|  |
| --- |
| Text Description automatically generatedSPECIFICATION SHEET (Belgium): **HEALTHBOX 3.0 – SMART 0.81**  Version 09/01/2024  *Renson N.V.* |

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**68.31. Home ventilation units – system C |FH|piece**

**Measurement**

* Unit of measurement: per piece
* Nature of the agreement: Standard Quantity (FH)

**Material**

Autonomous demand-controlled home ventilation unit in conformity with NBN EN 13141-6

* Individual detection and extraction in each humid room are regulated by control valves mounted externally on the motor unit and controlled and supplied directly from the motor unit
* Central CO2 detection
* No room sensors
* Included in the energy performance and indoor climate (EPB) product details database

**Specifications**

* Installation type
  + *Wall / floor / ceiling*
* Airflow
* *475 m³/h (135 Pa)*
* *430 m³/h (200 Pa)*
* Maximum power of home ventilation unit
* *Max. 35W (225 m³/h)*
* *Max. 53W (325 m³/h)*
* Noise power level (cf. Ecodesign)
* *Max. 34 dB(A) (225 m³/h)*
* *Max. 47 dB(A) (475 m³/h)*
* Sound pressure level at a distance of 1 metre from the fan box(1), in rooms up to max. 15 m²
  + *Max. 32 dB(A) (225 m³/h)*
  + *Max. 45 dB(A) (475 m³/h)*
* Dimensions (L x W x H)
* *Without control valves: 390 x 443 x 200 mm*
* *With control valves: 567 x 567 x 200 mm*
* Control valves with electronic sensors
* *Measures air quality in the extracted airflow per humid room 24/7 and regulates the airflow accordingly:*
* Absolute CO2 detection: proportional valve control depending on the set CO2 level
* Absolute & dynamic H2O moisture detection: proportional and/or open/closed valve control
* Dynamic VOC odour detection: open/closed valve control
* *Type of control per room:*

*Kitchen (CO2+H2O) – Laundry room / Bathroom (H2O) – Bathroom+Toilet (H2O+VOC) – Toilet (VOC)*

* *Elliptical damper blade for low-noise operation*
* *Connected externally to the motor unit*
* Additional central detection and control of CO2

*Improved air quality in the bedrooms through detection/extraction in the adjacent humid room(s)*

* Valve collectors
  + *Centralised and/or decentralised connection (via RJ45 patch cable)*
  + *Connect up to three control valves to one motor unit supply point*
  + *Up to max. 11 control valves can be connected (using 2 valve collectors)*
* Automatic calibration (commissioning)
  + *Guarantee/control of the attainment of the extraction airflows*
* Fan
  + *EC motor made of galvanised steel*
  + *Impeller ø180 for extremely quiet and energy-efficient operation*
* Fan with active variable pressure control

*Fan speed is continuously controlled to achieve the extraction required for each room at the lowest possible pressure level (the valve blade of one control valve is always fully open)*

* Automatic Breeze function

*The fan will temporarily (automatically) ventilate at nominal airflow rate if coolness is required*

* Available digital interaction:
* *Directly, via integrated Ethernet connection or via Wi-Fi dongle*
* *Automatic software update if home ventilation unit is online*
* *Users must be able to read sensor data from the device and to store historical data in order to continuously monitor that the air quality is good (this means that the device is working properly) and to rapidly detect e.g. moisture damage and/or mould formation*
* Device is technically equipped to do fault detection locally and remotely
* System reduction factor
* *freduc, vent, heat max. 0,81*
* *freduc, vent, cool/overheat 1.00*
* Resident mobile app available *- to control inside and outside the local network*
* *Displays the sensor data for at least the past week*
* *Temporarily boosts ventilation*

**Installation**

* The unit will be installed and connected in conformity with the plans, the supplied principle diagrams, the supplier’s instructions, and any ATG-E provisions that may apply.
* The unit will be installed so that it is vibration-free.
* Duct connections: number and diameter according to plans and lists of measurements
* Optional
  + Control: potential-free multi-position switch – wired
  + Non-return valve on extraction when connected to a collective extraction duct.

**68.61. Ventilation nozzles – valve without control valve**

**Material**

* Flat ALU ventilation valves without control valve for extraction air
* No adjustment at the valve required, cf. automatic calibration of home ventilation unit
* Due to its design and the absence of a mechanism for adjustment, the valve produces a very low noise level

**Specifications**

* Material: UPVC louvre base with ALU cover plate
* Pressure drop:
  + *Valve Ø80 : Max 4.1 Pa (at 25 m³/h)*
  + *Valve Ø125 : Max 6.2 Pa (at 75 m³/h)*

*(1) Based on sound noise level cfr Ecodesign*