SERENITY 10

Ambient **SERENITY**

SERENITY is a promise of comfort, well-being and acoustic serenity. The unit meets one of the greatest challenges in decentralised ventilation: **combining high airflow capacity with low noise levels.**

With only **35 dB(A) at 1000 m³/h**, SERENITY is well suited for learning environments, offices, and any space where concentration and comfort are essential. To put this into perspective, 35 dB(A) is as quiet as a refrigerator running efficiently.

ADVANCE TESTING

This performance is the result of extensive testing in our laboratories and in real-life environments. SERENITY was designed collaboratively across the Swegon Group's specialist centers.

The development began with sophisticated computational airflow simulations, carried out with our group level engineering team. These simulations enabled us to visualize, predict, and refine every airflow path inside the unit long before the first prototype was built. By understanding turbulence, pressure zones, and potential noise sources in advance, we were able to design a perfectly optimized internal architecture. From semi-anechoic chamber measurements and acoustic-camera analysis to on-site evaluations in an actual school, every test followed strict international standards.

PREVENTIVE MAINTENANCE

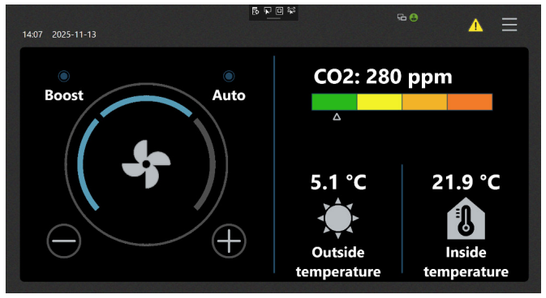
Beyond acoustics, SERENITY also integrates features designed for everyday reliability. The unit is equipped with two pressure switches that enable predictive maintenance of the filters. By monitoring filter load in real time, the system alerts users before performance drops or energy consumption increases, **ensuring continuous air quality** and optimized operating costs throughout the unit's life cycle.

SERENITY of use

CONTROL SYSTEM

The in-house developed TAC control technology allows configuration and control of indoor air quality parameters such as airflow, temperature, CO_2, etc.

To connect the air handling unit to a BMS system, several satellite circuits are available: SAT MODBUS, SAT Ethernet + WiFi, SAT INSIDE Ready, BACnet.



HMI

The TACtouch interface is a simple and user-friendly touchscreen allowing for an easy commissioning and control. The touchscreen includes a 2-meter connection cable and a magnetic bracket, allowing it to be attached anywhere on the unit. The HMI interface has been improved and simplified.

SERENITY of installation

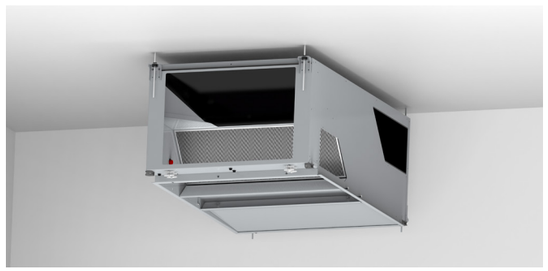
Two people can easily transport the unit, block by block.

SMOOTH TRANSITION FROM TRUCK TO CEILING

SERENITY is delivered vertically on an 800 mm-wide pallet. This configuration allows the unit to be moved directly from the truck to the ventilated room using appropriate handling equipment.

SERENITY can be installed as **a single unit or separated into three independent modules.** This modularity enables each module to pass through any standard doorway with ease.

The heaviest module weighs only 80 kg, making it easy for two operators to transport it safely throughout the building.



EASY MOUNTING PROCESS

The four unit's fixing points are positioned at different heights at the front and rear.

This staggered layout allows two operators to first engage the two rear threaded rods, then the two front ones, **significantly simplifying and securing the mounting process.**

EASY ACCESS

The door design provides a single technician with quick access to the unit's main components.

Mounted on hinges, the doors open smoothly and ensure straightforward access to the interior.
The external fairings are mounted magnetically, enabling fast, tool-free installation.

Thanks to the easy-click magnetic system, panels can be attached or removed effortlessly for maintenance or inspection.

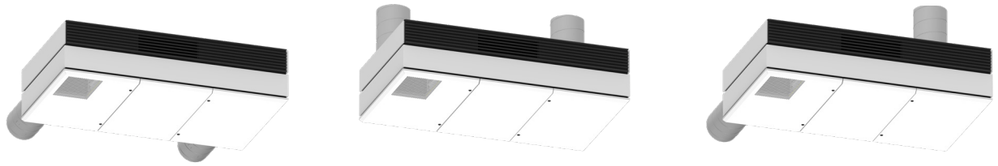
The fairings are shipped separately from the unit, reducing the risk of damage during transport.

