



Installer's manual

HRC-EcoSmart / HRC-SmartComfort

Balanced ventilation with heat recovery &
solar control

This manual is intended for installers of the HRC-EcoSmart and HRC-SmartComfort balanced ventilation system. The manual contains important information about the installation and configuration of the ventilation unit.

These instructions belong to the versions:

HRC-425-EcoSmart

HRC-425- SmartComfort

HRC-570-EcoSmart

HRC-570-SmartComfort



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1. Precautions and safety instructions



Indicates a risk of personal injury and/or material damage to the product, the system or the environment.

Risk of electric shock.

- Only a professional installer may install, connect, commission and service the unit unless otherwise specified in this document;
- The installation of the device must be carried out in accordance with the general and locally applicable building, safety and installation regulations of the municipality and the electricity supply company;
- When carrying out work on the unit, ensure that the power is off and cannot be switched on accidentally. Bear in mind that the motor continues to run for approx. 20 seconds after being switched off;
- The unit must be connected to an earthed and fused wall socket;
- Modification of the device other than as described in this documentation is not permitted;
- It must not be possible to touch the fans by hand, which is why ductwork of at least 900 mm in length must be connected.
- The unit is not suitable for use in an environment where the following conditions are present or may occur:
 - Corrosive or flammable gases, liquids or vapours.
 - Overwhelmingly greasy atmosphere.
 - Room air temperature above 40°C or below 5°C.
 - Relative humidity higher than 90%.
 - The appliance is not suitable for connection to a cooker hood or tumble drier
- The device is only suitable for indoor use.
- The device is not suitable for industrial use, such as swimming pools, saunas or workshops.
- Check that the device is complete and undamaged when it is removed from the packaging.

2. Product Information

2.1. General Product Description

The HRC-EcoSmart / SmartComfort is a balance fan with heat recovery and zone control. This means that the same amount of fresh, filtered outside air is supplied to the living rooms and bedrooms as is removed from the kitchen, bathroom and toilet. In this process, only the heat of the extract air is transferred to the incoming outside air by means of a heat exchanger. With the zone control, the living and sleeping areas are ventilated according to requirements, which are determined by the CO₂ sensor in the respective area.

2.2. Device types

The table below lists the different versions. Each version is suitable for both left and right-hand mounting.

	HRC-425 EcoSmart (300)	HRC-425 SmartComfor t (300)	HRC-570 EcoSmart (400)	HRC-570 SmartComfor t (400)
Article no.	22001090	22001095	22001100	22001105
Maximum flow rate at 200 Pa [m³/h]	300	300	400	400
Supply air volume according to 70% rule¹ [m³/h]	425	425	570	570
Power cord²:	Earthing	Earthing	Earthing	Earthing
Channel connection [mm]	4 x ø 160 2 x ø 160 Zone valve	4 x ø 160 2 x ø 160 Zone valve	4 x ø 180 2 x ø 160 Zone valve	4 x ø 180 2 x ø 160 Zone valve
Pre-heater	no	yes	no	yes
Filter class (ISO16890)	2x coarse 65%	Supply: ePM1 70% drain: coarse 65%	2x coarse 65%	Supply: ePM1 70% drain: coarse 65%

¹ In accordance with Article 3.29 Paragraph 5 of the 2012 Building Decree

² Optional perilex mains cable available, see chapter 7.2 Service parts

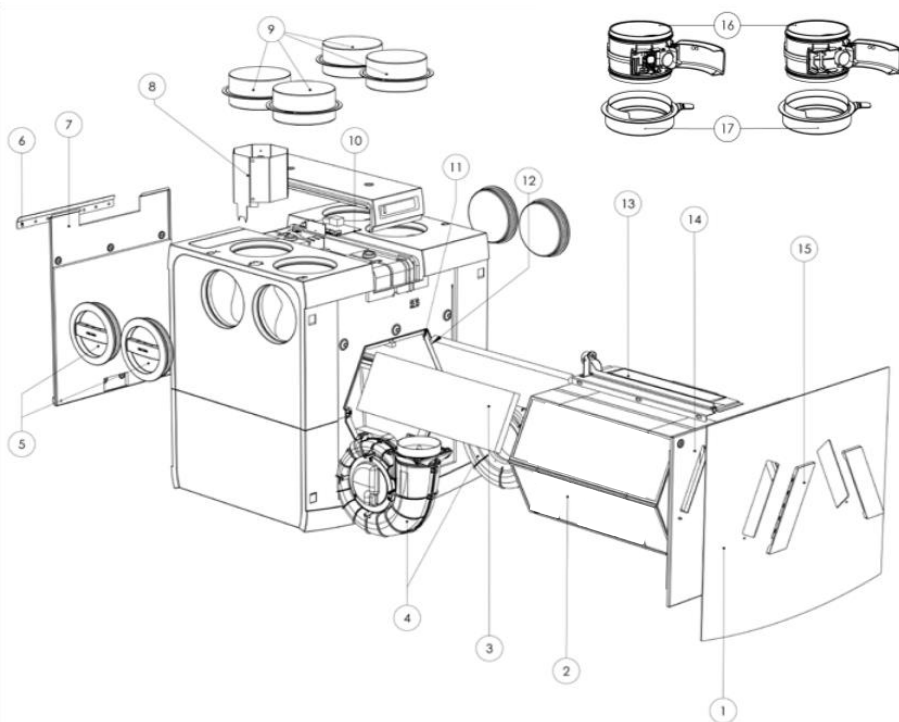
2.3.Scope of delivery

Before installing the HRC, check that it has been delivered complete and undamaged. It is complete if the following parts have been supplied:

- HRC-EcoSmart or HRC-SmartComfort with shock-proof power cord
- Wall bracket
- Suspension set with 2x M8 bolts, 2x M8 washers and 2x dowels
- Installation guide
- User Manual
- Coupling 32mm / G1¼" for condensate drain
- 2x Orcon Filter (already in unit) (depending on unit version, see chapter 2.2)
- Optional pre-heater (depending on unit version, see chapter 2.2)
- 2x Zone valve
- Adapter 5V for zone control
- 4x Connection flanges 160 or 180 mm (depending on unit version, see chapter 2.2)
- 2x Connection flange Zone valve
- EcoDesign stickers.

2.4.Optional accessories

Articl	Article
HRC chassis	22700080
EFF ø125 Exhaust valve	23121002
EFF ø160 Exhaust valve	23121003
TFF ø125 Supply valve	23121012
TFF ø160 Supply valve	23121013
MKL-T ø125 Supply valve plastic	23120125
MKL-T ø160 Supply valve plastic	23120160
Dry condensation drain set	22700065
Filter set HRC 2x coarse 65%	22700009
Filter set HRC coarse 65% & ePM1 70%	22700006
Perilex cable	29190405
CV-3 Perilex switch - construction	28000005
CV-3 Perilex switch - flush-mounted	28000000
Remote control 15RF	21800000
CO ₂ room sensor 15RF	21800040
CO ₂ control sensor 15RF	21800045
CO ₂ sensor 15RF	21800050
HRC Display Built-in15RF	21800060



3. Product overview

3.1.Parts

- | | |
|---|---|
| 1. Plastic front cover | 10. Main board, RF antenna |
| 2. Heat exchanger | 11. Temperature sensor (2x) |
| 3. Filter (2x) | 12. Humidity sensor |
| 4. Fan module (2x) | 13. Bypass module |
| 5. EPP cap (4x) | 14. Metal front plate |
| 6. Wall bracket | 15. Filter handle left & right |
| 7. Metal backing plate | 16. Zone valve 1 & 2
(incl. Printed Circuit Board,
Motors, Adapter + Cable
Connection) |
| 8. Pre-heater
(only with HRC- SmartComfort) | 17. Connection flange Zone valve (2x) |
| 9a. Connection flange 160mm (4x)
(HRC 425-EcoSmart/MaxComfort) | |
| 9b. Connection flange 180mm (4x)
(HRC 570-EcoSmart/
SmartComfort) | |

3.2. Appliance operation

Zone control

The HRC-EcoSmart and HRC-SmartComfort are equipped with two zone valves. With these, the supply air can be divided over two different zones. The CO₂ sensors, which are placed in the two zones, determine where ventilation is required. By applying zone control, ventilation is minimised in rooms where it is not necessary and maximised where it is. This results in a considerable reduction in energy consumption and noise, creating a pleasant indoor climate.

Bypass

In summer situations, or when heat recovery is not desired, the air is not led through, but past the heat exchanger thanks to a bypass module. This makes it possible to ventilate the house with fresh outside air during the night in summer, so that the house is relatively cool again in the morning. The bypass opens when the indoor temperature exceeds the comfort temperature of 23°C and the outdoor temperature is higher than 15°C.

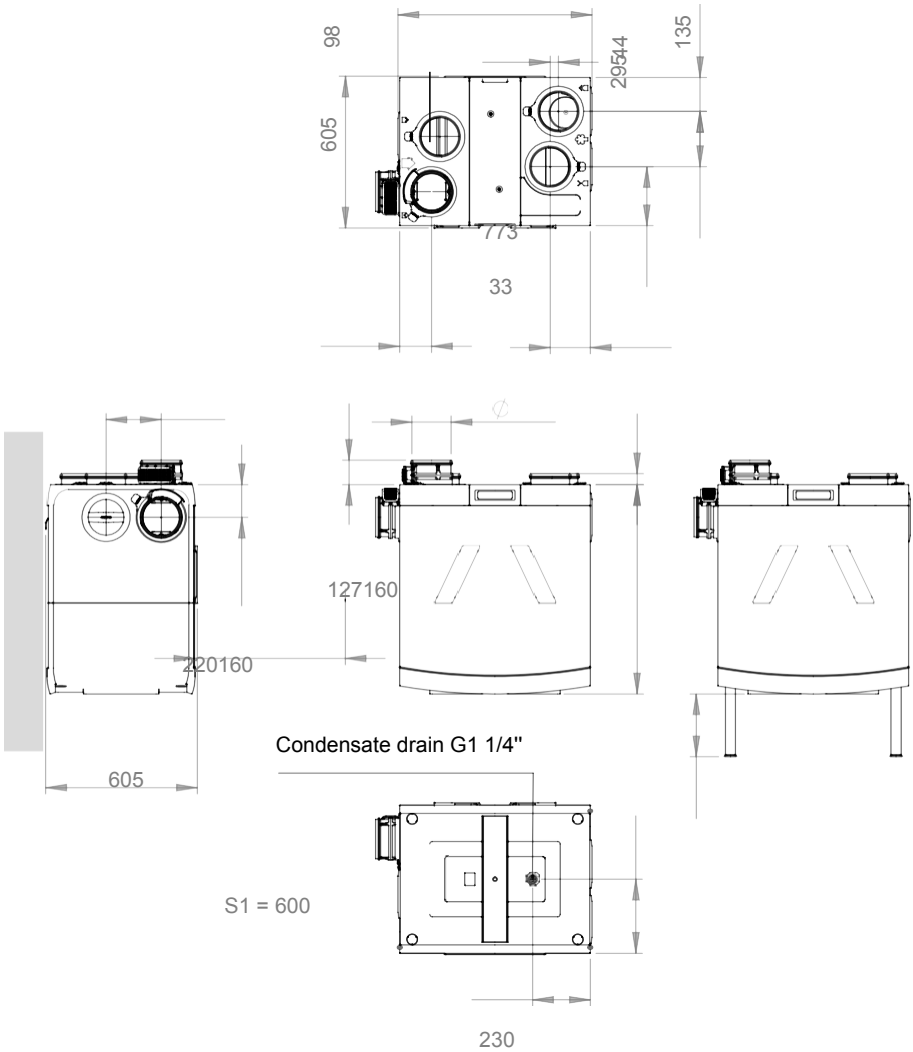
Frost protection

When the outside temperature is around freezing point in winter, it is possible that ice will form in the exchanger. To prevent this, the HRC will heat the exchanger in time using the warm air from the house. To do this, the unit will temporarily create an imbalance between the supply and return air fans. In the SmartComfort versions, the built-in pre-heater will kick in and temporarily warm up the cold incoming outside air to prevent freezing.

