

# WR 600



## Short description

Centralised ventilation unit with very effective heat recovery through cross-counter-flow exchanger, EC motors with constant volumetric flow regulation, interval mode, 150 - 620 m<sup>3</sup>/h, 4 x DN 250, including RLS 1 WR control unit, DIBT and passive energy house approval, KNX connection possible

## Application examples

Low-energy house, Passive energy house, Doctor's practice, Waiting room, Living room

Article number 0095.0080

## Technical data

|  |  |
|--|--|
| Number of ventilation levels                     | 4  |
| Air flow volume                                  | 150 m <sup>3</sup> /h - 620 m <sup>3</sup> /h                          |
| Volumetric flow constant                         | yes  |
| Speed controllable                               | –  |
| SEC average                                      | -30,9 kWh/(m <sup>2</sup> *a)  |
| Energy efficiency class                          | B  |
| Type of voltage                                  | Alternating current  |
| Rated voltage                                    | 230 V  |
| Frequency  | 50 Hz/60 Hz  |
| SPI value in accordance with DIN EN 13141-7 (A7) | 0,31 Wh/m <sup>3</sup>   |
| Power consumption                                | 56 W - 303 W (At 100 Pa counter pressure)                              |
| I <sub>max</sub>                                 | 3 A  |
| Degree of protection                             | IP 00  |
| DIBT approval                                    | yes  |
| PHI certification                                | No   |
| Installation site                                | Cellar / Storage tank / Jamb wall / Utility room / Heating room / Loft |
| Installation position                            | horizontal   |
| System type                                      | Centralised  |
| Housing material                                 | Sheet steel, powder coated   |
| Heat exchanger material                          | Aluminium  |
| Inner coating material                           | Synthetic material   |
| Colour   | pearl light grey   |
| Weight   | 89 kg  |
| Weight including packaging                       | 106,5 kg   |
| Filter class                                     | G4 / F7  |
| Connection diameter                              | 250 mm   |
| Connection diameter of condensation drain        | 3/4" hose connection   |
| Width  | 1.115 mm   |
| Height   | 1.200 mm   |

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|  |  |
|--|--|
| Depth  | 505 mm   |
| Width with packaging   | 1.160 mm   |
| Height with packaging  | 1.390 mm   |
| Depth with packaging   | 590 mm   |
| Airstream temperature at I <sub>Max</sub>                            | 50 °C  |
| Max. degree of heat provision in accordance with DIN EN 13141-7 (A7) | 89 %   |
| Heat exchanger construction type                                     | Cross-counterflow  |
| Bypass   | No   |
| Frost protection   | External   |
| Enthalpy heat exchanger  | No   |
| Antifreeze circuit   | yes  |
| Summer circuit   | Exhaust air with RLS D1 WR   |
| Filter monitoring  | with time control  |
| Humidity control   | optional with HY 5, HY 5 I, HY 10 AP, HY 10 UP                                   |
| CO <sub>2</sub> regulation (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 1 WR   |
| Control unit (optional)  | RLS D1 WR  |
| Wireless switch on/off (optional)                                    | XE 1, XS 1   |
| EnOcean wireless integration (optional)                              | No   |
| Mobile control   | No   |
| Housing emission sound pressure level                                | 43 dB(A) / 46 dB(A) / 50 dB(A) (Spacing 1m, sound absorption 10 m <sup>2</sup> ) |
| Approval number  | Z-51.3-234   |
| Packing unit   | 1 piece  |
| Range  | K  |
| GTIN (EAN)   | 4012799950806  |

## 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>  | 31    | 37     | 37     | 39     | 38    | 35    | 27    | 17    | 45    |
| <b>L<sub>WA5</sub>, Step 1 (dB(A))</b>  | 37    | 40     | 39     | 39     | 38    | 32    | 21    | 12    | 46    |
| <b>L<sub>WA6</sub>, Step 1 (dB(A))</b>  | 38    | 39     | 40     | 40     | 43    | 37    | 23    | 19    | 48    |
| <b>L<sub>WA2</sub>, Level 2 (dB(A))</b> | 33    | 41     | 40     | 42     | 41    | 37    | 31    | 19    | 48    |
| <b>L<sub>WA5</sub>, Level 2 (dB(A))</b> | 38    | 43     | 44     | 42     | 42    | 35    | 25    | 16    | 49    |

