

# WS 170 KBR



## Short description

Centralised ventilation unit with very effective heat recovery through cross-counterflow exchanger, EC motors with constant volumetric flow regulation, supply and exhaust air on the right, 4 x DN 125, including frost protection heating, bypass and RLS D1 WR digital control unit, DIBT and passive house approval, 40 - 160 m³/h, 23 - 46 m³/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

Single-family house, Passive energy house, Office

Article number 0095.0085

## Technical data

Model	Bypass version - right-hand
Number of ventilation levels	4
Air flow volume	40 m³/h - 160 m³/h
Volumetric flow constant	yes
Speed controllable	–
Type of voltage	Alternating current
Rated voltage	230 V
Frequency	50 Hz/60 Hz
Power consumption	21 W - 80 W (At 100 Pa counter pressure)
I <sub>max</sub>	0,5 A (With active 4 A frost protection heating)
Degree of protection	IP 00
DIBT approval	yes
PHI certification	yes
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
Weight	44,8 kg
Filter class	G4 / F7
Connection diameter	125 mm
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	435 mm
Airstream temperature at I <sub>Max</sub>	50 °C
Ambient temperature	10 °C up to 40 °C

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Degree of heat provision	94 %
Heat exchanger construction type	Cross-counterflow
Bypass	automatic
Frost protection	integrated
Enthalpy heat exchanger	No
Antifreeze circuit	yes
Summer circuit	Exhaust air
Filter monitoring	with time control
Humidity control	optional with HY 5, HY 5 I, HY 10 AP, HY 10 UP
CO <sub>2</sub> -control (optional)	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 D1 WR
Control unit (optional)	RLS 1 WR
Wireless switch on/off (optional)	XE 1, XS 1
EnOcean wireless integration (optional)	No
Mobile control	No
Housing emission sound pressure level	32 dB(A) / 34 dB(A) / 35 dB(A) (Spacing 1m, sound absorption 10 m <sup>2</sup> )
Approval number	Z-51.3-292
Packing unit	1 piece
Range	K
GTIN (EAN)	4012799950851

## 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>	23	29	28	28	26	20	14	4	34
<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>	27	28	29	29	28	21	15	3	36
<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>	22	29	32	31	30	23	17	4	37
<b>L<sub>WA5</sub>, Level 3 (dB(A))</b>	18	35	37	37	44	37	22	8	46

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	63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz	Total
<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.

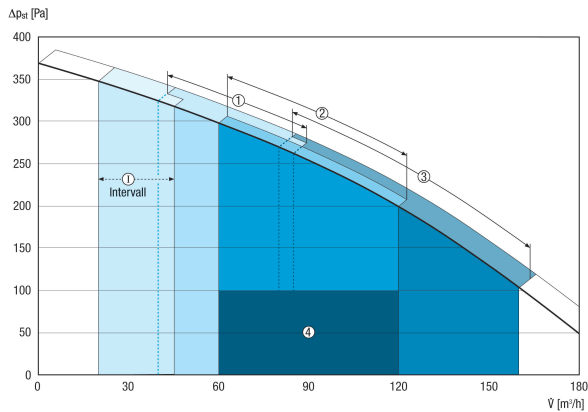
Operating point, level 1: Air volume 70 m<sup>3</sup>/h and external pressure 100 Pa

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

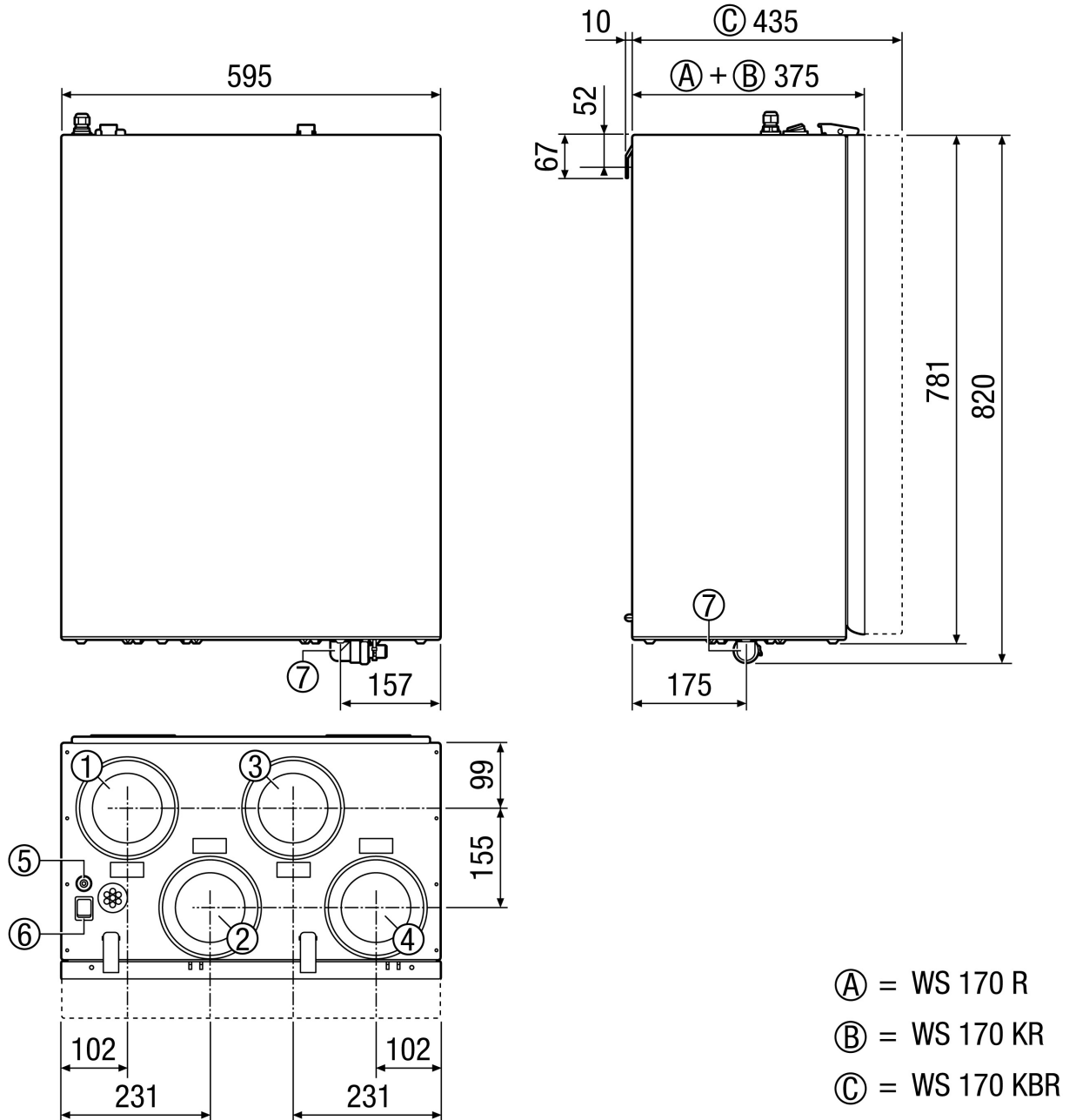


I - Interval / vacation operation for humidity protection

- 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