

Mounting

AM 900 | AM 1200

AIRMASTER

SAFETY INSTRUCTIONS



This Manual must be read before installing the Airmaster air handling unit. Following this Manual will ensure this product is operated correctly.

The installation engineer is responsible for ensuring that the unit is installed according to current regulations and standards.

When installing the air handling unit in a room with a fire or stove drawing air from the room, all applicable provisions must be observed.

The unit should not be installed in rooms with abrasive particles or flammable or corrosive gas in the air, in wet rooms or explosion-protected rooms.

The unit should not be used without the filters specified in the Operator's Manual.

The manufacturer cannot be held liable for damage arising from use or installing in contravention of these instructions.

The manufacturer reserves the right to make changes without notice. All values stated are nominal values and can be affected by local conditions.

Failure to observe the warnings indicated by a danger symbol implies a risk of personal injury or damage to property.

This manual relates to the Airmaster unit it accompanies plus all equipment, and must be given to and saved by the unit's owner.

All necessary data and guides to network integration can be downloaded from www.airmaster-as.com.

WARNINGS



Service covers may not be opened without first disconnecting the unit's power supply and preventing use.



The unit may not be started up until all service covers and grates on duct connections have been installed.

Place of installation and serial numbers (S/N):

Type: _____

Delivery date: _____

Place of installation: _____

S/N of Air handling unit: _____

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1. General Information

Scope of Delivery:

The Airmaster air handling unit with all options is packed on pallets.

Please check the delivery before installation.

1. Airmaster air handling unit (AM).



2. Control panel.

Airlinq Viva



Airlinq Orbit



or

3. Carbon dioxide (CO₂) sensor (optional).



4. Motion sensor (PIR sensor) (optional).



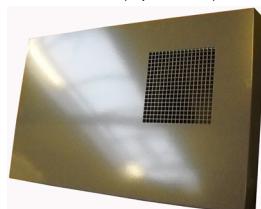
5. Set of pipes (optional).



6. Grilles (optional).



7. Wall cover (optional).



8. Operator's Manual (for programming) and Mounting Instructions and Installation Manual (for installation);
to be handed over to the owner!



2. Technical Specifications

AM		900	1200
Weight, Standard unit without panels	kg	180	450
Colour, Panel (steel)	RAL	9010	9010
Design panel, dimensions	mm	-	1200x1000
Colour, Case	RAL	9010	-
Dimensions	mm	see "Appendix 1 Dimensional Drawings"	
Minimum floor-to-ceiling height with wall ducts	mm	2490*	2400
Minimum floor-to-ceiling height with roof ducts	mm	2490*	2500

* Dimension can be reduced by up to 50 mm when there is no panel and the machine shoes are fully screwed down.

3. Installation



NB! The installation engineer is responsible for ensuring that the air handling unit is properly secured.



NB! The installation engineer is responsible for ensuring that any existing functions in the wall/ceiling (e.g. vapour barrier) are restored and fully functional once the unit has been installed.



NB! Read this section 'Installation' fully before starting installation!



NB! The walls and floor at the place of installation of the Airmaster air handling unit must be even and level.

F: Min. distance from wall, AM 900 displacement model 100 mm.

NB! The CO₂ sensor must not be fitted close to a window or door.



NB! Smoke detectors must not be too close to the inlet and extraction air flow.

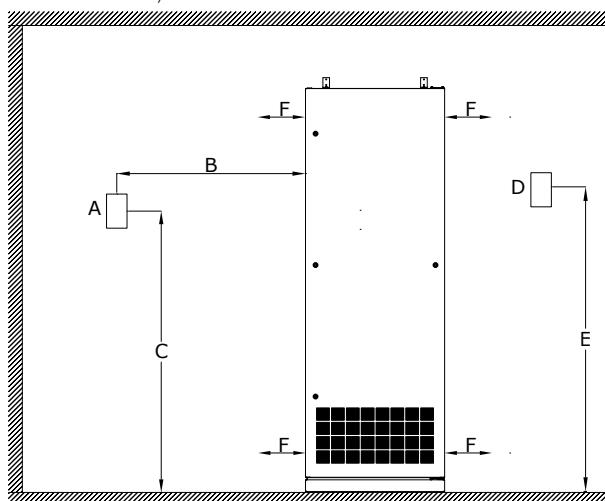


NB! For the minimum floor-to-ceiling height for floor-mounted Airmaster air handling units see section '2. Technical Specifications'.



3.1. Positioning of the Unit

The diagram below shows the most important dimensions relating to the positioning of the unit. (Shown here on an AM 900).



A: CO₂ sensor

B: Approximately 1 m

C: Approximately 2 m

D: External PIR sensor

E: Approximately 2,25 m (1,8-2,5 m)

F: Min. distance from wall, AM 900 mixing model 20 mm.

3.2. Duct Holes

NB! It is recommended that the duct holes be drilled 10-15 mm larger than indicated on the drawings as this will allow for subsequent insulation, will prevent direct contact with the wall, and will allow for a vapour barrier, etc., to be restored.



A rubber diaphragm for restoration of the function of the vapour barrier is optional available and can be delivered by Airmaster.



Important! Duct holes in the wall must have an outward downward gradient of 1-2% to prevent heavy rain from entering the unit.

1. Marking the holes for the ducts.

Dimensions for duct hole positioning can be found in "Appendix 1 Dimensional Drawings"

2. Drill duct holes.

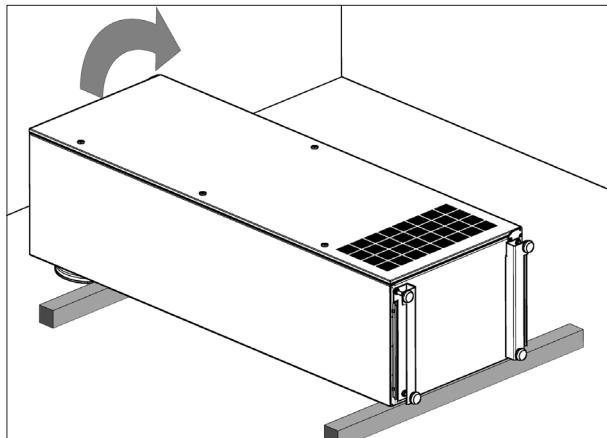
3.3. Air Handling Unit

Installation of an AM 900

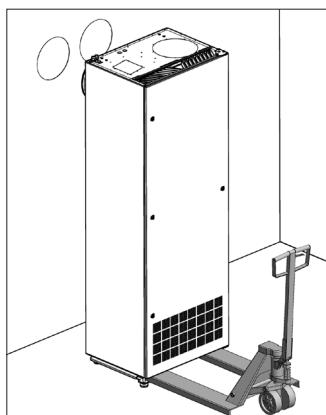
1. Dismantle the floor panel of the unit.
2. Lift up the unit on its adjustable feet.



