OVERVIEW

RESIDENTIAL VENTILATION

Swegon CASA-ventilation units

Swegon

Feel the healthy indoor climate

Efficient ventilation that keeps oxygen levels inside the apartment adequate and extracts harmful fumes and odors. Incoming air is always filtered through high quality filters so that indoor living is healthy and comfortable.

Save energy

We need fresh air 24 hours a day all year around. Therefore it is important to choose the most energy efficient system available. CASA units are equipped with highly efficient heat exchangers that can use up to 85 percent of the exhaust air heat energy to warm the incoming fresh air! Smart ventilation does not waste energy, but re-uses it to create free heating or passive cooling and saves household energy costs

Balance indoor humidity

Adequate and controlled ventilation extracts excess humidity from indoor air and makes sure that the uncontrolled pressure differences don't create a risk of moisture in the structures and surfaces of the building.

Enjoy silent comfort

Technical design and high quality components such as fans and motors offer you the smoothest and most silent ventilation experience in the market!

Quality to the highest standards

With over 500 000 delivered air handling units Swegon provides fresh and healthy air to millions of people every day. Solutions tested in high tech laboratories and proven in the Scandinavian arctic weather conditions to guarantee supreme energy-efficiency and healthy indoor climate in all circumstances.

Intelligent humidity automation as standard!

The market's most advanced moisture automation from is now standard in all new Swegon CASA ventilation units!

Intelligent humidity automation (RH)
While traditional humidity sensors only switch the ventilation from normal to boosted flow, the Smart automation continuously analyses the indoor air and regulates the ventilation variably in accordance with the actual requirement. The automated system also takes moisture variations in the outdoor air into consideration and thus does not boost the ventilation unnecessarily, but reacts better to the moisture load caused by those who reside in the home, for example, in connection with taking a sauna or washing.

Automatic functions as accessories

Intelligent ventilation identifies the residents' needs. The functions in the Smart automatic system monitor the indoor air quality and know exactly how much ventilation is required in different situations.

Automatic Home/Away/Boost system (RH + CO_2) automatically lowers the ventilation to Away mode and saves energy when the home is empty. When the residents are at home, the ventilation is automatically increased to bring exactly the right amount of fresh air into the home. The ventilation is adjusted variably according to the requirement without interrupting fan variations from one operating mode to another. Humidity automation is also included.

Automatic air quality system (RH + VOC) increases the ventilation if too much pollution is detected in the indoor air, such as different harmful odours or vapours (evaporating organic compounds). Humidity automation is also included.

All automatic Smart functions are easy to activate. The sensors are placed inside the unit, which means the installation of these does not require any separate cable routing in the home. They are easy to install afterwards in existing Smart ventilation units.

1. Smart ventilatation takes care of the indoor air quality automatically
2. It knows when you leave home and when you come back
3. It knows when you do laundry, shower or cook food
4. It adjusts ventilation accordingly based on your current need
5. It guarantees fresh and healthy indoor climate

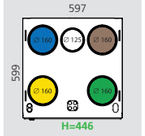
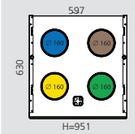
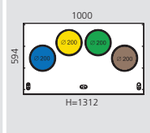
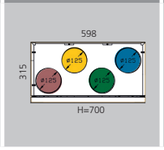
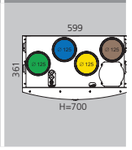
More information in ProCASA

procasa.swegon.com

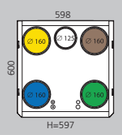
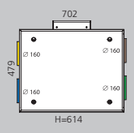
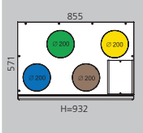
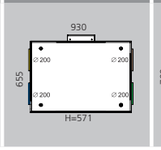
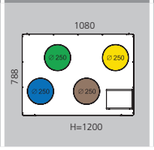
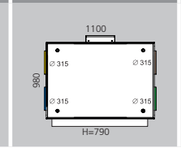
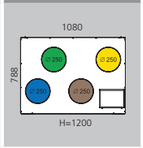
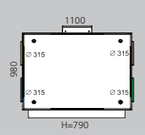
Energy class according to Ecodesign Directive Lot 6 (average). Energy class can vary depending on equipment level of the unit.