SERENITY of integration

SERENITY has been designed to integrate seamlessly into buildings, thanks to its 72 possible configurations. The unit can be installed on the ceiling in integrated, semi-integrated, or non-integrated versions.

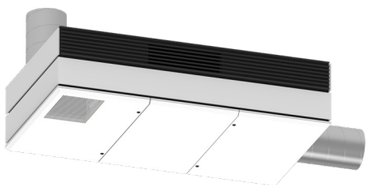
The **« standard unit »** is available in two configurations: top connection or straight connection. It is also possible to combine both, with one connection positioned at the top and the other in a straight configuration.

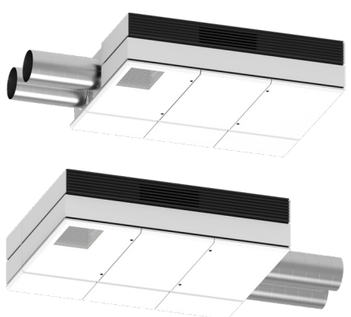
For example:



The « **side unit** » offers more connection possibilities; top, straight, and side.

On both extract and supply, each configuration is possible.





The **« side box »** allows for dual connections on the same side.

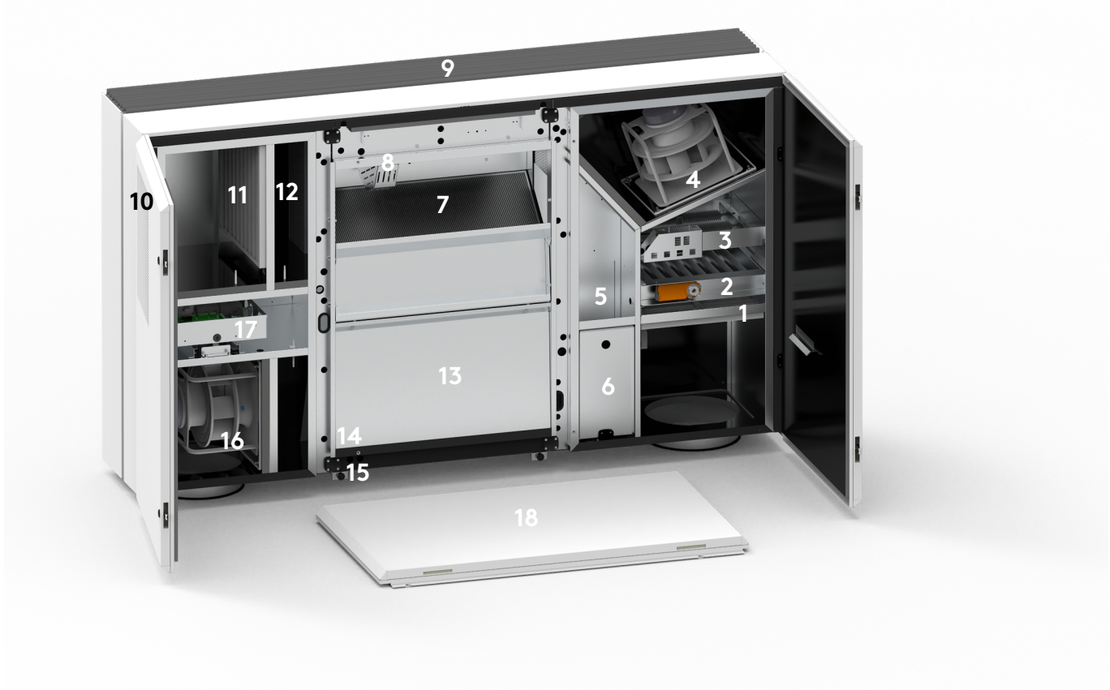
AESTHETICS

SERENITY is offered in two finishes:

- Black (RAL 9005) for a uniform look
- White (RAL 9016) with a contrasting black front grille

The front grille can be positioned on either the upper or lower half of the unit across all non-integrated configurations, providing maximum installation flexibility.

Components



1. Outdoor air filter
2. Outdoor air damper
3. Electric preheating*
4. Supply fan
5. Bypass
6. Electrical cabinet (power)
7. Plate heat exchanger
8. Electrical postheating* or reversible*/heating*/cooling* waterborne coil
9. Double deflection air diffuser grille
10. Extract grillle
11. Extract air filter
12. Sensors: CO2*/humidity*
13. Condensate pan
14. Condensate pump
15. Condensate evacuation
16. Extract fan
17. Electrical cabinet (PCB) - Regulation box
18. Central door

* available as an option

The correct operating mode is important

Whether the ventilation system is to work with constant pressure, with a constant airflow or be controlled with voltage signal 0–10 V from a control system is dependent on the application and the requirements stipulated by the installation in question.

The built-in control system ensures that the operation is always well-balanced.

