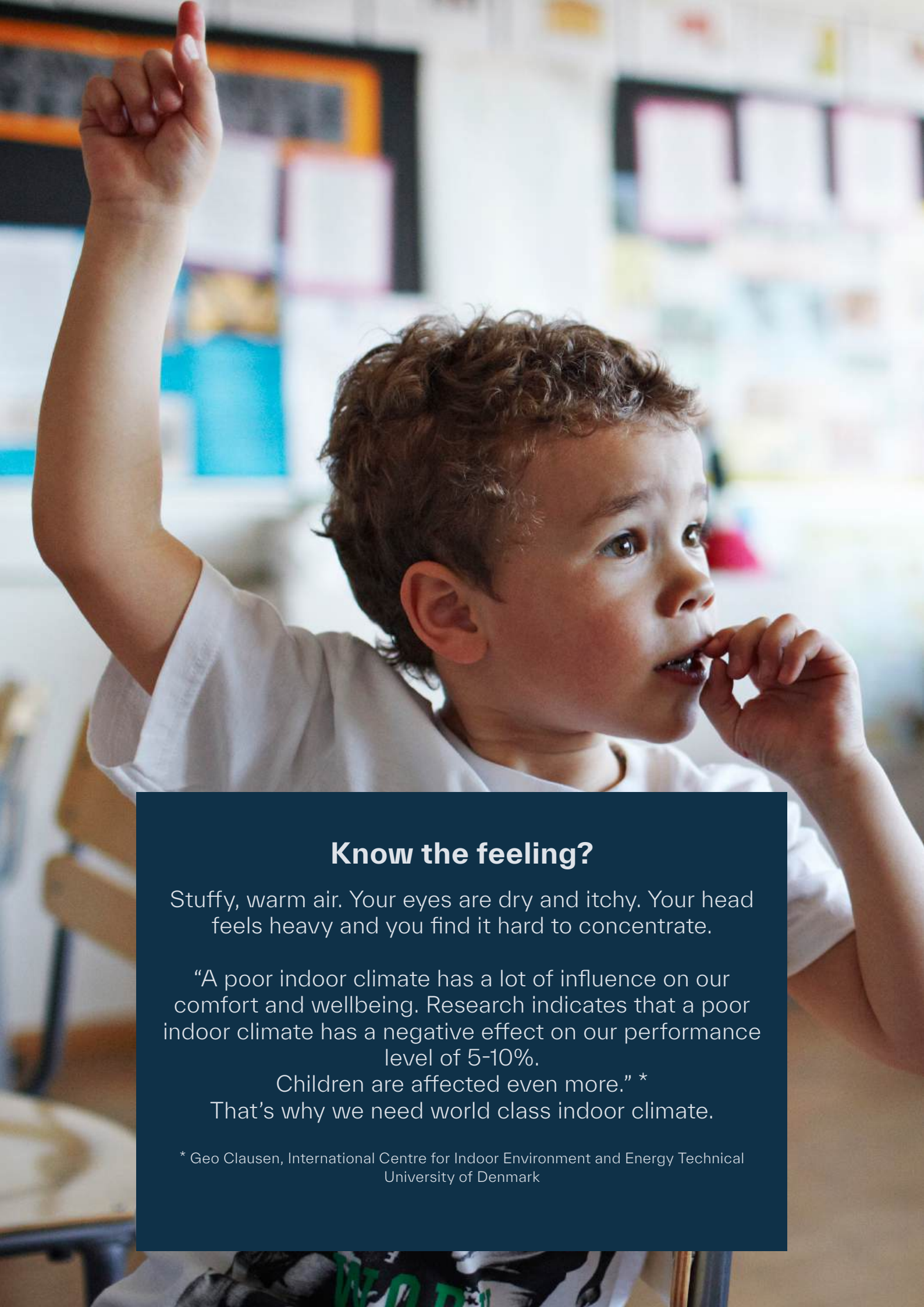


Product catalogue

Version 6.0



AIRMASTER



Know the feeling?

Stuffy, warm air. Your eyes are dry and itchy. Your head feels heavy and you find it hard to concentrate.

“A poor indoor climate has a lot of influence on our comfort and wellbeing. Research indicates that a poor indoor climate has a negative effect on our performance level of 5-10%.

Children are affected even more.” *

That’s why we need world class indoor climate.

* Geo Clausen, International Centre for Indoor Environment and Energy Technical University of Denmark

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Good *air quality* - all day long

In indoor settings, the CO₂ concentration has long been used as an indicator of air quality. In many places, there are legislation governing maximum CO₂ values, partly because it is a reliable indicator of activity level and thus the need for air replacement, and partly because the CO₂ concentration can be measured with a high level of accuracy. It is therefore both appropriate and technically possible to use CO₂ concentration to control ventilation.

Research shows, however, that the CO₂ level is not the only thing to cause difficulty in concentrating and the like. So-called VOCs, which occur in very small concentrations indoors, are a significant factor in how people experience the air quality and their well-being. VOCs are

easily evaporable organic substances that may be given off by hand sanitiser, cleaning agents, building materials, furniture, paint, rugs and carpets, and work processes.

To achieve the very best air quality throughout the day – with the least possible energy consumption – it is therefore important to be able to base the air replacement on both the concentration of CO₂ and concentration of VOCs.

You can do this with an Airmaster ventilation unit.

An Airmaster ventilation unit can be demand controlled by different sensors – e.g. CO₂ and TVOC sensors that control the amount of air in relation to the demand in the room concerned.

Do you know your current CO₂ and TVOC levels?

If not, we offer free, no-obligation test measurements of your indoor climate using a small monitoring station that can measure CO₂ and TVOC concentrations as well as temperature.



Different CO₂-levels:

400-1000	400-1000 ppm is considered the normal CO ₂ level for rooms with a good supply of fresh air.
1000-2000	At a level of 1000-2000 ppm, you will typically begin to feel tired and have difficulty concentrating.
2000-5000	At a level of 2000-5000 ppm, you will typically suffer headaches, feel sleepy and generally unwell.
5000-	At a level of 5000 ppm or above, there is a risk of fainting due to CO ₂ poisoning.

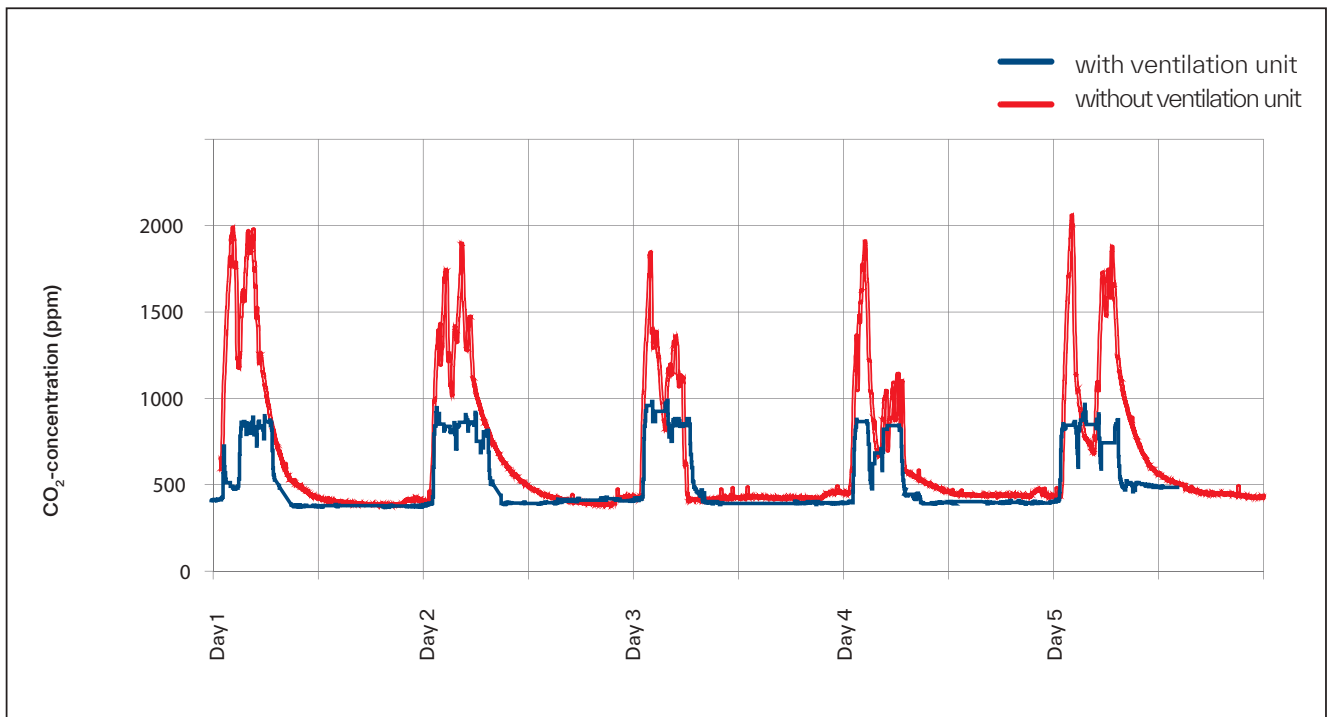
A common example

CO₂ measurements performed in a traditional classroom at Gl. Hasseris School in Denmark, clearly show how important good ventilation is for air quality.

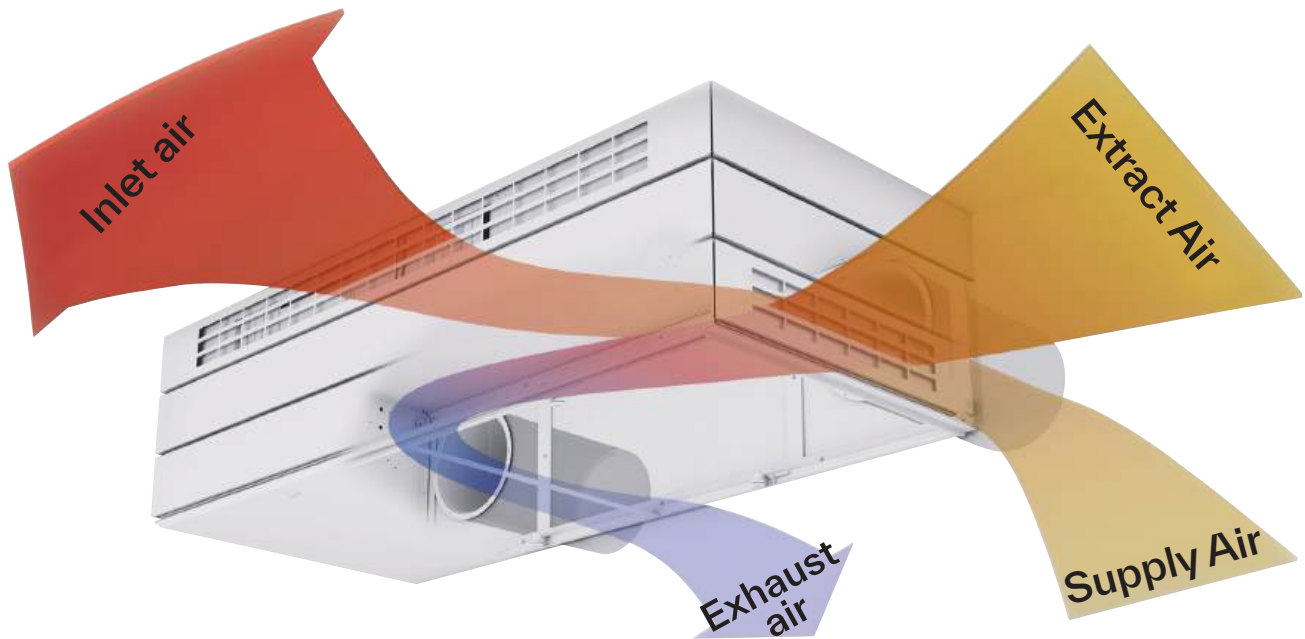
The blue line shows the CO₂ level with an Airmaster ventilation unit in operation. The red line shows readings taken in the same room without ventilation.

The figure shows readings taken over five weekdays.

The results are clear to see. Without ventilation, the CO₂ level reaches 2000 ppm within a single hour of lessons. Given the number of hours spent in daycare, schools and at work, this is a thought-provoking and disturbing result.



Ventilation in *balance*



Fresh air is a human right. And that's why Airmaster has developed the most energy-efficient and quiet, decentralised ventilation solutions on the market with heat recovery - solutions which can be used in all types of rooms and buildings.

Airmaster's decentralised ventilation solutions keep energy consumption for ventilation and heating in a building to a minimum. Only those rooms where and when ventilation is needed are serviced. No wasted energy on unnecessary ventilation.

Intelligent ventilation

Low energy consumption

The decentralised air handling unit with counterflow heat exchanger is placed in the room close to an outer wall. The very short distance extracted air has to move combined with the counter-flow heat exchanger located alongside means very low energy consumption. No need for long ventilation ducts, meaning minimum pressure loss (transmission loss). Decentralised ventilation supplies an individual room without being difficult or expensive to install.

Efficient EC motor technology

Airmaster uses energy-efficient EC motors, which give low energy consumption, flexible adjustment and silent operation.

High heat recovery

We use highly-efficient counter-flow heat exchangers, and document temperature efficiency in accordance with relevant European standards.

Airmaster's counter-flow heat exchangers perform up to 85% measured as a dry temperature ratio, and up to 95% if condensation is included.

No draughts or cold air discomfort

Airmaster's decentralised air handling units are all fitted with motor-controlled air dampers for the supply

and extract air. When the unit is inactive, the motor-controlled damper is closed against direct air access. Cold outdoor air cannot pass through the unit into the room. Similarly, warm air cannot pass through to the outdoors.

Control with Airmaster's cloud solution

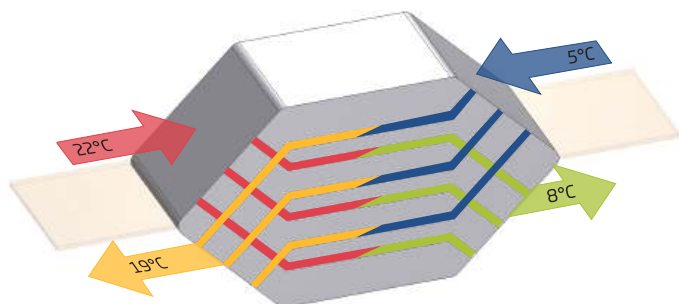
Airmaster's "Airlinq® Online" cloud solution allows you to monitor Airmaster ventilation units centrally and gain a quick overview of the operating status, CO₂ level, etc. It is also possible to integrate control of the ventilation units into your BMS using the Airlinq® Online API

Significant advantages of Airmaster solutions

An Airmaster decentralised ventilation solution often has many advantages over a centralised solution. This is seen in the cost of purchasing the unit, the overall economy and resource consumption. Decentralised ventilation also uses less energy because it is demand controlled on a room-by-room basis, with the supply and exhaust led directly through the outer wall or roof. There are therefore no ducts for the air to be pressed through, minimizing pressure loss and saves energy.

In short:

- Cost- and energy efficient ventilation
- Advantages when it comes to resource consumption and recycling
- Low noise level – Airmaster is the market leader in the sound performance of decentralised ventilation solutions
- Advantages when it comes to fire regulations
- Short installation time – one room at a time
- Simple servicing. Recommended once a year, depending on the usage pattern and setting
- Complete control and monitoring with Airmaster's IoT platform, "Airlinq® online"



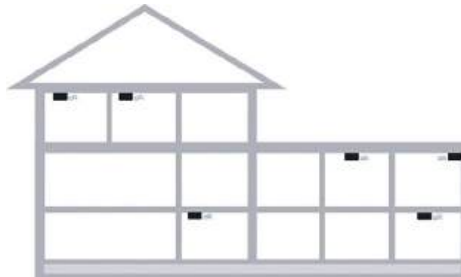
Decentralised ventilation -

a wide range of applications

Decentralised ventilation allows you to install ventilation in small stages, in buildings with special challenges or throughout buildings.

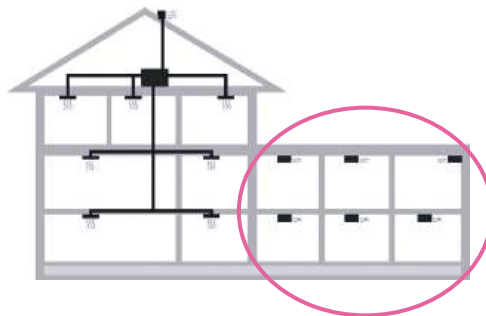
1

In a large building, where ventilation only has to be installed in a few rooms that are spread apart.



2

In a building extension, where the existing ventilation system cannot be extended.



3

In a building with a flat roof.



4

When total ventilation is required in a new building or in a renovation.





Flexible *solutions* for installation

Some of the ceiling-/wall-mounted models are also available as a side model, where inlet and extract are on the side of the unit. In addition, a number of variants can be supplied, where the location of the inlet and extract are combined.

See product information for the individual ventilation unit for a description of the options for the various units.

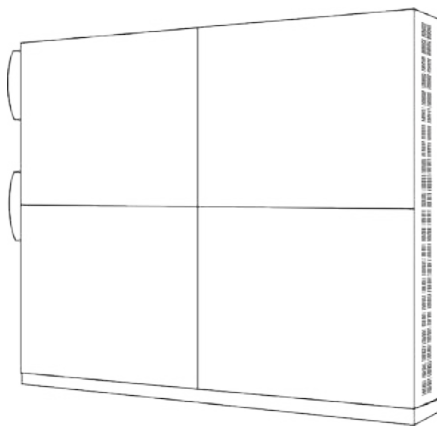
Exhaust / supply

- On the back (**H**: Horizontalt)
- On the top (**V**: Vertikalt)
- On the side (**S**: Side)
- Combinations



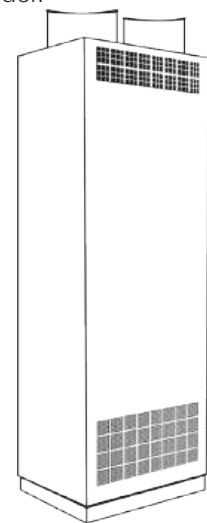
Floor-standing units

Floor-standing units can be placed along a wall, away from a wall or freestanding, e.g. as a room divider.



Horizontal model

Supply and exhaust pass horizontally through an outer wall.

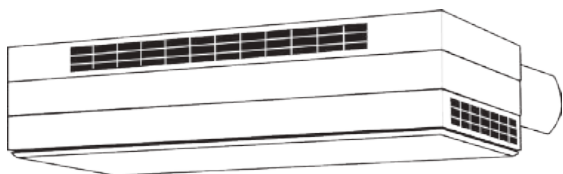


Vertical model

Supply and exhaust pass vertically up through the roof.

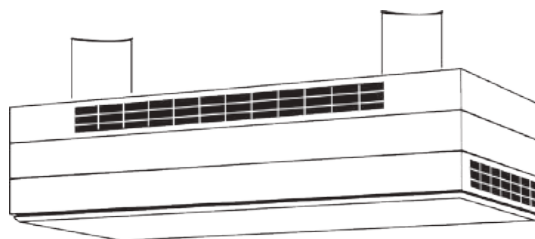
Wall/ceiling-mounted ventilation units

Our wall-mounted decentralised ventilation units comprise a range of models from AM 150, which is the smallest, to AM 1000, which has the capacity to supply a whole classroom with fresh air. So, there are ventilation solutions that can help create a good indoor climate in rooms such as offices, meeting rooms, classrooms, gyms, restaurants, etc.



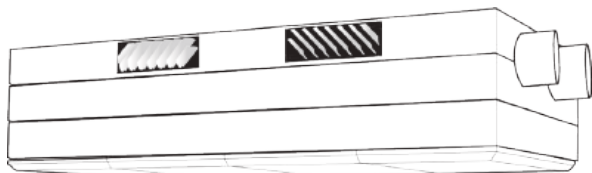
Horizontal model

Supply and exhaust pass horizontally out of the unit and through an outer wall. A louvred grille is mounted on the facade side.



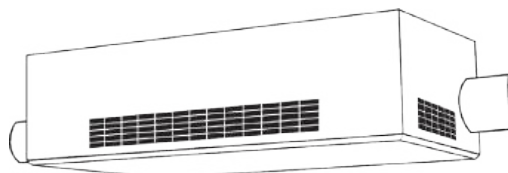
Vertical model

Supply and exhaust pass vertically up through the roof. Roof Caps and covers are used at the end of the duct.



Side model

Supply and exhaust pass sideways out of the unit. Only possible on the AM 1000 unit.



Side model

Supply and exhaust pass sideways out of the unit on the left and right side respectively. Only available for the AM 300 unit.

Exhaust / supply

The different options for exhaust and supply provide great flexibility in relation to installation.

On the outside it allows for a uniform expression, and on the inside it opens up the possibility of navigating around, for example, windows and beams and thus taking the design and layout of the room into account

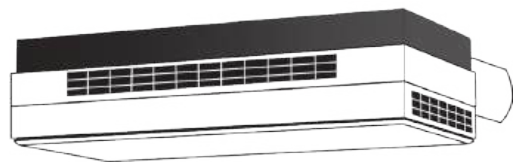


Choosing the right ventilation unit

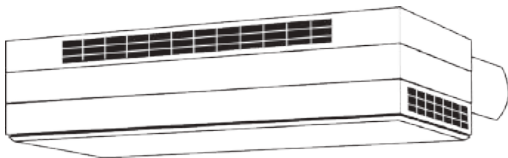
Different possibilities of installation are provided with the individual ventilation unit. Common for the wall mounted units, is the possibility for integration into the ceiling. Furthermore, there are several options for placing the inlet and extract. Below are some examples, please see further details under the description of each ventilation unit.

Inlet / extract

- Standard inlet
- Standard extract
- Ducted inlet
- Ducted extract
- Combinations



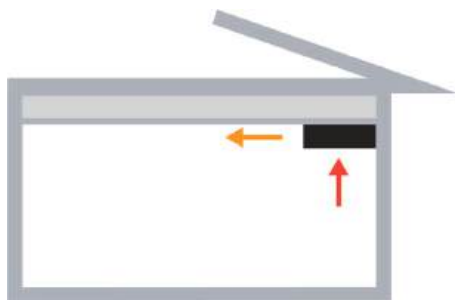
Horizontal model with 1/3rd of the unit integrated into a ceiling.



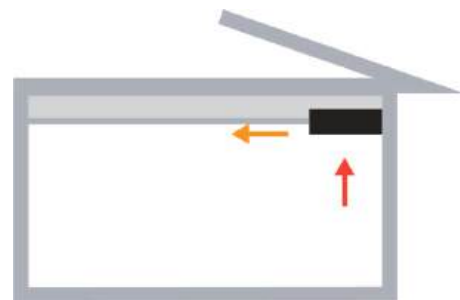
Standard inlet / extract. Panels on all three visible sides. White panel can be added on the back, if required.



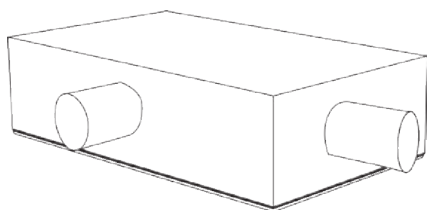
Horizontal model with 2/3rd of the unit integrated into a ceiling.



Installation with the ventilation unit under the ceiling.

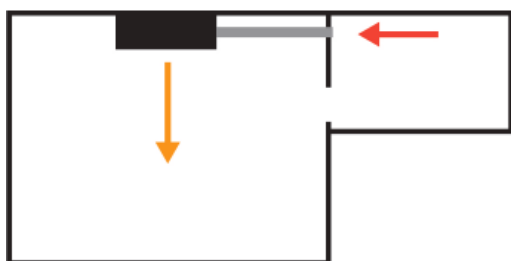


Installation with the ventilation unit partially integrated in the ceiling.

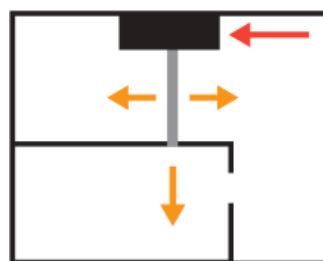


Airmaster wall mounted ventilation units can furthermore be delivered with ducted inlet and/or extract. This provides the possibility of giving fresh air in adjacent rooms, where no ventilation unit is needed. For example a toilet.

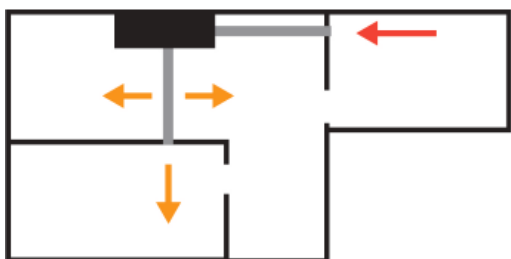
Examples of installation with ducted inlet/extract



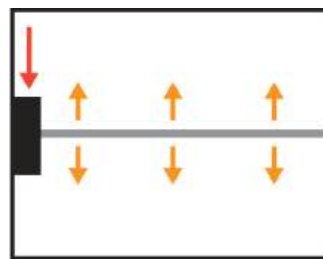
Where extract from an adjoining room is desired.



Where supply to an adjoining room is desired.



Where both extract and supply in adjoining rooms are desired.



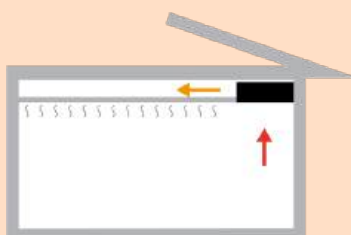
In a long room.

Ventilation ceiling

An Airmaster air handling unit can also be integrated above a ventilation ceiling, with only its service hatch visible. All wall-mounted models can be integrated above a ventilation ceiling, where the inlet air is blown across the ceiling and the air flows down into the room through the ventilation ceiling.

Additional airflow does not need to be calculated with this solution. It will be the same with or without the ventilation ceiling.

The extract air is extracted via an extraction unit in the ceiling.



Airmasters inlet stream principles

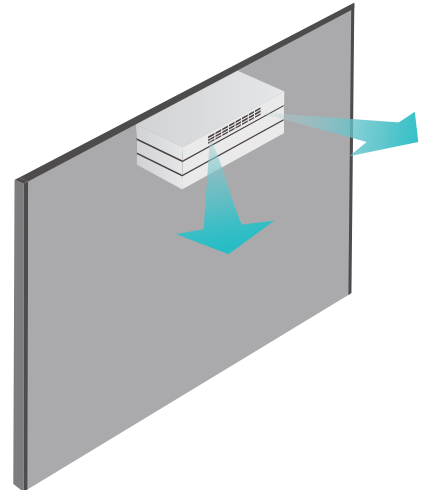
Coanda effect

The fresh supply air "sticks" to the ceiling, before slowly descending - known as the Coanda effect. The Coanda effect mixes fresh air with ambient air and then slowly descends into the room.

Mixing principle

The Coanda effect causes the inlet stream to stick to the ceiling. The fresh air is blown in at a relatively high velocity. The air in the room is pushed along to ensure effective mixing of fresh and ambient air.

The entrainment of the ambient air ensures uniform air quality in the room, whilst reducing the velocity of the supply inlet stream. Consequently, draughts are avoided in the room.



Wall-mounted Airmaster ventilation unit. The inlet air pattern can be adjusted according to the room.

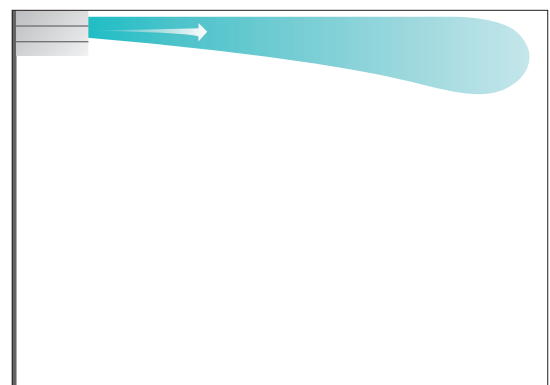
Inlet stream for wall-mounted units

All wall-mounted models ventilate according to the mixing principle, in which fresh air is fed into the room at ceiling level, exploiting the Coanda effect.

Adjustable inlet opening

The wall-mounted units are equipped with an adjustable inlet openings. Throw and inlet pattern can be adjusted by adjusting the inlet slats.

The AM 1000 is available with adaptive inlet which automatically adjusts the inlet slats/throw in relation to the airflow relative to the length of the room.



Wall-mounted Airmaster ventilation unit with inlet stream seen from the side.

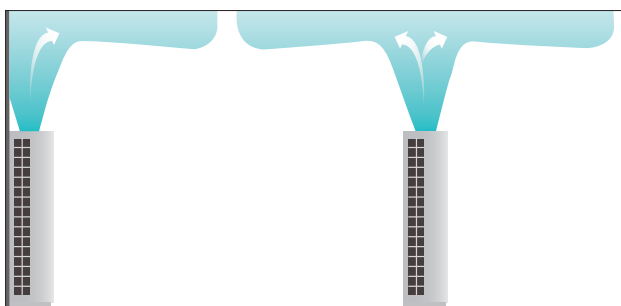
Inlet stream for floor-standing units

The mixing principle is also used for Airmaster's floor-standing models (AM 900, and AM 1200), with fresh air fed upwards into the room to exploit the Coanda effect.

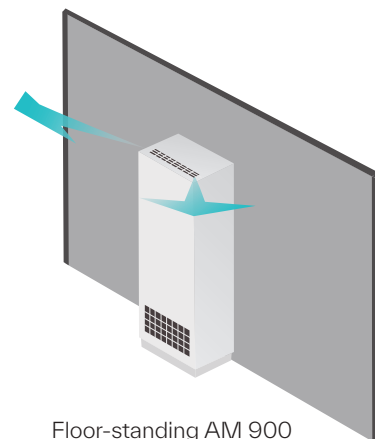
Adjustable inlet opening

Floor-standing models AM 900 and AM 1200 are fitted with adjustable inlet openings. The opening can be adjusted according to requirement, ensuring the right throw according to the size of the room.

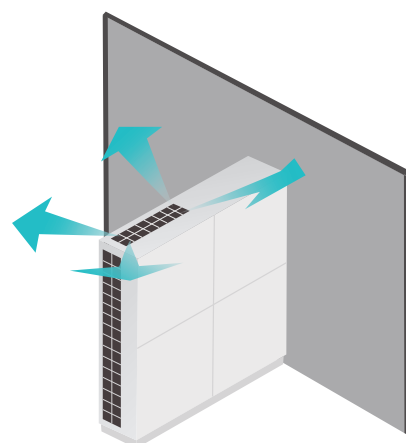
The throw and the supply pattern can be adjusted by adjusting the slats.



The illustration shows two floor-standing AM 1200. One standing alongside a wall and the other freestanding. Inlet viewed from the side.



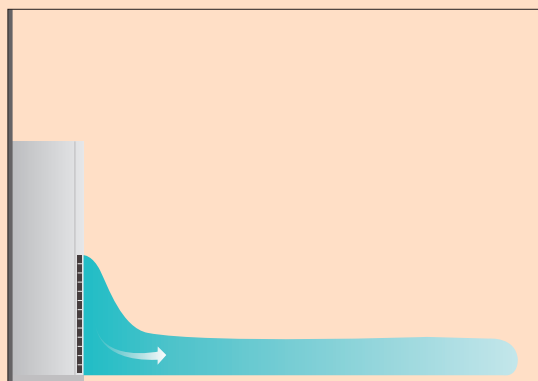
Floor-standing AM 900 - mixed ventilation.



Floor-standing AM 1200 placed perpendicular to a wall as a room divider. Airflow and direction are adjusted using the louvred grille.

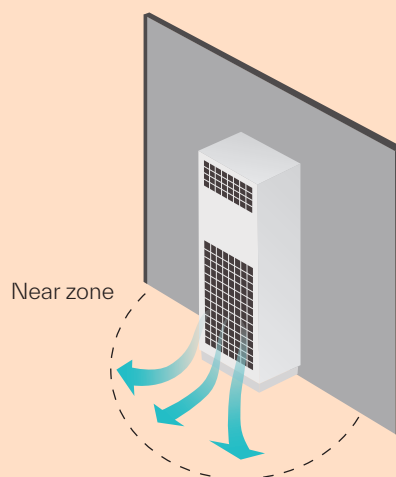
The displacement principle

Airmaster's floor-standing model AM 900 is also available as a displacement model. The displacement ventilation principle feeds fresh air into the room at low velocity at floor level. The fresh air is blown in at a temperature a couple of degrees lower than the room temperature.



Floor-standing AM 900 - displacement ventilation with inlet stream seen from the side.

The air is distributed over the entire floor due to the difference in density between cold and warm air. The low inlet velocity avoids draughts in the room.



Floor-standing AM 900 - displacement ventilation.

Correct positioning

To gain the full benefit of Airmaster units, they must be correctly positioned in relation to the physical geometry of the room.

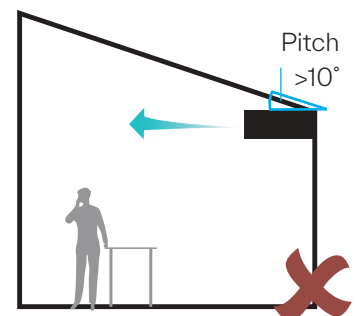
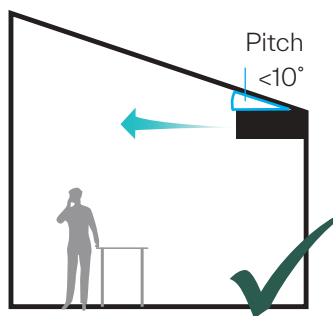
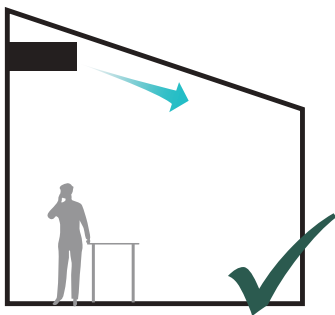
1

Two smaller units can be appropriate for a long, narrow room, where the throw is too short longitudinally, yet too long laterally.



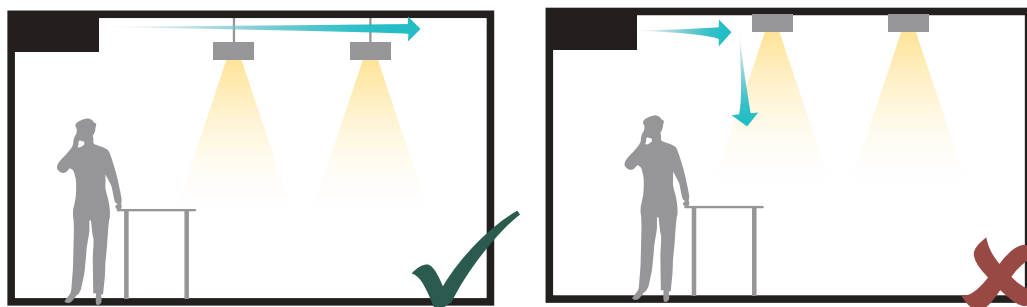
2

If the room has a high or sloping ceiling, the units should be mounted as high as possible.



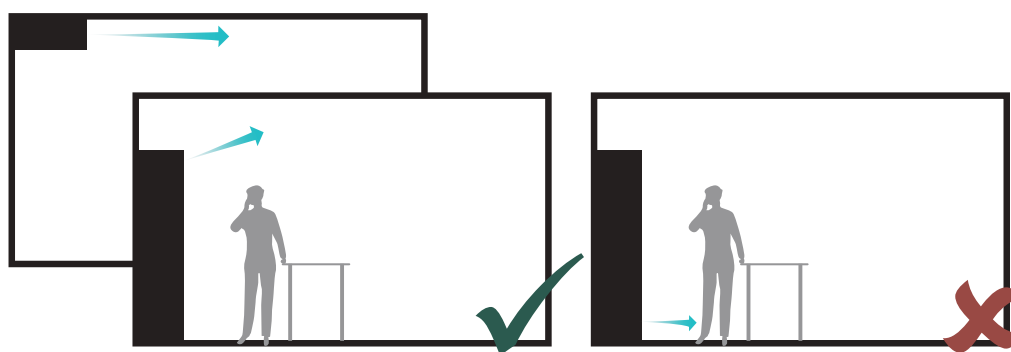
3

To achieve the most effective inlet, objects that could obstruct the path of the air should be avoided, such as light fittings mounted directly on the ceiling. Light fittings should be lowered to allow the air to circulate freely around the room.



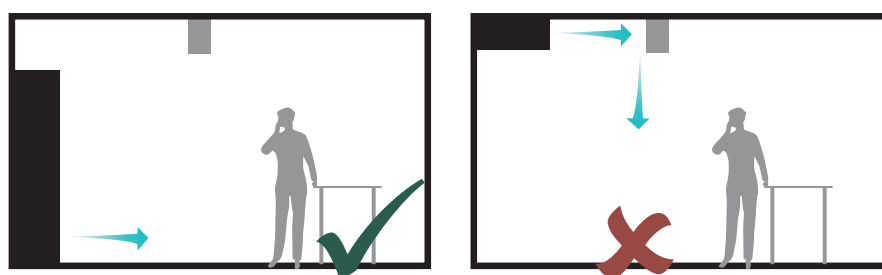
4

In rooms where the occupants are physically close to a unit, it is important to use wall-mounted or floor-standing models according to the mixing principle to avoid draughts.



5

If there are ceiling beams in the room that can obstruct the air current, choose a floor-standing unit that ventilates according to the displacement principle (AM 900 D), or a wall-mounted unit that ventilates along the length of the room.

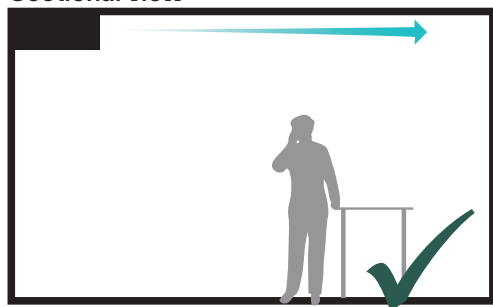


Correct positioning

with regard to acoustic pressure



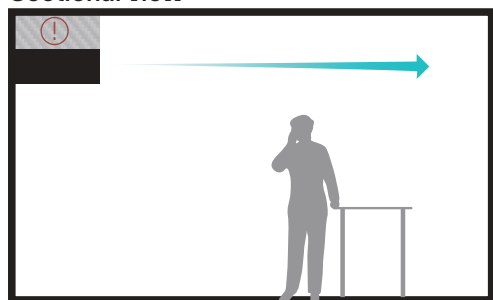
Sectional view



System mounted against the ceiling and wall.

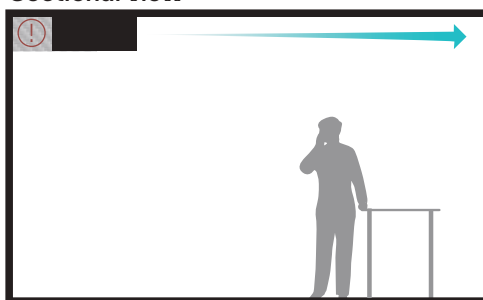
To gain maximum yield from your Airmaster unit you should be aware to place the unit correct in the room. These diagrams can be used as a guideline and a tool for effective acoustic installation.

Sectional view



System mounted against the wall but away from the ceiling.

Sectional view

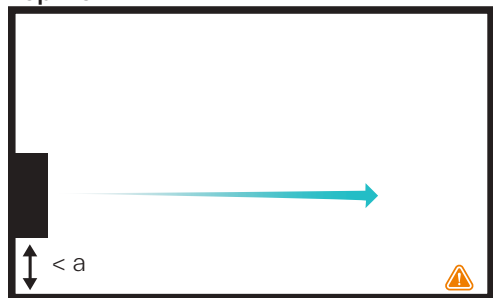


System mounted against the ceiling at a short distance from the wall.

- ⚠ The top plate is sound insulated, and visible pipes are insulated against condensation. The space between the unit and the ceiling can possibly be boxed in.

- ⚠ The back plate is sound insulated, and visible pipes are insulated against condensation. The space between the unit and the wall can possibly be boxed in.

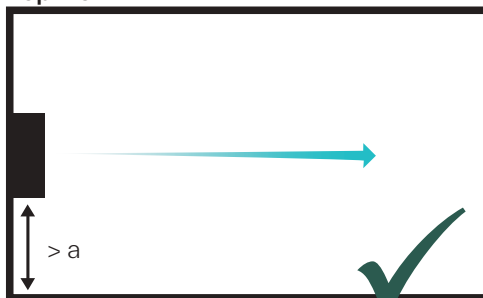
Top view



System mounted with a short distance from extract to the side wall.

a: min. 0,5 m for AM 150-800
min. 1,5 for AM 1000

Top view



System mounted with a further distance from extract to the side wall.

a: min. 0,5 m for AM 150-800
min. 1,5 for AM 1000



Ventilation. Heating. Cooling. All in one.

Meet our revolutionary innovation, AMX 4:
The perfect all-in-one solution that combines
good indoor air quality with a comfortable
temperature in a noise-free way.

AMX 4

The AMX 4 is Airmaster's most innovative product to date. The system is an all-in-one solution without noisy outdoor parts. It can handle ventilation, cooling and heating.

It's quick and easy to install and comes in Airmaster's brand new design line. A timeless and aesthetic design that fits perfectly into the environments for which the unit is intended.

AMX 4 is designed with a very low noise level. Airmaster has managed to reduce the noise from the compressor so that it can be installed inside the unit without increasing the already low sound level from the ventilation unit. This makes the unit perfect for office environments, meeting rooms, modular buildings and teaching, for example, where indoor climate requirements are high.



The AMX 4 is designed to have a low sound level, so it can be placed indoors without disturbing noise from the built-in compressor.

Technical data	Filter class	30 dB(A)	35 dB(A)	Boost
Maximum capacity ^A	ePM ₁₀ 50%	256 m³/h	334 m³/h	344 m³/h
	ePM ₁ 55	251 m³/h	330 m³/h	340 m³/h
	ePM ₁ 80	231 m³/h	316 m³/h	330 m³/h
Throw (0,2 m/s) ^B	ePM ₁₀ 50%	4.5 m	6.3 m	7 m
	ePM ₁ 55%	4.5 m	6.3 m	7 m
Operating range (max.capacity), outside temperatur		-15°C – 40°C		
Supply air filter		ePM ₁₀ 50%, ePM ₁ 55% or PM ₁ 80%		
Extract air filter		ePM ₁₀ 50%		
Dimensions (WxHxD)		2055 x 358 x 1100 mm		
Weight: standard air handling unit, complete		235 kg		
Weight: casing		175 kg		
Weight: service cover		55 kg		
Color: casing / panels and service cover		RAL 9005 (Jet black) / RAL 9010 (Pure white)		
Counterflow heat exchanger		Aluminium		
Air leakage classification cf. EN 1886 / EN 13141-7		Class L2 / A1		
Air leakage classification, main damper, cf. EN 1751		Class 3		
IP code		10		
Duct connection		Ø200 mm		
Condensate pumps: capacity / lifting height (at 5 l/h)		10 l/h / 6 m		
Condensate drain hose: internal diameter / external diameter		Ø6 mm / Ø9 mm		
Supply voltage		230 V + N + PE / 50 Hz		
Maximum power; nominal power consumption at 30 dB(A) / 35 dB(A) / Boost ^A (including heat pump)		2560 W; 406 / 570 / 802		
Maximum current; nominal current at 30 dB(A) / 35 dB(A) / Boost ^A (including heat pump)		11.2 A; 1.79 / 2.51 / 3.53		
Power factor (including heat pump)		0.92		
Maximum fuse		16 A, 1 phase, type C		
Leakage current AC / DC		6 mA / 0,04 mA		
Recommended residual current circuit breaker (RCCB)		Type B		

^A All measurements were performed in a normal operating mode in a standard installation in a test room, dimensioned 8.0 m x 10.0 m x 2.5 m with room attenuation of 8 dB(A).

^B The throw is measured with a 3-5°C subcooled supply air in a test room, dimensioned 8.0 m x 10.0 m x 2.5 m.

