

Swegon Home Solutions

# CASA<sup>®</sup> R5 Smart



## VENTILATION UNIT WITH ROTARY HEAT EXCHANGER

Designed for detached houses, multi-dwelling houses and holiday cottages less than 240 m<sup>2</sup>. Also suitable for renovation projects. The unit's maximum air flow is 120 l/s with a temperature efficiency for the heat exchanger is up to 86 %. R5 is suitable to install in a machine room, storage space, laundry room, or similar areas. The unit can be controlled from a separate control panel or from the cooker hood.

[www.swegonhomesolutions.com](http://www.swegonhomesolutions.com)

**Swegon**  
Home Solutions

T 0320 - 28 61 81 | [www.auerhaan-klimaattechnik.nl](http://www.auerhaan-klimaattechnik.nl)

Als het om lucht gaat.

  
**AUERHAAN**  
KLIMAATTECHNIEK



## Smart control technology

The new Smart technology ensures that the ventilation is energy efficient and that the indoor air in the home is always healthy for both the home and its inhabitants.

### SMART CONTROL PANEL

The easy-to-use Smart control panel allows you to effortlessly adjust the ventilation in your home to suit many different situations. You can switch as required to an appropriate operating mode from the control panel, or let the pre-programmed weekly clock switch operating mode according to the diurnal rhythm you want. You can also let the Smart-function manage everything automatically (optional).



### COOKER HOOD CONTROL

In apartment blocks and in terraced houses, the ventilation unit is primarily controlled from a cooker hood. There are three buttons on the Swegon CASA cooker hoods that allow you to control the fan speed (Home/Away/Boost), the cooker hood's shut-off damper (30, 60 or 120 minutes) as well as the cooker hood lighting.



### BOOST

A large airflow is used when the ventilation requirement increases, e.g. for cooking, taking a sauna, showering and drying laundry.



### HOME

Normal air flow. Guarantees that there is sufficient fresh indoor air in the home, and that the building construction is at its best.



### AWAY

Low air flow. Reduces power consumption when the ventilation requirement in the home is small.



### TRAVELLING

Very low air flow and lower supply air temperature. Used when no one is present in the home.



### AUTO HOME/AWAY/BOOST

Measures the indoor air's carbon dioxide content and, based on this value, determines which operating mode to use (optional).



### AUTO HUMIDITY CONTROL

Automatically regulates the ventilation according to the indoor air's humidity levels (accessories).



### AUTO AIR QUALITY CONTROL

The most advanced automation function to achieve the best indoor air quality. Responds to numerous factors that affect air quality, such as different fragrances and cooking odours (accessory).



### FIREPLACE FUNCTION

An intelligent fireplace switch function that produces the correct amount of replacement air, specifically for your fireplace. Facilitates lighting the fire and ensures clean combustion.



### CENTRAL VACUUM CLEANER FUNCTION

Balances the ventilation when a central vacuum cleaner is used. Prevents excessive negative pressure and improves the cleaning result.



### COOKER HOOD FUNCTION

Balances the ventilation when a cooker hood is used. Prevents excessive negative pressure and improves fume extraction capability of the cooker hood.



- › Ecodesign energy class A
- › Airflow range 35 - 120 l/s
- › Heat exchanger temperature efficiency up to 86 % (EN 308)
- › Annual efficiency up to 77 %
- › Advanced Smart control technology
- › The ventilation is controlled automatically by the need
- › Automatic summer function and passive cooling
- › The defrost function ensures continuous ventilation
- › External units for heating and cooling are available
- › Can be connect to the automated building management system
- › A cooker hood can be connected to the separate extract air duct

## Swegon CASA R5 Smart

### HEAT RECOVERY

Heat in the indoor air is taken care of in the heat exchanger and is then used to heat the cold outdoor air that is taken in. R5's rotary heat exchanger is made of aluminium fins and its efficiency is high, above 85 %. As the rotor rotates, heat is stored in the heat exchanger's ducts on the warm extract air side, and is emitted to the cold air on the supply air side. Even though the same surfaces are in contact with both the extract air and the supply air, there is very little risk that odour transfer will occur.

### ANTI-FROST PROTECTION

R5's reliable defrosting function guarantees continuous and balanced ventilation in the home even during extreme conditions. If there is a risk of the unit's heat exchanger freezing, the speed of the fans increases and the warm extract air prevents freezing occurring inside the heat exchanger. The supply air fan does not stop completely -

### COMFORT COILS

Usually the extract air's heating energy is sufficient to heat up the supply air. In cold conditions, you can use the R5 model, which is equipped with an electric 800W reheating coil, to ensure a comfortable indoor air quality is maintained even during periods of intense cold. An adjustable thermostat switches on the air heater when the supply air temperature drops below the required value.

### FANS

In R5 the fans have low-energy, economical, type EC direct-current motors, whose power consumption is substantially lower than that of traditional fans driven by AC motors. The advantage of the EC fans is that their speed is variably controllable and their efficiency is high even when operated at lower speeds. The power and control cables on the fans are fitted with quick connectors, which mean they can be quickly dismantled from the unit.

### AUTOMATIC SUMMER MODE

R5's intelligent summer function helps to maintain the home's indoor air comfort even during hot summer days. Very economical comfort coolness can be produced almost free of charge by utilising the difference in indoor and outdoor temperatures and the heat exchanger intelligently. The heat exchanger takes care of the cool indoor air during hot summer days and cools the incoming outdoor air. At night the air passes the heat exchanger and the home is cooled with fresh outdoor air. This is managed by an advanced automatic system that can be set according to the resident's requirements!

