SENTINEL HOLDING
INSTITUT

SHI PRODUCT PASSPORT

Find products. Certify buildings.

SHI Product Passport No.:

14136-10-1002

Swegon CASA W5

Product group: Technical building equipment / Sanitary facilities - Ventilation

bluMartin
A Swegon Group company

bluMartin GmbH
Argelsrieder Feld 1b,
82234 Wessling

Product qualities:

- SHI Product Assessment 2024
- QNG Qualitätssiegel Nachhaltiges Gebäude
- DGNB NEW CONSTRUCTION 2023.2
- DGNB NEW CONSTRUCTION 2023
- DGNB NEW CONSTRUCTION 2018
- BNB-BN NEUBAU V2015
- EU TAXONOMY
- BREEAM DE NEUBAU 2018
- LEED v4.1 (outside US)

CERTIFIED SUSTAINABLE PRODUCT
SHI PRODUCT PASSPORT
SENTINEL HOLDING INSTITUT
www.sentinel-holding.eu

Köttner

Helmut Köttner
Scientific Director
Freiburg, 26 August 2026

Product:
Swegon CASA W5

SHI Product Passport no.:
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The SHI Database is the first and only database for construction products whose comprehensive processes and data accuracy are regularly verified by the independent auditing company SGS-TÜV Saar

SGS TÜV SAAR

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SHI Product Assessment 2024

Since 2008, Sentinel Holding Institut GmbH (SHI) has been establishing a unique standard for products that support healthy indoor air. Experts carry out independent product assessments based on clear and transparent criteria. In addition, the independent testing company SGS regularly audits the processes and data accuracy.

Criteria	Product category	Harmful substance limit	Assessment
SHI Product Assessment	Other products	TVOC ≤ 300 µg/m^3 Formaldehyd ≤ 24 µg/m^3	Indoor Air Quality Certified
Valid untill: 11 September 2026			

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QNG - Qualitätssiegel Nachhaltiges Gebäude

The Qualitätssiegel Nachhaltiges Gebäude (Quality Seal for Sustainable Buildings), developed by the German Federal Ministry for Housing, Urban Development and Building (BMWSB), defines requirements for the ecological, socio-cultural, and economic quality of buildings. The Sentinel Holding Institut evaluates construction products in accordance with QNG requirements for certification and awards the QNG ready label. Compliance with the QNG standard is a prerequisite for eligibility for the KfW funding programme. For certain product groups, the QNG currently has no specific requirements defined. Although classified as not assessment-relevant, these products remain suitable for QNG-certified projects.

Criteria	Pos. / product group	Considered substances	QNG assessment
3.1.3 Schadstoffvermeidung in Baumaterialien			QNG ready - Not relevant for assessment

Product:
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DGNB New Construction 2023.2

Criteria	No. / Relevant building components / construction materials / surfaces	Considered substances / aspects	Quality level
ENV 1.2 Local environmental impact			Not relevant for assessment

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DGNB New Construction 2023

The DGNB System (German Sustainable Building Council) assesses the sustainability of various types of buildings. It can be applied to both large-scale private and commercial projects as well as smaller residential buildings. The 2023 version sets high standards for ecological, economic, socio-cultural, and functional aspects throughout the entire life cycle of a building.

Criteria	No. / Relevant building components / construction materials / surfaces	Considered substances / aspects	Quality level
ENV 1.2 Local environmental impact, 03.05.2024 (3rd edition)			Not relevant for assessment

Criteria	No. / Relevant building components / construction materials / surfaces	Considered substances / aspects	Quality level
ENV 1.2 Local environmental impact, 29.05.2025 (4th edition)	not applicable		Not relevant for assessment

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DGNB New Construction 2018

The DGNB System (German Sustainable Building Council) assesses the sustainability of various types of buildings. It can be applied to both large-scale private and commercial projects as well as smaller residential buildings.

