

Optimal indoor climate

Ensy units for balanced ventilation







Do you think about why you should ventilate your house?

There are mainly two reasons why we must ventilate:

1. Benefits of air handling units (AHU)

Air handling units with heat recovery are designed to save more than half of the energy produced to heat or cool the house depending on the season, significantly reducing heating energy costs. Using an AHU with heat recovery leads to air fresheners, regardless of the season. Our AHU with heat recovery are equipped with air filtration(F7), which provides high thermal comfort.

2. Prevent mould and moisture damage

When all new housing units are sealed to ensure balanced ventilation that moisture does not form and settle in materials. This can in turn lead to mildew, soot and rot.

In addition, the possibilities are great for personalizing your indoor environment. Extract from wet areas should be accelerated during use and an example. force supply in the room with fireplace under lighting, use of kitchen ventilator and at a given CO₂ saturation. The entire system can also be accelerated by high occupancy load.



The ENSY business started in 1903, and during the years, the company has supplied heating and ventilation products for indoor environment for the Scandinavian, European and Russian markets. The products have been delivered under the commercial names such as Pyrox, Frico, Systemair and Villavent, just only to mention a few of them. Since the 1970ies, about 225 000 home environmental units were manufactured by ENSY and delivered to the Russian, European and Scandinavian markets. Up to 2004 all the production took place at Tsynes just outside of Bergen in Norway, but after that all the production as moved to Cluj Napoca, a university city in Romania. All the product de-

velopment takes place nowadays within Ensy AS headquarters in Jaren (approximately 75 km north of Oslo), to maintain the proximity to the market. The main goal of ENSY in the future is and will remain entirely in the cutting-edge technology, with its ventilation products.

With the long experience in the manufacturing and the development of the home ventilation units, the next natural step for ENSY was to develop and launch its own series of aggregates for balanced ventilation.

Energy-efficient ventilation for all!

The AHU200, 300, 400 and 700 units are the new ventilation unit models in the Ensy AHU series. Their capacity ranges from 200 to 700 m³ and match perfectly with all the lodgings, starting from apartments/small houses and single-family houses and going to the small office buildings and kindergartens. The models are built of the best available technology which results in the fact that we are the best when it comes to energy efficiency, very low sound level, practical and logical service together with attractive design.

The AHU-units are of course developed to cope with the needs the nowadays regulations (TEK 17, which is a Norwegian standard) and apart from this the units cope with the needs of the standardized passive house. The standardized passive house demands the minimal necessary quantity in the heat recovery to be higher than 80%, nominal value of 82% or higher or specific fan power in the ventilation engine (SFP) lower than 1.5.

The energy-efficient ventilation system is also linked to the high level of efficiency and low SFP level, but also to produce the right air quantity at the right time. With the aid of our techno-

logy, you will be able to adjust to your needs the ventilation so that a proper indoor environment is maintained together with a low level of energy consumption, at all time.

The AHU 200, 300, 400 and 700 units are designed for heat recovery with air quantities up to 700 m³/h. The energy from the exhaust air is transferred to the air inlet via the rotary heat exchanger, where the air streams come near to each other, without coming into contact.

The system incorporates a post-warming battery for supplementary heating of the air inlet and a humidistat for the humidity control. The aggregate can also be connected to the cooker hood, pulse switches in order to regulate the forced ventilation, for example, from a humid room or bathroom, or to a sensor for controlling the CO₂ presence and stopping the away/home function.

ENSY has as a goal to continue and to be the forefront from a technological point of view, and that is why we take our time to receive the inputs and the feedbacks from our clients and adjust to their needs.

The products are manufactured in a factory which abides to the regulation EN ISO 9001:2008. Certificate Reg. No 20 100 112005892
The units are developed in accordance with the TEK 10 standards and are certified by the German TUV Rheinland.
The ENSY products are certified for the Scandinavian, European and Russian markets.

Edgar Ødegård
CEO



Ventilation for all the needs

Satisfactory air quality

The Ventilation unit placed in a room, in a central position in the dwelling (bathroom/cleaning room) to ensure the easy access for service and filter exchange.



The Extra Command Panel

The extra command panel can be connected to the unit and can be placed in a certain place in the dwelling so that the ventilation monitoring and the calibration are made as easy as possible.



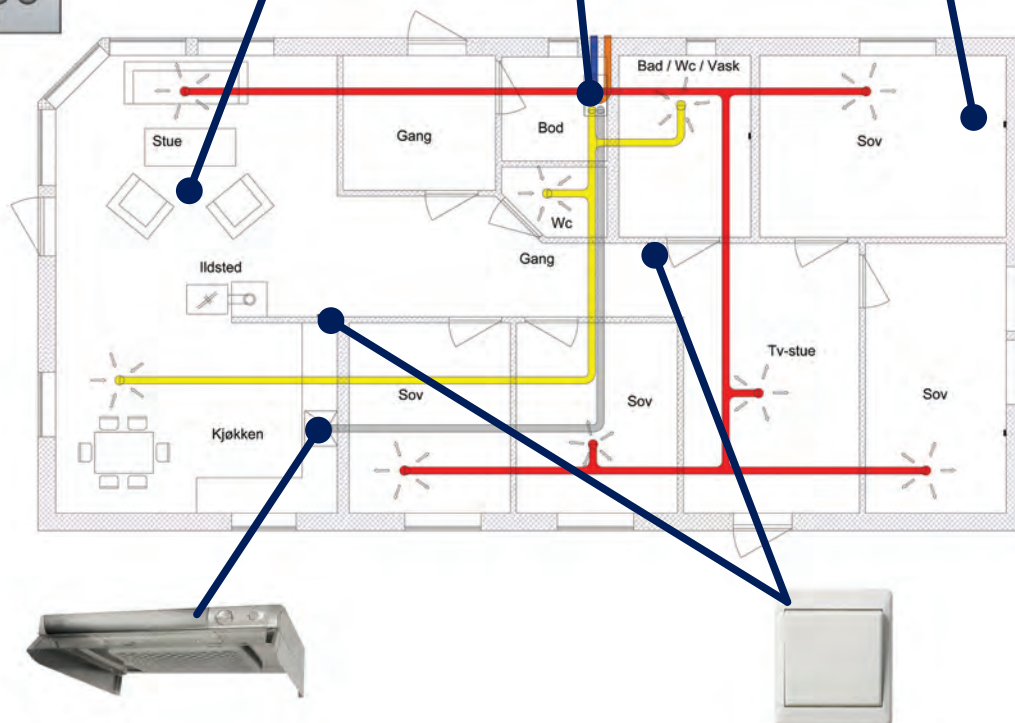
Motion Guard: When installed in a living room, it will then send a signal to the unit to increase the speed to max airflow.



Moisture Sensor: Humidity Sensor designed for forced ventilation is integrated in the unit.



CO2 sensor: It can be installed in the living room, and will signal to the unit the pollution level in the room. The ventilation is regulated according to one's needs.



The unit is adapted for the connection by way of an external kitchen hood. This is an alternative solution to the problems with exhaust through the wall.

Stove / Fireplace / - Bathroom

The wireless pulse switch can be used to increase the air flow supply, when using a stove. To be mounted in a suitable location, taking into consideration the stove unit. It can also be placed near the bathroom for an easy operation by forced ventilation (and a maximum airflow).

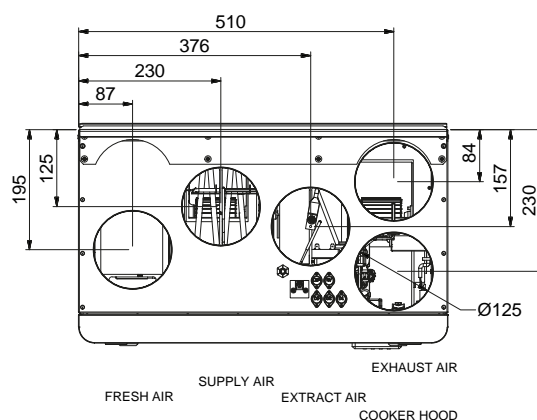
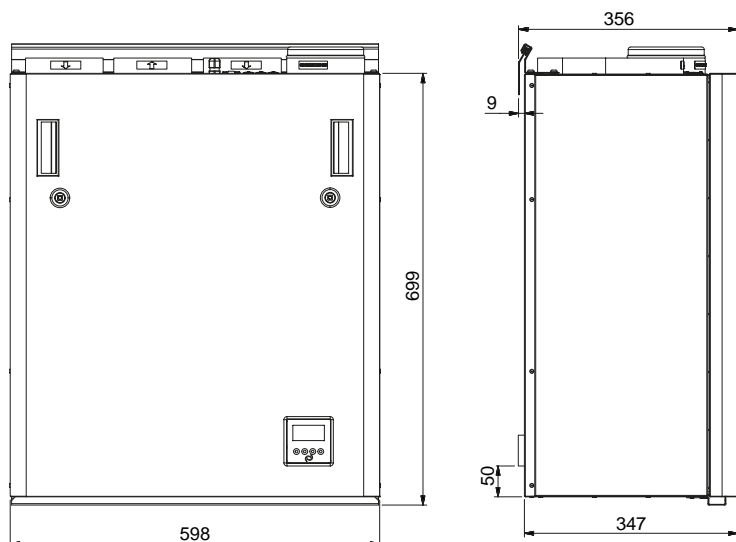
Ensy AHU 200 H or V

AHU 200 right-sided and left-sided models have a capacity of ca. 200 m³ / h and are suitable for flats / houses and small studios.

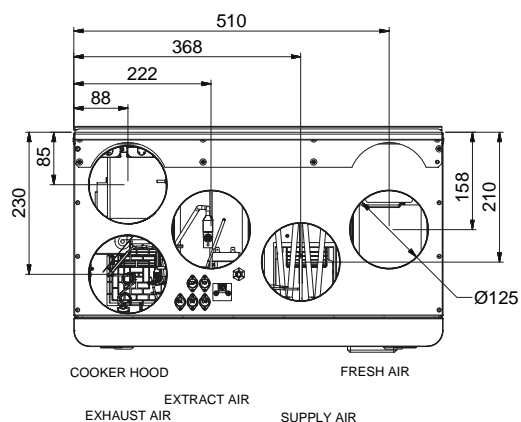
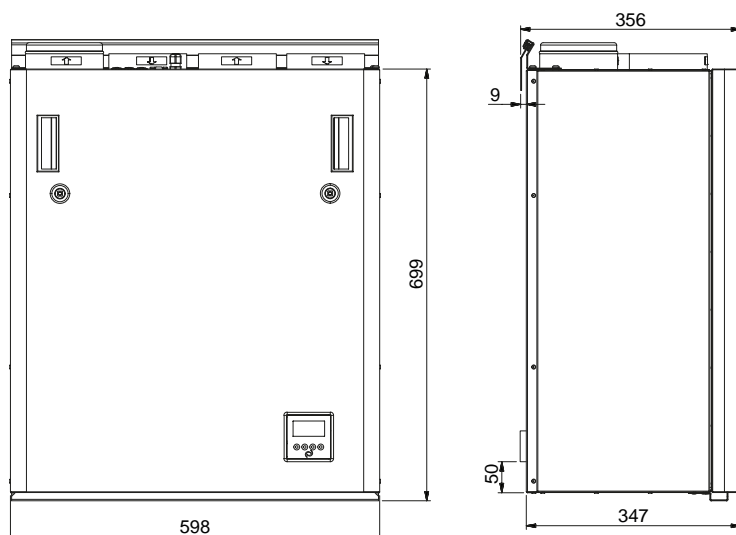
The models are based on the best present-day technology that results in an energy efficiency and to low sound levels. A very user-friendly controlling system and an appealing design. AHU 200 is designed for wall mounting. AHU- units are of course designed to cope with the requirements of current regulations. In addition, they also comply with the requirements for a passive house.



