



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

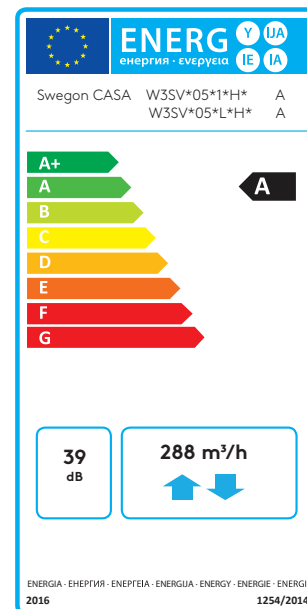
An energy-efficient ventilation system does not waste heat energy, but instead transforms it into free heating. The heat is recovered from dirty extract air and transferred into incoming fresh supply air.

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®

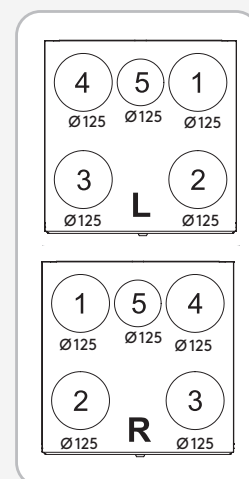
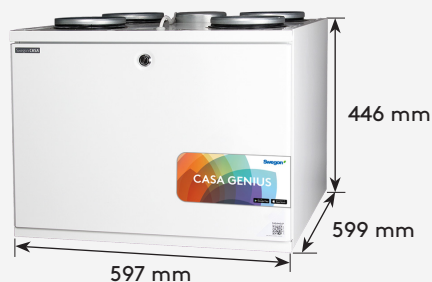
Energy calculation and functional diagram
procasa.swegon.com



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

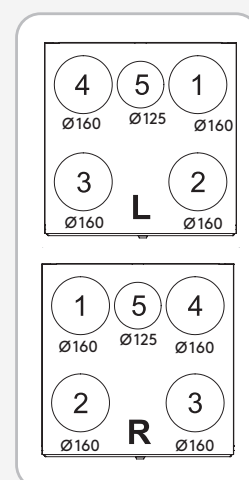
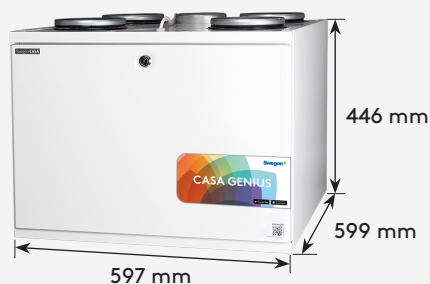
CASA W3 xs

- 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



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

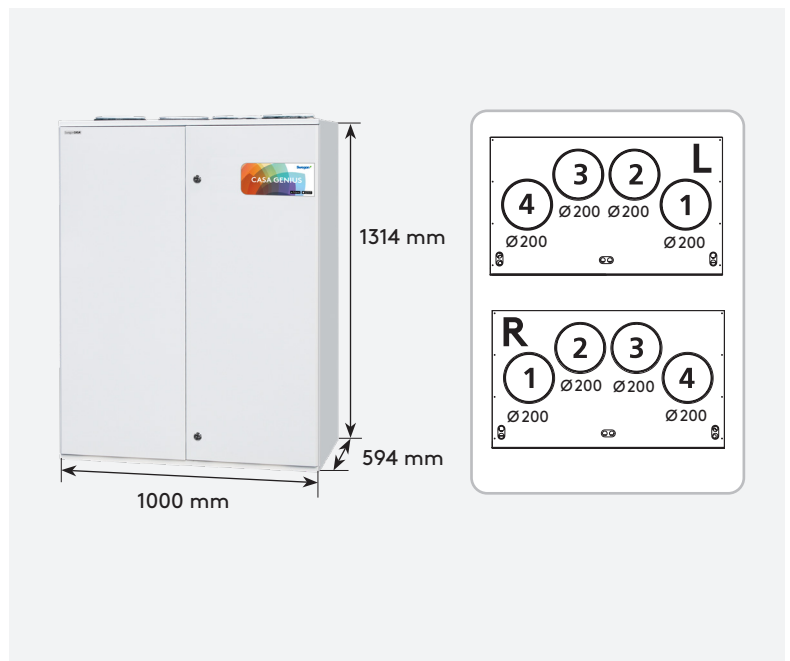
CASA W5

- 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

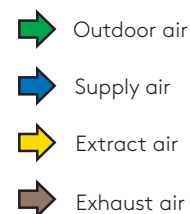
- 50-235 l/s | 180-846 m³/h
- Energy class A
- Mounted on a base on the floor.