Electrical heating surfaces	Heating surface 1	Heating surface 2	Heat pump	
Heat output	1150 W	1150 W	Nominal cooling output	2000 W
Nominal current	5A	5A	Nominal heat output	2300 W
Thermal circuit breaker, manual reset	100°C	100°C	Materials: pipes / fins	Copper/aluminium
			COP (heating) ventilation	5.7 – 7.4
			COP (heating) recirculation	3.6
			EER (cooling) ventilation	2.3 – 3.8
			Refrigerant / GWP	R290 / 3
			Filling	330 g

Standards and options

Counterflow heat exchanger (Aluminium)	X
Motor-driven bypass	X
Motor-driven supply air damper	X
Motor-driven extract air damper	X
Electric heating surfaces	X
Condensate pump	X
Electronic humidity sensor (built-in)	X
PIR/motion sensor (wall mounted)	•
PIR/motion sensor (integrated)	•
CO2 sensor (wall mounted)	•
CO2 sensor (integrated)	X
TVOC sensor (integrated)	•

Supply air filter ePM ₁₀ 50%	•
Supply air filter ePM ₁ 55%	•
Supply air filter ePM ₁ 80%	O
Extract air filter ePM ₁₀ 50%	X
LED (operating mode indicator)	X
Wall/ceiling bracket	X
External connection module	•
Airmaster Airlinq® Online	•
Airlinq® Online API	•
Bluetooth app	X

x : standard • : option o : specialvare

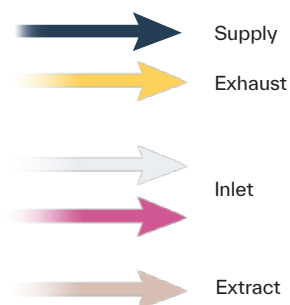
AMX 4 versions

HHBB

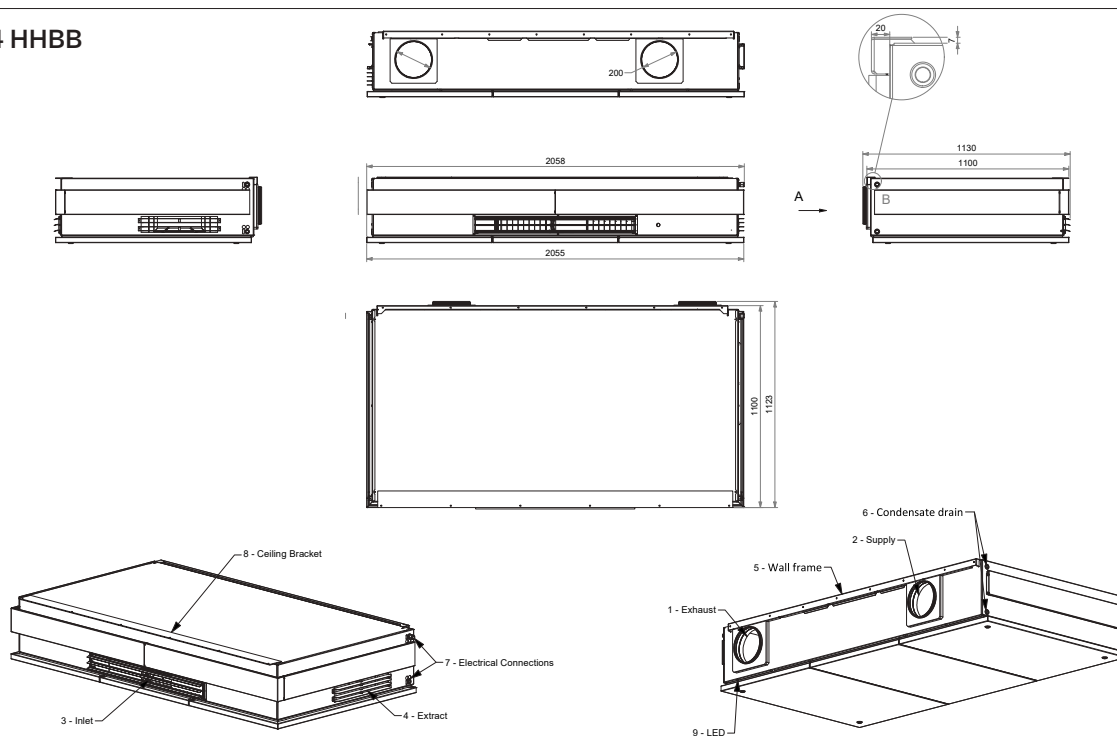


HH Horizontal exhaust and supply

BB Inlet and extract, bottom



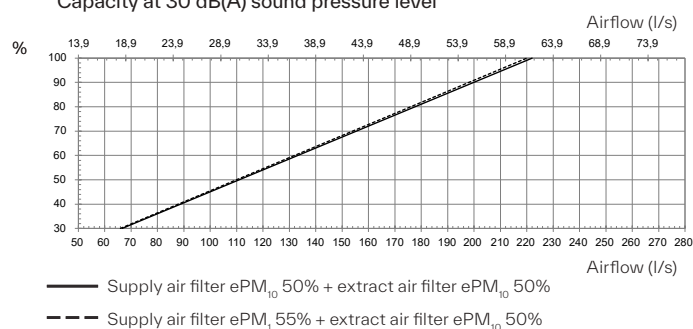
AMX 4 HHBB



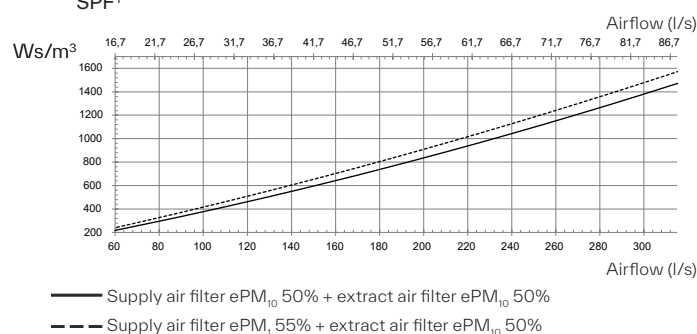
Example of dimension drawing. To see the latest dimension drawings and download 3D BIM objects in Autodesk Revit format please go to our website: www.airmaster-as.com

AMX 4

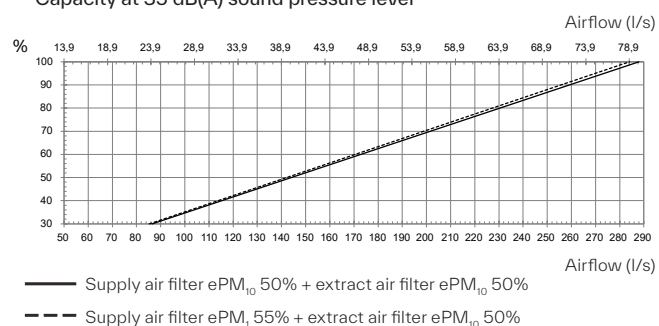
Capacity at 30 dB(A) sound pressure level



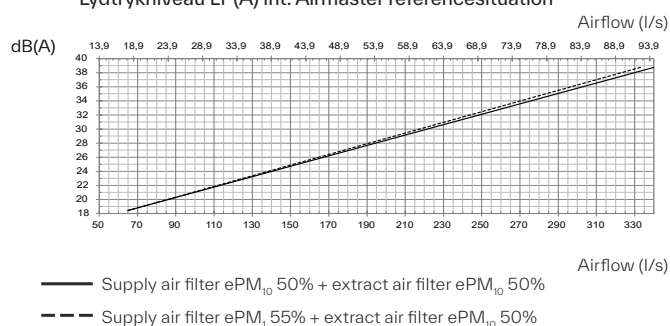
SPF¹



Capacity at 35 dB(A) sound pressure level

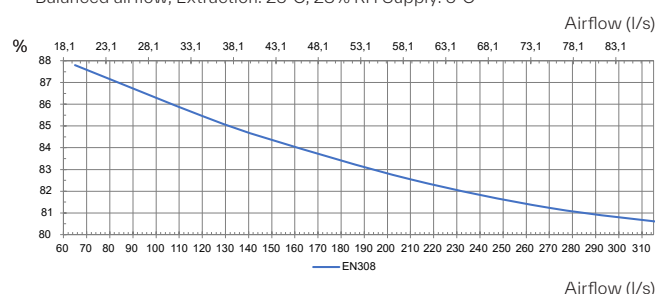


Lydrykniveau LP(A) iht. Airmaster referencesituation²

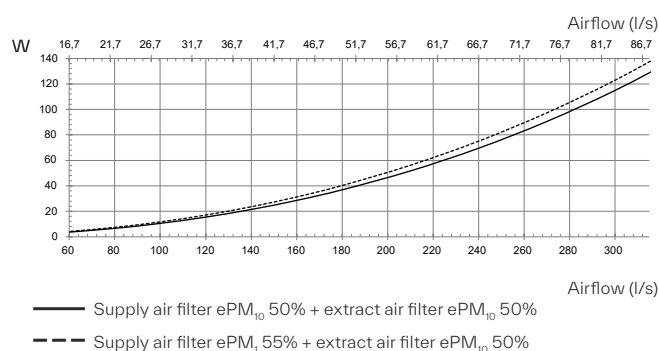


Temperature efficiency acc. to EN 308

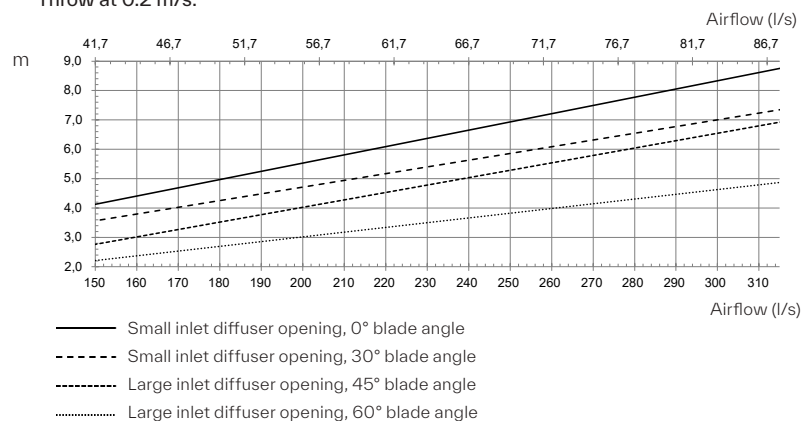
Balanced airflow; Extraction: 25°C, 28% RH Supply: 5°C



Power consumption



Throw at 0.2 m/s:¹

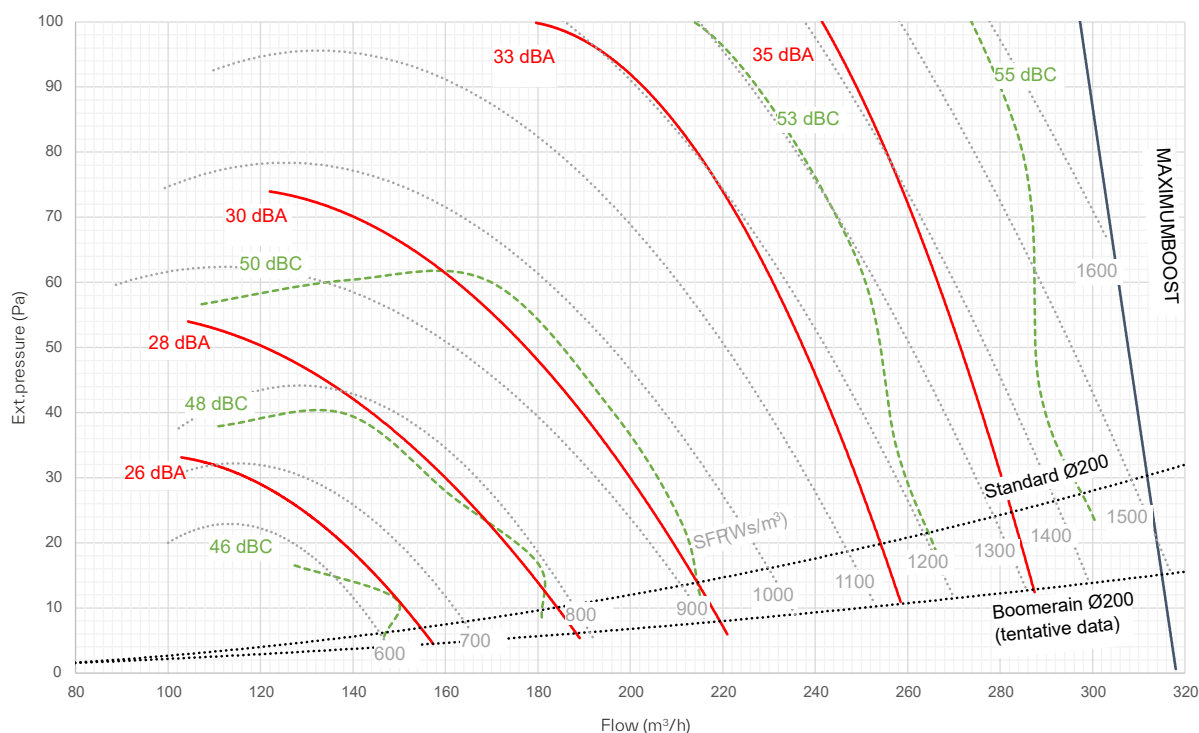


¹ Measurements are taken at normal operation in a standard installation situation.

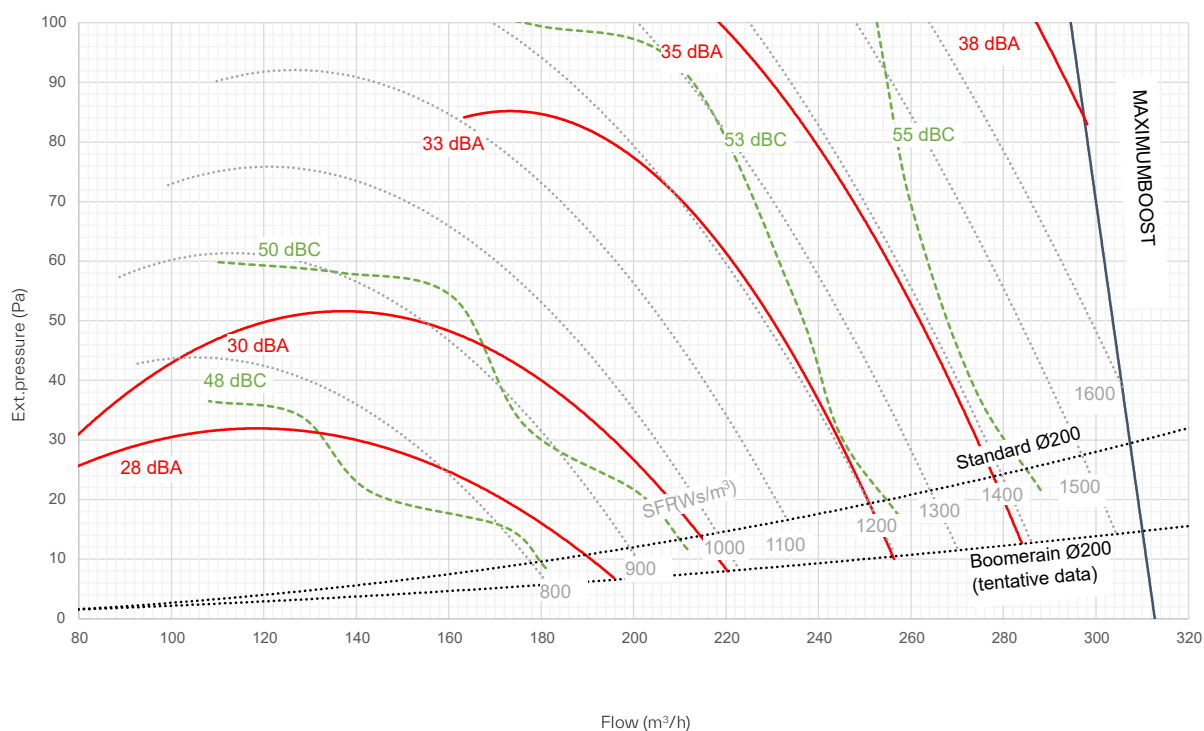
² Sound pressure level $L_{p,eq}$ is measured at 1.2 m height with 1 m horizontal distance from the air handling unit in a 200 m³ room with a reverberation time of $T = 0.6$ s or equivalent to a room sound attenuation of 7.5 dB.

AMX 4

SFP with supply air filter ePM₁₀ 50% and extract air filter ePM₁₀ 50%:¹



SFP with supply air filter ePM₁ 55% + extract air filter ePM₁₀ 50%:¹

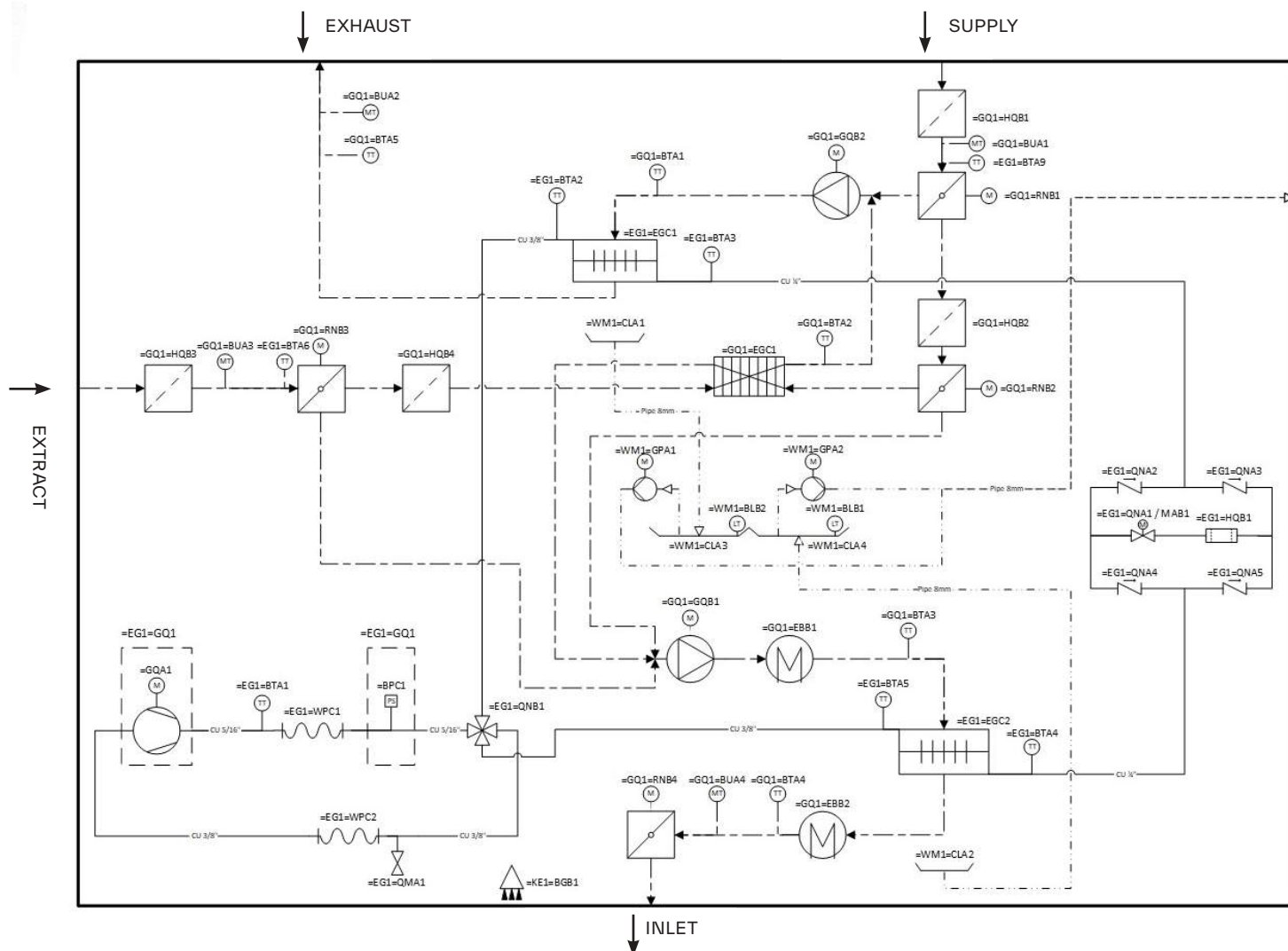


¹ Measurements are carried out in a 200 m³ room with 7.5 dB room sound attenuation in a standard installation situation.

² Sound pressure level $L_{p,eq}$ is measured at 1.2 m height with 1 m horizontal distance from the air handling unit in a 200 m³ room with a reverberation time of $T = 0.6$ s or equivalent to a room sound attenuation of 7.5 dB.

AMX 4

Schematic sketch



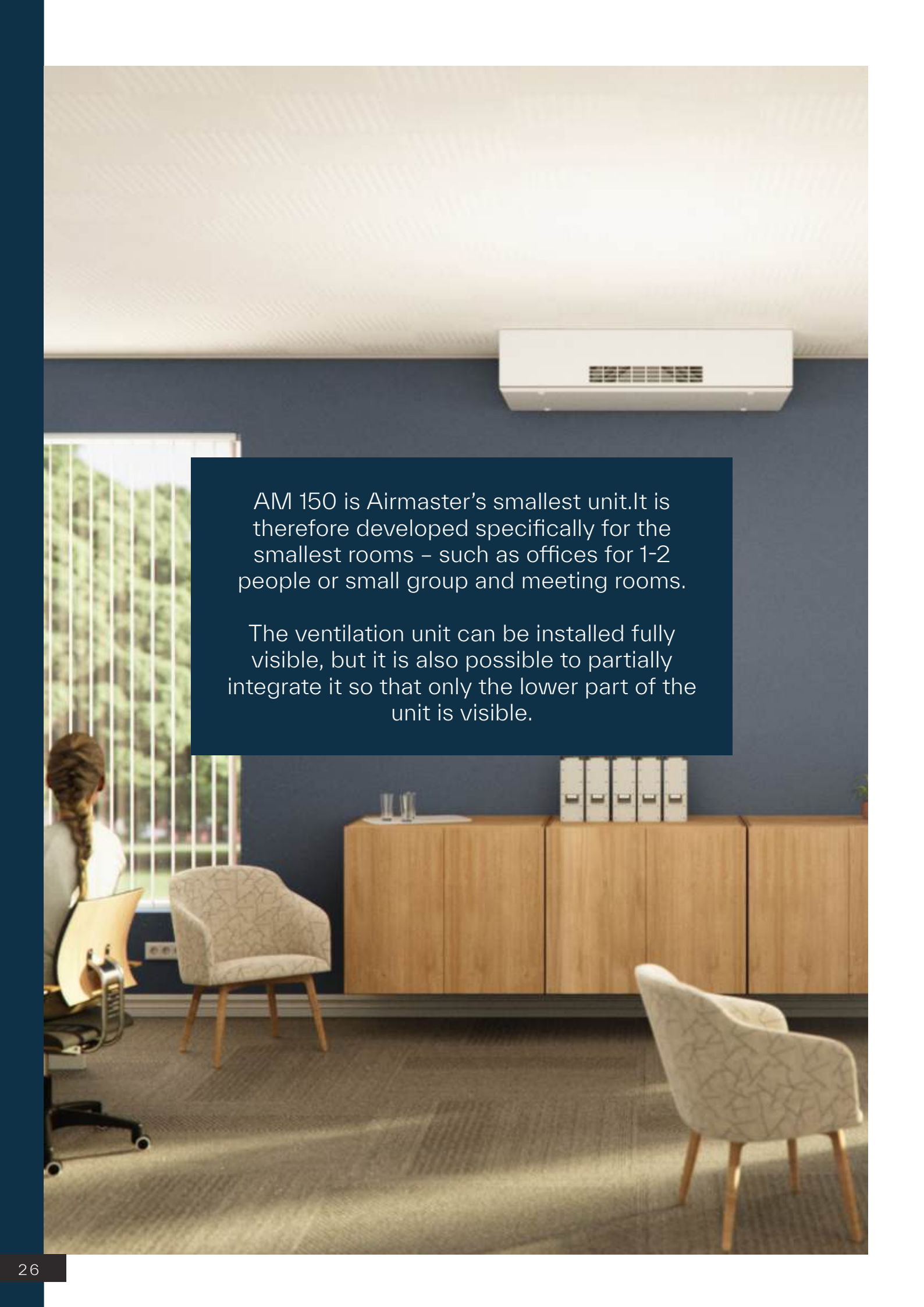
Name of component

EG1 Heat pump system
 EG1=GQ1 Compressor system
 GQ1 = Ventilation system
 WM1 Condensate system

BGB PIR
 BLB Level sensor
 BPA Pressure transmitter
 BPC Pressure switch
 BTA Temperature sensor
 BUA Humidity/CO2 sensor

CLA Condensate tray
 EBB Heating surface
 EGC Heat exchanger
 GPA Condensate pump
 GQA Compressor
 GQB Fan

HQB Filter
 QMA Filling valve
 QNA Valve
 QNB 4-way valve
 RNB Damper
 WPC Flexible connection



AM 150 is Airmaster's smallest unit. It is therefore developed specifically for the smallest rooms – such as offices for 1-2 people or small group and meeting rooms.

The ventilation unit can be installed fully visible, but it is also possible to partially integrate it so that only the lower part of the unit is visible.

AM 150

AM 150 is a horizontal model and supply and exhaust pass horizontally out of the unit and through an outer wall. AM 150 is particularly suited for one to two-person offices and small meeting rooms at companies, schools and institutions. Essentially, small rooms where there is a need for a pleasant indoor climate for comfort and well-being.



With options such as motion sensors and CO₂ sensors, ventilation can be controlled based on the number of people in a room at a given time. Furthermore, the fully automatic control can be combined with Airmaster Airlinq® Online.

Technical data	Filter Class	30 dB(A)	35 dB(A)	Boost
Maximum capacity ¹	ePM ₁₀ 50%	115 m³/h	147 m³/h	216 m³/h
	ePM ₁ 55%	90 m³/h	126 m³/h	197 m³/h
	ePM ₁ 80%	85 m³/h	115 m³/h	180 m³/h
Throw length (0.2 m/s) ²	ePM ₁₀ 50%	2.6 m v. 115 m³/h	3.4 m v. 147 m³/h	4.6 m v. 216 m³/h
	ePM ₁ 55%	2.1 m v. 90 m³/h	2.8 m v. 126 m³/h	4.2 m v. 197 m³/h
	ePM ₁ 80%	1.9 m v. 85 m³/h	2.6 m v. 115 m³/h	3.8 m v. 180 m³/h
Supply air filter	ePM ₁₀ 50%, ePM ₁ 55% or ePM ₁ 80%			
Extract air filter	ePM ₁₀ 50%			
Dimensions (WxHxD)	1170 x 261 x 572 mm			
Weight, standard air handling unit, complete	53 kg			
Weight, casing	40 kg			
Weight, service cover	13 kg			
Colour, casing	RAL 9010 (white)			
Counterflow heat exchanger	PET			
Air leakage classification cf. EN1886/EN13141-7	Class L1 / Class A1			
Air leakage classification, main damper, cf. EN1751	Class 3			
IP code	10			
Duct connection	Ø125 mm			
Condensate pump (capacity/lifting height at 5 l/h)	10 l/h / 6 m			
Condensate drain, int./ext. diameter	Ø4 mm / Ø6 mm			
Supply voltage	230 V + N + PE / 50 Hz			
Maximum ; nominal power consumption at 30 dB(A) / 35 dB(A) / Boost ¹	185 W ; 21 W / 38 W / 96 W			
Maximum ; nominal current at 30 dB(A) / 35 dB(A) / Boost ¹	1.35 A ; 0.2 A / 0.3 A / 0.8 A			
Power factor	0.59			
Maximum fuse	13 A (1 phase, type B). When using the cc module, it is type C			
Leakage current AC / DC	≤ 0.52 mA / ≤ 0.0007 mA			
Recommended residual current circuit breaker (RCCB)	Type B			

¹ All measurements were performed in normal operating mode in a standard installation for the filter class, supply/extract air: ePM₁₀ 50% / ePM₁₀ 50%, using the facade grilles recommended by Airmaster, in a test room dimensioned 8.0 m x 10.0 m x 2.5 m with room attenuation of 7.5 dB. For small spaces, e.g. 4.0 m x 4.0 m x 2.5 m, 2 dB sound pressure must be added.

² The throw is measured with a 2 °C subcooled supply air at the standard setting of the inlet diffuser. The setting is adaptable.

Electrical heating surfaces

Heat output	500 W	1000 W
Nominal current	2.17 A	4.35 A
Thermal circuit breaker, manual reset	100 °C	100 °C

Standard and options

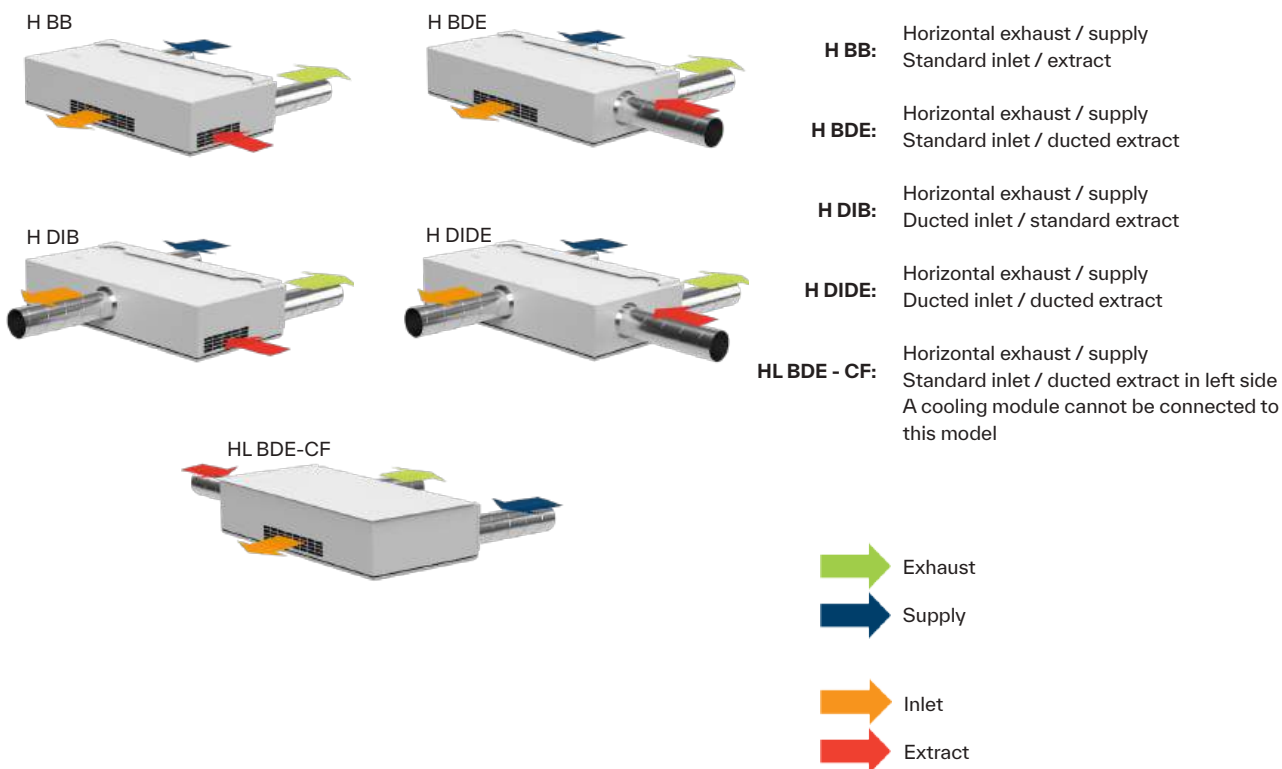
Counterflow heat exchanger (PET)	X
Enthalpy counterflow heat exchanger (polymer membrane)	O
Combination counterflow heat exchanger (polymer membrane)	O
Motor driven bypass	X
Motor driven supply air damper	X
Motor driven exhaust air damper	X
Electric heating surface/VPH	•
Condensate pump	•
PIR/motion sensor (wall-mounted)	•
PIR/motion sensor (integrated)	•
CO ₂ -sensor (wall-mounted)	•
CO ₂ -sensor (integrated)	•
TVOC-sensor (integrated)	•
CO ₂ -/TVOC-sensor (integrated)	•
Hygostat	O
Energy meter	•

Supply air filter ePM ₁₀ 50%	•
Supply air filter ePM ₁ 55%	•
Supply air filter ePM ₁ 80%	O
Extract air filter ePM ₁₀ 50%	X
LED (operating mode indicator)	X
Comfort cooling module	•
Wall/ceiling bracket	•
Ceiling frame	•
Operating button	•
Control panel, Viva	•
Control panel, Orbit	•
Airmaster Airlinq® Online	•
Airlinq® Online API	•
Airlinq® BMS	•
LON® Module	O
KNX® Module	O
MODBUS® RTU RS485 Module	•
BACnet™ MS/TP Module	•
BACnet™ /IP Module	•

X : Standard • : Optional O : Special item

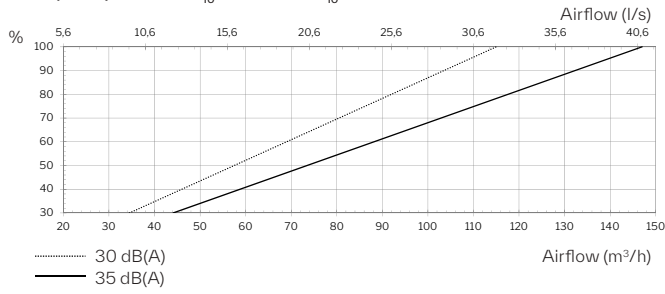
AM 150 versions

AM 150 ventilation unit

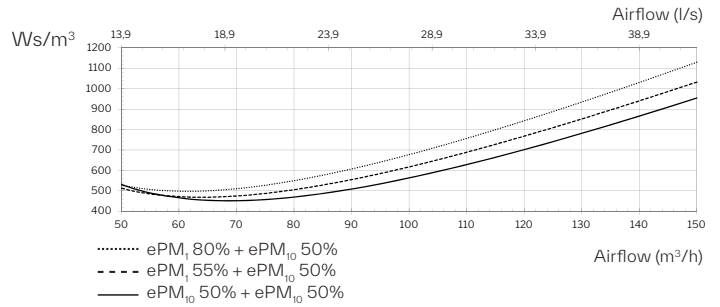


AM 150

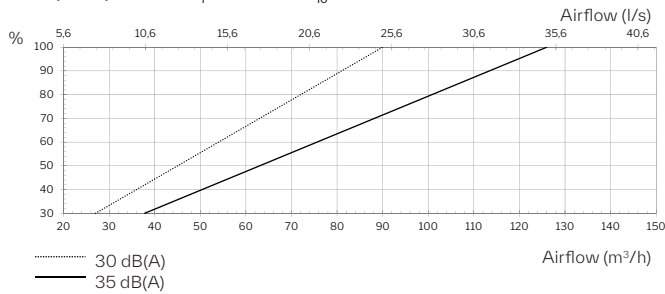
Capacity with ePM₁₀ 50% + ePM₁₀ 50% filter¹



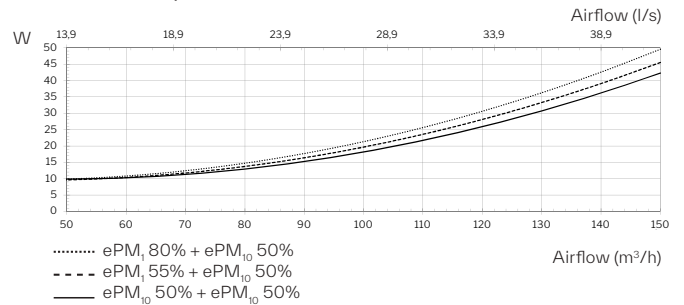
SFP¹



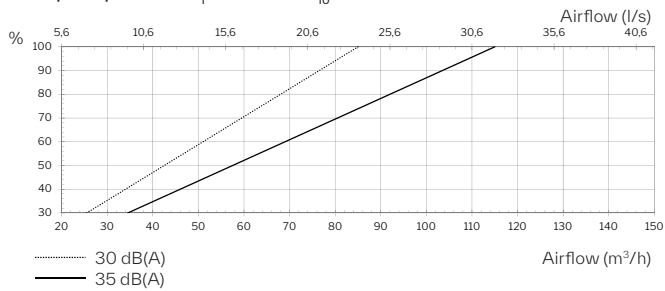
Capacity with ePM₁ 55% + ePM₁₀ 50% filter¹



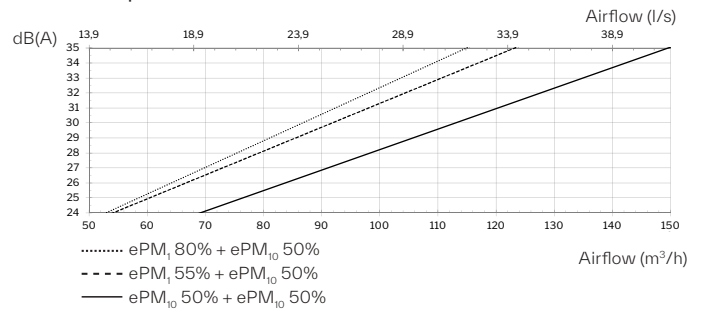
Power consumption¹



Capacity with ePM₁ 80% + ePM₁₀ 50% filter¹

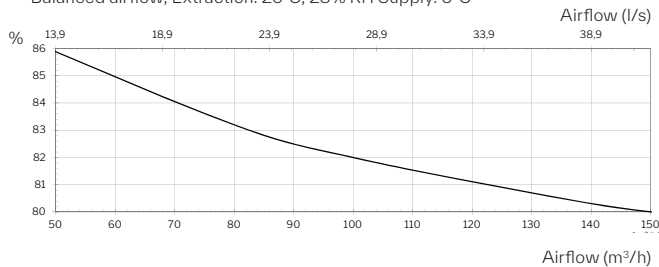


Sound pressure²



Temperature efficiency, acc. to EN 308

Balanced airflow; Extraction: 25°C, 28% RH Supply: 5°C

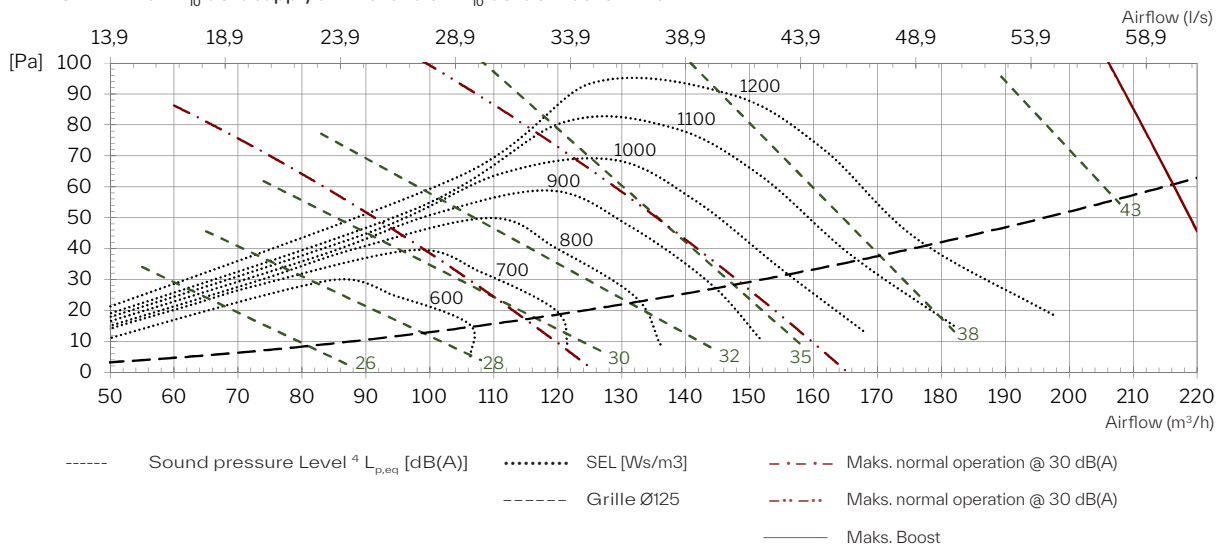


¹ Measurements are taken at normal operation in a standard installation situation with Airmaster's recommended Ø125 mm wall grille.

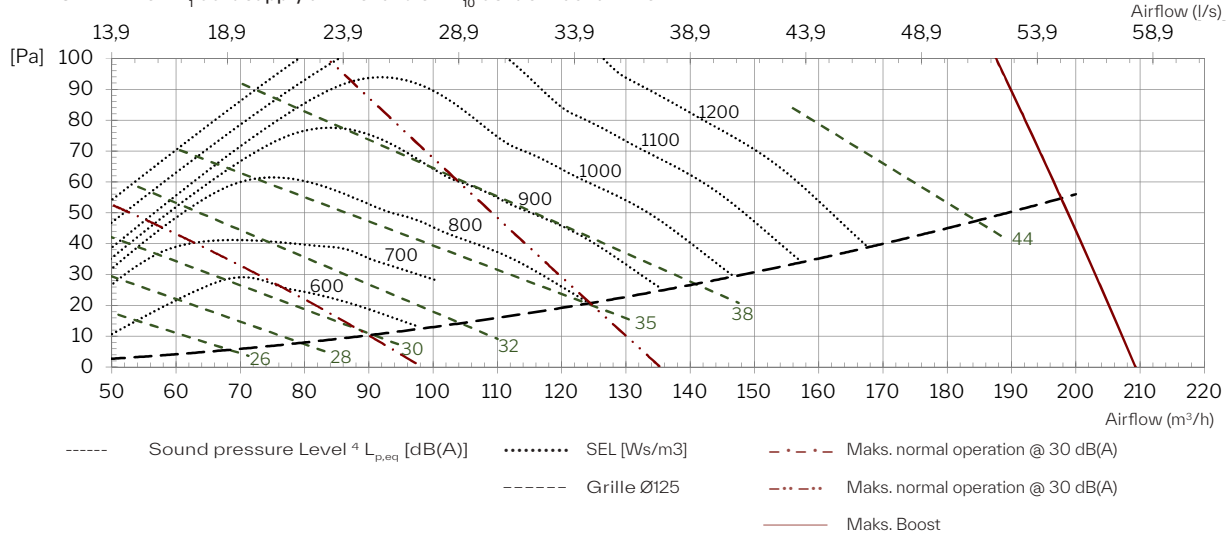
² Sound pressure level $L_{p,Bq}$ is measured at 1.2 m height with 1 m horizontal distance from the air handling unit in a 200 m³ room with a reverberation time of $T = 0.6$ s or equivalent to a room sound attenuation of 7.5 dB. In smaller rooms, e.g. 40 m³, 2 dB of sound pressure must be added.

AM 150

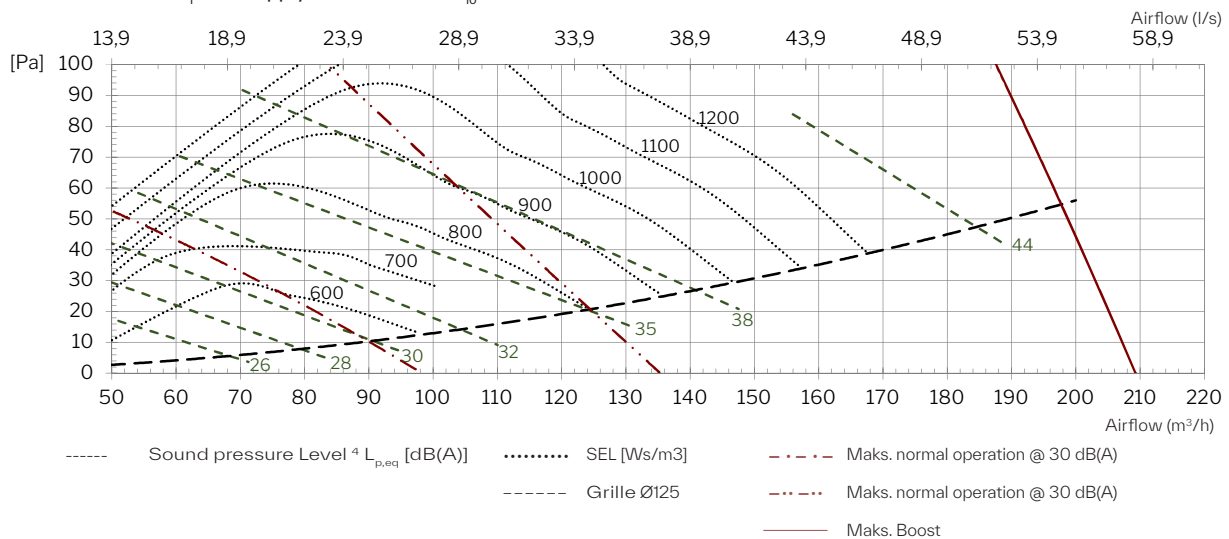
SFP with ePM₁₀ 50% supply air filter and ePM₁₀ 50% extract air filter:¹



SFP with ePM₁ 55% supply air filter and ePM₁₀ 50% extract air filter:¹



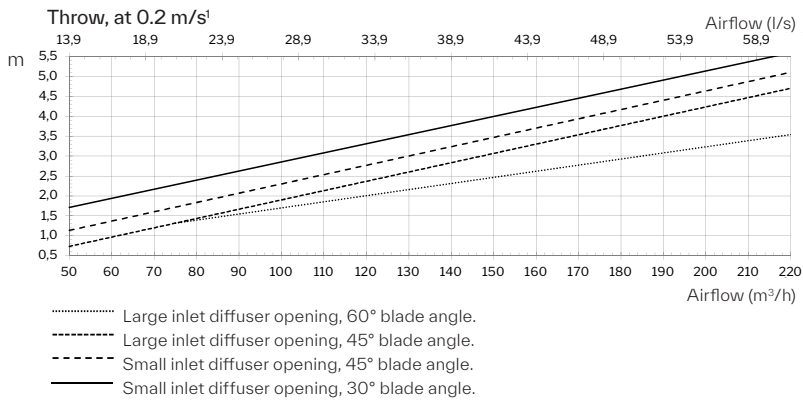
SFP with ePM₁ 80% supply air filter and ePM₁₀ 50% extract air filter:¹



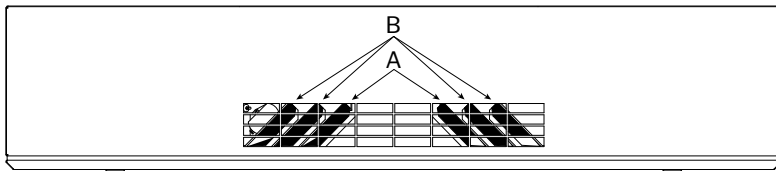
¹ Measurements are carried out in a 200 m³ room with 7.5 dB room sound attenuation in a standard installation situation.

² Sound pressure level $L_{p,eq}$ is measured at 1.2 m height with 1 m horizontal distance from the air handling unit in a 200 m³ room with a reverberation time of $T = 0.6$ s or equivalent to a room sound attenuation of 7.5 dB. In smaller rooms, e.g. 40 m³, 2 dB of sound pressure must be added.

AM 150



Small and large inlet difusor areal:



Small inlet difusor areal:

A is closed, B is open with X° blade angle.

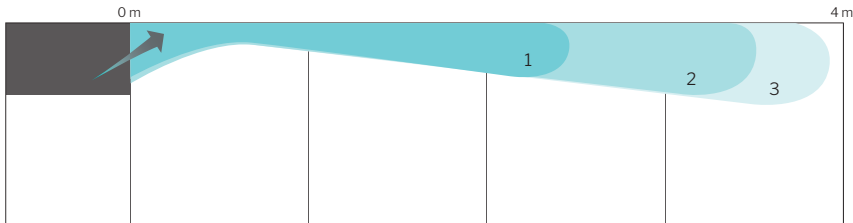
Large inlet difusor areal:

A and B are open with X° blade angle.

Default delivery state:

Small inlet difusor areal, 45° blade angle.

Throw, side view



The ventilation unit diffuses the supply air to varying degrees depending on the slat settings.

This is shown in the illustrations, which indicate the diffusion pattern and throw at the different slat settings.

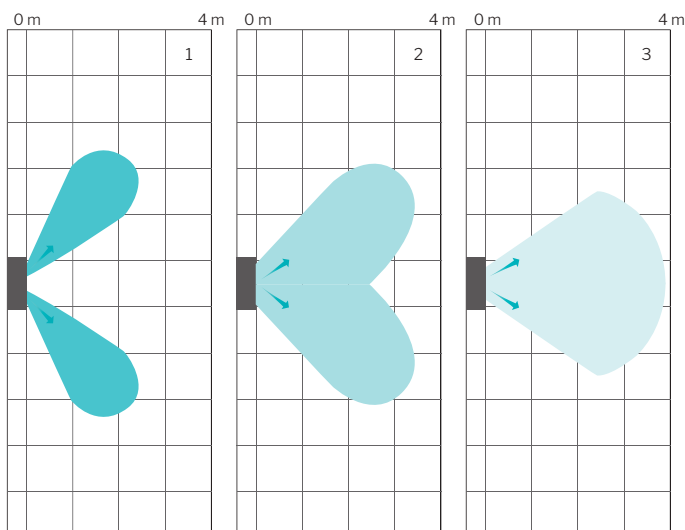
The airflow also influences the throw.

Throw length at 0.2 m/s. The supply pattern is shown in different settings at 147 m³/h.

1. Throw with 60° blade angle.
2. Throw with 45° blade angle.
(Small inlet diffuser)
3. Throw with 30° blade angle.

Regarding adjustment of blade angle, see operator's manual.

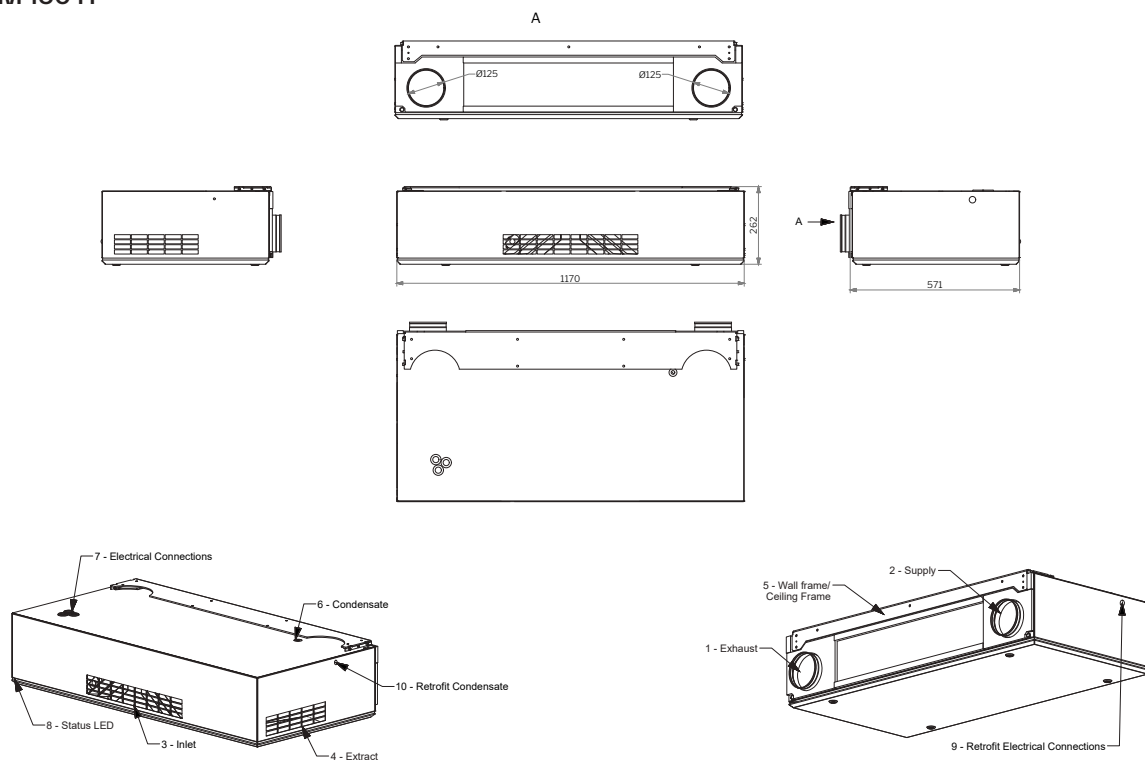
Throw, top view



¹ The throw is measured with 2°C subcooled inlet.