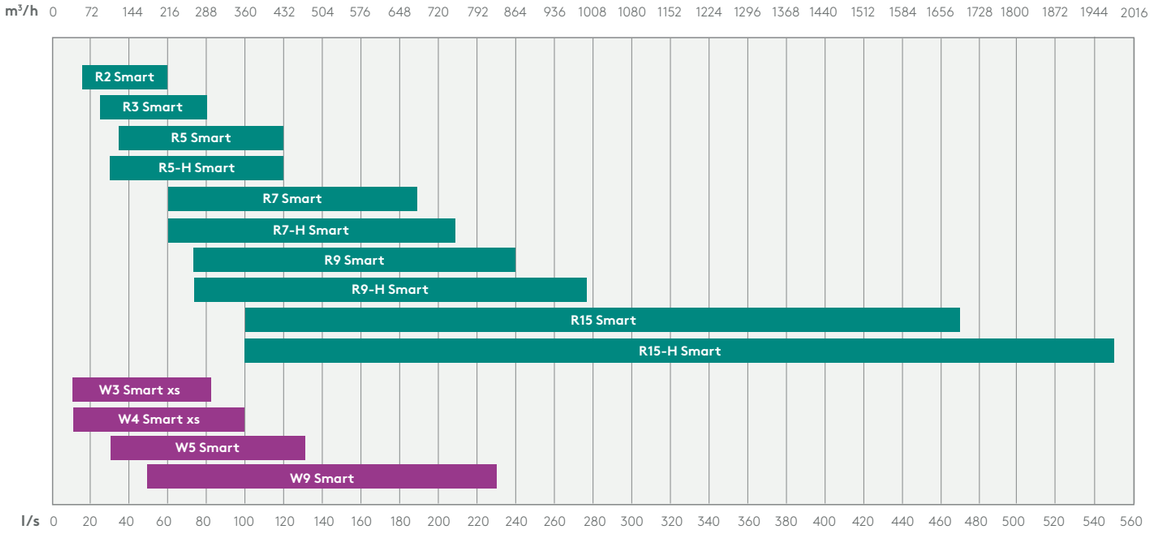
* Defined as non-residential ventilation unit according to Ecodesign Lot 6.

● Standard equipment
○ Available
— Not available

		W3 Smart xs	W4 Smart xs	W5 Smart	W9 Smart	R2 Smart | Nordic	R3 Smart
	Airflow range	36-288 m³/h	36-360 m³/h	108-468 m³/h	180-828 m³/h	65-216 m³/h	90-288 m³/h
	Apartment size	< 150 m²	< 200 m²	< 250 m²	< 450 m²	< 140 m²	< 150 m²
Ecodesign Lot 6	(SEC) in kWh Cold / **Average** / Warm climate	-78,0 A+ / **-40,3 A** / -16,1 E	-78,2 A+ / **-40,3 A** / -15,9 E	-80,6 A+ / **-42,1 A+** / -17,4 E	-77,9 A+ / **-39,5 A** / -15 E	-68,0 A+ / **-28,4 B** / -5,7 F	-82,7 A+ / **-39,8 A** / -15,2 E
Ecodesign Lot 6	Maximum flow rate (in m³/h)	288	349	468	857	216	295
Ecodesign Lot 6	Sound power level (L_{WA}) in dB(A)	39	41	41	48	36	39
	Filter class	ISO ePM1 50% (F7) and ISO coarse (G3) + metal filter	ISO ePM1 50% (F7) and ISO coarse (G3) + metal filter	ISO ePM1 50% (F7) and ISO coarse (G3) + metal filter	ISO ePM1 50% (F7) and ISO coarse (G3) + metal filter	ISO ePM1 50% (F7) 2 st.	ISO ePM1 55% (F7) 2 st.
	Heat exchanger efficiency (EN 308)	82 %	82 %	85 %	84%	83 %	86 %
	Control system	Smart	Smart	Smart	Smart	Smart	Smart
Automatic functions	Humidity function (RH)	●	●	●	●	●	●
Automatic functions	Auto home / away / boost (CO_2)	○	○	○	○	○	○
Automatic functions	Air quality function (VOC)	○	○	○	○	○	○
	Compensation functions	●	●	●	●	●	●
	Control panel	○	○	○	○	○	○
	Remote control system	Configurable I/O or Modbus	Configurable I/O or Modbus	Configurable I/O or Modbus	Configurable I/O or Modbus	Configurable I/O or Modbus	Configurable I/O or Modbus
	Fans	230 W	230W	238 W	1020 W	234 W	230 W
	Connection power	740 W	1240 W	2248 W	1780/2680 W	647 W | 947 W	250/750 W
	Power connection	230 V, 50 Hz, 10 A	230 V, 50 Hz, 10 A	230 V, 50 Hz, 10 A	230 V, 50 Hz, 16 A	230V, 50 Hz, 10 A	230 V, 50 Hz, 10 A
	Internal Electric preheater	●500 W	●1000 W	●1500 W	● 750 W	—	—
	External electric preheater (duct mounted)	○	○	○	○	○	○
	Internal Electric reheater	●500 W	●500 W	●500 W	●900 W	400 / ● 700 W	○ 500 W
	External electric reheater (duct mounted)	○	○	○	○	○	○
	External water coil for reheating/cooling available (duct mounted)	○	○	○	○	○	○
	Passive cooling with automatic summer bypass	●	●	●	●	●	●
	Wall installation	○	○	●	—	●	●
	Ceiling installation	○	○	○	—	—	○
	Floor installation	—	—	○	●	●	●
	Attic installation	—	—	—	—	—	—
	Separate connection for the cooker hood	●	●	—	—	—	●
	Can be integrated with kitchenhood	—	—	—	—	●	●
	Inspection side	R(L)	R(L)	R(L)	R(L)	R(L)	R(L)
	Dimensions						

