



SWEGON CASA GENIUS W

Intelligent residential
ventilation unit with
counterflow heat exchanger



Swegon 

Swegon CASA Genius

Intelligent ventilation system monitors air quality in the background and adjusts itself according to need. It saves energy and guarantees healthy indoor air automatically under all conditions.

Healthy indoor air

The ventilation removes the dirty air and replaces it with fresh, cleaned and filtered air, so that the indoor air at home is always pleasant and healthy to breathe.

Prevents moisture problems

The ventilation removes excess humidity to prevent moisture problems and mould. Uncontrolled pressure differences can transfer moisture into structures. A well-balanced ventilation system can handle pressure balance, even in cold conditions, and when a wood burning stove or cooker hood is used!

Very low sound level

Tested and verified sound level performance

Saves energy

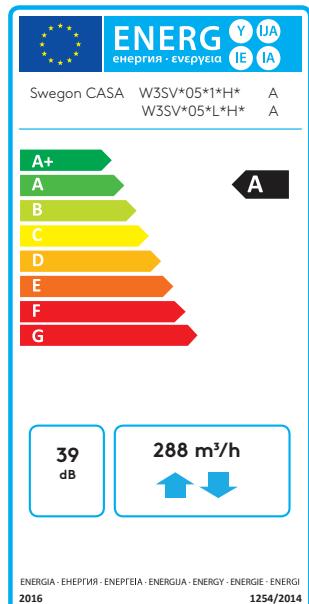
An energy-efficient ventilation system does not waste heat energy, but instead transforms it into free heating. The heat is recovered from dirty extract air and transferred into incoming fresh supply air.

Energy labelling

Swegon CASA ventilation units have at least energy class A or A+. The energy class according to the Ecodesign directive can be checked via the official EU energy label.

Eurovent certified

The official certification guarantees that the units' performance values and energy consumption are measured in accordance with European standards, and that they have been verified in test laboratories approved by Eurovent.



W-Series

CASA-ventilation units with counterflow heat exchanger



Energy saving

The heat exchanger utilises the energy in the indoor air, heating the incoming outdoor air in the winter and cooling it in the summer. On a cold winter day, it is able to produce "free" heating equivalent to up to 36°C, by heating -20°C outdoor air to +16°C supply air. A counterflow heat exchanger is made of aluminium fins and delivers extremely high efficiency. The airflows in the counterflow heat exchanger run in separate ducts, which means that cooking fumes and odours cannot return to the room air. Moisture is also unable to return, which means that the heat exchanger is particularly well suited to homes where the residents produce a large amount of moisture (e.g. where residents take saunas and do laundry frequently).

Balanced ventilation

Modern homes are built to be energy-efficient and simultaneously airtight. However, large pressure differences can cause a risk of moisture in the building's structures and give rise to everyday problems, such as difficulty lighting a fire or poor function in the cooker hood. Intelligent compensating features strive to balance the house's ventilation to prevent harmful pressure differences. They also help in the lighting and combustion of fires, and with the efficiency of the cooker hood or central vacuum cleaner function.

Anti-freeze protection

The defrost function ensures continuous ventilation, even in cold conditions. If there is a risk of the heat exchanger in the unit freezing, the speed of the fans is changed and the heated extract air prevents freezing inside the heat exchanger. With the aid of preheating (optional equipment), balanced ventilation can be maintained and the occurrence of excessive negative pressure can be prevented, even in the case of extreme cold outdoor conditions.

Reheating

The extract air's heating energy is usually sufficient to heat up the supply air. In periods of cold outdoor conditions, it is possible to use an electric or waterborne heat exchanger for reheating, which guarantees pleasantly warm indoor air. The air heater for reheating can be placed inside the unit or outside in the ventilation duct (see technical brochure).

Preheating

With the aid of preheating, balanced ventilation can be maintained and the occurrence of excessive negative pressure can be prevented, making lighting the fire and compensation functions for the cooker hood possible, even in the case of extreme cold.