AHU 200 V



AHU 200 H



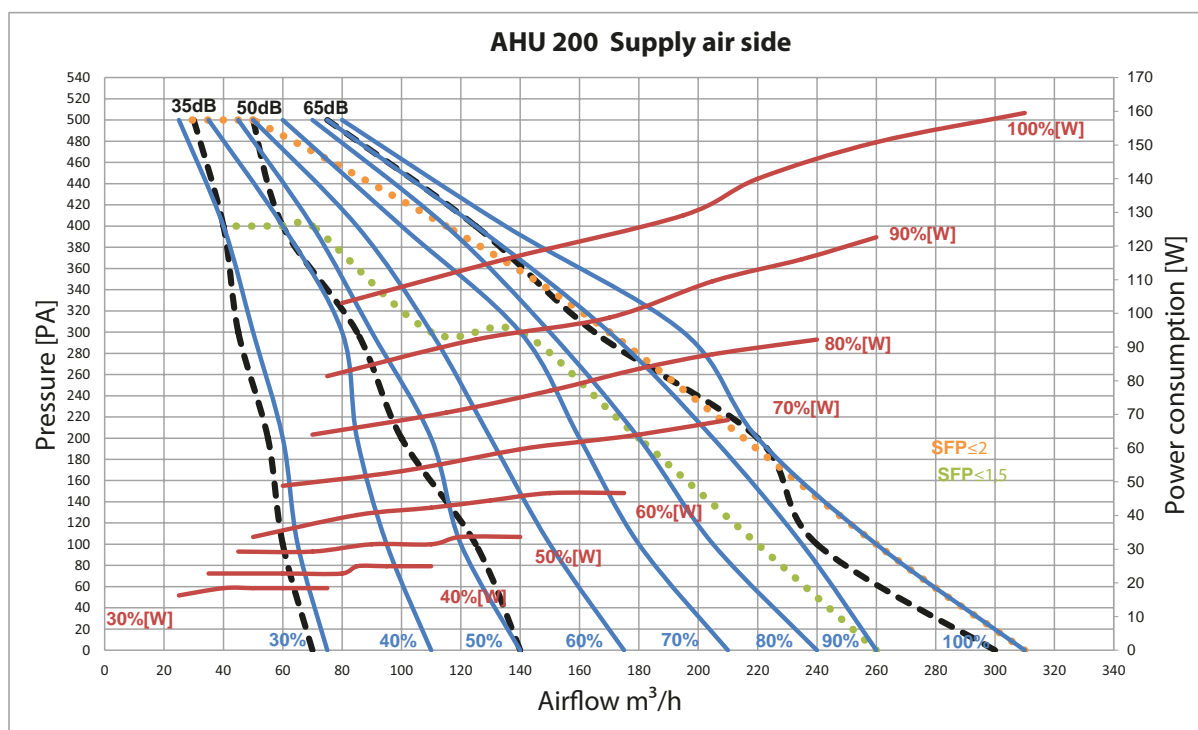
TECHNICAL DATA AHU 200

Heating battery	- Phase / voltage	(50Hz/VAC)	~1 / 230
	- Power consumption	(W)	800
Fans	- Phase / voltage	(50Hz/VAC)	~1 / 230
	- Total current draw both fans at NORM operation	(A)	0,19
Maximum current (heater + fans)			(A) 4,5
Automatic System			Integrated
Filter class			Superpleat
Thermal insulation			Sides and top / bottom
			25 mm
			50 mm
Weight			(kg) 47

AHU 200 H or V sound data

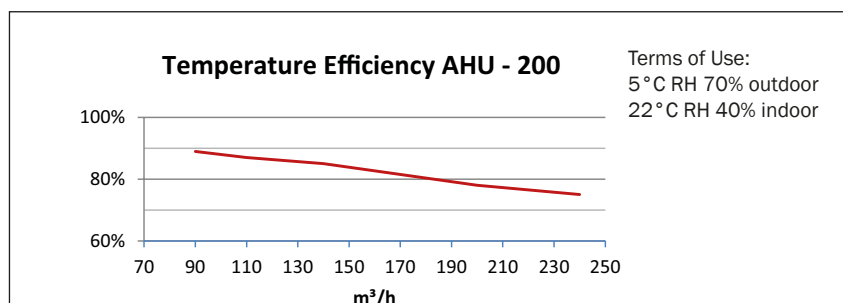
	63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	Lw(A)
Supply air	-23	-15	-13	-8	-7	-9	-16	-21	0,00
Fresh air	-23	-13	-7	-7	-9	-11	-24	-32	-3,02
Extract air	-21	-13	-13	-9	-6	-9	-15	-22	0,58
Exhaust air	-22	-11	-8	-7	-7	-10	-21	-30	-2,20
Surroundings (1,5m)	-5	-5	-15	-20	-25	-35	-37	-36	-20

Correction for ssurroundings sound data are valid only in the range of nominal airflow



— Fan speed
 - - - Sound data dB (A)
 — Power consumption both fans

SFP factor applies to both fans



Terms of Use:
 5°C RH 70% outdoor
 22°C RH 40% indoor



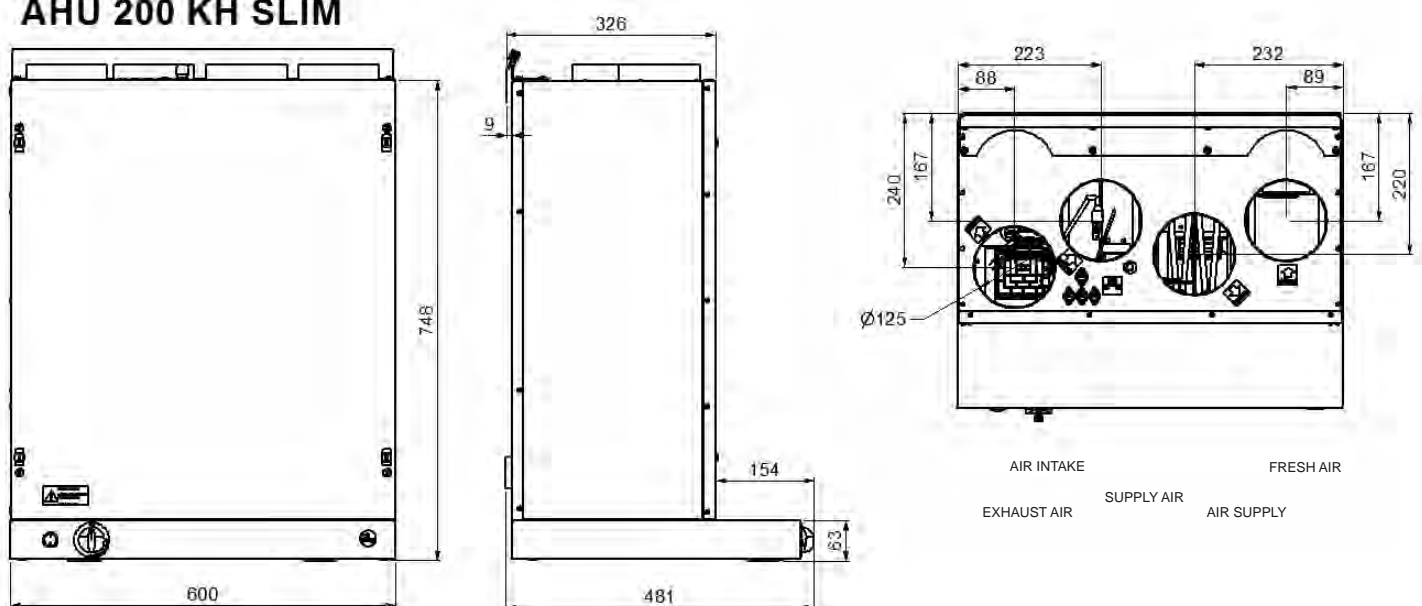
We reserve the right to change technical data without prior notice.

ENSY AHU 200 KH and KV

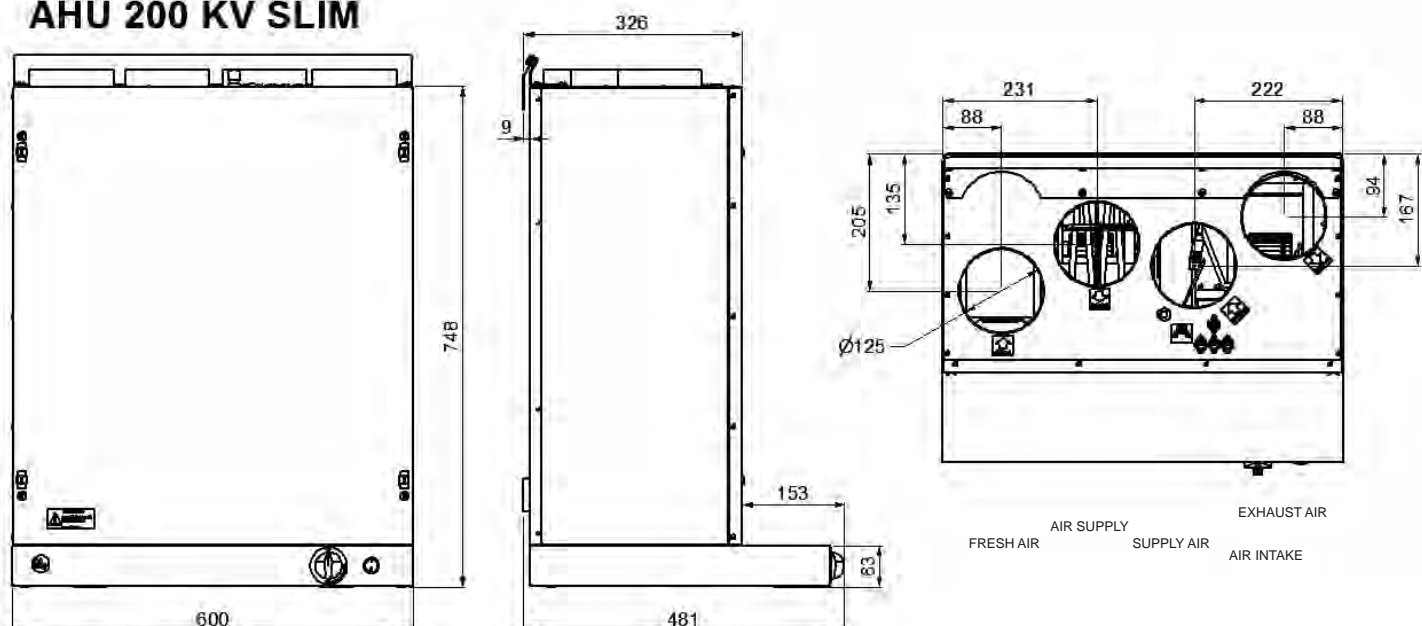
The ENSY AHU 200 KH and KV have a capacity of 200 m³/h. The unit is designed to be placed in the kitchen cupboard, and are suitable for smaller apartments and single-family houses. The models are built of the best available technology which has here resulted in energy efficiency and low sound level. It has a very user-friendly controlling system together with an attractive design. The ENSY AHU 200 KH and KV are ideally suited to be placed on a wall. The AHU machinery is of course developed to cope with the requirements of the current regulations. In addition to this, the aggregates manage the requirements of Passive House standard.