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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 2 (dB(A))</b> | 38    | 42     | 43     | 42     | 46    | 40    | 26    | 20    | 51    |
| <b>L<sub>WA2</sub>, Level 3 (dB(A))</b> | 34    | 44     | 44     | 46     | 45    | 41    | 35    | 24    | 52    |
| <b>L<sub>WA5</sub>, Level 3 (dB(A))</b> | 38    | 45     | 45     | 43     | 45    | 39    | 29    | 21    | 51    |
| <b>L<sub>WA6</sub>, Level 3 (dB(A))</b> | 40    | 46     | 47     | 46     | 51    | 45    | 30    | 22    | 55    |

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.

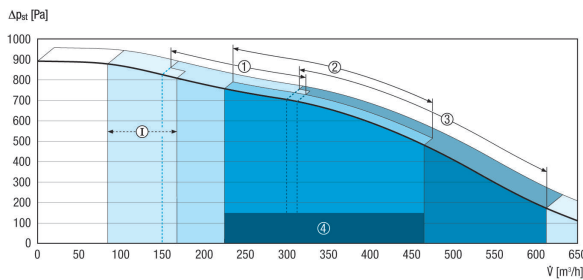
L<sub>WA5</sub>, L<sub>WA6</sub> = sound power level emitted to the free surroundings. Measured at a subsequent operating point on the connections facing the room. L<sub>WA5</sub> Exhaust air connections, L<sub>WA6</sub> Supply air connections.

Operating point, level 1: Air volume 230 m<sup>3</sup>/h and external pressure 100 Pa

Operating point, level 2: Air volume 345 m<sup>3</sup>/h and external pressure 100 Pa

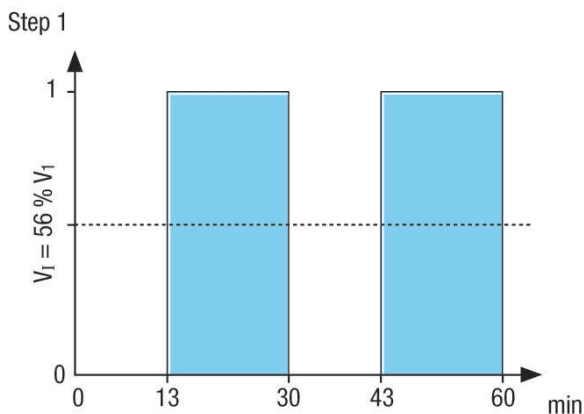
Operating point, level 3: Air volume 460 m<sup>3</sup>/h and external pressure 100 Pa

## Characteristic curve



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

## Characteristic curve Ventilation for humidity protection

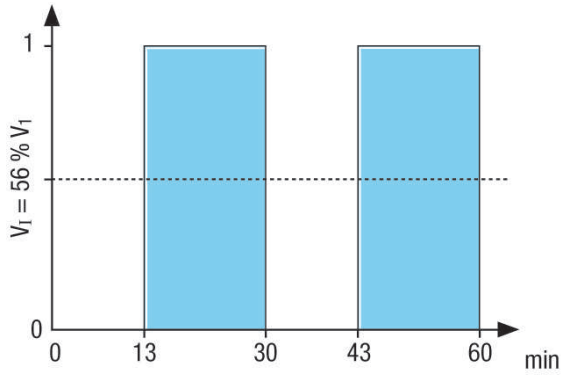


Interval switch for step 1  
 17 min to switch on  
 13 min to switch off

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## Characteristic curve Ventilation for humidity protection