Criteria	No. / Relevant building components / construction materials / surfaces	Considered substances / aspects	Quality level
ENV 1.2 Local environmental impact			Not relevant for assessment

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BNB-BN Neubau V2015

The Bewertungssystem Nachhaltiges Bauen (Assessment System for Sustainable Building) is a tool for evaluating public office and administrative buildings, educational facilities, laboratory buildings, and outdoor areas in Germany. The BNB was developed by the former Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB) and is now overseen by the Federal Ministry for Housing, Urban Development and Building (BMWSB).

Criteria	Pos. / product type	Considered substance group	Quality level
1.1.6 Risiken für die lokale Umwelt			Not relevant for assessment

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EU taxonomy

The EU Taxonomy classifies economic activities and products according to their environmental impact. At the product level, the EU regulation defines clear requirements for harmful substances, formaldehyde and volatile organic compounds (VOCs). The Sentinel Holding Institut GmbH labels qualified products that meet this standard.

Criteria	Product type	Considered substances	Assessment
DNSH - Pollution prevention and control	Sonstige	Stoffe nach Anlage C	compliant
Verification: Herstellererklärung vom 25.03.2025			

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BREEAM DE Neubau 2018

BREEAM (Building Research Establishment Environmental Assessment Methodology) is a UK-based building assessment system that evaluates the sustainability of new constructions, refurbishments, and conversions. Developed by the Building Research Establishment (BRE), the system aims to assess and improve the environmental, economic, and social performance of buildings.

Criteria	Product category	Considered substances	Quality level
Hea 02 Indoor Air Quality			Not relevant for assessment

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LEED v4.1

LEED (Leadership in Energy and Environmental Design) is an internationally recognised building certification system developed by the U.S. Green Building Council. It is one of the most widely used sustainability standards for buildings worldwide and is particularly applied in internationally oriented projects. LEED assesses buildings holistically across categories such as energy efficiency, resource conservation, material selection, indoor environmental quality and site sustainability. Depending on the number of points achieved, projects are awarded one of the certification levels: LEED Certified, Silver, Gold or Platinum.

Criteria	Product category	Considered substances	Assessment
EQ Credit: Low-Emitting Materials			Not relevant for assessment

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Product labels

In the construction industry, high-quality materials are crucial for a building's indoor air quality and sustainability. Product labels and certificates offer guidance to meet these requirements. However, the evaluation criteria of these labels vary, and it is important to carefully assess them to ensure products align with the specific needs of a construction project.



This product is SHI Indoor Air Quality certified and recommended by Sentinel Holding Institut. Indoor-air-focused construction, renovation, and operation of buildings is made possible by transparent and verifiable criteria thanks to the Sentinel Holding concept.



Products bearing the Sentinel Holding Institute QNG-ready seal are suitable for projects aiming to achieve the "Qualitätssiegel Nachhaltiges Gebäude" (Quality Seal for Sustainable Buildings). QNG-ready products meet the requirements of QNG Appendix Document 3.1.3, “Avoidance of Harmful Substances in Building Materials.” The KfW loan program Climate-Friendly New Construction with QNG may allow for additional funding.

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Legal notices

(*) These criteria apply to the construction project as a whole. While individual products can positively contribute to the overall building score through proper planning, the evaluation is always conducted at the building level. The information was provided entirely by the manufacturer.

Find our criteria here: https://www.sentinel-holding.eu/de/Themenwelten/Pr%C3%BCfkriterien%20f%C3%BCr%20Produkte

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SGS

SGS TÜV SAAR

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PRODUCT LEAFLET

CASA W5 Smart

The energy smart choice



Swegon

Swegon CASA W5 Smart

Residential air handling unit (597 x 630 x 951 mm, Ø160 mm) with modular width for integrated installation next to the laundry column (468 m³/h, 250 m²). Energy class A+ for the lowest possible climate impact. The market's most intelligent demand-controlled humidity function as standard. Developed, manufactured and tested for Nordic climate.