AHU 200 KH SLIM



AHU 200 KV SLIM



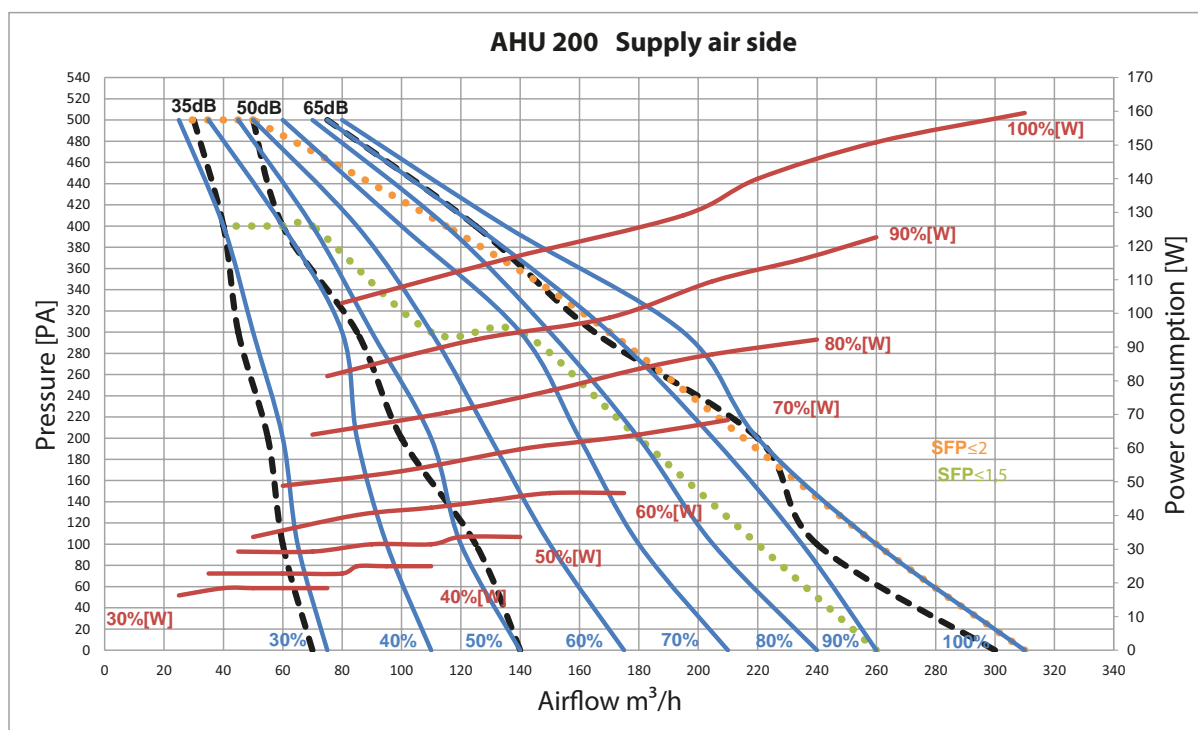
TECHNICAL DATA AHU

Heating battery	-Phase/Voltage	(50Hz/VAC)	~1 / 230
	-Power consumption	(W)	800
Fans	-Phase/Voltage	(50Hz/VAC)	~1 / 230
	-Total current for both fans at NORM operation	(A)	0,19
Maximum current (heating element + fans)			(A) 4,5
Automatic system			Integrated
Filter class			Superpleat
Thermal insulation			F7
Sides and top/bottom			25 mm
Front door			50 mm
Weight			(kg) 47

AHU - 200 KV and KV sound level

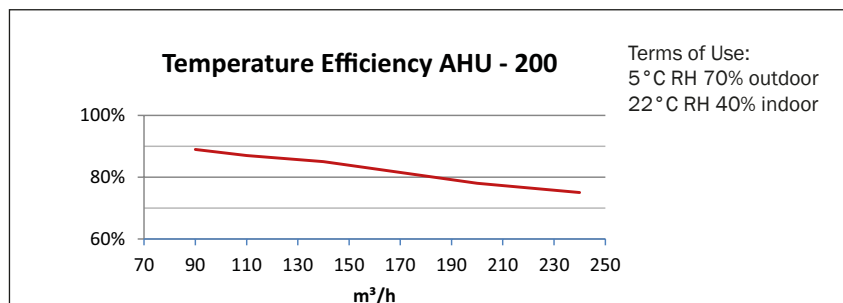
	63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	Lw(A)
Air supply	-23	-15	-13	-8	-7	-9	-16	-21	0,00
Fresh air	-23	-13	-7	-7	-9	-11	-24	-32	-3,02
Exhaust	-21	-13	-13	-9	-6	-9	-15	-22	0,58
Intake	-22	-11	-8	-7	-7	-10	-21	-30	-2,20
Rotation (1,5m)	-5	-5	-15	-20	-25	-35	-37	-36	-20

The correction of the sound level information about the rotation can be done in the areas where the nominal air quantity is available

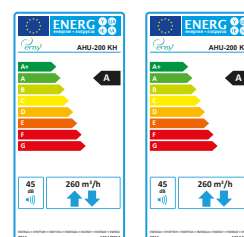


— Fan speed
 - - - Sound data dB (A)
 — Power consumption both fans

SFP factor applies to both fans



Terms of Use:
 5°C RH 70% outdoor
 22°C RH 40% indoor



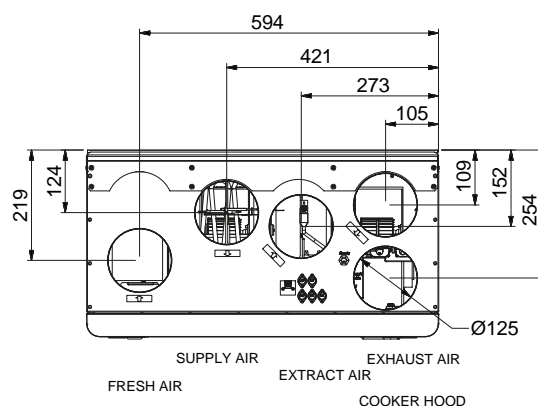
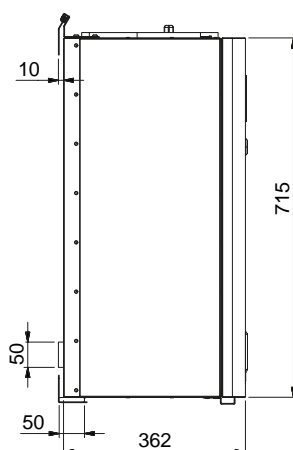
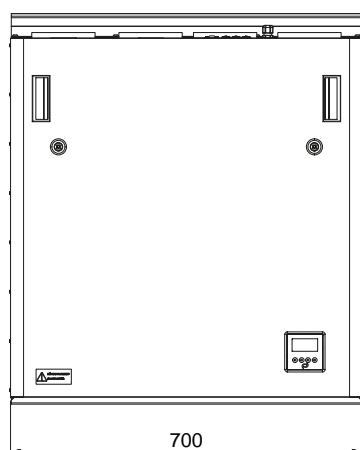
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Ensy AHU 300 BH or BV

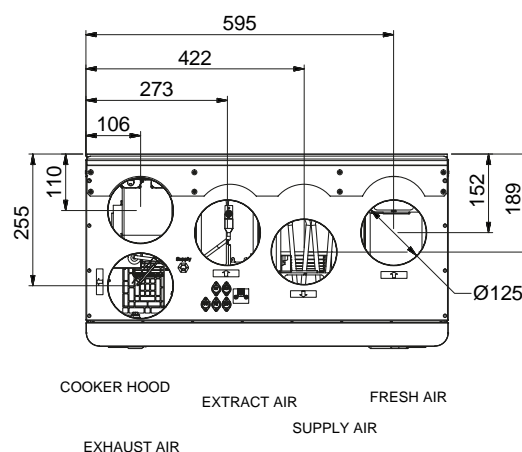
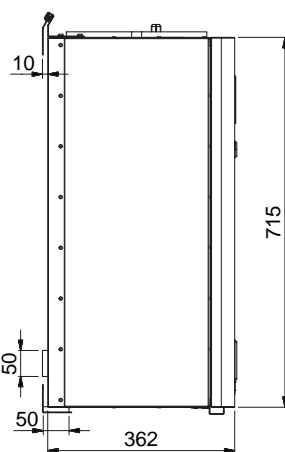
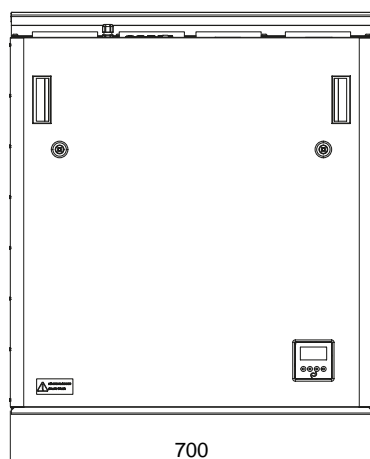
AHU 300 right-sided and left-sided models have a capacity of ca. 300 m³ / h and are suitable for flats / houses and small studios. The models are based on the best present-day technology that results in an energy efficiency and to low sound levels. A very user-friendly controlling system and an appealing design. AHU 300 is designed for wall mounting. AHU- units are of course designed to cope with the requirements of current regulations. In addition, they also comply with the requirements for a passive house.



AHU 300 BV



AHU 300 BH



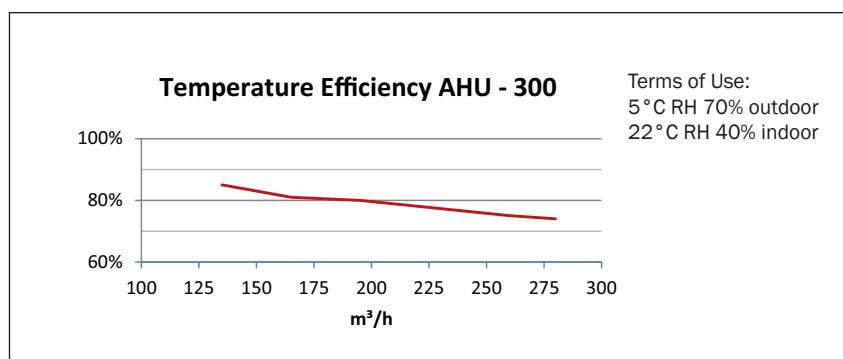
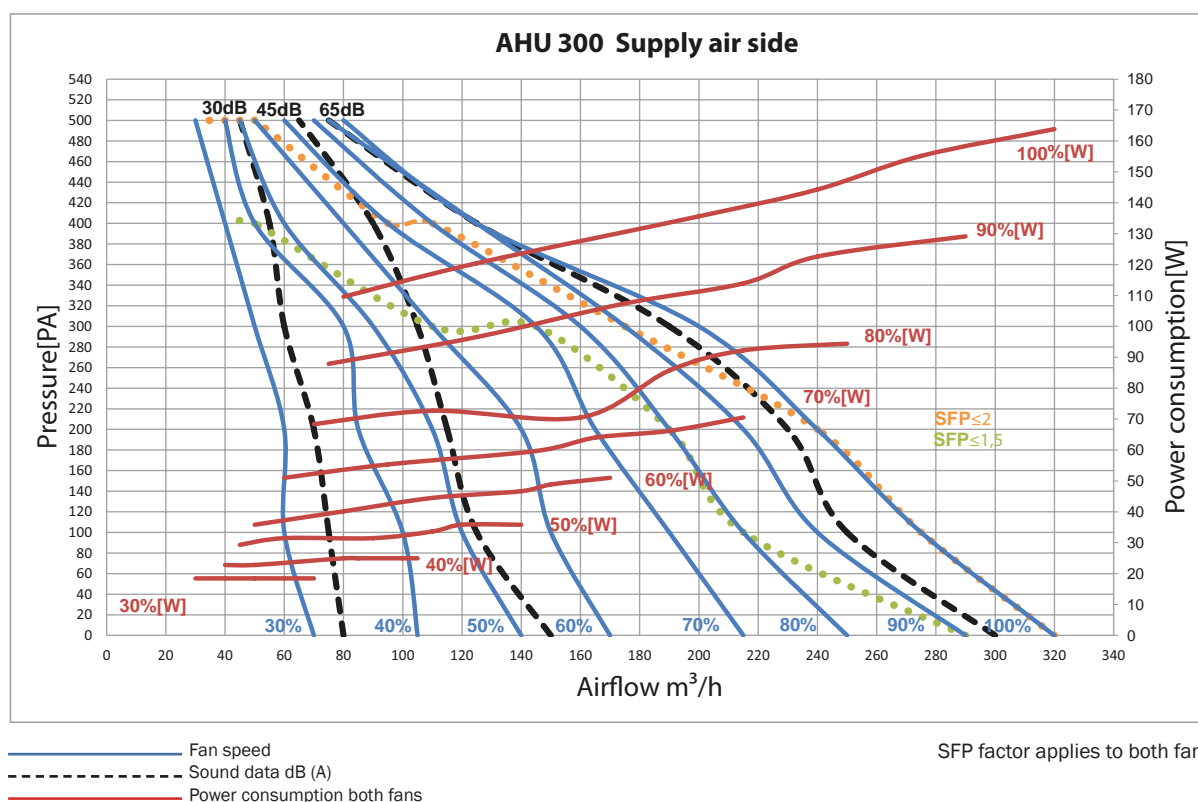
TECHNICAL DATA AHU 300

