

WS 170 KBL



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 left, 4 x DN 125, including frost protection heating, bypass and RLS 1 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 0095.0086

Technical data

Model	Bypass model, left
Number of ventilation levels	4
Air flow volume	40 m ³ /h - 160 m ³ /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 _{max}	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
Weight including packaging	50,7 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
Width with packaging	640 mm

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Height with packaging	990 mm
Depth with packaging	455 mm
Airstream temperature at I _{Max}	50 °C
Ambient temperature	10 °C up to 40 °C
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 ₂ 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 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 ²)
Approval number	Z-51.3-292
Packing unit	1 piece
Range	K
GTIN (EAN)	4012799950868

Sound power level in octave range

	63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz	Total
L_{WA2}, Step 1 (dB(A))	23	29	28	28	26	20	14	4	34
L_{WA5}, Step 1 (dB(A))	25	36	34	34	38	30	18	5	43
L_{WA6}, Step 1 (dB(A))	25	36	37	35	42	32	20	6	45
L_{WA2}, Level 2 (dB(A))	27	28	29	29	28	21	15	3	36
L_{WA5}, Level 2 (dB(A))	26	36	36	36	41	32	19	4	44
L_{WA6}, Level 2 (dB(A))	26	37	39	37	44	35	23	8	46

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	63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz	Total
L_{WA2}, Level 3 (dB(A))	22	29	32	31	30	23	17	4	37
L_{WA5}, Level 3 (dB(A))	18	35	37	37	44	37	22	8	46
L_{WA6}, Level 3 (dB(A))	23	36	40	39	47	40	25	11	49

L_{WA2}= housing sound power level in dB.

L_{WA5}= free inlet sound power level in dB.

L_{WA6}= free outlet sound power level in dB.

L_{WA5}, L_{WA6} = sound power level emitted to the free surroundings. Measured at a subsequent operating point on the connections facing the room. L_{WA5} Exhaust air connections, L_{WA6} Supply air connections.

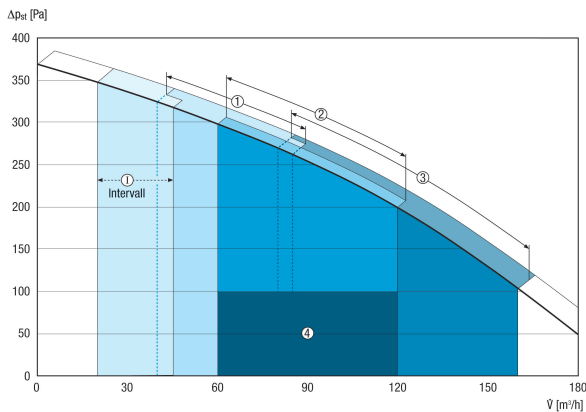
Operating point, level 1: Air volume 70 m³/h and external pressure 100 Pa

Operating point, level 2: Air volume 100 m³/h and external pressure 100 Pa

Operating point, level 3: Air volume 130 m³/h and external pressure 100 Pa

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

Characteristic curve

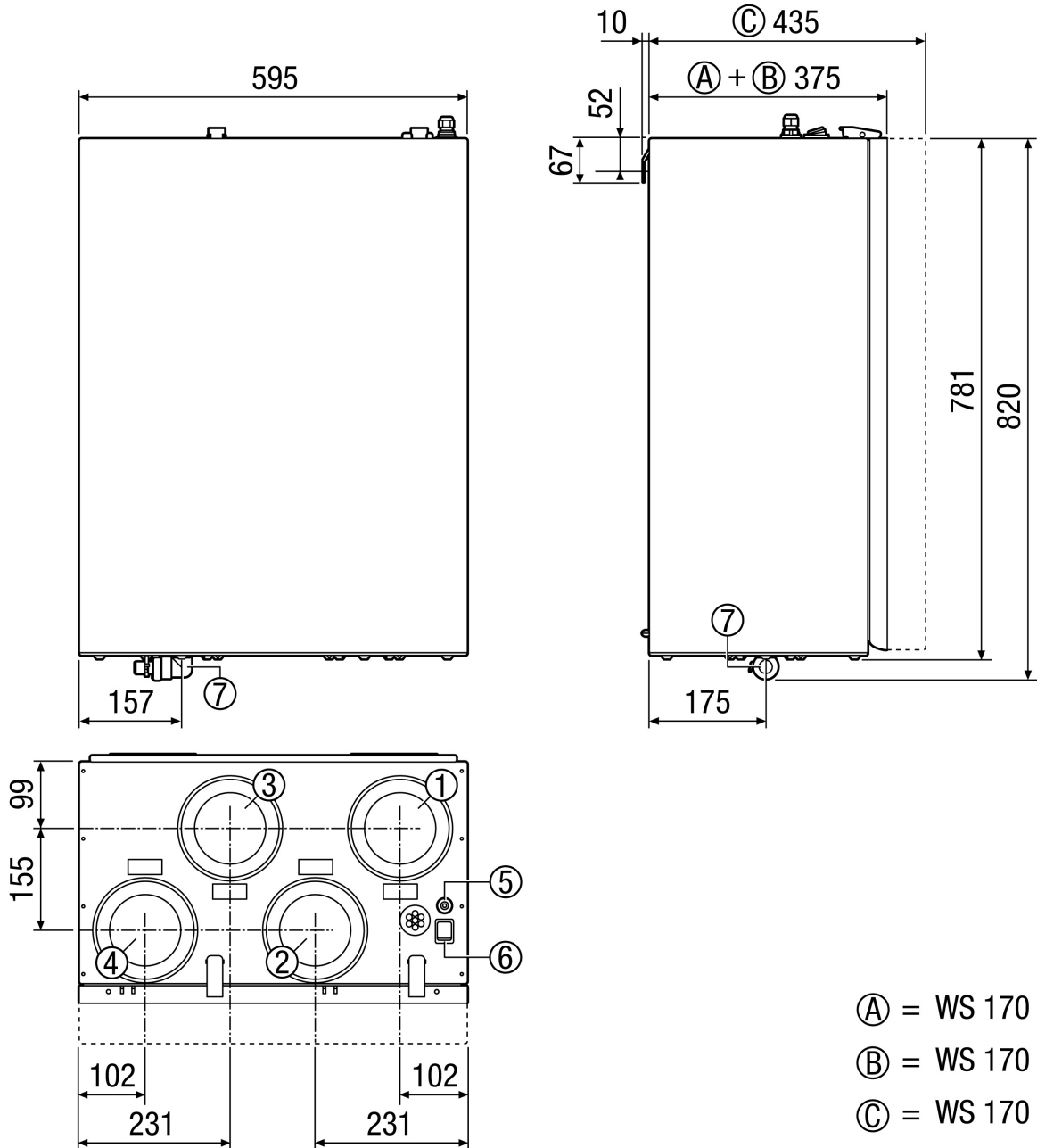


I - Interval / vacation operation for humidity protection

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

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Dimensioned drawing [mm]



- Ⓐ = WS 170 L
- Ⓑ = WS 170 KL
- Ⓒ = WS 170 KBL

- 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