Summer functions

An intelligent summer function automatically regulates the ventilation to keep the temperature in the home at a pleasant level. At night, the air passes the heat exchanger and the home is cooled with fresh outdoor air. On warm days, the heat exchanger utilises the cool indoor air to cool down the warmer incoming air. This is all managed by an advanced automatic system that can be set according to the resident's requirements. By making smart use of the temperature differences and the heat exchanger, increases in the indoor temperature can be prevented or delayed economically.

Cooling

If there is a cold water circuit (e.g. ground cooling) in the home, a separate air cooler can be obtained as optional equipment and be installed in the supply/extract air duct to produce efficient cooling in the home. The ventilation unit's control system adjusts the supply air temperature automatically.

Technical data

Brochures and technical documents
Swegon.com/casa



ProCASA®

Energy calculation and functional diagram
procasa.swegon.com



1. Supply air
2. Extract air
3. Outdoor air
4. Exhaust air
5. Extract air from the cooker hood

CASA W3 xs

- 10-80 l/s | 36-288 m³/h
- Energy class A
- The unit can either be mounted on a wall or suspended from the ceiling using a separate ceiling mounting frame.
- Low installation height for installation above laundry columns.
- Available as 1240 W or 740 W low energy model for low total connection power.



CASA W4 xs

- 10-97 l/s | 36-349 m³/h
- Energy class A
- The unit can either be mounted on a wall or suspended from the ceiling using a separate ceiling mounting frame.
- Low installation height for installation above laundry columns.



Technical data

Brochures and technical documents
[Swegon.com/casa](http://swegon.com/casa)



ProCASA®

Energy calculation and functional diagram
procasa.swegon.com



1. Supply air 2. Extract air 3. Outdoor air
4. Exhaust air 5. Extract air from the cooker hood

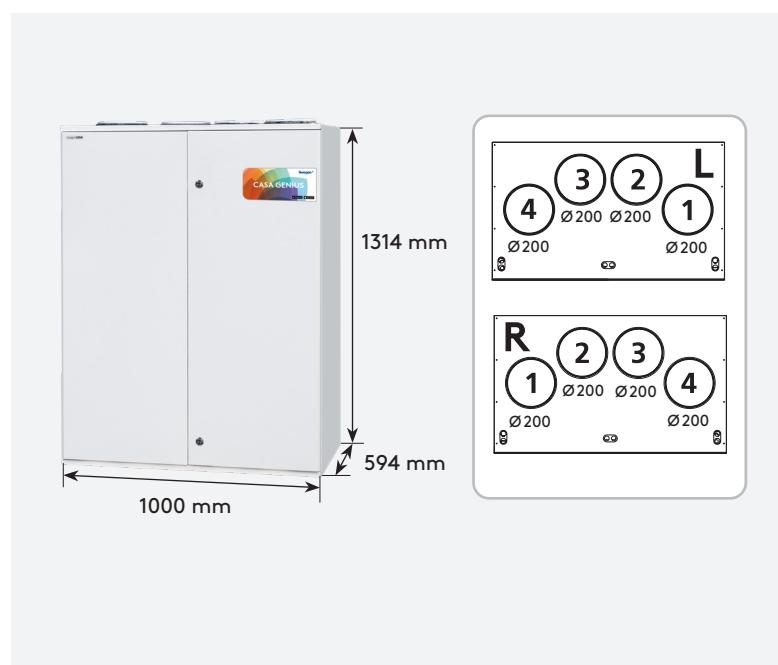
CASA W5

- 30-130 l/s | 108-468 m³/h
- Energy class A+
- The ventilation unit can be mounted on a wall by means of a wall mounting bracket which is available as a standard accessory.
- Mounting frames for ceiling or wall installation are also available as accessories.



CASA W9

- 50-235 l/s | 180-846 m³/h
- Energy class A
- Mounted on a base on the floor.