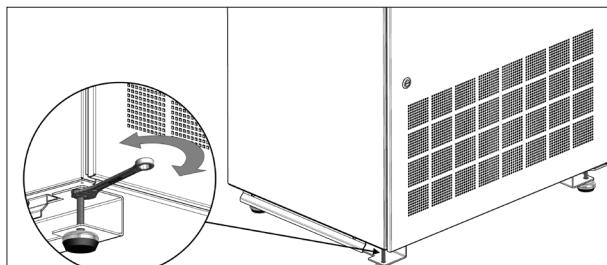
NB! When lifting the unit, protection must be provided for the height-adjustable feet to prevent breakage or deformation. If necessary, insert a suitable block of wood under the bottom edge of the unit before lifting it.



3. Place the unit as close to the installation place as possible. The unit can be moved to the place with for instance a pallet loader.

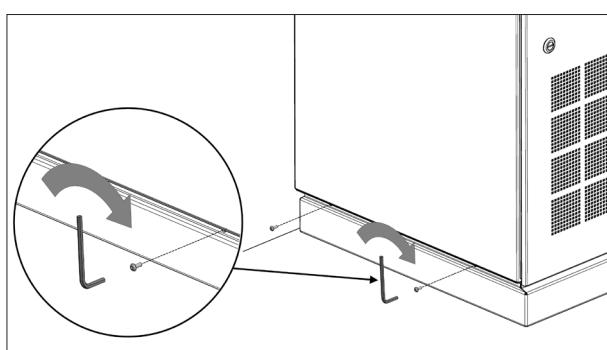


4. Adjust the feet in a way, so the unit is at level.

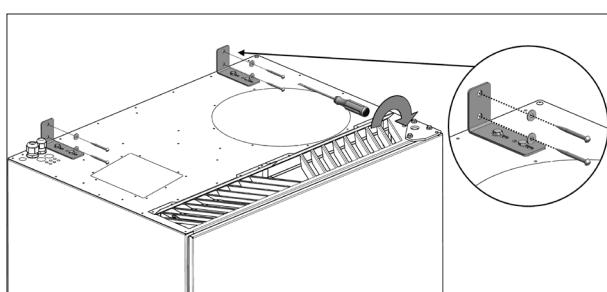


5. Move the air handling unit to its final position so that the duct connections fit into the holes without touching the wall/roof. The unit can be moved to the place with for instance a pallet loader.

6. Fit the floor panel.



7. Fit the brackets to the top of the air handling unit and the wall.
8. Seal the gap between the air handling unit and the wall by using a sealant that retains elasticity over the long term.



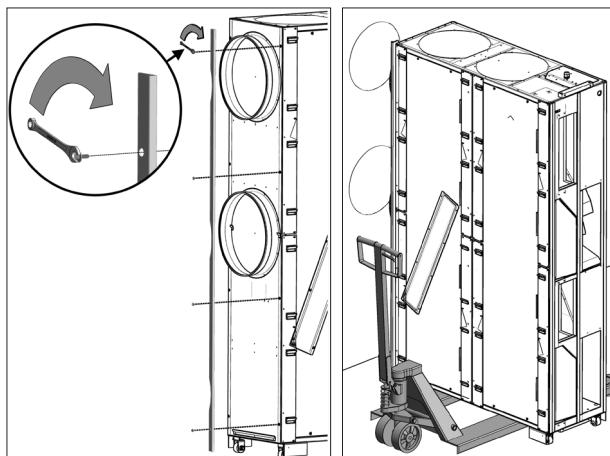
Note the type, date supplied, place of installation and serial numbers (S/N) of the air handling unit and the cooling module on page 2 of both the Mounting Instructions, the Installation Manual and the Operator's Manual.

Installation of an AM 1200

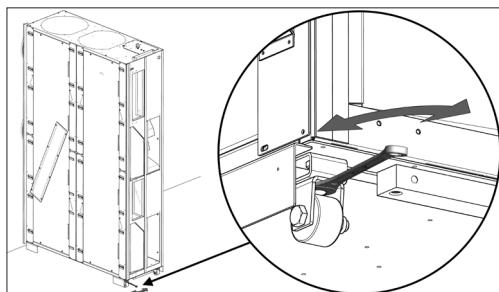
1. Fit the corner strips or the end panel set and position the ventilator section of the unit as close to the place of installation as possible. To achieve this, a pallet lifter may be used to move the unit.



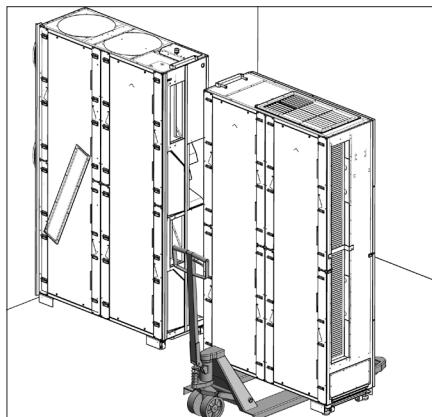
NB! The wheels are only suitable for fine adjustment of the unit position. The wheels are not suitable for transporting the unit.



2. Adjust the height of the feet so that the ventilator section stands level.



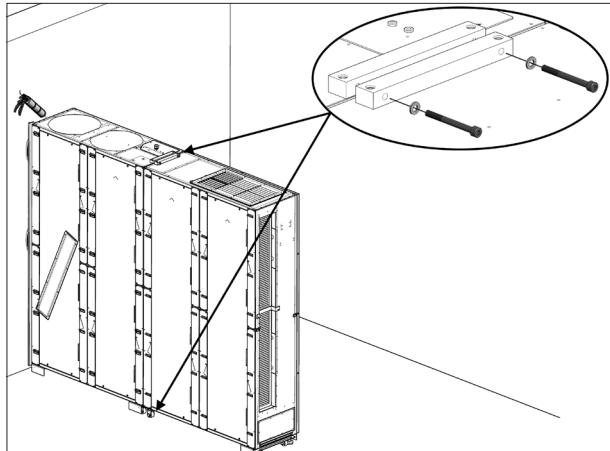
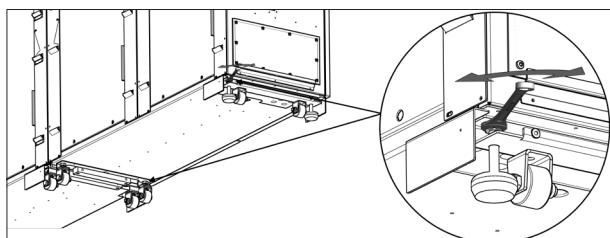
3. Push the ventilator section in place, ensuring the air ducts enter the duct holes without coming into contact with the wall.
4. Position the heat exchanger section (e.g. with a pallet lifter) and adjust the wheels of the exchanger section in line with the ventilator section.
5. Run the cables from the heat exchanger section into the electrical connection compartment at the top of the ventilator section.