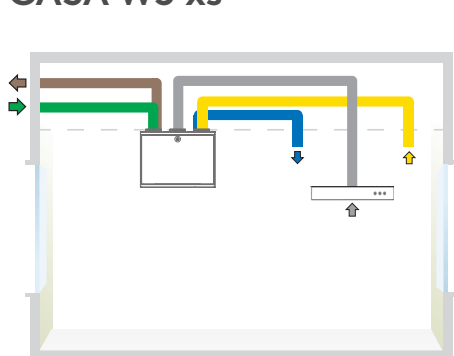
W-Series

Installation examples

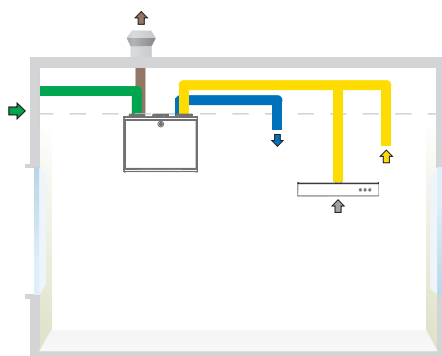
Note! Always check the unit design (L/R) and correct duct sequence in the installation instructions.



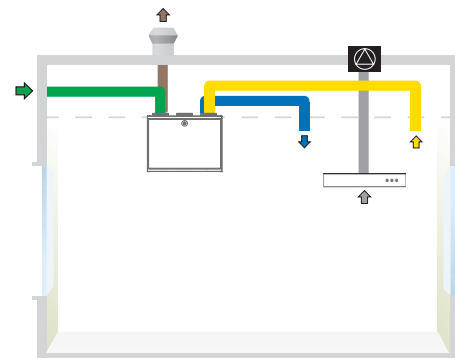
CASA W3 xs



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

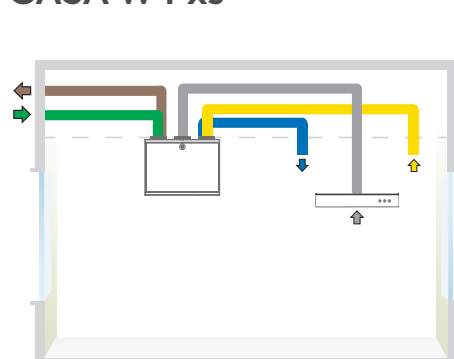


CASA W3 xs L, duct connections and cooker hood connected to the extract air duct.

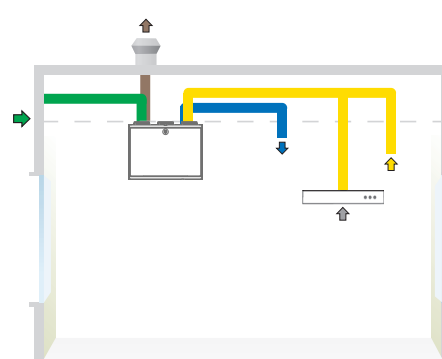


CASA W3 xs L, duct connections and cooker hood connected to the external ceiling fan.

