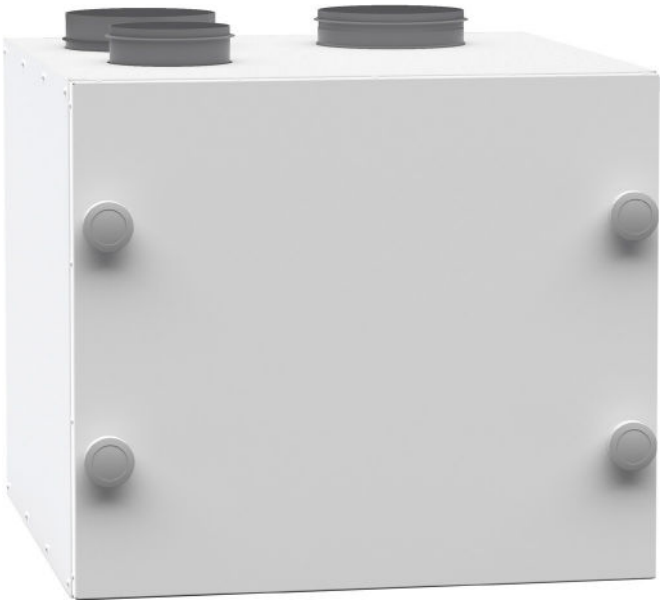
ComfortZone

User and Installation Manual



Supply Air Unit T12

ComfortZone
VÄRMEPUMPAR *Proudly made in Sweden*

Supply Air Unit T12

The supply air unit is designed to preheat the ventilation air in small houses with hydronic heating systems. However, it is not suitable for use as a heating element in air heating systems.

The supply air unit is complete and equipped with a low-energy fan, water coil, coarse and fine filters, a thermostat for incoming air temperature, and a frost protection damper. It filters and heats the supply air to a suitable supply temperature.

T12 is optimized to operate in combination with exhaust air heat pumps from Comfortzone. In addition, it is equipped with a connection for a recirculation air duct, enabling the distribution of heat from areas with excess heat, such as above fireplaces or under sloped roofs, to the rest of the house.

The supply air unit's fan speed is controlled by the heat pump, and it is equipped with a non-return damper for supply air as well as an automatic fan stop when the supply air temperature falls below 11 °C

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1 IMPORTANT INFORMATION

Safety

This appliance can be used by children aged 8 years and above, as well as by persons with reduced physical, sensory, or mental capabilities, or lack of experience and knowledge, provided they have been given supervision or instruction concerning the safe use of the appliance and understand the hazards involved. Children must not play with the appliance. Cleaning and user maintenance must not be carried out by children without supervision.

Symbols

⚠ WARNING

This Symbol indicates a risk of serious injury to yourself or others, or severe damage to the product.

⚠ OBSERVE

This symbol indicates that the product may be damaged.

NOTE

This symbol indicates a note with additional information for the installer or the user.

TIPS

This symbol provides suggestions and advice for the installer to carry out certain tasks more easily or conveniently.

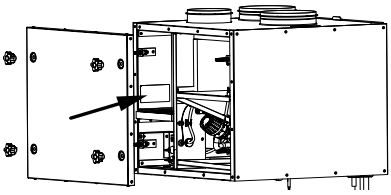
Labeling

These labels and symbols appear on the unit.

CE	Indicates that the unit has undergone the necessary inspections before being placed on the market and that it complies with the EU requirements for safety, health, and environmental protection.
	When the unit is to be discarded, it must be handled separately from other waste in accordance with local regulations for proper waste management.

Serial Number

The serial number is located behind the cover to the left, above the air filter.



Combined Manual

This manual is intended for both users and installers of the heat pump and the supply air unit, in order to ensure safety and efficiency.

Translations of the manual

If this manual is made available in languages other than Swedish, and any discrepancies arise between the language versions, the Swedish version shall take precedence and be regarded as the authoritative reference for the use and interpretation of this manual.