6. Push the heat exchanger section up against the ventilator section.
7. Adjust the machine feet at the end of the exchanger section.

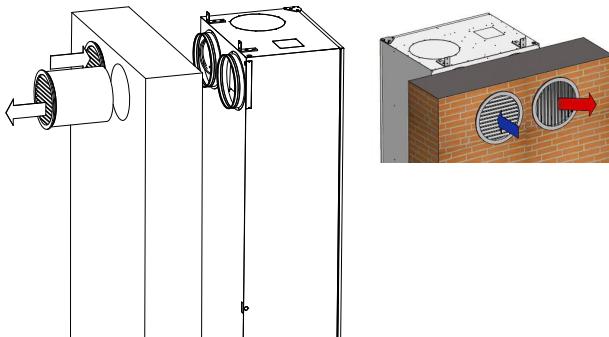
The sections should now be up against each other, both level and aligned in terms of height.

8. Screw the sections together (at the top and bottom).
9. Seal the gap between the air handling unit and the wall by using a sealant that retains elasticity over the long term.



Note the type, date supplied, place of installation and serial numbers (S/N) of the air handling unit and the cooling module on page 2 of both the Mounting Instructions, the Installation Manual and the Operator's Manual.

3.4. Ducts, Grilles and Wall Cover



The length of the air ducts is calculated on the basis of the thickness of the wall/dimensions of the roof.



NB! Please note that the duct holes in the wall must have an outward downward gradient of 1-2% to prevent heavy rain from entering the unit.



NB! Exhaust air ducts and supply air ducts must be insulated against condensation on the ducts, if they are within the building envelope.



NB! Condensation and heat insulation should be performed according to standards and rules in effect.



NB! Fire requirements according to standards and rules in effect must be observed.



NB! The installation of ventilation ducts should be performed according to standards and rules in effect.



NB! Exhaust air ducts and supply air ducts must be insulated against noise if they are visible. Service access must be provided to all components.

Finally, fit a suitable circular grille with the slats pointing downwards on the outside of the wall or a roof cap up on the roof.



NB! The supply air grille is fitted with the slats pointing downwards and the exhaust air grille is fitted with vertical slats, at the AM 900 pointing to the right.



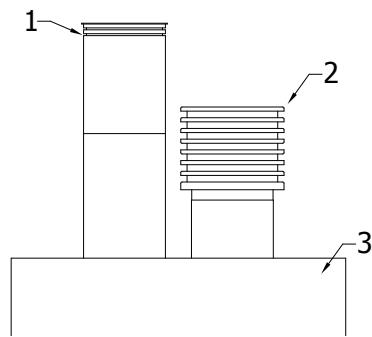
NB! To avoid an increase in noise level, it is important that the pipes should not get twisted or compressed against the air spigots of the unit.



NB! Remember to seal around the penetrations. See section 'Sealing the Gaps Around Ducts'.

An external wall cover may be fitted as an optional alternative to grilles at the AM 900.

3.5. Roof Cap



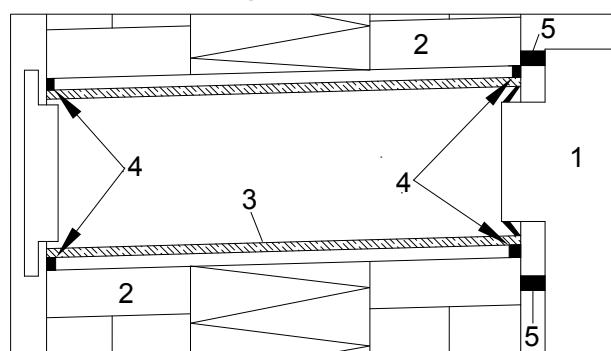
Fit roof caps on the roof to finish off the installation of exhaust and supply through a roof. Installation will depend on the roof construction (3). The illustration shows which roof caps are for exhaust (1) and supply (2).



NB! Fire requirements for the installation of multiple systems must be observed according to the standards and rules in effect.

3.6. Sealing the Gaps Around Ducts

Sealing of the gaps around ducts is performed as shown in the sectional drawing below.



Application of a seal (shown here on a model with wall ducts) is important at the ducts (3) inside and the outside edges (4) in order to prevent draughts between the unit (1) and the wall/roof (2) as well as between the ducts (3) and the wall/roof (2).

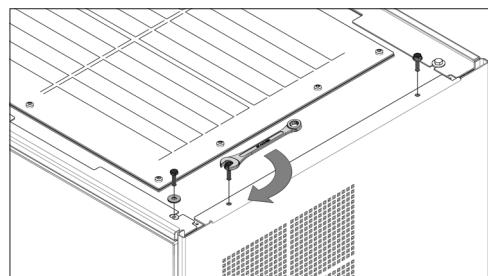
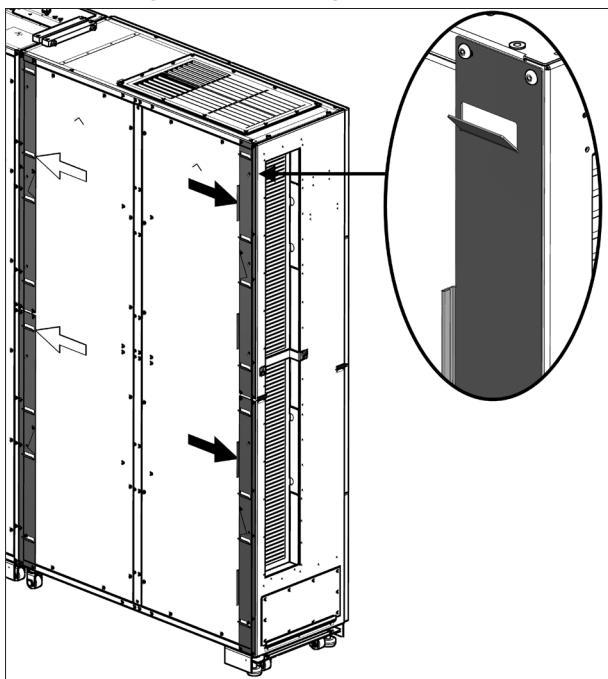
Sealing on the inside between the pipes (3) and the wall/ceiling (2) can also be performed between the air handling unit (1) and the wall/roof (2) at position (5) before fitting the air handling unit.

Depending on the condition of the wall/ceiling and the dimensions of the air handling unit, a sealant that retains elasticity over the long term or expanding sealing tape can be used to obtain a flexible seal. This material is to be applied to the rear of the unit around the air spigots, or at the side of the duct holes on the wall to even out irregularities on the wall/ceiling.