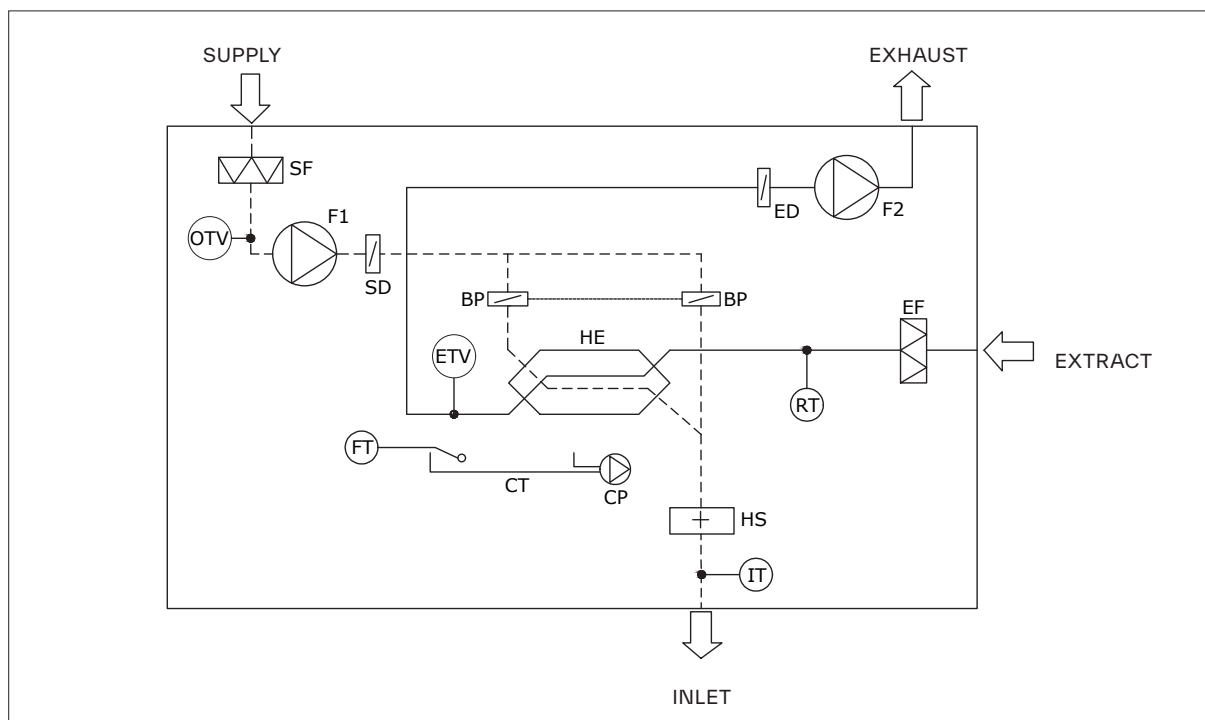
AM 150

AM 150 H



Example of dimension drawing. To see the latest dimension drawings and download 3D BIM objects in Autodesk Revit format please go to our website: www.airmaster-as.com

Schematic sketch



Name of component

BP Bypass damper (motor-driven)

CP Condensate pump

CT Condensate tray

ED Exhaust air damper (motor-driven)

EF Extract air filter

ETV Exhaust temperature sensor, ventilation

FT Float

F1 Supply air fan

F2 Extract air fan

HE Counterflow heat exchanger

HS Electric heating surface

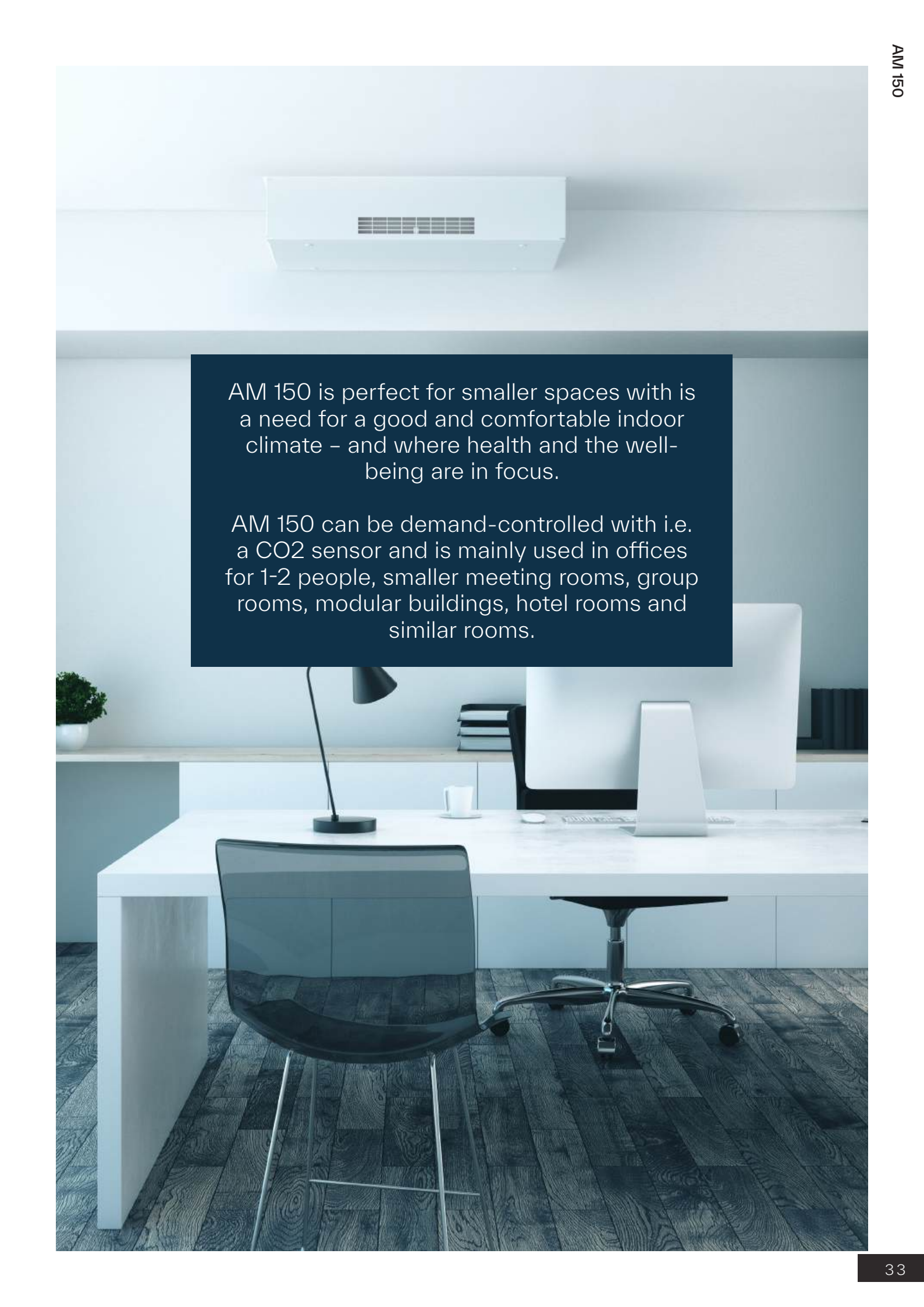
IT Temperature sensor, Inlet-air

OTV Supply air temperature sensor, ventilation

RT Temperature sensor, Room

SD Supply air damper (motor-driven)

SF Supply air filter



AM 150 is perfect for smaller spaces with is a need for a good and comfortable indoor climate – and where health and the well-being are in focus.

AM 150 can be demand-controlled with i.e. a CO2 sensor and is mainly used in offices for 1-2 people, smaller meeting rooms, group rooms, modular buildings, hotel rooms and similar rooms.



Is there a need to lower the temperature on a hot summer day?

The control system in our AM 150 already provides the opportunity for cooling. Partially by utilizing the outdoor temperature and partially with the help of the bypass function. However, if there is a need for additional cooling, it is possible to install a cooling module on the AM 150. The cooling module, CC 150, can reduce the temperature of the outdoor air with up to 15°C – and is therefore perfect for the hot days in the office.

AM 150 + CC 150 cooling module

Technical data	Filter class	30 dB(A)	35 dB(A)	Boost
Maximum capacity ¹	ePM ₁₀ 50%	115 m³/h	147 m³/h	216 m³/h
	ePM ₁ 55%	90 m³/h	1 26 m³/h	197 m³/h
	ePM ₁ 80%	85 m³/h	115 m³/h	180 m³/h
Throw (0.2 m/s) ²	ePM ₁₀ 50%	2.6 m	3.4 m	4.6 m
	ePM ₁ 55%	2.1 m	2.8 m	4.2 m
	ePM ₁ 80%	1.9 m	2.6 m	3.8 m
Supply air filter		ePM ₁₀ 50%, ePM ₁ 55% eller ePM1 80%		
Extract air filter		ePM ₁₀ 50%		
Dimensions (WxHxD)		1170 x 261 x 862 mm		
Weight, standard unit, complete (AM 150 + CC 150)		82 kg (53 kg + 29 kg)		
Weight, casing (AM 150 + CC 150)		60 kg (40 kg + 20 Kg)		
Weight, service cover (AM 150 + CC 150)		22 kg (13 kg + 9 kg)		
Colour, casing		RAL 9010 (hvid)		
Counterflow heat exchanger		PET (Polyethylene terephthalate))		
Energy class, cf. EU regulation no. 1254/2014		SEC-Class A		
Air leakage classification cf. EN1886/EN13141-7		Class L1 / Class A1		
Air leakage classification, main damper, cf. EN1751		Class 3		
IP code 10		10		
Duct connection		Ø125 mm		
Condensate pump (capacity/lifting height at 5 l/h)		10 l/h / 6 m		
Condensate drain hose int./ext. diameter		Ø4 mm / Ø6 mm		
Supply voltage		230 V + N + PE / 50 Hz		
Maximum ; nominal power consumption at 30 dB(A) / 35 dB(A) / Boost ¹		185 W ; 28 W/ 48 W / 92 W		
Maximum ; nominal current at 30 dB(A) / 35 dB(A) / Boos ¹		1.35 A ; 0,25 A / 0,38 A / 0,69 A		
Power factor		0.59		
Maximum fuse		13 A (1 phase, type B). When using the cc module, it is type C		
Leakage current AC (AM; CC) / DC		≤ 0.52 mA ; ≤ 1.5 mA / ≤ 0.0007 mA		
Recommended residual current circuit breaker (RCCB)		Type B		
Electrical heating surfaces				
Heat output 3		500 W	1000 W ³	
Nominal current		2.17 A	4.35 A	
Thermal circut breaker, manual reset		75 °C	75 °C	
Cooling module CC 150				
Energy class, cf. EU regulation no. 226/2011 SEC		SEC-Class A+++		
Nominal ; min. cooling duty ⁴		700W ; 146 W		
Nominal EER		4,0		
Max. ; nominal power consumption		249 W ; 162 W		
Max. ; nominal current		1.84 A ; 1.1 A		
Minimum airflow for activating the cooling module		50 m³/h		
Refrigerant ; filling ; GWP		R134a ; 150g ; 1430		

¹ All measurements were performed in normal operating mode in a standard installation for the filter class, supply/extract air: ePM10 50% / ePM10 50%, using the facade grills recommended by Airmaster, in a test room dimensioned 8.0 m x 10.0 m x 2.5 m with room attenuation of 7.5 dB. For small spaces, e.g. 4.0 m x 4.0 m x 2.5 m, 2 dB sound pressure must be added.

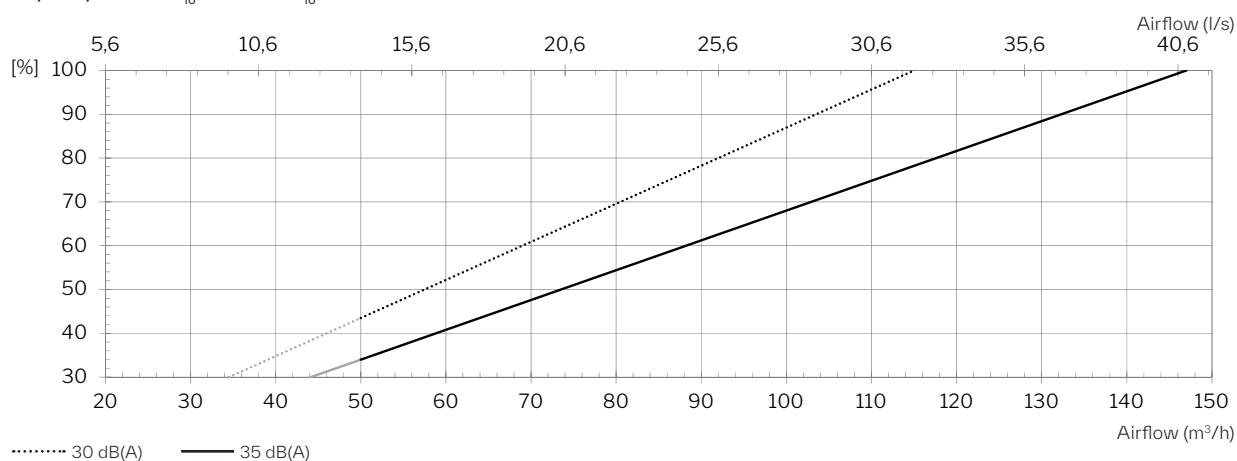
² The throw is measured with a 2 °C subcooled supply air at the standard setting of the inlet diffuser.

³ Special item

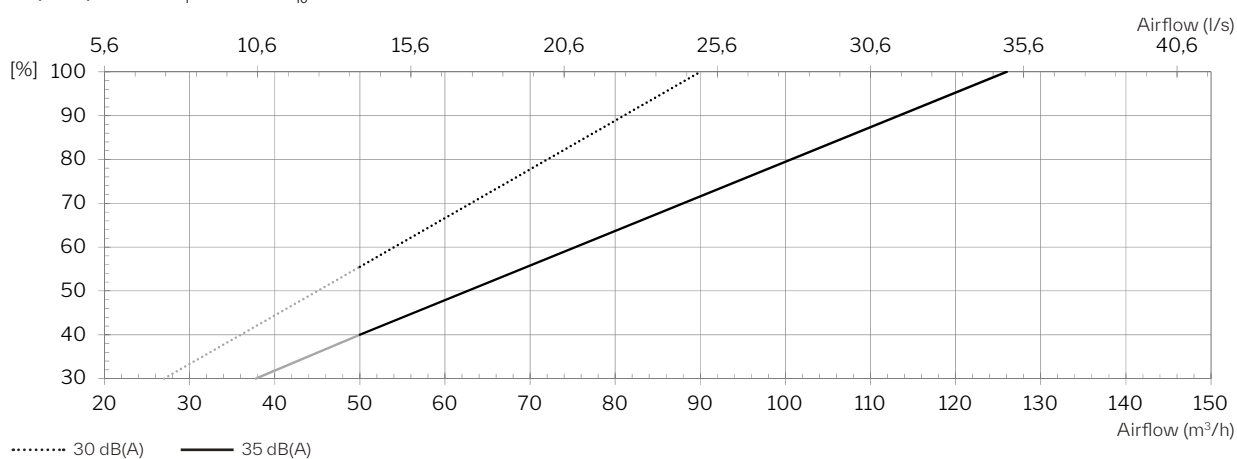
⁴ Cf. EN 308, EN 14511 and EN 14825: at 147 m³/h ; 50 m³/h

CC 150

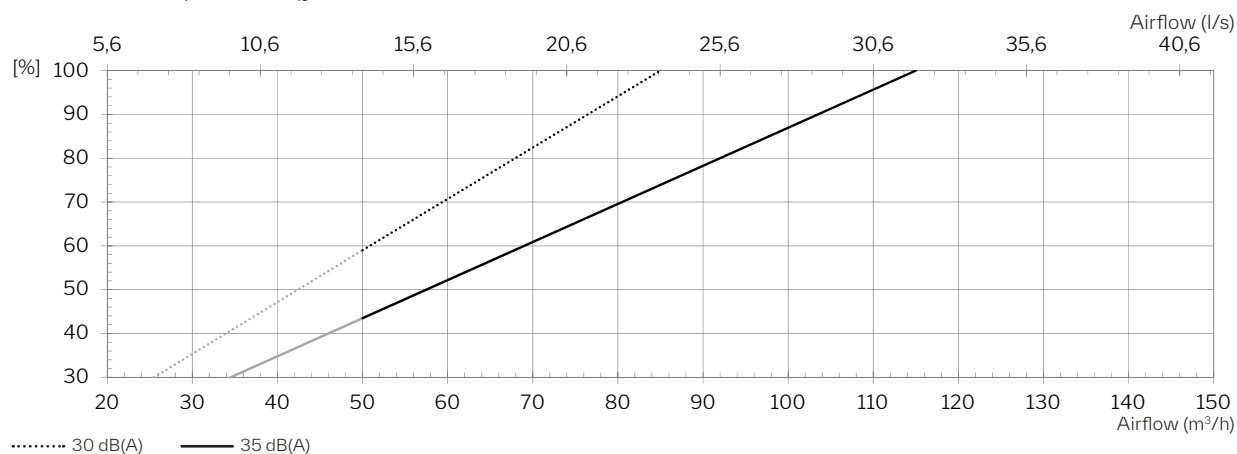
Capacity¹ med PM₁₀ 50% / ePM₁₀ 50% filters



Capacity¹ med PM₁ 55% / ePM₁₀ 50% filters



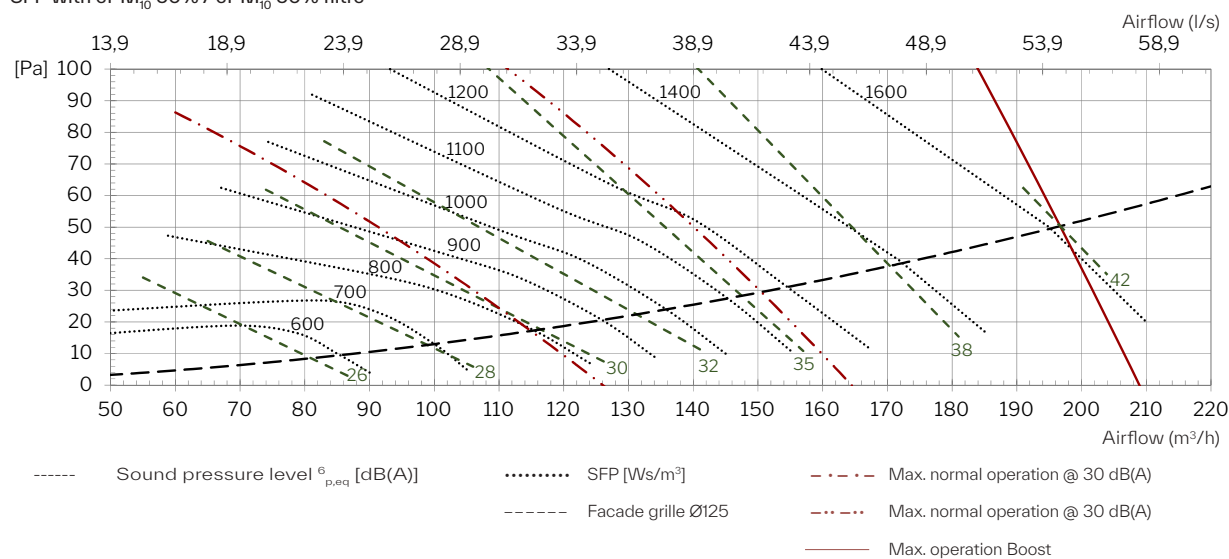
Capacity¹ med PM₁ 80% / ePM₁₀ 50% filters



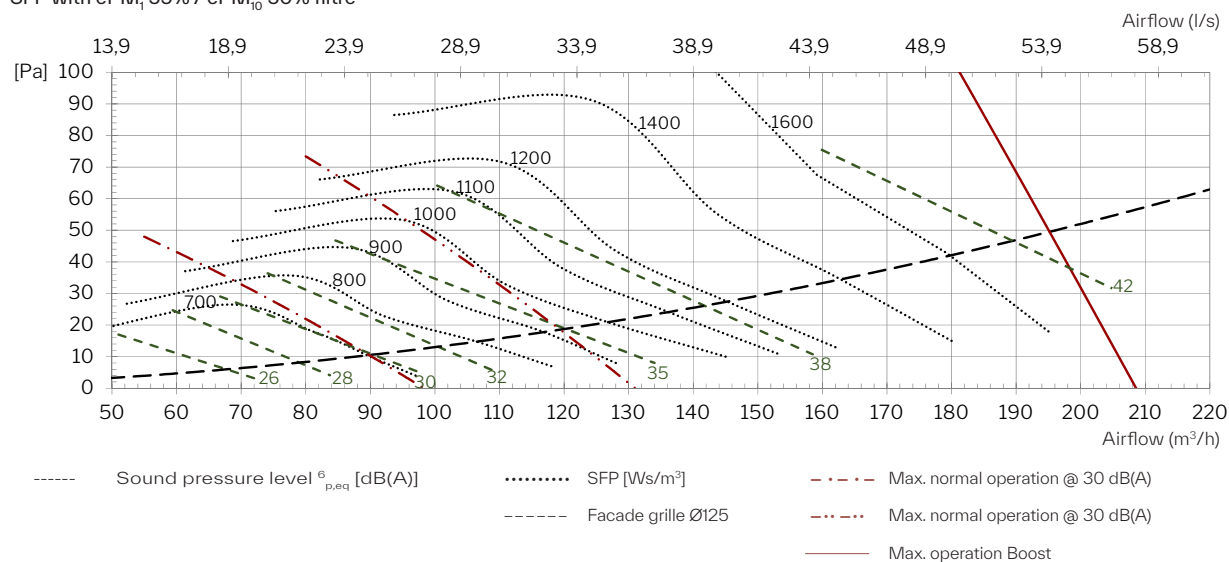
¹ Minimum airflow for activating the cooling module : 50 m³/h

CC 150

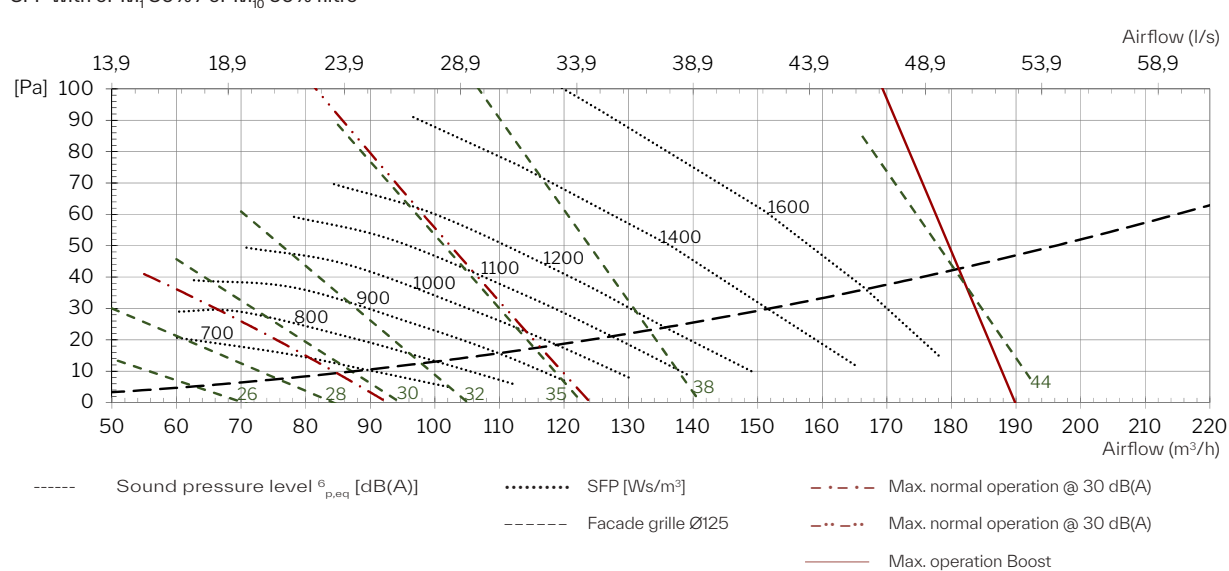
SFP with ePM₁₀ 50% / ePM₁₀ 50% filtre



SFP with ePM₁ 55% / ePM₁₀ 50% filtre



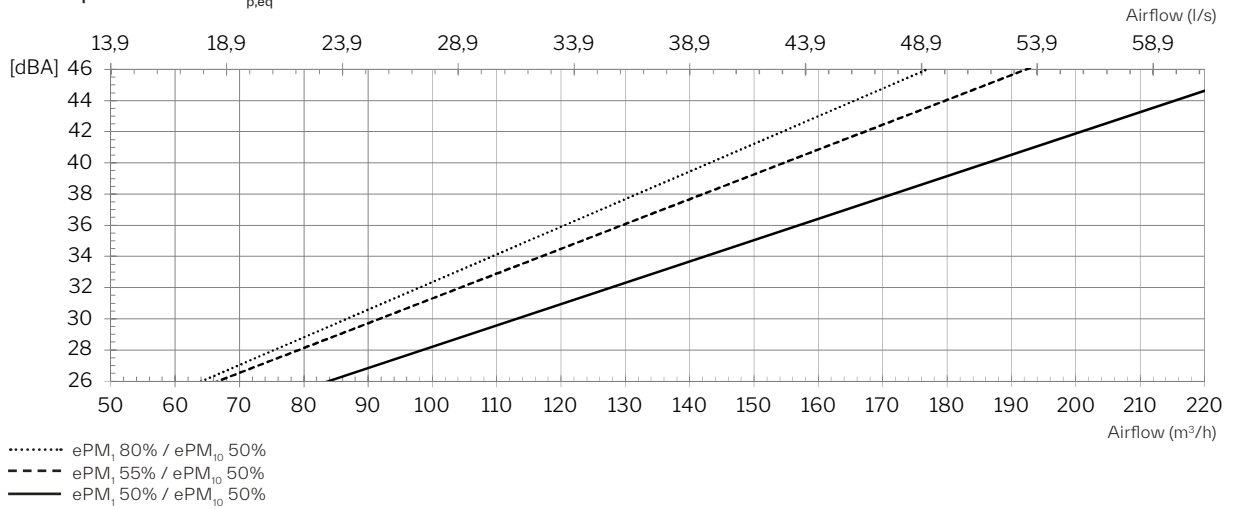
SFP with ePM₁ 80% / ePM₁₀ 50% filtre



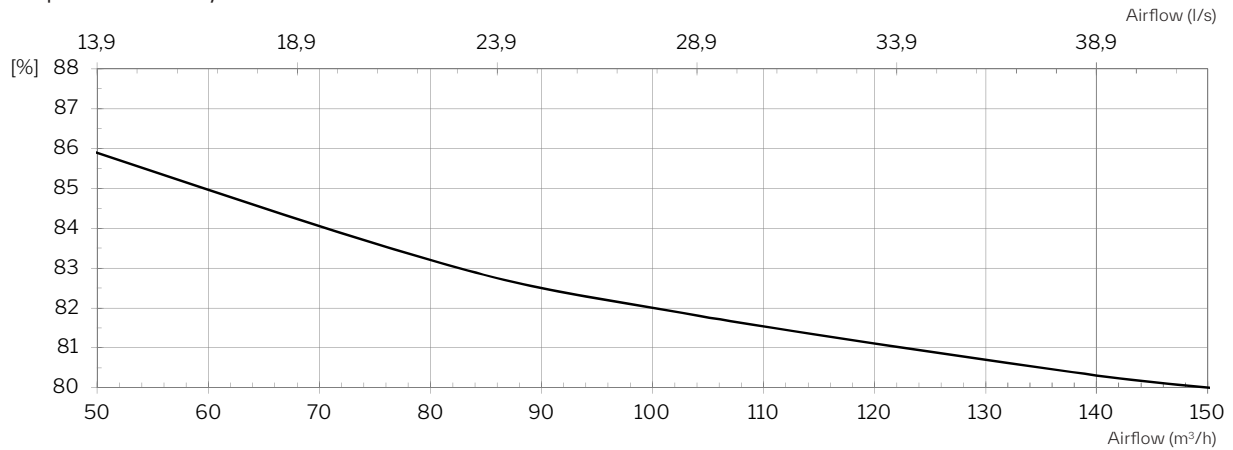
⁶ The sound pressure level $L_{p,eq}$ is measured at a height of 1.2 m at a horizontal distance of 1 m from the air handling unit.

CC 150

Sound pressure level¹ $L_{p,eq}$ acc. to Airmaster reference situation

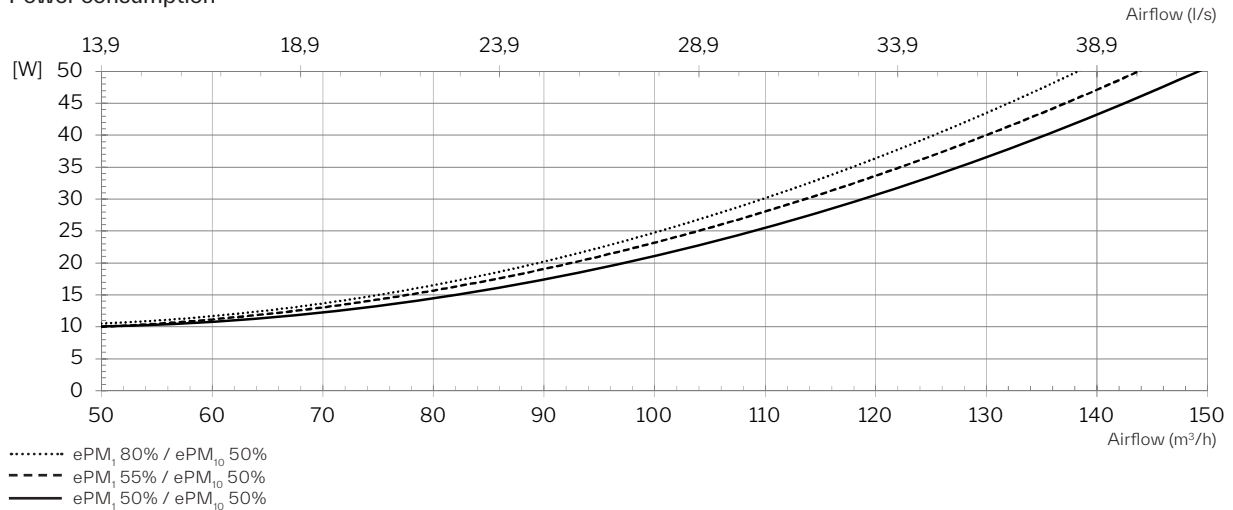


Temperature efficiency acc. to EN 308



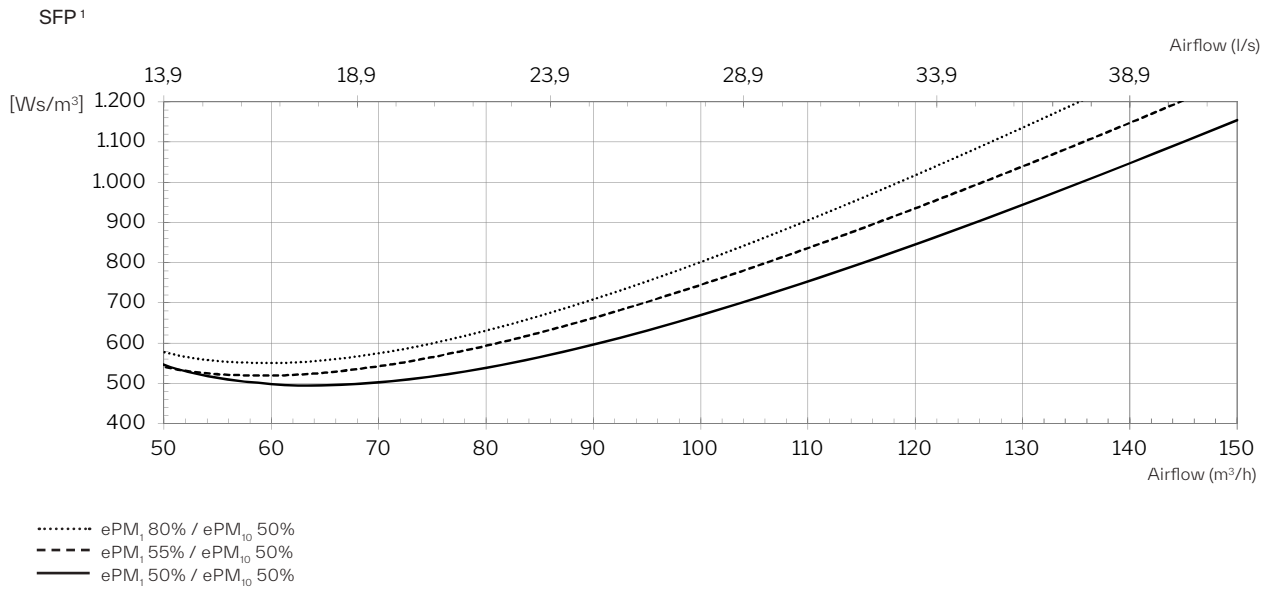
EN308 conditions: Balanced operation; room air: 25°C, 28 % RH; outdoor air: 5°C.

Power consumption



¹ The sound pressure level $L_{p,eq}$ is measurements are conducted 1.2 m at a horizontal distance of 1 m from the air handling unit.

CC 150



¹ The calculation of SFP includes the power consumption for operating fans but not for controls, display panel, etc.

Version overview

AM 150 with CC 150 Comfort Cooling Module (CC)

Exhaust/supply position

» Back (Horizontal)

Placering indblæsning og udsugning

» Bottom (B)

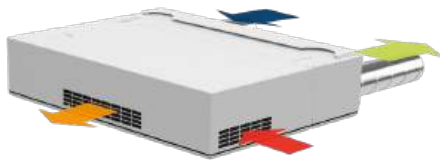
» Ducted Inlet (DI)

» Ducted Extract (DE)

Mounting

» Wall/ceiling bracket

H BB - CC



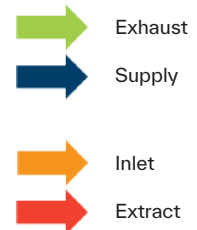
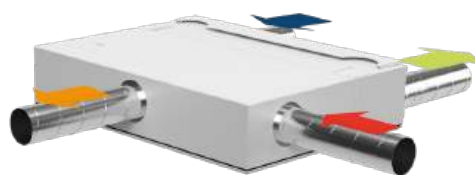
H BDE - CC



H DIB - CC¹



H DIDE - CC¹



H BB - CC: Horizontal exhaust / supply
Standard inlet / extract

H BDE - CC: Horizontal exhaust / supply
Standard inlet / ducted extract

H DIB - CC¹: Horizontal exhaust / supply
Ducted inlet / extract

H DIDE - CC¹: Horizontal exhaust / supply
Ducted inlet / standard extract

Standards and options

Counterflow heat exchanger (PET)	x
Enthalpy counterflow heat exchanger (polymer membrane)	o
Combination counterflow heat exchanger (polymer membrane)	o
Motor-driven bypass	x
Motor-driven supply air damper	x
Motor-driven extract air damper	x
Electric heating surface/VPH ²	•
Condensate pump	•
PIR/motion sensor (wall mounted)	•
PIR/motion sensor (integrated)	•
CO ₂ sensor (wall mounted)	•
CO ₂ sensor (integrated)	•
TVOC (integrated)	•
CO ₂ -/TVOC sensor (integrated)	•
Hygrostat	o
Energy meter	•
Supply air filter ePM10 50%	•

x : Standard • : Optional o : Special item

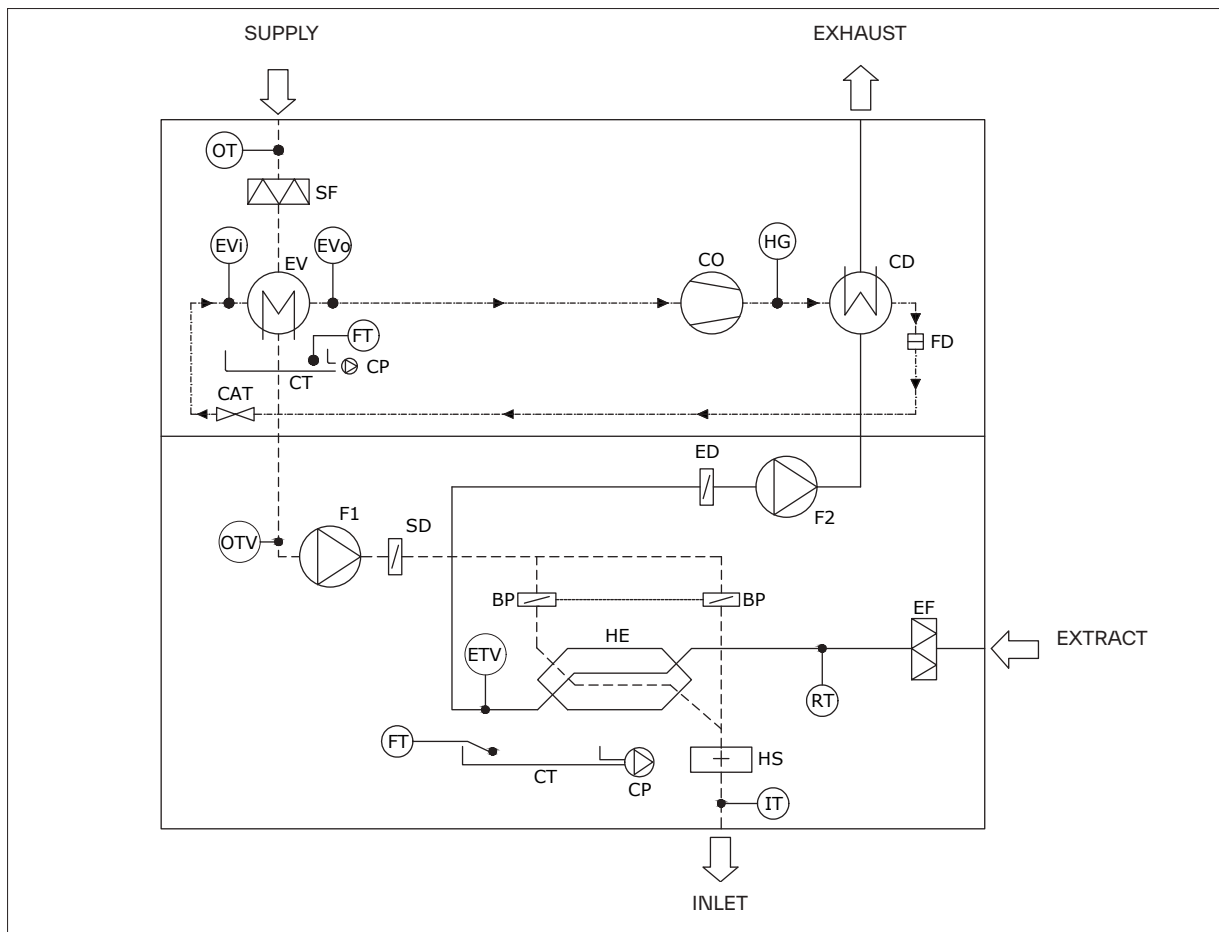
¹ Special item

² Virtual PreHeat)

Supply air filter ePM ¹ 55%	•
Supply air filter ePM ¹ 80%	o
Extract air filter ePM ¹⁰ 50%	x
LED (operating mode indicator)	x
Comfort cooling module	•
Wall/ceiling bracket	•
Ceiling frame	•
Operating button	•
Control panel, Viva	•
Control panel, Orbit	•
Airmaster Airlinq® Online	•
Airlinq® Online API	•
Airlinq® BMS	•
LON® modul	o
KNX® modul	o
MODBUS® RTU RS485 modul	•
BACnet™ MS/TP modul	•
BACnet™ /IP modul	•

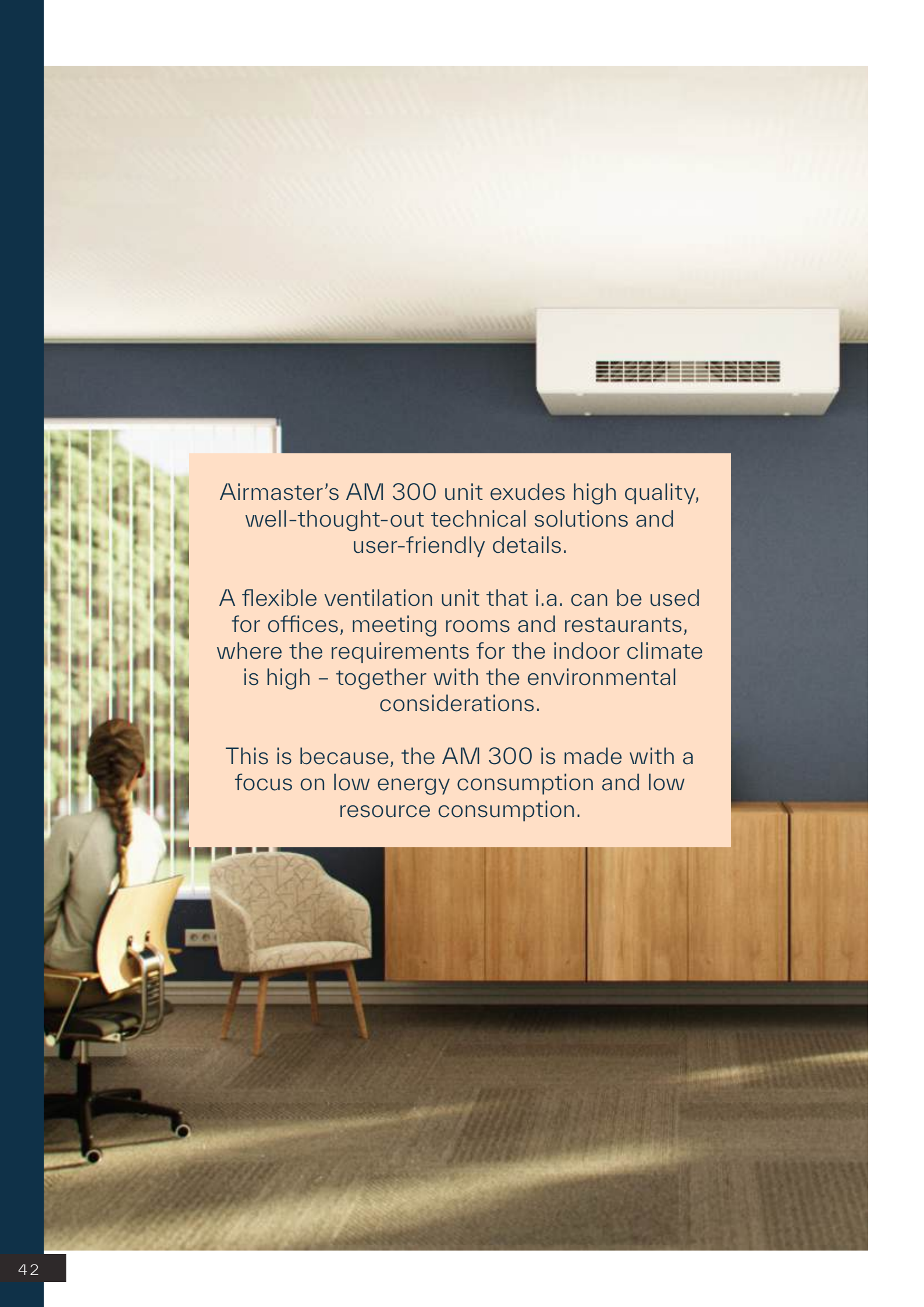
CC 150

Schematic sketch



Component designation

BP	Bypass damper (motor-driven)	EV	Evaporator	HS	Electric heating surface
CAT	Capillary Tube	EVi	Temperature sensor, Evaporator in	IT	Temperature sensor, Inlet-air
CD	Condenser	EVo	Temperature sensor, Evaporator out	OT	Temperature sensor, Supply air
CO	Compressor, inverter Controlled	FD	Filter Dryer	OTV	Temperature sensor, Supply air ventilation
ED	Exhaust air damper (motor-driven)	F2	Extract air fan	S	Supply air filter
EF	Extract air filter	HE	Counterflow heat exchanger		
ETV	Temperature sensor, Exhaust, Ventilation	HG	Temperature sensor, Hot Gas		



Airmaster's AM 300 unit exudes high quality, well-thought-out technical solutions and user-friendly details.

A flexible ventilation unit that i.a. can be used for offices, meeting rooms and restaurants, where the requirements for the indoor climate is high – together with the environmental considerations.

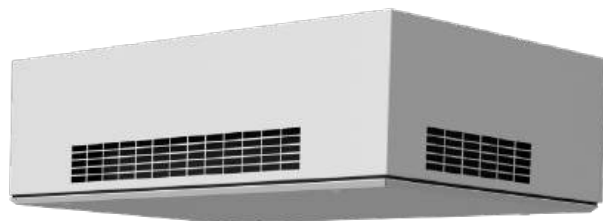
This is because, the AM 300 is made with a focus on low energy consumption and low resource consumption.

AM 300

Our AM 300 is a medium-sized ventilation unit which can be used in medium-sized and small rooms. The AM 300 is therefore perfect for i.a. meeting rooms or offices – due to the unit's extreme flexibility, concerning usage and installation – and because it takes the design and layout of the room into consideration.

The unit is quiet and will therefore not be a disturbing element in the room. In addition to this, the AM 300 has a low energy consumption. This means that it is designed to take the environment into account, which is further supported by the unit being recyclable.

We can, without exaggeration, say that the product takes decentralized ventilation into the next phase of the term – decentralized ventilation for comfort use



Technical data	FilterClass	30 dB(A)	35 dB(A)	Boost
Maximum capacity ¹	ePM ₁₀ 50%	210 m³/h	275 m³/h	315 m³/h
	ePM ₁ 55%	205 m³/h	270 m³/h	315 m³/h
	ePM ₁ 80%	180 m³/h	240 m³/h	305 m³/h
Throw length (0.2 m/s) ²	ePM ₁₀ 50%	4.25 m	6 m	7 m
	ePM ₁ 55%	4.25 m	6 m	7 m
	ePM ₁ 80%	3.5 m	5 m	6.75 m
Supply air filter	ePM ₁₀ 50%, ePM ₁ 55% or ePM ₁ 80%			
Extract air filter	ePM ₁₀ 50%			
Dimensions (WxHxD)	1180 x 344 x 705 mm			
Weight, standard air handling unit, complete	85 kg			
Weight, casing	70 kg			
Weight, service cover	15 kg			
Colour, casing	RAL 9010 (white)			
Counterflow heat exchanger	Aluminium			
Air leakage classification cf. EN1886/EN13141-7	Class L2 / A1			
Air leakage classification, main damper, cf. EN1751	Class 3			
IP code	10			
Duct connection	Ø160 mm			
Condensate pump (capacity/lifting height at 5 l/h)	10 l/h / 6 m			
Condensate drain hose int./ext. diameter.	Ø4 mm / Ø6 mm			
Supply voltage	230 V + N + PE / 50 Hz			
Maximum ; nominal power consumption at 30dB(A) / 35 dB(A) / BOOST ¹	175 W / 55 W / 102 W / 123 W			
Maximum ; nominal current at 30dB(A) / 35 dB(A) / BOOST ¹	1.45 A / 0.45 A / 0.84 A / 1.01 A			
Power factor	0.53			
Maximum fuse	13 A (1 phase, type B)			
Leakage current AC/DC	≤ 0.7 mA / ≤ 0.005 mA			
Recommended residual current circuit breaker (RCCB)	Type B			
Air leakage classification, main damper	Class 3 cf. EN1751			

¹ All measurements were performed in normal operating mode in a standard installation for the filter class, supply/extract air: ePM₁₀ 50% / ePM₁₀ 50%, using the facade grills recommended by Airmaster: Airmaster Boomerain® Ø160, in a test room dimensioned 8.0 m x 10.0 m x 2.5 m with room attenuation of 7.5 dB.

² The throw is measured with a 2°C subcooled supply air at the standard setting of the inlet diffuser. The setting is adaptable.

Electrical heating surfaces	Preheating surface	Comfort heating surface
Heat output	1000 W	500 W
Nominal current	4.35 A	2.17 A
Thermal circuit breaker, manual reset	100°C	100°C

Water heating surface	
Nominal heat output ³	1593 W
Connection dimension	1/2" (DN 15)
Materials pipes/fins	copper/aluminium
Open/close time, motor valve	60 s
Maximum operating temperature	90°C
Maximum operating pressure	5 bar

³Heat output for maximum capacity at 35 dB(A), delivery/return temperature 60/40°C and a liquid flow of 87 l/h.