Plant Information

This information may be useful when contacting a service technician or ordering spare parts.

Model	
Serial number	
Installation date	
Installer	

NOTE

If any problems or faults occur with the product, the retailer who sold the product or the house should be contacted. If repair is required, contact an authorized service technician.

Installation Report

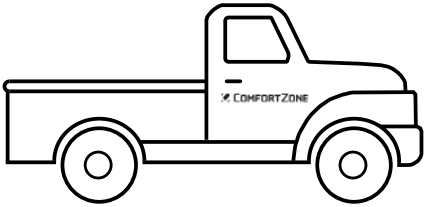
This inspection may only be carried out by a person with the proper qualifications.

Ventilation System	**Note**	**OK**
Fan Speed Normal		
Exhaust air duct insulated		
Supply Air Fan Adjustment		
Electricity	**Note**	**OK**
House Fuses		
Circuit Breaker Heat Pump		
Measure phases, N and PE		
Residual Current Device (RCD)		
Information for Users	**Note**	**OK**
Warranty Information		
Filter Replacement		

2 BEFORE INSTALLATION

Transport

During transport and shipping, the T12 must be kept in an upright position. It must not be laid down.



⚠WARNING

Always move the supply air unit with at least two persons.

Placement and Space

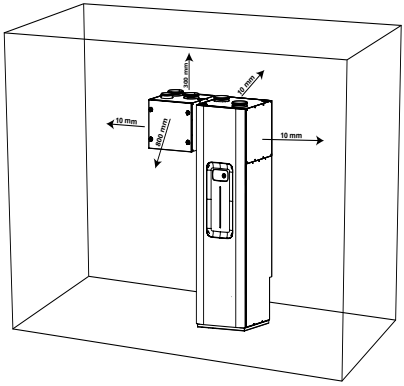
The unit may be installed in an environment between 5 and 50 °C with an air humidity below 85%. Condensation and water droplets on surfaces must be avoided.

- Choose a room with a floor drain and a foundation that can support the weight of the unit.
- Place the unit next to an outer wall or a well-insulated inner wall. Avoid placement against bedrooms or other noise-sensitive areas.
- When placing the unit next to a noise-sensitive area, the adjacent wall must be soundproofed.
- The ambient temperature must be at least 10 °C for the compressor to start, and not exceed 50 °C.
- In new constructions, the walls of the installation room must be insulated in accordance with applicable building regulations.

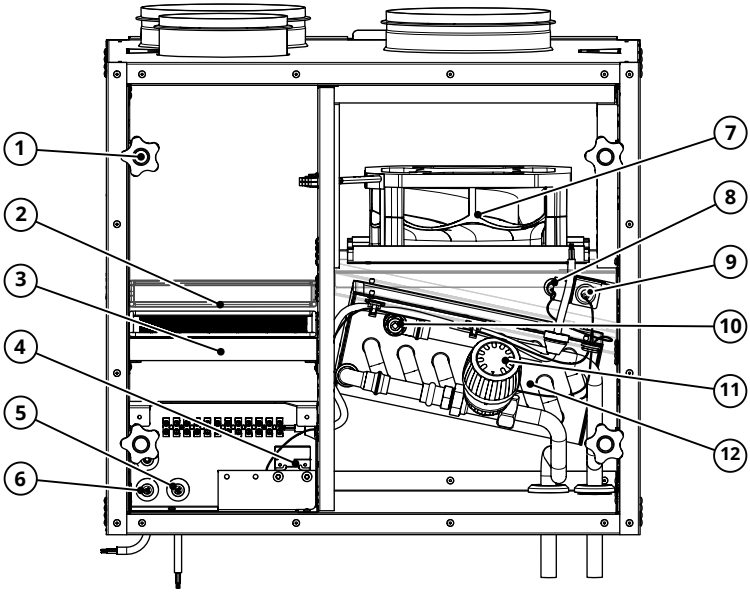
Dimensions

The supply air unit must not be installed in direct contact with walls or built into structures. Leave at least 10 mm of clearance.