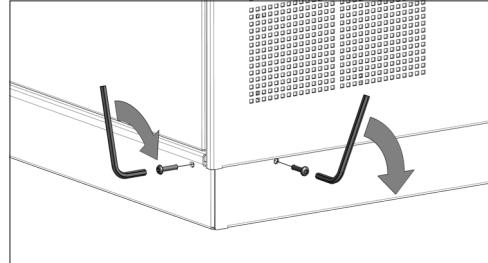
3.7. Fitting of Panels (AM 1200)

The panels should not be fitted until the unit is complete with all equipment, has been fitted and connected, and the functions of the unit are thoroughly tested.

1. Fit all design panel mounting strips.

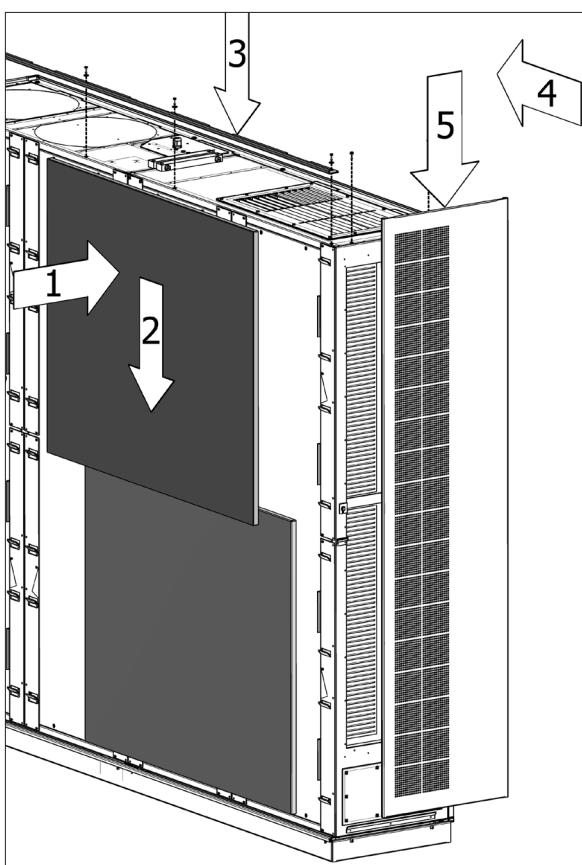


3. Fit the plinths.



NB! The mounting strips with a vertical edge should be fitted to the right side (see black arrows). The angels should point upwards.

2. Fit all the design panels on the angels of the unit, the top strips and the extract panel set on the unit.



3.8. Installation Check

yes no

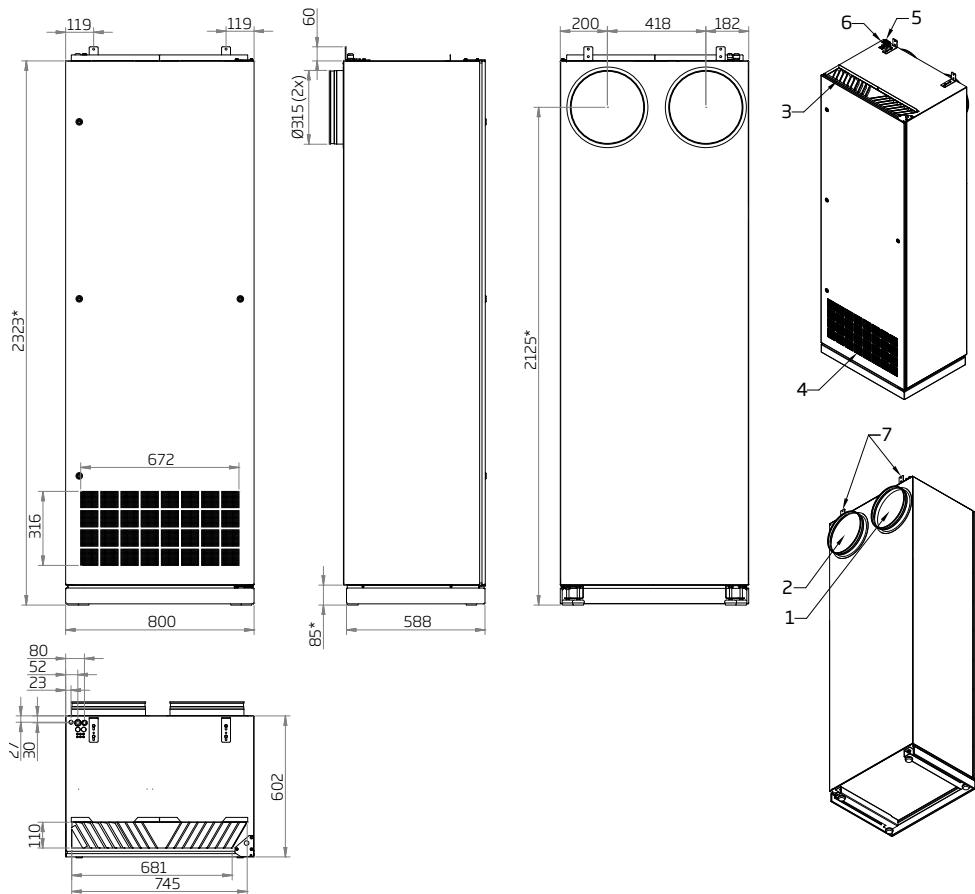
- Data and serial numbers noted
- Unit fitted
- Angle brackets fitted
- Pipes and grates fitted
- Wall cover fitted
- Roof cap fitted
- Screws retightened

Name of installation engineer:

Comment:

