

# WS 300 Flat KBR



## Short description

Centralised, highly-efficient ventilation units with EC fans, constant volumetric flow regulation, including preheating register, bypass and two enthalpy heat exchangers, supply and exhaust air on right, air volume 80 - 300 m<sup>3</sup>/h, connection diameter 4 x DN 160, 4 SVR 160 plug connectors needed to connect folded spiral-seams ducts, including RLS 1 WR control panel, including integrated web server and MAICO APP for mobile unit control, live reports via web tool, DIBT approval, KNX, Modbus, Loxone and EnOcean connection possible

## Application examples

Low-energy house, Living room

Article number 0095.0144

## Technical data

|  |  |
|--|--|
| Model  | Comfort bypass model, right                  |
| Air flow volume  | 80 m <sup>3</sup> /h - 300 m <sup>3</sup> /h |
| SEC average  | -39,47 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)         | 0,18 Wh/m <sup>3</sup>                       |
| Power consumption in accordance with DIN EN 13141-7 (A7) | 39 W   |
| Stand-by power consumption                               | < 1 W  |
| I <sub>max</sub>   | 10,8 A                                       |
| Degree of protection                                     | IP 00  |
| DIBT approval  | yes  |
| PHI certification  | No   |
| Installation site  | Wall / ceiling                               |
| System type  | Centralised                                  |
| Housing material   | Plastic EPP/sheet steel                      |
| Heat exchanger material                                  | Synthetic material                           |
| Inner coating material                                   | Plastic EPP                                  |
| Colour   | black / traffic white                        |
| Weight   | 42 kg  |
| Weight including packaging                               | 46,63 kg                                     |
| Filter class   | ISO Coarse 80 % (G4) / ISO ePM1 60 % (F7)    |
| Connection diameter                                      | 160 mm                                       |
| Width  | 700 mm                                       |
| Height   | 300 mm                                       |
| Depth  | 1.500 mm                                     |
| Width with packaging                                     | 750 mm                                       |
| Height with packaging                                    | 305 mm                                       |

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|   |   |
|---|---|
| Depth with packaging  | 1.530 mm  |
| Airstream temperature at $I_{Max}$  | -20 °C up to 50 °C  |
| Max. degree of heat provision in accordance with DIN EN 13141-7 (A7)                  | 91 %  |
| Heat exchanger construction type  | Enthalpy cross-counterflow                                      |
| Humidity recovery with enthalpy heat exchanger in accordance with DIN EN 13141-7 (A2) | 82 %  |
| Power of preheating register  | 1 kW  |
| Position – exhaust air  | right   |
| Bypass  | yes   |
| Frost protection  | integrated  |
| Enthalpy heat exchanger   | yes   |
| Antifreeze circuit  | yes   |
| Summer circuit  | ECO exhaust air / ECO supply air                                |
| Filter monitoring   | time-controlled (controlled by differential pressure as option) |
| Humidity control  | integrated  |
| CO <sub>2</sub> regulation (optional)   | 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   | 37 dB(A) (Spacing 1m, sound absorption 10 m <sup>2</sup> )      |
| Packing unit  | 1 piece   |
| Range   | K   |
| GTIN (EAN)  | 4012799951445   |

## 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> (dB(A))</b> | –     | 33     | 41     | 41     | 41    | 35    | 26    | 14    | 46,5  |
| <b>L<sub>WA5</sub> (dB(A))</b> | 44    | 41     | 41     | 35     | 35    | 21    | 16    | –     | 47,5  |
| <b>L<sub>WA6</sub> (dB(A))</b> | 47    | 50     | 51     | 53     | 54    | 50    | 47    | 38    | 59,4  |

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

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

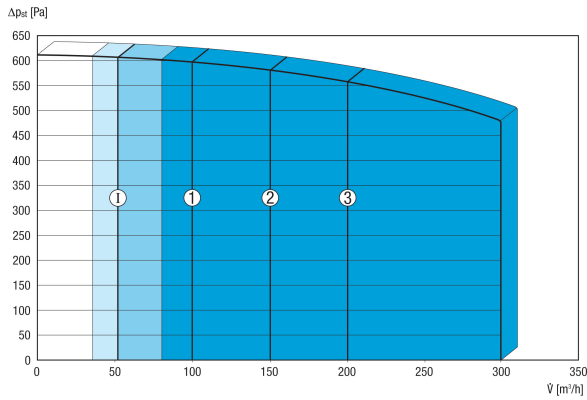
L<sub>WA6</sub>= free outlet sound power level in dB.