Free energy with counterflow heat exchanger

The heat exchanger makes use of the energy in the indoor air in the winter to heat the incoming outdoor air and in the summer to reduce the supply air temperature. On a cold winter day the heat exchanger gives "free" heating energy up to 36°C by converting the -20° cold outdoor air to +16°C warm supply air. The heat exchanger is manufactured with aluminium fins and provides a high degree of efficiency. The supply air and extract air have completely separate air ducts so any possible odours in the extract air cannot be transferred to the supply air. The heat exchanger does not recover moisture to the supply air, which is advantageous in residences with a high moisture load (e.g. homes with a sauna).

Defrosting

The defrosting function guarantees continuous ventilation in the home even during cold conditions. With the help of the preheater (standard), you can maintain balanced ventilation and avoid negative pressure in the residence even under extreme conditions.

Preheater

With the help of the preheater (standard), you can maintain balanced ventilation and avoid negative pressure in the residence even under extreme conditions and enable balancing functions for fireplaces and cooker hoods.

Reheater

Usually the recovered thermal energy from the extract air is sufficient to heat the supply air. In cold conditions, an electric or waterborne reheater can be used to maintain a comfortable indoor climate. It can be placed internally in the air handling unit or externally in the duct (see technical data).

Automatic summer mode

Summer mode helps to maintain the home's indoor air comfort. The heat exchanger makes use of the cool indoor air during warm days and cools the incoming outdoor air. At night 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. Very economical comfort coolness can be produced intelligently almost free of charge.

Cooling

If there is access to cold water in the property (e.g. cooling pump), a cooling coil can be installed in the supply air/outdoor air duct to produce comfort cooling in the residence. The supply air temperature is controlled automatically from the ventilation unit's control system.

Installation

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.

1. **Ecodesign energy class A+***
2. **Air flow range 108 - 468 m³/h**
3. **Temperature efficiency up to 86 % (EN 13141-7)**
4. **Demand-controlled humidity function as standard**
5. **Automatic summer function and passive cooling**
6. **Anti-frost protection ensures continuous ventilation**
7. **External coils for heating and cooling as an option**
8. **Can be connect to the automated building management system (I/O/Modbus)**
9. **Narrow 600 mm wide model**

**Energy classification according to EcoDesign directive Lot 6. Energy class may vary depending on the selected accessories.*


CASA Smart

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.

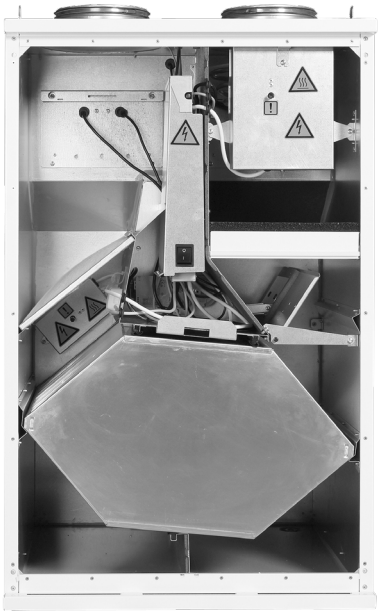
Air Quality Automation (VOC)

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.