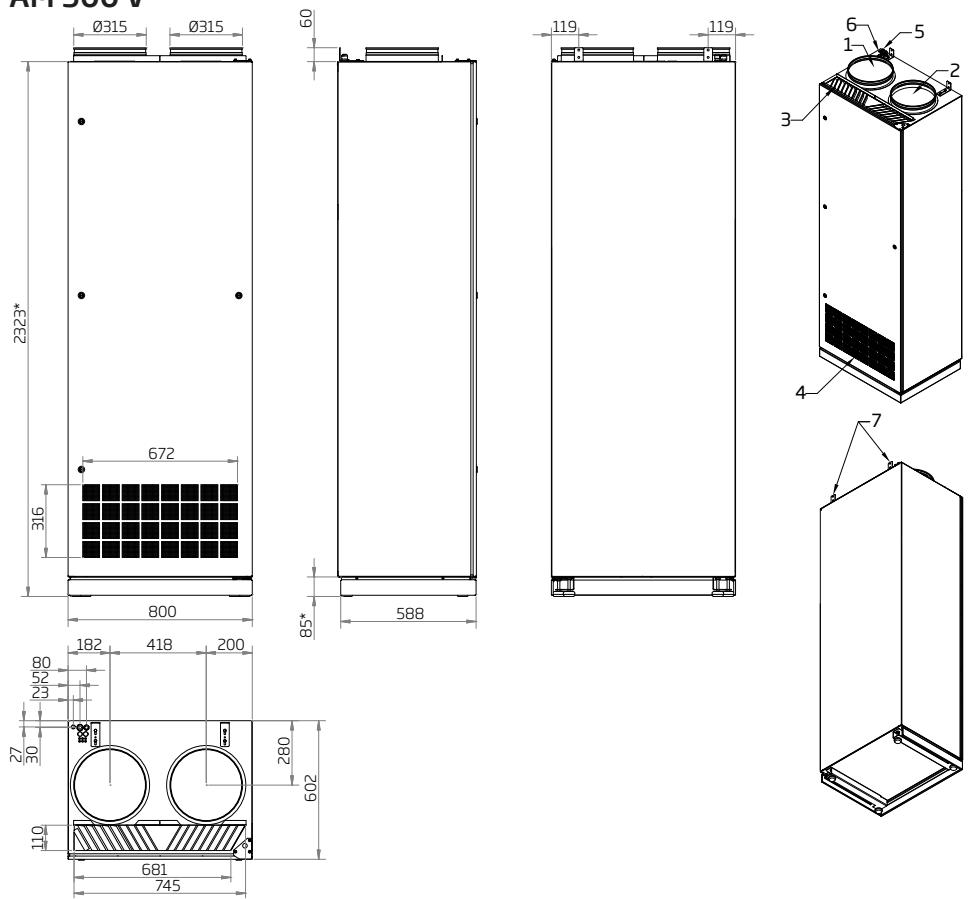
Appendix 1 Dimensional Drawings

AM 900 H



- 1 = Exhaust
- 2 = Supply
- 3 = Inlet
- 4 = Extract
- 5 = Electrical connections
- 6 = Condensate drain
- 7 = Wall bracket