Standard and options

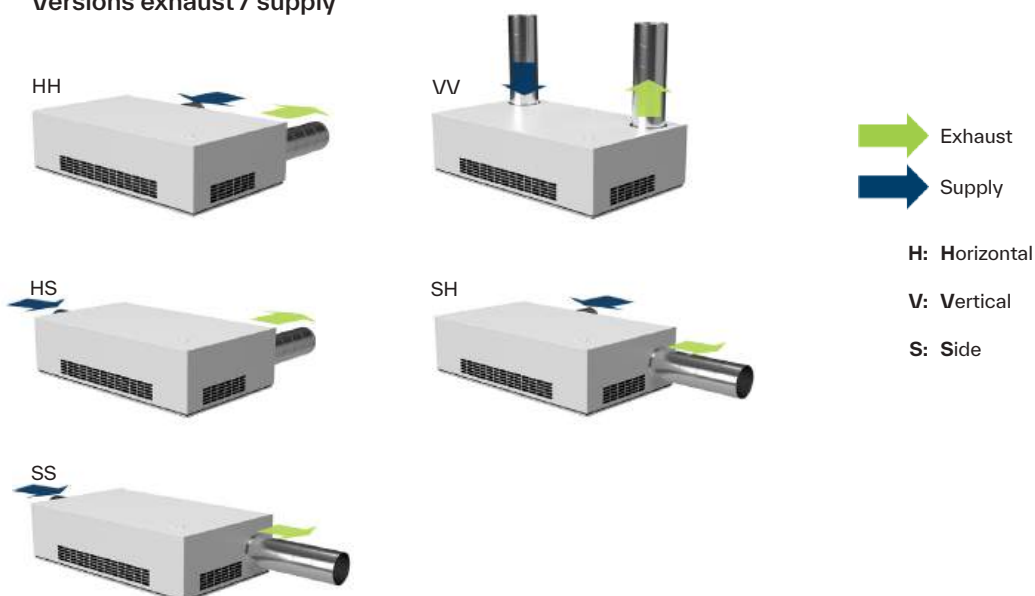
Counterflow heat exchanger (aluminium)	X
Enthalpy counterflow heat exchanger (polymer membrane)	O
Combination counterflow heat exchanger (polymer membrane)	O
Motor driven bypass	X
Motor driven exhaust air damper	X
Motor driven extract air damper	X
Electric preheating surface	●
Electric comfort heating surface	●
Water heating surface	●
Condensate pump	●
Service power switch	●
Electronic humidity sensor (built-in)	●
PIR/motion sensor (wall-mounted)	●
PIR/motion sensor (integrated)	●
CO ₂ -sensor (wall-mounted)	●
CO ₂ -sensor (integrated)	●
TVOC-sensor (integrated)	●
CO ₂ -/TVOC-sensor (integrated)	●
Hygrostat	O

Energy meter	●
Supply air filter ePM ₁₀ 50%	●
Supply air filter ePM ₁ 55%	●
Supply air filter ePM ₁ 80%	O
Extract air filter ePM ₁₀ 50%	X
LED (operating mode indicator)	X
Wall/ceiling frame	●
Ceiling frame	●
Operating button	●
Control panel, Viva	●
Control panel, Orbit	●
Airmaster Airlinq® Online	●
Airlinq® Online API	●
Airlinq® BMS	●
LON® Module	O
KNX® Module	O
MODBUS® RTU RS485 Module	●
BACnet™ MS/TP Module	●
BACnet™ /IP Module	●

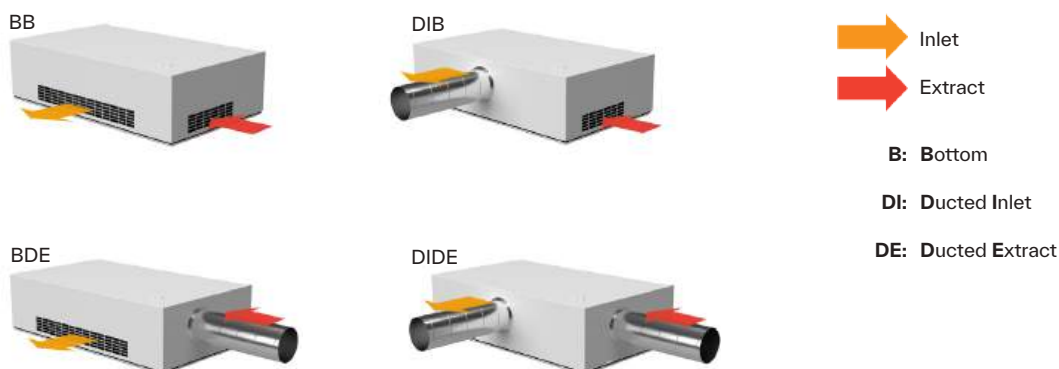
x : Standard ● : Optional o : Special item

AM 300 versions

Versions exhaust / supply

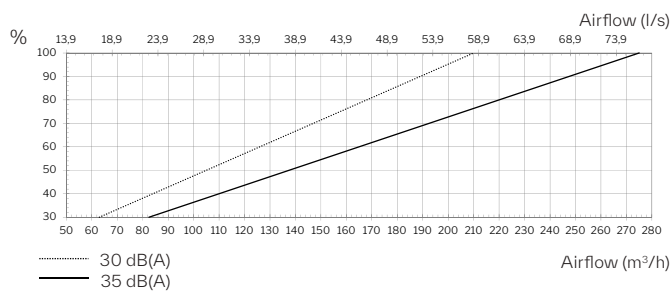


Versions inlet / extract

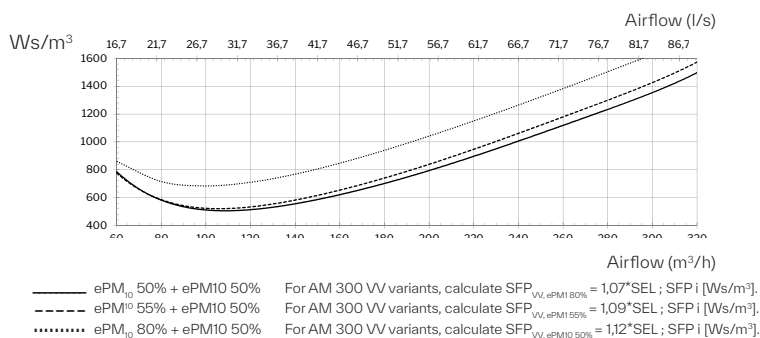


AM 300

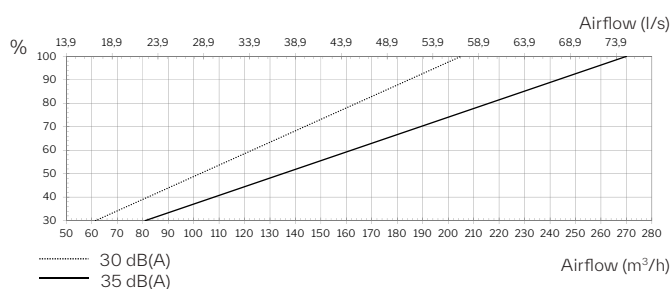
Capacity with ePM₁₀ 50% + ePM₁₀ 50% filter ¹



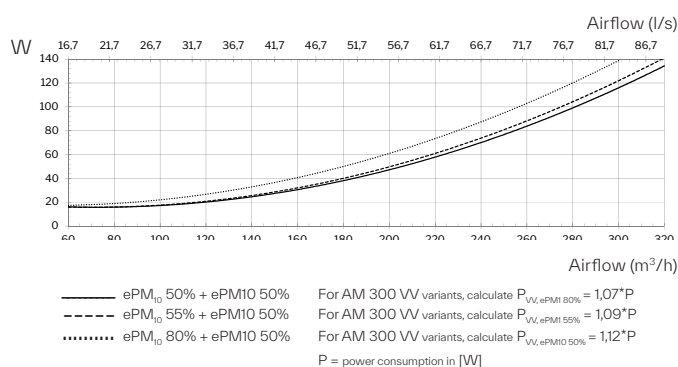
SFP ^{2,3}



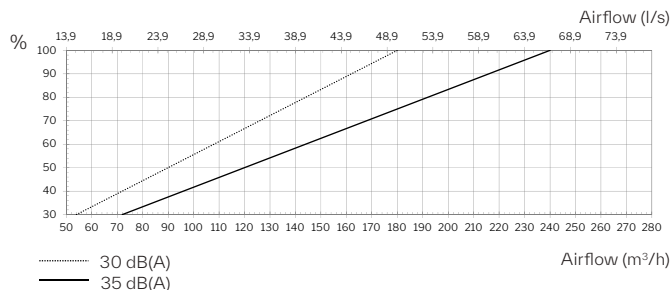
Capacity with ePM₁ 55% + ePM₁₀ 50% filter ¹



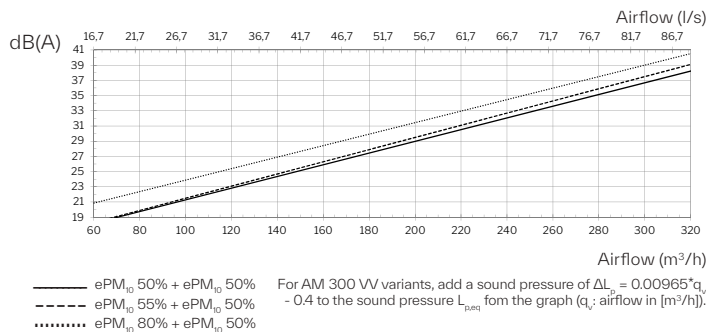
Power consumption ²



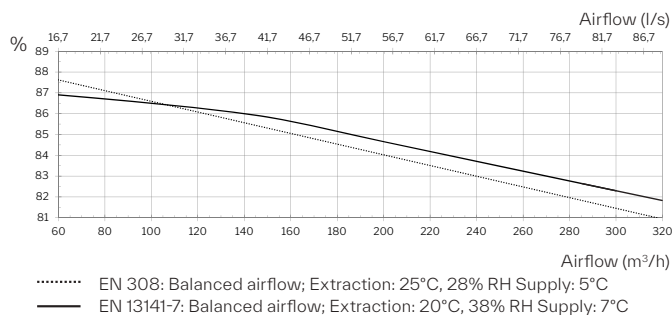
Capacity with ePM₁ 80% + ePM₁₀ 50% filter ¹



Sound pressure ^{2,4}



Temperature efficiency, acc. to EN 380 and EN 13141-7



¹ AM 300 HH, SS and variants of this, including DI and DE variants. Calculate airflow for AM 300 VV variants as follow:

$q_{VV, @30dB(A)} = 0,928 \cdot q_v$ eller $q_{VV, @35dB(A)} = 0,928 \cdot q_v$; q_v = airflow from graph in [m³/h].

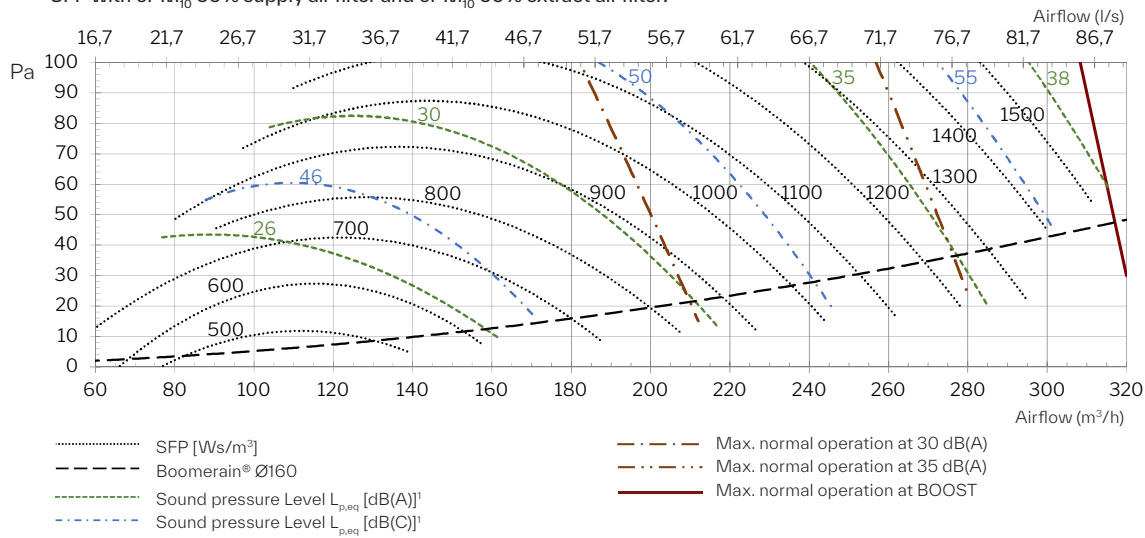
² AM 300 HH, SS and variants of this, including DI and DE variants.

³ The calculation of SFP includes the power consumption for operating fans but not for controls, display panel, etc.

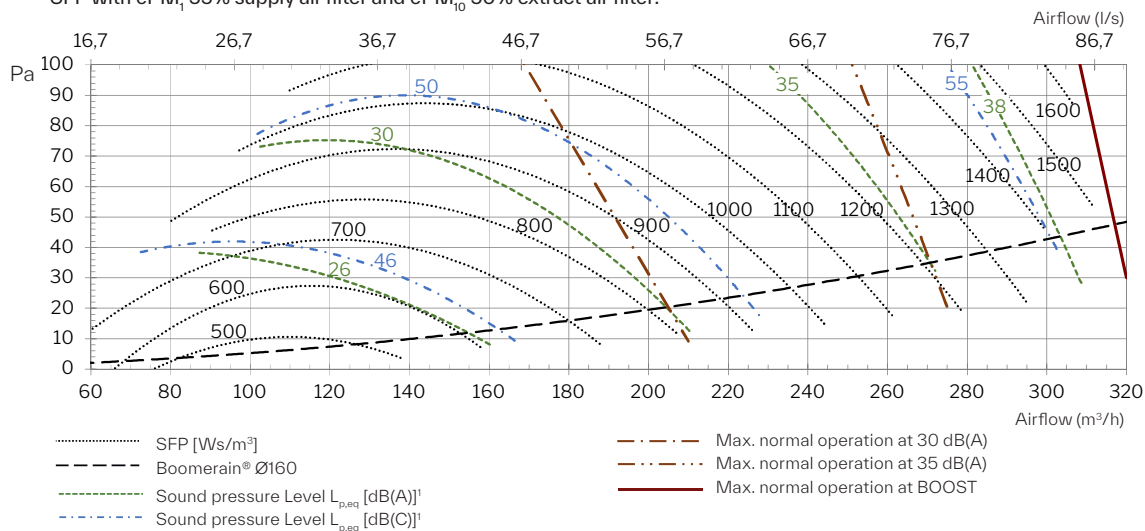
⁴ Sound pressure level L_{p,eq} is measured in a height of 1.2 m with a horizontal distance of 1 m from the air handling unit.

AM 300

SFP with ePM₁₀ 50% supply air filter and ePM₁₀ 50% extract air filter:



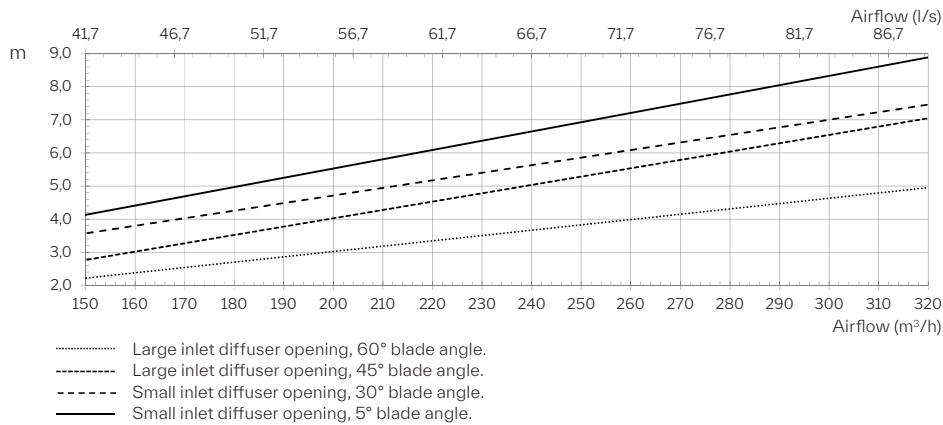
SFP with ePM₁ 55% supply air filter and ePM₁₀ 50% extract air filter:



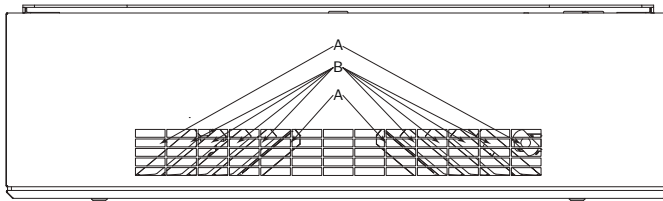
¹ Sound pressure level $L_{p,eq}$ is measured at 1.2 m height with 1 m horizontal distance from the air handling unit in a 200 m³ room with a reverberation time of $T = 0.6$ s or equivalent to a room sound attenuation of 7.5 dB. In smaller rooms, e.g. 40 m³, 2 dB of sound pressure must be added

AM 300

Throw, at 0.2 m/s¹



Small and large inlet diffuser opening:

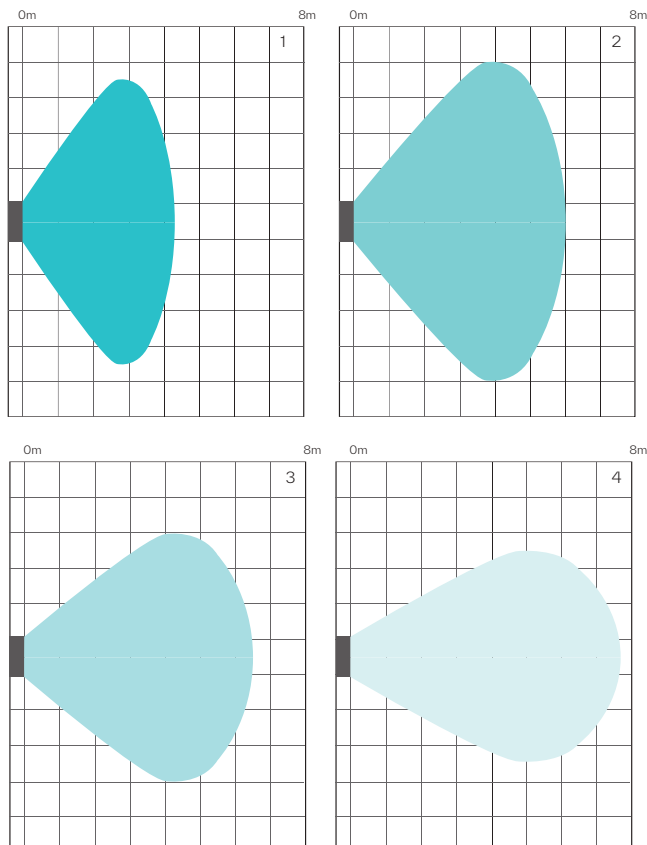


Large inlet diffuser opening:
A is closed, B is open at x°.

Large inlet diffuser opening:
A and B are open at x°.

Default delivery state:
Large inlet diffuser opening, 45° blade angle.

Throw length and dispersion, top view.



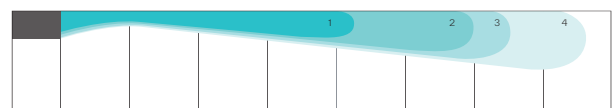
The air handling unit disperses inlet air depending on the blade angle settings.

The illustrations show the dispersion pattern and throw for the various blade angle settings at an air flow of 275 m³/h:

1. Large inlet diffuser opening, 60° blade angle.
2. Large inlet diffuser opening, 45° blade angle.
3. Small inlet diffuser opening, 30° blade angle.
4. Small inlet diffuser opening, 5° blade angle.

Changing the air flow also affects the throw.

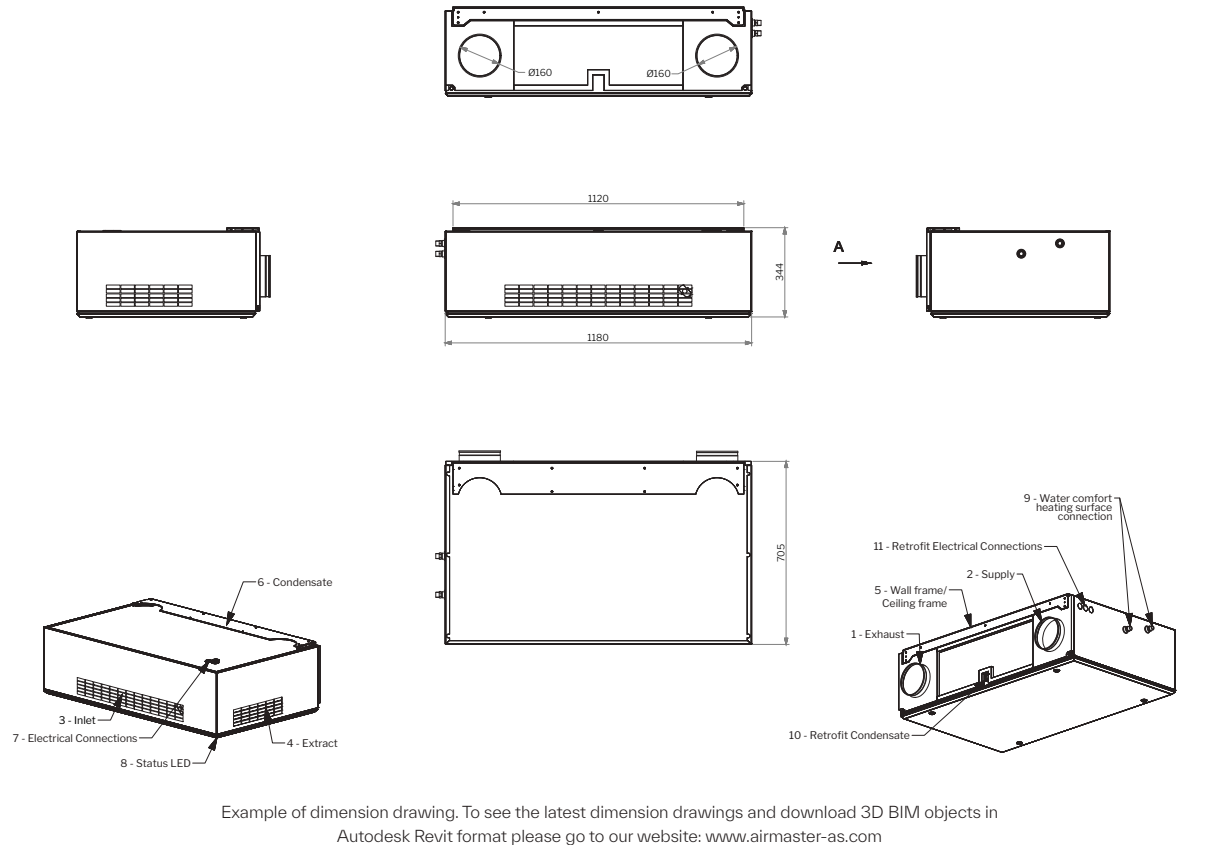
Throw, side view.



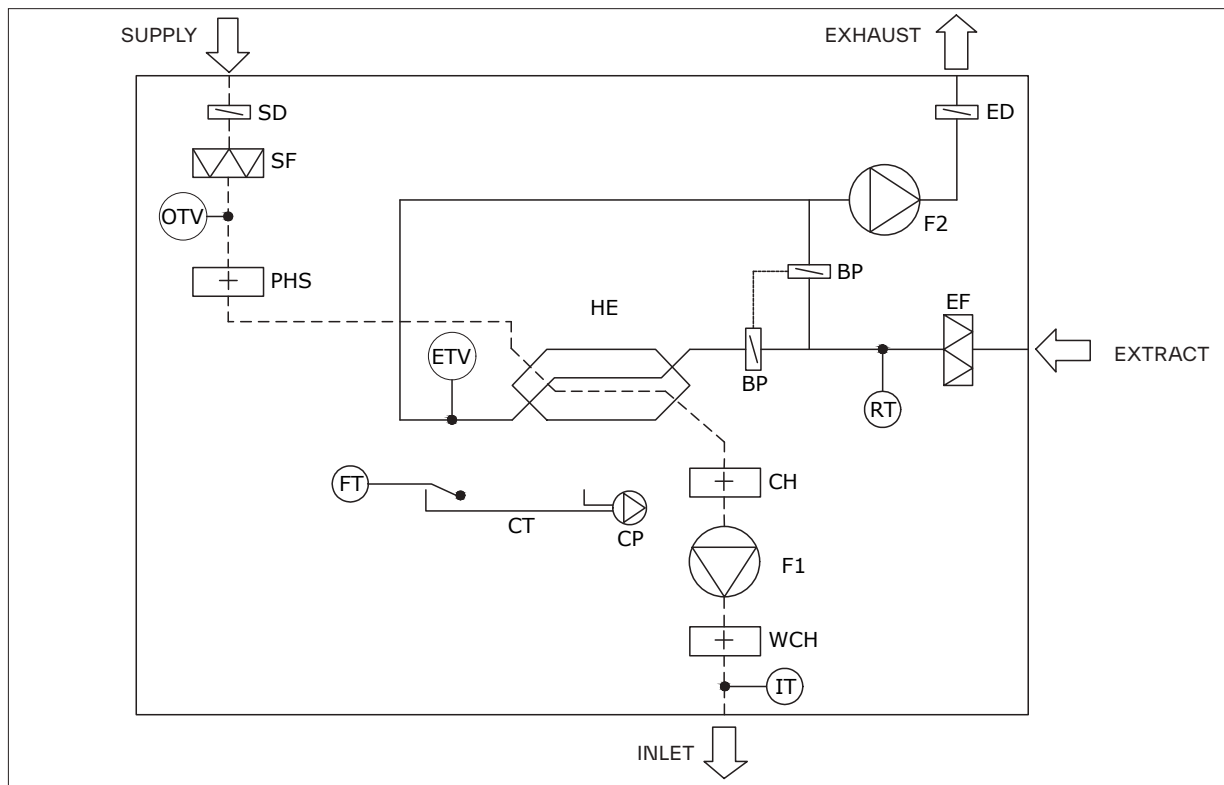
¹ The throw is measured with a 2°C subcooled inlet air supply.

AM 300

AM 300 HHBB



Schematic sketch



Name of component		FT	Float	SD	Supply air damper (motor-driven)
BP	Bypass damper (motor-driven)	F1	Supply air fan	SF	Supply air filter
CH	Electric comfort heating surface	F2	Extract air fan	WCH	Water heating surface
CP	Condensate pump	HE	Counterflow heat exchanger		
CT	Condensate tray	IT	Inlet-air temperature sensor		
ED	Exhaust air damper (motor-driven)	OTV	Supply air temperature sensor, ventilation		
EF	Extract air filter	PHS	Electric preheating surface		
ETV	Exhaust temperature sensor, ventilation	RT	Room temperature sensor		



AM 300 fits perfectly into small meeting rooms meant for multiple people, but where the space can feel cramped. Airmaster's AM 300 ensures that the room is supplied with fresh outdoor air, thereby ensuring a good and healthy indoor climate, which is of great importance for our well-being, concentration and performance abilities.



Fresh air in the classrooms increases the performance level!

An unhealthy indoor climate has a major impact on both learning and concentration levels. With our AM 500, you get a demand-controlled and quiet unit that fits perfectly into medium-sized rooms – i.e. a music room – and which can be adapted to the room's activity and users.



AM 500

The AM 500 is designed for medium-sized rooms. A horizontal or vertical model can be installed, depending on the room and location of the unit. The air handling unit is available with a separate control panel and can also be connected to a network system.

A cooling module can be connected.

Ducts can be connected to extract, to inlet or to both.



Technical data	Filter class	30 dB(A)	33 dB(A)	35 dB(A)
Maximum capacity ¹	ePM ₁₀ 50%	430 m³/h	490 m³/h	550 m³/h
	ePM ₁ 55%	387 m³/h	441 m³/h	495 m³/h
	ePM ₁ 80%	344 m³/h	392 m³/h	440 m³/h
Throw length (0.2 m/s) ¹	ePM ₁₀ 50%	5.9 m	-	7.5 m
	ePM ₁ 55%	5.4 m	-	6.7 m
	ePM ₁ 80%	4.8 m	-	6.0 m
Supply air filter	ePM ₁₀ 50%, ePM ₁ 55% or ePM ₁ 80%			
Extract air filter	ePM ₁₀ 50%			
Dimensions (WxHxD)	1600 x 439 x 779 mm			
Weight, standard air handling unit, complete	108 kg			
Color, Panel / Color, Case	RAL 9010 (white) / RAL 7024 (grey)			
Counterflow heat exchanger	Aluminium			
Air leakage classification cf. EN1886/EN13141-7	Class L2 / A2			
Air leakage classification main damper, cf. EN1751	Class 3			
IP-code	10			
Duct connections	Ø250 mm			
Condensate pump (Capacity ; Lifting height at 5 l/h)	10 l/h ; 6 m			
Condensate drain hose int./ext. diameter	Ø6/9 mm			
Supply voltage	1/N/PE 230 V AC 50 Hz			
Nominal power consumption ²	132 W			
Nominal current ²	1.1 A			
Power factor	0.58			
Maximum fuse	13 A (1 phase, type B). When using the cc module, it is type C			
Leakage current	≤ 6 mA			
Recommended residual current circuit breaker (RCCB)	Type B			

¹ Measurements are conducted at normal operation in a standard installation situation with Airmaster recommended Ø250 grilles

² At filter class, supply air/extract air: ePM₁₀ 50% / ePM₁₀ 50%

Electric heating surface	Preheating-surface	Comfort heating surface
Heat output	1000 W	630 W
Nominal current	4.4 A	2.6 A
Thermal circuit breaker, man. reset	100°C	100°C

Water heating surface

Nominal heat output	858 W ³
Connection dimension	3/8" (DN 10)
Materials pipes/fins	copper/aluminium
Open/close time, motor valve	60 s
Maximum operating temperature	90°C
Maximum operating pressure	5 bar

³ Capacity at: supply/return temperature 60/40°C, water volume 53 l/h

Standard and options

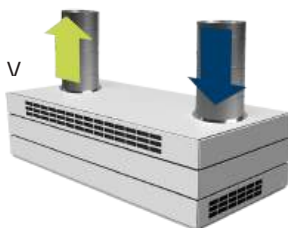
Counterflow heat exchanger (aluminium)	X
Enthalpy counterflow heat exchanger (polymer membrane)	O
Combination counterflow heat exchanger (polymer membrane)	O
Motor driven bypass	X
Motor driven supply air damper	X
Motor driven extract air damper	X
Capacitive return for motorized exhaust and supply air dampers	•
Electric preheating surface	•
Electric comfort heating surface	•
Water heating surface	•
Condensate pump	•
PIR/motion sensor (wall-mounted)	•
PIR/motion sensor (built-in)	•
CO ₂ -sensor (wall-mounted)	•
CO ₂ -sensor (built-in)	•
TVOC-sensor (built-in)	•
CO ₂ -/TVOC-sensor (built-in)	•
Hygostat	O

Energy meter	•
Cooling module CC (only for horizontal model)	•
Supply air filter ePM ₁₀ 50%	•
Supply air filter ePM ₁ 55%	•
Supply air filter ePM ₁ 80%	O
Extract air filter ePM ₁₀ 50%	X
Wall-/ceiling bracket	•
Ceiling frame	•
Boomerain® façade grille Ø250	•
Airlinq® Viva control panel	•
Airlinq® Orbit control panel	•
Airmaster Airlinq® Online	•
Airlinq® Online API	•
Airlinq® BMS	•
LON® Module	O
KNX® Module	O
MODBUS® RTU RS485 Module	•
BACnet™ MS/TP Module	•
BACnet™ /IP Module	•
Mini B USB (on front of unit)	O

x : Standard • : Optional o : Special item

AM 500 versions

Versions exhaust / supply



H: Horizontal

V: Vertical

HRE: Horizontal - Rectangular

HRE



T: Top

C: Center

B: Bottom

DI: Ducted Inlet

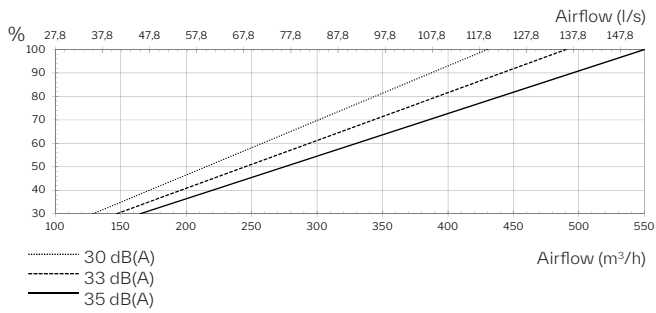
DE: Ducted Extract

Versions inlet / extract

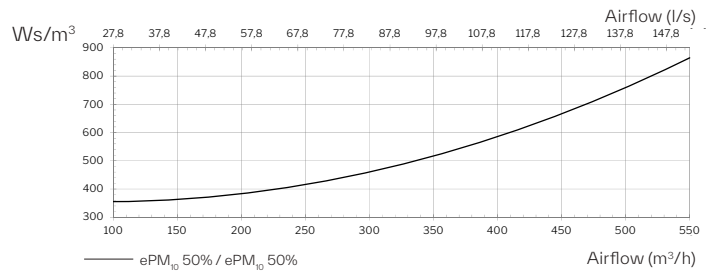


AM 500

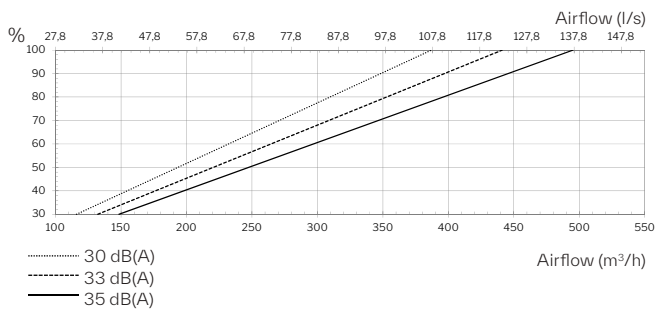
Capacity with ePM₁₀ 50% + ePM₁₀ 50% filter ¹



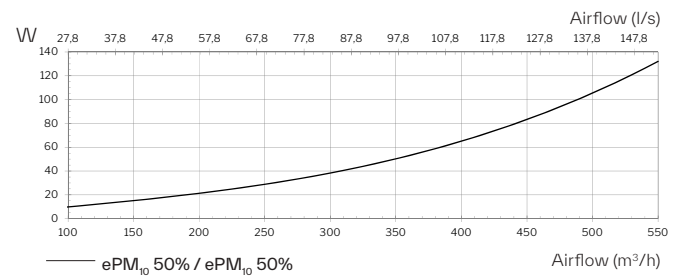
SFP ¹



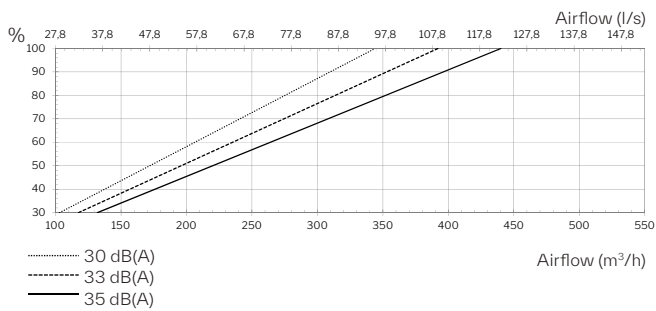
Capacity with ePM₁ 55% + ePM₁₀ 50% filter ¹



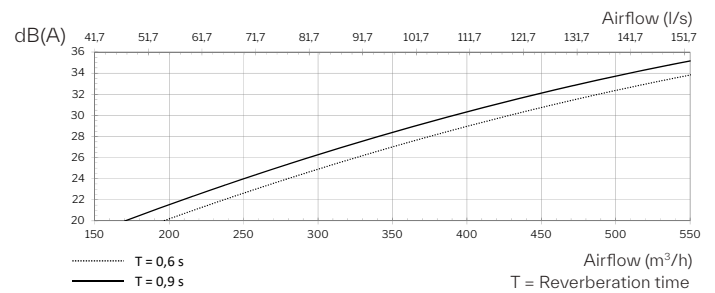
Power consumption ¹



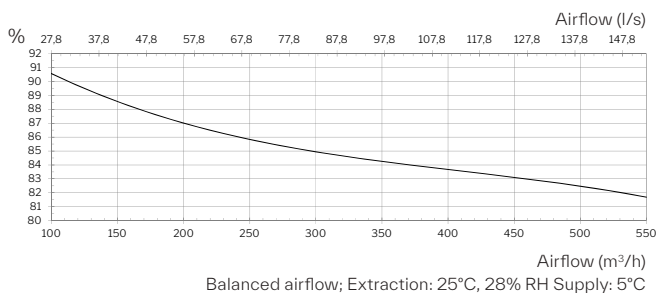
Capacity with ePM₁ 80% + ePM₁₀ 50% filter ¹



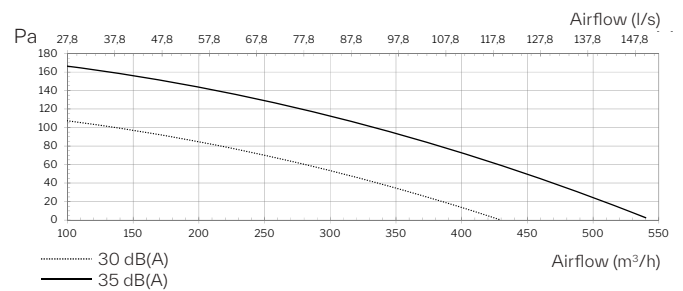
Sound pressure ^{1,2}



Temperature efficiency, acc. to EN 308



External pressure loss



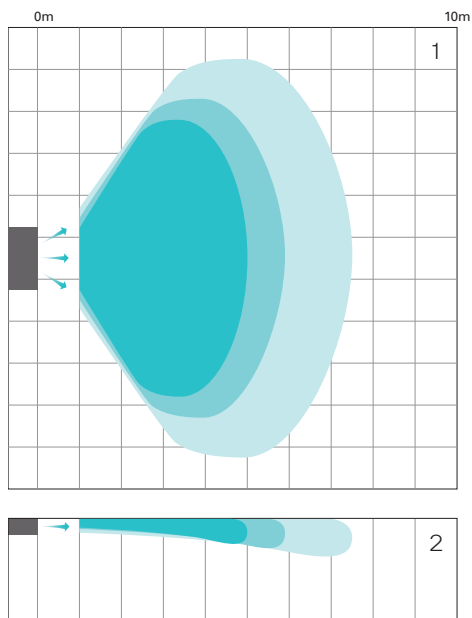
¹ Measurements are conducted at normal operation in a standard installation situation with Airmaster recommended Ø250 grilles

² Sound pressure level L_{p,eq} is measured in a height of 1.2 m with at horizontal distance of 1 m from the air handling unit in a room with a size of 200 m³ and a reverberation time of T = 0.6 s, corresponding to a room attenuation of 7.5 dB.

AM 500

Throw

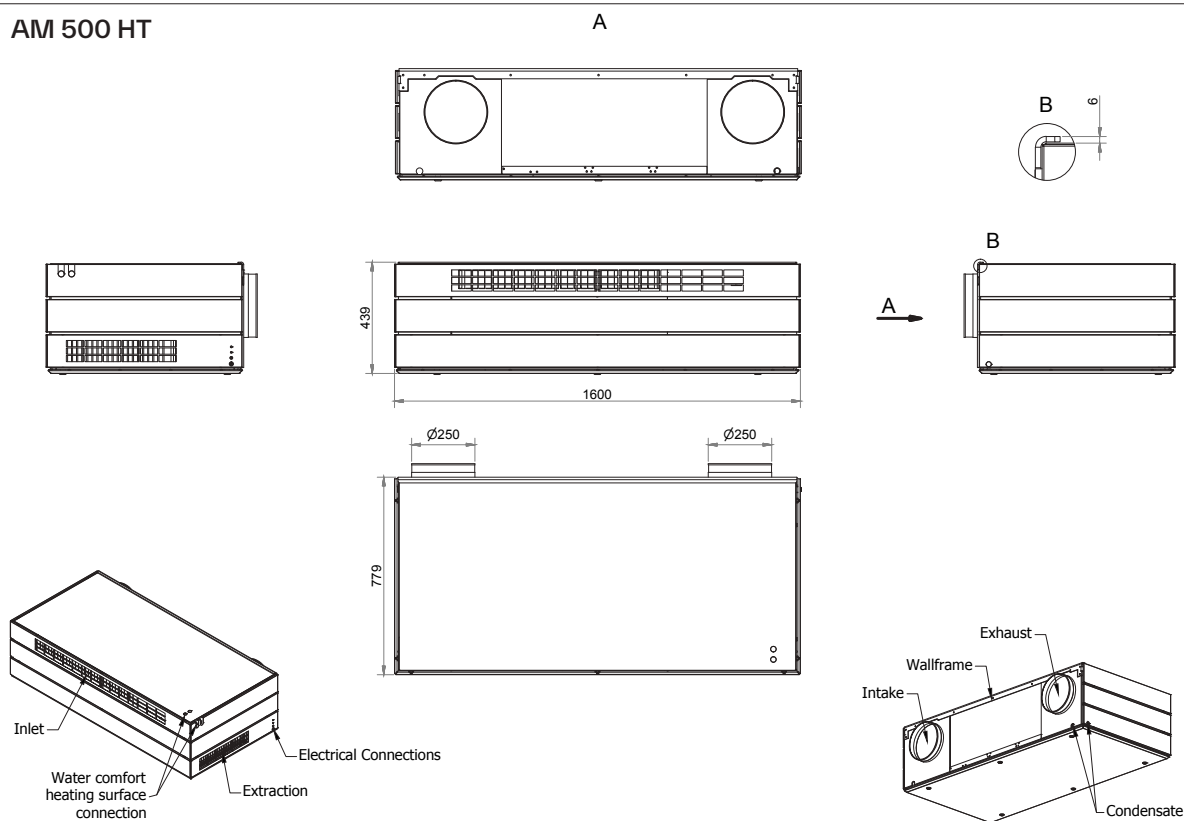
Airmaster air handling units spread an air stream in different directions, depending on the given airflow. This can be seen in the illustration, in which the blue shading indicates airflows for the different throws.



¹ Throw seen from above

² Throw seen from the side

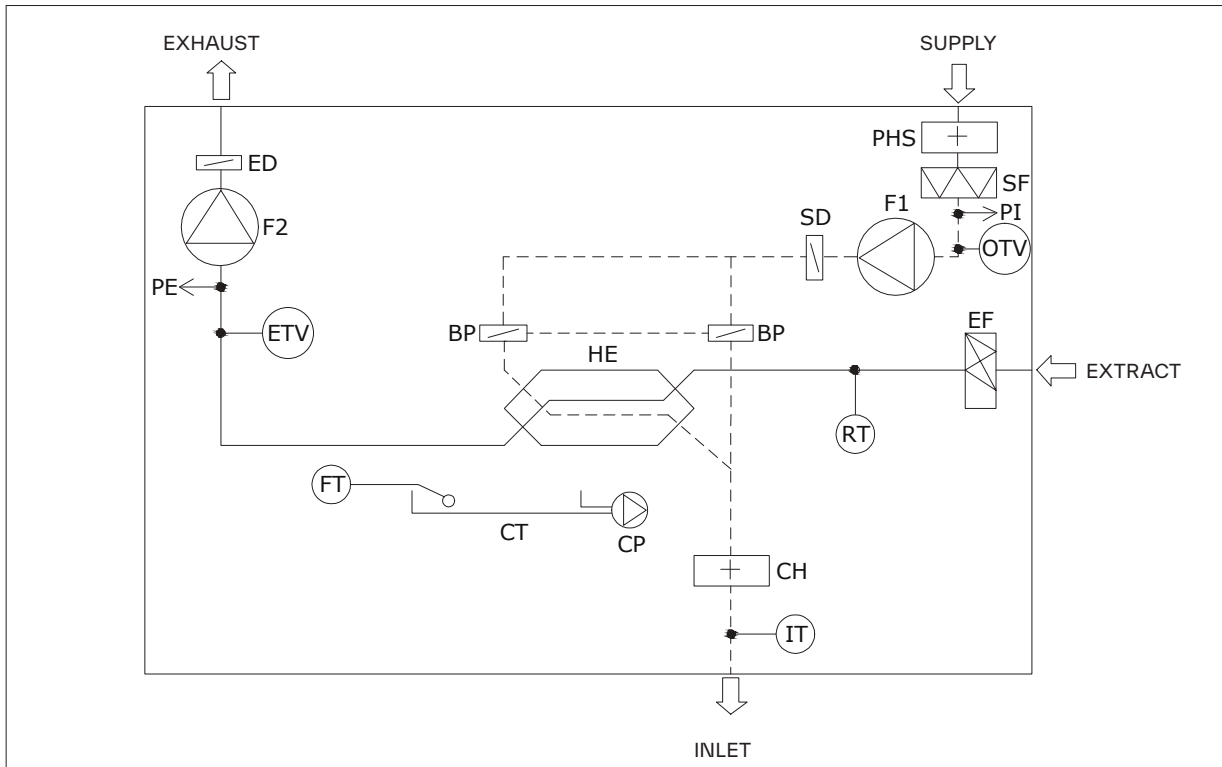
AM 500 HT



Example of dimension drawing. To see the latest dimension drawings and download 3D BIM objects in Autodesk Revit format please go to our website: www.airmaster-as.com

AM 500

Schematic sketch



Name of component

BP	Bypass (motor driven)	ETV	Exhaust temperature sensor	OTV	Outside temperature sensor
CH	Comfort heating surface	FT	Float	PE	Flow meter, extracted air
CP	Condensate pump	F1	Supply air fan	PHS	Preheating surface
CT	Condensate tray	F2	Extract air fan	PI	Flow meter, supply air
ED	Exhaust air damper (motor driven)	HE	Counterflow heat exchanger	RT	Room temperature sensor
EF	Extract air filter	SF	Supply air filter	SD	Supply air damper (motor driven)
		IT	Inlet air temperature sensor		

CC 500 COOLING MODULE

Read more about our inverter-controlled cooling modules on page 100.

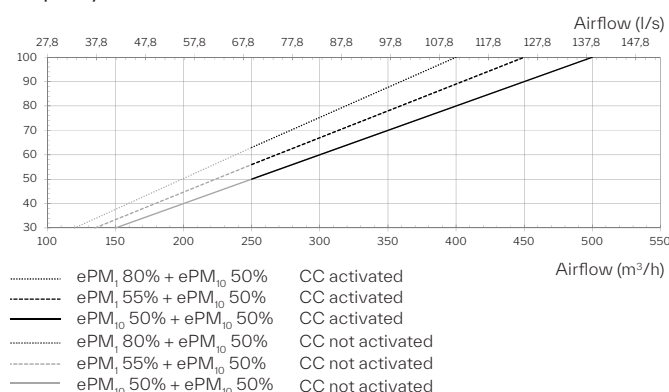
Technical data

Nominal cooling capacity ¹	3280 W
Min. cooling capacity ¹	820 W
Nominal EER	3.16
Max. airflow	500 m ³ /h
Min. airflow ²	250 m ³ /h
Electricity supply	1 x 230 V + N + PE / 50 Hz
Nominal electrical output	1040 W
Nominal current strength	6.4 A
Electrical output factor	0.71
Max. leakage current	1.5 mA
Coolant	R410a
Filling	480 g
Duct connection	Ø250 mm
Drain hose, internal/external diameter	Ø6/9 mm
Energy class	A ⁺
Weight	82,8 kg
Dimensions incl. unit (WxHxD)	1600 x 439 x 1185 mm

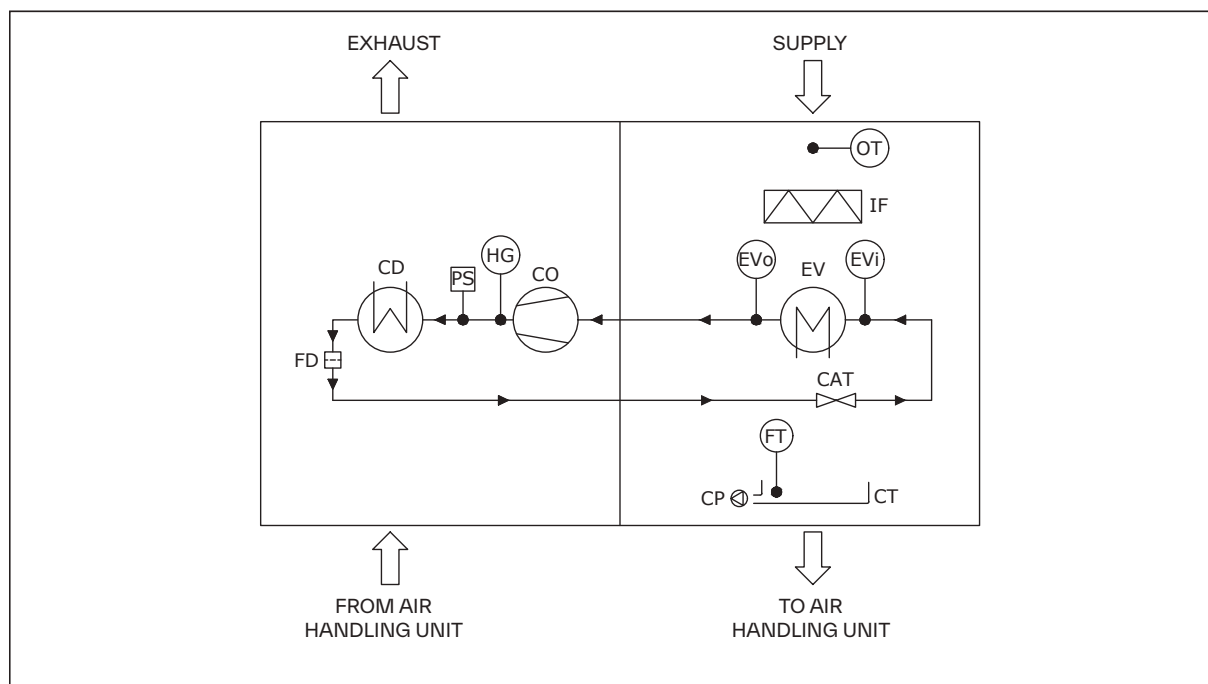
¹ Measured according to EN 308 and EN 14825 at max. airflow with ePM₁₀ 50% filter.

² Cooling module activation.

Capacity AM 500 + CC 500



Schematic sketch CC



Name of component

CAT Capillary tube

CD Condenser

CO Compressor, inverter-controlled

CP Condensate pump

CT

Condensate tray

EV Evaporator

EVi Evaporator, temperature inlet

EVo Evaporator, temperature output

FD Dry filter

IF Supply air filter

FT Float

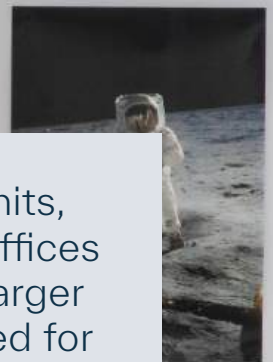
HG Hot gas temperature

OT Outside temperature

PS Pressure switch



AM 500 is not only good for medium-sized rooms in schools and institutions. The unit is also perfect for modular buildings, meeting rooms, and as seen in the picture, for medium-sized office areas. With our AM 500, you ensure a healthy indoor climate with fresh air for the brain – all day. This also applies for hot summer days! By adding a cooling module to the ventilation unit, the temperature of the outdoor air will be reduced with up to 15°C



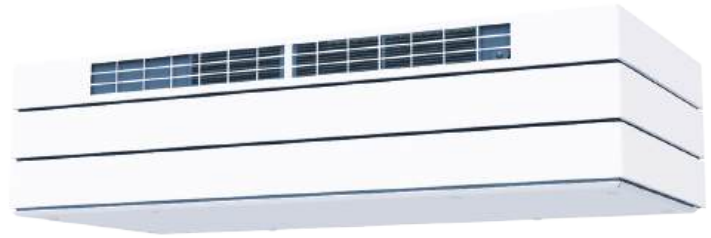
AM 800 is one of our medium-sized ventilation units, which i.a. fits perfectly in classrooms, institutions, offices and meeting rooms. The AM 800 is designed for larger rooms with moderate load and where there is a need for efficient air exchange. The AM 800 is, like our other units, quiet and is therefore not a disturbing element in the room.

AM 800 can also be demand-controlled with e.g. CO₂ sensors. This way, the units only ventilates when there is a need for it – and with exactly the required amount of air.



AM 800

This air handling unit is designed for large rooms with moderate requirement and is thus perfect for classrooms. A horizontal or vertical model can be installed, depending on the room and location of the unit. The air handling unit is available with a separate control panel and can also be connected to a network system.



A cooling module can be connected.

Ducts can be connected to extract, to inlet or to both.