Swegon
Home Modules
Ventilation
CO2
Humidity

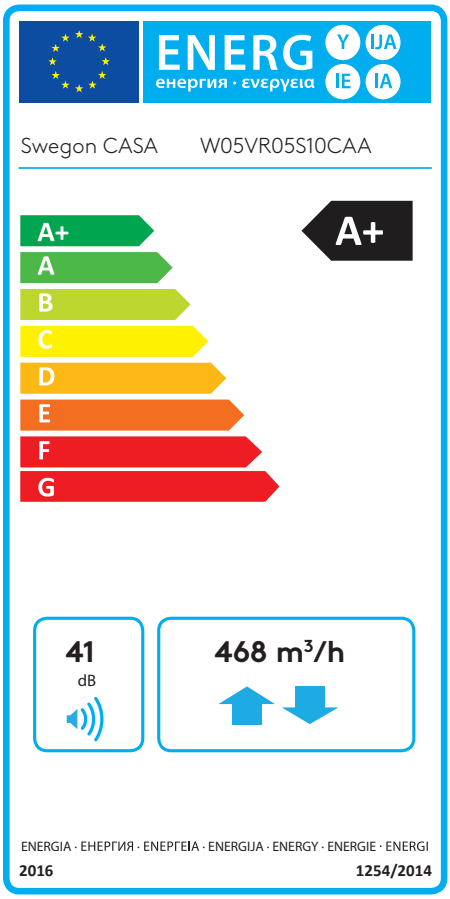
Technical data



More information in ProCASA

procasa.swegon.com

	W5
Air flow range (according to Ecodesign)	108-468 m³/h
Rated voltage	230 V, 50 Hz, 9,8 A
Fans	238 W
Internal electric preheater	1500 W
Internal electric reheater	500 W
External electric pre/reheater (Duct mounted)	As an option
External water based heating coil/ cooling coil (Duct placement)	As an option
Max. total output	2248 W
Fuse protection	16 A
Weight	85 kg
Duct connections	Ø 160 mm
Outlet for condensate	3/8" male thread



(SEC) in kWh

Cold climate	-80.6	A+
Mean climate	**-42.1**	**A+**
Warm climate	-17.4	E

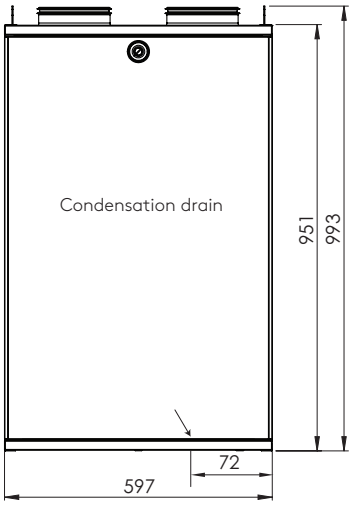
Energy class may vary depending on how the unit is equipped.

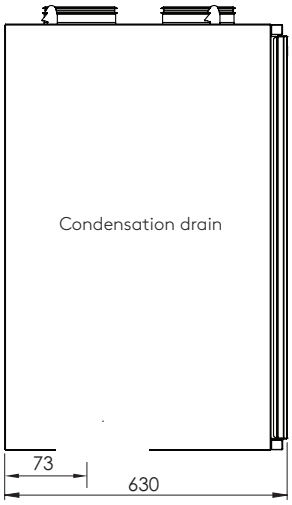
EUROVENT CERTIFIED PERFORMANCE
www.eurovent-certification.com

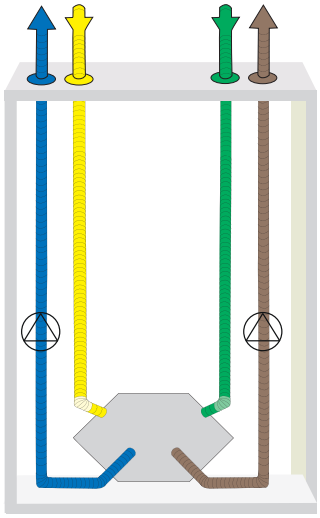
Dimensions, w x l x h	597 x 630 x 951 mm
Heat exchangers	Counter-flow plate heat exchanger
Enclosure class	IP34
Control system	CASA Smart + automatic humidity function as standard
Control panel CASA Smart	Available as an option
Filters	Filter class ISO ePM1 50% (F7) for supply air and ISO coarse (G3) for extract air as well as extra metal filter for supply air.
Colour, exterior	White, RAL 9016 (corresponds to NCS S1002-G50Y)