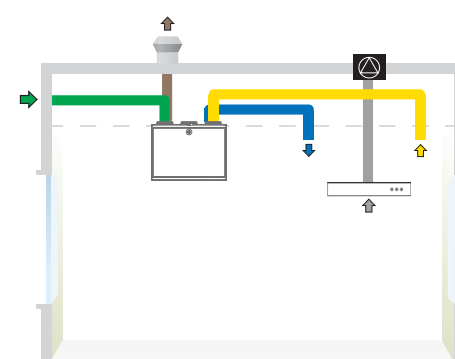
CASA W4 xs



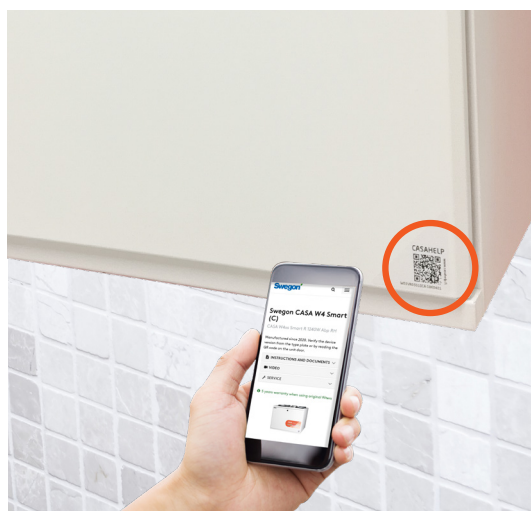
W4 xs L, duct connections and cooker hood connected to the ventilation unit's kitchen duct connection.



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

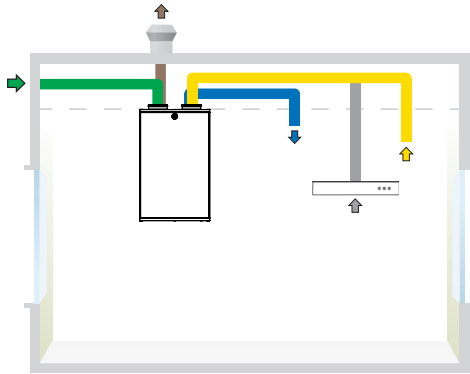
- Service, operation and installation instructions
- See instruction videos
- Order spare parts and filter
- Solve problems using troubleshooting tools
- Search for your nearest service company
- Submit a service request

W-Series Installation examples

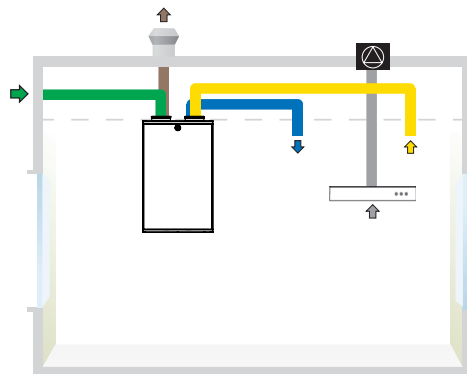
Note! Always check the unit design (L/R) and correct duct sequence in the installation instructions.

-  Outdoor air
-  Supply air
-  Extract air
-  Exhaust air

CASA W5

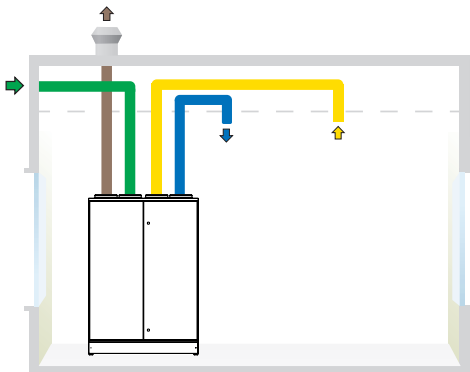


CASA W5 L, duct connections and cooker hood connected to extract air duct.



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

CASA W9

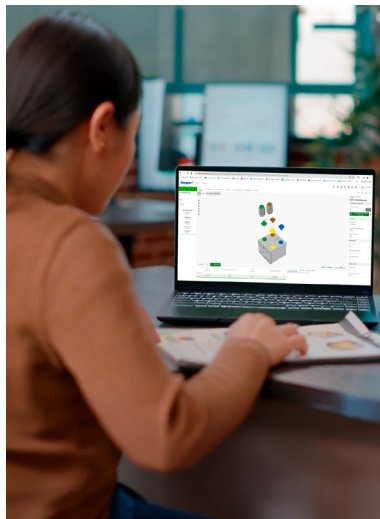


Duct connections on W9 L.



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.magicloud.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).