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: Reference volumetric flow 210 m<sup>3</sup>/h and external pressure 50 Pa

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## Characteristic curve



The figures shown indicate the pre-set ventilation levels (“factory settings”).

1 = 100 m³/h, reduced ventilation (RV)

2 = 150 m³/h, nominal ventilation (NV)

3 = 200 m³/h, intensive ventilation (IV)

I = Interval or “humidity protection operation” depending on RV

Individual settings available:

RV = 80 m³/h - 300 m³/h

NV = 80 m³/h - 300 m³/h

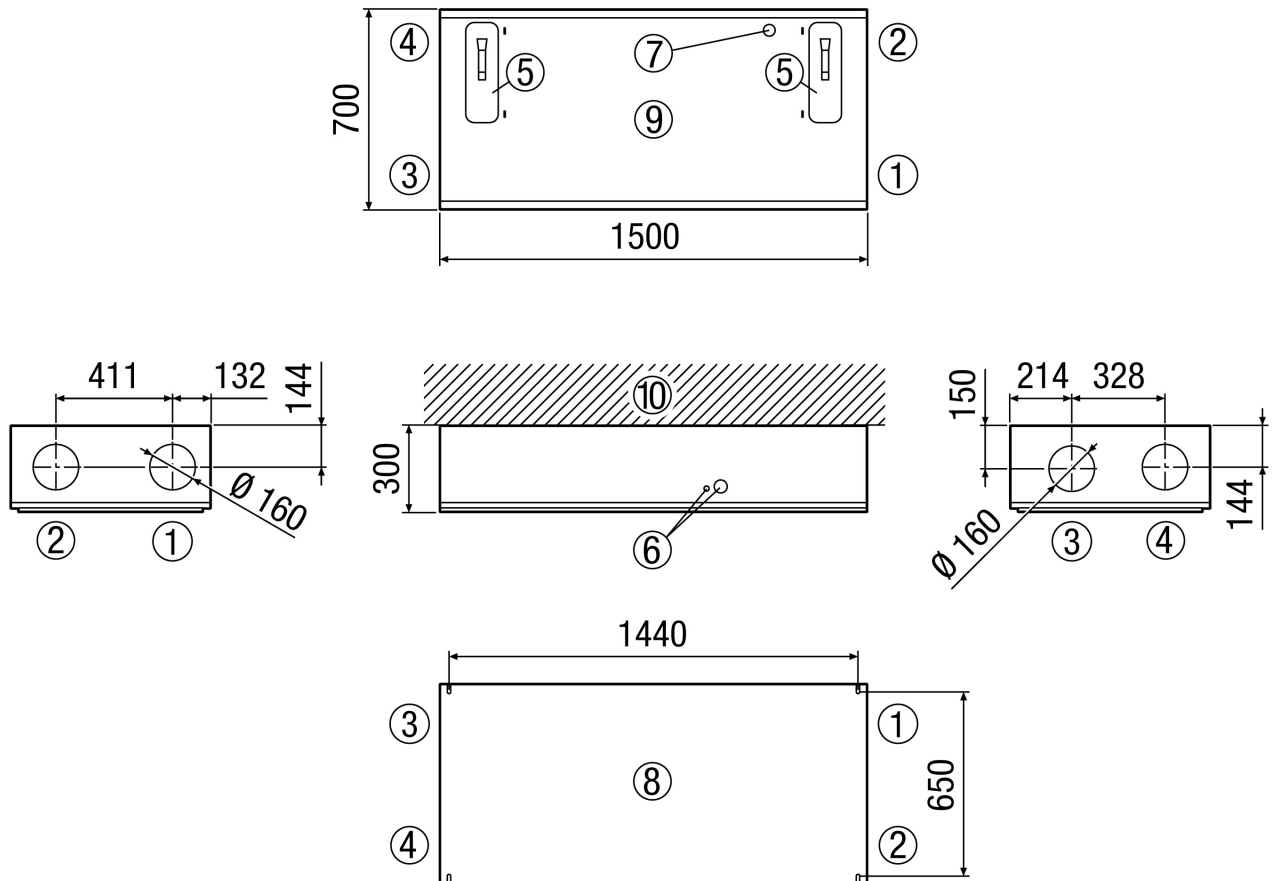
IV = 80 m³/h - 300 m³/h

Essential condition: RV < NV < IV !

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Dimensioned drawing [mm]

Rechtsversion



- ① Supply air
- ② Exhaust air
- ③ Outgoing air
- ④ Outside air
- ⑤ Filter cover
- ⑥ Electric connections
- ⑦ USB connection
- ⑧ View from above
- ⑨ View from below
- ⑩ Ceiling / wall