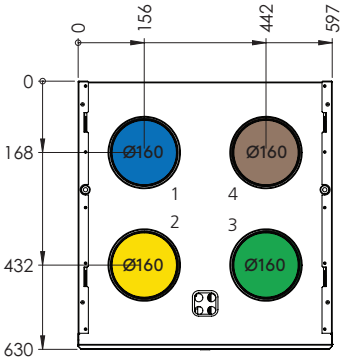
Dimensions

Outdoor air Supply air Extract air Exhaust air

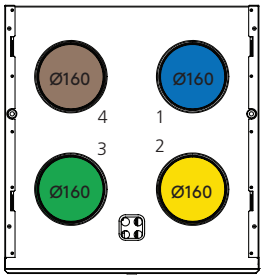




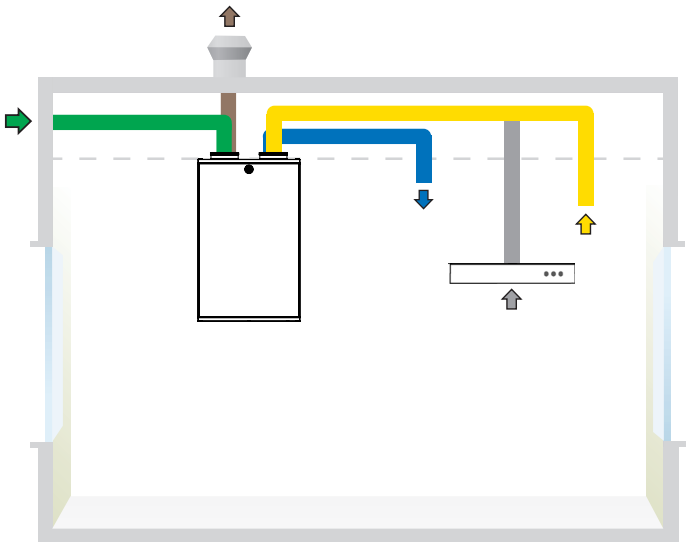




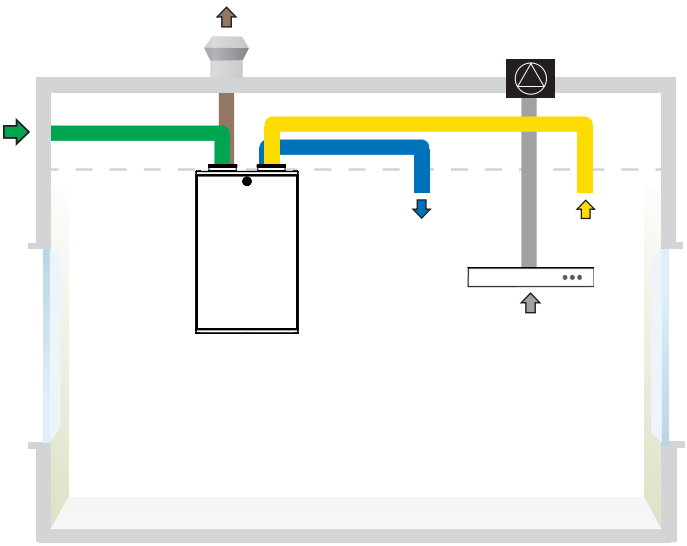
CASA W5 R, right-hand version



CASA W5 L, left-hand version



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



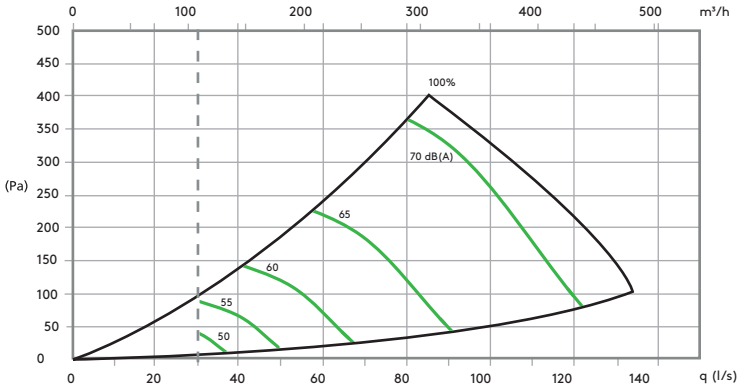
CASA W5 L, duct connections and cooker hood connected to external ceiling fan.