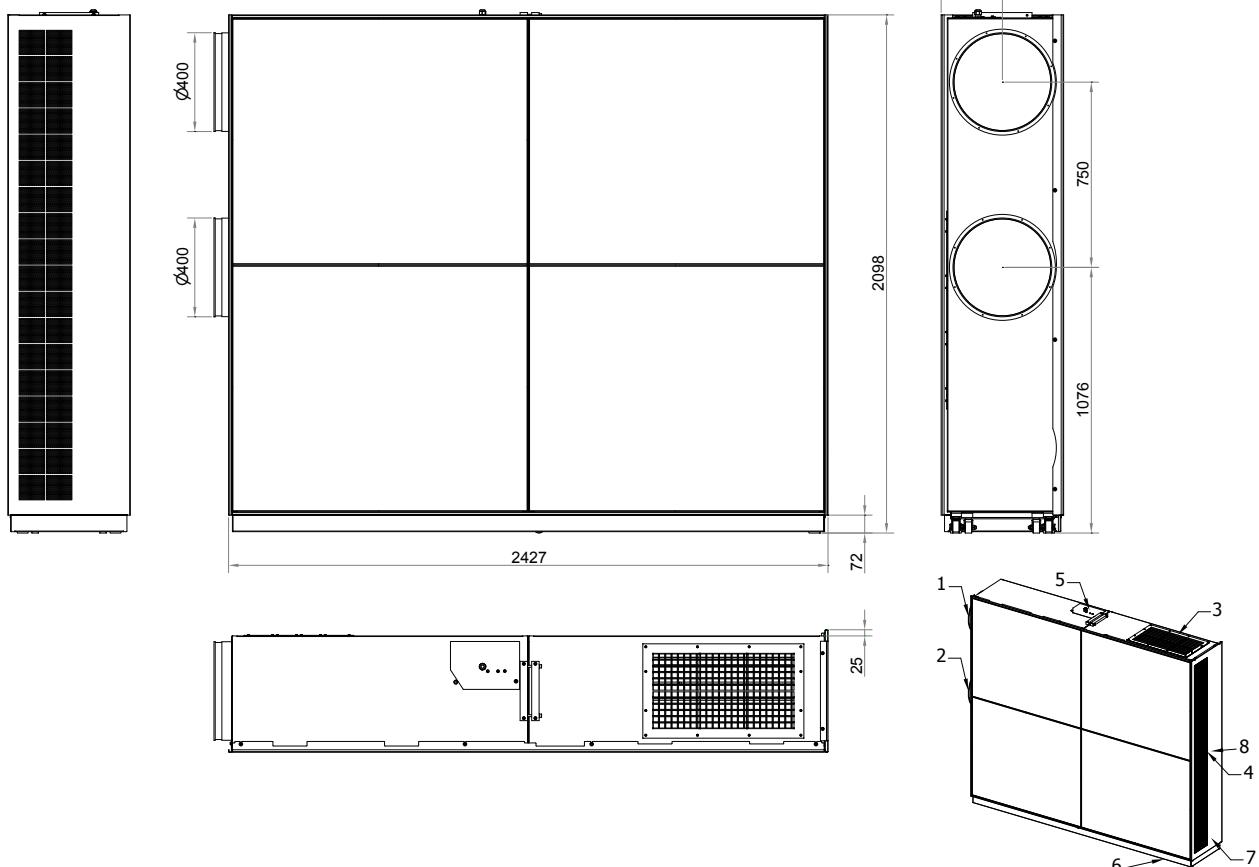
AM 900 V



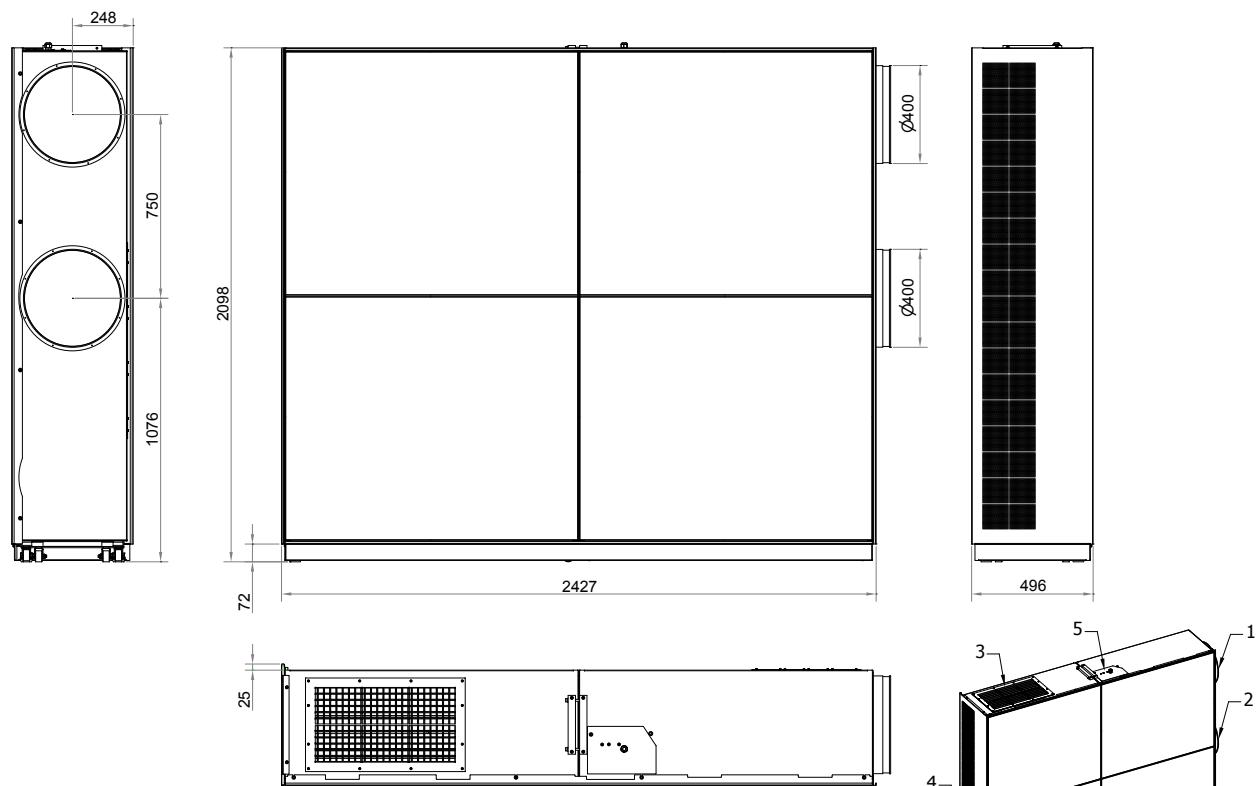
* Dimension can be reduced by up to 50 mm when there is no panel and the machine shoes are fully screwed down.