Heating battery	- Phase / voltage	(50Hz/VAC)	~1 / 230
	- Power consumption	(W)	800
Fans	- Phase / voltage	(50Hz/VAC)	~1 / 230
	- Total current draw both fans at NORM operation	(A)	0,27
	- Speed at the MAX operation	o/min	2100
Maximum current (heater + fans)		(A)	4,5
Automatic System			Integrated
Filter class	Superpleat		F7
Thermal insulation	(mm)		40
Weight	(kg)		54

AHU 300 sound data

	63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	Lw(A)
Supply air	-32	-19	-12	-6	-10	-9	-11	-15	0,00
Fresh air	-30	-18	-10	-5	-12	-9	-15	-22	-1,94
Extract air	-32	-19	-13	-6	-3	-9	-14	-18	0,65
Exhaust air	-22	-12	-6	-2	-3	-2	-4	-8	-3,01
Surroundings (1,5m)	0	-2	-11	-24	-25	-31	-31	-30	-16

Correction for surroundings sound data are valid only in the range of nominal airflow.



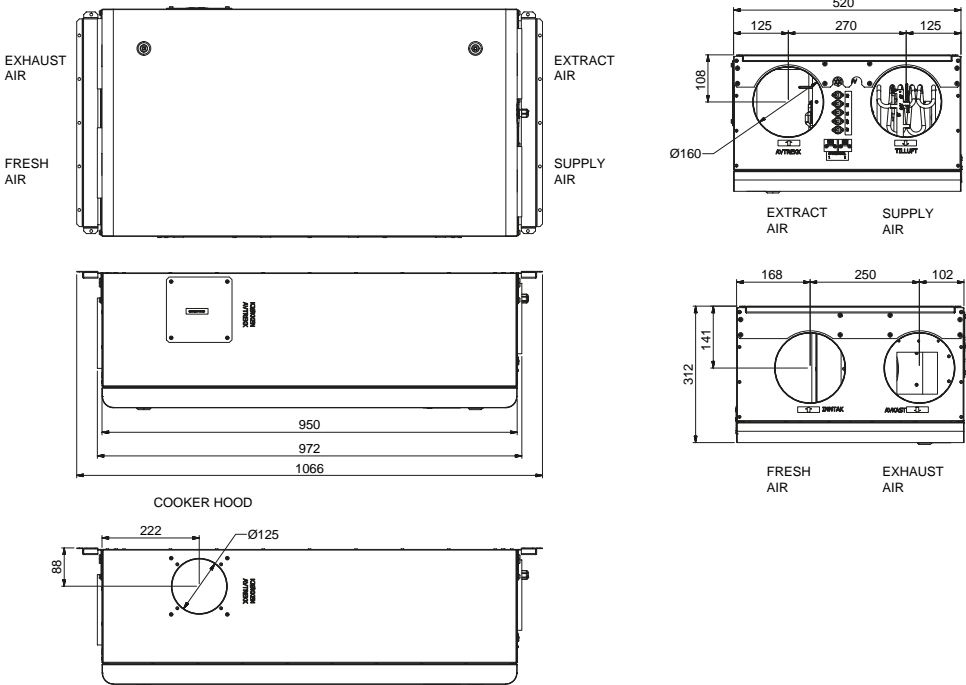
We reserve the right to change technical data without prior notice.

Ensy AHU 300 HV or HH

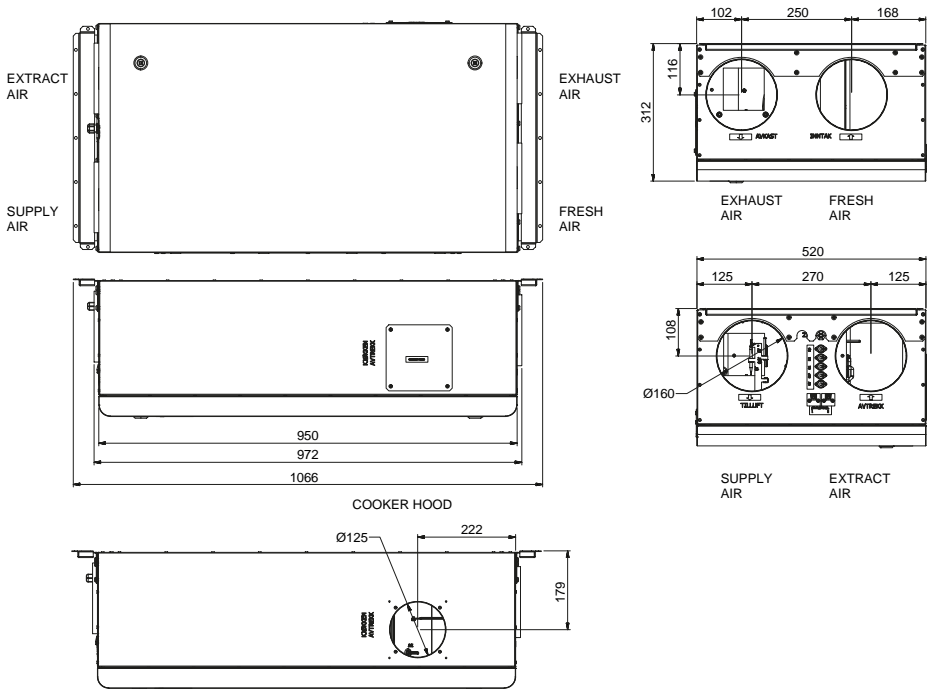
AHU 300H Ceiling left and right variant have a capacity of ca. 300 m³ / h and are suitable for flats / houses and small houses. The models are based on the best present-day technologythat results in an energy efficiency and to low sound levels. A very user-friendly controlling system and an appealing design. AHU 300 ceiling is built for ceiling mounting, alternatively wall mounting. AHU- units are of course designed to cope with the requirements of current regulations. In addition, they also comply with the requirements for a passive house.



AHU 300 HH



AHU 300 HV



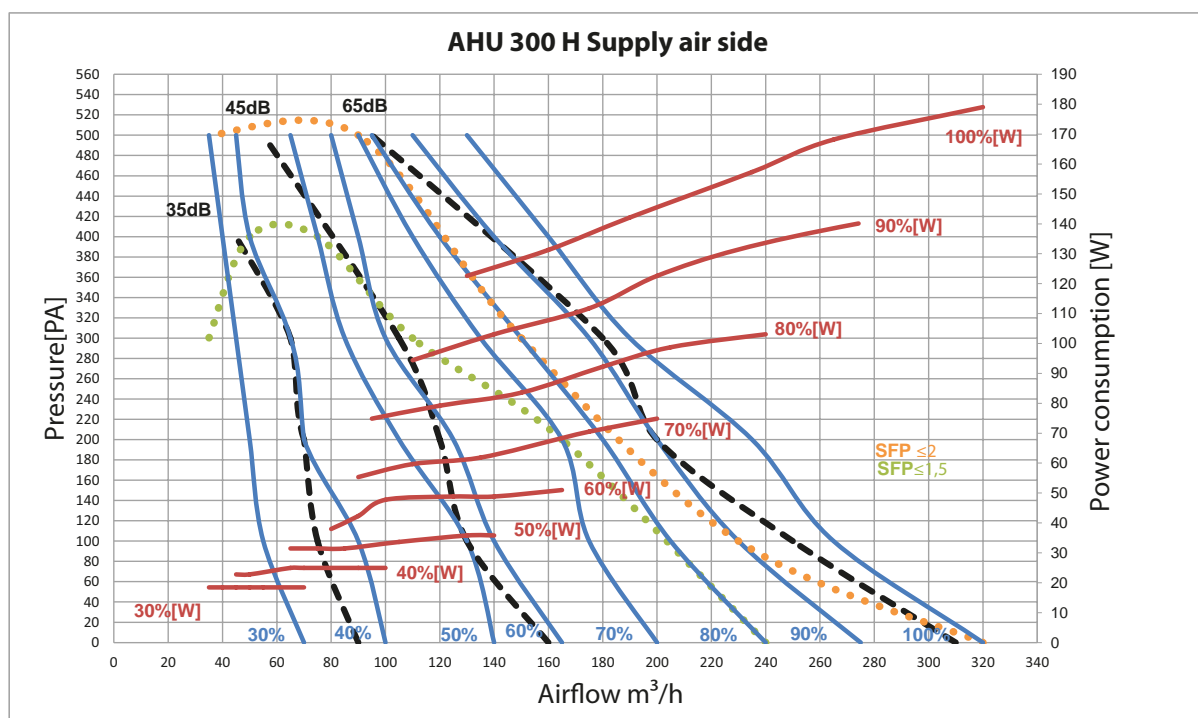
TECHNICAL DATA AHU 300H ceiling

Heating battery	- Phase / voltage	(50Hz/VAC)	~1 / 230
	- Power consumption	(W)	800
Fans	- Phase / voltage	(50Hz/VAC)	~1 / 230
	- Total current draw both fans at NORM operation	(A)	0,18
	- Speed at the MAX operation	o/min	2100
Maximum current (heater + fans)	(A)		4
Automatic System			Integrated
Filter class	Superpleat		F7
Thermal insulation	(mm)		40
Weight	(kg)		49,5

AHU 300 H sound data

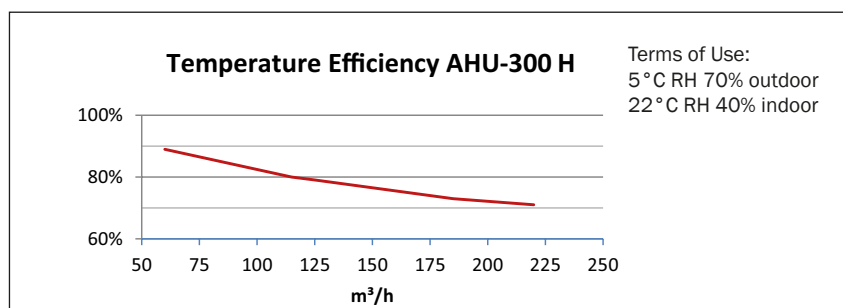
	63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	Lw(A)
Supply air	-19	-15	-14	-6	-10	-15	-15	-24	0,00
Fresh air	-29	-18	-16	-9	-5	-21	-23	-33	-0,64
Extract air	-18	-14	-14	-12	-7	-13	-15	-21	1,66
Exhaust air	-36	-24	-19	-16	-11	-21	-23	-33	-0,64
Surroundings (1,5m)	0	-3	-5	-15	-22	-28	-30	-30	-15

Correction for surroundings sound data are valid only in the range of nominal airflow.