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

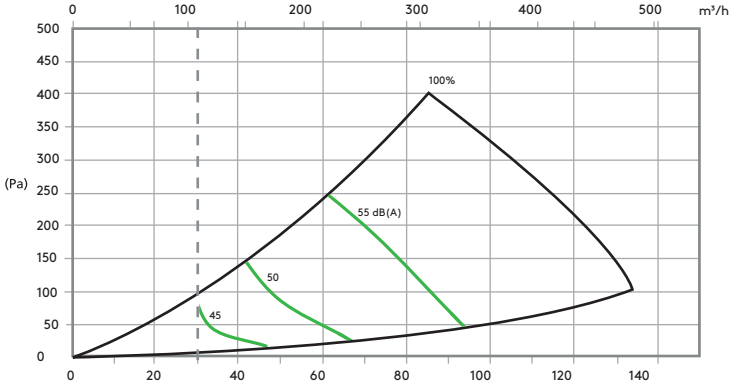
Fan curves

More detailed data for sound to the surroundings and duct connections are available via procasa.swegon.com.

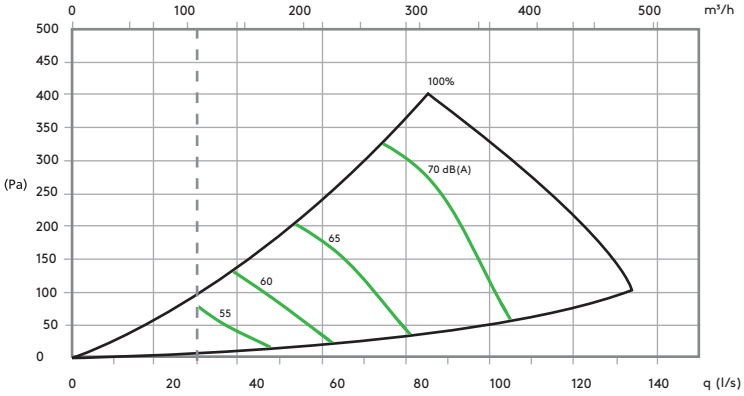
Sound power level emitted to the supply



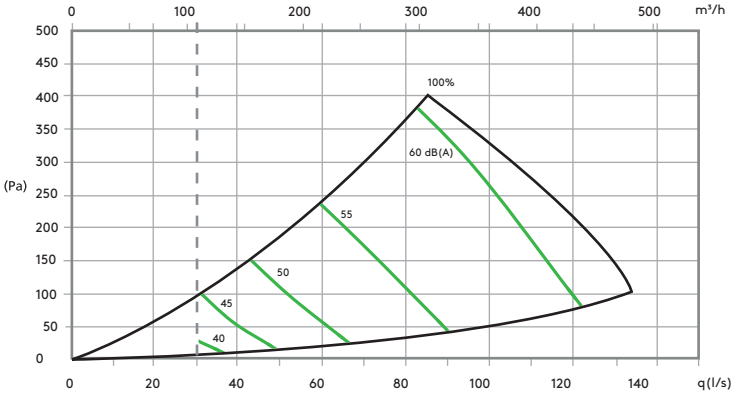
Sound power level emitted to the extract air duct