Technical data	Filter class	30 dB(A)	33 dB(A)	35 dB(A)
Maximum capacity ¹	ePM ₁₀ 50%	650 m³/h	688 m³/h	725 m³/h
	ePM ₁ 55%	585 m³/h	619 m³/h	653 m³/h
	ePM ₁ 80%	520 m³/h	550 m³/h	580 m³/h
Throw length (0.2 m/s) ¹	ePM ₁₀ 50%	7.7 m	-	8.3 m
	ePM ₁ 55%	7.2 m	-	7.7 m
	ePM ₁ 80%	6.7 m	-	7.2 m
Supply air filter	ePM ₁₀ 50%, ePM ₁ 55% or ePM ₁ 80%			
Extract air filter	ePM ₁₀ 50%			
Dimensions (WxHxD)	1910 x 474 x 916 mm			
Weight, standard air handling unit, complete	157 kg			
Color, Panel / Color, Case	RAL 9010 (white) / RAL 7024 (grey)			
Counterflow heat exchanger	2 x Aluminium			
Air leakage classification cf. EN1886/EN13141-7	Class L2 / A1			
Air leakage classification main damper, cf. EN1751	Class 3			
IP-code	10			
Duct connections	Ø315 mm			
Condensate pump (Capacity ; Lifting height at 5 l/h)	10 l/h ; 6 m			
Condensate drain hose int./ext. diameter	Ø6 mm / Ø9 mm			
Supply voltage	1 x 230 V + N + PE / 50 Hz			
Nominal power consumption ²	156 W			
Nominal current ²	1.1 A			
Power factor	0.56			
Maximum fuse	16 A (1 phase, type B). When using the cc module, it is type C			
Leakage current	≤ 6 mA			
Recommended residual current circuit breaker (RCCB)	Type B			

¹ Measurements are conducted at normal operation in a standard installation situation with Airmaster recommended Ø315 grilles

² At filter class, supply air/extract air: ePM₁₀ 50% / ePM₁₀ 50%

Electric heating surface	Preheating-surface	Comfort heating surface
Heat output	1500 W	1000 W
Nominal current	6.5 A	4.4 A
Thermal circuit breaker, manual reset	100°C	100°C

Water heating surface

Heat output	1379 W ³
Connection dimension	1/2" (DN 15)
Materials pipes/fins	Copper/aluminium
Open/close time, motor valve	60 s
Maximum operating temperature	90°C
Maximum operating pressure	5 bar

³ Capacity at: supply/return temperature 60/40°C, water volume 60 l/h

Standard and options

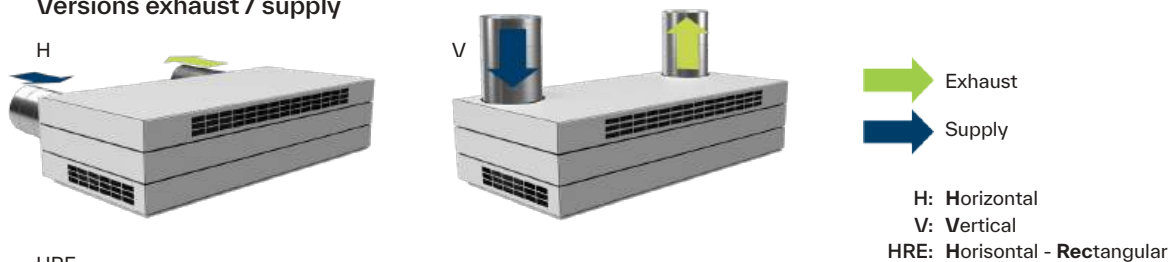
Counterflow heat exchanger (aluminium)	X
Enthalpy counterflow heat exchanger (polymer membrane)	O
Combination counterflow heat exchanger (polymer membrane)	O
Motor driven bypass	X
Motor driven supply air damper	X
Motor driven extract air damper	X
Capacitive return for motorized exhaust and supply air dampers	•
Electric preheating surface	•
Electric comfort heating surface	•
Water heating surface	•
Condensate pump	•
PIR/motion sensor (wall-mounted)	•
PIR/motion sensor (built-in)	•
CO ₂ -sensor (wall-mounted)	•
CO ₂ -sensor (built-in)	•
TVOC-sensor (built-in)	•
CO ₂ -/TVOC-sensor (built-in)	•
Hygrostat (wall-mounted)	O
Service power switch	O

Energy meter	•
Cooling module CC (only for horizontal model)	•
Supply air filter ePM ₁₀ 50%	•
Supply air filter ePM ₁ 55%	•
Supply air filter ePM ₁ 80%	O
Extract air filter ePM ₁₀ 50%	X
Wall-/ceiling bracket	•
Ceiling frame	•
Boomerain® façade grille Ø315	•
Airlinq® Viva control panel	•
Airlinq® Orbit control panel	•
Airmaster Airlinq® Online	•
Airlinq® Online API	•
Airlinq® BMS	•
LON® Module	O
KNX® Module	O
MODBUS® RTU RS485 Module	•
BACnet™ MS/TP Module	•
BACnet™ /IP Module	•
Mini B USB (on front of unit)	O

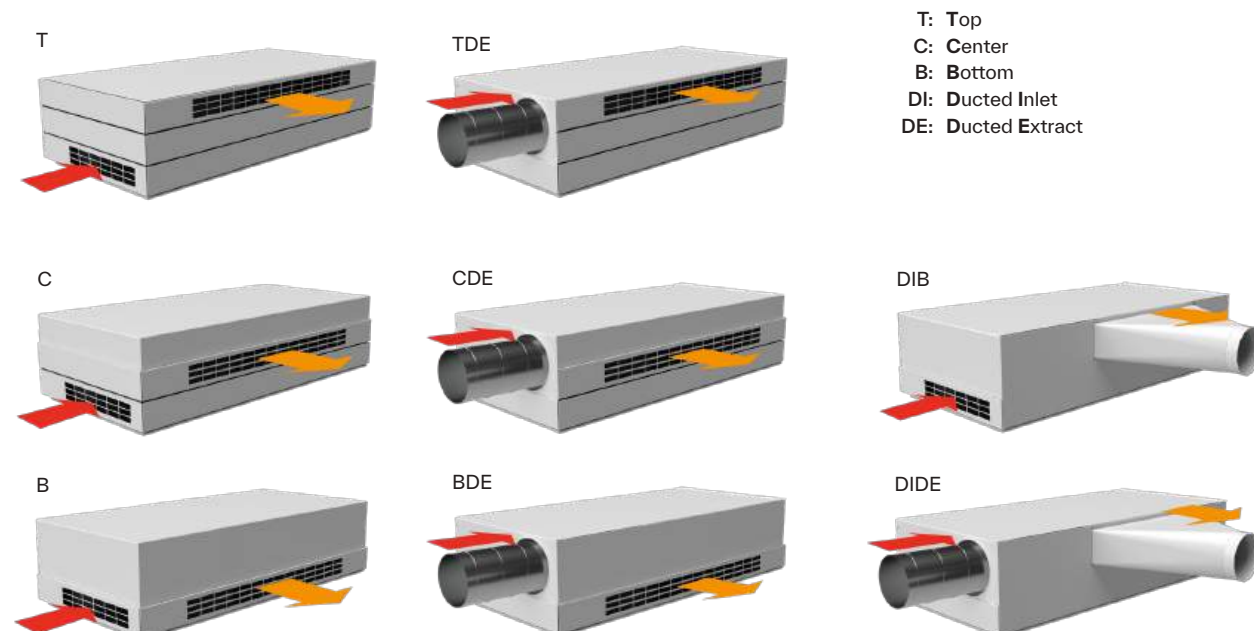
x : Standard • : Optional o : Special item

AM 800 versions

Versions exhaust / supply

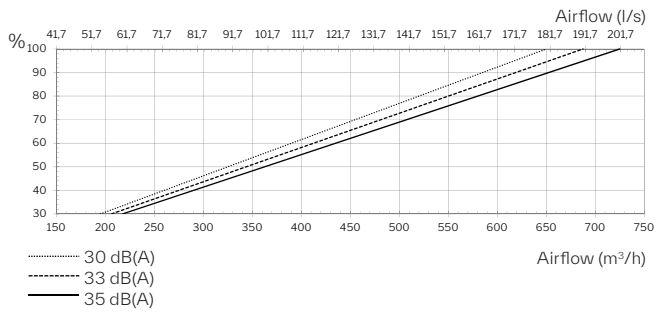


Versions inlet / extract

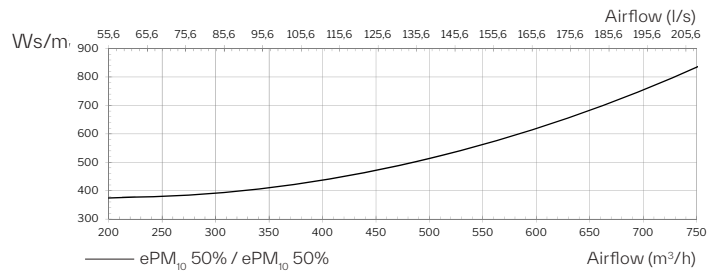


AM 800

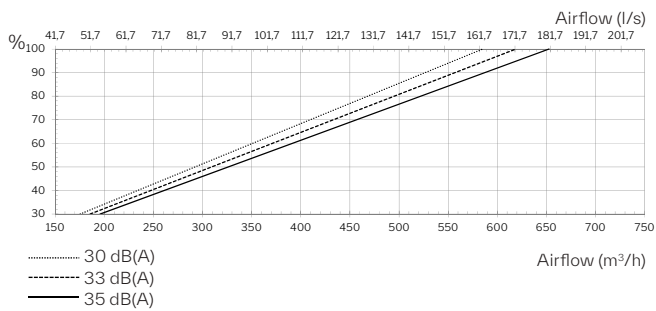
Capacity with ePM₁₀ 50% + ePM₁₀ 50% filter¹



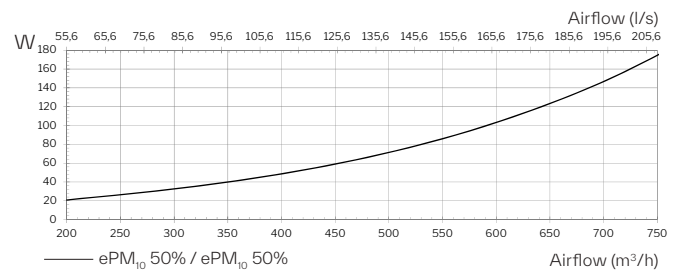
SFP¹



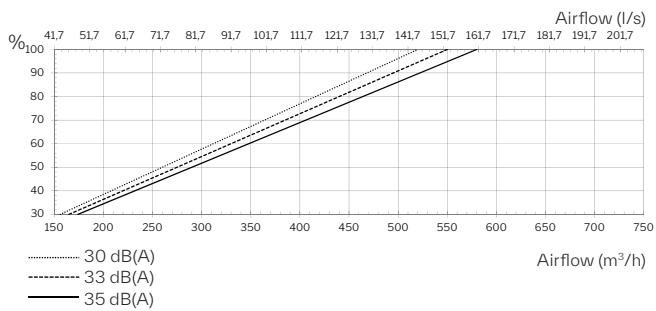
Capacity with ePM₁ 55% + ePM₁₀ 50% filter¹



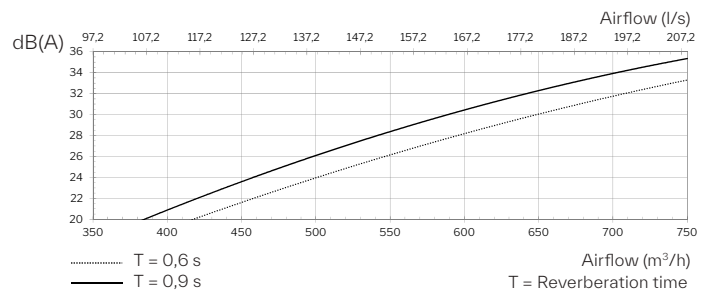
Power consumption¹



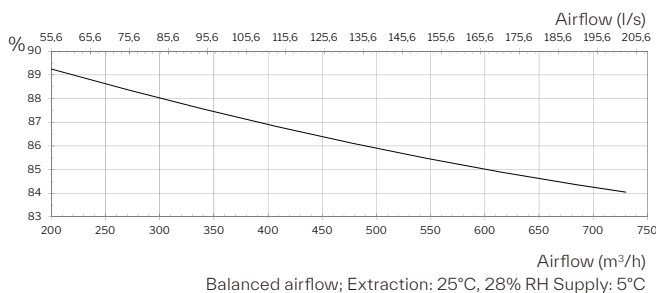
Capacity with ePM₁ 85% + ePM₁₀ 50% filter¹



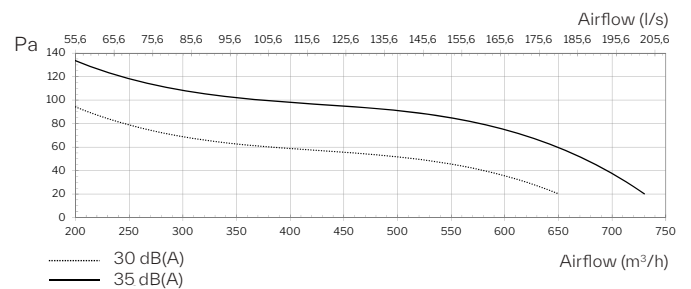
Sound pressure^{1,2}



Temperature efficiency, acc. to EN 308



External pressure loss



¹ Measurements are conducted at normal operation in a standard installation situation with Airmaster recommended Ø315 grilles

² Sound pressure level L_{p,eq} is measured in a height of 1.2 m with at horizontal distance of 1 m from the air handling unit in a room with a size of 200 m³ and a reverberation time of T = 0.6 s, corresponding to a room attenuation of 7.5 dB.

AM 800

Sound pressure level, L_{WA} [dB(A)], acc. EN/ISO 3744

Frequency (Hz)	63	125	250	500	1000	2000	4000	8000	$\varnothing L_{WA}$	$L_{p,eq}^{2,3}$	q_v [m³/h]
filter:	28	33	28	30	25,1	20,2	19,9	18,3	36,8	30	650
ePM ₁₀ 50% +	31	35	31	32	28	23,7	21	18,8	39,2	33	688
ePM ₁₀ 50%	33	39	34	34	31,8	25,9	22,8	19,1	42,1	35	725
filter:	29	33	27	29	25,4	19,7	19,8	18,3	36,8	30	585
ePM ₁₀ 55% +	31	36	32	32	28,1	22,8	20,9	18,8	39,8	33	619
ePM ₁₀ 50%	34	39	33	35	32,3	25	22,5	19	42,6	35	653

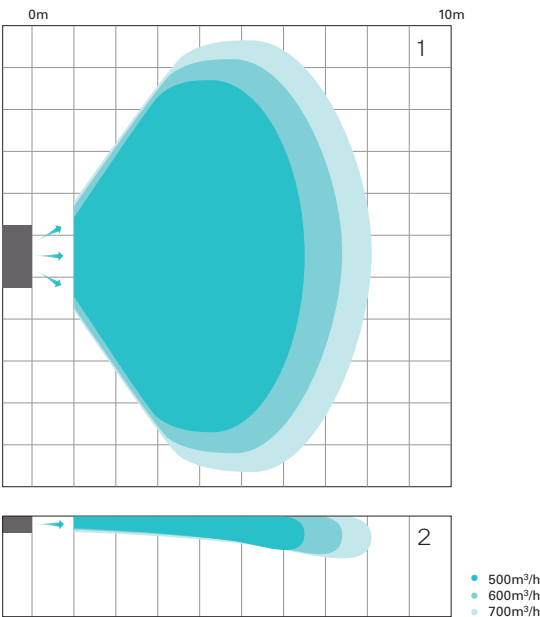
$L_{p,eq}$ Sound pressure level [dB(A)] at 1 m distance.

Throw

Airmaster air handling units spread an air stream in different directions, depending on the given airflow. This can be seen in the illustration, in which the blue shading indicates airflows for the different throws.

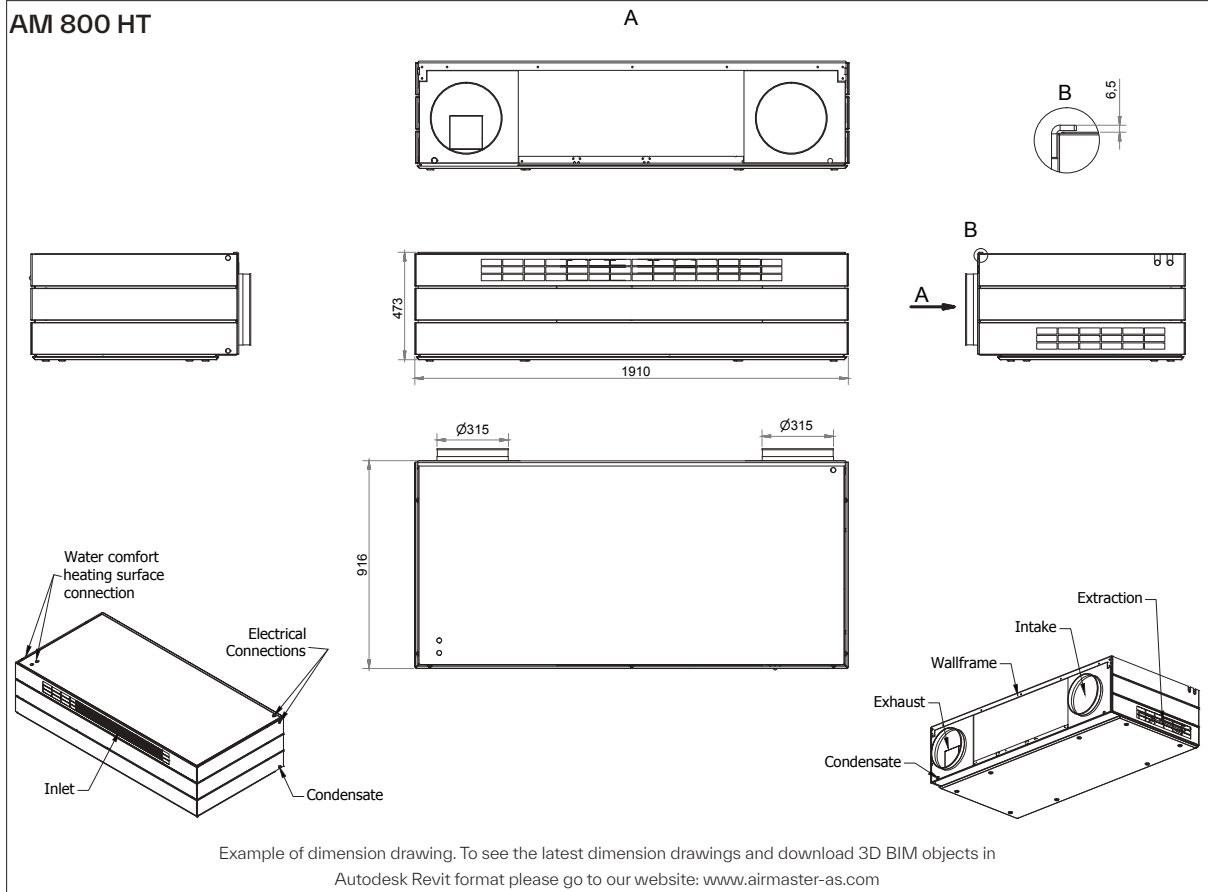
¹ Throw seen from above

² Throw seen from the side

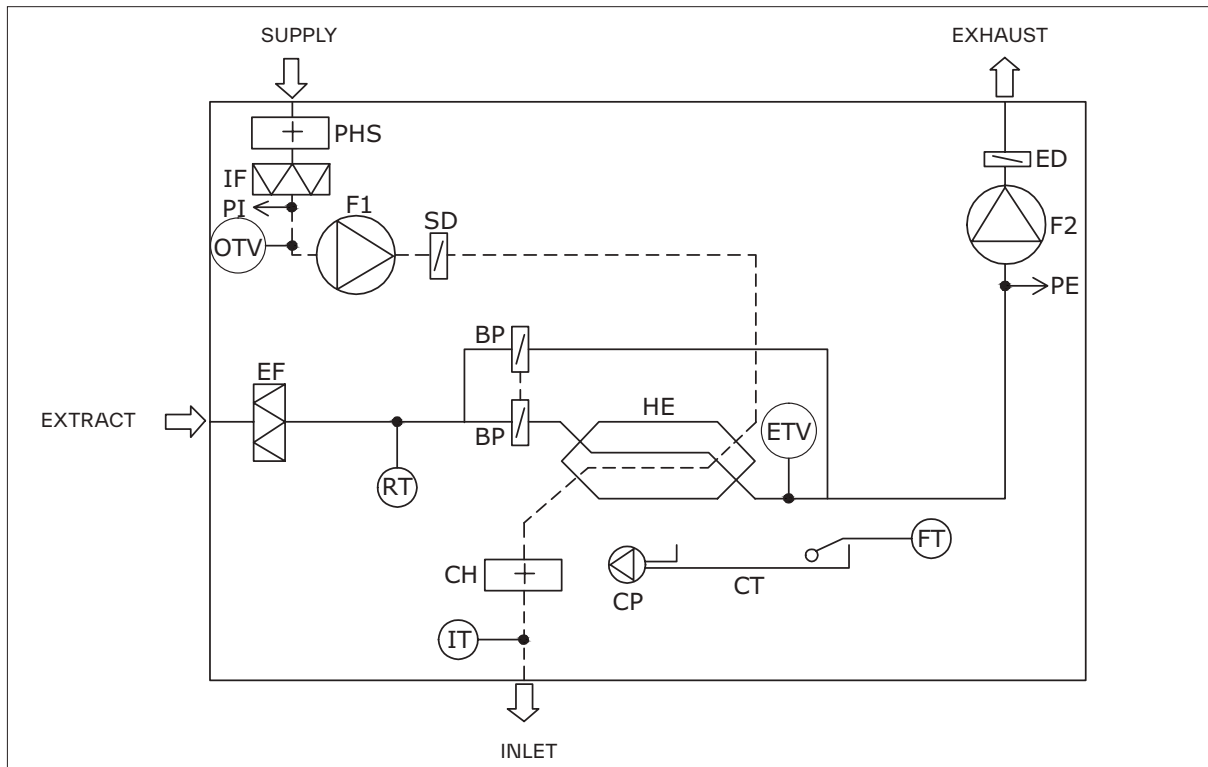


AM 800

AM 800 HT



Schematic sketch



Name of component

BP	Bypass (motor driven)	ETV	Exhaust temperature sensor	OTV	Outside temperature sensor
CH	Comfort heating surface	FT	Float	PE	Flow meter, extracted air
CP	Condensate pump	F1	Supply air fan	PHS	Preheater surface
CT	Condensate tray	F2	Extract air fan	PI	Flow meter, supply air
ED	Exhaust air damper (motor driven)	HE	Counterflow heat exchanger	RT	Room temperature sensor
EF	Extract air filter	IF	Supply air filter	SD	Supply air damper (motor driven)
		IT	Inlet air temperature sensor		

CC 800 COOLING MODULE

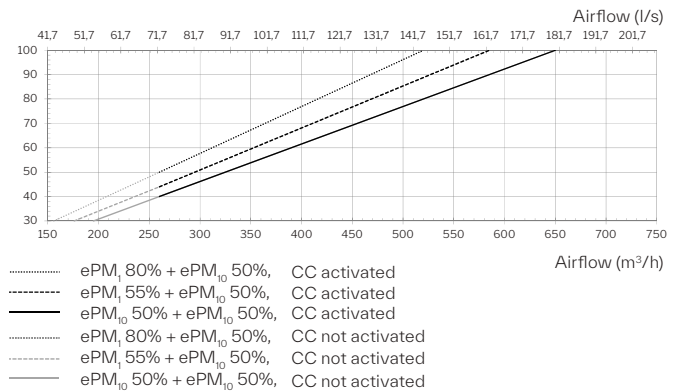
Technical data

Nominal cooling capacity ¹	5240 W
Min. cooling capacity ¹	990 W
Nominal EER	4.72
Max. airflow	650 m ³ /h
Min. airflow ²	260 m ³ /h
Electricity supply	1 x 230 V + N + PE / 50 Hz
Nominal electrical output	1110 W
Nominal current strength	6.8 A
Power factor	0.71
Max. leakage current	1,3 mA
Coolant	R410a
Filling	820 g
Duct connection	Ø315 mm
Drain hose, internal/external diameter	Ø6/9 mm
Energy class	A+++
Weight	100,7 kg
Dimensions incl. unit (WxHxD)	1910 x 474 x 1321 mm

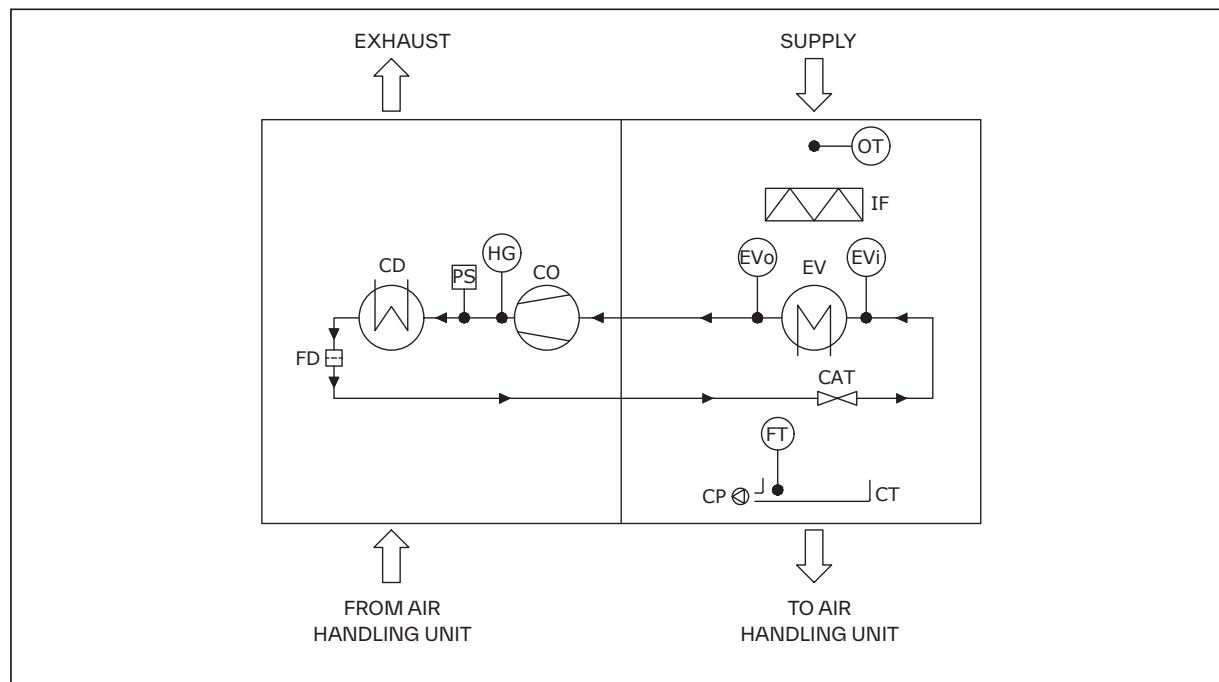
¹ Measured according to EN 308 and EN 14825 at max. airflow with ePM₁₀ 50% filter.

² Cooling module activation.

Capacity AM 800 + CC 800



Schematic sketch CC



Name of component		CT	Condensate tray	IF	Supply air filter
CAT	Capillary tube	EV	Evaporator	FT	Float
CD	Condenser	EV _i	Evaporator, temperature inlet	HG	Hot gas temperature
CO	Compressor, inverter-controlled	EV _o	Evaporator, temperature output	OT	Outside temperature
CP	Condensate pump	FD	Dry filter	PS	Pressure switch



Fresh air and proper ventilation are not the only important factors. It is just as important that the temperature in the room is comfortable – whether it is a cold winter morning or a hot summer day. By adding Airmaster's cooling module to the unit, it is possible to achieve extra cooling in the room. The cooling element can reduce the outdoor air temperature by up to 15°C and on really hot summer days, it is possible to make the indoor temperature much more comfortable.



AM 1000 is one of our largest ventilation units and is especially suitable for large classrooms with many students.

It is – so to speak – perfect for ventilating schools, but it can generally also be used in larger rooms where many people are located – and high demands in regard to the indoor climate.

Due to its size, the AM 1000 comes in four modules. This means that the system is easy to transport and handle, and that it is only assembled when it is integrated and set up in the room.



AM 1000

AM 1000 is a highly competitive solution developed for ventilation in classrooms, but can of course be used anywhere with high requirements for comfort and healthy indoor climate.

Active noise control

The active noise control technology is excellent at reducing low-frequency noise, which normally requires a large damper area.



Technical data	Filter class	30 dB(A)	35 dB(A)
Maximum capacity ¹	ePM ₁₀ 50%	950 m³/h	1050 m³/h
	ePM ₁ 55%	926 m³/h	1024 m³/h
	ePM ₁ 80%	903 m³/h	998 m³/h
Throw (0.2 m/s))	ePM ₁₀ 50%	8,0 m	9,5 m
	ePM ₁ 55%	7,6 m	9,1 m
	ePM ₁ 80%	7,2 m	8,7 m
Supply air filter	ePM ₁₀ 50%, ePM ₁ 55% or ePM ₁ 80%		
Extract air filter	ePM ₁₀ 50%		
Dimensions (WxHxD)	2325 x 561 x 1283 mm		
Weight: Standard unit complete; centre -, left -, right -, front module; service covers	301.5 kg		
Colour, Panel / Colour, Case	RAL 9010 (white) / RAL 7024 (grey)		
Counterflow heat exchanger	Aluminium		
Air leakage classification cf. EN1886/EN13141-7	Class L2 / A1		
Air leakage classification, main damper, cf. EN1751:2014	Class ³		
IP-code	10		
Duct connections	Ø315 mm ³		
Condensate pump (capacity/lifting height at 5 l/h)	10 l/h / 6 m		
Condensate drain hose internal/external diameter	Ø6/9 mm		
Supply voltage: single-phase ; three-phase	1/N/PE AC 230V 50 Hz ⁴ ; 3/N/PE AC 230/400V 50 Hz ⁴		
Maximum ; nominal power consumption at 30 dB(A) / 35 dB(A)	280 W / 305 W		
Maximum ; nominal current at 30 dB(A) / 35 dB(A)	2,0 A / 2,2 A		
Power factor	0.60		
Maximum fuse	16 A (1 phase, type B)		
	3 x 16 A (3 phases, type B). When choosing a pre-heating surface, a 3-phase connection must be used		
Leakage current	≤ 4 mA		
Recommended residual current circuit breaker (RCCB)	Type B		

¹ Measurements taken with unit model AM 1000 HHTT built-in as standard using Airmaster's recommended wall grille 400 mm di³

² At filter class, supply air/extract air: ePM₁₀ 50% / ePM₁₀ 50%

³ Horizontal supply/exhaust using Airmaster Boomerain® Ø315 or Ø400 mm wall grille.

⁴ The supply can be limited to a single-phase, connected to L1. Only for air handling units without electric heating surface or only with electric comfort heater.

Electric heating surface	Preheating-surface	Comfort heating Heater	Water heating surface	
Heat output	2300 W	1500 W	Nominal heat output	2540 W ⁵
Nominal current	10 A	6.5 A	Connection dimension	1/2" (DN 15)
Thermal cutout, automatic reset	50°C	50°C	Materials pipes/fins	kobber/aluminium
Thermal cutout, manual reset	100°C	100°C	Open/close time, motor valve	60 s
			Max. operating temperature	90°C
			Max. operating pressure	5 bar

⁵ Capacity at: supply/return temperature 60/40°C, water volume 112 l/h

Standard and options

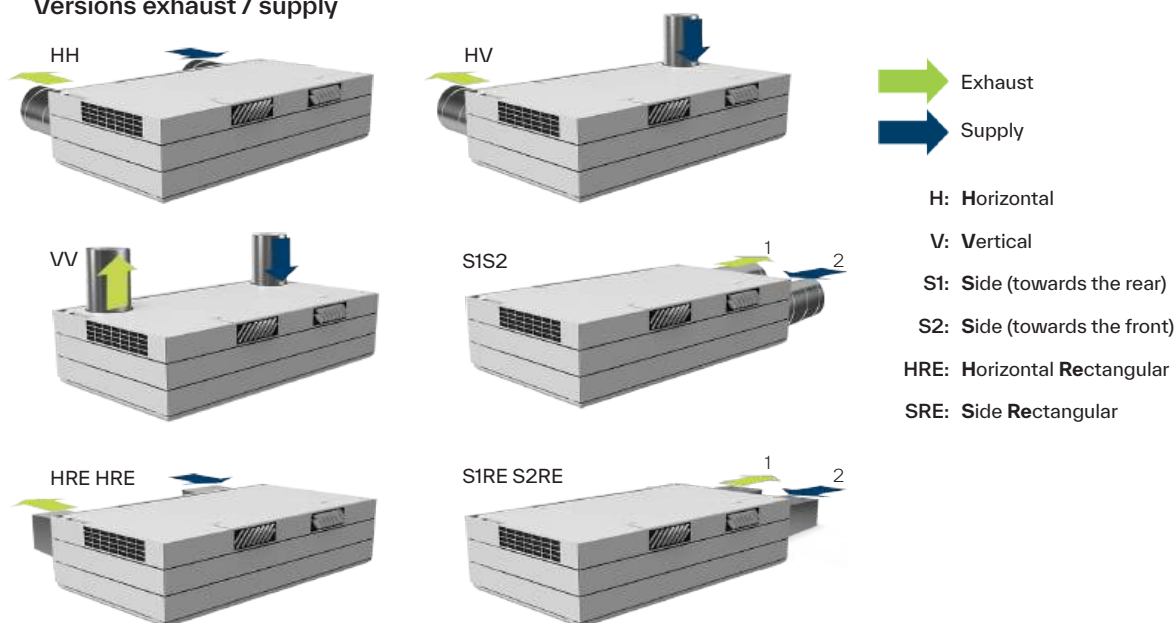
Counterflow heat exchanger (aluminium)	X
Enthalpy counterflow heat exchanger (polymer membrane)	O
Combination counterflow heat exchanger (polymer membrane)	O
Bypass damper	X
Supply damper (motor-controlled)	X
Exhaust damper (motor-controlled)	X
Capacitive return for motorized exhaust and supply air dampers	●
Adaptive Airflow™	●
Electric preheating surface	●
Electric comfort heating surface	●
Water comfort heating surface	●
Condensate pump	●
CO ₂ -sensor (integrated)	●
TVOC-sensor (integrated)	●
CO ₂ -/TVOC-sensor (integrated)	●
PIR/motion sensor (integrated)	●
CO ₂ -sensor (wall-mounted)	●

PIR/motion sensor (wall-mounted)	●
Hygostat (wall-mounted)	O
Energy meter single-phase or three-phase	●
Outdoor air filter ePM ₁₀ 50%	●
Outdoor air filter ePM ₁ 55%	●
Outdoor air filter ePM ₁ 80%	O
Extract air filter ePM ₁₀ 50%	X
Wall / Ceiling frame	X
Boomerain® wall grille Ø315	●
Control panel Airlinq® Viva	●
Control panel Airlinq® Orbit	●
Airmaster Airlinq® Online	●
Airlinq® Online API	●
Airlinq® BMS	●
MODBUS® RTU RS485 Module	●
BACnet™ MS/TP Module	●
BACnet™ /IP Module	●
LON® Module	O
KNX® Module	O

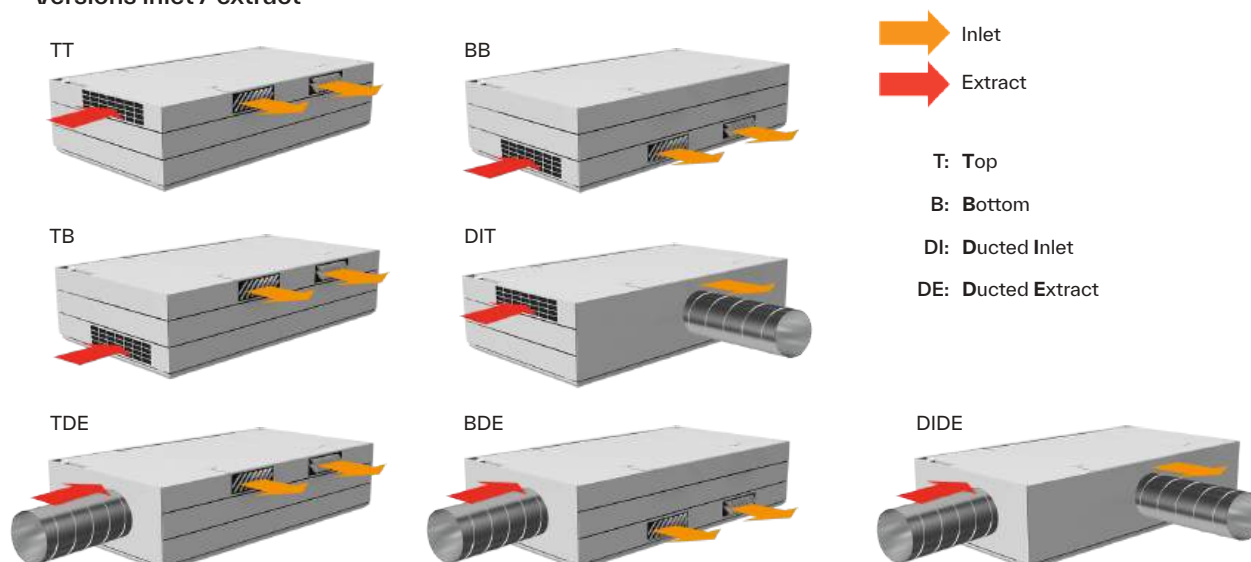
x : Standard ● : Optional o : Special item

AM 1000 versions

Versions exhaust / supply



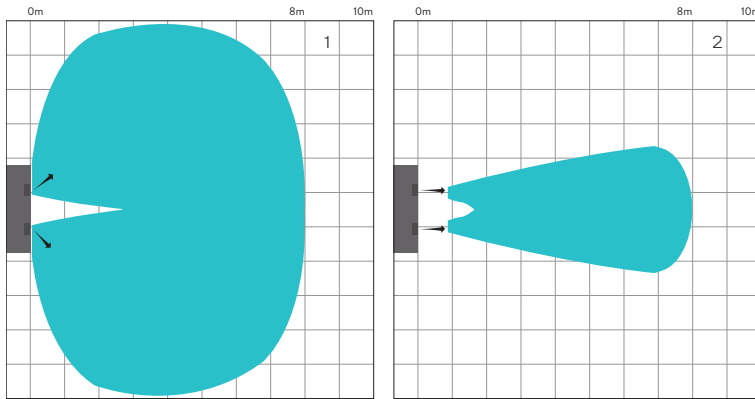
Versions inlet / extract



AM 1000 THROW

Variable inlet with AM 1000. The inlet is divided into two separate inlet grilles, each of which forms a stream. Both grilles have variable louvres. The streams achieve maximum spread at full airflow. This tends to cause a short throw. The streams are concentrated together when a small airflow is used, which tends to cause a long throw. Adjustment is gradual and automatic, based on the built-in flow measurement. This method ensures an almost constant throw adapted to the length of the room.

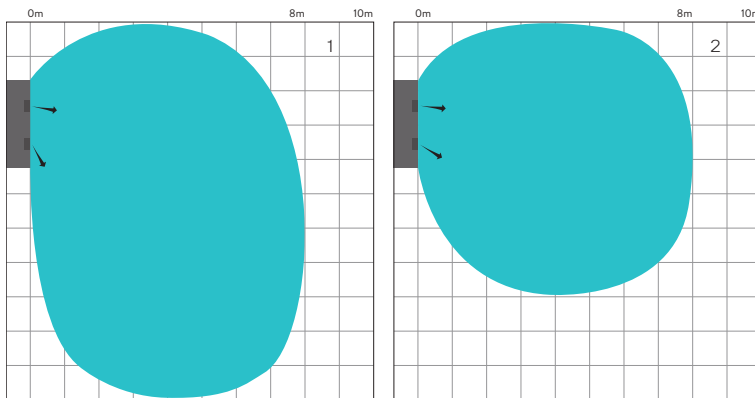
Symmetric mounting in the room with adaptive airflow™



At maximum air volume with separate streams.
At minimum air volume with concentrated streams.

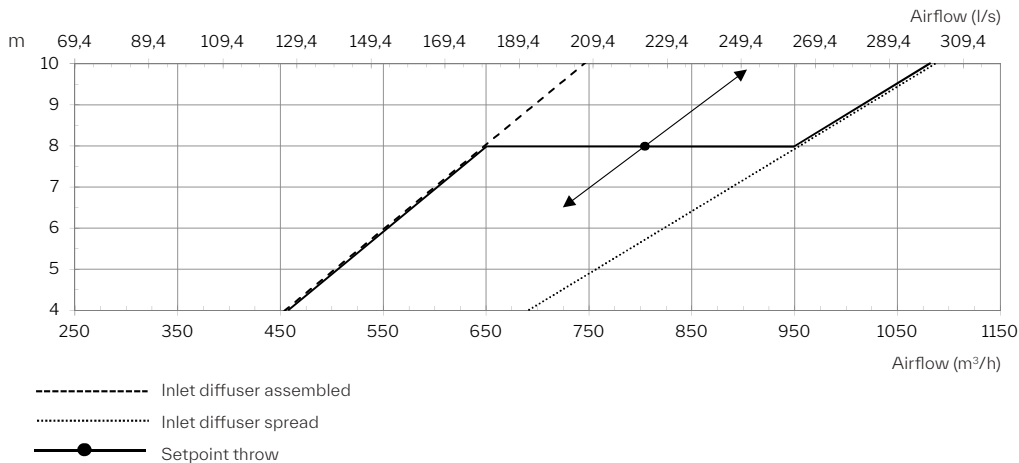
Asymmetric mounting in the room with adaptive airflow™

If the type of room or building only makes asymmetric mounting possible, we recommend to order a directional inlet grille..



At maximum air volume with separate streams.
At minimum air volume with concentrated streams.

Throw length: ¹



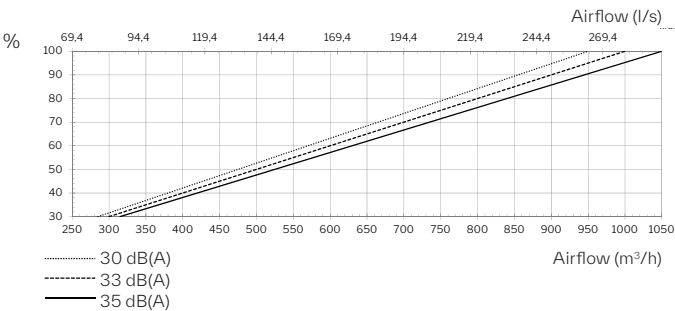
¹ The throw is measured with 2°C subcooled inlet.

Throw set as standard to 8 m.

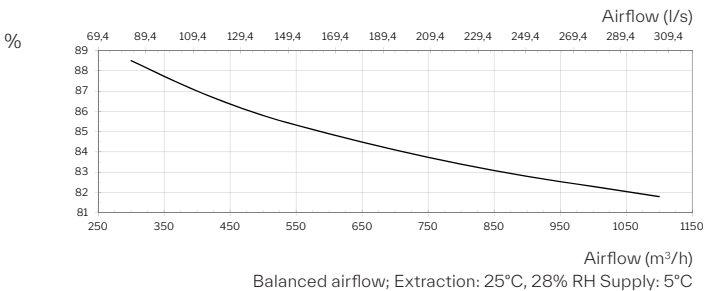
Set point for throw can be adjusted using a PC with Airlinq® Service Tool installed.

AM 1000

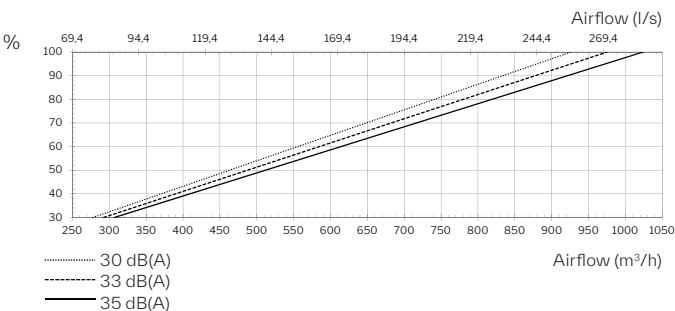
Capacity with ePM₁₀ 50% + ePM₁₀ 50% filter¹



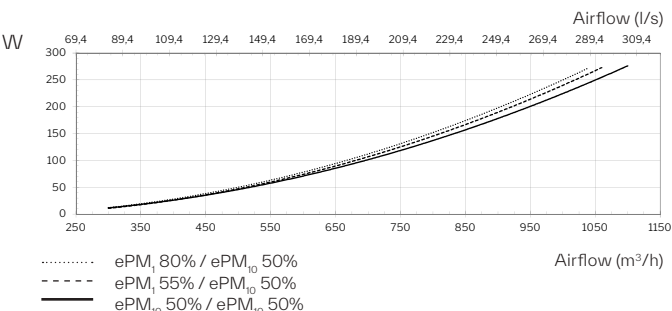
Temperature efficiency, acc. to EN 308



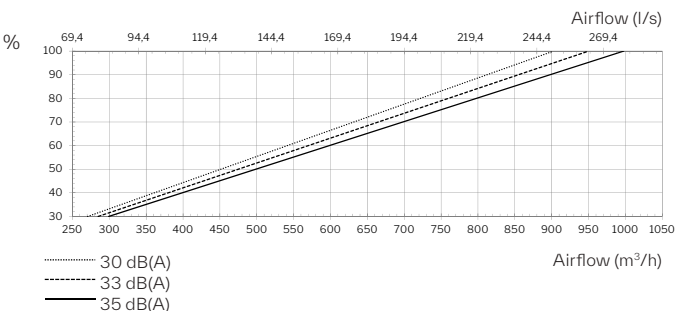
Capacity with ePM₁ 55% + ePM₁₀ 50% filter¹



Power consumption¹



Capacity with ePM₁ 80% + ePM₁₀ 50% filter¹



Sound pressure level, L_{WA} [dB(A)], acc. ISO 9614-1

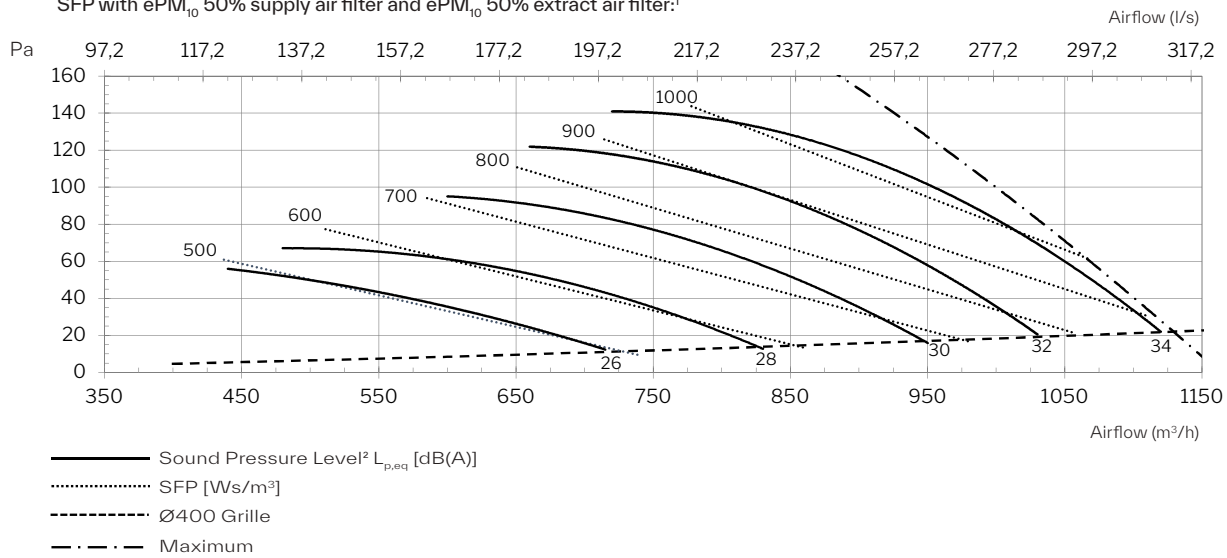
Frequency (Hz)	63	125	250	500	1000	2000	4000	8000	Combined
L _{WA} [dB(A)]	31,2	38,3	38,2	36,7	31,6	23,4	14,1	7,7	43,2

Data for the whole unit (including top) at 950 m³/h flow with ePM₁₀ 50% / ePM₁₀ 50% filters and standard grilles. A simplified calculation model which assumes a point source may for AM 1000 result in over-estimation of sound pressure, especially if sound absorbing surfaces are located close to the unit.

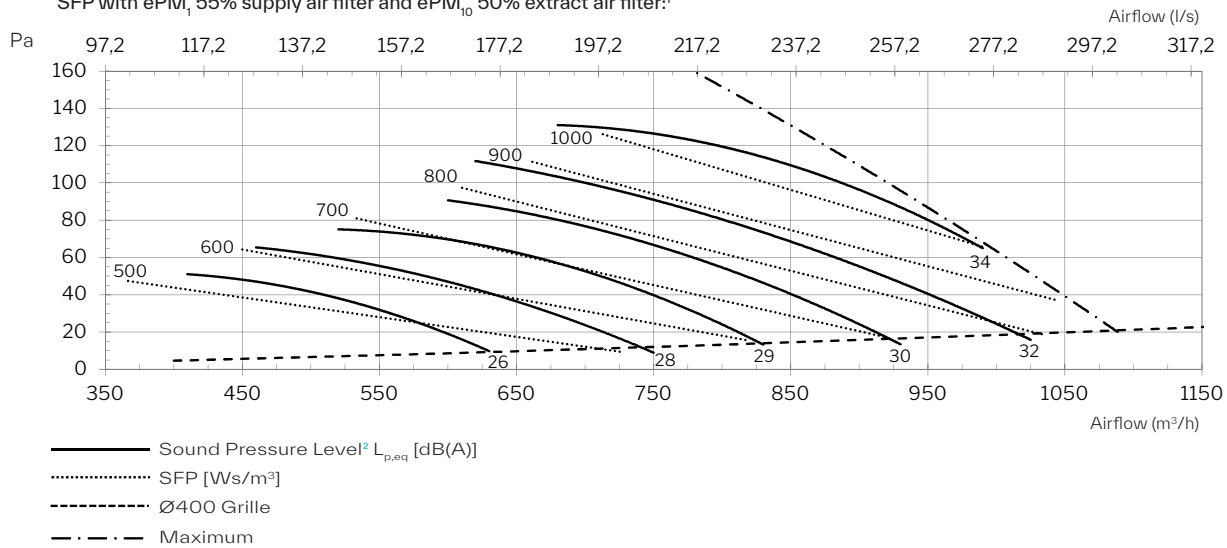
¹ Measurements taken with unit model AM 1000 HHT built-in as standard using Airmaster's recommended wall grille 400 mm dia.