- At least 300 mm above for ventilation ducts.
- Leave 800 mm of free space in front for service and maintenance.
- At least 10 mm from walls and other objects.

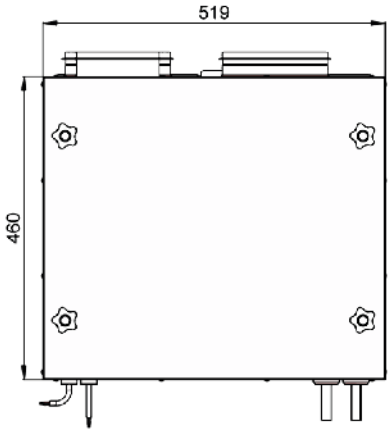


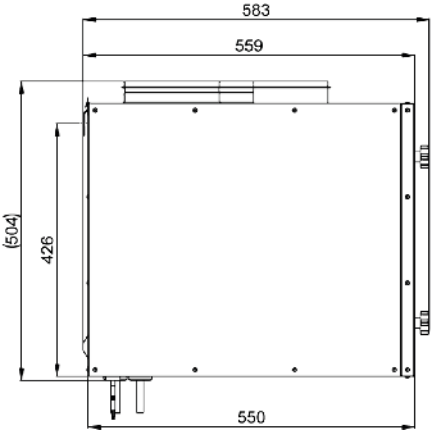
3 COMPONENTS

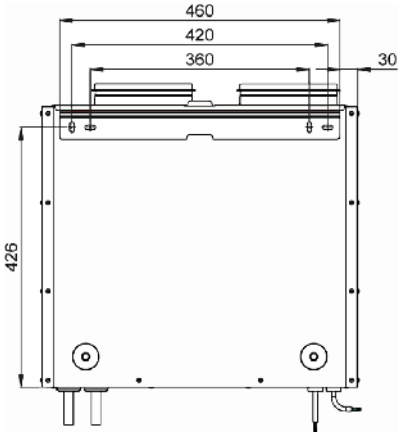


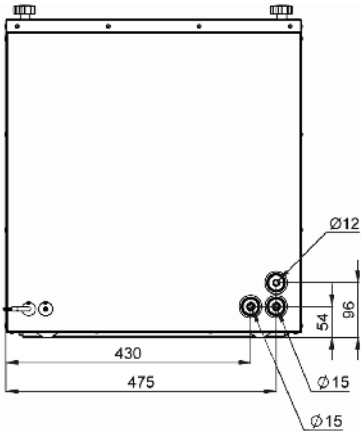
Components			
1	Locking Screw	7	Fan
2	Coarse Filter	8	Thermostat Sensor
3	Fine Filter	9	Thermostat Sensor
4	Thermostat T2 Fan °C	10	Air Vent Valve
5	Control Signal Fan	11	Thermostat Knob Heating
6	Power Cable	12	Water Coil

4 DIMENSIONS





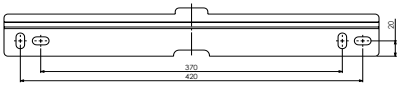




5 INSTALLATION

Mounting

To install the supply air unit, first attach the wall bracket horizontally to the wall. Then lift the supply air unit into place and hook it on by fitting the rear edge onto the wall bracket, so that the unit rests against the wall supported by the spacer at the bottom.



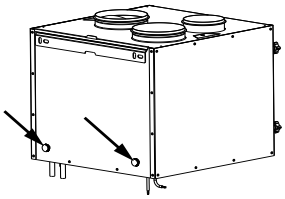
For installation on a concrete wall, screws and plugs suitable for this purpose are supplied. Use a drill with a 10 mm diameter and drill to a depth of 75 mm. If the wall is made of a material other than concrete, the installer is responsible for ensuring that the fastening can withstand at least four times the weight of the unit.

Before starting the installation, ensure that the following conditions are met:

- The wall has sufficient load-bearing capacity to support the weight of the unit.
- The wall is even and level to ensure correct installation and stability.