Sound power level emitted to the exhaust

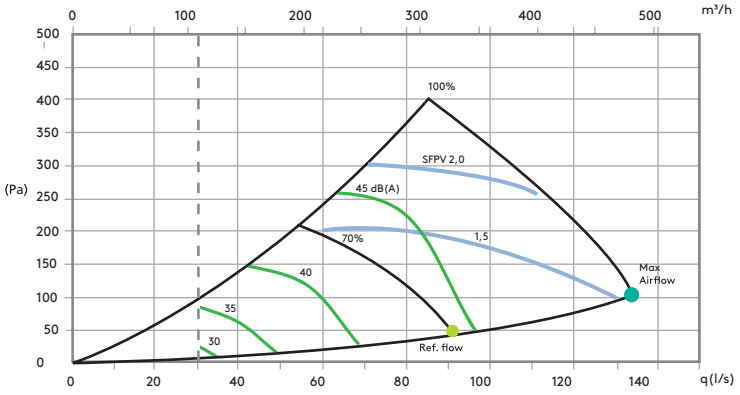


Sound power level to a duct for outdoor air



Reference air flow
Max. air flow
Min air flow
Sound power L_{wa} dB (A)

Air flow and sound power level to the 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
Sound emitted to supply air duct	3	5	5	-5	-11	-9	-17	-27
Sound emitted to extract air duct	9	7	6	-4	-20	-22	-29	-29
Sound emitted to exhaust air duct	-1	4	4	-4	-11	-10	-18	-27
Sound to a duct for outdoor air	10	6	6	-4	-20	-23	-29	-29
Sound emitted to the surroundings	11	7	6	-3	-15	-17	-24	-28

Correction table for sound pressure level		
room area	normally furnished room	heavily furnished room
5 m^2	- 2 dB(A)	+ 3 dB(A)
10 m^2	- 4 dB(A)	0 dB(A)
15 m^2	- 5 dB(A)	- 3 dB(A)

For more detailed sound data refer to the calculation software ProCasa.



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

Air handling unit and accessories



CASA W5 Smart

- 108-468 m³/h, 4 x Ø160 mm
- Supplied with approx. 1.5 m controlled cable. Order control panel and 10 m/20 m extension cable separately.
- Humidity automation as standard (RH)
- Wall mounting bracket

Part no.	Energy class*	Description
W05VR05S10HAA	A+ / **A** / E	W5 Smart WA-R Auto bypass RH
W05VL05S10HAA	A+ / **A** / E	W5 Smart WA-L Auto bypass RH
W05VR05S10CAA	A+ / **A+** / E	W5 Smart WA-R Auto bypass RH + CO2
W05VL05S10CAA	A+ / **A+** / E	W5 Smart WA-L Auto bypass RH + CO2

L = exhaust air left. *Energy classification according to EcoDesign directive Lot 6 (Cold / **Medium** / Warm).



Filter

W05FS	Spare filter 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.

Control accessories

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





SC10	Control panel (1-2 per unit)
SC14	SC10 + modular cable 10 m
SC15	SC10 + modular cable 10 m + mounting frame
SC16	SC10 + mounting frame
102SAK	Mounting frame, for surface mounting of the control panel
PMK20	Modular cable, 20 m and RJ9 adapter for units
604010	Modular cable 10m

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.



SMA	Smart Access module for connection to the internet
SMAW	Smart Access module + WLAN router
SMAG	Smart Access module + 3G/4G mobile router (not SIM)

Building automation

As standard the ventilation unit has two configurable I/O channels. If there is a need of additional connection points, the ventilation unit has space for a separate connection cable (SEC). Modbus connection module (SEM) gives you advanced connection options to a master system.



SEM	Modbus connection module
SEC	Connection cable (configurable I/O) for Smart ventilation units
WSTC	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).

Automatic functions

With the help of an internally mounted sensor, it is easy to fully automate your apartment's ventilation system.
Can easily be retro-fitted by replacing the existing internal RH-sensor.



SRHCO2	Automatic Home/Away/Boost system + humidity automation (RH + CO_2)
SRHVOC	Automatic air quality system + humidity automation (RH+VOC)

Waterborne air coolers

With an air cooler mounted in the supply air duct, comfort cooling is created in the residence by connecting a cooling medium circuit or a cooling water circuit to the cooler. The air cooler is controlled automatically from the ventilation unit's Smart control system and settings can be changed using a CASA Smart control panel. The delivery includes: Air cooler, SET connection module, actuator and 3-way valve, 24 V transformer, requisite sensors and instructions. SDCW250F is a fully insulated model + accompanying installation frame.