Outdoor air · Supply air · Extract air · Exhaust air

		R5 Smart	R5-H Smart | EL	R7 Smart | EL	R7-H Smart | EL	R9 Smart	R9-H Smart	R15 Smart	R15-H Smart
	Airflow range	126-432 m³/h	108-432 m³/h	216-677 m³/h	216-749 m³/h	270-871 m³/h	270-997 m³/h	360-1710 m³/h	360-1980 m³/h
	Apartment size	< 240 m²	< 250 m²	< 450 m²	< 450 m²	< 500 m²	< 500 m²	< 850 m²	< 1000 m²
Ecodesign Lot 6	(SEC) in kWh Cold / **Average** / Warm climate	-84,9 A+ / **-41,4 A** / -16,5 E	- 84,7 A+ / **-41,0 A** / -15,9 E	-84,5 A+ / **-41 A** / -16,1 E	-84,4 A+ / **-41,1 A** / -16,3 E	-86,1 A+ / **-42,4 A+** / -17,4 E	-86,2 A+ / **-42,5 A+** / -17,5 E	NRVU*	NRVU*
Ecodesign Lot 6	Maximum flow rate (in m³/h)	421	439	677	749	871	997	NRVU*	NRVU*
Ecodesign Lot 6	Sound power level (L_{WA}) in dB(A)	38	42	46	46	43	39	NRVU*	NRVU*
	Filter class	ISO ePM1 55% (F7) 2st. and ISO coarse (G3)	ISO ePM1 50% (F7) 2 st.	ISO ePM1 50% (F7) 2 st.	ISO ePM1 50% (F7) 2 st.	ISO ePM1 50% (F7) 2 st.	ISO ePM1 50% (F7) 2 st.	ISO ePM1 50% (F7) 2 st.	ISO ePM1 50% (F7) 2 st.
	Heat exchanger efficiency (EN 308)	86 %	86 %	86 %	86 %	86 %	86 %	86 %	86 %
	Control system	Smart	Smart	Smart	Smart	Smart	Smart	Smart	Smart
Automatic functions	Humidity function (RH)	●	●	●	●	●	●	●	●
Automatic functions	Auto home / away / boost (CO_2)	○	○	○	○	○	○	○	○
Automatic functions	Air quality function (VOC)	○	○	○	○	○	○	○	○
	Compensation functions	●	●	●	●	●	●	●	●
	Control panel	○	○	○	○	○	○	○	○
	Remote control system	Configurable I/O or Modbus	Configurable I/O or Modbus	Configurable I/O or Modbus	Configurable I/O or Modbus	Configurable I/O or Modbus	Configurable I/O or Modbus	Configurable I/O or Modbus	Configurable I/O or Modbus
	Fans	230 W	234 W	340 W	340 W	340 W	340 W	1000 W	1000 W
	Connection power	250/1050 W	259 W | 959 W	365 W | 1765 W	365 W | 1765 W	366 W	366 W	1026 W	1026 W
	Power connection	230 V, 50 Hz, 10 A	230 V, 50 Hz, 10 A	230 V, 50 Hz, 10 A	230 V, 50 Hz, 10 A	230 V, 50 Hz, 10 A	230 V, 50 Hz, 10 A	230 V, 50 Hz, 10 A	230 V, 50 Hz, 10 A
	Internal Electric preheater	—	—	—	—	—	—	—	—
	External electric preheater (duct mounted)	○	○	○ 1200/2000 W	○ 1200/2000 W	○ 1200/2000 W	○ 1200/2000 W	○ 1200/2000 W	○ 1200/2000 W
	Internal Electric reheater	○ 800 W	● 700 W	● 1400 W	● 1400 W	—	—	—	—
	External electric reheater (duct mounted)	○	○ 900/1200 W	○ 1200/2000 W	○ 1200 W	○ 1200/2000 W	○ 1200/2000 W	○ 1200/2000 W	○ 1200/2000 W
	External water coil for reheating/cooling available (duct mounted)	○	○	○	○	○	○	○	○
	Passive cooling with automatic summer bypass	●	●	●	●	●	●	●	●
	Wall installation	●	○	—	—	—	—	—	—
	Ceiling installation	○	—	—	—	—	—	—	—
	Floor installation	●	●	●	●	●	●	●	●
	Attic installation	●	●	●	●	●	●	●	●
	Separate connection for the cooker hood	●	—	—	—	—	—	—	—
	Can be integrated with kitchenhood	—	—	—	—	—	—	—	—
	Inspection side	R(L)	L/R	L	L/R	L	L/R	L	L/R
	Dimensions								