AM 1000

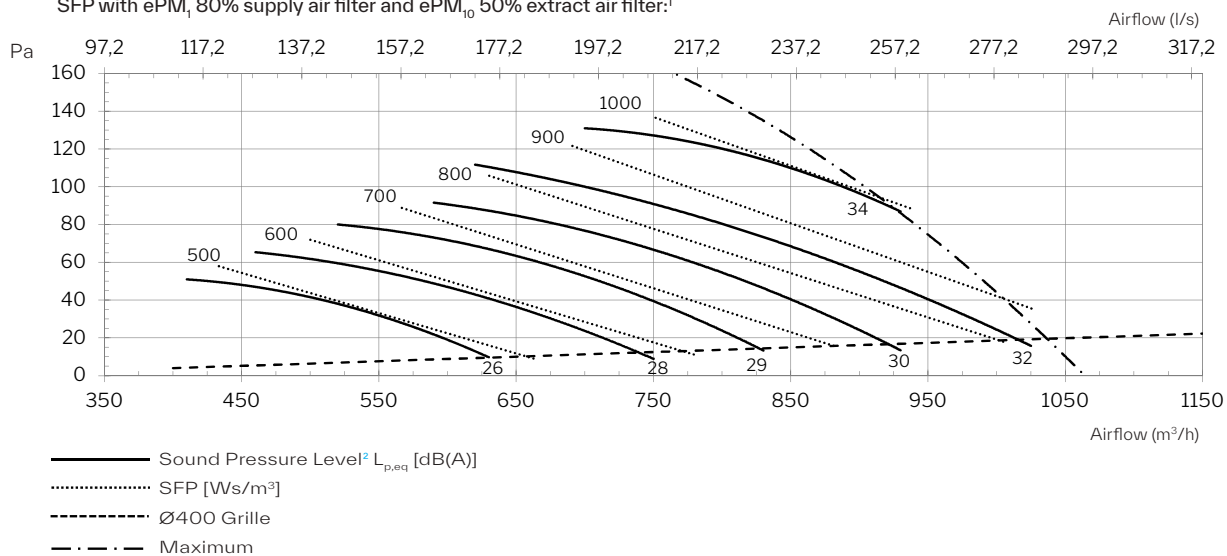
SFP with ePM₁₀ 50% supply air filter and ePM₁₀ 50% extract air filter:¹



SFP with ePM₁ 55% supply air filter and ePM₁₀ 50% extract air filter:¹



SFP with ePM₁ 80% supply air filter and ePM₁₀ 50% extract air filter:¹

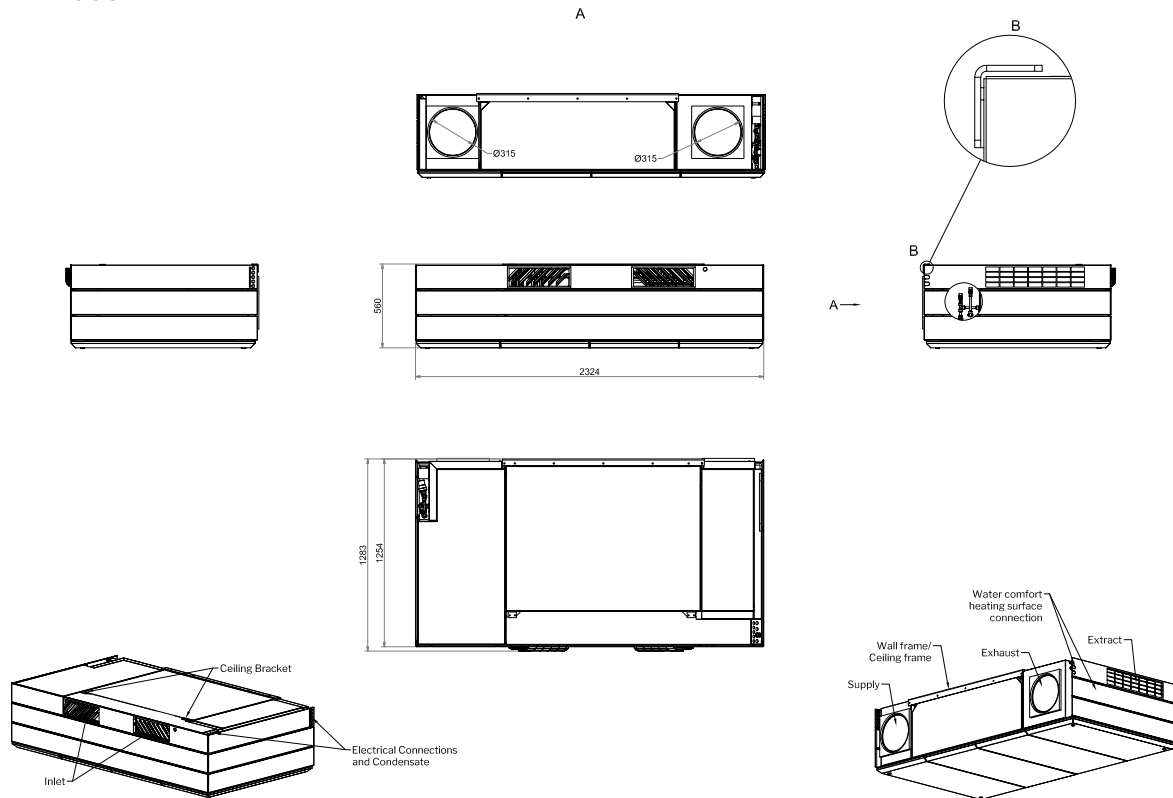


¹ Measurements taken with unit model AM 1000 HHTT built-in as standard using Airmaster's recommended wall grille 400 mm dia.

² Sound pressure $L_{p,eq}$ is measured at a height of 1.2 m with 1 m horizontal distance from unit with room damping of 9 dB(A).

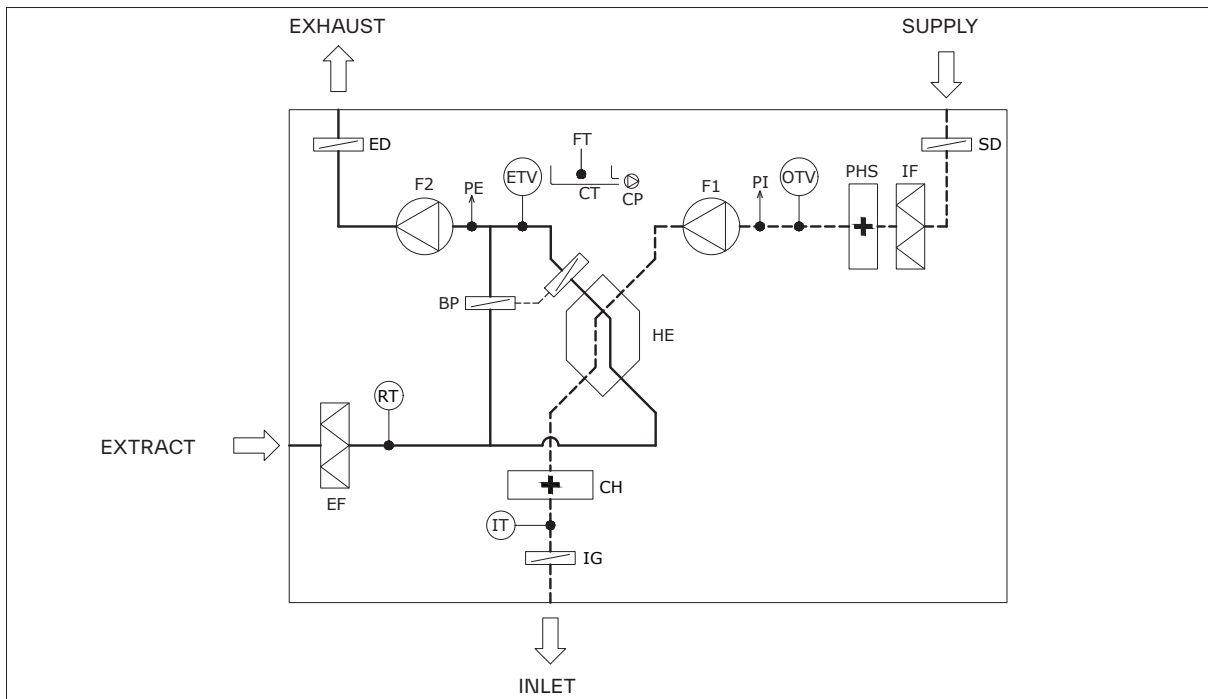
AM 1000

AM 1000 HHTT



Example of dimension drawing. To see the latest dimension drawings and download 3D BIM objects in Autodesk Revit format please go to our website: www.airmaster-as.com

Schematic sketch

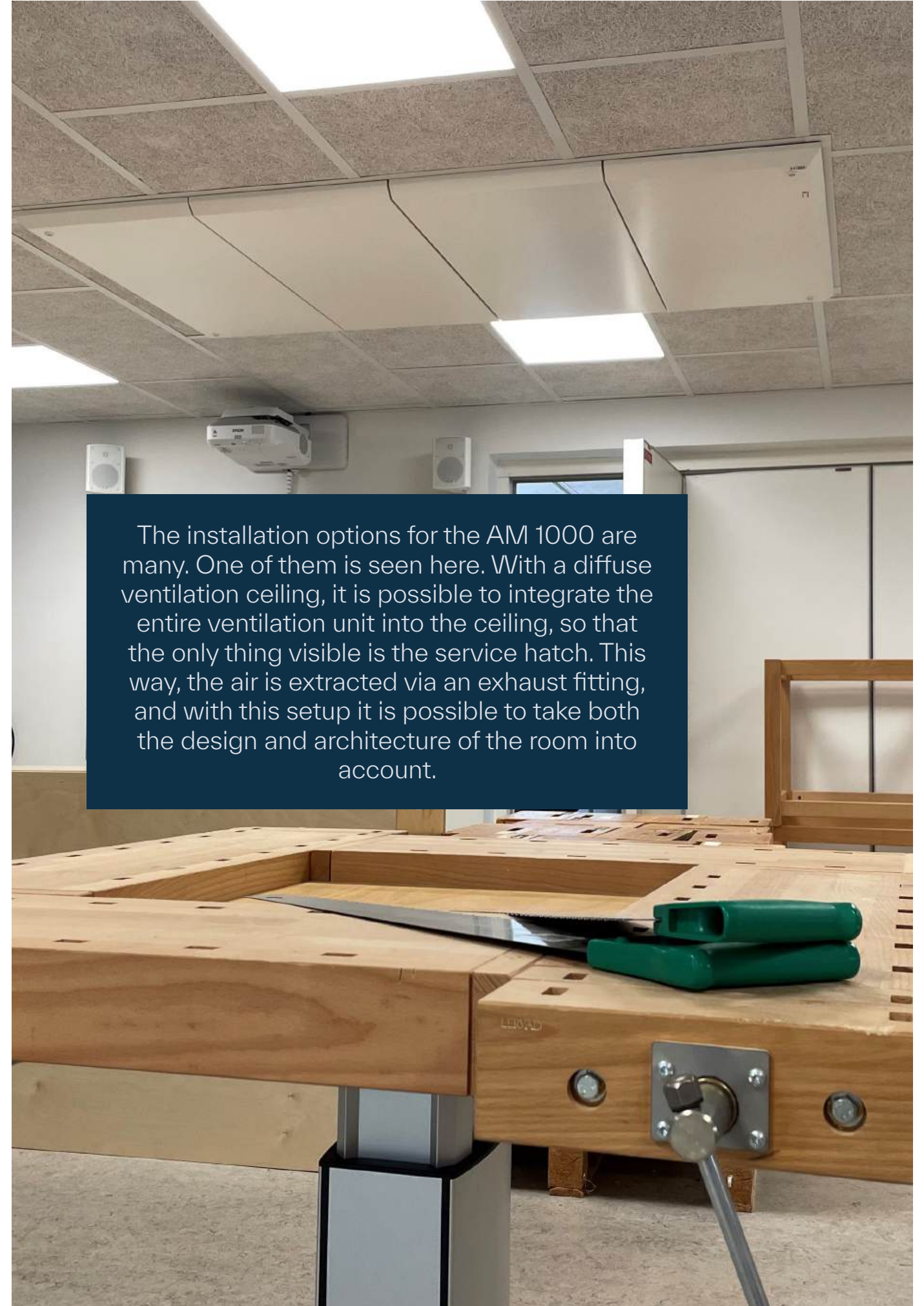


Name of component

BP	Bypass (motor driven)
CH	Comfort heating surface
CP	Condensate pump
CT	Condensate tray
ED	Exhaust air damper (motor driven)
EF	Extract air filter

ETV	Exhaust temperature sensor
FT	Float
F1	Supply air fan
F2	Extract air fan
HE	Counterflow heat exchanger
IF	Supply air filter
IG	Adaptive Airflow™

IT	Inlet air temperature sensor
OTV	Outside temperature sensor
PE	Flow meter, extracted air
PHS	Preheating surface
PI	Flow meter, supply air
RT	Room temperature sensor
SD	Supply air damper (motor driven)

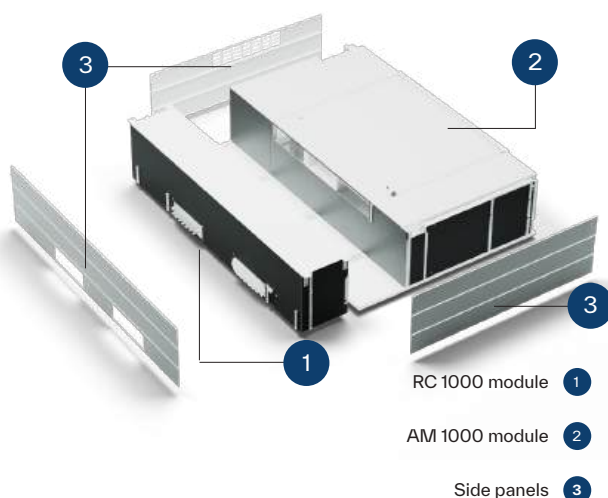


The installation options for the AM 1000 are many. One of them is seen here. With a diffuse ventilation ceiling, it is possible to integrate the entire ventilation unit into the ceiling, so that the only thing visible is the service hatch. This way, the air is extracted via an exhaust fitting, and with this setup it is possible to take both the design and architecture of the room into account.

RC 1000 cooling module for the AM 1000

Technical data

Dimensions (W×H×D) [mm]	2324 x 560 x 1658
Weight of the module, without side panels and service covers	72 kg
Weight of the module, with side panels and service covers	90 kg
Combined weight of AM 1000 with RC 1000	391,5 kg
Nominal cooling capacity	7 kW
Minimum cooling capacity	0 kW
Maximum operating pressure	5 bar
Pressure loss at dimensioned conditions	
Δp valve	0,29 bar
Δp cooling coil	0,14 bar
Water connection, top or left side	R 1"
Valve	Kvs = 2,5 m³/h



Versions

VVBT



VTTT



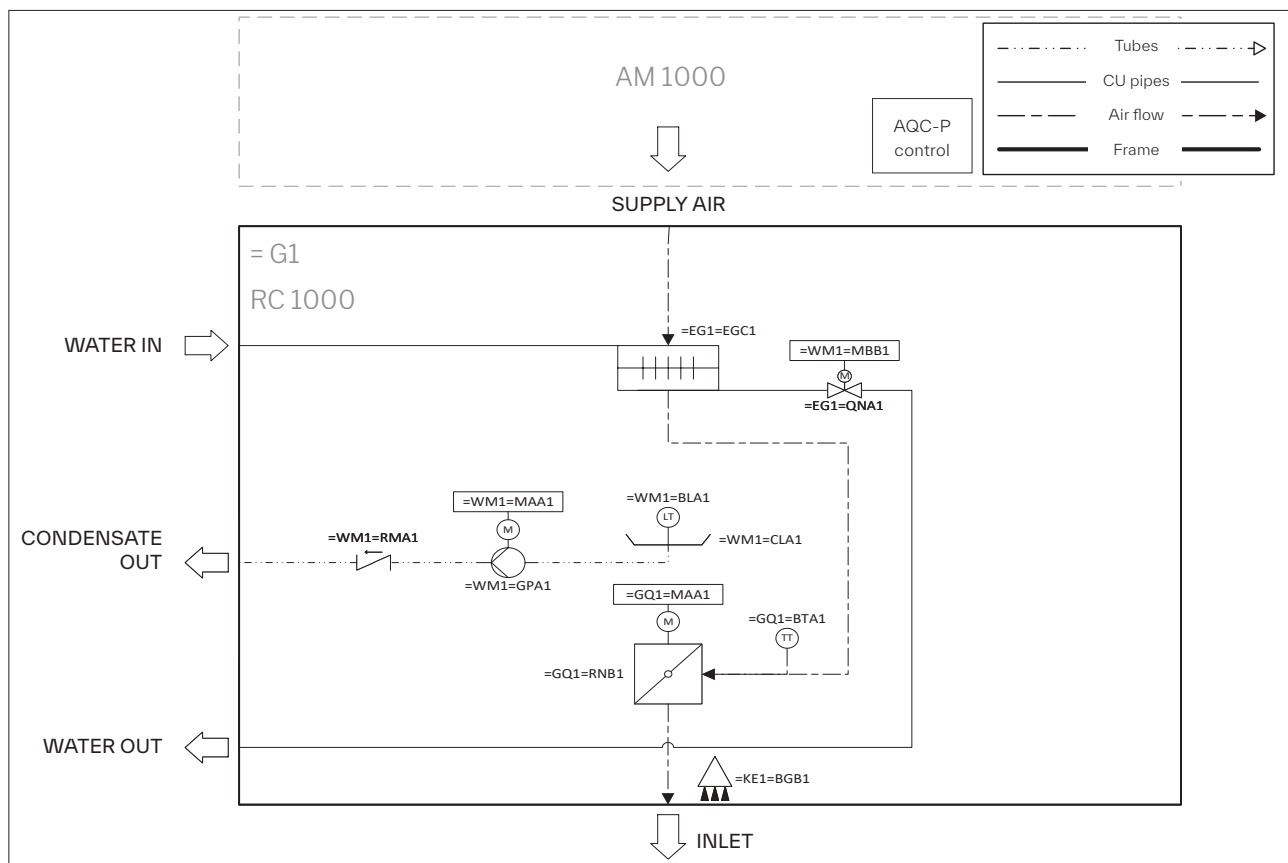
HHTT



HHBT



Schematic sketch



Component designation

G1: Cooling system

EQ: Cooling system

EQC: Heat exchanger

MBB: Electromagnet

QNA: Control valve

GQ: Ventilation system

BTA: Temperature sensor

MAA: Electrical motor

RNB: Damper

KE1: Control system

BGB: PIR-sensor

BTA: Temperature sensor

WM: Condensate system

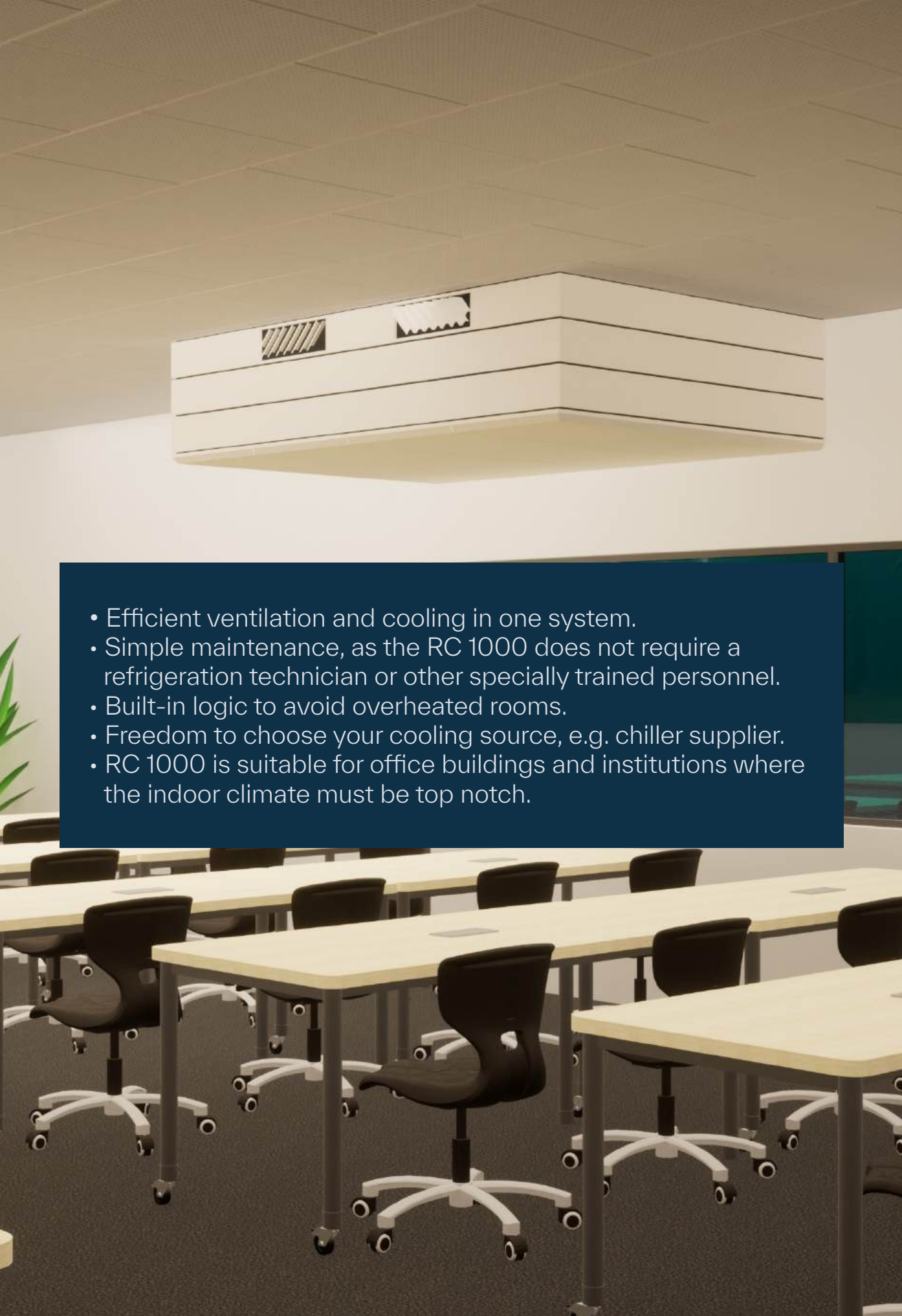
BLA: Condensate encoder

CLA: Condensate tray

GPA: Condensate pump

MAA: Electrical motor

RMA: Check valve

- 
- The image shows a large, white, rectangular cooling module mounted on a ceiling in a classroom. The module has a series of horizontal slats and two small, dark, rectangular vents on its top surface. Below the module, several rows of light-colored wooden tables and black office chairs are visible, arranged in a classroom layout. The ceiling is made of white acoustic tiles.
- Efficient ventilation and cooling in one system.
 - Simple maintenance, as the RC 1000 does not require a refrigeration technician or other specially trained personnel.
 - Built-in logic to avoid overheated rooms.
 - Freedom to choose your cooling source, e.g. chiller supplier.
 - RC 1000 is suitable for office buildings and institutions where the indoor climate must be top notch.

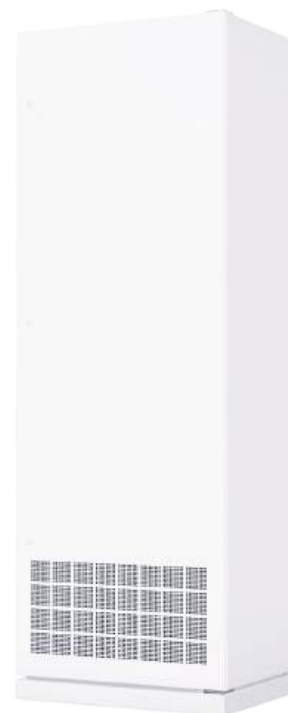
With AM 900, you get a floor-standing decentralized ventilation unit that gives you fresh air and a healthy indoor climate. It fits perfectly into larger rooms, such as classrooms, meeting rooms or office landscapes, and can either be placed discreetly between i.e. cabinets or as an integral part of the décor.



AM 900

The AM 900 air handling unit is available in two model types: Mixing and displacement ventilation. The two different available ventilation principles provide great application of the unit and the model type is selected based on the layout and usage of the room. The unit can be placed on the floor or discreetly between cupboards, as an integrated part of the room.

The AM 900 is ideal for larger rooms, such as classrooms, meeting rooms and open plan offices.



Technical data	Filter class	30 dB(A)	33 dB(A)	35 dB(A)
Mixed				
Maximum capacity ¹	ePM ₁₀ 50%	690 m³/h	760 m³/h	830 m³/h
	ePM ₁ 55%	669 m³/h	737 m³/h	805 m³/h
	ePM ₁ 80%	649 m³/h	714 m³/h	780 m³/h
Throw (0.2 m/s) ¹		6 m at 690 m³/h	-	7.2 m at 830 m³/h
Displacement ventilation				
Maximum capacity ¹	ePM ₁₀ 50%	650 m³/h	725 m³/h	800 m³/h
	ePM ₁ 55%	631 m³/h	703 m³/h	776 m³/h
	ePM ₁ 80%	611 m³/h	682 m³/h	752 m³/h
Adjacent zone (0,2 m/s) ¹		Approx. 1.2 m at 650 m³/h		Approx. 1.5 m at 800 m³/h
Supply air filter		ePM ₁₀ 50%, ePM ₁ 55% or ePM ₁ 80%		
Extract air filter		ePM ₁₀ 50%		
Dimensions (WxHxD)		Mixed: 800 x 2323 x 602 mm		
Minimum ceiling height		Displ.: 800 x 2323 x 687 mm		
Minimum ceiling height		2490 mm		
Weight, standard air handling unit, complete		180 kg		
Colour, casing		Ral 9010 (white)		
Counterflow heat exchanger		3 x PET		
Air leakage classification cf. EN1886/EN13141-7		Class L2 / A1		
Air leakage classification main damper, cf. EN1751		Class 3		
IP-code		10		
Duct connections		Ø315 mm		
Condensate pump (Capacity ; Lifting height at 5 l/h)		10 l/h ; 6 m		
Condensate drain hose int./ext. diameter		Ø4 mm / Ø6 mm		
Supply voltage		1/N/PE 230 V AC 50 Hz		
Nominal power consumption ²		240 W		
Nominal current ²		1.8 A		
Power factor		0.60		
Maximum fuse		16 A (1 phase, type B)		
Leakage current AC / DC		≤ 6 mA		
Recommended residual current circuit breaker (RCCB)		Type B		

¹ Measurements are conducted at normal operation in a standard installation situation with Airmaster recommended Ø315 grilles

² At filter class, supply air/extract air: ePM₁₀ 50% / ePM₁₀ 50%

Electric heating surface	Preheating surface	Comfortheating surface	Water heating surface	
Heat output	1500 W	1050 W	Nominal heat output	2345 W ³
Nominal current	6.5 A	4.4 A	Connection dimension	1/2" (DN 15)
Thermal circuit breaker, man. reset	100°C	100°C	Materials pipes/fins	copper/aluminium
			Opening/closing time motor valve	60 s
			Maximum operating temperature	90°C
			Maximum operating pressure	5 bar

³ Capacity at: supply/return temperature 60/40°C, water volume 111 l/h

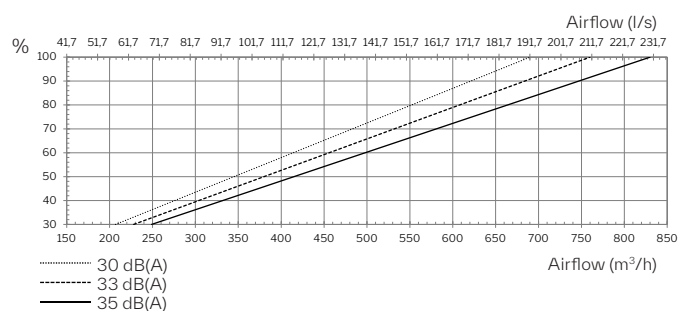
Standard and options

Counterflow heat exchanger (PET)	X
Enthalpy counterflow heat exchanger (polymer membrane)	O
Combination counterflow heat exchanger (polymer membrane)	O
Motor driven bypass	X
Motor driven supply air damper	X
Motor driven extract air damper	X
Capacitive return for motorized exhaust and supply air dampers	●
Electric preheating surface	●
Electric comfort heating surface	●
Water heating surface	O
Condensate pump	●
PIR/motion sensor (wall-mounted)	●
CO ₂ -sensor (wall-mounted)	●
CO ₂ -sensor (built-in)	●
TVOC-sensor (built-in)	●
CO ₂ -/TVOC-sensor (built-in)	●

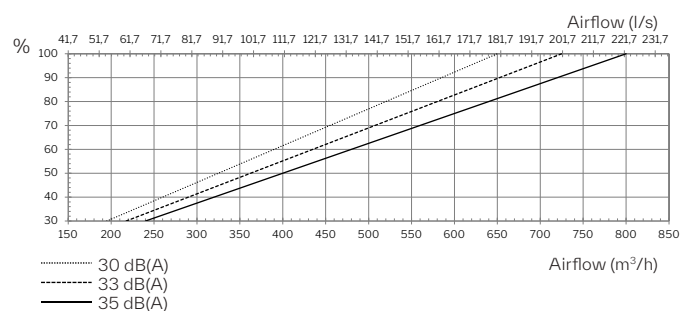
Hygrostat	O
Energy meter	●
Supply air filter ePM ₁₀ 50%	●
Supply air filter ePM ₁ 55%	●
Supply air filter ePM ₁ 80%	O
Extract air filter ePM ₁₀ 50%	X
Boomerain® façade grille Ø315	●
Airlinq® Viva control panel	●
Airlinq® Orbit control panel	●
Airmaster Airlinq® Online	●
Airlinq® Online API	●
Airlinq® BMS	●
LON® Module	O
KNX® Module	O
MODBUS® RTU RS485 Module	●
BACnet™ MS/TP Module	●
BACnet™ /IP Module	●

x : Standard ● : Optional o : Special item

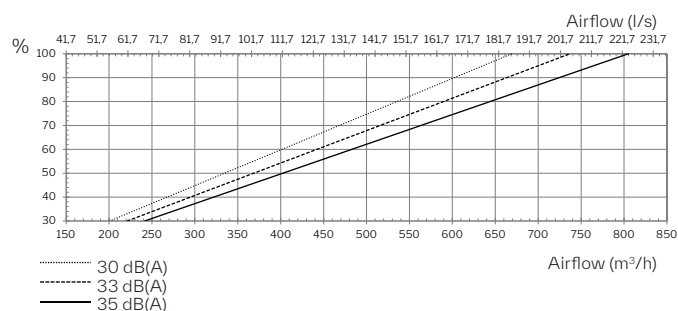
Capacity with ePM₁₀ 50% / ePM₁₀ 50% filter - Mixed¹



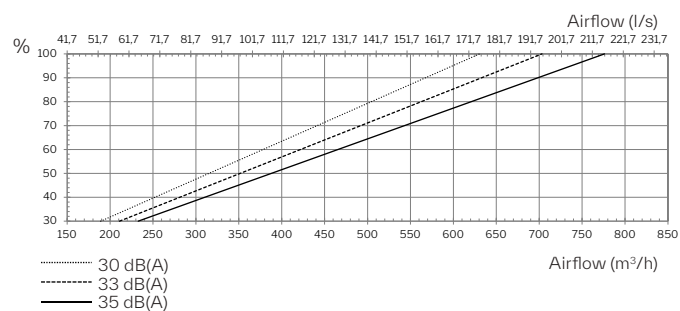
Capacity with ePM₁₀ 50% / ePM₁₀ 50% filter - Displacement¹



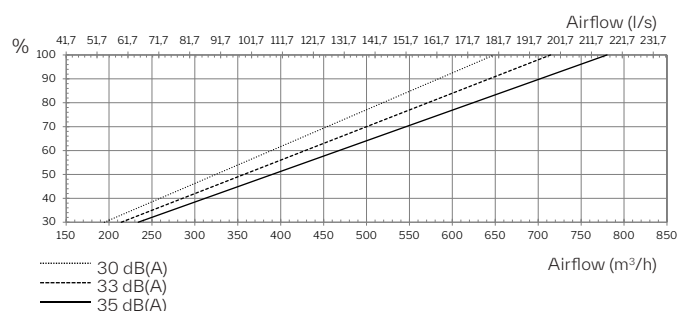
Capacity with ePM₁ 55% / ePM₁₀ 50% filter - Mixed¹



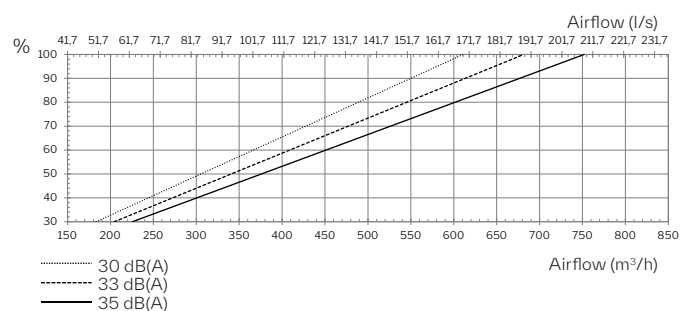
Capacity with ePM₁ 55% / ePM₁₀ 50% filter - Displacement¹



Capacity with ePM₁ 80% / ePM₁₀ 50% filter - Mixed¹



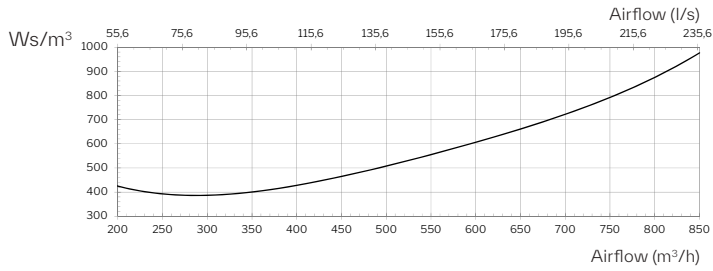
Capacity with ePM₁ 80% / ePM₁₀ 50% filter - Displacement¹



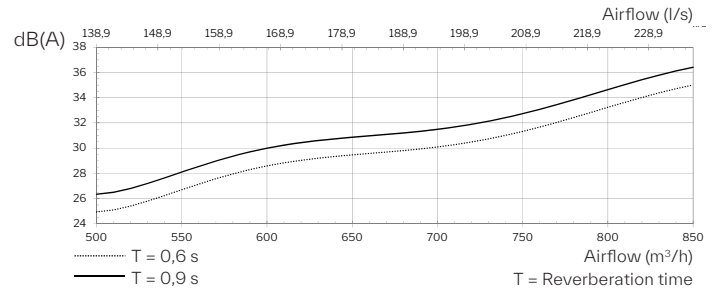
¹ Measurements are conducted at normal operation in a standard installation situation with Airmaster recommended Ø315 grilles

AM 900

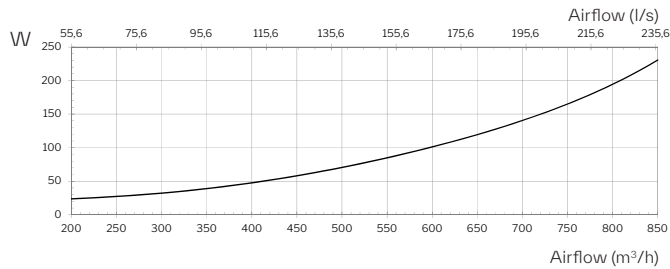
SFP



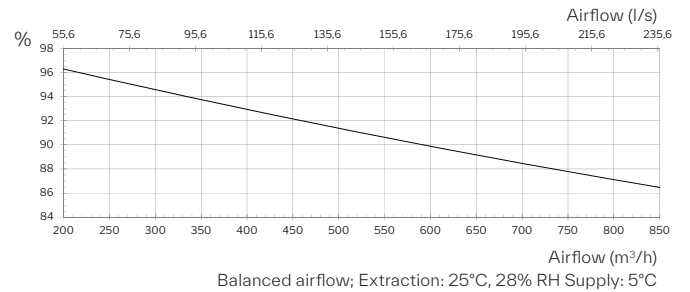
Sound pressure



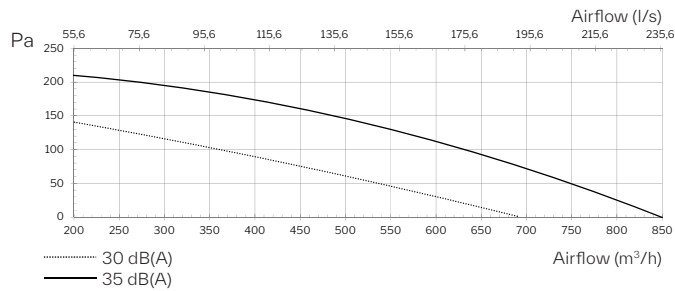
Power consumption



Temperature efficiency, acc. to EN 308



External pressure loss

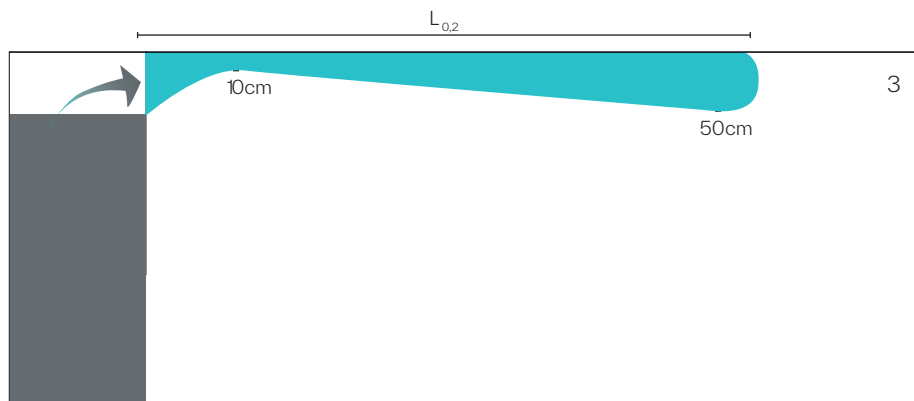
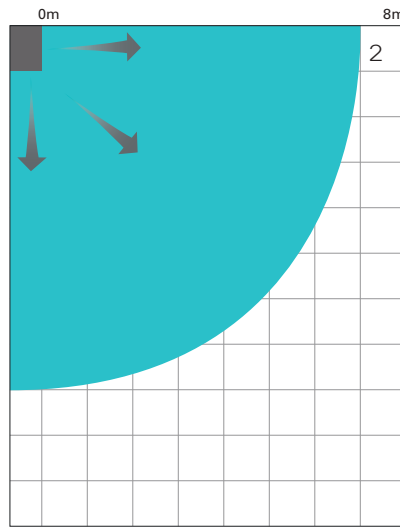
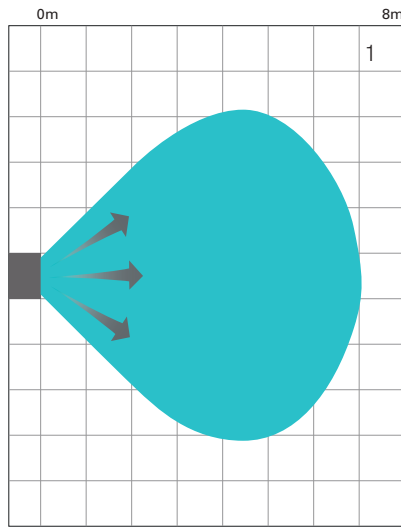


1 Measurements are conducted at normal operation in a standard installation situation with Airmaster recommended Ø315 grilles

2 Sound pressure level $L_{p,eq}$ is measured in a height of 1.2 m with at horizontal distance of 1 m from the air handling unit in a room with a size of 200 m^3 and a reverberation time of $T = 0.6$ s, corresponding to a room attenuation of 7.5 dB.

AM 900

Throw - mixed



Throw illustrated for airflow rate 830 m³/h. At other volume flow rates the throw can be extrapolated: $L_2 = L_1 \times q_2 / q_1$.

The AM 900 unit spreads an air stream below the ceiling depending on the given flow rate.

Blue shading in the illustration indicates spread pattern and throw.

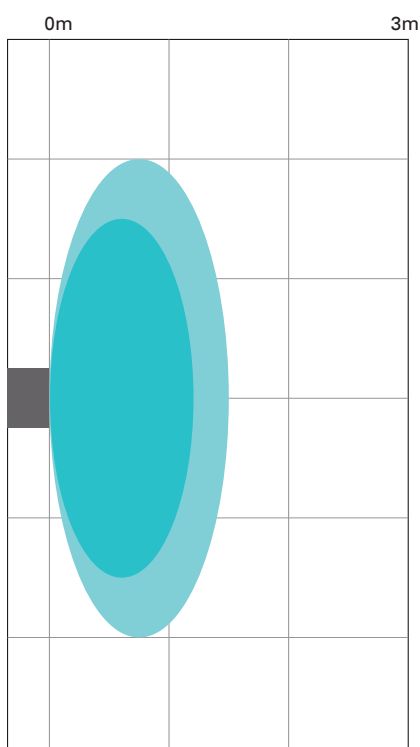
Spread pattern seen from above, symmetric inlet (default). Spread pattern seen from above, asymmetric inlet. Spread pattern seen from the side.

Throw and spread of the supply air in the room can be adjusted to the geometry of the room by adjusting the inlet opening with a pair of pliers (see operator's manual).

Notes regarding ceiling height
The AM 900 will fit into a room with minimum ceiling height of 2,49 m. The illustrated throw will manifest itself in these circumstances.

The AM 900 will also work with larger ceiling heights, up to 4,50 m has been tested. Height above 2,50 m should be subtracted from the length of the throw.

Adjacent zone - displacement

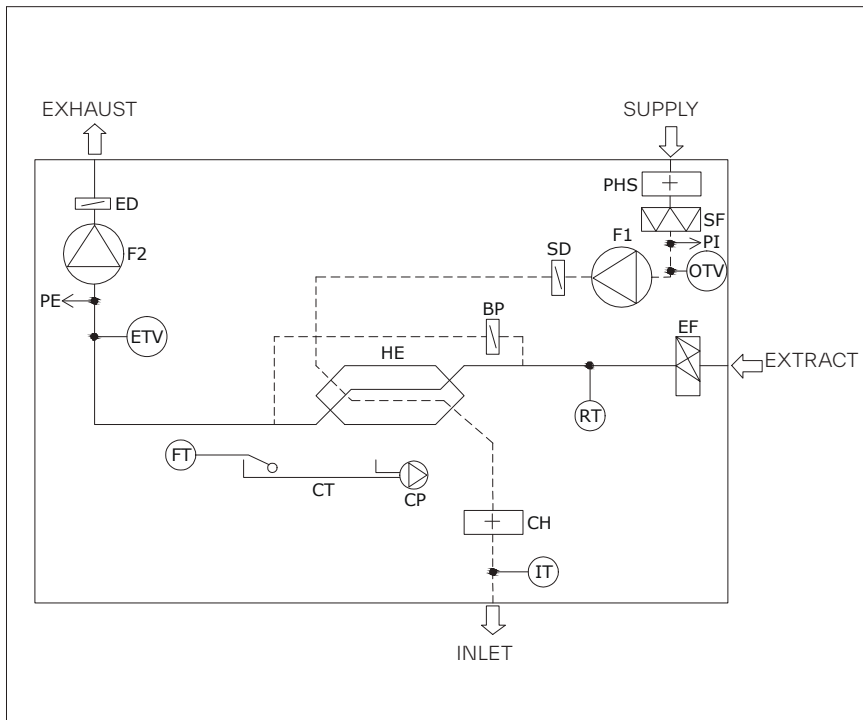


The result applies to an undertemperature of the inlet air of 3-5°C.

- 650m³/h
- 800m³/h

AM 900

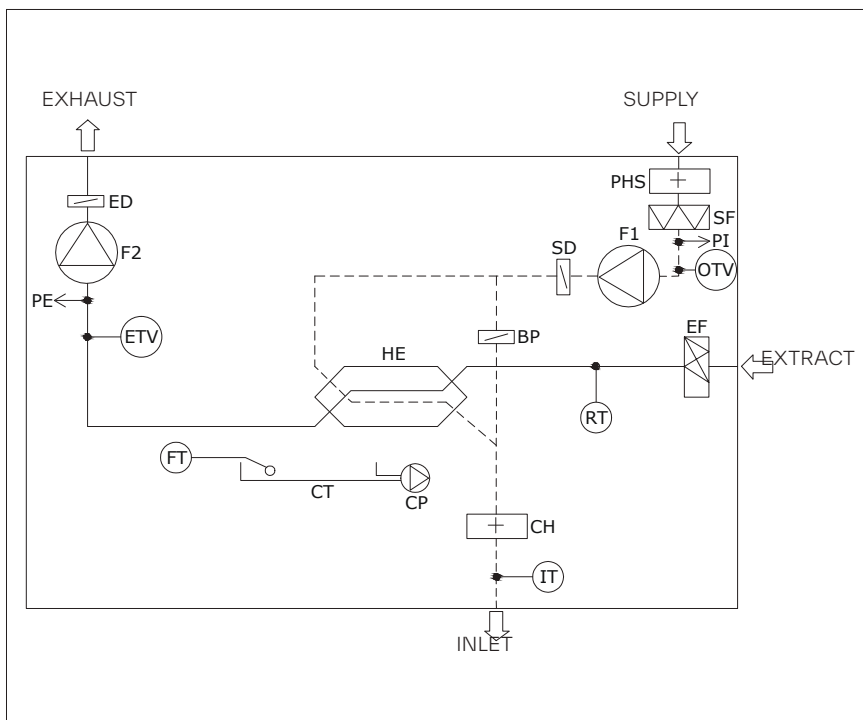
Schematic sketch - mixed



Name of component

BP	Bypass (motor driven)
CH	Comfort heater
CP	Condensate pump
CT	Condensate tray
ED	Exhaust air damper (motor driven)
EF	Extract air filter
ETV	Exhaust temperature sensor
FT	Float
F1	Supply air fan
F2	Extract air fan
HE	Counterflow heat exchanger
SF	Supply air filter
IT	Inlet air temperature sensor
OTV	Outside temperature sensor
PE	Flow meter, return air
PHS	Preheating surface
PI	Flow meter, supply air
RT	Room temperature sensor
SD	Supply air damper (motor driven)

Schematic sketch - displacement

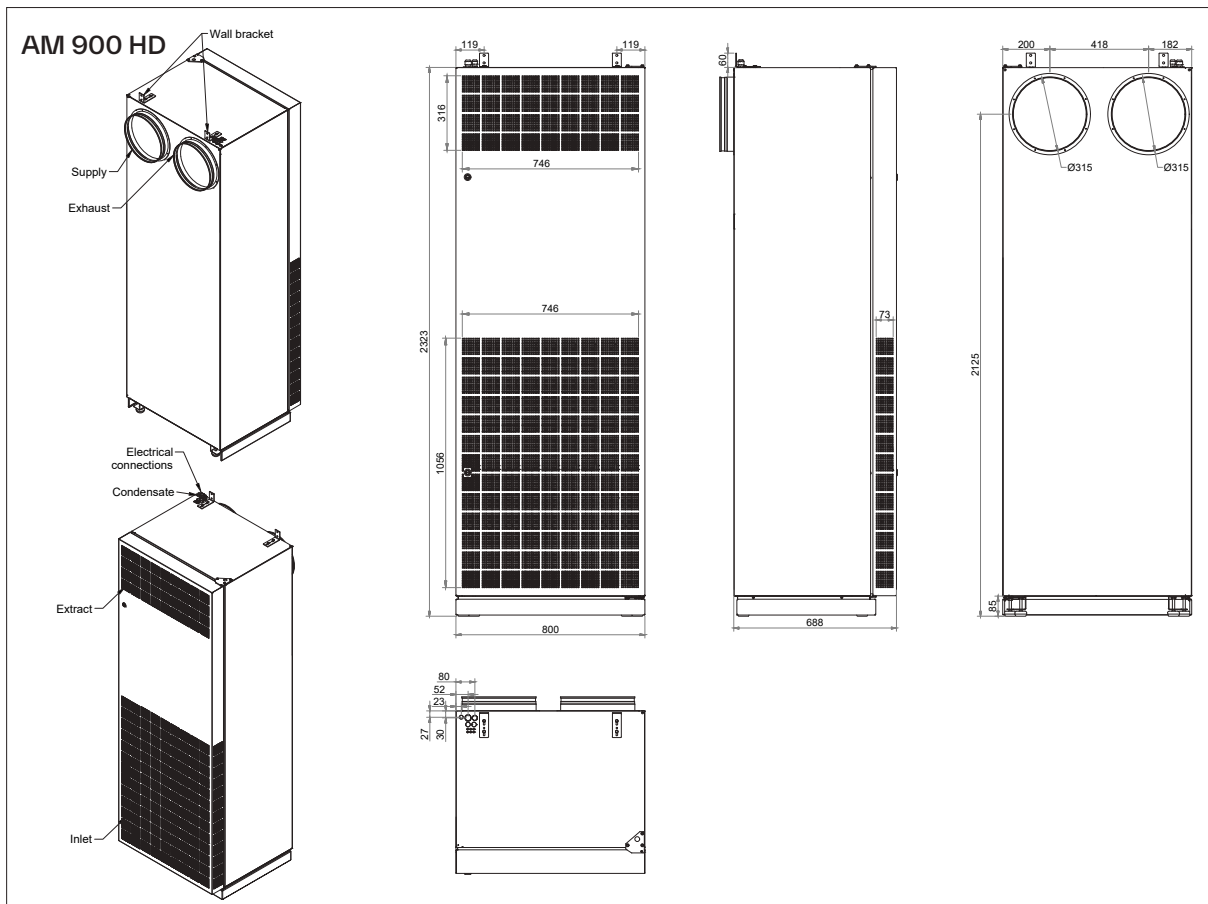
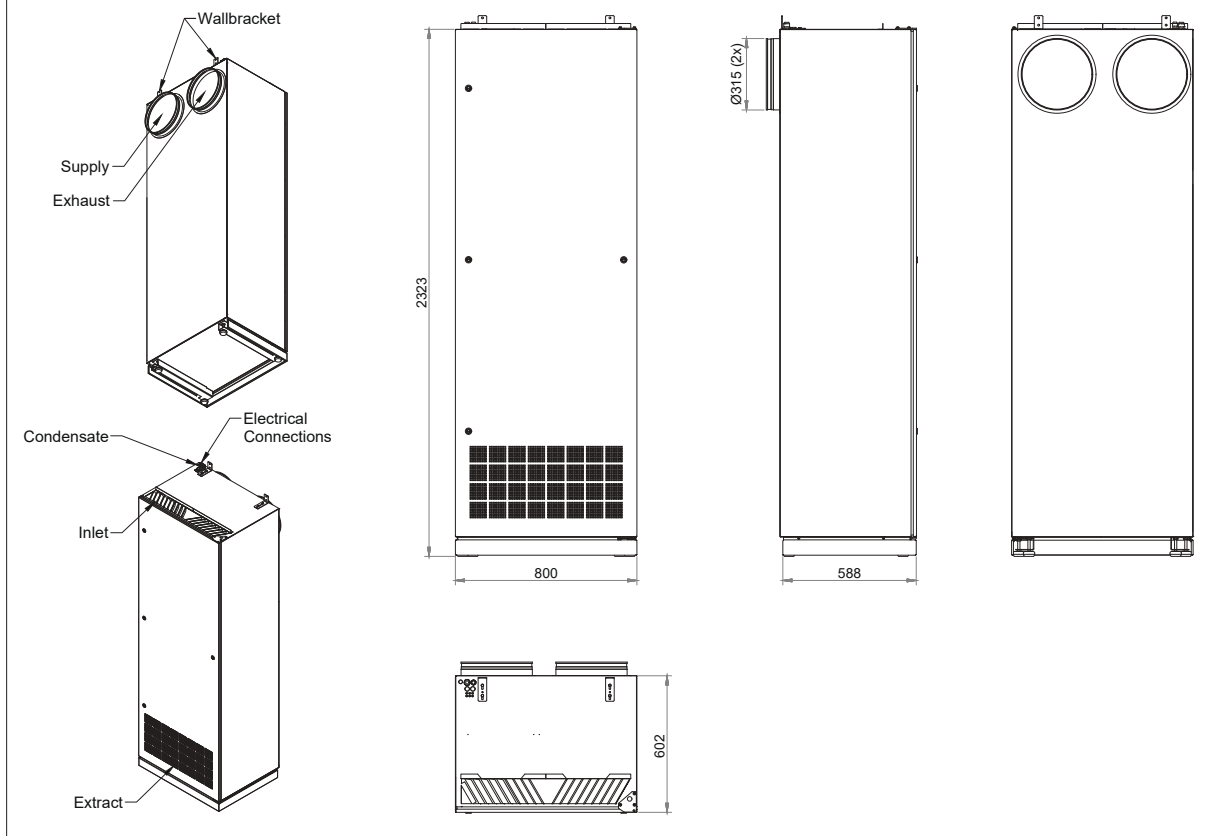


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F1	Supply air fan
F2	Extract air fan
HE	Counterflow heat exchanger
SF	Supply air filter
IT	Inlet air temperature sensor
OTV	Outside temperature sensor
PE	Flow meter, return air
PHS	Preheating surface
PI	Flow meter, supply air
RT	Room temperature sensor
SD	Supply air damper (motor driven)

AM 900

AM 900 HM



Example of dimension drawing. To see the latest dimension drawings and download 3D BIM objects in Autodesk Revit format please go to our website: www.airmaster-as.com

AM 900 is a floor-standing unit that fits perfectly in rooms where efficient air exchange is needed – without noise! AM 900 can be continuously adapted to the room's function and needs – i.a. with a CO2 sensor, motion sensor (PIR), or a hygrostat.