SDCW160	Cooling coil pack Ø160
SDCW200	Cooling coil pack Ø200
SDCW250	Cooling coil pack Ø250
SDCW250F	Air cooler Ø250. Air cooler Ø250. Fully insulated + accompanying ceiling/wall installation frame.

Waterborne air heaters

In buildings equipped with a waterborne heating system, the supply air can be heated with a duct mounted waterborne air heater. The air heater is controlled automatically from the ventilation unit's Smart control system and settings can be changed using a CASA Smart control panel. The delivery includes: Air heater, SET connection module, actuator and 3-way valve, 24 V transformer, requisite sensors and instructions.



SDHW160	Heating coil package Ø160
SDHW200	Heating coil package Ø200

Brine air heater/cooler for ground source heat pump

In a property equipped with a ground source heat pump, a brine air heater/cooler for the heat pump can be installed in the outdoor air duct. In the winter it heats the air taken in and ensures that the ventilation unit operates with the greatest efficiency even in extreme cold. In the summer, the medium in the ground circuit is used to cool the building. The control technology in CASA Smart automatically ensures that the air heater/cooler is utilised optimally all year round. The delivery includes: heating/cooling coil, wall mounting bracket/ceiling mounting frame, an effective 4-row air cooler for cooling medium, SET connection module, coarse filter, requisite sensors and instructions and drip tray for condensate water: condensation water outlet with 3/8" male thread.



SDHW250F	Heating/cooling coil Ø250, G4

Electric air heater

Can be used for preheating and is placed in the outdoor air duct to guarantee continuous ventilation under very cold conditions and permit balancing functions (fireplace function/function for a cooker hood) in the air handling unit without an integrated air heater for preheating. If the air heater is to be installed as a preheater, a FLK-filter needs to be installed in the duct in front of the preheater. The electric duct heater has built-in regulation and is controlled directly from a ventilation unit. The heater is connected using a separate power supply 230 V. The delivery includes: air heater, SET connection module, requisite sensors and instructions.



SDHE160-1T	Electric heater Ø160
SDHE200-1T	Electric heater Ø200
FLK16	Prefilter box Ø160mm, G4
FLK20	Prefilter box Ø200mm, G4

Other accessories

Used for connection of external accessories, for example, damper, duct coils, etc.



SET	Connection module for control of the duct mounted air heater/cooler / control of shut-off dampers
POWER24V20W	SET / power source for actuators



UVL	Water trap

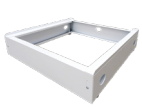


The constant duct pressure function on the Smart ventilation unit attempts to regulate the fan speeds to maintain the duct pressure at the set value. Individual setting values for the duct pressure should be determined for each operating mode (away, home, boost). The operating mode can be switched as normal when the constant duct pressure function is used.

PTH	PTH Regulation for constant duct pressure



Mounting frame with quick-fit connectors for ceiling mounting the ventilation unit. Simplifies connection as the duct system can be fully installed prior to the installation of the ventilation unit.



W05CMB	Ceiling mounting frame W5
W05FMB	Base W5



The mounting frame has a moisture barrier which prevents moisture from entering the insulation in the attic joist floor and stops the air from the loft from coming down into the rooms.

W05PP	Vapour barrier for mounting frame



Duct mounted shut-off dampers type 4 and damper actuator 24 V with spring return. The damper closes in the event of a power failure or alarm when a risk of freezing exists. The damper actuator is electrically connected to a CASA SET-module. SET module and 24 V adapter is ordered separately as required.

SDD160	CASA Damper Ø160 24V
SDD200	CASA Damper Ø200 24V

Feel good **inside**



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