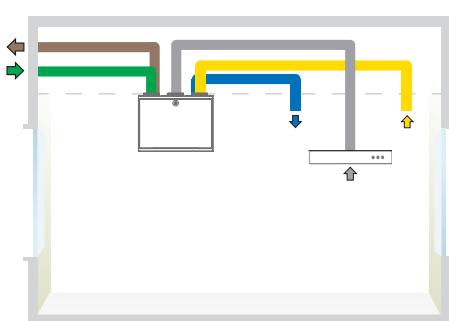
W-Series

Installation examples

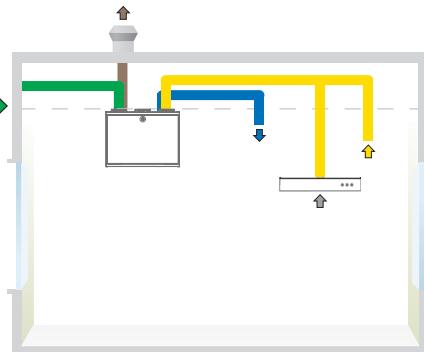
Note! Always check the unit design (L/R) and correct duct sequence in the installation instructions.



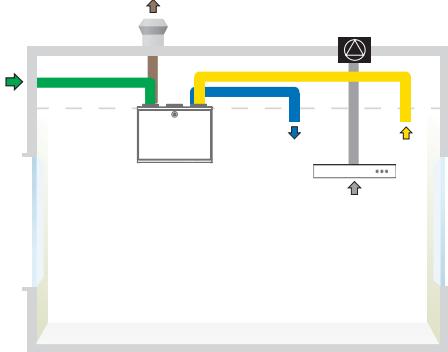
CASA W3 xs



CASA W3 xs L, duct connections and cooker hood connected to the ventilation unit's kitchen duct connection.

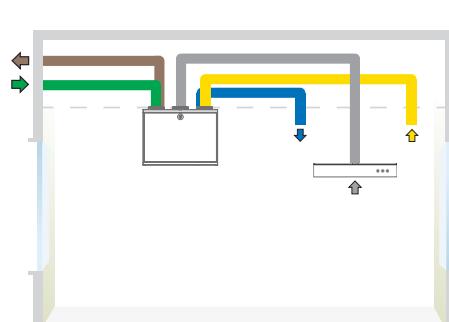


CASA W3 xs L, duct connections and cooker hood connected to the extract air duct.

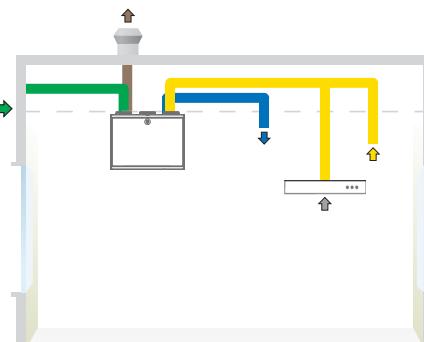


CASA W3 xs L, duct connections and cooker hood connected to the external ceiling fan.

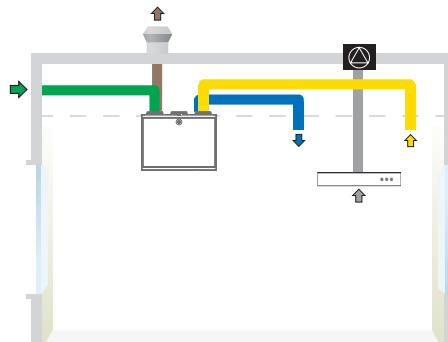
CASA W4 xs



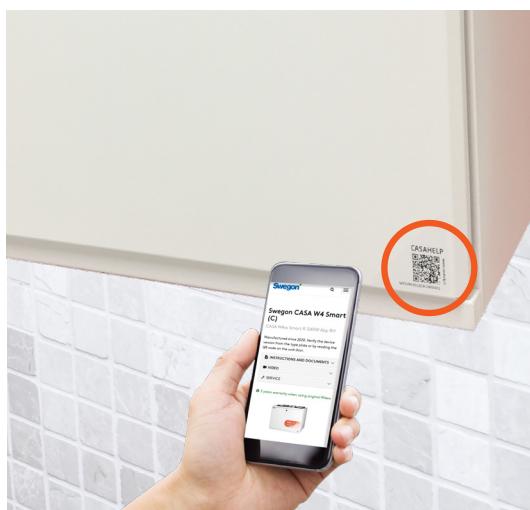
W4 xs L, duct connections and cooker hood connected to the ventilation unit's kitchen duct connection.



