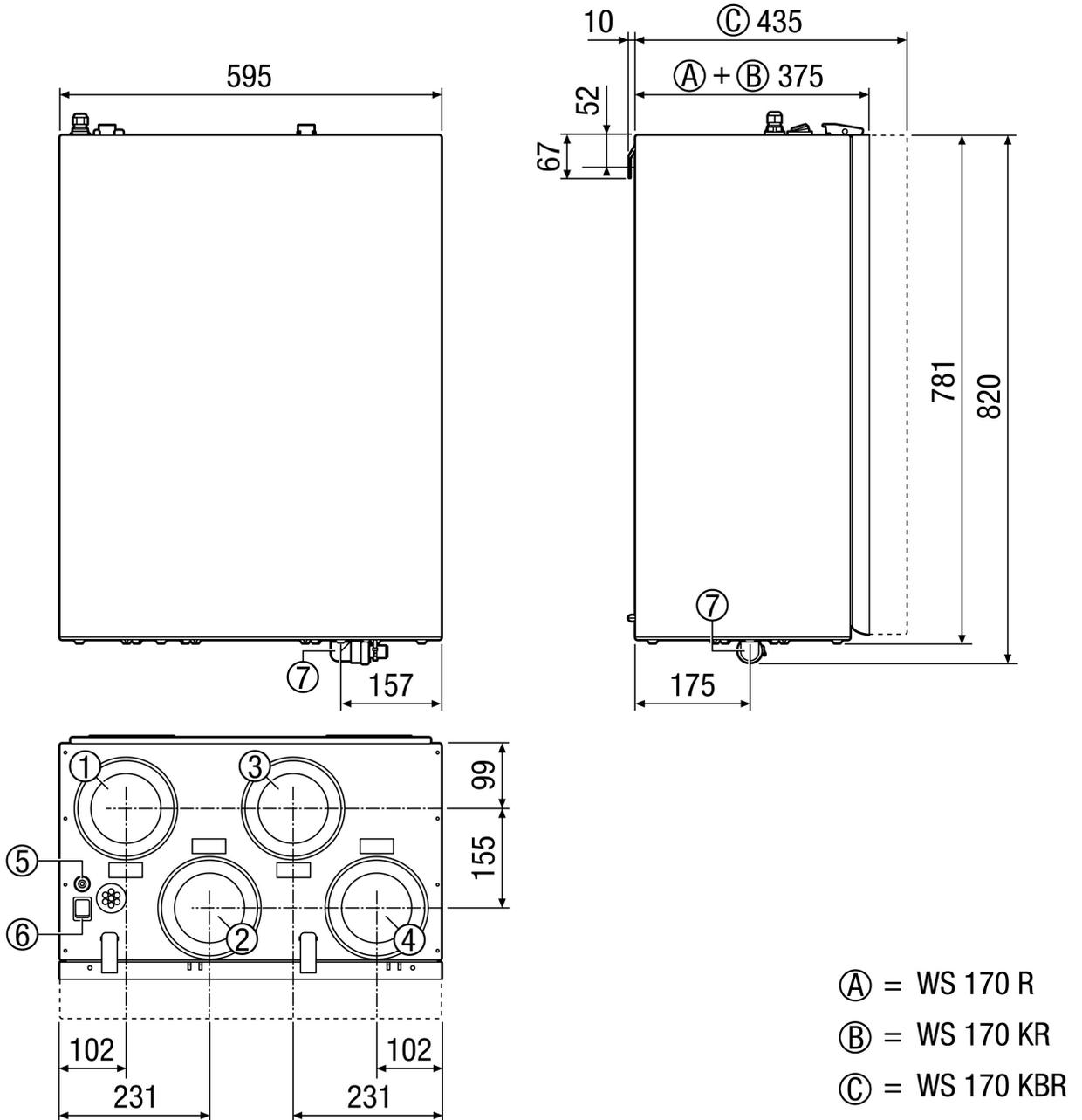


I - Interval / vacation operation for humidity protection

- ① Reduced ventilation
- ② Nominal ventilation
- ③ Intensive / Party operation
- ④ Recommended setting range

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Dimensioned drawing [mm]



- ① DN 125 outgoing air
- ② DN 125 outside air
- ③ DN 125 exhaust air
- ④ DN 125 supply air
- ⑤ Cable screw-connection
- ⑥ Main switch
- ⑦ Condensation connection