# **WS 320 KBET**





Article number

0095.0227

### Short description

Centralised, highly-efficient ventilation units with EC fans and constant volumetric flow regulation, including preheating register, bypass and enthalpy cross-counterflow exchanger, supply and exhaust air on left, air volume 80 - 320 m³/h, connection diameter 4 x DN 160, 4 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 MAI-CO app (air@home) for mobile unit control, live reports via web tool, DIBT approval and passive house certificate, KNX and EnOcean connection possible

### Application examples

Low-energy house, Living room

#### Technical data

Air flow volume	80 m³/h - 320 m³/h			
SEC average	-40 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)	36 W			
Stand-by power consumption	< 1 W			
I <sub>max</sub>	11 A			
Degree of protection	IP 40			
DIBT approval	yes			
PHI certification	yes			
SPI value	0,18 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	69,61 kg			
Weight including packaging	81,8 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			



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Depth with packaging	650 mm				
Airstream temperature at I <sub>Max</sub>	-20 °C up to 40 °C				
Max. degree of heat provision in accordance with DIN EN 13141-7	93 %				
(A7)					
Heat exchanger construction type	Enthalpy cross-counterflow				
Humidity recovery with enthalpy heat exchanger in accordance with	68 %				
DIN EN 13141-7 (A2)					
Power of preheating register	1,8 kW				
Position – exhaust air	left				
Bypass	yes				
Frost protection	integrated				
Enthalpy heat exchanger	yes				
Antifreeze circuit	yes				
Summer circuit	ECO exhaust air / ECO supply air				
Filter monitoring	with time control				
Humidity control	integrated				
CO <sub>2</sub> 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	36 dB(A) (Spacing 1m, sound absorption 10 m²)				
Packing unit	1 piece				
Range	К				
GTIN (EAN)	4012799952275				

### Sound power level in octave range

	63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz	Total
L <sub>WA2</sub> (dB(A))	19	29	39	40	38	30	20	20	44
L <sub>WA5</sub> (dB(A))	35	35	34	33	37	28	15	15	42
L <sub>WA6</sub> (dB(A))	40	44	46	45	46	29	19	16	52

 $L_{WA2}$ = 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.

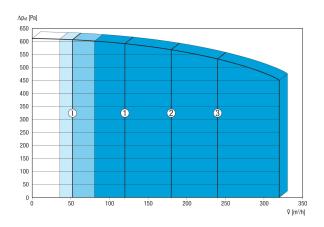
 $L_{WA5}$ ,  $L_{WA6}$  = sound power level emitted to the free surroundings. Measured at a subsequent operating point on the connections facing the room.  $L_{WA5}$  Exhaust air connections,  $L_{WA6}$  Supply air connections.

Operating point: Reference volumetric flow 210 m³/h and external pressure 50 Pa

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### Characteristic curve



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

- 1 = 120 m<sup>3</sup>/h, reduced ventilation (RV)
- 2 = 180 m<sup>3</sup>/h, nominal ventilation (NV)
- 3 = 240 m<sup>3</sup>/h, intensive ventilation (IV)

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

Individual settings available:

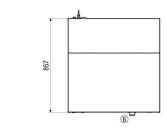
 $RV = 80 \text{ m}^3/\text{h} - 320 \text{ m}^3/\text{h}$ 

 $NV = 80 \text{ m}^3/\text{h} - 320 \text{ m}^3/\text{h}$ 

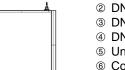
 $IV = 80 \text{ m}^3/\text{h} - 320 \text{ m}^3/\text{h}$ 

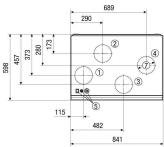
Essential condition: RV < NV < IV!

### Dimensioned drawing [mm]









- ① DN 160 supply air
- ② DN 160 exhaust air
- 3 DN 160 outside air
- 4 DN 160 outgoing air
- ⑤ Unit switches / electric connections
- **©** Condensation drain
- 7 for DN 160 plug connector