Step 1



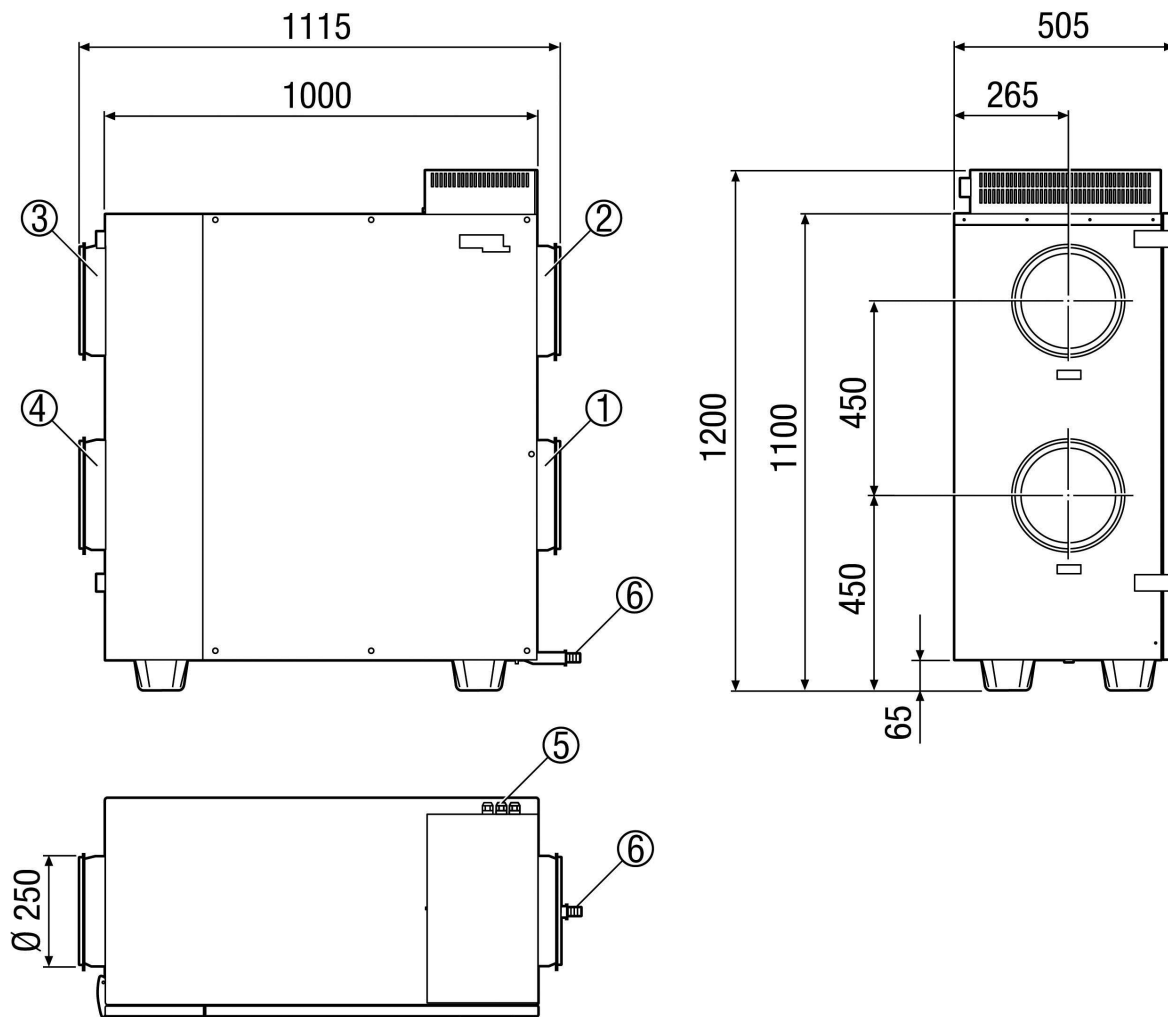
Interval switch for step 1

17 min to switch on

13 min to switch off

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Dimensioned drawing [mm]



- ① DN 250 outgoing air
- ② DN 250 supply air
- ③ DN 250 exhaust air
- ④ DN 250 outside air
- ⑤ Electrical connection
- ⑥ Condensation drain (3/4" hose connection)