CONSTANT AIRFLOW

This operating mode is often used in buildings that do not require variable airflows and where the airflow requirement is relatively stable.

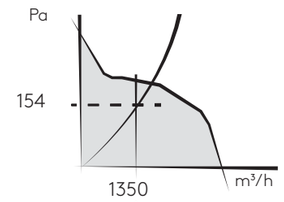
DEMAND CONTROL

Alternatively, the airflow can be adjusted automatically according to the ventilation requirements and the wishes of the users with the aid of the 0–10 V signal input, for example with a CO_2 sensor or using the customer's automated building management system or equivalent.

THE 2 MAIN OPERATING MODES

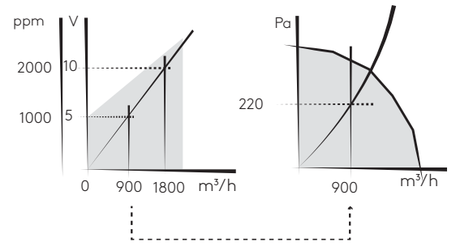
CONSTANT AIRFLOW

The airflow is kept constant, regardless of changes in pressure.

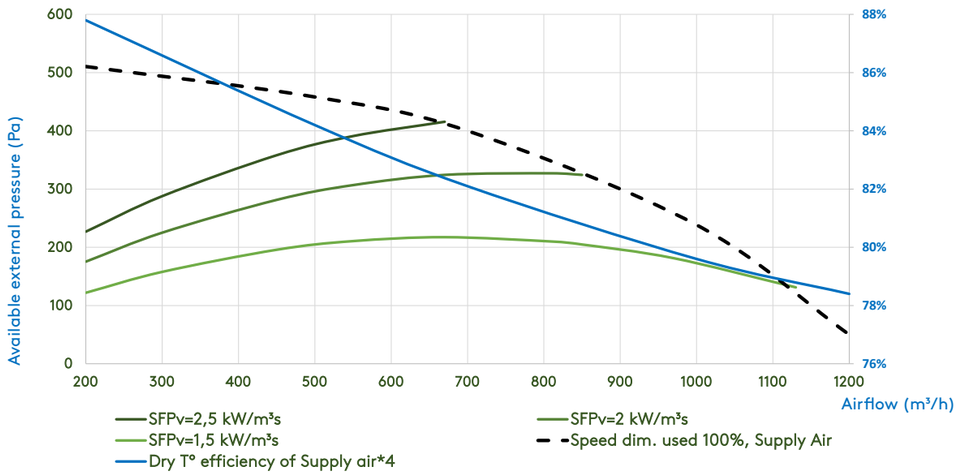


DEMAND CONTROL

The airflow is a linear function of the control voltage. The airflow is regulated with a control voltage of 0–10 V.



SERENITY 10



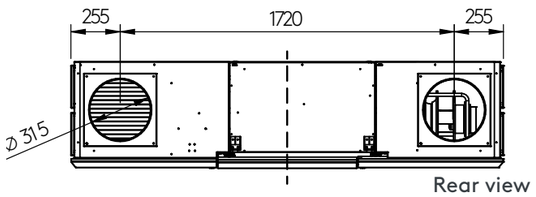
• AIRFLOW	200–1200 m³/h
	56–333 l/s
• NOISE LEVEL AT 1M	35dB(A) at 1000m³/h
• NOISE LEVEL AT 3M	30dB(A) at 1000m³/h
• DIMENSIONS L x W x H (mm)	1285/2230/545
• FOOT PRINT (HORIZONTAL | VERTICAL) (m²)	1.22 | 0.71
• WEIGHT	300 kg
• ELECTRIC POWER SUPPLY	1 x 230 V
• MAX. POWER CONSUMPTION	5.3 A
• RECOMMENDED FUSE PROTECTION	D6A - 10kA - AC3
• FILTER CLASS (PLEATED FILTER)	ePM10 50%
• CIRCULAR DUCT CONNECTIONS	Ø 315 mm
• AMBIENT TEMPERATURE	-20 ... +40°C

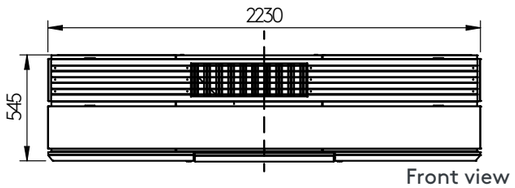
AIRFLOW		Pa ext*1	SFPv*2	Speed dim.*3 used/max, Supply Air	Speed dim.*3 used/max, Exhaust Air	ABSORBED POWER*2	Dry T° efficiency of Supply air*4
m³/h	l/s	Pa	kW/m³/s	%	%	W	%
200	56	100	1,24	44	43	69	88%
500	139	100	0,97	59	58	135	84%
700	195	100	1,03	70	69	199	82%
1000	278	100	1,25	89	86	347	80%
1200	334	100	1,49	103	97	497	78%