W4 xs L, duct connections and cooker hood connected to the extract air duct.



W4 xs L, duct connections and cooker hood connected to the external ceiling fan.



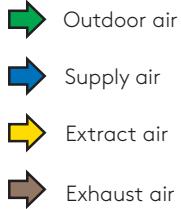
Scan QR

- Service, operation and installation instructions
- See instruction videos
- Order spare parts and filter
- Solve problems using troubleshooting tools
- Search for your nearest service company
- Submit a service request

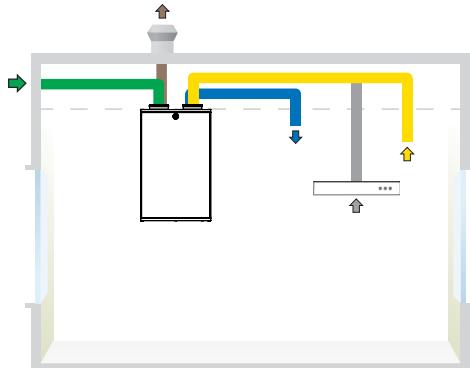
W-Series

Installation examples

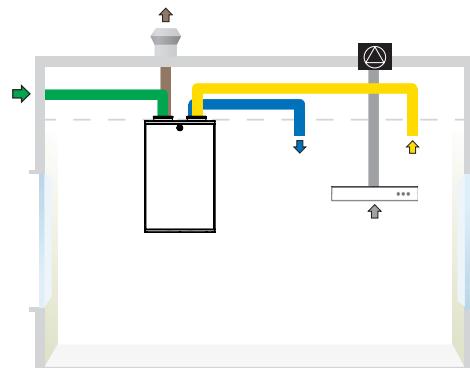
Note! Always check the unit design (L/R) and correct duct sequence in the installation instructions.



CASA W5

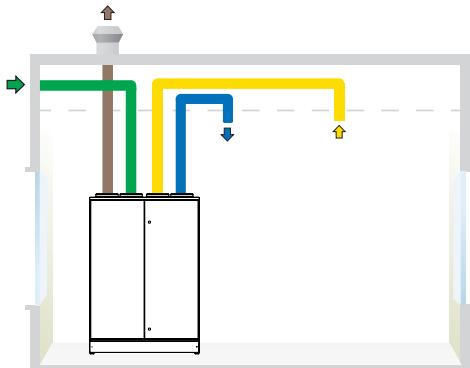


CASA W5 L, duct connections and cooker hood connected to extract air duct.



CASA W5 L, duct connections and cooker hood connected to external ceiling fan.

CASA W9



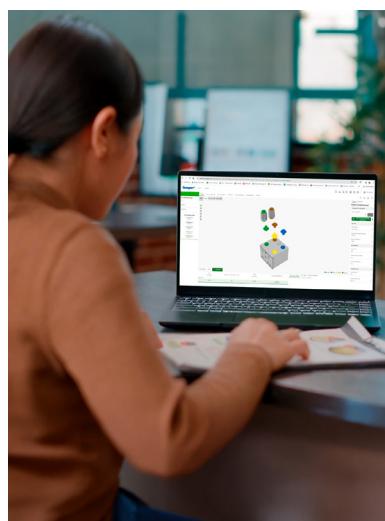
Duct connections on W9 L.



MagiCAD

3D models and CAD dimension sketches for all Swegon CASA products are available from MagiCloud. You can download DXF files directly from MagiCloud or use a MagiCAD plugin to transfer dimension sketches to the Revit and AutoCAD software packages.

www.magiccloud.com



AHU Design

Web based selection software for Swegon AHU's. The AHU Design product selection software simplifies the process of sizing and configuring your air handling unit. It allows you to perform advanced energy calculations to ensure that the solution is optimised to meet your requirements. Extensive technical documentation and print-outs are available, as well as exports via plug-ins to support additional calculations and project planning.

Swegon CASA Genius

Intelligent control of the ventilation

With Swegon CASA Genius residents can monitor the indoor air quality (RH, CO₂, VOC, °C), adjust ventilation to their wishes or let the intelligent control to adjust ventilation automatically while saving energy and providing fresh and healthy indoor air.