Constant volume

The fans are equipped with a constant volume control. This ensures that, regardless of the resistance in the system, the fans always ventilate the set air volume. In this way, the supply and return flows are always balanced and the user is assured of sufficient air and the heat exchanger operates at maximum efficiency.

3.3.Dimension drawing



For service purposes, allow +/- 600 mm of free space at the front of the unit. Position the double wall socket within 1 metre of the appliance.

4. Installation

4.1. Requirements for installation

The installation of the HRC must be carried out in accordance with:

- Quality requirements for domestic ventilation systems, ISSO 61
- Quality requirements for balanced ventilation in dwellings, ISSO 62
- The capacity calculation according to the Building Act
- Requirements for ventilation of buildings - Determination methods for new buildings NEN 1087:2018
- The safety regulations for low voltage installations, NEN 1010
- The regulations for connection to indoor sewers - guidelines for design and implementation, NTR 3216:2012. Any additional regulations from the local energy supply companies
- Installation instructions for the HRC-EcoSmart/SmartComfort

4.2. Brief installation instructions

Step 1 Mount the wall bracket level to a wall of sufficient mass (200kg/m²), or mount the unit on the optional stand in case of floor mounting. see 4.6

Step 2 Install the Orcon exhaust and supply valves in the various rooms. see 4.8

Step 3 Install the ventilation ducts and lead-throughs with as little air resistance as possible and free from leaks. see 4.3

Step 4 Determine where the channels on the device should end up, configure the device in the desired orientation. see 4.4

Step 5 Replace the randaarde cable with a perilex cable if required. Place the zone valves directly on the HRC supply openings or in the supply duct to the house. see 4.5

Step 6 Set the required flow rate using the dipswitches on the main board. see 6.1

Step 7 Hang the unit on the wall bracket, or place the unit with the stand in the desired location. see 4.6

Step 8 Install silencers of at least 1 metre (ducts to and from the indoor areas) see 4.3
see 4.7

Step 9 Install the condensate drain (preferably dry siphon) under the appliance	see 4.9
<hr/>	
Step 10 Place the desired controls in the house. At least one CO ₂ sensor must be installed per zone.	see 4.10
<hr/>	
Step 11 Connect the zone valves het toestel.	see 5.1
<hr/>	
Step 12 Connect the CO ₂ sensors to the zone valves of the respective zone where the sensor is located.	see 5.2
<hr/>	
Step 13 Determine how the total capacity is distributed over the zones and enter this on the zone valve 1.	see 6.2
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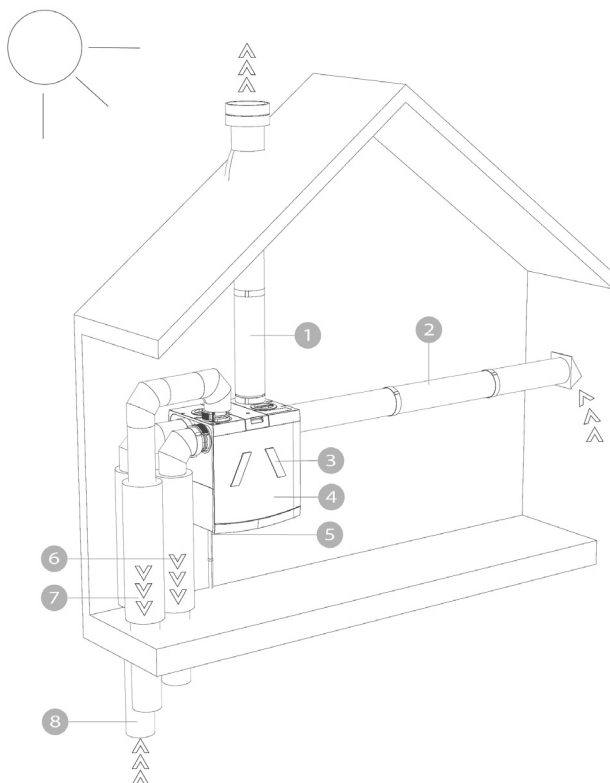
Step 14 Adjust the supply valves for each zone in accordance with the ventilation calculation made.

see 6.3

Step 15 Adjust the drain valves over the entire house by opening both zone valves

see 6.4

4.3.Installing channels



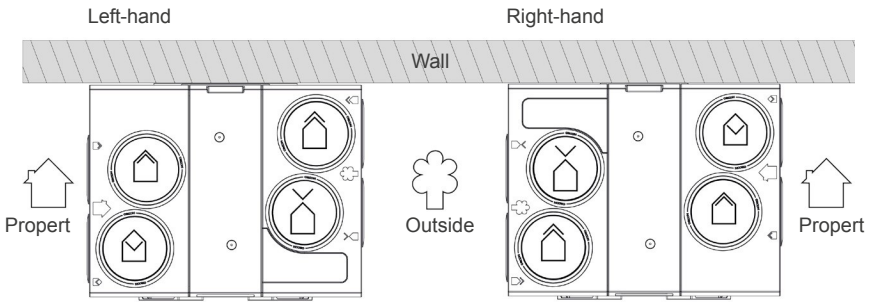
1. Exhaust to the outside.
2. Supply from outside.
3. Appliance fitted with appropriate filters.
4. HRC (levelling).
5. Connect condensate drain as per installation instructions.
6. Acoustically insulated connection of the Zone 1 supply duct to the flat.
7. Acoustically insulated connection of the Zone 2 supply duct to the flat.
8. Acoustically insulated connection of the flue from the house.


Selecting air ducts

Desired flow rate (m ³ /h)	Minimum recommended duct diameter (mm)
0 - 30	> 100
30 - 150	> 125
150 - 350	> 150
350 - 450	> 180
400 - 500	2x 180 (use side and top connection)

Please observe the following points when installing the channels:





1. To prevent condensation on the ducts from and to the outside, these should always be insulated externally vapour-tight to the appliance. Preferably pre-insulated plastic channels made of PE or PUR are used, try to keep these channels as short as possible.
2. It is recommended to install silencers with a minimum length of 100 cm on the supply and return channels to the house.
3. Attach the duct system to the wall with metal brackets, with a maximum distance of 2 m between the brackets.
4. Ensure that the resistance in the supply and extract air ducts is as low as possible. The resistance of the entire installation should preferably not exceed 100 Pa.
5. Ensure that the duct diameter corresponds to the desired flow rate in the ducts, so that the air velocity in the duct does not exceed 3 m/s See table in section 4.3.
6. The supply air duct system is designed so that NEN 1070, table 4, is complied with in the nominal position. Consider crosstalk and installation noise, also in the case of intake ducts. This can be prevented by installing a sound absorber.
7. The exhaust and supply ducts must be led through the roof boarding in such a way that no condensation is formed in the roof boarding and the whole is airtight.
8. The air intake or air outlet ducts should be laid with a slight incline to the outside via the façade and should be wind and watertight so that no water can penetrate from outside.
9. The intake of outside air should preferably take place on the shadow side of the house.
10. The position of the outlet and supply of the mechanical ventilation air and sewerage venting in relation to the supply is selected in such a way that no nuisance occurs.



 **Caution:** When inserting the ducts, make sure that no residual material enters the unit, as this may damage it.

4.4. Change device orientation

When connecting the ducts, it is important to take into account where the ducts should be placed. The connections are indicated on top of the device by icons. The appliance is delivered as a left-hand model, which means that the ducts to and from the house are placed on the left-hand side.

Air ducts on the flat side	Air ducts on the outside
 Supply air from the unit to the dwelling	 Supply air from outside to the unit
 Return air from the house to the unit	 Exhaust air from the unit to the outside

Change the appliance to the right-hand version:

Step 1 Remove the plug from the socket.

Step 2 Place the unit on a flat surface, if the unit is already hung.

Step 3 Remove both filter handles. Step 4

Remove the plastic front plate.

Step 5 Remove the metal front plate of the unit by loosening the 5 screws. (bit size T25).

Step 6 Remove the power cord from the cable clamp on the metal back plate.

Step 7 Remove the metal back plate of the unit by removing the 5 screws (T25).

Step 8 Move the metal front plate to the other side of the unit and retighten the 5 screws.

Step 9 Move the metal back plate to the back of the unit and retighten the 5 screws.

Step 10 Remove the top circuit board cover by removing the 2 screws. (T25) Note the length of the display cable when removing the circuit board cover, if necessary remove it temporarily from the connector on the circuit board.

Step 11 Move the grounding cable to the new back of the device. Also move the strain relief to the recess on the other side of the PCB.

Step 12 Replace the top cover so that the display is at the front and tighten the 2 screws.

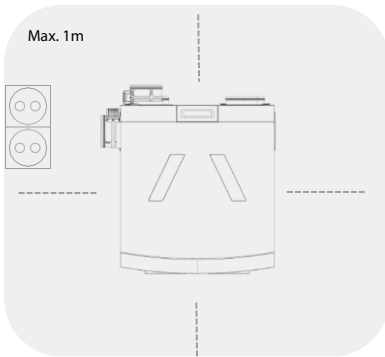
Step 13 Replace the earthed cable in the cable clamp on the metal back plate. Make sure that the cable does not come under the suspension bracket.