— Fan speed
 - - - Sound data dB (A)
 — Power consumption both fans

SFP factor applies to both fans



We reserve the right to change technical data without prior notice.

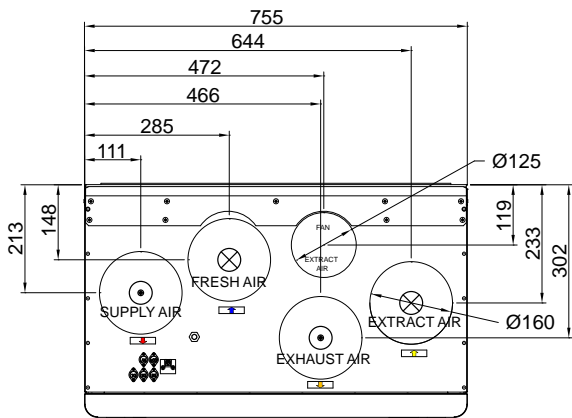
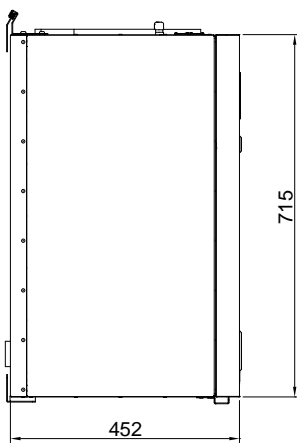
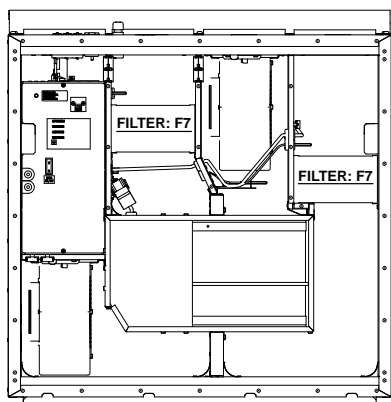


Ensy AHU 350 BH or BV

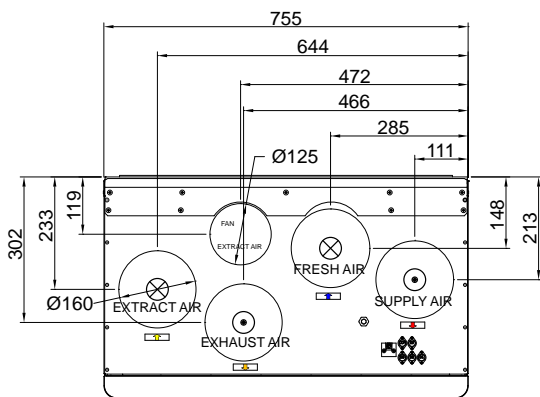
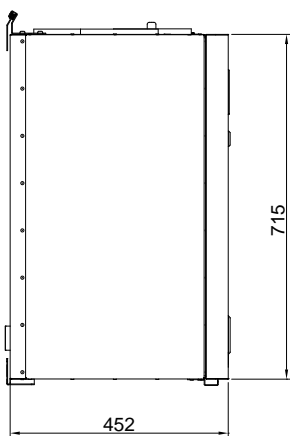
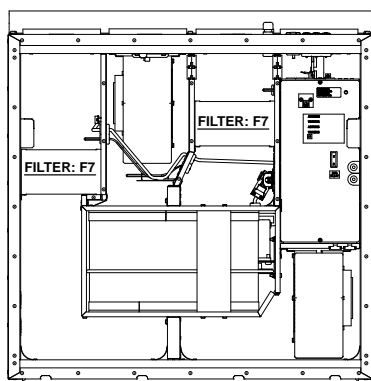
AHU 350 right and left models have a capacity of 350 m³ /h and are suitable for large apartments and single-family houses. The models are based on the best present-day technology and this gives them energy efficiency and low noise levels. A very user-friendly controlling system and an appealing design. AHU 350 is designed for wall mounting. AHU units are of course built to meet the requirements of current regulations. In addition, they also comply with the requirements for a passive house.



AHU 350 BV



AHU 350 BH



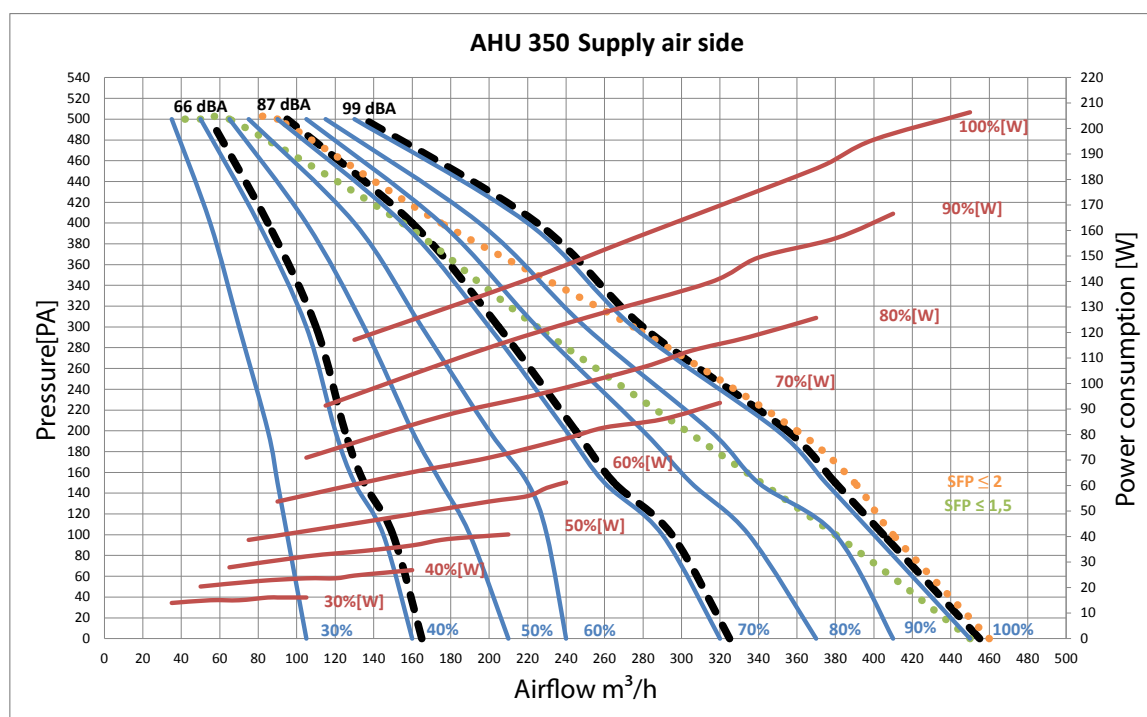
TECHNICAL DATA AHU 350

Heating battery	- Phase / voltage	(50Hz/VAC)	~1 / 230
	- Power consumption	(W)	1200
Fans	- Phase / voltage	(50Hz/VAC)	~1 / 230
	- Total current draw both fans at NORM operation	(A)	0,36
Maximum current (heater + fans)		(A)	6,2
Automatic System			Integrated
Filter class	Superpleat		F7
Thermal insulation	(mm)		40
Weight	(kg)		61,5

AHU 350 sound data

	63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	Lw(A)
Supply air	-27	-22	-17	-15	-16	-26	-31	-33	0
Fresh air	-46	-39	-35	-34	-36	-36	-34	-33	-17
Extract air	-30	-24	-20	-17	-17	-23	-26	-25	-1.
Exhaust air	-43	-36	-33	-30	-34	-35	-33	-33	-18
Surroundings (1,5m)	-69	-62	-58	-56	-56	-58	-61	-65	-57

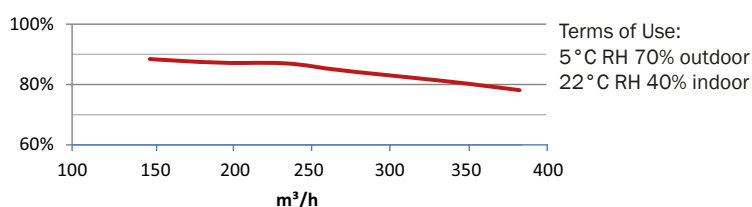
Correction for surroundings sound data are valid only in the range of nominal airflow.



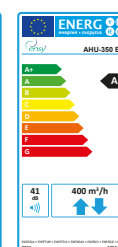
— Fan speed
 - - - Sound data dB (A)
 — Power consumption both fans

SFP factor applies to both fans

Temperature Efficiency AHU-350 BH or BV



We reserve the right to change technical data without prior notice.



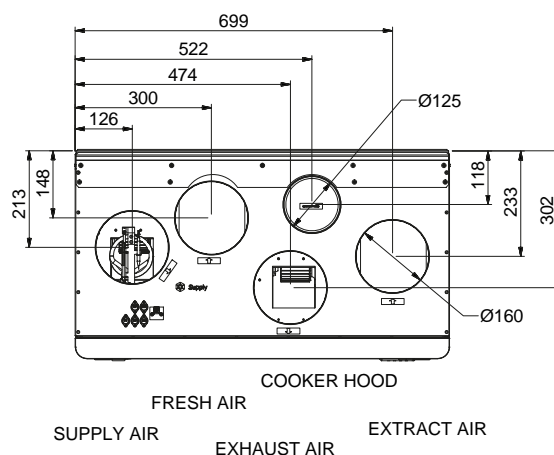
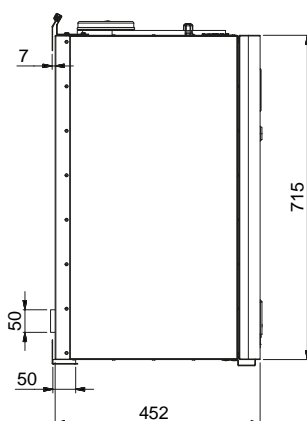
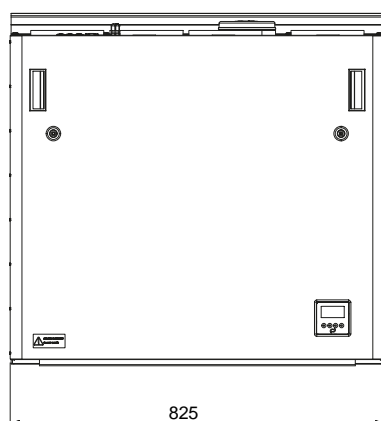
Ensy AHU 400 BH or BV

AHU 400 right-sided and left-sided models have a capacity of ca. 400 m³ / h and are suitable for flats / houses and small studios.