AM 1200 is Airmaster's largest floor-standing ventilation unit and it is particularly suitable for offices, meeting rooms, institutions, libraries, fitness centers and similar. With AM 1200, you get a future-proof solution where both function and design are a focus.



AM 1200

Featuring function and design. Ventilation should not always just be a technical necessity. It can also play a part in the function of a room.

The AM 1200 is a concept within decentralised ventilation which combines fresh air with elegant design, which can be used for a lot more than you might believe.

The AM 1200 is a floor-standing unit, available in horizontal and vertical models. It can be mounted against a wall (right/left variant) or freestanding (central variant).

Different design panels mean the front can be used as a notice board, mirror or whiteboard for example.



Technical data	Filter class	30 dB(A)	33 dB(A)	35 dB(A)
Maximum capacity ¹	ePM ₁₀ 50%	930 m³/h	1055 m³/h	1180 m³/h
Horizontal model, Ø400 mm right / left:	ePM ₁ 55%	837 m³/h	950 m³/h	1062 m³/h
	ePM ₁ 80%	744 m³/h	844 m³/h	944 m³/h
Maximum capacity ¹	ePM ₁₀ 50%	1050 m³/h	1180 m³/h	1310 m³/h
Horizontal model, Ø400 mm center:	ePM ₁ 55%	945 m³/h	1062 m³/h	1179 m³/h
	ePM ₁ 80%	840 m³/h	944 m³/h	1048 m³/h
Maximum capacity ¹	ePM ₁₀ 50%	870 m³/h	1000 m³/h	1130 m³/h
Vertical model, Ø400 mm right / left:	ePM ₁ 55%	783 m³/h	900 m³/h	1017 m³/h
	ePM ₁ 80%	696 m³/h	800 m³/h	904 m³/h
Maximum capacity ¹	ePM ₁₀ 50%	980 m³/h	1120 m³/h	1260 m³/h
Vertical model, Ø400 mm center:	ePM ₁ 55%	882 m³/h	1008 m³/h	1134 m³/h
	ePM ₁ 80%	784 m³/h	896 m³/h	1008 m³/h
Maximum capacity ¹	ePM ₁₀ 50%	820 m³/h	940 m³/h	1060 m³/h
Vertical model, Ø315 mm right / left: ²	ePM ₁ 55%	738 m³/h	846 m³/h	954 m³/h
	ePM ₁ 80%	656 m³/h	752 m³/h	848 m³/h
Maximum capacity ¹	ePM ₁₀ 50%	920 m³/h	1045 m³/h	1170 m³/h
Vertical model, Ø315 mm center: ²	ePM ₁ 55%	828 m³/h	941 m³/h	1053 m³/h
	ePM ₁ 80%	736 m³/h	836 m³/h	936 m³/h
Throw (0.2 m/s) - right / left ¹	ePM ₁₀ 50%	min. 4 m at 1000 m³/h		
	ePM ₁ 55%	max. 9 m at 1000 m³/h		
	ePM ₁ 80%	min. 5.5 m at 1300 m³/h		
		max. 11 m at 1300 m³/h		
Throw (0.2 m/s) - center ¹	ePM ₁₀ 50%	min. 3 m at 1000 m³/h		
	ePM ₁ 55%	max. 6.5 m at 1000 m³/h		
	ePM ₁ 80%	min. 4 m at 1300 m³/h		
		max. 8 m at 1300 m³/h		
Supply air filter		ePM ₁₀ 50%, ePM ₁ 55% or ePM ₁ 80%		
Extract air filter		ePM ₁₀ 50%		
Dimensions (WxHxD)		Horizontal: 496 x 2098 x 2427 mm		
		Vertical: 496 x 2406 x 2427 mm		
The weight including painted panels		Right/left variant: 545 kg		
		Center variant: 630 kg		
Color casing		RAL 7024		
Counterflow heat exchanger		4 x Aluminium		
Air leakage classification cf. EN1886/EN13141-7		Class L2 / A2		
Air leakage classification main damper, cf. EN1751		Class 3		
IP-code		10		
Duct connections		Ø400 mm		
Condensate pump (Capacity ; Lifting height at 5 l/h)		10 l/h ; 6 m		
Supply voltage		1/N/PE 230/400 V AC 50 Hz ²		
		3/N/PE 230/400 V AC 50 Hz		
Nominal power consumption ³		254 W		
Nominal current ³		1.4 A		
Power factor		0.60		
Maximum fuse		16 A (1 phase, type B)		
		3 x 16 A (3 phases, type B). When choosing a pre-heating surface, a 3-phase connection must be used		
Leakage current		≤ 9 mA		
Recommended residual current circuit breaker		Type B		

¹ Measurements are conducted at normal operation in a standard installation situation with Airmaster recommended Ø400 grilles

² With roof cap module

³ At filter class, supply air/extract air: ePM₁₀ 50% / ePM₁₀ 50%

AM 1200

Electric heating surface	Preheating surface	Comfort heating surface
Heat output	2500 W	1670 W
Nominal current	10.9 A	7.3 A
Thermal circuit breaker, manual reset	100°C	100°C

Water heating surface	
Nominal heat output	2454 W ¹
Connection dimension	1/2" (DN 15)
Materials pipes/fins	Copper/aluminium
Open/close time, motor valve	60 s
Max. operating temperature	90°C
Max. operating pressure	5 bar

¹ Capacity at: supply/return temperature 60/40°C, water volume 107 l/h

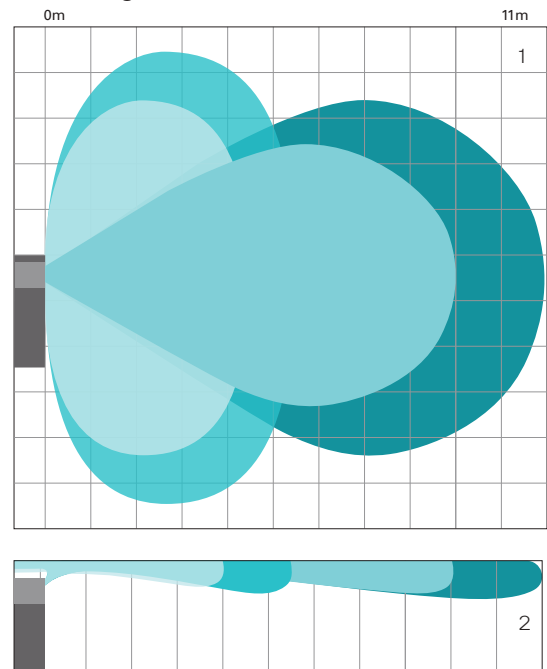
Standard and options

Counterflow heat exchanger (aluminum)	X
Enthalpy counterflow heat exchanger (polymer membrane)	O
Combined counterflow heat exchanger (polymer membrane)	O
Motor-driven bypass	X
Sprint-return motor driven exhaust air damper	X
Spring-return motor driven supply air damper	X
Electric preheating surface	●
Electric comfort heating surface	●
Water heating surface	●
Condensate pump	●
PIR/motion sensor (wall-mounted)	●
CO ₂ -sensor (wall-mounted)	●
CO ₂ -sensor (built-in)	●
TVOC-sensor (built-in)	●
CO ₂ -/TVOC-sensor (built-in)	●

Hygostat	O
Energy meter	●
Supply air filter ePM ₁₀ 50%	●
Supply air filter ePM ₁ 55%	●
Supply air filter ePM ₁ 80%	O
Extract air filter ePM ₁₀ 50%	X
Airlinq® Viva control panel	●
Airlinq® Orbit control panel	●
Airmaster Airlinq® Online	●
Airlinq® Online API	●
Airlinq® BMS	●
LON® Module	O
KNX® Module	O
MODBUS® RTU RS485 Module	●
BACnet™ MS/TP Module	●
BACnet™ /IP Module	●

x : Standard ● : Optional o : Special item

Throw length



1300 m³/h

● max throw
● min throw

1000 m³/h

● max throw
● min throw

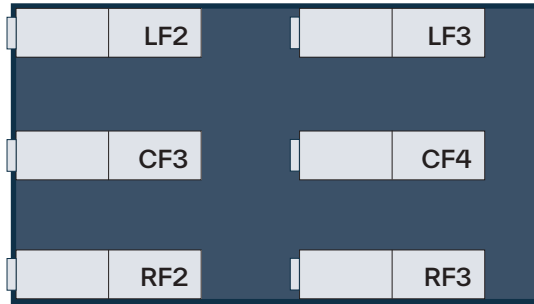
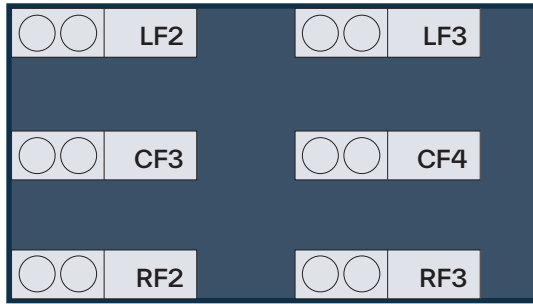
The AM 1200 unit spreads an air stream in different directions, depending on the given airflow. This can be seen in the illustration, in which the blue shading indicates throw the different airflows.

¹ Throw seen from above

² Throw seen from the side

AM 1200

Variants



AM 1200 VRF2 (right, with 2 open sides)
 AM 1200 VRF3 (right, with 3 open sides)
 AM 1200 VCF3 (centre, with 3 open sides)
 AM 1200 VCF4 (centre, with 4 open sides)
 AM 1200 VLF2 (left, with 2 open sides)
 AM 1200 VLF3 (left, with 3 open sides)

AM 1200 HRF2 (right, with 2 open sides)
 AM 1200 HRF3 (right, with 3 open sides)
 AM 1200 HCF3 (centre, with 3 open sides)
 AM 1200 HCF4 (centre, with 4 open sides)
 AM 1200 HLF2 (left, with 2 open sides)
 AM 1200 HLF3 (left, with 3 open sides)

Design panels	Colour	Size
MDF	Painted (standard colours)	1200 x 1000
MDF with whiteboard laminate ¹	White	1200 x 1000
MDF with blackboard surface	Black	1200 x 1000
Mirror glued on MDF	Mirror	1200 x 1000

¹ We are offering the best quality of whiteboards with a surface of ceramic enamel. Ceramic enamel forms a completely closed surface and is therefore also extremely easy to clean.



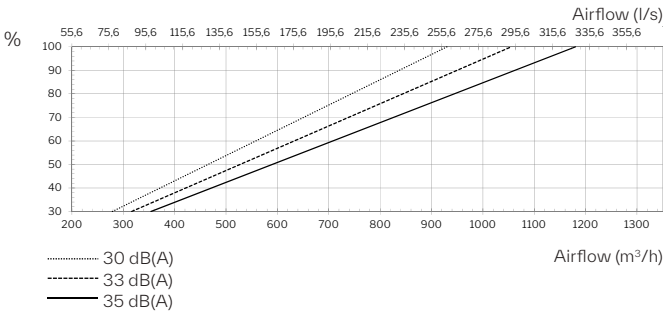
Colour options

Painted MDF boards are supplied in the following 8 standard colours.
 Other RAL colours are available at extra cost.

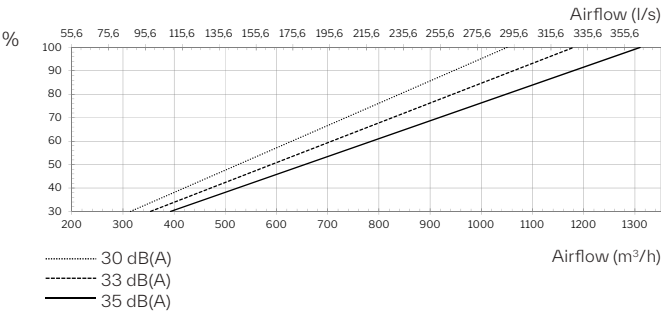
RAL 9010	RAL 9005	RAL 5017	RAL 6017
RAL 1016	RAL 3020	RAL 6027	RAL 6019

AM 1200 H

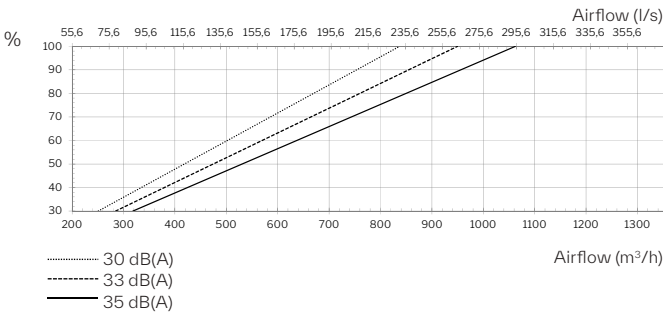
L/R Capacity with ePM₁₀ 50% / ePM₁₀ 50% filter ¹



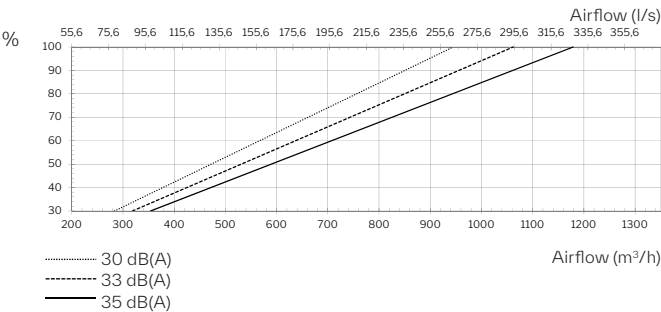
C Capacity with ePM₁₀ 50% / ePM₁₀ 50% filter ¹



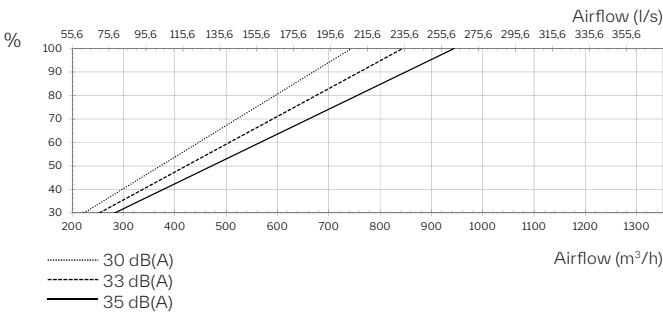
L/R Capacity with ePM₁ 55% / ePM₁₀ 50% filter ¹



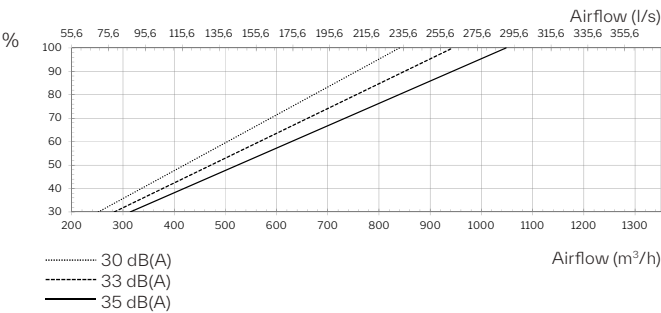
C Capacity with ePM₁ 55% / ePM₁₀ 50% filter ¹



L/R Capacity with ePM₁ 80% / ePM₁₀ 50% filter ¹

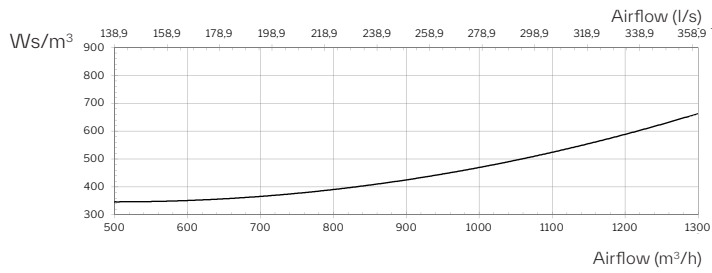
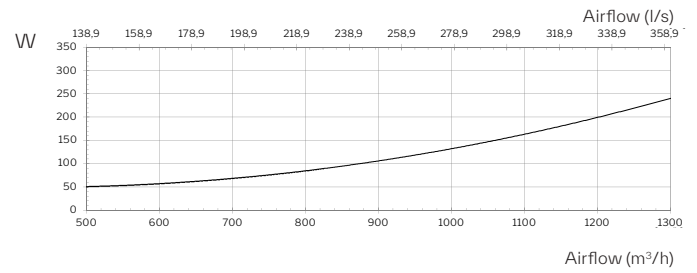


C Capacity with ePM₁ 80% / ePM₁₀ 50% filter ¹

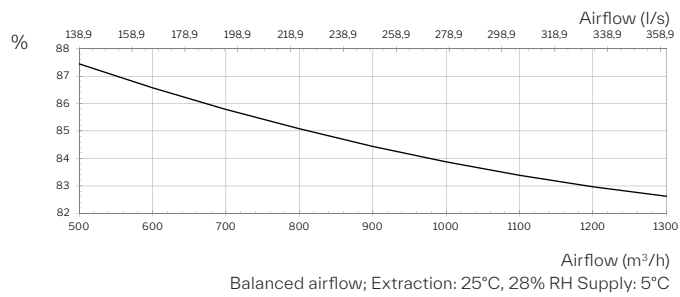
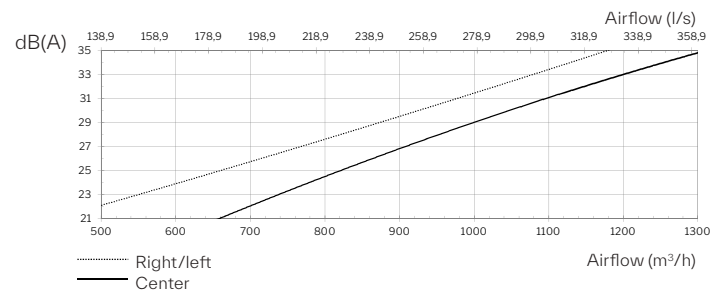


¹ Measurements are conducted at normal operation in a standard installation situation with Airmaster recommended Ø400 grilles

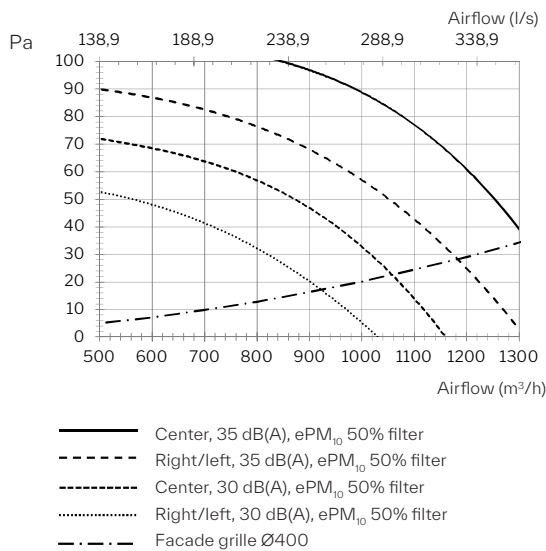
AM 1200 H

SFP¹Power consumption¹

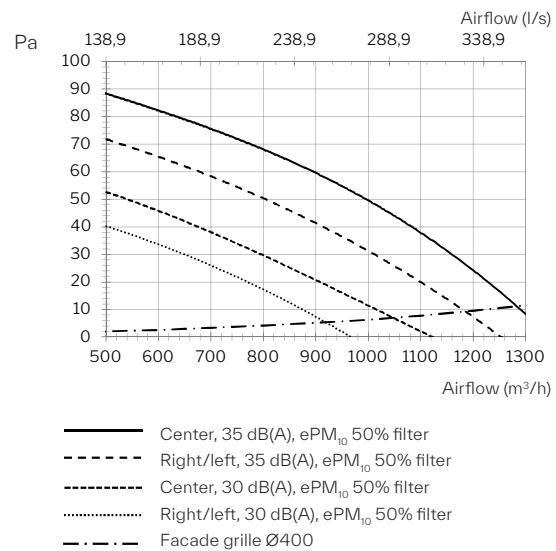
Temperature efficiency, acc. to EN 308

Sound pressure²

External pressure loss - Supply Air



External pressure loss - Extract Air

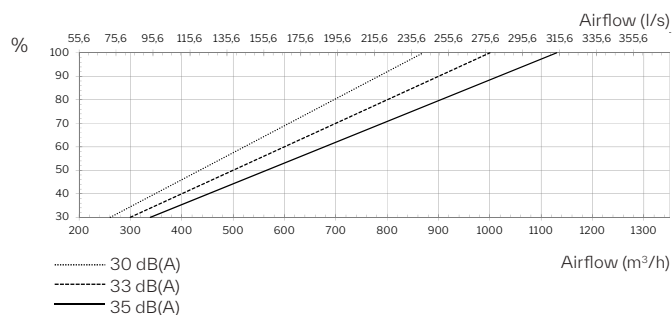


¹ Measurements are conducted at normal operation in a standard installation situation with Airmaster recommended Ø400 grilles

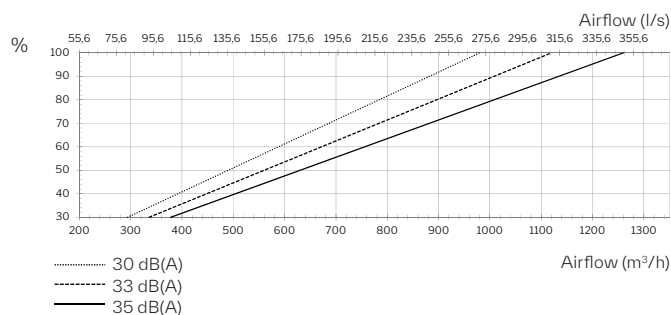
² Sound pressure level $L_{p,eq}$ is measured in a height of 1.2 m with at horizontal distance of 1 m from the air handling unit in a room with a size of 200 m³ and a reverberation time of $T = 0.6$ s, corresponding to a room attenuation of 7,5 dB(A).

AM 1200 V

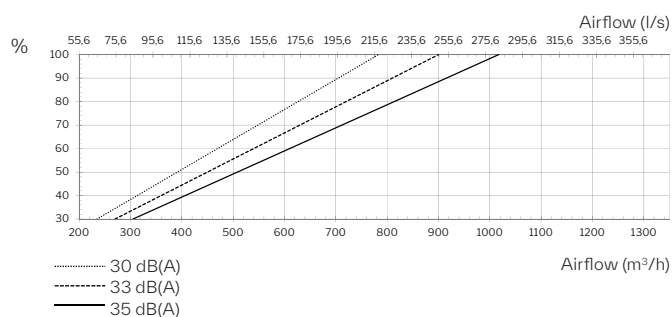
L/R Capacity with ePM₁₀ 50% / ePM₁₀ 50% filter¹



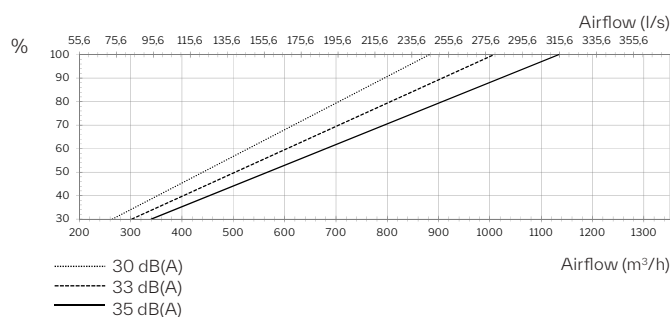
C Capacity with ePM₁₀ 50% / ePM₁₀ 50% filter¹



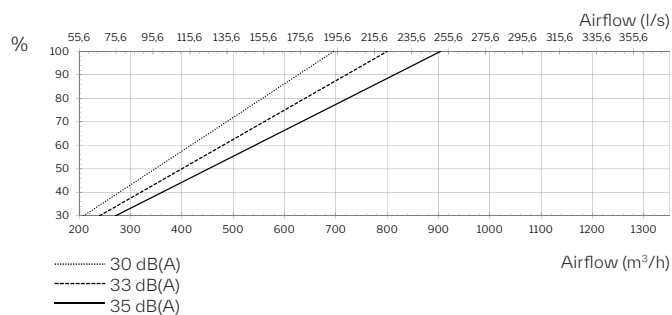
L/R Capacity with ePM₁ 55% / ePM₁₀ 50% filter¹



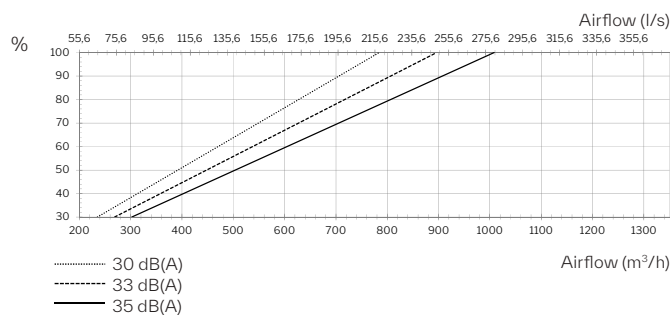
C Capacity with ePM₁ 55% / ePM₁₀ 50% filter¹



L/R Capacity with ePM₁ 80% / ePM₁₀ 50% filter¹



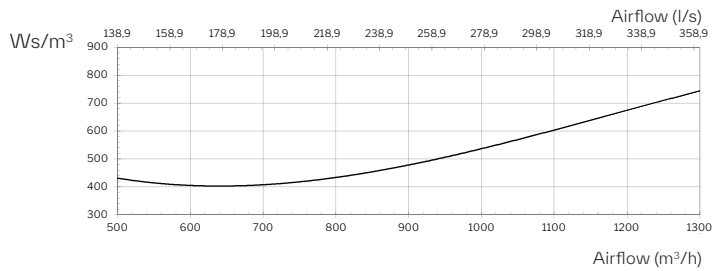
C Capacity with ePM₁ 80% / ePM₁₀ 50% filter¹



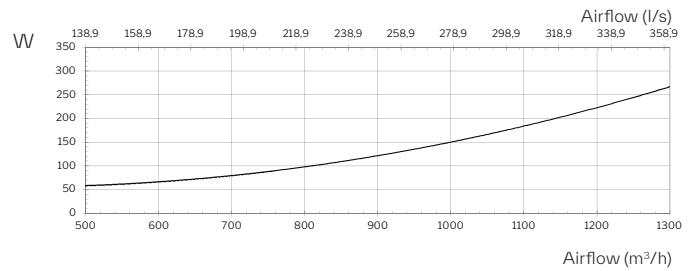
¹ The measurements have been made during normal operations in a standard installation situation with the roof cap Ø400 mm, which is recommended by Airmaster.

AM 1200 V

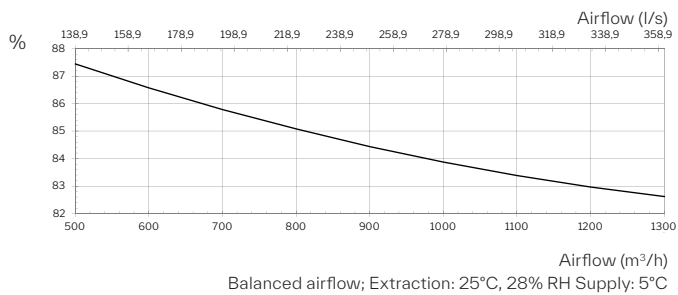
SFP¹



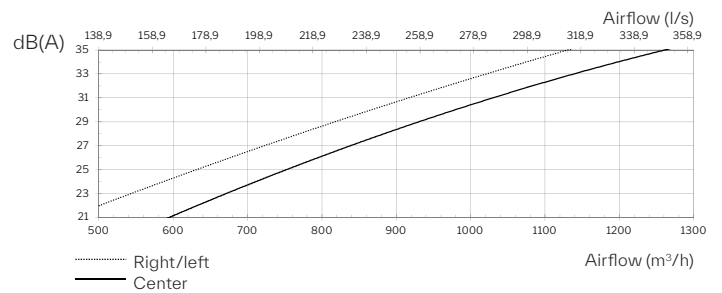
Power consumption¹



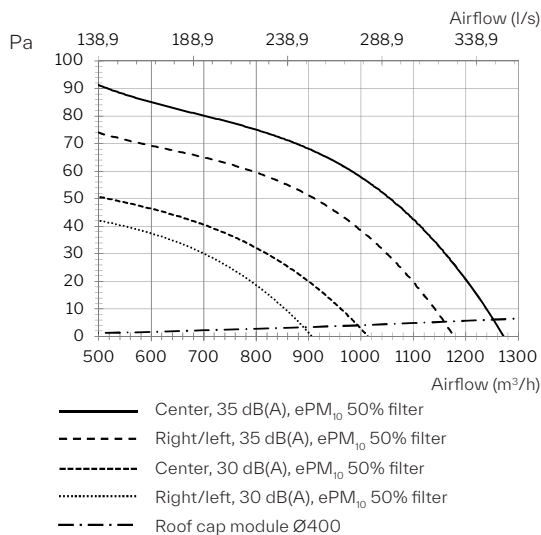
Temperature efficiency, acc. to EN 308



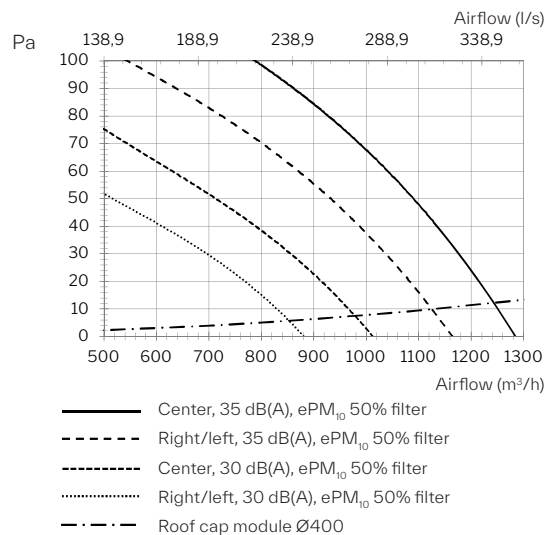
Sound pressure²



External pressure loss - Supply Air



External pressure loss - Extract Air



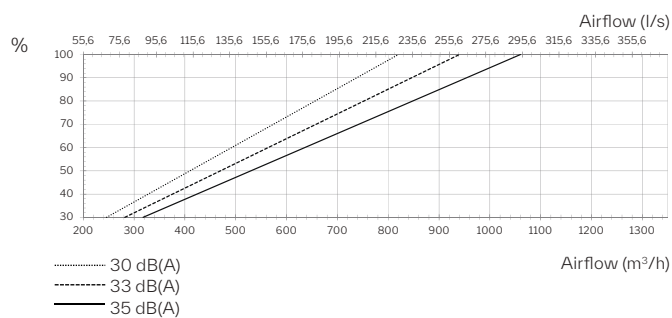
¹ The measurements have been made during normal operations in a standard installation situation with the roof cap Ø400 mm, which is recommended by Airmaster.

² Sound pressure level L_{p,eq} is measured in a height of 1.2 m with at horizontal distance of 1 m from the air handling unit in a room with a size of 200 m³ and a reverberation time of T = 0.6 s, corresponding to a room attenuation of 7,5 dB(A).

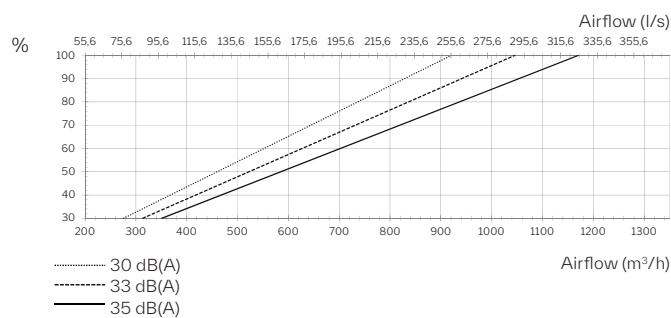
AM 1200 V

With Ø315 roof cap module

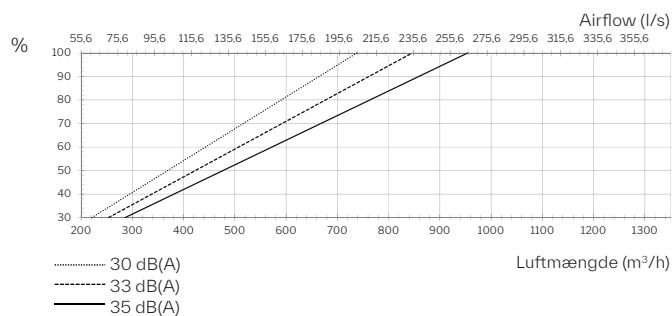
L/R Ø315 Capacity with ePM₁₀ 50% / ePM₁₀ 50% filter¹



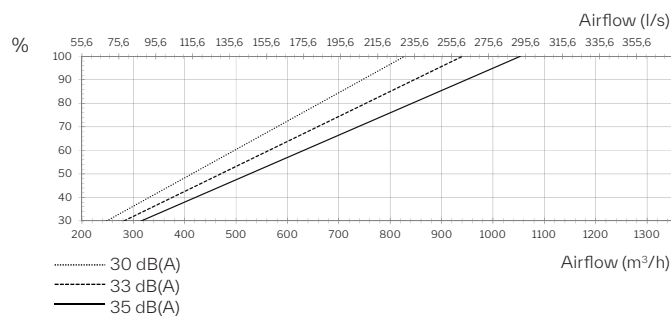
C Ø315 Capacity with ePM₁₀ 50% / ePM₁₀ 50% filter¹



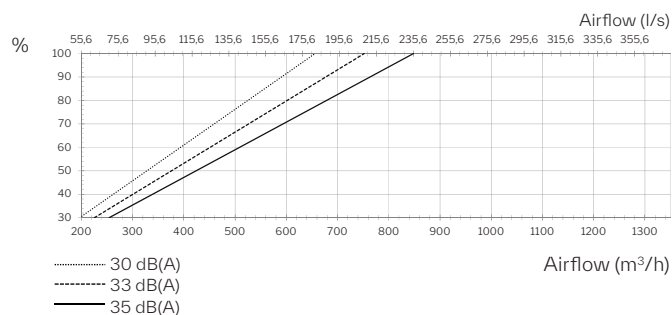
L/R Ø315 Capacity with ePM₁ 55% / ePM₁₀ 50% filter¹



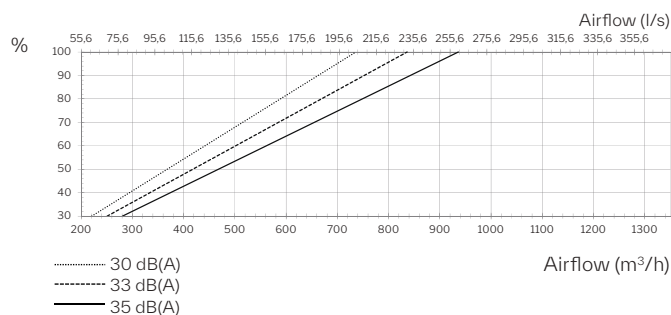
C Ø315 Capacity with ePM₁ 55% / ePM₁₀ 50% filter¹



L/R Ø315 Capacity with ePM₁ 80% / ePM₁₀ 50% filter¹



C Ø315 Capacity with ePM₁ 80% / ePM₁₀ 50% filter¹

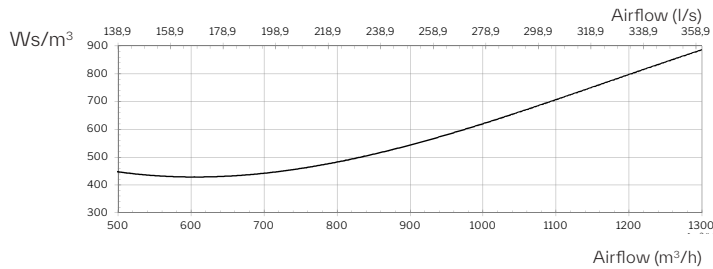


¹ Measurements are conducted at normal operation in a standard installation situation with Airmaster recommended Ø315 roof caps module.

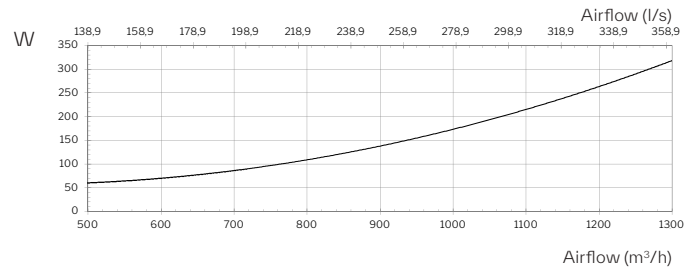
AM 1200 V

With Ø315 roof cap module

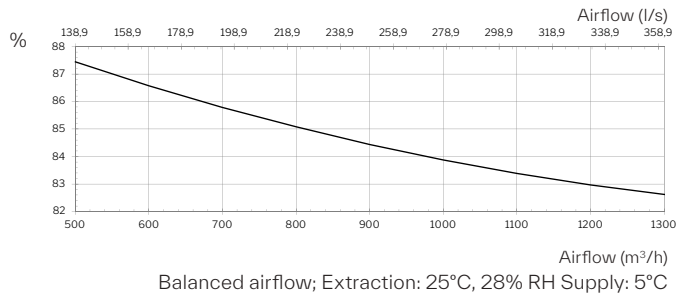
SFP¹



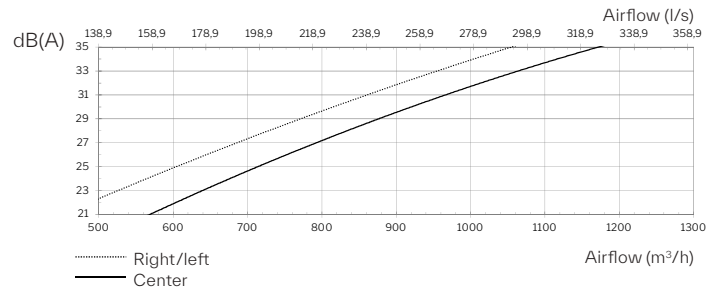
Power consumption¹



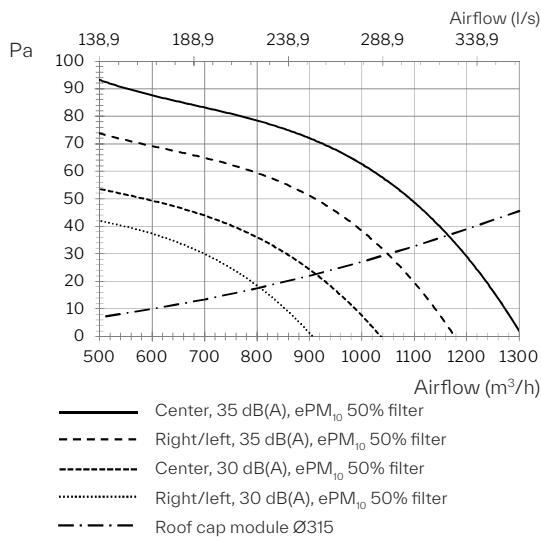
Temperature efficiency, acc. to EN 308



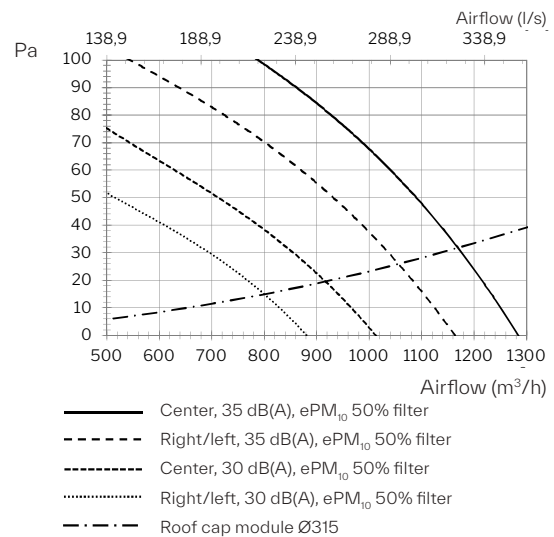
Sound pressure²



External pressure loss - Supply Air



External pressure loss - Extract Air

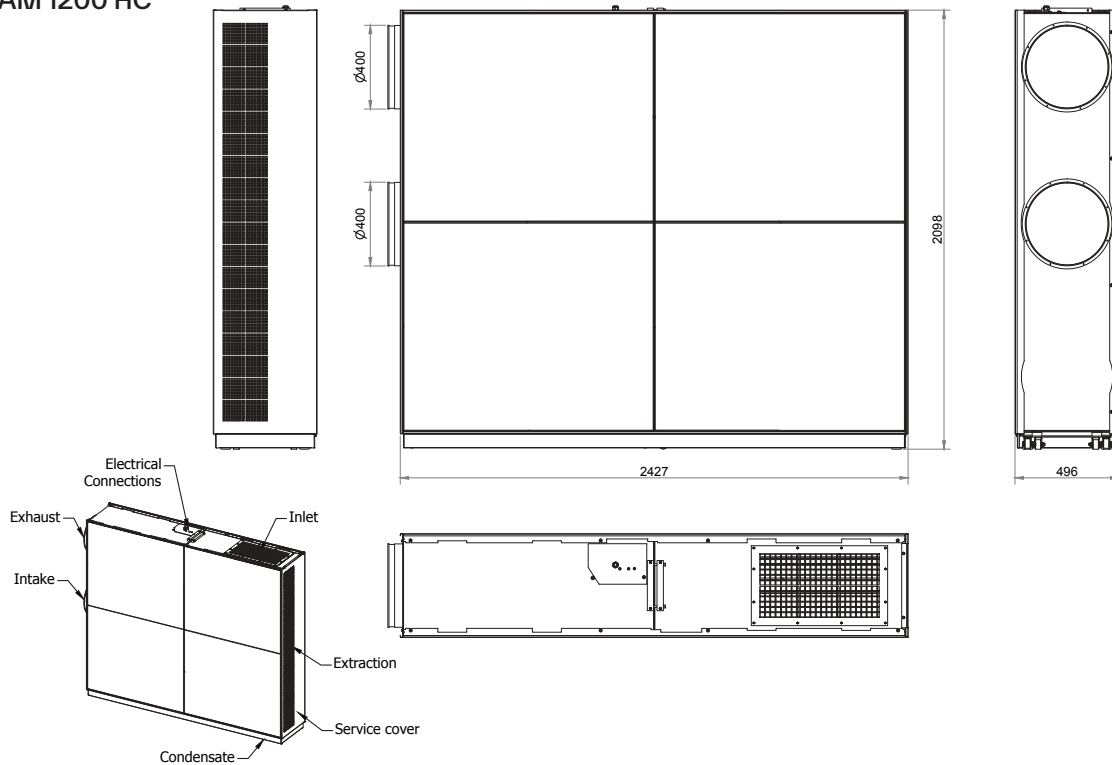


¹ Measurements are conducted at normal operation in a standard installation situation with Airmaster recommended Ø315 roof caps module.

² Sound pressure level Lp,eq is measured in a height of 1.2 m with at horizontal distance of 1 m from the air handling unit in a room with a size of 200 m³ and a reverberation time of T = 0.6 s, corresponding to a room attenuation of 7,5 dB(A).

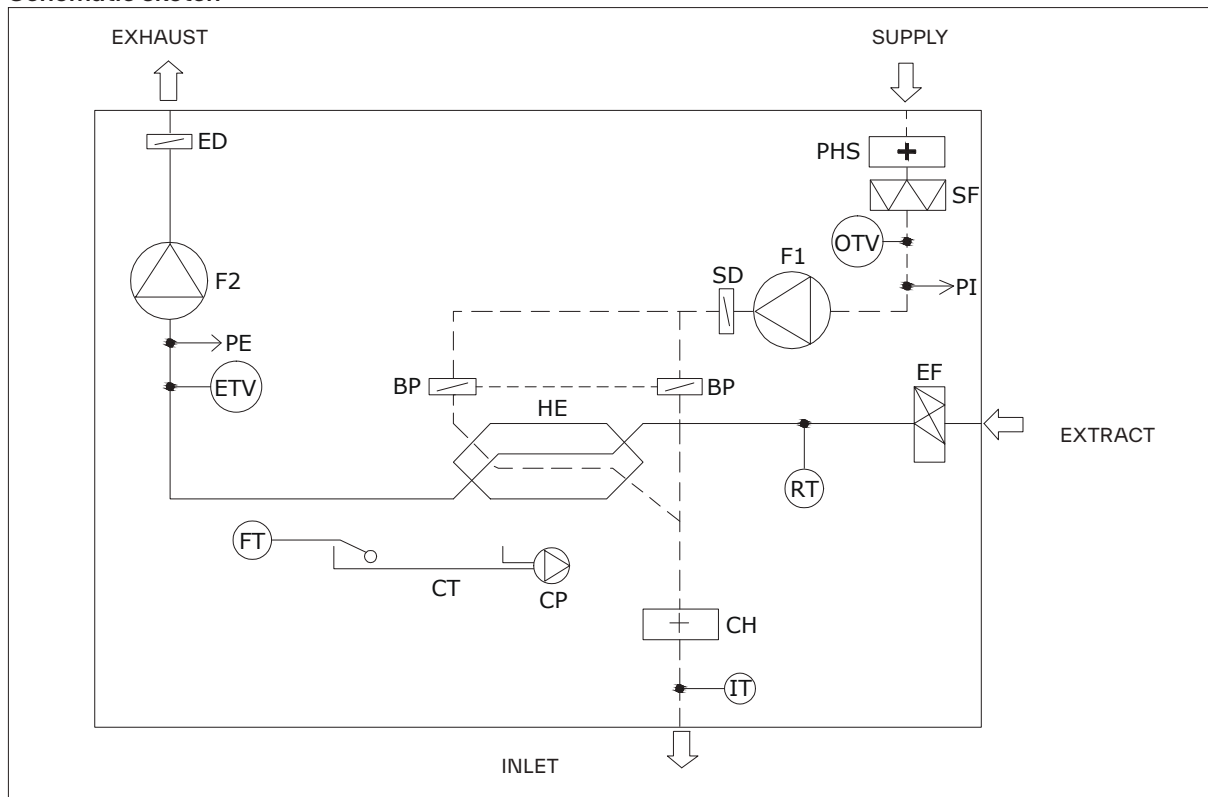
AM 1200

AM 1200 HC



Example of dimension drawing. To see the latest dimension drawings and download 3D BIM objects in Autodesk Revit format please go to our website: www.airmaster-as.com

Schematic sketch



Name of component

BP	Bypass (motor driven)
CH	Comfort heating surface
CP	Condensate pump
CT	Condensate tray
ED	Exhaust air damper
EF	Extract air filter

ETV	Exhaust temperature sensor
FT	Float
F1	Supply air fan
F2	Extract air fan
HE	Counterflow heat exchanger
SF	Supply air filter
IT	Inlet air temperature sensor
OTV	Outside temperature sensor

PE	Flow meter, return air
PHS	Preheating surface
PI	Flow meter, supply air
RT	Room temperature sensor
SD	Supply air damper (motor driven, spring return)



With AM 1200, we combine the fresh air in the room with a ventilation unit that has far more functions than you might think. The unit is available with different types of design boards and can therefore be used as both a whiteboard or notice board – yes, in fact, it is only the imagination that sets the limits for the possibilities of use.