Step 14 Replace the plastic front plate in front of the metal front plate. Then press the front plate firmly onto the four outer corners.

Step 15 Replace the filter handles.

4.5. Electrical connections HRC

The HRC is equipped as standard with a mains lead with shock-proof plug. Optionally, you can replace the rim-earth cord by a perilex cord (article number: 22915405). The zone control is provided with its own 5 volt power supply and must be connected to a wall socket by means of the supplied adapter. Place a double wall socket for the HRC and the zone control within **1 meter** around the device.



The electrical installation must comply with NEN1010 and the requirements of the local energy company.

- Do not insert the plug into the wall socket until the entire installation is complete and there is no construction dust.
- The unit is not suitable for three-phase current
- Power supply HRC-EcoSmart/SmartComfort: 230 Volt ~50/60 Hz
- Connection voltage Zone valve: 5VDC, 1A via supplied adapter (connection voltage 230V 50/60 Hz)

Execute HRC with perilex cable

The HRC can also be operated with a 3 position switch (CV-3 switch). For this, the HRC must be fitted with a perilex mains lead, which is optionally available. Follow the next steps.



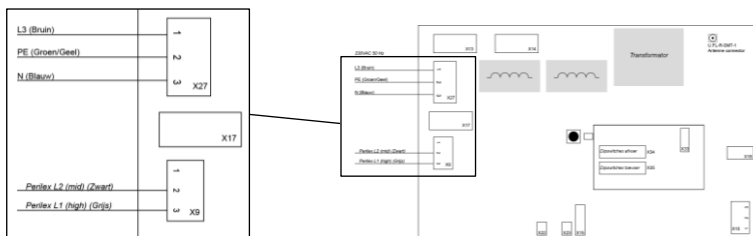
Note: Make sure the wall socket is de-energised when changing the wiring.

Step 1 Place the device on a flat surface.

Step 2 Remove the grounding cable from the cable clamp on the metal back frame.

Step 3 Remove the top cover by unscrewing the 2 screws with a Torx screwdriver (bit size T25).

Step 4 Remove the connector from socket X27. See the illustration of the circuit board below.



Step 5 Remove the grounding cable from the cable outlet.

Step 6 Attach the black wire of the perilex cable to position 2 (centre) of screw connector X9 using a flat screwdriver.

Step 7 Use a flat screwdriver to attach the grey wire of the perilex cable to position 3 (bottom) of screw connector X9.

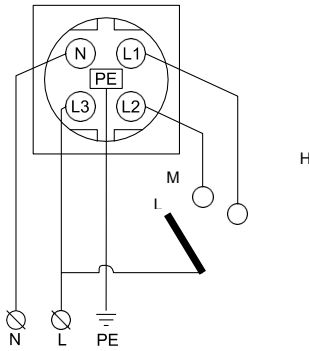
Step 8 Place the white connector of the perilex cable on socket X27.

Step 9 Lead the perilex cable through the cable recess. Place the strain relief in the appropriate recess.

Step 10 Replace the top cover and tighten the 2 screws. If the cable from the display has come loose, reinsert it in the connector on the top panel.

Step 11 Replace the Perilex cable in the cable clamp on the metal back frame

Step 12 Plug the plug into a Perilex socket. The wall socket must be connected as shown in the wiring diagram.
Please note that terminal L3 is permanently supplied with 230V voltage.

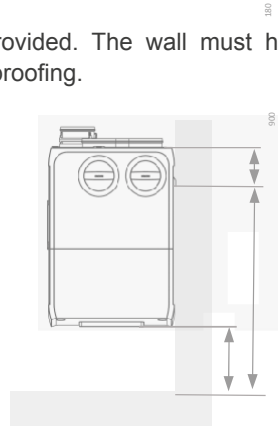


4.6.Placing the appliance

Wall mounting

The unit can be hung on the wall bracket provided. The wall must have a minimum mass of 200kg/m² for optimum soundproofing.

Step 1 Fix the wall bracket level to the wall using the bolts (M8x60 wood screw) and plugs supplied. There must be sufficient space under the unit for the condensation drain (see chapter 4.7), see dimensions below.



Step 2 Place the HRC in the left or right configuration over the wall bracket, by hooking the hook on the back of the unit over the wall bracket. (see chapter 4.4)

Step 3 Adjust the levelling feet at the back of the appliance so that it hangs level against the wall.



Note: Make sure the power cord does not get caught under the suspension bracket when hanging up the unit.

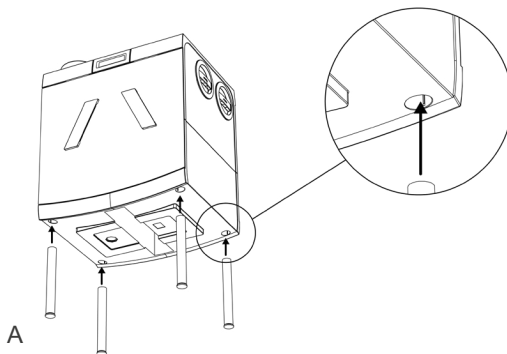


Note: Make sure that the HRC hangs level.

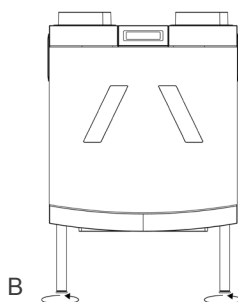
Floor mounting

If there is no wall suitable for wall mounting, the HRC can also be placed on a concrete floor using the optional Orcon undercarriage (article number: 22700080) for floor mounting.

Step 1 Insert the feet into the recesses on the underside of the unit (Figure A).



Step 2 If necessary, adjust the levelling feet so that the appliance is level on the ground (fig. B).



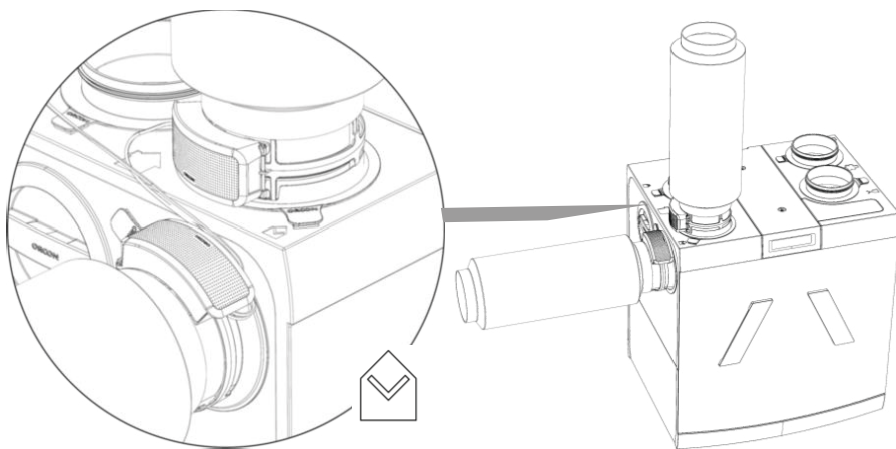
4.7. Connecting zone valves

The zone valves must always be placed in two separate supply channels that are connected to two different zones. On the device, the connections for the supply ducts are marked with the following icon:

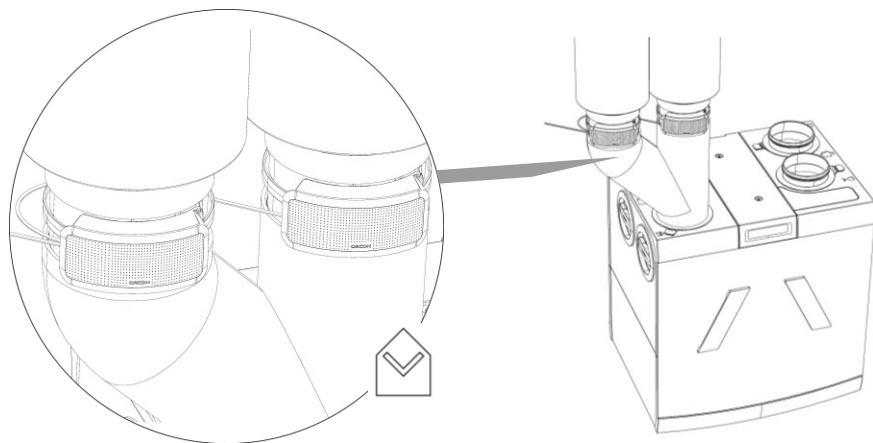


The zone valves can be placed either directly on the unit or externally in the supply duct.

Appliance mounting:



Channel mounting:

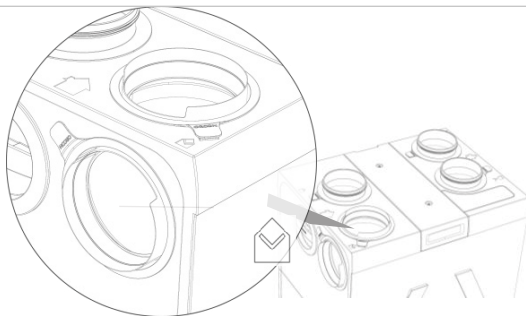


Connect zone valves directly to the unit.

Step 1 Place the two connecting flanges for the zone valves (with recess) on the inlet connections of the unit marked with the icon:



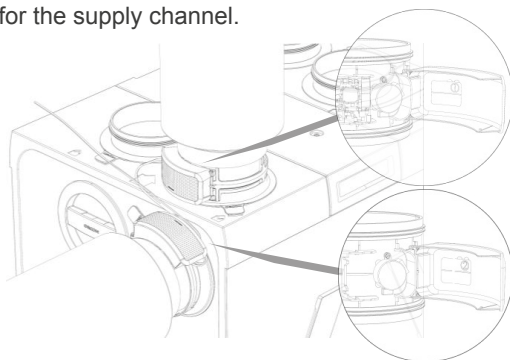
Make sure that the flanges are tightened to the mounting points of the unit, so that the valves are properly positioned.



Step 2 Place zone valve 1 (see sticker 1 inside the cover) on the upper connection for the supply duct. See the illustration below.

Step 3 Place zone valve 2 (see sticker 2, inside cover) on the side connection

for the supply channel.