The Swegon CASA control panel (GC10)



Wall-mounted touch screen for external or flush mounting. From the touch screen user can monitor ventilation, change ventilation mode, change the settings and commission the ventilation unit. The screen can be connected to the home WLAN, enabling the ventilation to be controlled remotely from a Swegon CASA mobile app.

The Swegon CASA HOME/AWAY/BOOST control switch (GC04)



Wall-mounted control switch for selecting boost, home and away modes.

The Swegon CASA app



With Swegon CASA app residents can use all the control functions remotely from their own smartphone. Users get more information about their home's air quality as well as valuable instructions and advice about the ventilation (requires Swegon Genius control panel).

The CASA Service app



for quick and easy commissioning. The app works locally together with the ventilation unit and doesn't require connection to network. The app defines the I/O connections, presets the fan speeds that correspond to specified air volumes, as well as automatically sets air volumes for home and boost mode. Finished settings can be saved in the app and copied to the next apartment (requires Swegon Genius control panel).

Swegon CASA cooker hood

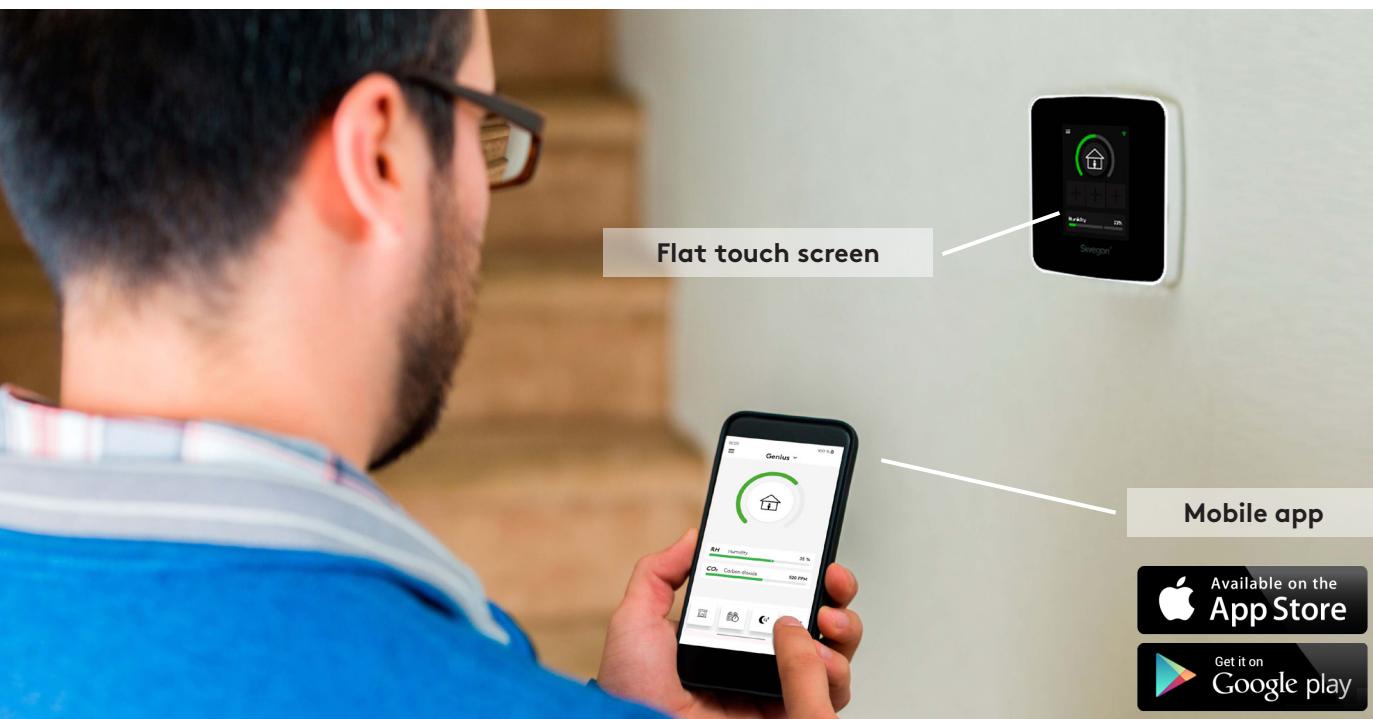


With cooker hoods, it is possible to control the ventilation unit's operating mode (home, away, boost), the cooker hood's shut-off damper and the lighting in the hood. The system balances the ventilation automatically when using the cooker hood.