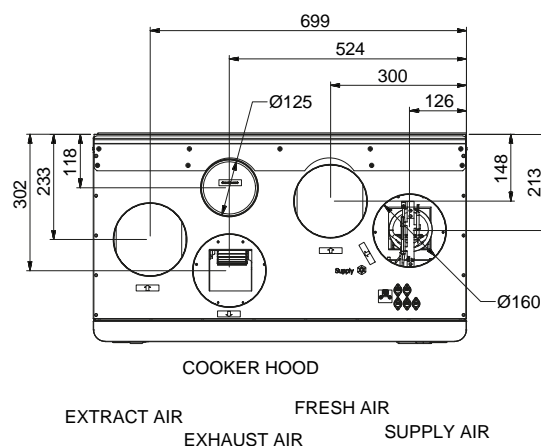
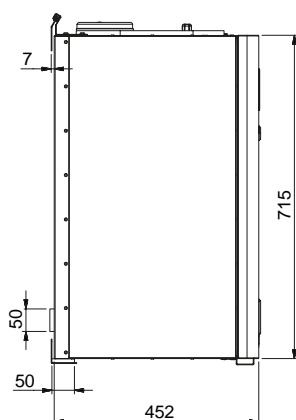
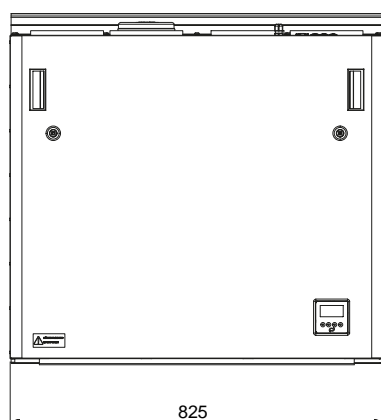
The models are based on the best present-day technology that results in an energy efficiency and to low sound levels. A very user-friendly controlling system and an appealing design. AHU 400 is designed for wall mounting. AHU- units are of course designed to cope with the requirements of current regulations. In addition, they also comply with the requirements for a passive house.



AHU 400 BV



AHU 400 BH



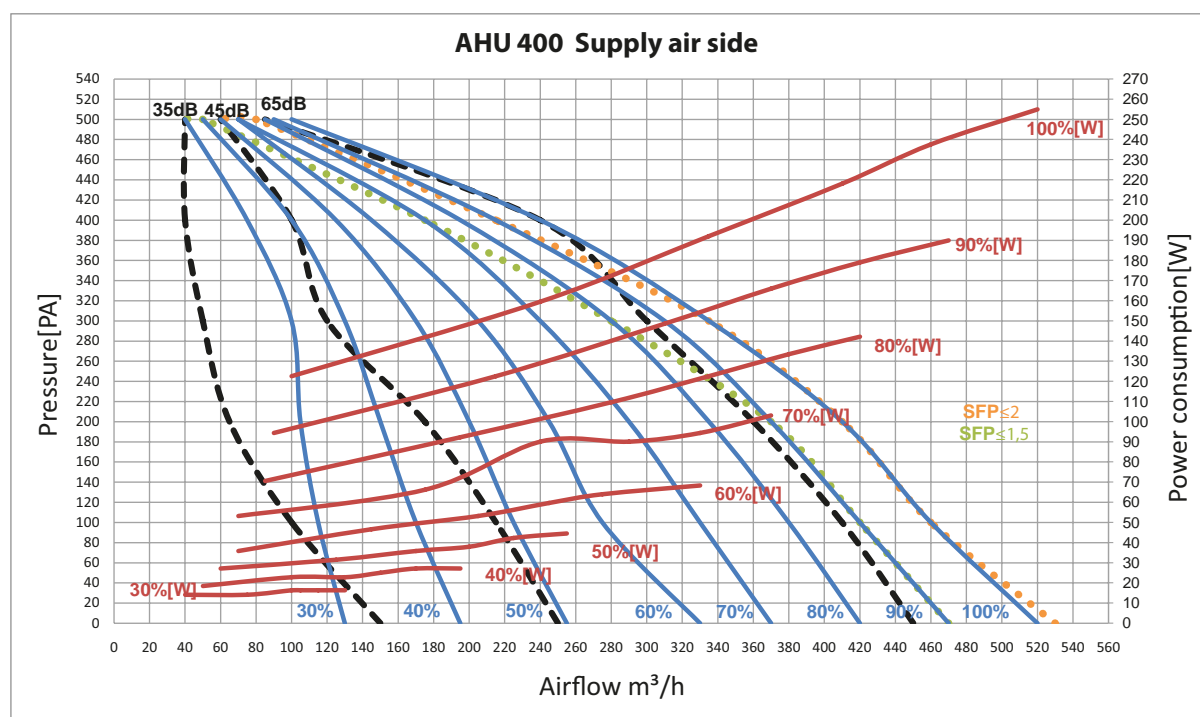
TECHNICAL DATA AHU 400

Heating battery	- Phase / voltage	(50Hz/VAC)	~1 / 230
	- Power consumption	(W)	1200
Fans	- Phase / voltage	(50Hz/VAC)	~1 / 230
	- Total current draw both fans at NORM operation	(A)	0,21
Maximum current (heater + fans)		(A)	6,5
Automatic System			Integrated
Filter class	Superpleat		F7
Thermal insulation	(mm)		40
Weight	(kg)		64,5

AHU 400 sound data

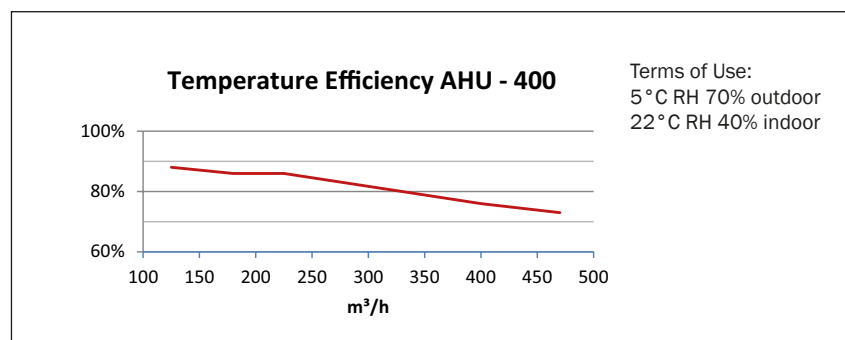
	63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	Lw(A)
Supply air	-19	-15	-15	-9	-7	-9	-11	-16	0,00
Fresh air	-25	-17	-12	-8	-7	-10	-15	-23	-1,77
Exhaust air	-19	-14	-16	-8	-6	-9	-16	-21	1,30
Extract air	-28	-19	-13	-5	-15	-13	-19	-28	-2,14
Surroundings (1,5m)	-5	-10	-15	-20	-28	-33	-32	-31	-20

Correction for surroundings sound data are valid only in the range of nominal airflow.



— Fan speed
 - - - Sound data dB (A)
 — Power consumption both fans

SFP factor applies to both fans



Terms of Use:
 5 °C RH 70% outdoor
 22 °C RH 40% indoor



We reserve the right to change technical data without prior notice.

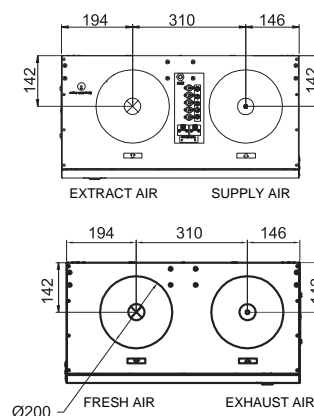
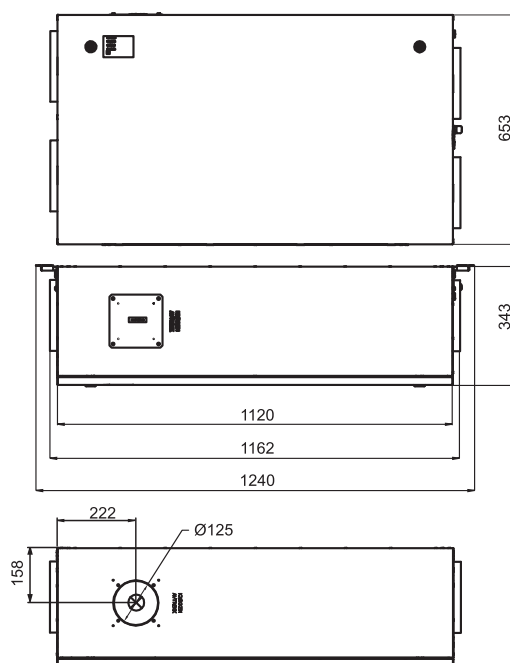
Ensy AHU 400 HV or HH

AHU 400 H Ceiling right-sided and left-sided models have a capacity of ca. 400 m³ / h and are suitable for flats / houses and small studios.

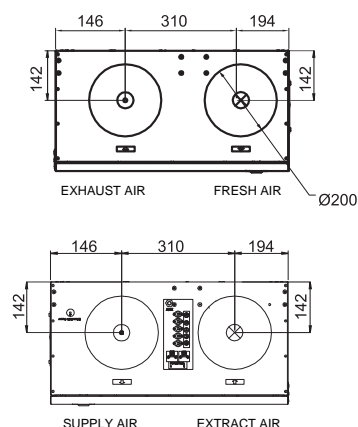
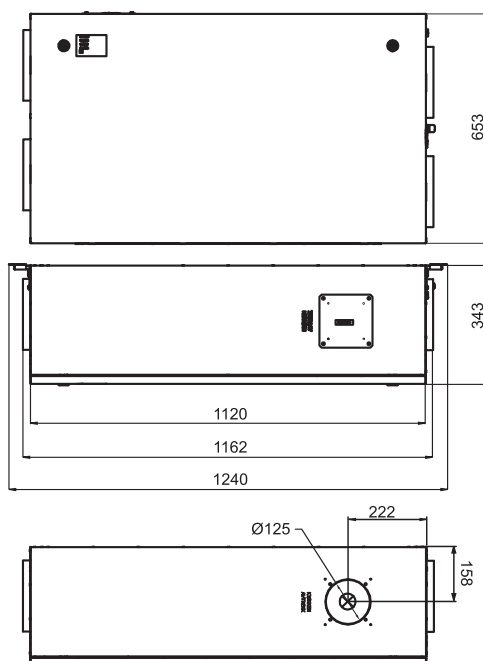
The models are based on the best present-day technology that results in an energy efficiency and to low sound levels. A very user-friendly controlling system and an appealing design. AHU 400 H Ceiling is designed for wall mounting. AHU- units are of course designed to cope with the requirements of current regulations. In addition, they also comply with the requirements for a passive house.