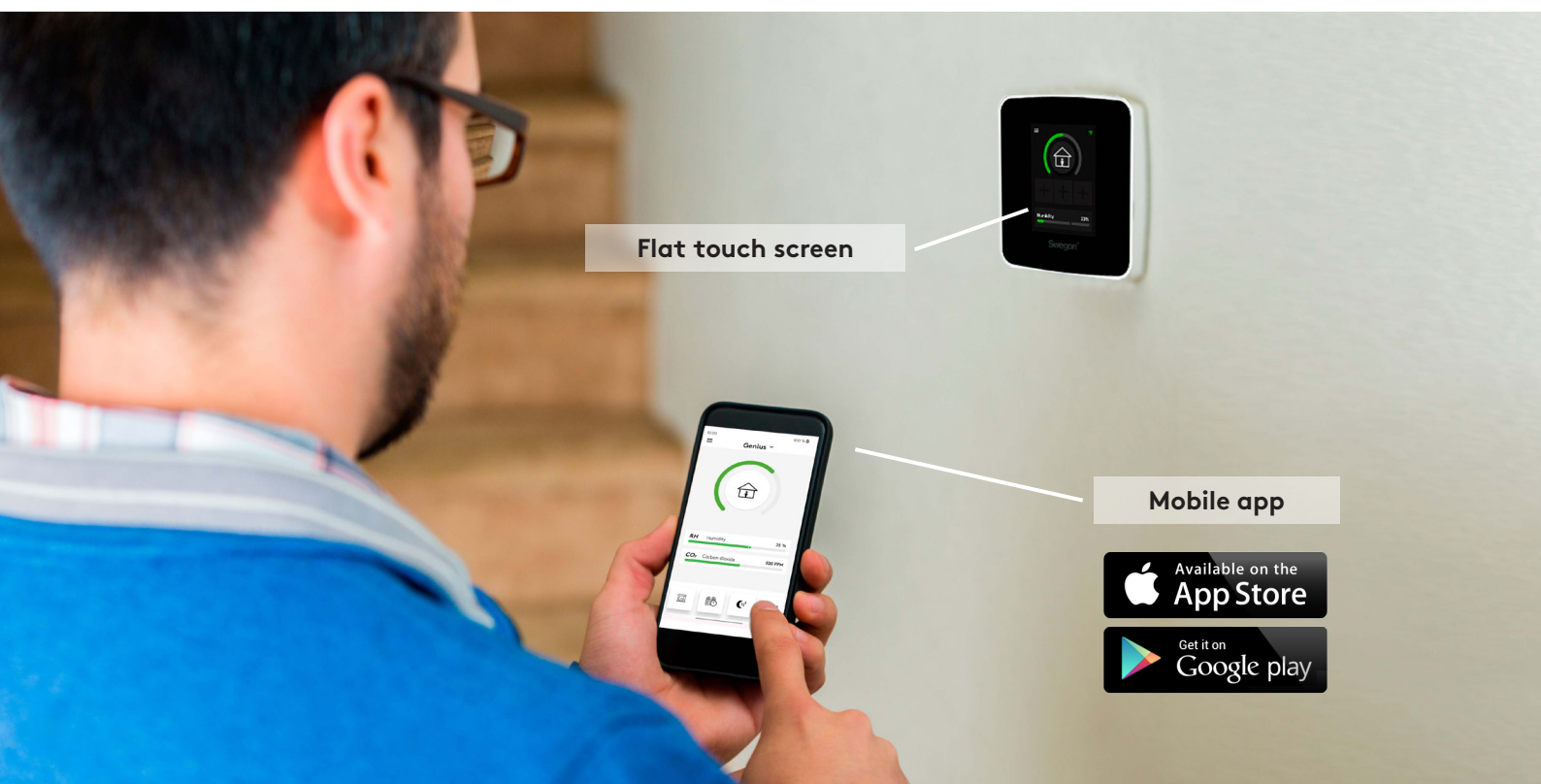
Swegon CASA cooker hood

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.



Flat touch screen

Mobile app

Available on the
App Store

Get it on
Google play

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/cooler 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/cooler / 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**