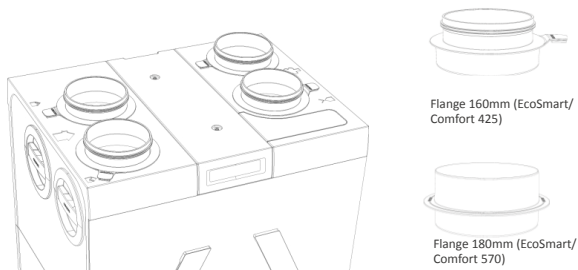
Step 4 Fit both supply ducts with a silencer of at least 1 metre. Step 5 Connect the ducts as indicated in chapter 4.3.

Install zone valves in the supply duct.

Step 1 Place the standard connection flanges for duct mounting on the inlet connection of the unit marked with the icon:



Make sure that the flanges are tightened to the mounting points of the unit, so that the valves are properly positioned.

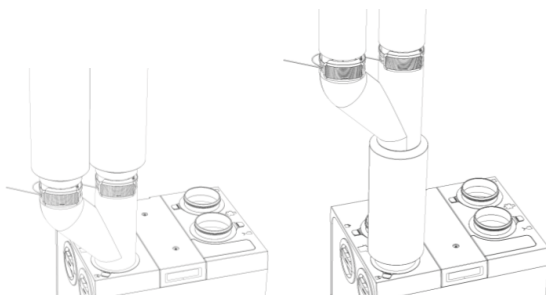


Step 2 Fit the required duct (attachment) to the connection flange.

Step 3 Install the Zone valves in two separate ducts, preferably using a Y piece to separate the ducts.

Step 4 Install a silencer of at least 1 metre per duct, which is placed after the zone valves. Or a single silencer placed in front of the Y piece.

Silencers after Zone valves: Silencer for Zone valves:



Step 5 Connect the channels as indicated in chapter 4.3.

4.8. Installing valves

Preferably use Orcon supply and extract valves. The following points must be taken into account when installing the supply and return valves:

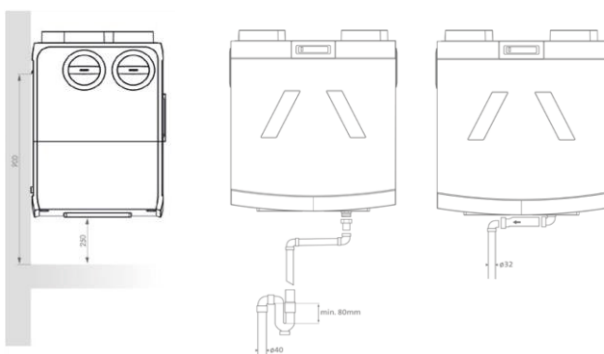
- Select the location of the supply valves in such a way that contamination and draughts are avoided.
- The air velocity in the duct near a supply valve should be as low as possible and should not exceed 3 m/s.
- Do not place the supply valves too close to a wall to avoid contamination, preferably keep a distance of at least 0.5 m.
- When selecting valves, take into account the noise production and the calculated air volume flow. Please refer to the manufacturer's product data. In order to reduce resistance, we recommend that only valves equal to or larger than $\varnothing 125$ mm are used.
- Make sure that the supply and exhaust valves are at least 1.5 m apart so that the air currents cannot come into contact with each other.
- Maximum flow per outlet valve (125mm): 75 m³/h
- Maximum flow per supply valve (125mm): 50 m³/h

4.9. Condensate drain

The HRC must always be fitted with a condensation drain under the unit. Observe the following points when fitting the condensate drain:

- Make sure that the unit is hanging level so that the condensation water can drain off properly.
- The condensate drain must be connected to the indoor sewer via a siphon.
- Make sure that there is enough room under the appliance to connect a siphon. (Standard siphon 25cm, Orcon dry siphon 10 cm)
- The condensation water must be discharged in a frost-free manner with a slight gradient.
- The unit is supplied with a standard 32 mm coupling piece with threaded rod G1 1/4".
- When connecting the condensate drain, always use PTFE tape to prevent leakage.
- Ensure that the condensate drain is always connected in an airtight manner, to prevent air being sucked in from the condensate drain.
- When using a standard siphon, a water trap of at least 80 mm must be maintained. Prevent this from drying out in periods when there is little condensation.

An Orcon dry trap (article number: 22700065) is preferred, which can be ordered separately. This requires less space under the device, there is no risk of air leaks and it does not dry out on hot days, thus preventing odour nuisance.



4.10. Installation accessories

In order to determine the zone in which ventilation is required, one or more CO₂ sensors must be used per zone. The sensor determines the air quality in the room by measuring the CO₂ content. Depending on the measured CO₂ content, the zone valves are partially opened or closed.

The following CO₂ sensors can be used: CO₂ Built-in sensor 15 RF (Art. 21800050) CO₂ Room sensor 15RF (Art. 21800040)

CO₂ control sensor 15RF (Art. 21800045)



Please note: Refer to the user manual of the applied sensor for mounting and operating instructions.

5. Subscribe components

When the HRC including the zone valves has been installed, the various components can be registered. These are registered in accordance with the following steps.

1. Registering zone valves on HRC
2. Connecting CO₂ sensors to zone valves

5.1. Registering zone valves on HRC

The zone valves must be registered on the device. To do so, carry out the following steps:

Step 1 Insert the adapter of the Zone Valve into the power outlet. The Zone Valve now has power and the valves will both open.

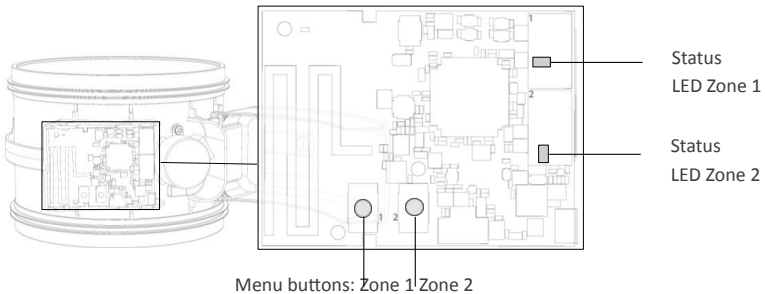
Step 2 Plug the HRC into the mains, after start-up the HRC will be in learning mode for 3 minutes.

Step 3 Open the cover on the housing of Zone Valve 1 so that the circuit board becomes visible.

Step 4 Press the menu buttons <1> & <2> simultaneously until both zone LEDs alternately flash GREEN and RED.

The zone valves are connected to the HRC.

With successful connection, both LEDs will flash green 10 times and both valves will fully open. If connection is unsuccessful, both LEDs will flash red 4x.



5.2.Connecting CO₂ sensors to a zone valve

After the zone control has been registered on the HRC, at least one CO₂ sensor per zone must be registered on the zone valve connected to the relevant zone.

Please follow the steps below:

Step 1 Open the cover on the housing of Zone valve 1 so that the circuit board is visible.

Step 2 Start the Zone 1 teaching mode by pressing the Zone 1 menu button for 3 to 8 seconds until the ZONE 1 LED alternately flashes Red-Green.

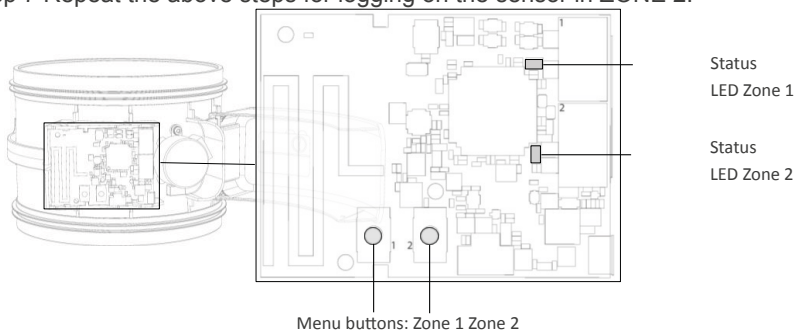
Step 3 ZONE 1's learning mode is now activated for 10 minutes. The status LED of ZONE 1 will light up green continuously when teach-in mode is active.

Step 4 Press the operating button of the CO₂ sensor placed in ZONE 1 briefly once. The current status of the sensor is indicated by the status LED. (In case of no connection, the status LED blinks red 3 times)

Step 5 Press and hold the sensor again so that the status LED on the sensor alternately flashes RED and GREEN. (Hold for 2-3 seconds)

Step 6 When the sensor is successfully registered with the Zone Valve, the sensor status LED flashes green 10 times.

Step 7 Repeat the above steps for logging on the sensor in ZONE 2.



Register additional sensors

It is possible to connect multiple sensors per zone. For example, when several bedrooms in a zone are equipped with a CO₂ sensor.

For this purpose, the above steps are repeated with each new sensor. If several sensors are placed in one zone, the sensor with the highest CO₂ value determines the ventilation requirement for the zone concerned.

5.3. Logging off sensor(s)

Logging off single

sensor

To unregister a single sensor from a specific zone, the control button on the respective sensor for 15 seconds until the status LED lights up orange. After releasing the button, the link to the zone is deleted.

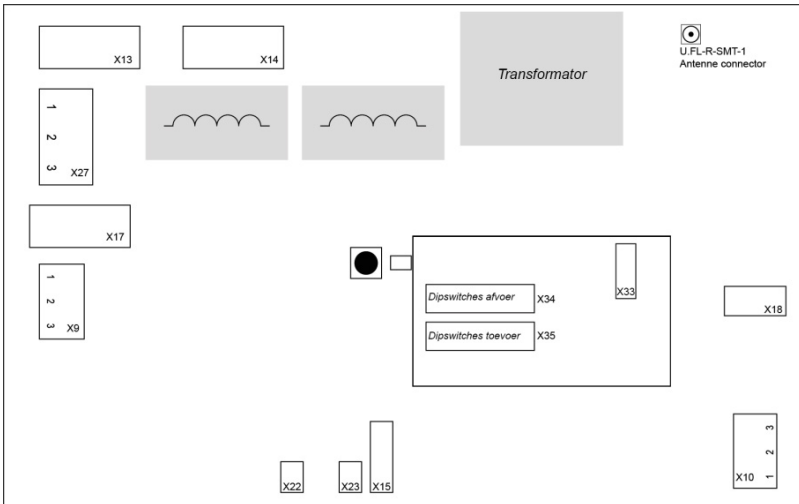
Zone logout

If it is desired to log off all sensors within 1 zone simultaneously, the menu button of the zone concerned on the printed circuit board of the Zone Valve can be held down for 15 seconds, until the Zone LED lights up permanently in orange. The connection to the paired sensors has been deleted.

6. Adjustment

6.1. Set flow rate to HRC

The air volume per fan can be set using the DIP switches on the HRC circuit board. The upper row of DIP switches (X34) controls the extract air fan and the lower row (X35) controls the supply air fan.



