WS 470 BR





Article number 0095.0269

Short description

Centralised, highly-efficient ventilation units with EC fans and constant volumetric flow regulation, including crosscounterflow exchanger, supply and exhaust air on right, volumetric flow 80 - 470 m³/h, connection diameter 4 x DN 160, 4 x SVR 160 plug connectors or 90° B90-160 elbow needed to connect folded spiral-seams ducts (order as accessories), including RLS 1 WR control unit, including integrated web server and MAICO app (air@home) for mobile unit control, live reports via web tool, DIBT approval applied for and passive house certificate, KNX and EnOcean connection possi-

Application examples

Low-energy house, Living room

Technical data

Air flow volume	80 m³/h - 470 m³/h			
SEC average	-39,5 kWh/(m²*a)			
Energy efficiency class	A			
Type of voltage	Alternating current			
Rated voltage	230 V			
Frequency	50 Hz/60 Hz			
Power consumption in accordance with DIN EN 13141-7 (A7)	87 W			
Stand-by power consumption	< 1 W			
I _{max}	2 A			
Degree of protection	IP 40			
DIBT approval	yes			
PHI certification	yes			
SPI value	0,28 Wh/m³			
Installation site	floor / wall			
System type	Centralised			
Housing material	Galvanised sheet steel, powder coated			
Heat exchanger material	Synthetic material			
Inner coating material	Plastic EPP			
Colour	Traffic white (RAL 9016)			
Weight	67 kg			
Weight including packaging	79 kg			
Filter class	ISO Coarse 85 % (G4) / ISO ePM1 80 % (F7)			
Connection diameter	160 mm			
Connection diameter of condensation drain	1 1/2" (screen valve)			
Width	841 mm			
Height	857 mm			
Depth	598 mm			
Width with packaging	900 mm			
Height with packaging	1.120 mm			





Depth with packaging	650 mm
Airstream temperature at I _{Max}	-20 °C up to 40 °C
Max. degree of heat provision in accordance with DIN EN 13141-7	96 %
(A7)	
Heat exchanger construction type	Cross-counterflow
Position – exhaust air	right
Bypass	yes
Frost protection	No
Enthalpy heat exchanger	No
Antifreeze circuit	yes
Summer circuit	ECO exhaust air / ECO supply air
Filter monitoring	with time control
Humidity control	integrated
CO ₂ regulation	SKD
Air quality control (optional)	EAQ 10/3
KNX connection (optional)	K-SM
MODBUS interface	integrated
Control unit included in scope of delivery.	RLS 1 WR, App
Control unit (optional)	RLS T2 WS, RLS G1 WS
EnOcean wireless integration (optional)	E-SM
Mobile control	yes
Housing emission sound pressure level	42 dB(A) (Spacing 1m, sound absorption 10 m²)
Packing unit	1 piece
Range	К
GTIN (EAN)	4012799952695

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} (dB(A))	30	38	43	46	46	38	27	20	50
L _{WA5} (dB(A))	43	44	41	41	45	37	28	14	50
L _{WA6} (dB(A))	50	55	56	55	55	41	36	35	62

 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.

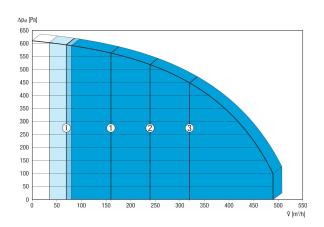
 L_{WA5} , L_{WA6} = sound power level emitted to the free surroundings. Measured at a subsequent operating point on the connections facing the room. L_{WA5} Exhaust air connections, L_{WA6} Supply air connections.

Operating point: Reference volumetric flow 340 m³/h and external pressure 50 Pa

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Characteristic curve



The figures shown indicate the preset ventilation levels ("factory settings").

- 1 = 160 m³/h, reduced ventilation (RV)
- 2 = 240 m³/h, nominal ventilation (NV)
- $3 = 320 \text{ m}^3/\text{h}$, intensive ventilation (IV)

 $I = Interval \ or "humidity protection operation" depending on RV$

Individual settings available:

 $RV = 80 \text{ m}^3/\text{h} - 470 \text{ m}^3/\text{h}$

 $NV = 80 \text{ m}^3/\text{h} - 470 \text{ m}^3/\text{h}$

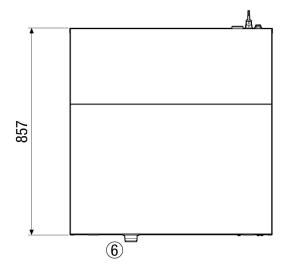
 $IV = 80 \text{ m}^3/\text{h} - 470 \text{ m}^3/\text{h}$

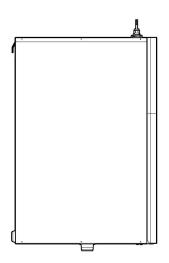
Essential condition: RV < NV < IV!

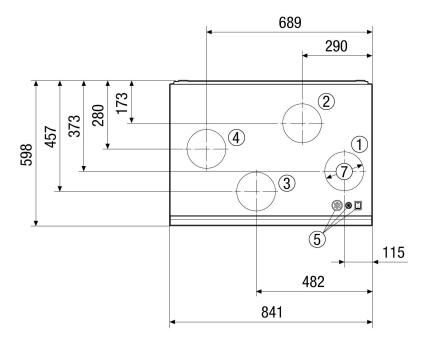
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Dimensioned drawing [mm]







- ① DN 160 supply air
- ② DN 160 exhaust air
- $\ensuremath{\,^{\circlearrowleft}}$ DN 160 outside air
- ④ DN 160 outgoing air
- ⑤ Unit switches / electric connections
- **©** Condensation drain
- ⑦ for DN 160 plug connector