Home automation



Can be connected to the home automation for centralised monitoring and control, either directly via configurable I/O or with the aid of a separate Modbus connection module (SEM). SEMIO is included in the delivery of the ventilation unit.



Basic modes

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.



Home

Normal air flow. Sufficient amount of fresh indoor air to ensure the wellbeing of the residents and the structural building elements when there are people in the home.



Home+

Higher air flow. Can be used when more ventilation is required. The home owner can change the efficiency of the operating mode from the settings.



Boost

High air flow. Used if the ventilation requirement increases, for example, when cooking, taking a bath or drying laundry, or when an unusually large number of people are in the home.



Away

Low air flow. Reduces the energy consumption when nobody is present in the home.



Travelling

Very low air flow and lower supply air temperature. Used when nobody is present in the home.

Automatic functions

The intelligent ventilation monitors the quality of the indoor air and adjusts the ventilation automatically.



RH Humidity

35%

Automatic RH system included as standard

Humidity automation removes damaging moisture. The intelligent control analyses the indoor air continuously and regulates the ventilation steplessly so that excess moisture is removed, for example when you are washing.



CO₂ Carbon dioxide

520 PPM

Automatic CO₂ system as optional equipment

Automatically lowers the ventilation and saves energy when nobody is in the home. When the residents are at home, the ventilation is automatically boosted to bring exactly the right amount of fresh air into the home.