### UNITS FOR HEATING AND COOLING

Using separate units for heating and cooling you can change the ventilation unit into an efficient and functional heating or cooling unit. The units for heating and cooling can be connected directly to the waterborne main heating system in the residence and can be controlled directly from the Smart panel.

### INSTALLATION

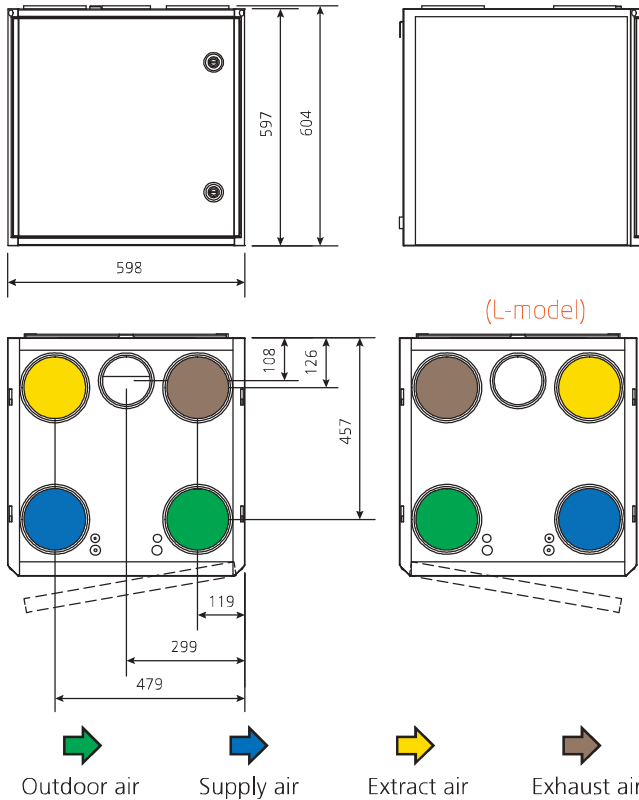
The unit can either be mounted on a wall or suspended from the ceiling using a separate ceiling mounting frame. Suitable installation locations are laundry rooms, store rooms, cold attic, etc. When installing in cold areas the unit should be insulated if necessary.

### CONTROL SYSTEM AND CONNECTION OPTIONS

R5 is easy to connect as part of a building automation system via the DDC control (standard) or Modbus (optional). When used in a real estate business, it enables centralised monitoring and control, and in doing so reduces service and maintenance costs.



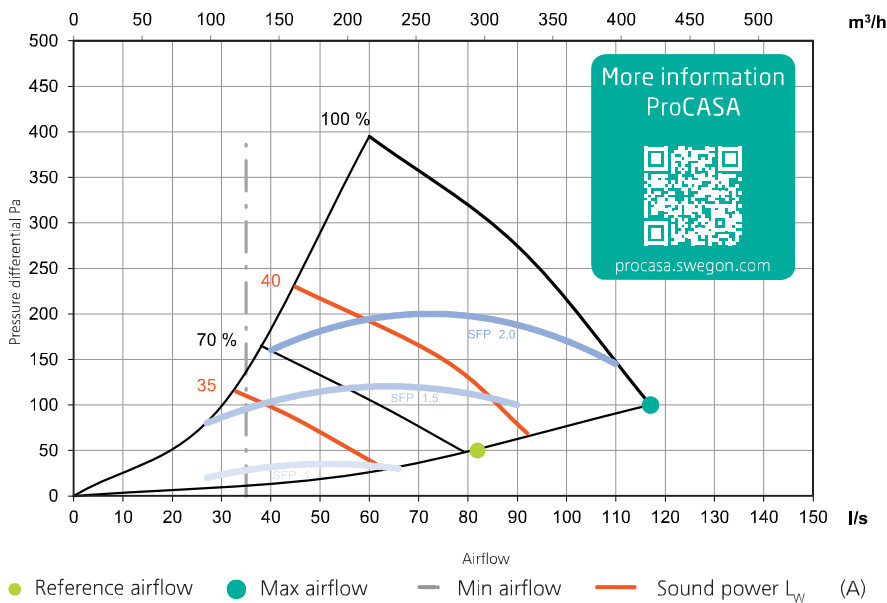
DIMENSIONS(R model)



TECHNICAL DATA

	R5	R5 with reheating
Connection	230 V, 50 Hz, 10 A	230 V, 50 Hz, 10 A
Fans	230 W	230 W
Air heater, reheating	-	800 W
Water-based heating coil	duct mounted available	duct mounted available
Water-based cooling coil	duct mounted available	duct mounted available
Total output	250 W	1050 W
Fuse protection	10 A	10 A
Weight	78 kg	78 kg
Ducts	Ø 160 mm	Ø 160 mm
Condensate connection	3/8" male thread	3/8" male thread

AIR VOLUMES (EN 13141-7)



CORRECTION TABLE SOUND DATA

Sound to surroundings	Sound power level $L_w$ (dB), table $K_{OK}$							
	63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz
	8	11	4	-5	-9	-20	-26	-26

More detailed sound data for surroundings and ducts according to set values is available in ProCASA.

Swegon CASA R05VR08S01H

Energy class: A

Sound power level: 38 dB

Max airflow: 421 m³/h

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(SEC) in kWh  
-84,9 / -41,4 / -16,5

Energy class can vary depending on equipment level of the unit.