70% rule for zone control:

When using a zone controller to distribute the air supplied to the house over several zones, these zones will in most cases not be ventilated simultaneously. Ventilation takes place only in zones where there is a demand. This means that the unit does not need to have the full capacity for the entire house. The 2012 Building Decree describes that the unit capacity may be 70% of the total required supply air flow rate for all rooms.

Example:

Required supply zone 1	135 m ³ /h	45%
Required supply zone 2	165 m ³ /h	55%
Total supply to dwelling	300 m ³ /h	100%
Device capacity	210 m³/h	70%



Please note that the return air is not zoned and the 70% rule does not apply here. If the required exhaust air capacity is higher than 70% of the supply air capacity, this capacity must be entered on the unit.

Setting device capacity

Step 1 Close the windows and doors.

Step 2 Open the exhaust and supply valves to the maximum. Step 3

Unplug the balanced ventilation unit from the mains supply.

Step 4 Unscrew the 2 screws on the top of the circuit board cover using a Torx screwdriver (T25). The PCB cover can then be removed from the device housing, and the DIP switches on the PCB are now accessible.

Note: Carefully open the cover to avoid disconnecting the cable from the display. If the cable comes loose, replace it in the connector next to the dipswitches.

Step 5 Set the desired unit capacity for both fans using the DIP switches for position 1, 2 and 3.
next page. When adjusting the zones, the highest setting is used.

Step 6 Restart the HRC.

Step 7 Distribute the set flow rate to the two connected zones.
See chapter 6.2.

Step 8 Adjust the supply valves for both zones separately.
Please refer to the description in chapter 6.3.

Step 9 Adjust the drain valves of both zones simultaneously. Both zones must be open. Ensure that sufficient overflow facilities are available.

Setting DIP switches

	HRC-30	HRC-40	Positio	DIP switch number:							
	m3/h	m3/h		1	2	3	4	5	6	7	8
1*	45	70	Low	OF F	OF F						
2	80	105	Low	ON	OF F						
3	115	140	Low	OF F	ON						
4	150	175	Low	ON	ON						
5*	150	175	Middle			OF F	OF F				
6	175	200	Middle			ON	OF F				
7	200	225	Middle			OF F	ON				
8	225	250	Middle			ON	ON				
9*	225	250	High					OF F	OF F	OF F	OF F
10	230	260	High					ON	OF F	OF F	OF F
11	235	270	High					OF F	ON	OF F	OF F
12	240	280	High					ON	ON	OF F	OF F
13	245	290	High					OF F	OF F	ON	OF F
14	250	300	High					ON	OF F	ON	OF F
15	255	310	High					OF F	ON	ON	OF F
16	260	320	High					ON	ON	ON	OF F

17	265	330	High					OF F	OF F	OF F	ON
18	270	340	High					ON	OF F	OF F	ON
19	275	350	High					OF F	ON	OF F	ON
20	280	360	High					ON	ON	OF F	ON
21	285	370	High					OF F	OF F	ON	ON
22	290	380	High					ON	OF F	ON	ON
23	295	390	High					OF F	ON	ON	ON
24	300	400	High					ON	ON	ON	ON

* *Factory setting*

6.2. Adjusting the air distribution to both zones

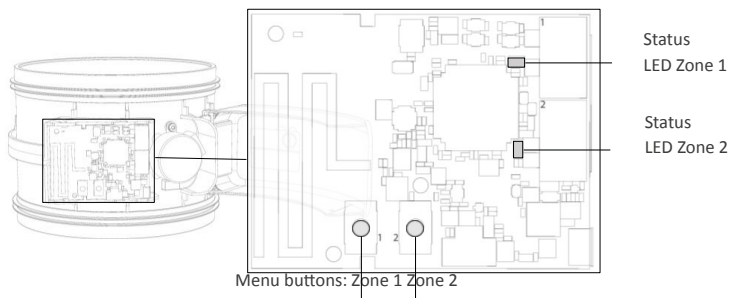
Once the unit capacity has been set, it must be divided between the two connected zones. By default, the distribution is set to 50/50% so that both zones are the same size. If a zone is significantly larger, the distribution must be set differently to ensure proper system operation. To set the air distribution, follow the steps below:

Step 1 Calculate the percentage distribution of both zones in relation to the total housing capacity. See the example below. See www.orcon.nl to use our calculation tool.

Voorbeeld:	Percentage:
Maximum capacity zone 1 : 135 m ³ /h ₄₅	
Maximum capacity zone 2 : 165 m ³ /h ₅₅	% Total
calculated capacity :300 m ³ /h ₁₀₀	%

Step 2 Open the cover of zone valve 1.

Step 3 Simultaneously press the menu button of ZONE 1 and ZONE 2 7 until 10 seconds, until both zone LEDs start flashing orange.



Step 4 Set the air distribution, as calculated in step 1, by pressing button <1> or

<2>. See table setting distribution on the next page.

Step 5 Confirm the setting by pressing the menu button <1> or <2> for 3 seconds. As confirmation, both LED's will flash green 4x.

Short press	LED Zone 1	LED Zone 2	Zone 1 percentage	Zone 1 percentage
0x	Orange	Orange	50	50
1x	Red	Orange	45	55
2x	Green	Orange	40	60
3x		Orange	35	65
4x		Red	30	70
5x		Green	25	75
6x	Green		75	25
7x	Red		70	30
8x	Orange		65	35
9x	Orange	Green	60	40
10x	Orange	Red	55	45

6.3. Airside regulation of zones

By means of the adjustment mode, the supply and exhaust air per zone can be adjusted and controlled. Both zones are controlled in position 3. Follow the steps below:

Step 1 Press the button of <Zone 1> for 8 seconds, until LED 1 flashes orange.

Step 2 After releasing the button, the zone 1 adjustment mode is activated.
For 20 minutes, only zone 1 will be opened and the unit will ventilate the maximum air volume set for zone 1.

Step 3 In zone 1, measure the air volume per room at the supply valves and adjust if necessary by opening or closing the valves.

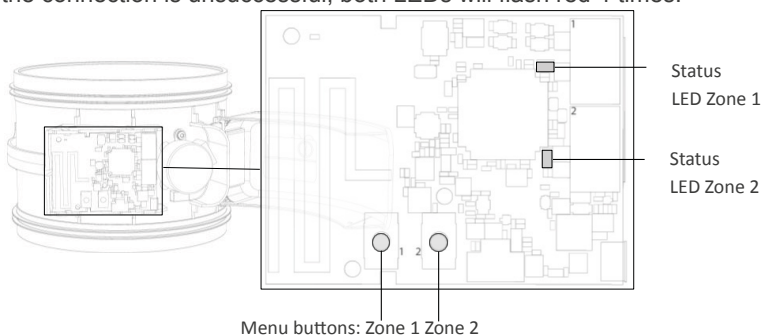
Step 4 Change zones by pressing the ZONE 2 button once.

Step 5 In zone 2, measure the total air flow rate at the supply valves and adjust if necessary by opening or closing the valves.

Step 6 If both zones are correctly adjusted, this can be confirmed by pressing one of the buttons for 4 seconds. After confirmation both LEDs will flash green 10 times.

Step 7 If necessary, adjust the unit capacity by changing the dip switches of position 3.

Step 8 If the connection is unsuccessful, both LEDs will flash red 4 times.



6.4.Adjusting drain valves

The exhaust valves are not zoned. After the supply valves in both zones have been calibrated, the extract valves must be calibrated over the entire house.

Set the HRC to position 3 so that both zone valves on the supply air open. Measure the total air quantity on the exhaust valves and check whether you are exhausting enough air per room according to the ventilation calculation made.

Make sure that there are sufficient overflow facilities in the house to allow the air to escape.

7. Maintenance and Service

7.1. Maintenance

To keep the unit in good condition, it should be inspected and cleaned regularly. Maintenance of the device may only be carried out by qualified persons. The following components must be checked and maintained according to the following schedule:

Section	Interva	Who
Cleaning filters	3 months	User
Changing filters	6 months	User
Cleaning valves and grilles	6 months	User
Cleaning the controls	6 months	User
Replacing the remote control battery 15RF	2 years	User
Cleaning the housing	6 months	Installer
Cleaning the humidity sensor	2 years	Installer
Cleaning and checking fans	4 years	Installer
Cleaning the condensate drain	2 years	Installer
Checking the valve setting	4 years	Installer
Cleaning the heat exchanger	4 years	Installer
Clean the inside of the appliance	4 years	installer
Checking and cleaning the zone valve	2 years	Installer
Cleaning ducts	4 years	Installer



Note: Maintenance should be carried out with the power of the HRC switched off.

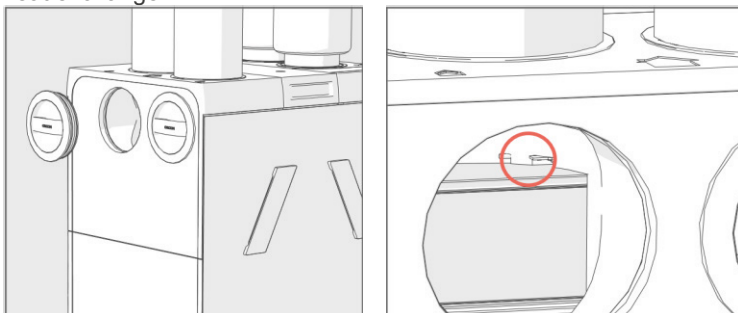
Cleaning the humidity sensor

The humidity sensor is located in the drainage duct from the house. This channel is



marked with:

Step 1 Open the top or side connection of the exhaust duct. If both connections have a channel, the sensor can be reached from inside by removing the heat exchanger.



Step 2 Check for dust on the sensor, which may affect its performance. If necessary, clean the sensor by wiping it with a soft brush.

Cleaning the heat exchanger

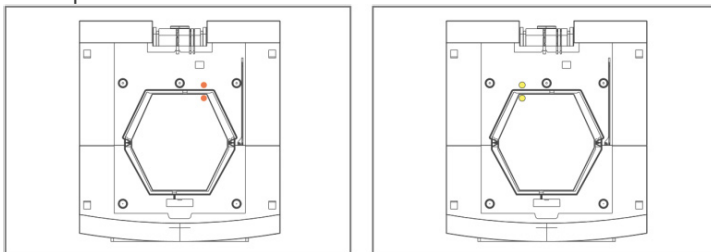
Step 1 Remove the front metal cover and both filters.

Step 2 Remove the heat exchanger by sliding it out of the unit using the pull strap. Make sure that there is at least 60 cm space at the front of the device.