AHU-400 HH



AHU-400 HV



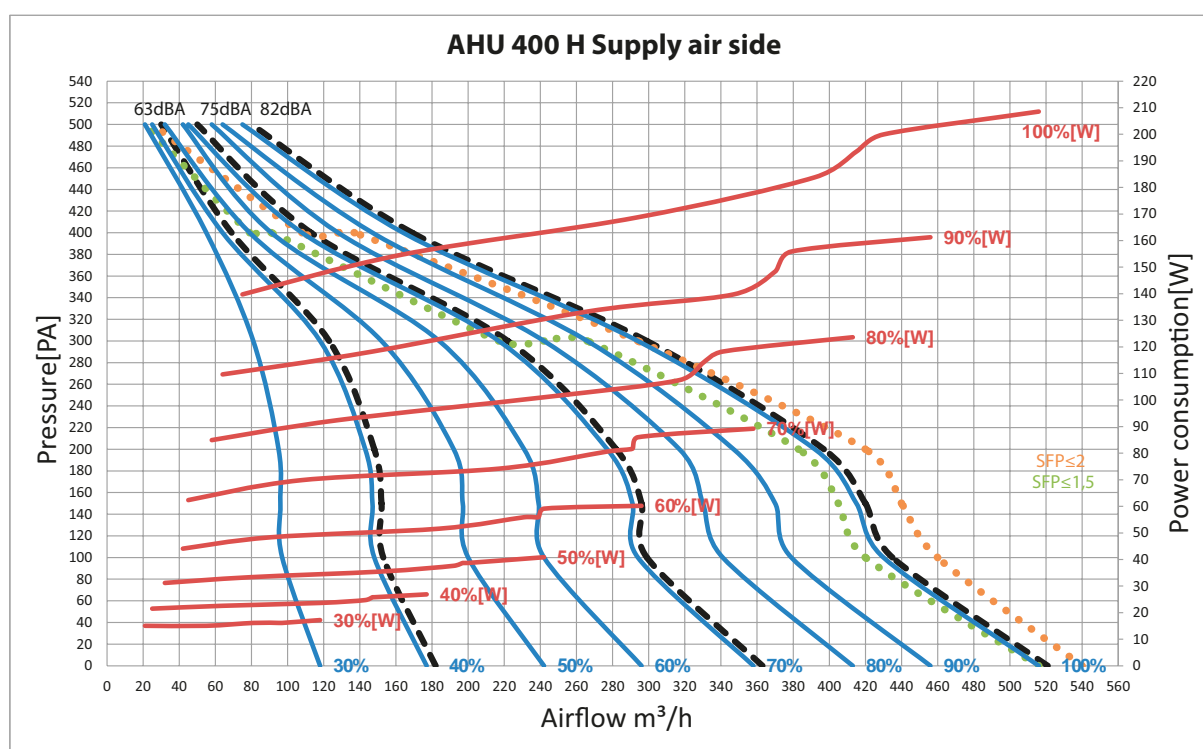
TECHNICAL DATA AHU 400 H ceiling

Heating battery	- Phase / voltage	(50Hz/VAC)	~1 / 230
	- Power consumption	(W)	2x750
Fans	- Phase / voltage	(50Hz/VAC)	~1 / 230
	- Total current draw both fans at NORM operation	(A)	0,40
	- Speed at the MAX operation	0/min.	2100
Maximum current (heater + fans)		(A)	7.00
Automatic System			Integrated
Filter class	Superpleat		F7
Thermal insulation	Sides / walls		40 mm
	Backwall		20 mm
	Front door		25 mm
Weight	(kg)		62

AHU 400 H sound data

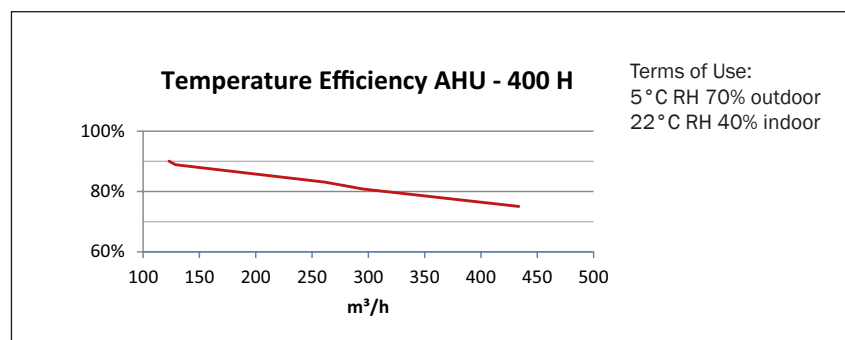
	63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	Lw(A)
Supply air	-38	-18	-7	-6	-1	-2	-8	-17	0,00
Fresh air	-53	-30	-18	-20	-15	-18	-27	-33	-12,00
Exhaust air	-41	-16	-3	-1	-2	-1	-6	-16	3,00
Extract air	-48	-25	-17	-19	-16	-16	-23	-30	-12,00
Surroundings (1,5m)	-70	-59	-51	-52	-48	-48	-52	-55	-43,00

Correction for surroundings sound data are valid only in the range of nominal airflow.

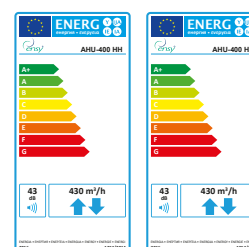


— Fan speed
 - - - Sound data dB (A)
 — Power consumption both fans

SFP factor applies to both fans



Terms of Use:
 5°C RH 70% outdoor
 22°C RH 40% indoor



We reserve the right to change technical data without prior notice.

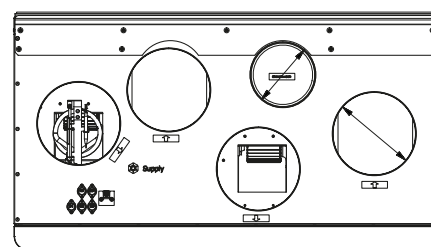
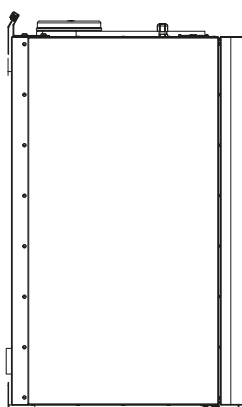
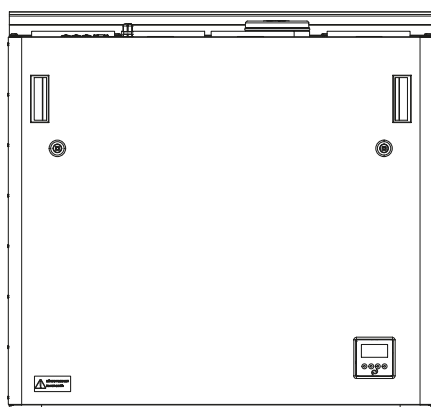
Ensy AHU 450 BH or BV

AHU 450 right and left models have a capacity of 450 m³ /h and are suitable for large apartments and single-family houses. The models are based on the best present-day technology and this gives them energy efficiency and low noise levels. A very user-friendly controlling system and an appealing design. AHU 450 is designed for wall mounting. AHU units are of course built to meet the requirements of current regulations. In addition, they also comply with the requirements for a passive house.

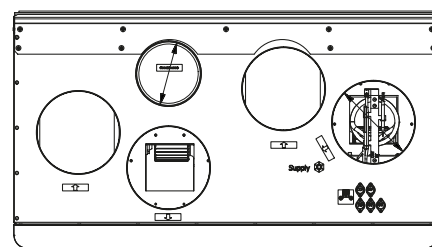
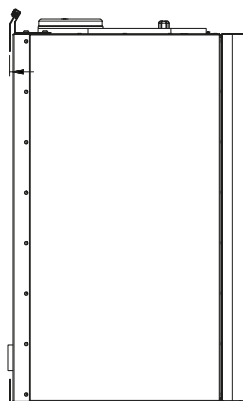
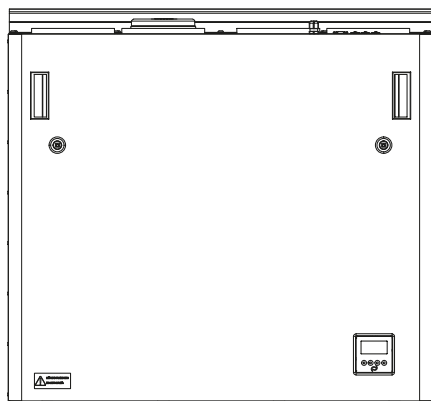


Under development

AHU 450 BV



AHU 450 BH



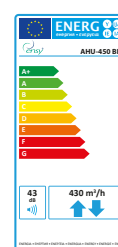
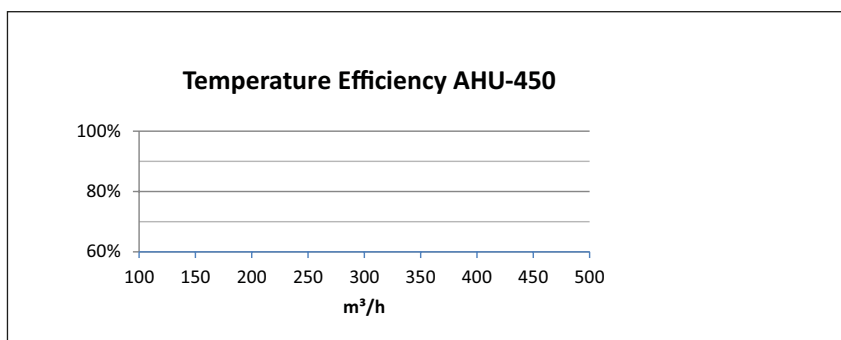
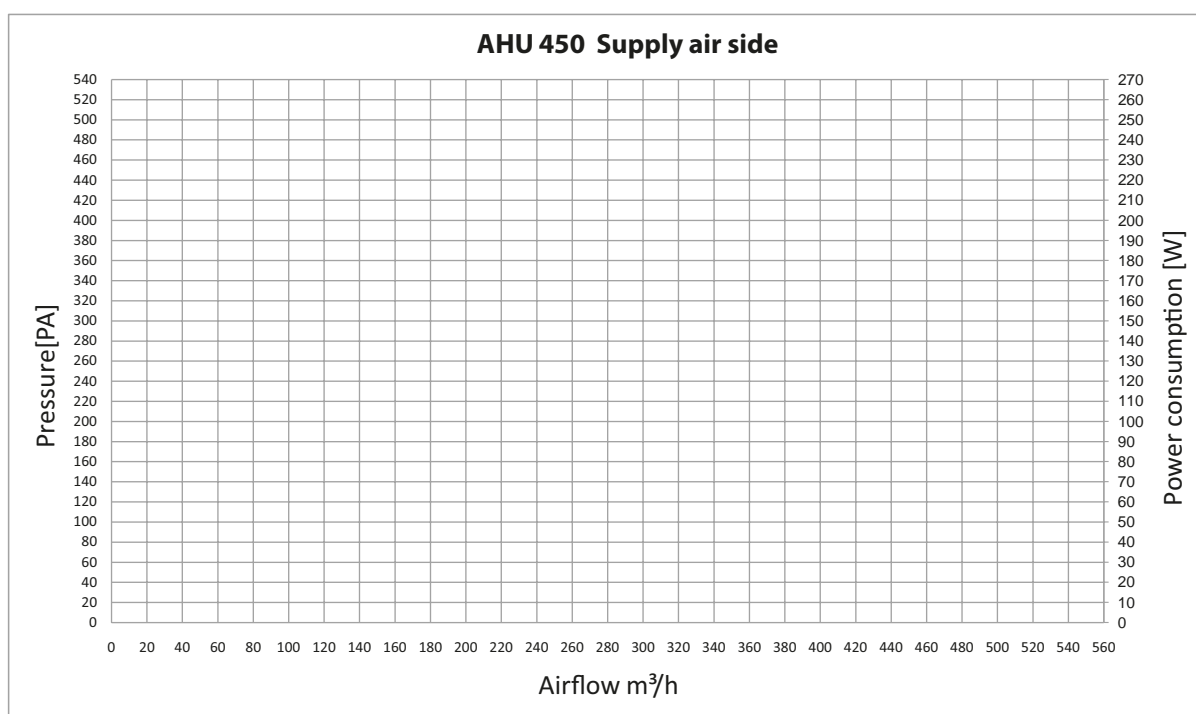
TECHNICAL DATA AHU 450

Heating battery	- Phase / voltage	(50Hz/VAC)
	- Power consumption	(W)
Fans	- Phase / voltage	(50Hz/VAC)
	- Total current draw both fans at NORM operation	(A)
Maximum current (heater + fans)		(A)
Automatic System		
Filter class	Superpleat	
Thermal insulation	(mm)	
Weight	(kg)	

AHU 450 sound data

	63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	Lw(A)
Supply air									
Fresh air									
Exhaust air									
Extract air									
Surroundings (1,5m)									

Correction for surroundings sound data are valid only in the range of nominal airflow.