Distance adjustments

After installing the supply air unit, adjust the distance screws located at the bottom of the unit. Turn the screws until the unit is in a level position.



TIPS

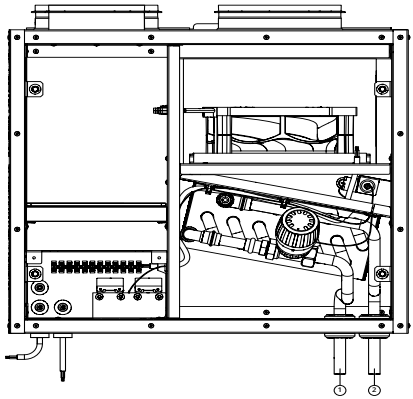
It is recommended to install the supply air unit next to the heat pump along the upper section. If this is not possible, the unit may be placed in another location.

OBSERVE

The ground cable is attached to the front cover. During installation and service, the cover can be temporarily hung on the lower left nut.

Connections

The supply air unit's connections to the heat pump and condensate pipe.



Connection	Diameter
1 Return	15
2 Supply	15

Air vent

Open the front cover and bleed air via the air vent valve on the supply pipe.

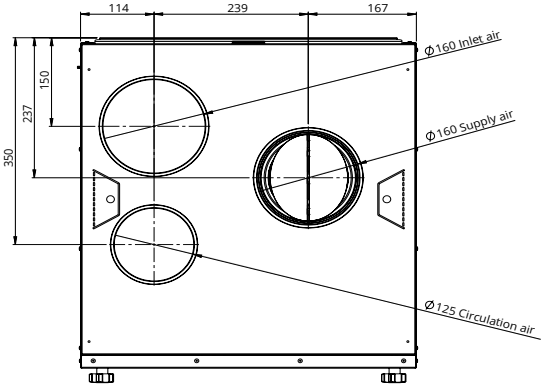
Ventilation Sytem

Outdoor air is supplied through the external wall. On the external wall at the fresh air duct, a weather-protected external wall grille with rain cover must be installed. The front velocity in the grille must not exceed 2 m/s. Any insect net with a mesh size smaller than 8 mm must be removed from the grille.

The outdoor air duct must be insulated with a vapor-tight layer along its entire length. In warm areas, the insulation must also be vapor-tight.

The supply air duct into the house should be fitted with a silencer near the supply air unit to prevent fan noise from being transmitted to the supply air diffusers. In the recirculation air duct, a control damper and a silencer must be installed.

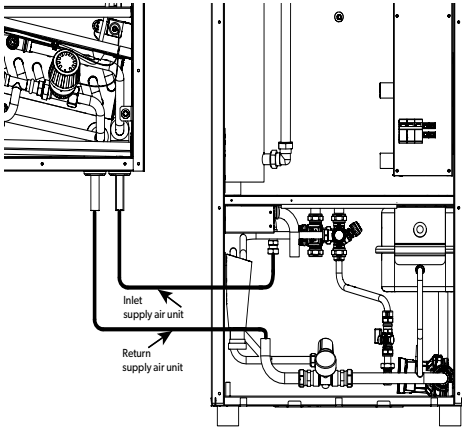
1. Connect the ventilation system's supply air duct to the supply air connection. Place a straight silencer in the air duct.
2. Connect the outdoor duct to the air inlet opening of the supply air unit.



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Heating System

1. Connect the supply air unit inlet from the heat pump using a flexible hose. Connect it to the 15 mm supply pipe for the supply air unit, marked 'supply air unit'.
2. Connect the return to the heat pump's common return using a flexible hose.



Electronics

Always disconnect both the heat pump and the supply air unit from the mains before carrying out installation, service, or maintenance. Installation must be performed by a qualified electrician in accordance with applicable regulations. The connections are made in the electrical box, located in the control unit housing of the heat pump.