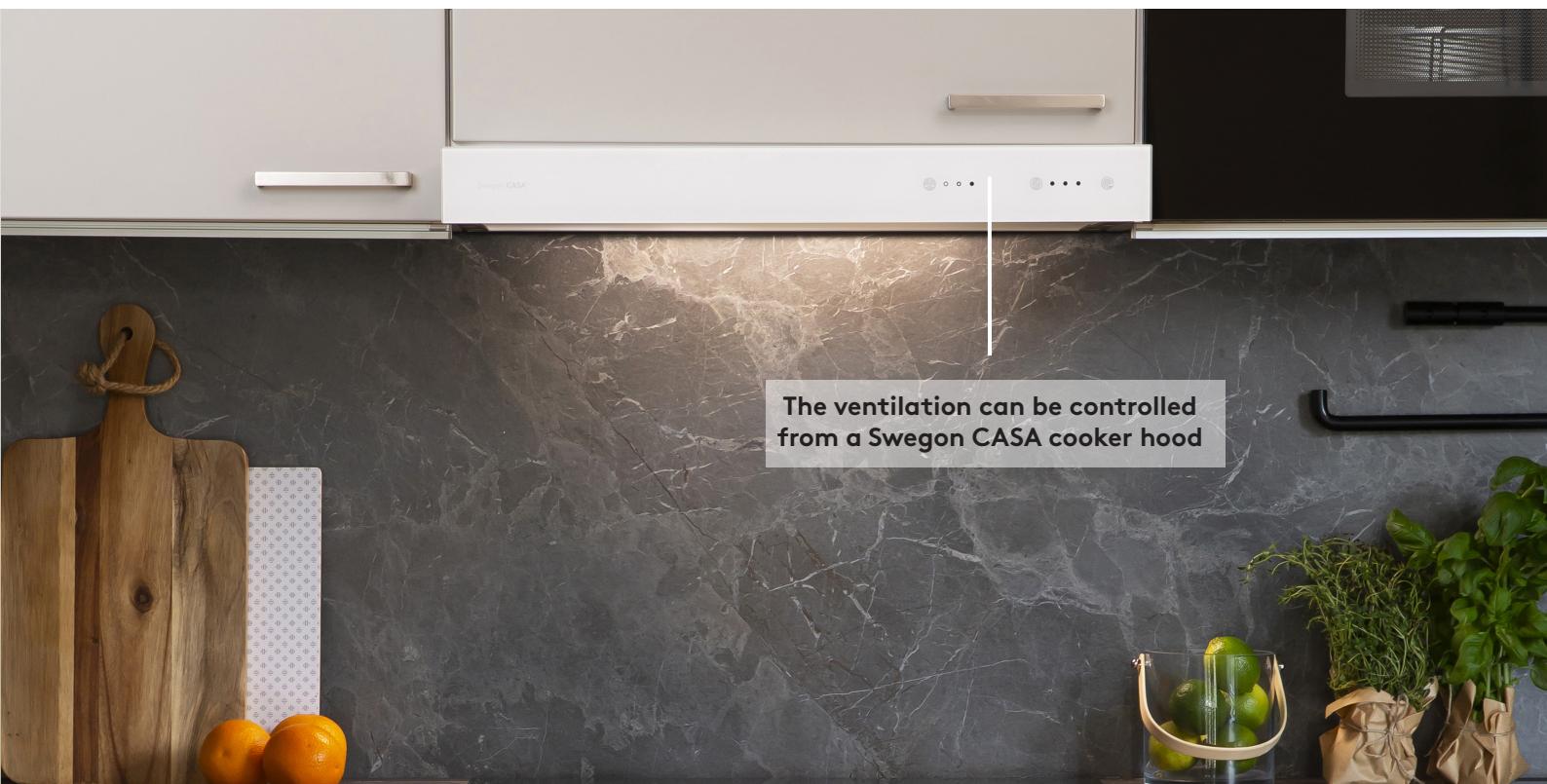


VOC Air quality

950 PPM

Automatic VOC system as optional equipment

The automatic air quality system boosts the ventilation if pollution, odours or vapours (evaporating organic compounds) are detected in the indoor air.



The ventilation can be controlled from a Swegon CASA cooker hood



CASA W - Ventilation units

CASA W3 xs	Part no.	GTIN
CASA W3xs Genius L 1240W RH	W3SVL05G10HA	6430080090440
CASA W3xs Genius R 1240W RH	W3SVR05G10HA	6430080090457

CASA W4 xs	Part no.	GTIN
CASA W4xs Genius L 1240W RH	W4SVL05G10HA	6430080090570
CASA W4xs Genius R 1240W RH	W4SVR05G10HA	6430080090617

CASA W5	Part no.	GTIN
CASA W5 Genius L RH+CO2	W05VL05G10CAA	6430080090662
CASA W5 Genius L RH	W05VL05G10HAA	6430080090679
CASA W5 Genius R RH+CO2	W05VR05G10CAA	6430080090693
CASA W5 Genius R RH	W05VR05G10HAA	6430080090709

CASA W - Filters

Filters	Tuotekoodi	GTIN
Spare filter W3/W4: filter class ISO ePM1 50% (F7) for supply air and ISO coarse (G3) for extract air	W304F	6415879068435
Allergy filters for W3 and W4 units when cleaner supply air is required. Filter class ISO ePM1 70 % (F8) for supply air and ISO coarse (G3) for extract air. It should be noted that a separate setting of the unit is necessary and that filters must be replaced more often than standard filters.	W304FSF8	6415879072050
Spare filter W5: filter class ISO ePM1 50% (F7) for supply air and ISO coarse (G3) for extract air as well as extra PPI-20 (cellular plastic) for supply air.	W05FS	6415879066875
Spare filter W9: filter class ISO ePM1 50% (F7) + ISO coarse (G3) and metal filter.	102W23SS	6415879064642

CASA W - Accessories

Control accessories	Part no.	GTIN
GC10 CASA Genius control panel and WiFi	GC10	6430080090846
GC10 control panel + 10 m long cable	GC14	6430080090853
GC10 control panel + 10 m long cable + frame	GC15	6430080090860
GC10 control panel + frame	GC16	6430080090877
Frame for control panel GC10	102SAK	6415879066752
CASA Genius boost/home/away control button	GC03	6430080091119
CASA Genius boost/home/away control button	GC04	6430080090013