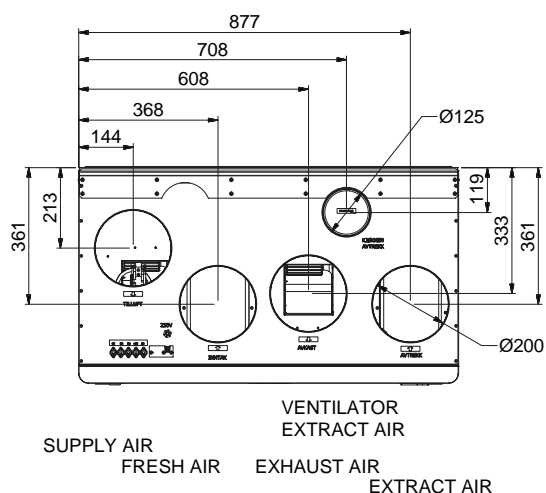
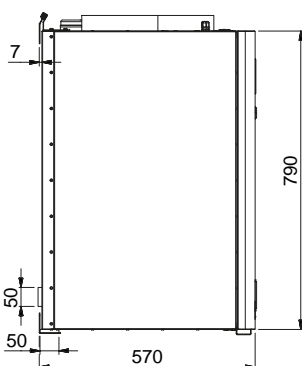
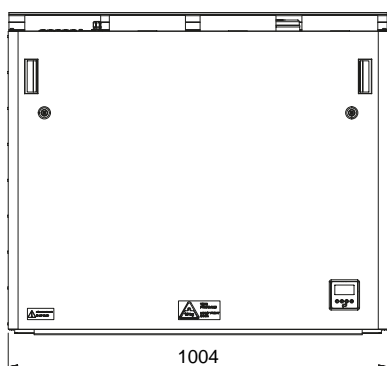
We reserve the right to change technical data without prior notice.

Ensy AHU 700 BH or BV

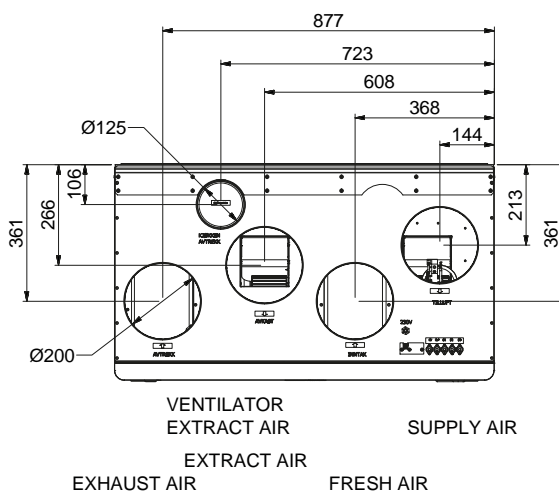
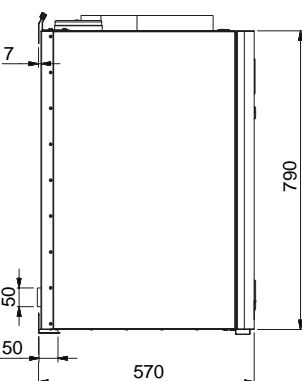
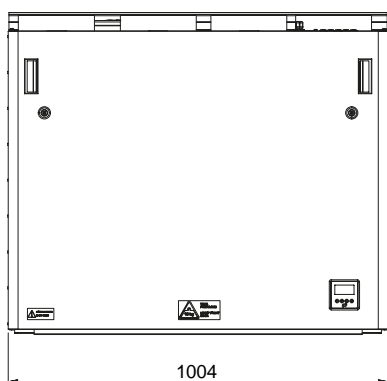
AHU 700 right-sided and left-sided models have a capacity of ca. 700 m³ / h and are suitable for flats / houses and small studios. The models are based on the present-day technology that results in an energy efficiency and to low sound levels. A very user-friendly controlling system and an appealing design. AHU 700 is designed for wall mounting. AHU- units are of course designed to cope with the requirements of current regulations. In addition, they also comply with the requirements for a passive house.



AHU 700 BV/1



AHU 700 BH/1



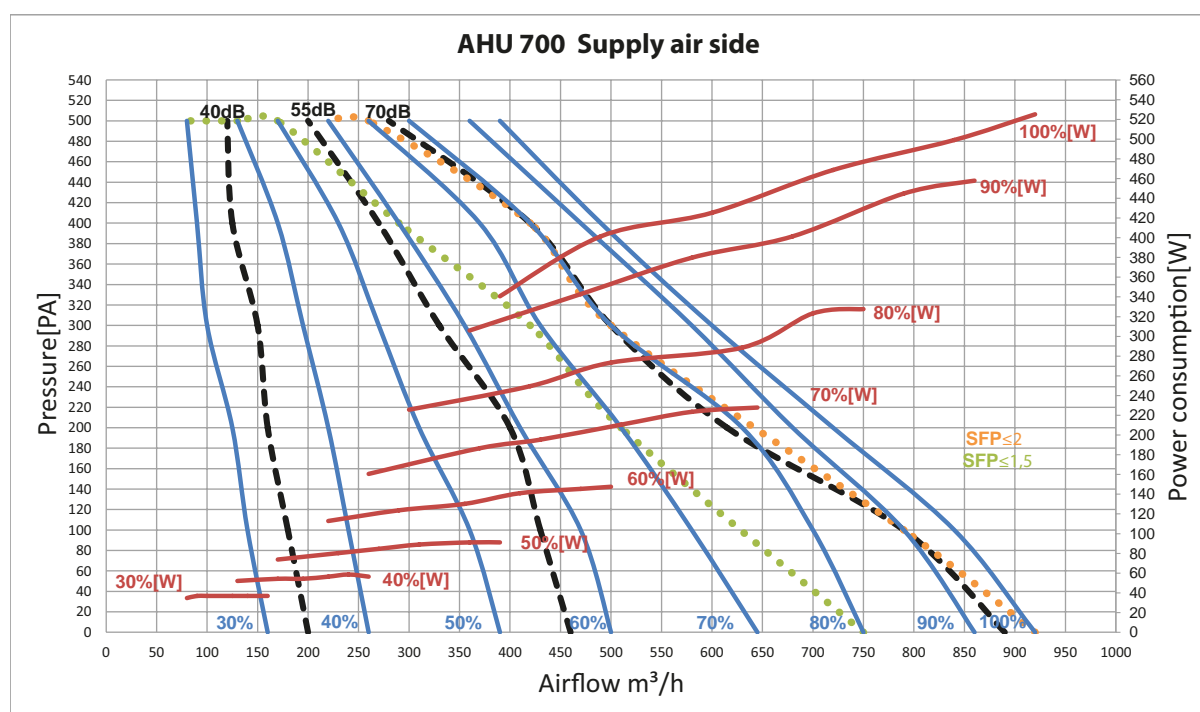
TECHNICAL DATA AHU 700

Heating battery	- Phase / voltage	(50Hz/VAC)	~1 / 230
	- Power consumption	(W)	1200
Fans	- Phase / voltage	(50Hz/VAC)	~1 / 230
	- Total current draw both fans at NORM operation	(A)	0,83
	- Speed at the MAX operation	o/min	2450
Maximum current (heater + fans)	(Heater + fans)	(A)	7,3
Automatic System			Integrated
Filter class	Superpleat		F7
Thermal insulation	(mm)		40
Weight	(kg)		101

AHU 700 sound data

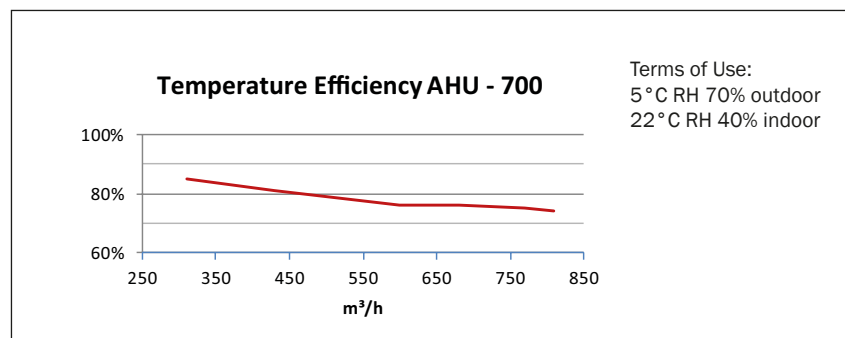
	63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	Lw(A)
Supply air	-17	-16	-18	-16	-6	-10	-12	-19	0,00
Fresh air	-32	-20	-17	-13	-8	-10	-14	-21	-2,33
Exhaust air	-18	-17	-20	-13	-13	-11	-12	-19	-1,74
Extract air	-30	-19	-15	-12	-5	-7	-10	-18	-0,27
Surroundings (1,5m)	-2	-4	-19	-25	-25	-35	-35	-33	-20

Correction for surroundings sound data are valid only in the range of nominal



— Fan speed
- - - Sound data dB (A)
— Power consumption both fans

SFP factor applies to both fans



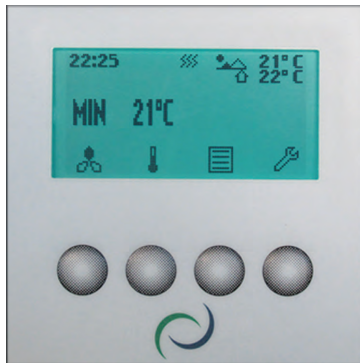
We reserve the right to change technical data without prior notice.

ENSY Control Panel

Practical modern design, simple and user-friendly and equipped with automatic control.

From the control panel, the vent system can be either controlled automatically or it can manually adjusted. The control panel is integrated into the door of the unit, and two control panels can be used, if you want one of the control panels located into another room.

The control panel has an attractive design and is user friendly to operate.



ENSY Control Panel has all the necessary control functions.

- There is the possibility for speed and temperature adjustment and control on the panel.
- The panel signals any event of failure to the unit and if it is the case for filter replacement.
- The panel is designed to a single wall box
- The optional control panel can be connected, in case of a needed adjustment, from any place in your home.
- Time of day
- Color display with text and symbols.
- Exhaust and supply air control air flow.
- The panel displays indoor and outdoor temperature.
- Features and alarms are displayed.
- Humidity sensor for forced ventilation is integrated in the unit. (Copes for every needed, comes off as a standard feature)
- The distance feature can be activated from the control panel or remote switch with CE. Delay on when to start after it is enabled.
- Automatic summer mode, followed by the stop of the rotating heat exchanger

Additional equipment:

- Optional control panel.
- Wireless forcing switch.
- CO² sensor.
- Motion sensor.
- Connection for kitchen hood in the by-pass.

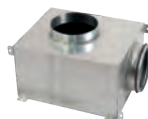
ENSY Accessories:



Intake / exhaust cap



Tire Panel



Plenum combs



Channel Cross



Kombi Box (with grate)

Notes

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Notes

[illegible]

Distributors

Our distributors offer you, in addition to the housing design and calibration, a wide range of ventilation products. These characteristics enable them to deliver complete solutions that are perfectly tailored to your needs. Ensy sells its products only through authorized distributors, who will always have our products in stock.

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