Control processes

On the following pages the different advanced control processes are described.

Dealing with condensate

With the high level of heat recovery of up to 95%, extract air in the counterflow heat exchanger undergoes intense cooling.

This may, under certain conditions, cause moisture in the extract air to condense in the exchanger. If this occurs, the condensation will then be collected in a condensation tray, where a float sensor automatically records how much water there is. The unit is fitted with an automatic condensation management process, which means that in rooms with normal humidity, such as offices, meeting rooms and classrooms, it is not typically necessary to connect a condensation drain.

When ventilating rooms with high humidity, the condensation can be directed away from the unit to a drain to prevent outages, for example by fitting the unit with a fully automatic condensation pump.

Frost protection

When the outside temperature approaches freezing point, the exhaust temperature behind the counter-flow heat exchanger drops. This can result in condensate freezing in the heat exchanger. The Airlinq® control system prevents the formation of ice by increasing extract air and reducing inlet air, causing the extract air temperature to rise again.

If this process is insufficient to prevent ice forming in the heat exchanger, Airlinq® will protect the unit by shutting down operation.



Float sensor

Built-in float sensor detects unwanted build-up of condensate.

"Preheat" with electric preheating surface

If the air handling unit is fitted with an electric preheating surface, it will heat the fresh air before it meets the counterflow heat exchanger, preventing the formation of ice. To maintain balanced ventilation, the Airlinq® control system controls the temperature in the unit. This is achieved by the preheating surfaces only cutting in if the requirement exists. Energy consumption can thus be kept at a minimum.

"Virtual preheat" with electric heating surface

On AM 150, the unit can alternatively be protected against ice formation by using an electric heating element and the "virtual pre-heating" function. A bypass damper diverts some of the fresh air past the counterflow heat exchanger. The heating surface heats the fresh air up to the inlet temperature is reached. The extract air is cooled down less in the heat exchanger, preventing ice formation.

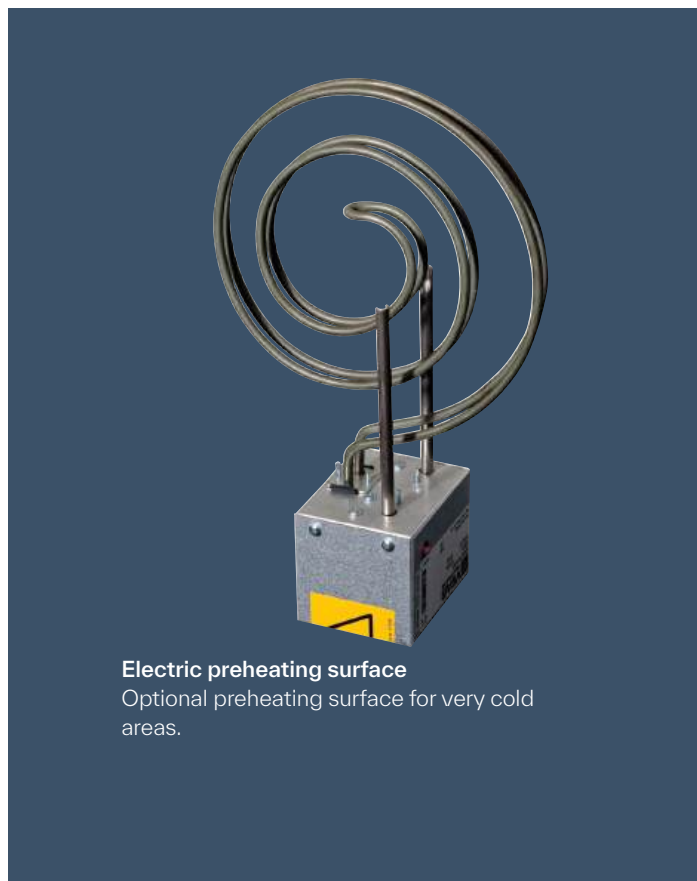
Controlled inlet temperature

To achieve the highest level of heat recovery, Airmaster air handling units are fitted with highly-efficient counterflow heat exchangers. A comfort heating surface is therefore used only to equalise the minimal heat loss during ventilation, ensuring that full operation can be maintained, even in cold geographical regions. Balanced ventilation is maintained as long as the inlet temperature remains within acceptable limits as standard.

If the inlet temperature cannot be maintained at low fresh temperatures, Airlinq® will reduce inlet air and increase extract air to compensate for the low temperature.

The function is also active if comfort heating surface capacity is utilised 100%.

This function means that in certain climates the comfort heating surface is not required.

**Electric preheating surface**

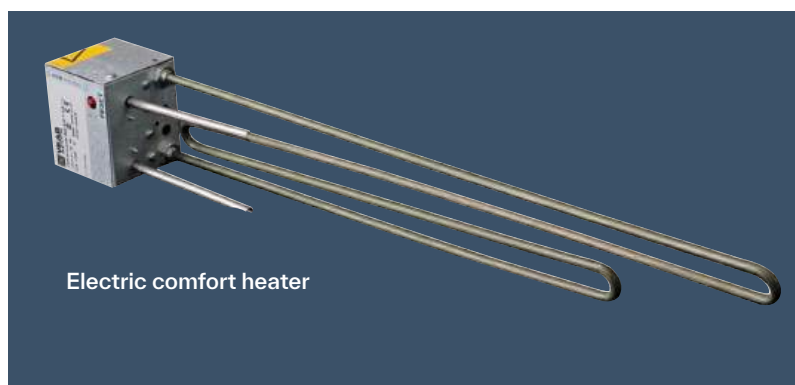
Optional preheating surface for very cold areas.

Electric comfort heating surface with adaptive control

The electrical comfort heating surface is controlled automatically by the Airlinq® controls system, which checks the temperature conditions in the air handling unit and switches the comfort heating surface on and off as required.

Adaptive control means that the electrical comfort heating surface warms the inlet air after the counterflow heat exchanger with only the energy required to maintain the desired inlet air temperature. In other words, adaptive control ensures that the supply air has an even temperature.

The balance between the supply air and extract air can be maintained via an electrical comfort heating surface, even at very low outside air temperatures.

**Electric comfort heater**

Control processes

Water comfort heating surface

Most air handling units can have a water comfort heating surface fitted as an alternative to an electric comfort heating surface. A water comfort heating surface also ensures the required inlet temperature. The large surface area of the heating surface ensures efficient transfer of heat energy to the inlet air.

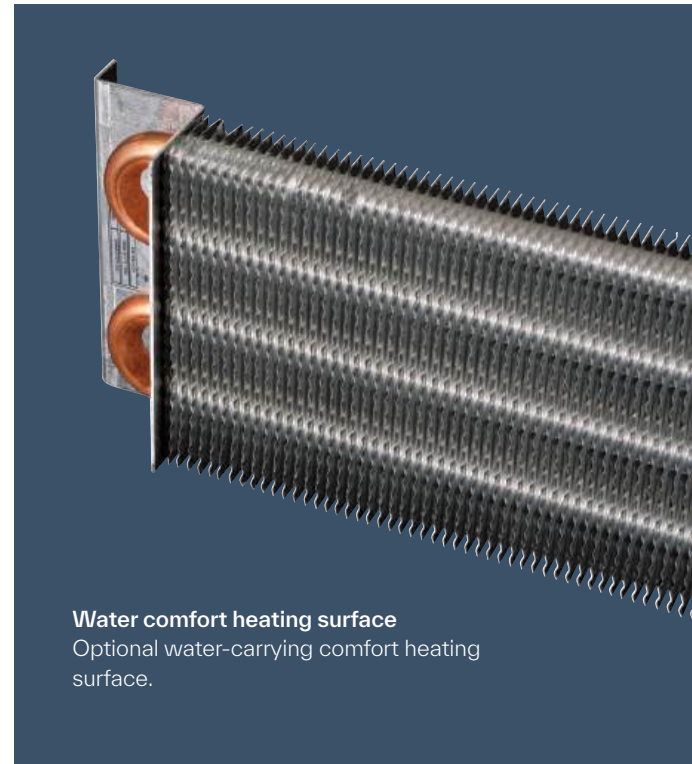
The Airlinq® control system activates and deactivates the heating surface using a motor-driven valve. The heating surface is supplied built-in to the air handling unit, or as part of the duct system. Connection to the local heating system is therefore quick and simple.

Frost protection of water comfort heating surface

The water comfort heating surface is fitted with a separate, self-controlling heat retention valve, which ensures a minimum temperature even when the air handling unit is switched off. All nominal values for the water heating surface are preprogrammed into the Airlinq® control system. The heating surface is therefore protected against frost and is directly functional.

Flow control

Most air handling units can control the airflow using flow control. Flow control means that the airflow is stated in m^3/h and ensures balanced operation, even in case of varying pressure losses on the supply and extract air. To convert airflow to m^3/h , a measuring nozzle is fitted inside the air handling unit between the fan and the main control box, which measures the differential pressure. The differential pressure is measured for the supply air and extract air respectively, and then converted to an airflow in m^3/h .



Water comfort heating surface
Optional water-carrying comfort heating surface.

Control processes for cooling

Although not a heating or air conditioning unit as such, an Air-master ventilation unit can still help regulate the room temperature to a certain degree. The fully automatic control will utilise the outside temperature for cooling when it is lower than the room temperature, both by bypassing the heat exchanger and through night cooling. If additional cooling is needed, most Airmaster ventilation units can have a cooling module added, which can further reduce the temperature of the inlet air. The specially developed cooling modules are designed to lower the temperature of the outside air by up to 15°C and ensure the most comfortable supply temperature.

The cooling modules are demand controlled and only cool the air to the extent necessary and when needed.

Automatic bypass

The Airlinq® control system can open the bypass gradually if the inlet temperature exceeds the required level. Cooler fresh air will be allowed to bypass the counter-flow heat exchanger, ensuring the inlet temperature setpoint is. Airlinq® will adjust the inlet air temperature to achieve a higher cooling output. If the room temperature exceeds the desired level, e.g. as a result of strong sunlight, the bypass will open automatically.

If a cooling module is fitted to the air handling unit, Airlinq® will activate it automatically if cooling using fresh air is insufficient.

Night time cooling

If the room temperature exceeds the desired maximum level set during the day, all Airmaster air handling units can automatically cool down the room using colder night air. It will be registered by the Airlinq® control system, and started automatically.

If necessary, the function will use the bypass damper and cooling module to achieve the cooling output required. The building and its contents will be cooled, and a reduction of the room temperature will be achieved for the next day.

Control processes for cooling

Energy-efficient and on-demand cooling

Airmaster inverter-controlled cooling modules provide efficient and on-demand controlled ventilation and cooling solutions with extremely low-energy consumption in rooms where air-replacement and cooling needs vary. The inverter-controlled cooling modules are integrated with Airmaster decentralised air handling units.

Cooling using inverter-controlled comfort cooling modules (CC)

At high outside air temperatures, the bypass function and night cooling ensures that the inlet air temperature is kept at the desired level. If the cooling level is insufficient, the temperature can be reduced efficiently using the cooling module.

The Airlinq® control system automatically activates the cooling module, which can reduce the outside air temperature by up to 15°C.

The cooled air is fed into the air handling unit and the inlet air temperature is thus kept to the desired level. All cooling modules are dimensioned in accordance

with European conditions (outside air temperature 35°C, 40% relative humidity) and standard EN 14511-2.

The cooling module is not subject to the PED – Pressure Equipment Directive in accordance with article 1 (3.6).

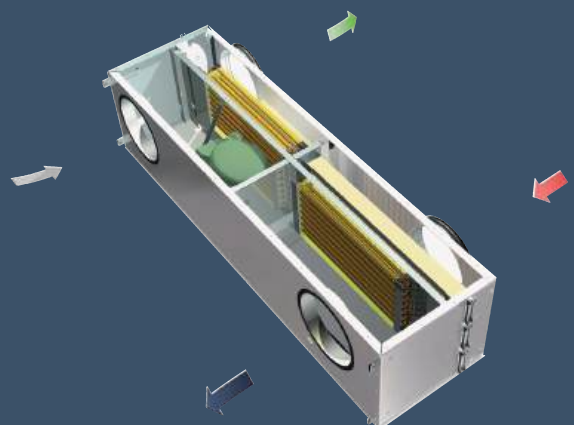
All cooling modules are equipped with a built-in condensation pump as standard.

Airmaster specially developed inverter-controlled cooling modules are fully automatically controlled by the Airlinq® control system.

Together with five different network modules (Airlinq® Online, LON®, MODBUS® RTU RS485, BACnet™ MS/TP, BACnet™/IP, KNX®) and the intuitive control panels, Airlinq® supports an efficient, economical and future-proof ventilation solution.

Comfort cooling module
is available for the following
air handling units:

AM 150 H
AM 500 H
AM 800 H

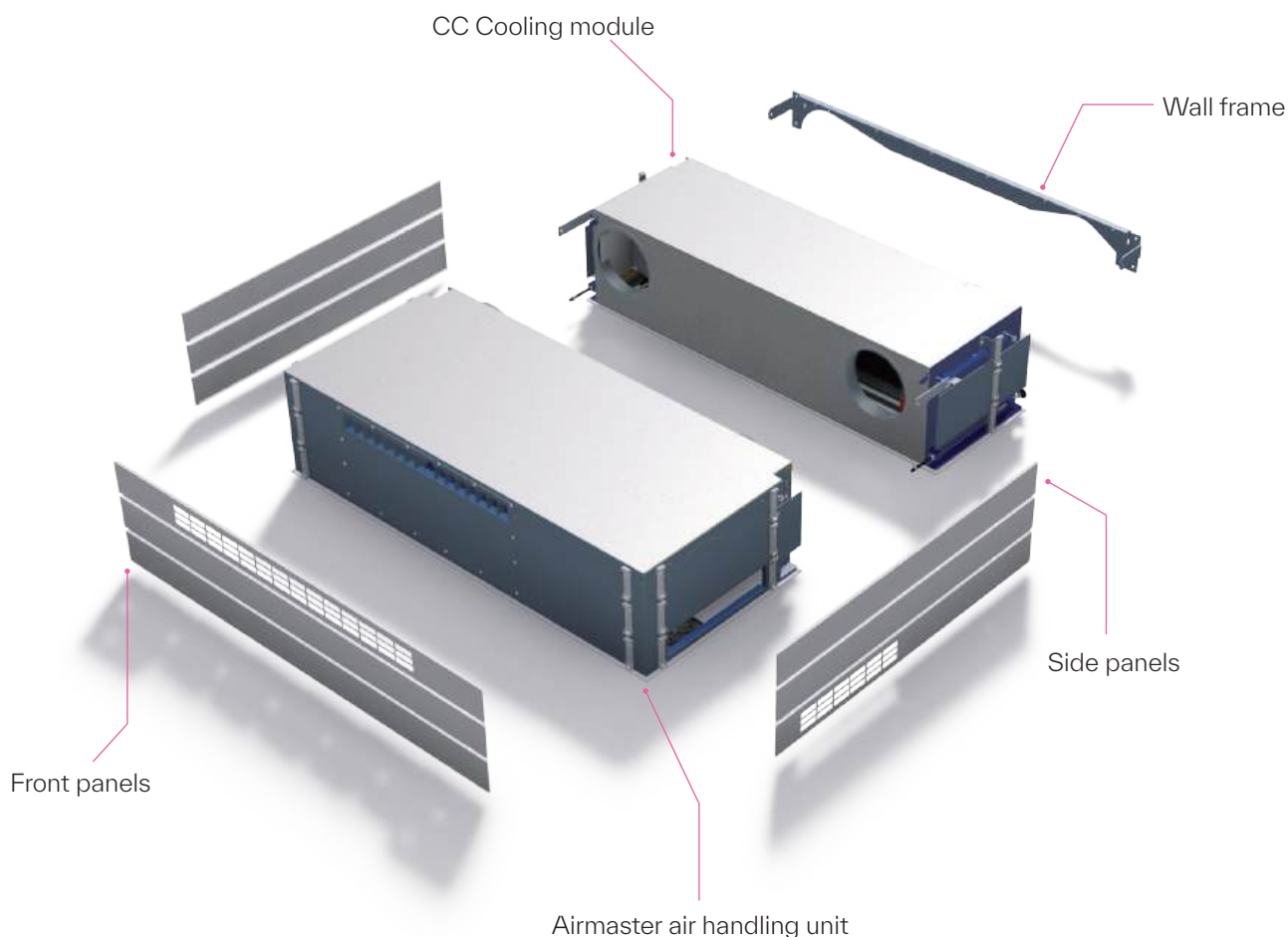


Airmaster's comfort-creating cooling module for horizontal models completes the most flexible ventilation system on the market.

Benefits in terms of running costs and climate impact are gained by the deployment of pioneering technology.

An inverter-controlled cooling solution gives infinitely adjustable capacity regulation of the compressor, to ensure that it adjusts constantly to actual cooling requirement. That means significant benefits in terms of running costs and climate impact:

- Optimised for energy-efficient operation in our climate zone.
- High annual mean EER value due to inverter-controlled compressor.
- Lower running costs thanks to on-demand control - annual savings for electricity typically 60-80%.
- Intelligent inverter-control ensures continuous operation, even under extreme climatic conditions, indoors and outside.
- Very quiet in operation.
- Outside air is typically cooled by up to 15°C before entering the room via the Airmaster unit.
- Easy monitoring of operation and climate via Airlinq® data log - stores up to one year's operating data.



Control processes with sensors

Demand controlled ventilation can be obtained by means of various sensors. Controlling ventilation according to needs provide both a high level of indoor air quality and reduces energy consumption.

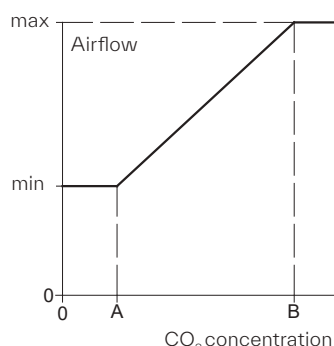
Control via CO₂ sensor

In rooms where humans are the primary source of pollution, comfort ventilation is often controlled according to the CO₂ concentration in the room as it is a good indicator of pollution caused by people and thus the need for a supply of fresh outside air. A CO₂ sensor measures the CO₂ level in the room, and sends the reading to the control system. The control system then adjusts the rate of air replacement in the room according to the CO₂ level. The unit's energy consumption is reduced to a minimum.



CO₂ sensor - wall-mounted or built-in
Automatically aligns the ventilation level to the CO₂ level in individual rooms.

Figure 1
Airflow control

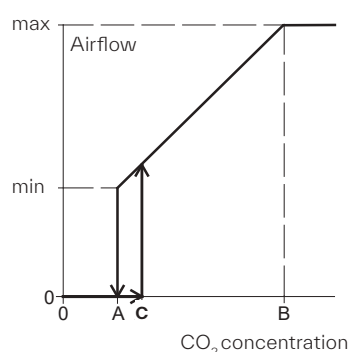


Airflow control (figure 1)

The unit can be set to run with a reduced standard airflow (figure 1) for basic ventilation. If the CO₂ level in the room exceeds the programmed lower limit (figure 1), the CO₂ sensor will cut in and increase airflow.

If CO₂ levels continue to rise, the airflow will be increased up to the maximum volume (max.) at the upper CO₂ limit (figure 1) and above.

Figure 2
Start, stop and airflow control



Start, stop and airflow control (figure 2)

If the unit is fully controlled by the CO₂-sensor, it will start with the corresponding air volume when the CO₂-level exceeds the programmed lower control limit, plus 10%, or a fixed programmed value (figure 2).

If the CO₂ level continues to increase in the room, the airflow is increased linearly, up to the maximum airflow at the CO₂ level's upper limit (figure 2) and above.

If the CO₂ level falls below the programmed lower limit (figure 2), the air handling unit stops again.

If the air handling unit is started by a timer and the CO₂ limit continues to exceed the lower limit (figure 2), the air handling unit will continue even after the programmed stop, until the CO₂ level has fallen below the lower limit, to ensure a good indoor climate.

Modulating TVOC-sensor

Research shows that the CO₂ concentration is not the only thing to cause impaired concentration and the like, but that other gases such as formaldehyde, acetone, methanol, acetic acid and acetaldehyde – called VOCs (Volatile Organic Compounds) – have a decisive influence.

VOCs are easily evaporable organic compounds released by cleaning agents, building materials, work processes, cosmetics and human bodily processes, etc.

Despite them occurring in very small concentrations in the indoor climate, research has shown that these substances probably play a major role in people's perception of the air quality, and they have an impact on our mental well-being.

As VOC and CO₂ concentrations do not necessarily occur together, it makes sense to have a separate

measurement of VOCs that demand controls the ventilation based on the VOC concentration, or better still, based on the VOC concentration and the CO₂ concentration at the same time.

The benefit for occupants of the rooms will be that the air exchange is controlled on the basis of several relevant parameters.

The TVOC (Total VOC) sensor is available either as a stand-alone sensor or incorporated with Airmaster's existing CO₂ sensor. If incorporated, both sensors will operate in parallel, with the most critical signal determining the air exchange.

The demand control emits a modulating operating signal which ensures that only the required amount of air is supplied to the room, thus reducing the energy consumption for ventilation.

Scales and interpretation:

CO ₂		TVOC (Total VOC)			
Limits, ppm (parts per million)		Limits, ppb (parts per billion)		Colours	Interpretation
From	To	From	To		
400	900	0	65	Dark green 	"really good"
900	1200	65	220	Light green 	"good"
1200	2000	220	660	Yellow 	"fair"
2000	5000	660	2200	Orange 	"poor"
5000		2200		Red 	"warning"



Control via motion sensor (PIR)

The air handling unit is set to start/stop via a signal from a motion sensor. The motion sensor detects motion within its detection field and sends a signal to the unit to start. The unit will start in normal operation using the programmed airflow and inlet temperature. When the signal ceases, the unit will stop after the preprogrammed afterrun time. A motion sensor is often used to switch the unit from basic ventilation to normal operation when anyone enters the detection field.



A motion sensor wall-mounted or built in. Ensures as little energy consumption as possible, as ventilation does not start until movement is detected in the room.

Humidity



Humidity control

Adaptive on-demand control

Airmaster's AM 300 ventilation unit can be fitted with two built-in humidity sensors and extended programming.

Integrated humidity and temperature sensors on supply and extract make exact calculation of absolute air humidity possible.

Automatic adaptation to weather conditions

The adaptive humidity control automatically reduces the drying out of the air during the winter and reduces humidity in the summer. This effective, energy-saving form of operation creates a healthy environment and a healthy energy bill.

Control by a wall-mounted hygrometer

A hygrometer registers relative air humidity, and sends either a start or stop signal to the air handling unit. Humidity in the air affects the length of hygroscopic man-made fibres. Depending on the humidity level, the fibres will activate a contact that triggers the signal.

When the relative air humidity goes above or below the setpoint, the hygrometer sends a start/stop signal to the air handling unit. Hygrometers are often used to switch a unit from basic ventilation to full operation when the relative humidity set is exceeded.



Hygrometer ensures that humidity is automatically kept down. Can be installed in the room.

Intelligent control with Airlinq®

Airmaster focuses not only on the air handling unit, but also on the control system and operation.

All Airmaster decentralised air handling units are controlled by our intelligent, fully automatic control system - Airlinq®.

Airlinq® makes it possible to use units immediately after installation, as all basic functions are preprogrammed at the factory.

The Airlinq® control system is able to automatically counter high and low inlet temperatures, to ensure the desired room temperature is maintained.

Effective protection functions prevent the heat exchanger from icing up, drain off condensation and automatically stop the unit if necessary. Unnecessary damage to the unit is therefore prevented.

The system is easy to set and program to individual requirements from customers or for local conditions. The software controls the options installed automatically, such as bypass, heating surfaces, cooling module and sensors (CO₂, humidity, motion etc.) whenever required.

Control functions with Airlinq®:



Data log

Unique log function for all key operating and room data such as:

- Inlet temperature
- Room temperature
- Outside temperature
- CO₂ level
- Air humidity
- Airflow
- Damper position



Airlinq® pc tools

User-friendly monitoring and setting of air handling units via PC with Airlinq® User Tool.

Service engineers can use the more advanced Airlinq® Service Tool.



Download to pc

The unit's operating data can be downloaded to a PC to provide rapid overview of operation, and to generate operating documentation. This allows full optimisation of the unit.



All-in-one

All intelligence is concentrated in the unit, which means that it can run fully automatically without having to be connected to a control panel.



Monitoring, warning and alarm system

The advanced warning and alarm system helps minimise operating and service costs. Errors are quickly detected, making the unit more reliable.



Flexibility with digital BMS

Airlinq® can be fitted with a network module (optional PCB) to provide flexible connection to one of the following network systems:

- KNX®
- BACnet™/IP
- BACnet™ MS/TP
- LON®
- MODBUS® RTU RS485
- Airlinq® Online
- Airlinq® Online API



Airlinq® BMS

Up to 20 different and individually equipped air handling units can be controlled using a single control panel in an Airlinq® BMS.
Can be combined with Airlinq® Online.



Airmaster sensor for BMS

Airmaster's motion sensor (PIR), CO₂ sensors and TVOC sensors can be used on network systems. The result is a very simple and inexpensive connection to a BMS system.

Airlinq® Orbit control panel

Operation using Airlinq® Orbit is perfect when more comprehensive and easier access is required to control normal ventilation operation.

Wide range of options

Operating functions provide a wide range of options for controlling ventilation. The Airlinq® Orbit control panel with touch function is user-friendly for navigation and setting operating parameters. The menu layout makes operation easy and simple, and reduces the risk of error.



Operation

Settings can be made directly on the control panel touch screen.



Data cable

USB cable



Airlinq® Service Tool

The control panel can be easily connected to a PC, providing access to operating data using the Airlinq® User Tool.

Adjusting and programming control system
Download a data log and graphic record of operation
Download or upload a control system setup
Monitor energy consumption using a built-in energy meter
Update control system software
Automatic synchronisation of the built-in timer via PC date and time



Operation via pc

A PC can be connected via the USB port on the control panel, and Airlinq® Service Tool used to set all operating parameters. (Airlinq® Service Tool is for the use of service engineers).

Control functions with Airlinq® Orbit



Manual start, stop and standby. Manual start and stop of an individual group or entire system for Airlinq® BMS.



Setting of all major operating parameters using an automatic startup guide. The start-up guide can be restarted at any time.



Display and setting air flow via touch function on the front.



Displays warnings and alarms with text description (for all Airlinq® BMS units).



Holiday mode - a function to ensures basic ventilation with reduced airflow.



Shows the CO2 and TVOQ level when a CO2 and/or TVOQ sensor is connected (shows separately for all sensors in Airlinq® BMS).



Easy, simple control of Airlinq® BMS.



Automatic operating lock.



Screen lock with security code.



Set operating parameters:

- Display operating status for up to 40 operating parameters (for all units with Airlinq® BMS)
- Overview and adjustment for all timed programs, including night time cooling
- Inlet temperature and standard airflow
- Set date and time
- Reset service
- Modify data log



Airlinq® Viva control panel

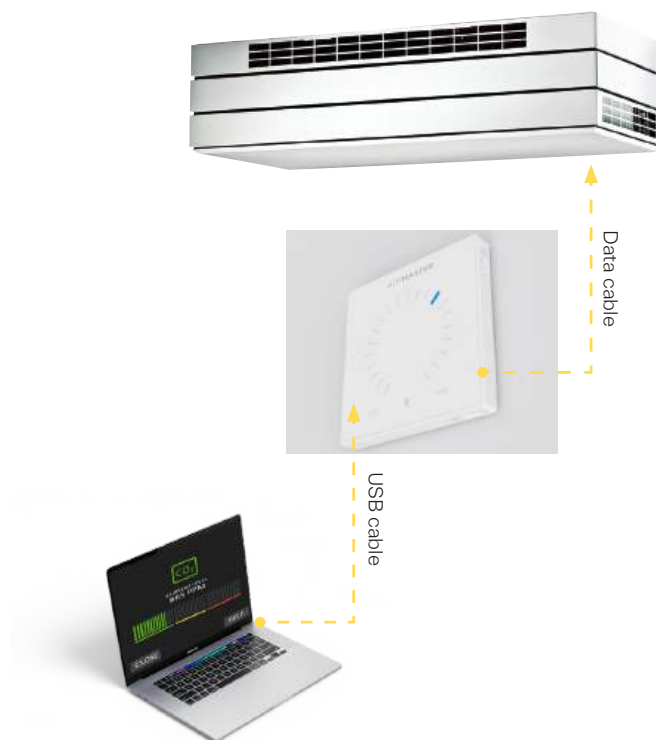
The Airlinq® Viva is designed to be perfect for any requirement for optimal ventilation with minimal manual control.

The easiest control interface on the market

Control functions are simple and user-friendly. Operation is automatic to minimise the risk of incorrect use.

Operation via PC

The control panel can be connected to a PC via a USB port to set additional operating parameters. Airlinq® User Tool and Airlinq® Service Tool (programs used by service engineers) provide complete details of the unit's performance. See the following description of options for the two programs.



Airlinq® User Tool

The control panel can be easily connected to a PC, providing access to operating data using the Airlinq® User Tool.

- Options include setting airflow, inlet temperature and maximum room temperature
- Filter status display
- Setting CO₂ range
- Setting, activating and deactivating timer programs



Airlinq® Service Tool

The control panel can be easily connected to a PC, providing access to operating data using the Airlinq® User Tool.

- Adjusting and programming control system
- Download a data log and graphic record of operation
- Download or upload a control system setup
- Monitor energy consumption using a built-in energy meter
- Update control system software
- Automatic synchronisation of the built-in timer via PC date and time

Control functions with Airlinq® Viva



Manual start, stop and standby.



Setting airflow via touch function on the front.



Display of warnings and alarms by red or yellow symbols.



Holiday mode - a function to ensure basic ventilation with reduced airflow.



Automatic operation lock.



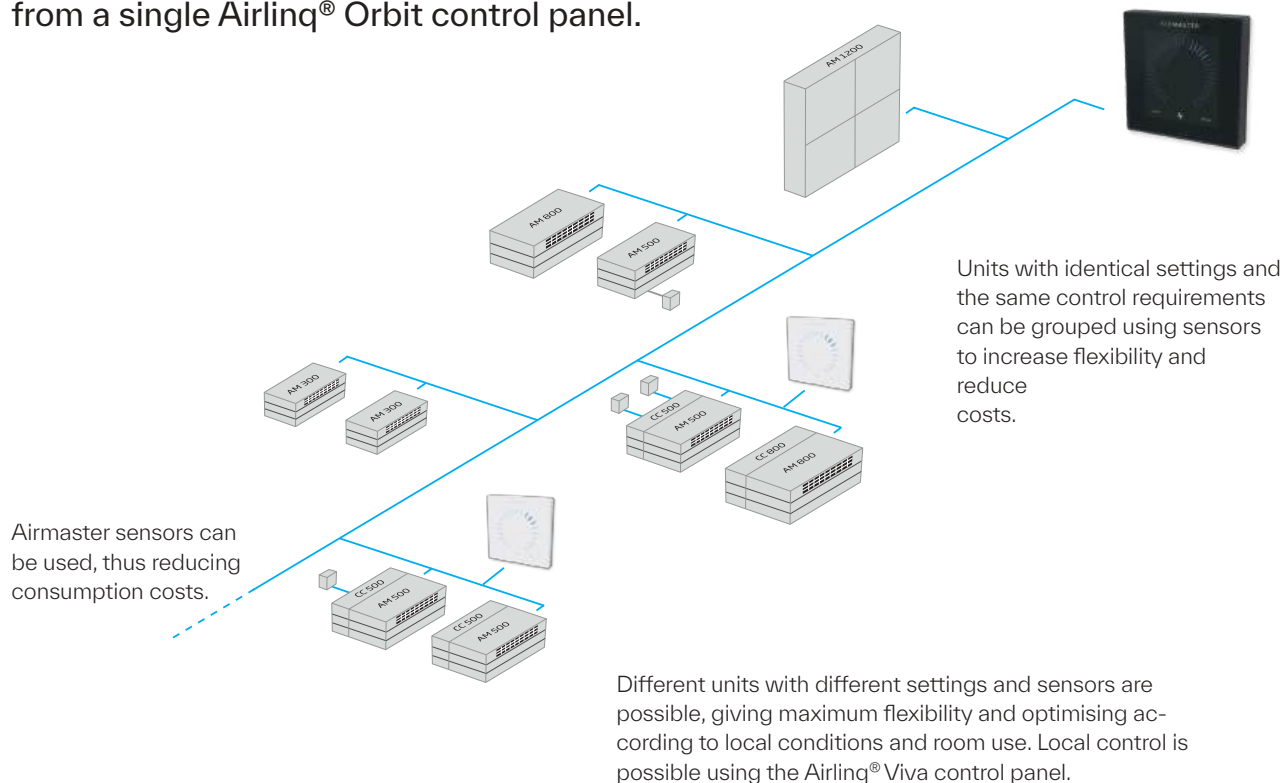
Child lock.



The control panel allows the user to adjust airflow easily.

Network with Airmaster

Network control can be performed using Airling® BMS, with which up to 20 units can be controlled from a single Airling® Orbit control panel.

**Airling® BMS**

Flexibility is the order of the day for the Airlinq® BMS system. BMS stands for "Building Management System".

Up to 20 different air handling units can be controlled by the system from a single control panel. The units can be different types and fitted with different options. Cooling modules can also be attached to individual units as and when required.

Such a degree of flexibility means that units with different levels of performance and options can be connected to a single system, whilst meeting the requirements of any individual room.

Dividing the system into groups of one or more units with a common control system optimises use of their size and sensors.

Control using a single sensor (e.g. CO₂ sensor) or a combination (e.g. a motion sensor and a CO₂ sensor) is also possible. Using sensors overrides the basic operating parameters for individual units, whole groups or all units.

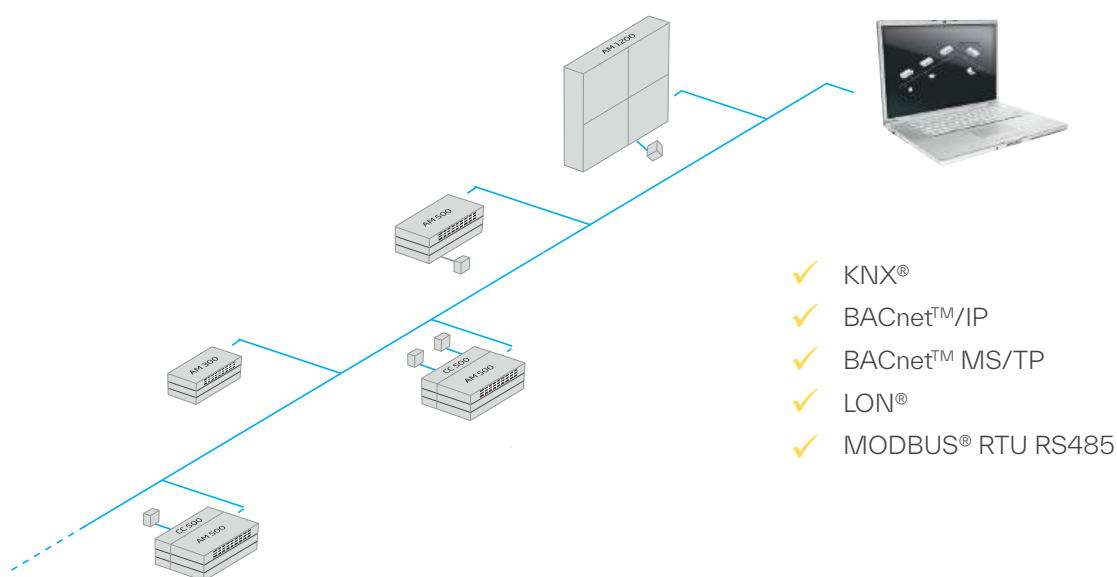
Individual operation, monitoring and programming - plus programming of common parameters - are performed from a single control panel. Connection to an analogue building network (BMS system) is of course also possible.

Digital BMS

A BMS (Building Management System) network makes it possible to keep all the benefits of decentralised ventilation, whilst utilising the administrative benefits of central control.

Airmaster air handling units are easy to integrate with other building automation.
Creating a full overview of operations and program-

mable air handling units in relation to local use is easy with a Building Management System (BMS). The units can also run fully automatically, but can be monitored using a BMS network. Airmaster motion sensor and CO₂ sensors can be connected, and data from the units and sensors can be transferred to the BMS network. This reduces installation, operation and maintenance costs.



When the control system is connected to BMS, all individual air handling units can be controlled and/or monitored by BMS.

Airmaster Airlinq® Online

Airmaster Airlinq® Online is a cloud based WEB portal, where the user is able to control, monitor, and manage all of the installed Airmaster air handling units (AHU) of a project. The WEB portal is accesable from both PC, smartphone and tablet.



The Airlinq® Online WEB portal gives the user an overview and access to operation and monitoring of installed Airmaster AHU of a project.

Airmaster Airlinq® Online is much more than just a web service. It is a total package, which includes that Airmaster in cooperation with the customer makes the setup of the project and ensures correct connection and setup for each AHU on the WEB portal. Furthermore, Airmaster provides fundamental instructions and training in using the system. Hereby ensuring maximum user satisfaction.

The setup of each AHU includes, besides setup of operating parameters, also the fundamental setup of user groups and registration of authorised users with associated permissions and rights.

The setup of each AHU ensures that the customer gets the overview and availability of the project customized to his/her needs. Furthermore, the operation of each AHU is individually adjusted to the project.

This way the energy consumption can be kept at a minimum by ensuring an efficient operation setup.

Overview & peace of mind as a matter of course

Airmaster Airlinq® Online meets your needs for centralised administration while retaining the benefits of decentralised ventilation. As a municipality, housing association, property manager, caretaker and end user, you get a quick and easy overview of all your ventilation units.

- Online control
- Online operation
- Online operational monitoring

Security

As much as we favour openness, security is also paramount at Airmaster. All communication is therefore securely encrypted, whether between user and server or between ventilation unit and server.

Connection to Airmaster Airlinq® Online

Airmaster ventilation units can be connected to Airmaster Airlinq® Online in two ways:

Connection to Airmaster Airlinq® Online is possible using a standard Ethernet cable (min. Cat 5e) for each individual Airmaster ventilation unit. Requires a network socket for all ventilation units or alternatively a network switch.

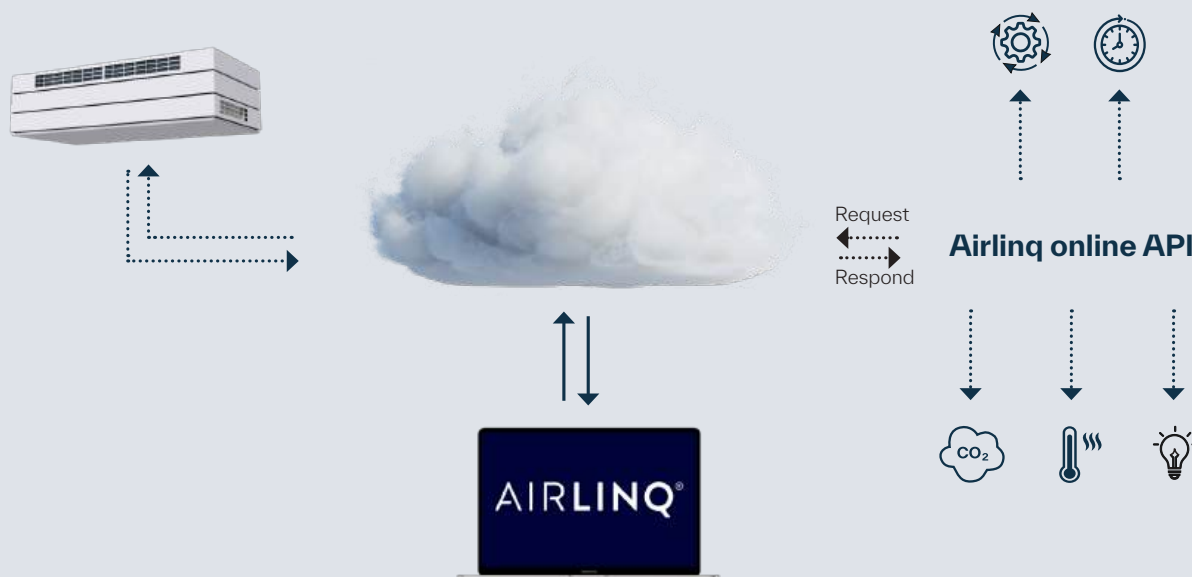
Connection to Airmaster Airlinq® Online is also possible using a standard Ethernet cable (min. Cat 5e) for one Airmaster ventilation unit which is part of an Airlinq® BMS system.

The units can communicate with Airmaster Airlinq® Online via the RS-485 bus connection established to the Airlinq® BMS system. This solution requires a single network socket for one of the ventilation units in an Airlinq® BMS system. One Airlinq® BMS system can handle up to 20 ventilation units.

Connection to BMS systems

If you wish to integrate the control and operation of Airmaster ventilation units with other building automation, this is also a possibility. On page 112, we have described Networks with Airmaster using BACnet™ and MODBUS®, for example, but there is another option. If you have Airmaster Airlinq® Online, you can connect to BMS systems from here using the Airlinq® Online API. Whether you want the entire control system to be integrated or just certain sub-functions such as operational monitoring, the API can facilitate integration.

For further information regarding Airlinq® Online and Airlinq® Online API, please visit:
www.airmaster-as.com/en/products/control-and-operation/airlinq-online



Ventilation grille

Airmaster Boomerain® Ø160 mm, Ø250 mm and Ø315 mm

Façade ventilation grille in a new, aerodynamic design, developed for Airmaster ventilation units. The shape of the slats has been designed in such a way that only very limited turbulence occurs on the reverse of the façade ventilation grille. Pressure loss is thus reduced, and energy consumption is reduced considerably. The unique geometry is furthermore designed to capture water droplets and channel them away, preventing penetration into the duct. Airmaster Boomerain® is cast in aluminium, and can, as an option, be supplied powder coated in all RAL colours.

There are three variants in each size:



Airmaster Boomerain® 1

is a façade ventilation grille with a single layer of slats, which is ideal for an ordinary inland climate under protective conditions in a relatively passive environment.



Airmaster Boomerain® 2

is a façade ventilation grille with a double layer of slats, providing greater protection from rainwater. We recommend it in more exposed places, which are occasionally lashed by westerly winds, for example.

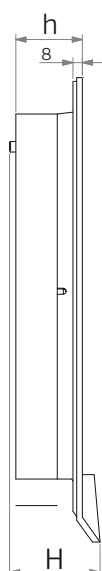


Airmaster Boomerain® 3

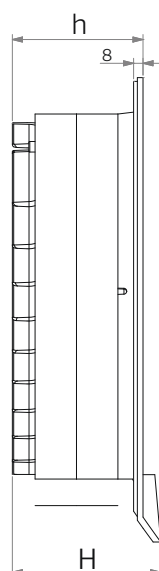
is a façade ventilation grille with three layers of slats, which are extra effective at keeping the rain out. It is designed for harsh weather conditions, such as in coastal areas where extra protection may be needed.

	Ø160-1	Ø160-2	Ø160-3	Ø250-1	Ø250-2	Ø250-3	Ø315-1	Ø315-2	Ø315-3
Ød	157 mm	157 mm	157 mm	247 mm	247 mm	247 mm	312 mm	312 mm	312 mm
ØD	215 mm	215 mm	215 mm	305 mm	305 mm	305 mm	370 mm	370 mm	370 mm
h	53 mm	104 mm	155 mm	53 mm	126 mm	177 mm	53 mm	104 mm	155 mm
H	72 mm	118 mm	174 mm	72 mm	140 mm	196 mm	72 mm	118 mm	174 mm
Free area	0,015 m ²	0,015 m ²	0,015 m ²	0,038 m ²	0,038 m ²	0,038 m ²	0,0624 m ²	0,0624 m ²	0,0624 m ²
Weight	≈ 0,99 kg	≈ 1,47 kg	≈ 1,98 kg	1,72 kg	2,66 kg	3,62 kg	2,12 kg	3,64 kg	5 kg

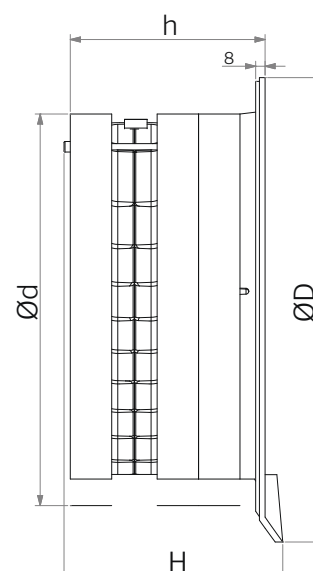
Boomerain® 1



Boomerain® 2



Boomerain® 3



Installation and fittings



FACADE GRILLE

supplied with built-in bird net, and protects against driving rain. Size: Ø125, Ø160, Ø200, Ø250, Ø315 & Ø400



WALL COVER

for the AM 900 - used when supply and exhaust have to be close together and prevents external short circuit.



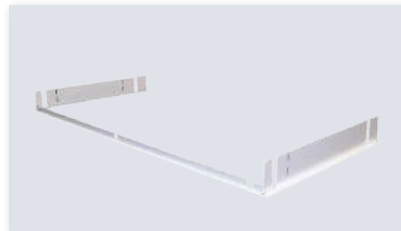
STORM CAP

can be used when the supply and exhaust are particularly exposed to wind. Size: Ø100/Ø125, Ø160/Ø200, Ø250 & Ø315



WALL FRAME

for AM 150, AM 300, AM 500, AM 800, AM 1000 and is also used for all cooling modules.



CEILING FRAME

for AM 150, AM 300, AM 500 and AM 800.



CEILING BRACKETS

for mounting direct on ceiling as support if a wall provides an unsatisfactory mounting point.



ADJUSTABLE CEILING BRACKETS

height adjustable.



VAPOUR BARRIER MEMBRANE

used around pipes penetrating walls or roofs. Ensures tight vapour membrane after ducting.

Roof penetration set



A complete roof penetration set consists of
2 insulated penetration ductings,
2 roof covers,
1 exhaust cap,
1 louvred cap,
2 bushings and
3 metres spiral pipe.

Roof cap module

AM 900 / AM 1200	Ød	ØD	H	H x B x D
Exhaust cap	315	450	540	-
Louvred cap	315	450	540	-
Box housing AM 900	-	-	-	1000 x 950 x 500
Box housing AM 1200	-	-	-	1004 x 884 x 434

Ød = internal diameter - ØD = external diameter · H = height

A roof cap module is used on roofing felt roofs with a pitch of 0-30° for AM 900 V and AM 1200 V. Exhaust and louvred caps are integrated into a box housing. Please remember to state roof pitch when ordering.



Exhaust cap

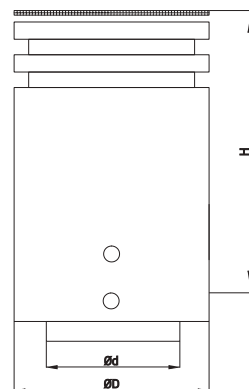
	Ød	ØD	H
AM 150	125	250	230
AM 300	160	280	310
AM 500	250	355	437
AM 800	315	450	540
AM 900			
AM 1000			
AM 1200	400	500	700

Ød = internal diameter - ØD = external diameter · H = height

NB: the height measurements stated are to the upper edge of the lowest hole.

The exhaust cap has the same external dimensions as Airmaster's insulated pipes to ensure a good fit.

Also available in black at extra charge.



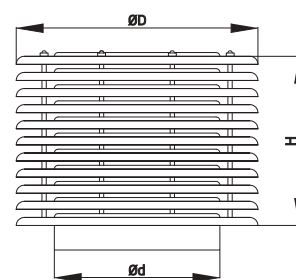
Louvred cap

	Ød	ØD	H
AM 150	125	250	130
AM 300	160	280	180
AM 500	250	355	191
AM 800	315	450	222
AM 900			
AM 1000			
AM 1200	400	500	284

Ød = internal diameter - ØD = external diameter · H = height

The louvred cap has the same external dimensions as Airmaster's insulated pipes to ensure a good fit.

Also available in black at extra charge.



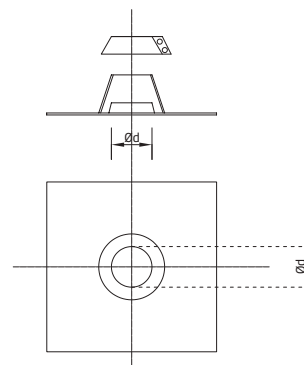
Roof covers

	Ød
AM 150	250
AM 300	280
AM 500	400
AM 800	
AM 900 / AM 1200	450
AM 1000	
AM 1200	500

Ød = internal diameter.

Roof covers are available in galvanised or grey preformed sheet metal, both with a galvanised sheet metal pipe collar.

Also available in black at extra charge.



Insulated penetration ducting

	Ød	ØD
AM 150	125	250
AM 300	160	280
AM 500	250	400
AM 800		
AM 900	315	450
AM 1000		
AM 1200	400	500

Ød = internal diameter - ØD = external diameter.

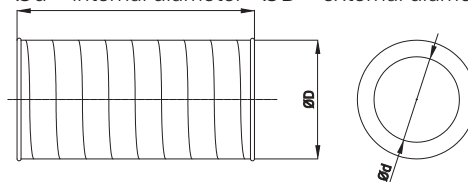
Insulated penetration ducting with minimum 50 mm insulation.

Length depends on roof pitch:

Pitch 0° - 30° = length 900 mm · Pitch 31° - 45° = length 1200 mm

Also available in black at extra charge.

Ød = internal diameter - ØD = external diameter.







Air keeps
us *alive*
Great air
makes us *live*

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