AM 1200 H

AM1200HL



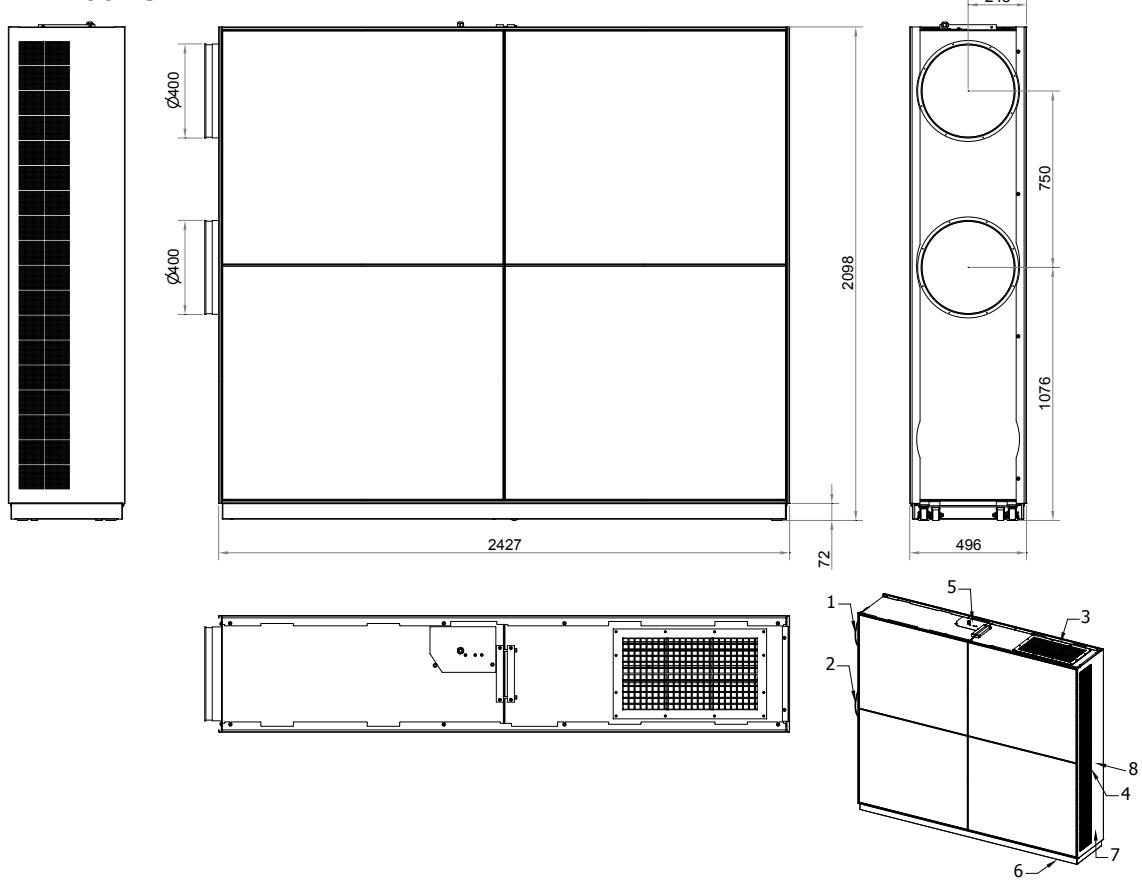
AM1200HR



1 = Exhaust
 2 = Supply
 3 = Inlet
 4 = Extract

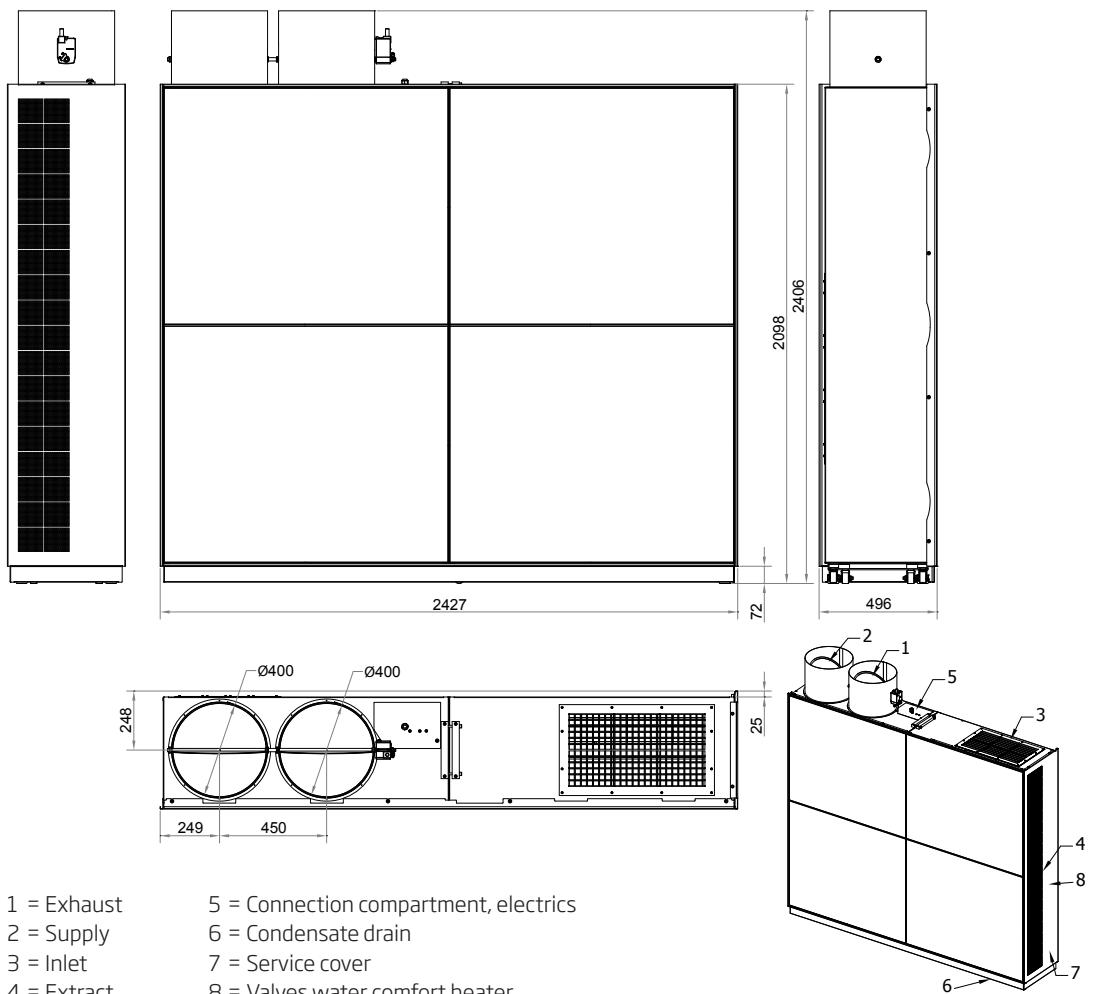
5 = Connection compartment, electrics
 6 = Condensate drain
 7 = Service cover
 8 = Valves water comfort heater