Step 3 Flush the heat exchanger on both sides with lukewarm water (max. 40°C).

Step 4 Tilt the heat exchanger and drain off most of the water.

Step 5 Place the heat exchanger back in the device as it was removed. Make sure that the colour indications on the device and the heat exchanger correspond.



Step 6 Replace the metal front plate and front cover.

Step 7 Fit new filters and replace the filter handles.

Cleaning fans



Danger of electrocution! Maintenance work on the fans must be carried out with the HRC switched off.



Danger! Make sure that the fans do not rotate when they are removed. The device must be de-energised for at least 20 seconds before the fans are removed.

Caution: Always remove one fan at a time from the unit to prevent both fans from being reversed.

Step 1 Disconnect the device from the power supply.

Step 2 Remove the filter handles, plastic front plate and the metal front plate.

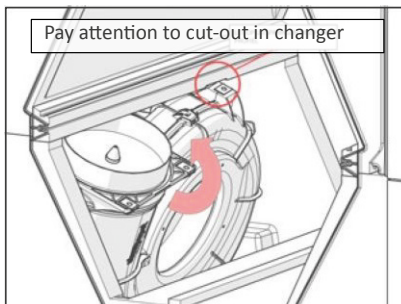
Step 3 Remove the heat exchanger.

Step 4 Remove the plastic locking device under the fan with which the fan is clamped.

Step 5 Push the fan down a little, so that the discharge from the fan comes loose.

Step 6 Now turn the fan anti-clockwise, making sure that the rib at the bottom of the fan is released from the clamping.

Step 7 Make sure that the screw point at the top of the fan is flush with the recess in the unit's changer guide.



Step 8 Tilt the fan.

Step 9 Remove both connectors.

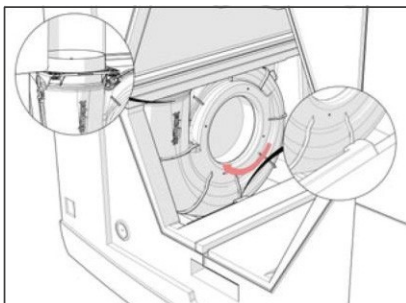
Step 10 Clean the fan with compressed air or a brush, do not use water.

Step 11 Check whether the anemometer at the outlet of the fan can still rotate freely. Remove any dirt with a soft brush.

Step 12 After cleaning the fan, replace both connectors on the fan.

Step 13 Place the fan back in the housing. Make sure that the screw point at the top of the fan is flush with the recess in the housing.

Step 14 Make sure that the rib on the underside of the housing is clamped again.



Step 15 Make sure that the rib on the underside of the housing is clamped again and replace the plastic retainer.

Step 16 Repeat the above steps for the other fan.

Step 17 Replace the heat exchanger, making sure that the colour indications on the device and the heat exchanger match.

Step 18 Replace the filter handles, plastic front plate and the metal front plate.

Step 19 Restore power to the unit.

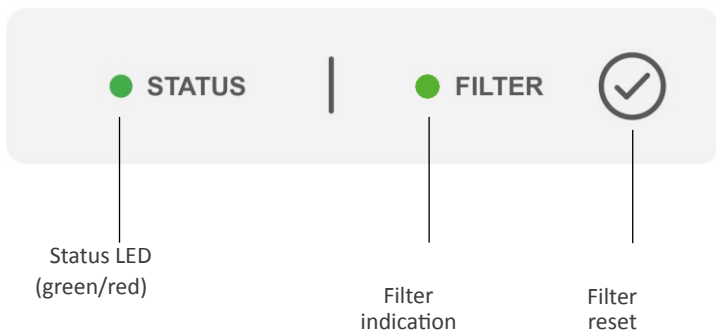
7.2.Service

The unit is fitted with a display on the front. The display shows the current status of the unit; for the indications, see the overview on the next page.

When the unit is operating correctly, the status LED will blink green repeatedly.

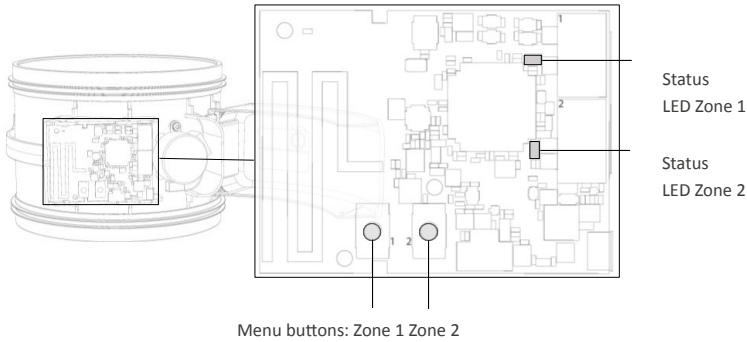
If there is a fault in the unit, it will

are shown on the display. Messages are also displayed on the circuit board.



HRC status	
Indication	Report
Learning mode active	solid green
Starting up the device	Temporary orange
Normal operation	1x short green
Moisture scenario active	2x short green
Control on CO ₂ active	3x short green
Timer active	4x short green
Bypass active	5x short green
Change filter	1x green 1x red + Filter LED
Frost scenario active	2x long green
Pre-heater active	3x long green

HRC Fault indicators:	
Exhaust fan fault	1x red 1x orange
Supply air fan fault	1x red 2x orange
Error both fans	1x red 3x orange
Temperature emergency stop	2x red 1x orange
Temperature sensor fault T1 (return from inside)	2x red 2x orange
Temperature sensor failure T2 (inlet from outside)	2x red 3x orange
Temperature sensor fault T3 (supply fan)	2x red 4x orange
Temperature sensor fault T4 (exhaust fan)	2x red 5x orange
Moisture sensor fault	3x red 3x orange
Modbus exhaust fan fault	4x red 1x orange
Modbus supply fan fault	4x red 2x orange
Modbus fault on both fans	4x red 3x orange
Communication error with zone control	6x red 1x orange



Zone valve 1 is equipped with a printed circuit board with 2 LEDs that display the status of the zone control. In the overview below, the different displays are shown.

Zone valve status

Indication	Message	Status LED
Normal operation	1x green	Zone-specific LED
Moisture scenario active	2x green	Both Status LEDs
Control on CO ₂ demand active	3x green	Zone-specific LED
Timer active	4x green	Zone-specific LED

Zone valve Malfunction indications:

Stepper motor malfunction	1x red	Zone-specific LED
Fault in HRC	2x red	Both Status LEDs
Wrong CO ₂ value	2x red 1x orange	Zone-specific LED
Zone valves not connected to HRC & CO ₂ sensors	3x red	Both Status LEDs
Zone valve not connected to CO ₂ sensors	3x red 1x orange	Zone-specific LED
Zone valves not connected to HRC	3x red 2x orange	Both Status LEDs

7.3. Device status description

1 Learning mode	
Indication:	Description:
Continuous green	In teach-in mode, the green LED will light continuously for three minutes. During the teach-in mode, it is possible to connect multiple RF components to the device.
2	
Indication:	Description:
Temporary orange	When the unit starts up, the status LED will temporarily light up orange. The unit is starting up and components are being checked.
3	
Indication:	Description:
1x Blinking green	In normal operation, the unit operates in automatic mode. The unit listens to any connected CO ₂ sensors and the integrated humidity sensors. If there is no ventilation demand from the sensors, the fans run in low mode.
4	
Indication:	Description:
2x Flashing green	When the humidity scenario is active, the internal humidity sensor has detected a rapid increase in the moisture content of the return air. The unit will temporarily run in elevated mode.
5 CO ₂ control	
Indication:	Description:
Flashing green 3 times	When CO ₂ control is active, an increased CO ₂ content is detected by a connected CO ₂ sensor. This only applies to CO ₂ sensors that are directly connected to the unit. The unit will run in a modulating manner in an elevated position.

6 Timer	
Indication:	Description:
Flashing green 4x	If a temporary mode has been activated by means of a connected control, the unit will run in the high mode during this active period.
7 Change filter	
Indication:	Description:
Filter LED green	When the filter lamp lights up, the filter should be checked. Replace the filter if necessary. After the filter has been replaced, the message can be reset by holding the button next to the filter down for 3 seconds until the message disappears.

7.4. Description of malfunction indications

Fan fault	
Indication:	Description:
1 x red, 1 x orange (drain) 2 x orange (supply) 3 x orange (both)	<p>This message indicates an internal fault in the fan. Check the fan for damage and contamination by dismantling the fan. See chapter 7.1.</p> <p>If the fan is damaged, you must replace it with a new one. Log on the new fan again. See chapter 7.4</p>
Indication:	Description:

2x red
1x
orange

When this message is displayed, the unit has made an emergency stop. This means that the measured input air temperature is lower than 5°C. In this case, check how the unit is oriented (left or right) and whether the ducts are connected correctly.

To change the unit orientation, see section 4.3. Check that the bypass valve is closed. Check that the fans are correctly assigned. If necessary, reassign the fans. See chapter 7.5.

Temperature sensor

Indication:	Description:
2x red 2-5x orange	If a "temperature sensor defective" message is active, no sensor value can be read out. Check which sensor is defective.

Humidity sensor

Indication:	Description:
3x red 3x orange	If the message "moisture sensor defective" is active, no sensor value can be read out. Check whether the sensor is dirty or oxidised, see chapter 7.1. Check the functioning of the moisture sensor by putting the unit into AUTO mode and breathing over the moisture sensor. If necessary, replace the humidity sensor.

Modbus communic

Indication:	Description:
4x red 2-5x orange	<p>If a modbus communication error is displayed, communication is not possible between the main board and one or both fans.</p> <ul style="list-style-type: none"> - Check that the cabling to the fans is correctly connected and check that the fans are powered. - Check for any damage to the fans. - Reconnect both fans to the main board. See chapter 7.4

Communication problem with zone

Indication:	Description:
6x red 1x orange	<p>The radio link to the zone control is broken. Check whether the zone control component is powered.</p> <p>Large metal objects may interfere with radio communication, check for possible RF interference. Try re-registering the zone valve on the device. See chapter 5.1.</p>

7.5. Assigning fans



Attention: After replacement of the fans, they must be assigned again. Correct assignment is very important for the correct operation of the balanced ventilation unit!

Step 1 Disconnect the device from the power supply.

Step 2 Disconnect the power supply of both fans (connection X 13 and 14) from the board.

Step 3 Replace the earthed plug in the socket, wait 10 seconds and disconnect the device from the power supply.