Building automation	Part no.	GTIN
Modbus module with electrical box (Included in the delivery of the ventilation unit)	SEMIO	6430080091348
Modbus connection module for DIN rail	SEM	6415879067346
Connection cable (configurable I/O) for Genius ventilation units	SEC	6415879067353
Room temperature sensor, total package with connection unit for ventilation units. The sensor is installed on the wall or in a recessed junction box (60 mm between holes).	WSTC	6415879069395

Automatic functions	Part no.	GTIN
RH + CO2 automation	GRHCO2	6430080091454
RH+CO2+VOC automation	GRHCV	6430080091461

Mounting frames	Part no.	GTIN
W3 Ceiling mounting frame (R/L)	W03CMB	6415879068275
W3 Vapour barrier for mounting frame (R/L)	PW080YP	6415879066097
W4 Ceiling mounting frame (R/L)	W04CMB	6415879068282
W4 Vapour barrier for mounting frame (R/L)	PW100YP	6415879066004
W3/W4 Cover plate for ceiling mounting frame, for flush mounting	W034CMP	6415879068299
W3/W4, frame with sound trap. Even lower sound level to the surroundings and gives the final touch to the installation. Any mouldings and the like are not necessarily needed.	W034CNR	6415879069104
W5 Base (R/L)	W05FMB	6415879066882
W5 Vapour barrier for mounting frame (R/L)	W05PP	6415879066899
W3/W4/W5 Wall mounting bracket	WRWMB	6415879067438
W5 Ceiling mounting frame	W05CMB	6415879066912

CASA W - Accessories

Waterborne air coolers	Part no.	GTIN
Cooling coil package Ø160 (W3, W4, W5)	SDCW160	6415879068053
Cooling coil package Ø200 (W4, W5, W9)	SDCW200	6415879068060
Cooling coil package Ø250 (W4, W5, W9)	SDCW250	6415879070025
Cooling coil package Ø250. Fully insulated + accompanying ceiling/wall installation frame. (W4, W5, W9)	SDCW250F, insulated	6415879068077
Cooling coil package Ø315 (W9)	SDCW315	6415879068923

Waterborne air heaters	Part no.	GTIN
Heating coil package Ø125 (W3, W4)	SDHW125	6415879068039
Heating coil package Ø160 (W3, W4, W5)	SDHW160	6415879068046
Heating coil package Ø200 (W5, W9)	SDHW200	6415879068930
Heating coil package Ø250 (W9)	SDHW250	6415879070032
Heating coil package Ø315 (W9)	SDHW315	6415879068947

Brine air heater/cooling coil for ground source heat pump	Part no.	GTIN
Heating/cooling coil Ø250, G4 (W3, W4, W5, W9)	SDHW250F	6415879068084

Electric air heater	Part no.	GTIN
Electric heater Ø125 (W3)	SDHE125-1T	6415879067230
Electric heater Ø160 (W3, W4, W5)	SDHE160-1T	6415879067247
Electric heater Ø200 (W4, W5, W9)	SDHE200-1T	6415879067452
Electric heater Ø250, 1200 W (W9)	SDHE250-1T (1200W)	6415879068954
Electric heater Ø250, 2000 W (W9)	SDHE250-2T (2000W)	6415879068961

Other accessories	Part no.	GTIN
Connection module for control of the duct mounted air heater/cooling coil / control of shut-off dampers	SET	6415879067339
SET / power source for actuators	POWER24V20W	6415879068404
Very low water trap that is easy to clean	UVLL	6415879069302
PTH Regulation for constant duct pressure	PTH	6415879067285
Formet kondensisolering for kanalen, straight section, Ø125 mm, L1000	9000476	6415879069050
Formet kondensisolering for kanalen, elbow 90, Ø125	9000480	6415879069074
Splicing tape	9000483	6415879069081

Duct mounted shut-off dampers	Part no.	GTIN
Damper Ø125 mm (W3, W4)	SDD125	6415879069890
Damper Ø160 mm (W3, W4)	SDD160	6415879069937
Damper Ø200 mm (W5, W9)	SDD200	6415879070049
Damper Ø250 mm (W5, W9)	SDD250	6415879070056
Damper Ø315 mm (W9)	SDD315	6415879070070



Feel good **inside**

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