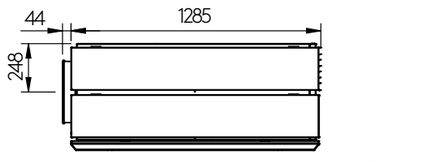
Conditions

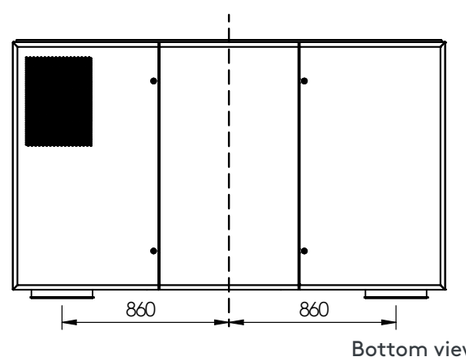
*1. Calculated values at 100 Pa of external pressure (0 SUP/100 ODA & 0 ETA/100 EHX)
*2. SFPv & Absorbed power calculated with clean filters
*3. Speed dim. is the maximal pressure available with semi-dirty filters
*4. T° efficiency folowing EN308

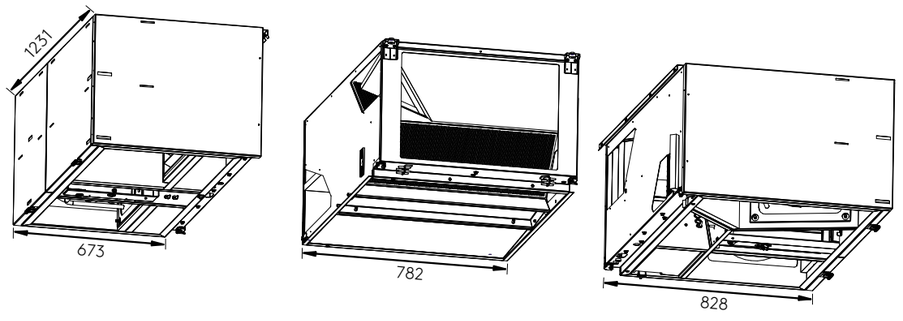
DIMENSIONS (MM)

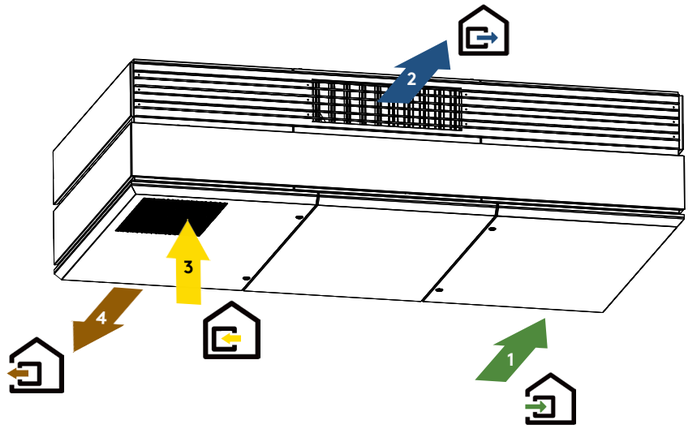












SERENITY

Options

COMMUNICATION AND HMI

372194
TACtouch
TAC7

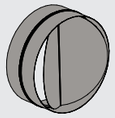
521412
BACnet

G020056
INSIDE Ready

025006
MODBUS

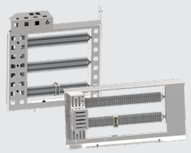
G020055
WIFI-
ETHERNET

BUTTERFLY DAMPER



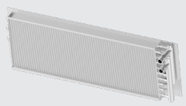
	CID	Dimensions (mm)
SERENITY 10	883874	Ø 315

ELECTRIC HEATING



	PREHEATING		POSTHEATING	
	CID	POWER	CID	POWER
SERENITY 10	883865	3 kW	883866	3 kW

WATERBORNE



	HEATING	COOLING
SERENITY 10	883867	883868

FILTERS

	CID	Filter type Dimensions (mm)
SERENITY 10	125233	ePM1 60% 455 x 426 mm

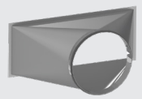
SENSORS

	CID				
	CO_2	HUMIDITY	VOC	ROOM T°	CO_2 WALL
SERENITY 10	883880	883879	Coming soon	370042	370015

KIT DEFROST

	CID
SERENITY 10	883889

CIRCULAR OUTLET FOR FULLY INTEGRATED CONFIGURATION



	CID
SERENITY 10	882726

Feel good **inside**