Step 4 Connect the power supply from the supply fan (marked red) to the circuit board (connector X13)

Step 5 Replace the earthed plug in the socket, the address of the supply air fan is now assigned.

Step 6 After 10 seconds, de-energise the device by removing the plug from the wall socket.

Step 7 Connect the power supply from the exhaust fan (marked blue) to the board (connector X14)

Step 8 Replace the earthed plug in the socket, the address of the extractor fan is now also assigned.

Step 9 When both fans are correctly assigned, the unit starts up and the learning mode is activated.



Danger of electrocution! Always disconnect the power supply when allocating fans. Prevent the voltage from being unintentionally switched on.

7.6. Service parts

Type of device: HRC-425-EcoSmart

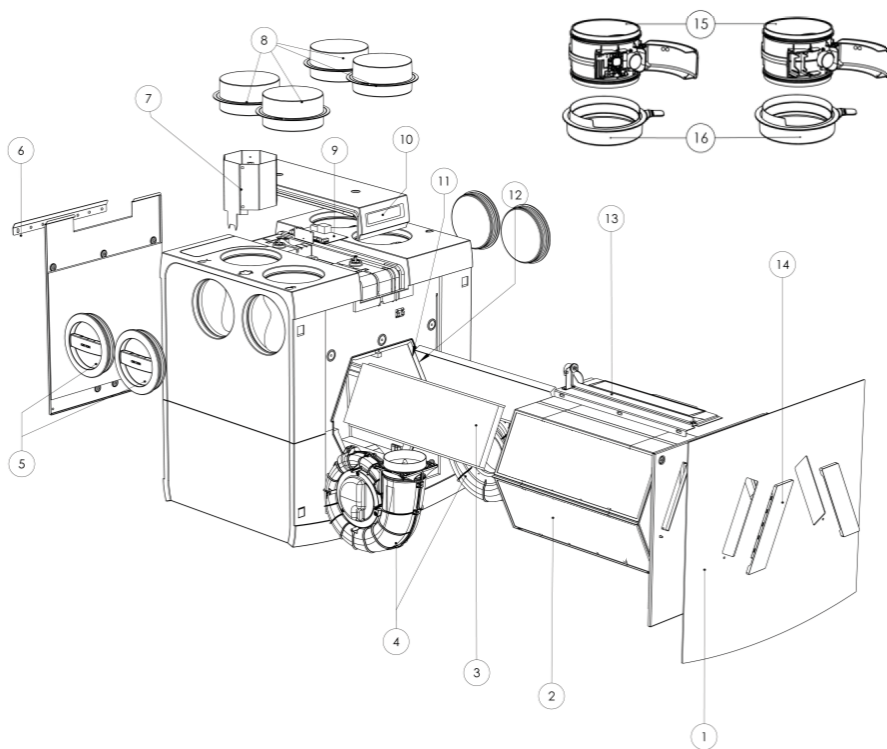
Serial number: 2003570001 (See type label)

Year built: 2020 (see type sticker)

Part: Filter set HRC EcoMax

Artikelnummer: 22000080

N.B.: Type of appliance and serial number are indicated on the type plate on the front of the appliance.



Overview of service article numbers HRC

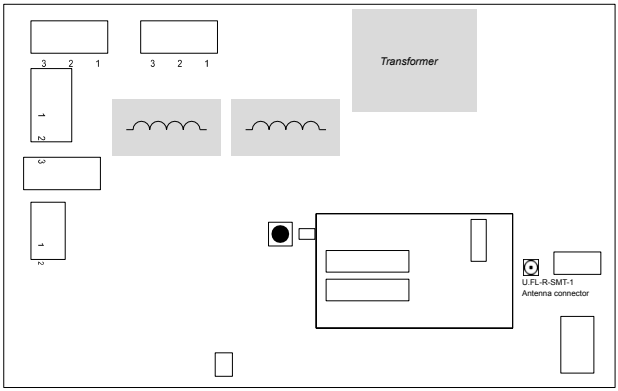
No.	Article description	Article no.
1	Plastic front cover HRC	22901330
2	Heat exchanger HRC	22901303
3A	Filter set (set of 2) Coarse 45% HRC-EcoSmart	22700002
3B	Filter set (1x ePM1 70% & 1x Coarse 65% filter) HRC-SmartComfort	22700006
3C	Filter set (2x Coarse 65% filter) HRC-EcoSmart	22700009
3D	Fine Dust Filter Upgrade supply ePM1 (70%)	22700017
4A	Fan module HRC-425-EcoSmart/SmartComfort	22900690
4B	Fan module HRC-570- EcoSmart/SmartComfort	22900692
5	EPP cap HRC	22901522
6	Wall bracket HRC	22900980
7	Pre-heater HRC-SmartComfort	22900550
8A	Connection flange ø160mm HRC-425-EcoSmart/SmartComfort	22910256
8B	Connection flange ø180mm HRC-570-EcoSmart/SmartComfort	22910248
9A	Main board HRC-425-EcoSmart	22900720
9B	Main board HRC-570- EcoSmart	22900727
9C	Main board HRC-425- SmartComfort	22900724
9D	Main board HRC-570- SmartComfort	22900729
9E	PCB layout Dipswitches HRC	22900706
9F	RF Antenna HRC	22900707
10A	Display HRC	22900998
10B	Printed circuit board EPP cover HRC top	22901520
11	PCB humidity sensor for HRC-v2021	21915081
12	Temperature sensor HRC	22901018
13	Bypass module	22901040
14	Filter handle set left & right	22900240
15A	Zone valve HRC-EcoSmart/SmartComfort (set)	22700100
15B	PCB Zone valve HRC-EcoSmart/SmartComfort	22900763
16	Connection flange Zone valve HRC-Ecosmart	22910259

17	Perilex cable HRC	22915405
18	Side-earthed cable HRC	22915426

8. Technical specifications

8.1. Connections circuit board HRC

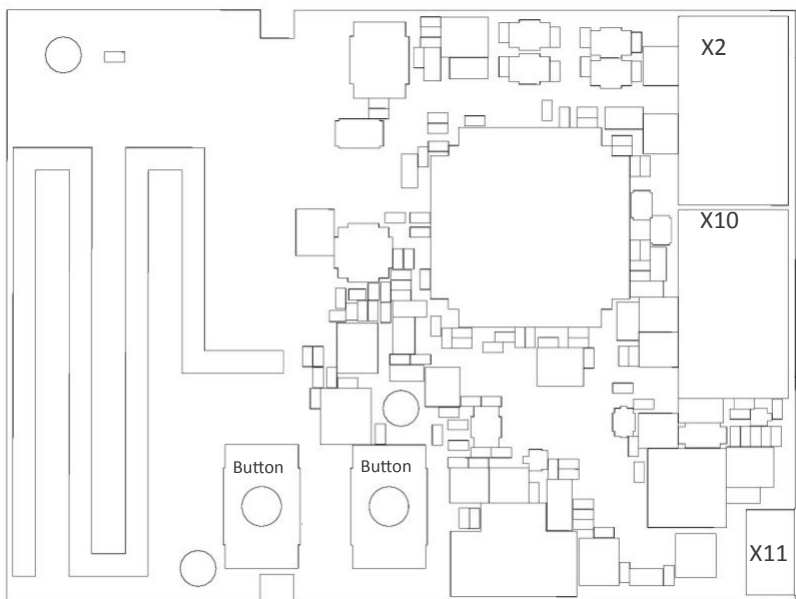
No.	Function	Pin
X1	RF antenna connection	U.FL connector 1 - 230V output
X9	Perilex input	2 - L2 (black, 230V) position Middle 3 - L1 (grey, 230V) position High
X10	Modbus Communication Fans*	1.- RSA (2x White) 2.- RSB (2x Brown) 3.- GND (2x Blue)
X13	230V supply fan	1 – L 2 - 3 – N PE
X14	230V power supply exhaust fan	1 – L 2 - 3 – N PE
X15	Bypass stepper motor control	
X17	Pre-heater connection	
X18	Humidity sensor input	
X22	Temperature sensor1 (return air from indoors)	1.- Earth 2.- Sensor
X23	Temperatuursensor 2 (supply air from outside)	1.- Earth 2.- Sensor
X27	230V mains supply	1 – 2 - 3 – N L(3) PE
X33 *	Display connection	Flat cable
X34 *	DIP switch disposal	8 dipswitches
X35 *	DIP switches supply	8 dipswitches



Only suitable for controlling ventilators

8.2.Connections circuit board Zone control

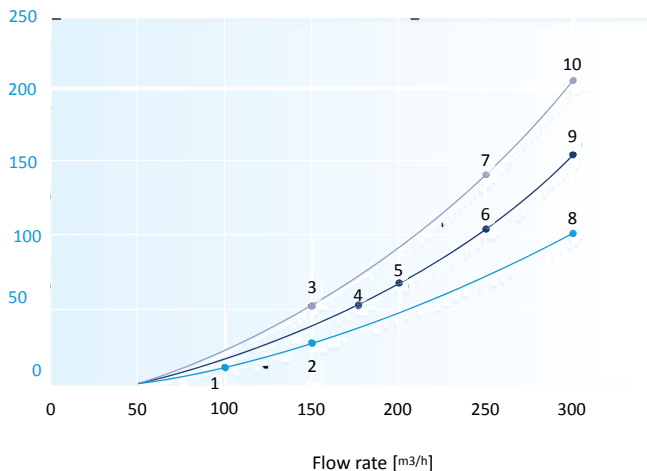
No	Funci
X2	Connector Zone 1
X10	Connector Zone 2
X11	Micro USB socket for power supply
Button 1	Menu button zone 1
Button 2	Menu button zone 2



8.3.Device data for HRC-425-EcoSmart / SmartComfort (300)

Device data for HRC-425-EcoSmart/SmartComfort				
Ventilation mode	Low	Middle	High	Maximum
Ventilation capacity, factory setting [m ³ /h]	80	150	250	300
Reference pressure [Pa]	20	25	100	150
Power consumption [W] depending on setting	9	16	51	76
Permissible resistance channel system	200 Pa at 300 m ³ /h			
Dimensions (wxhxd) [mm]	760 x 931 x 592 (height including zone valves)			
Duct connection diameter [mm]	ø160			
Condensate drain diameter [mm]	ø32 / G1¼"			
Filter class (ISO16890)	HRC-EcoSmart: Coarse 65% HRC-SmartComfort: Supply: ePM1 70%, Extract: Coarse 65%			
Weight [kg]	34			
Supply voltage [V~/Hz]	230 / 50			
Degree of protection	IP30			
Efficiency of WTW for calculation NEN7120 (Energy performance of buildings) - Method of determination)	WTW NEN 5138 [%]: 99,3			