AM1200HC



AM 1200 V

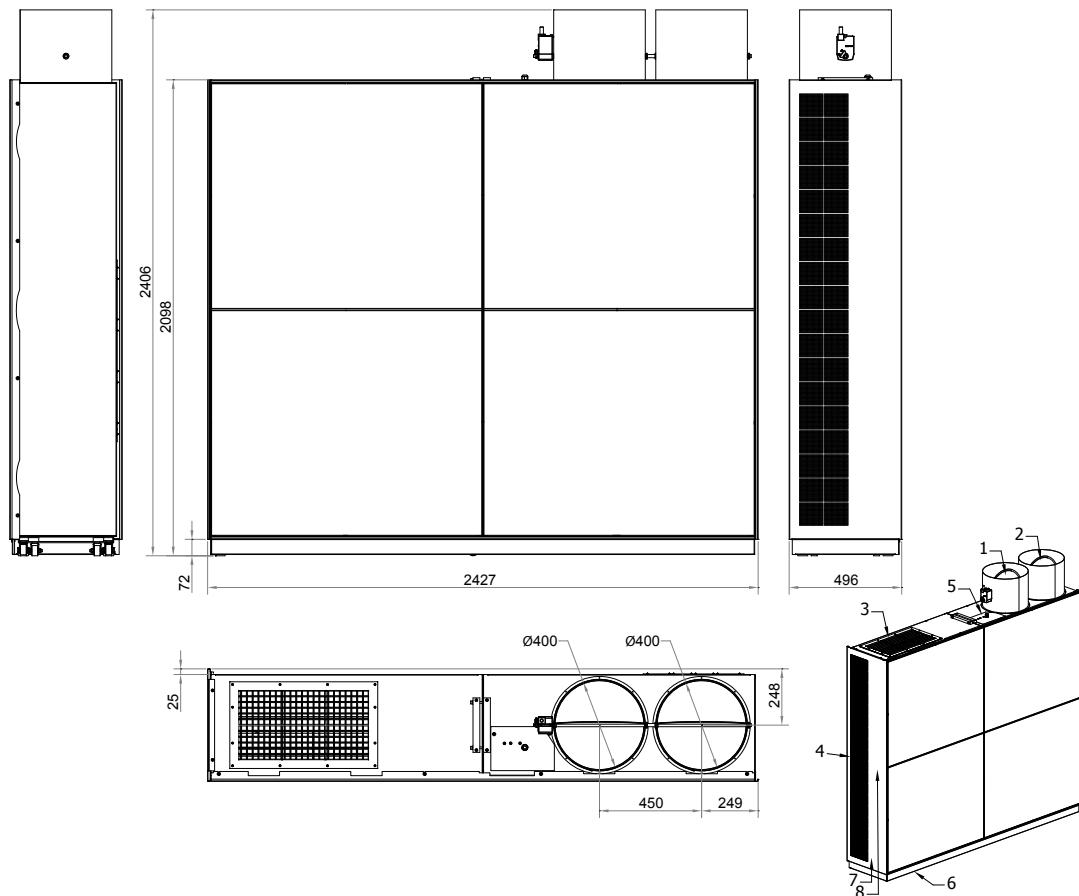
AM1200VL



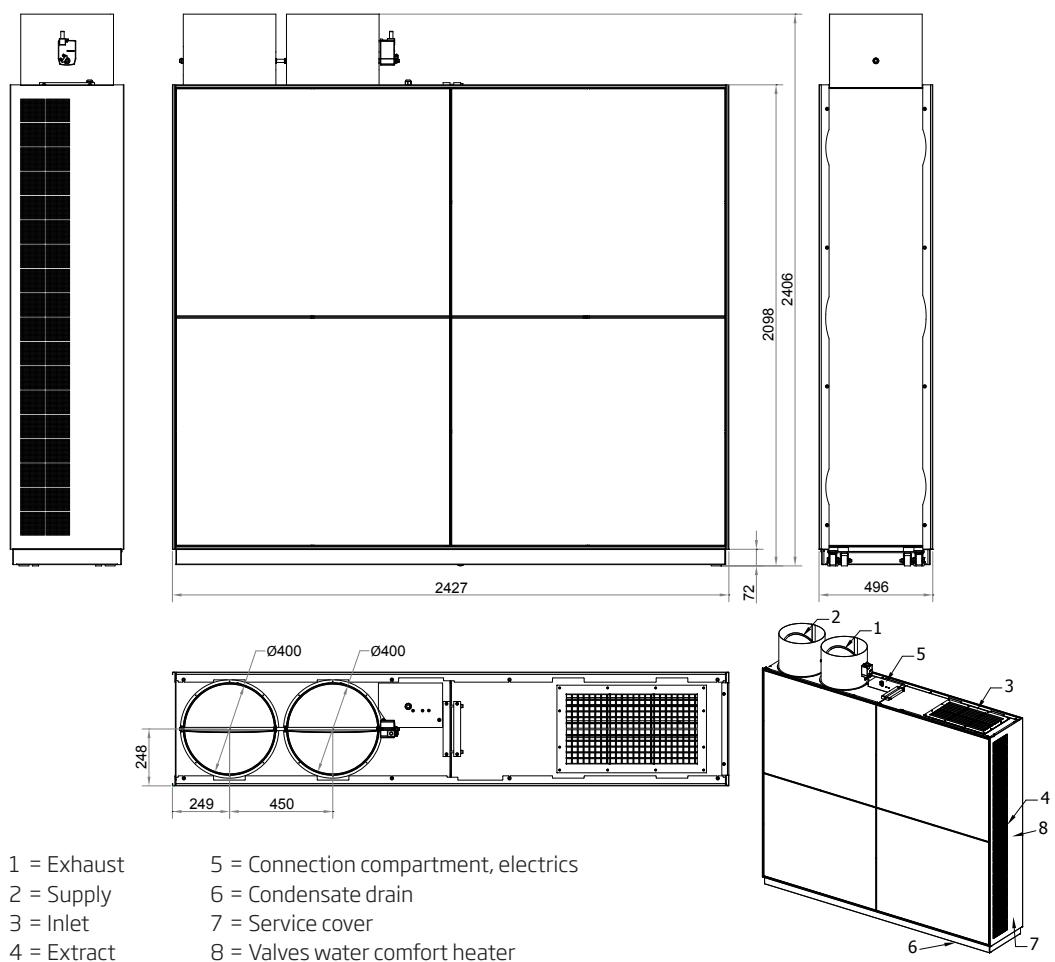
1 = Exhaust
2 = Supply
3 = Inlet
4 = Extract

5 = Connection compartment, electrics
6 = Condensate drain
7 = Service cover
8 = Valves water comfort heater

AM1200VR



AM1200VC



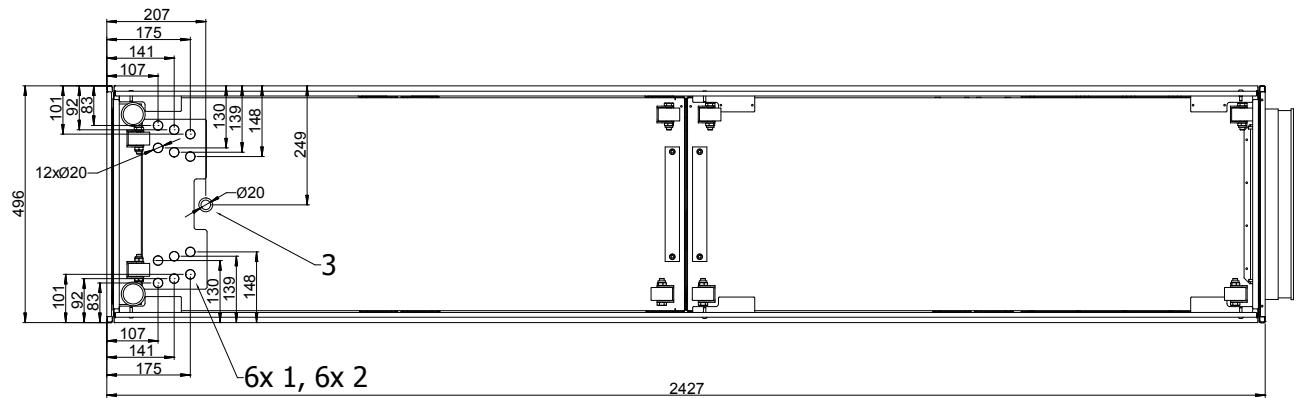
1 = Exhaust
 2 = Supply
 3 = Inlet
 4 = Extract

5 = Connection compartment, electrics
 6 = Condensate drain
 7 = Service cover
 8 = Valves water comfort heater

Appendix 2 Additional Dimensions

Water Comfort Heater and condensate drain

AM 1200



Connection from beneath:

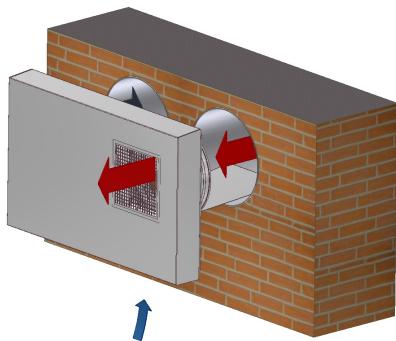
1: "DELIVERY" (FREM), 2: "RETURN" (RETUR).

3: "CONDENSATE" (KONDENS).

Appendix 3 Fitting a Wall Cover

Wall Cover for AM 900

The wall cover prevents supply air and exhaust air from mixing, as the air is forced in different directions.



- Set up the rear plate initially so that it sits central relative to the air ducts.



NB! The air ducts must be placed on a 1-2% downward gradient! In this connection, see section "Pipes and Grates"

- Drill the fixing holes.
- Fit the rear plate together with the air duct pipes.



NB! Seal the area around the duct pipes! In this connection, see section "Sealing the Gaps Around Ducts".



- The cover plate is supplied in a standard length of 400 mm and must be shortened according to the thickness of the wall.

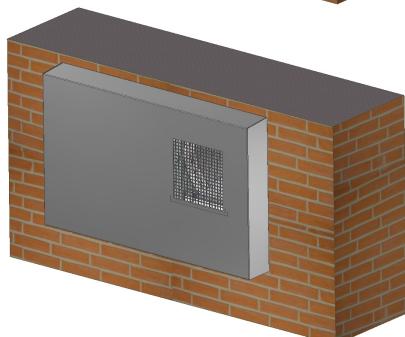


NB! The plate must not interfere with the unit's exhaust air damper.

- Fit the plate using two of the 5 mm lock nuts and panel screws provided.
- Use a sealant that retains elasticity over the long term (e.g. silicon sealant) to seal the area between the cover plate and the air duct pipe.
- Fit the exhaust funnel using the remaining six lock nuts.



- Secure the outer box using the four screws provided.



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