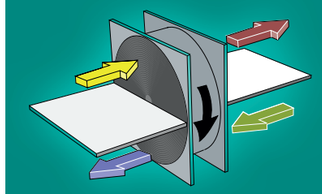


EUROVENT CERTIFIED PERFORMANCE www.eurovent-certification.com

cool, temperate climate

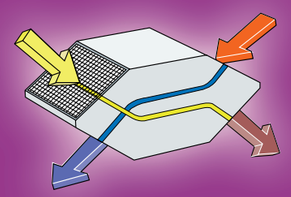
CERTIFIED COMPONENT Passive House Institute

CASA R7 and R9 air handling units are Passive House certified.



Rotary heat exchanger

The rotary heat exchanger consists of a rotating wheel with a multitude of small air ducts made of aluminium. The warmer extract air heats the ducts and the heatis transferred to the colder supply air. Temperature efficiency is as high as 86 %. A certain amount of moisture, removed with the extract air, is recovered to the supply air. This can be beneficial in the winter when the outdoor air is usually dry and results in problems for people and interior fittings. If the home has a high moisture load, the extract airflow must be sufficient to remove the moisture.



Counterflow heat exchanger

Counterflow plate heat exchangers consist of thin aluminium plates that form parallel air ducts arranged at opposite angles to one another. The warmer extract air heats the plates and transfers heat to the colder supply air. The contact surfaces are large because the air streams flow in parallel and in opposite directions.Temperature efficiency is as high as 84 %. The supply air and extract air have completely separate air passages therefore any possible odours in the extract air cannot be transferred to the supply air. The heat exchanger does not recover moisture to supply air, which is good in apartments with high humidity levels (sauna).

Smart control technology

Controls (options)

CASA Smart ventilation units are equipped with the market's most versatile control options! Select the required control method or combine several!

Smart Access

Use your mobile device to control and monitor your indoor climate. Connect the Smart Access module to your ventilation unit and connect it to your home network.

Smart control panel

White wall mounted control panel with a colour display and touch buttons for both recessed and surface mounted installation.

Cooker hood

All Smart cooker hoods can be used to regulate the ventilation unit in three modes (home, away, boost). Automatically balances the ventilation when a cooker hood is used.

Building automation

Centralised monitoring and control with the help of Modbus connection modules or configurable I/O.

Basic functions

You can switch as required to an appropriate operating mode or let the pre- programmed weekly clock switch operating mode according to the diurnal rhythm you want.

Boosted air flow

A large air flow is used when the ventilation requirement increases, e.g. for cooking, taking a sauna, showering or 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 energy 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.

Compensation functions

Compensates ventilation flows in the home in order to facilitate for the inhabitants.

Fireplace function

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

Cooker hood function

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

Central vacuum cleaner function

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

Automatic functions (options)

Intelligent ventilation is capable of identifying residents' needs. The Smart System measures the indoor air quality and knows exactly how much ventilation is required in different situations.

Intelligent humidity automation (RH) as standard

The market's most advanced moisture automation is now standard in all new Swegon CASA ventilation units. While traditional humidity sensors only switch the ventilation to boosted ventilation, the Smart Automation continuously analyses the indoor air and regulates the ventilation in accordance with the actual humidity variations.

Automatic Home/Away/Boost system (CO_2)

automatically lowers the ventilation to Away mode and saves energy when the home is empty. When the residents are at home, the ventilation is automatically increased to bring exactly the right amount of fresh air into the home.

Air Quality Automation (VOC)

increases the ventilation if too much pollution is detected in the indoor air, such as odours or vapours (evaporating organic compounds).

The Smart Control is easy to activate. The installation does not require cabling around the home, and can also be installed retrospectively in older Smart ventilation units.

Feel good **inside**

Swegon