Ventilator diagram HRC-425 (300)

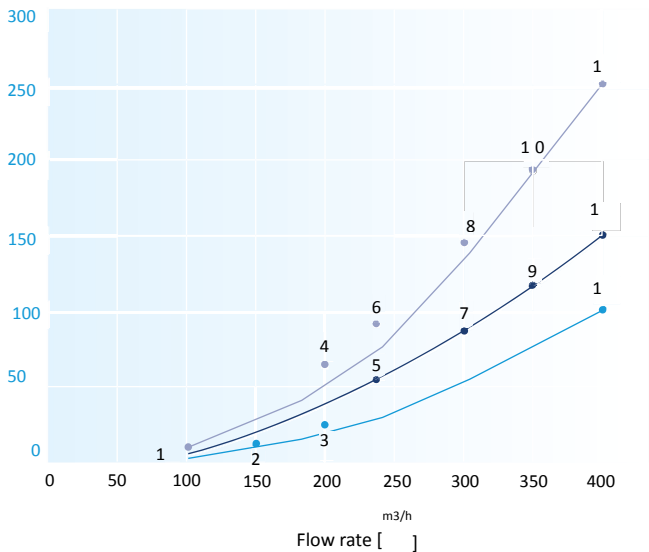


Workpoint	Reference flow rate (m³/h)	External pressure (Pa)	Power consumption per fan (W)	Total power consumption (W)	SFP total (Wh/m³)
1	100	20	4	11	0,11
2	150	25	7	16	0,11
3	150	50	9	20	0,13
4	180	53	11	25	0,14
5	200	65	14	30	0,15
6	250	105	24	51	0,2
7	250	141	28	59	0,24
8	300	100	31	65	0,22
9	300	150	38	79	0,26
10	300	200	46	94	0,31

8.4. Device data HRC-570-EcoSmart/SmartComfort (400)

Ventilation	Laag	Medium	High	Maximum
Ventilation capacity, factory setting [m ³ /h]	105	200	300	400
Reference pressure [Pa]	20	20	85	100
Power consumption [W] depending on setting	13	25	60	108
Permissible resistance channel system	200 Pa at 400 m ³ /h			
Dimensions (wxhxd) [mm]	760 x 931 x 592 (height including zone valves)			
Duct connection diameter [mm]	ø160 (Zone valves supply) ø180 (Other connections)			
Condensate drain diameter [mm]	ø32 / G1¼"			
Filter class (ISO16890)	HRC-EcoMax: Coarse 65% HRC-MaxComfort: supply: ePM1 70%, discharge: coarse 65%			
Weight [kg]	35			
Supply voltage [V~/Hz]	230 / 50			
Degree of protection	IP30			
Efficiency of WTW for calculation NEN7120 (Energy performance of buildings) - Method of determination)	WTW NEN 5138 [%]: 99,7			

Ventilator diagram HRC-570 (400)



Workpoint	Reference flow rate (m^3/h)	External pressure (Pa)	Power consumption per fan (W)	Total power consumption (W)	SFP total (Wh/m ³)
1	100	20	5	13	0,13
2	150	20	7	17	0,11
3	200	25	11	25	0,13
4	200	62,5	15	32	0,16
5	240	53	18	39	0,16
6	240	89	21	44	0,18
7	300	85	29	60	0,20
8	300	140	37	77	0,26
9	350	115	44	90	0,26
10	350	190	55	112	0,32
11	400	100	53	108	0,27

12	400	150	62	126	0,32
13	400	250	79	160	0,40

9. Installation report

Date	
Address	
Location	
Type of project	
House type	
Client	
Installed by	
Measured by	
Type of device	
Serial number	

Set flow rate:

Dipswitch no.:	1	2	3	4	5	6	7	8
Drainage [X34]	on/off	on/off	on/off	on/off	on/off	on/off	on/off	on/off
Supply [X35]	on/off	on/off	on/off	on/off	on/off	on/off	on/off	on/off

Settings per room

Room/valve	Position on device	Required [m^3/h]	Measured [m^3/h]
Kitchen			
Toilet			
Bathroom			
Living room			
Bedroom 1			
Bedroom 2			
Bedroom 3			
Other			

Settings Zone control

Inlet Zone 1/2	Required [m^3/h]	Measured [m^3/h]	Ratio setting
Zone 1			
Zone 2			
Drainage house			n.a.

Overview of maintenance operations

Date	Activity	Initials

Registered RF components

Other remarks

10.

Product card HRC

Manufacturer Supplier								Orcon
Type Model Modellkennung		HRC-4 25- EcoSmart HRC-4 25- Smart Comfort			HRC-5 70- EcoSmart HRC-5 70- Smart Comfort			
Specific energy consumption Specific energy consumption	SEC	-82	-43	-18	-81	-42	-17	kW h/ (m ² · h)
		Cold Froid Kalt	Average Moyen Mittel	Warm Chaud Warm	Cold Froid Kalt	Average Moyen Mittel	Warm Chaud Warm	
SEC class		A+	A+	E	A+	A+	E	
Typology Typology Typologie		Bidirectional		x	Bidirectional		x	
		Unidirectional			Unidirectional			
Type of drive Motorisation Art des Antriebes		Multi-speed			Multi-speed		x	
		VSD		x	VSD		x	
Type warmteerugwinning Type heat recovery Type de recuperation Type of heat recovery system		Recuperative Recuperative			Recuperative Recuperative			
Thermal efficiency Rendement thermique Temperaturänderungssysteme		91			91		m ³ /h	
Maximum flow rate Débit maximal Höchster Luftvolumenstrom		300			400		m ³ /h	
Electric power input Puissance d'entrée maximale Electric input power Fan drive		132			200		W	
Sound power level Sound power level Schalleistungspegel		Lwa 41			47		dB[A]	
Reference flow rate Reference flow rate Reference flow rate Reference flow rate		0,058			0,078		m ³ / s	
Reference pressure difference Reference pressure difference Différence de pression de référence Bezugsdruckdifferenz		50			50		Pa	
Specific power input Entrée de puissance spécifique Spezifische Eingangleistung		SPI 0,13			0,17		W/ (m ³ / h)	

Control factor and typology Facteur de regulation et typologie Steuerungsfaktor und typologie			CTRL	MISC	X	CTRL	MISC	X	
			0,85	1,1	2	0,85	1,1	2	
Leakage Taux de Fuites Höchstlecklufrate			Internal		0,5	Internal		0,4	%
			External		1	External		0,8	
Mixing rate Dosage Mischrate			--			--			%
Filter warning Filter warning Optical filter warning			Op het display On display Sur l'écran Auf dem display			Op het display On display Sur l'écran Auf dem display			
Installation instructions Instructions de montage Anweisungen für Anbringung			www.orcon.nl			www.orcon.nl			
Internet address Internet adresse			www.orcon.nl			www.orcon.nl			
Drukschommeling Airflow sensitivity Variations de pression Drukschwankungsempfindlichkeit Airflow			--			--			%
Air tightness Étanchéité à l'air Luftdichtheit			--			--			m ³ /h
Annual electricity consumption Annual consumption of electricity Jährlicher Stromverbrauch		AEC	1,3			1,5			kWh/(m ² ·Å)
Annual heating saved Chauffage annuel sauvé Jährlicher Einsparung an Heizenergie		AHC	Cold Froid Kalt	Average Moyenne Mittel	Warm Chaud Warm	Cold Froid Kalt	Average Moyenne Mittel	Warm Chaud Warm	kWh/(m ² ·Å)
			91,0	46,5	21,0	91,0	46,5	21,0	

11. Warranty

Orcon bv provides a standard two-year warranty on the unit. The guarantee period starts on the production date, which is mentioned on the type label.

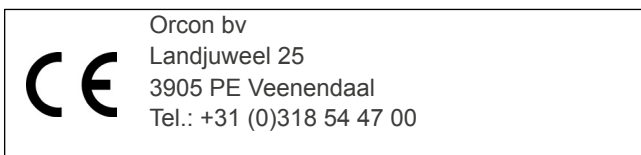
The warranty is invalidated if:

- The installation has not been carried out in accordance with the applicable regulations;
- The defects are caused by incorrect connection, improper use or contamination of the fans, heat exchanger and accessories;
- Changes have been made to the wiring;
- Repairs have been carried out by third parties.

(De)assembly costs on site are not covered by the guarantee. If a defect occurs within the guarantee period, this must be reported to the installer. Orcon bv reserves the right to change the construction and/or configuration of its products at any time without the obligation to replace products previously delivered. to adjust. The information in this manual refers to the most recent information.

12. EC declaration of conformity

EC Declaration of Conformity | Déclaration de conformité CE |
EG-Konformitätserklärung | EC Declaration of Conformity



Verklare que le produit | Erklärt dass das Produkt | Declares that the product:

- Ventilation unit with heat recovery HRC-425-EcoSmart
- Ventilation unit with heat recovery HRC-570-EcoSmart
- Ventilation unit with heat recovery HRC-425-SmartComfort
- Ventilation unit with heat recovery HRC-570-SmartComfort

Conforms to the requirements stated in the directives | Répond aux exigences des directives | Entspricht den Anforderungen in den Richtlinien | Complies with the requirements stated in the directives:

- Directive 2014/53/EU (RED)
- Directive establishing a framework for the setting of ecodesign requirements for energy-related products 2009/125/EC
- Directive on the indication by labelling and standard product information of the consumption of energy and other resources by energy-related products , Regulation (EU) 2017/1369.
- Commission Regulation (EU) No 1253/2014 of 7 July 2014 implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for ventilation units.
- Commission Delegated Regulation (EU) No 1254/2014 of 11 July 2014 supplementing Directive 2010/30/EU of the European Parliament and of the Council with regard to energy labelling of residential ventilation units.

Conforms to the harmonised European standards | Répond aux normes Européennes harmonisées | Entspricht den harmonisierten europäischen Normen | Complies with the harmonised European standard:

- EN 60335-1:2012 +AC11:2014 +A13:2017 +A1:2019 +A2:2019 +A14:2019
- EN 62311:2020
- ETSI EN 300 220-1 V3.1.1:2017 - ETSI EN 300 220-2 V3.2.1:2018
- ETSI EN 301 489-1 V2.2.3:2019 - ETSI EN 301 489-3 V2.1.1:2019
- EN 55014-2:2015
- EN 61000-3-2:2019 - EN 61000-3-3:2013
- EN 55014-1:2007- EN 55014-2:1998/A1:2002

Veenendaal, 01-02-2021,



M. Voorhoeve, Managing Director

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