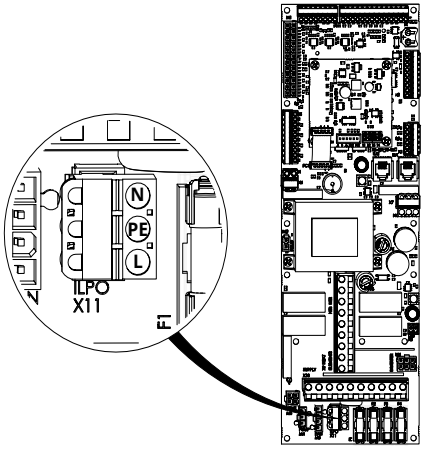
NOTE

The supply air unit has no main power switch and starts when the heat pump is switched on.

Power Supply Connection

To operate the supply air unit, a 230 V power supply from the heat pump is required. To connect the power source, plug the cable into connector X11 on the control board of the heat pump as follows:

- N: Blue cable.
- PE: Green/yellow cable for ground.
- L: Brown cable.



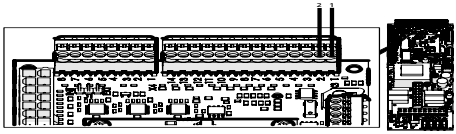
WARNING

Only an authorized service partner or qualified personnel may replace a damaged power supply cable.

Control

The supply air unit is controlled by the heat pump. The unit contains a white signal cable with a brown and a blue wire, which must be connected to connector X3 on the control board of the heat pump as follows:

- Connect the blue wire to X3:2.
- Connect the brown wire to X3:1.



6 COMMISSIONING

Settings

To open the Service Menu, go to Advanced Settings, select General Settings, and hold the button for approximately 6 seconds. A prompt asking if you want to open the Service Menu will appear. Turn the dial once to the left, select the checkmark with Yes, and press the button. The Service Menu is now displayed – an extended menu with additional options and settings.

Airflows

The building's airflows are designed in accordance with applicable building regulations. In general, the exhaust airflow is dimensioned, while the supply airflow is set 10–20% lower than the exhaust airflow to ensure a slight negative pressure in the building.

Fan speed

The fan speed is adjusted on the heat pump's display. Go to Advanced Settings > Fan Settings > Supply Air Fan Correction.The value is usually set between -30% - -40%.

Supply air temperature

Choice: 14-20℃.

Factory setting: 17-18℃.

The supply air temperature to the rooms during heating mode is adjusted using the thermostat knob. When using preheated supply air for ventilation purposes, the supply air temperature should normally be set to 17–18 °C and must always be lower than the desired room temperature. A higher supply air temperature may also overload the heat pump.

Maximum circulation flow

Choice: 1-7+N.

Factory setting: 4.

If necessary, the maximum circulation flow to the supply air coil can be adjusted. Loosen the thermostat housing and turn the adjustment between positions 1–7 or N (Fully open) according to the scale on the ring.

7 SERVICE

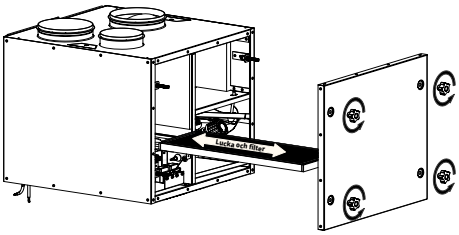
⚠OBSERVE

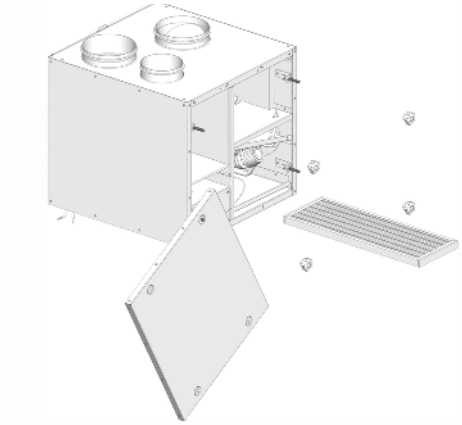
The ground cable is attached to the front cover. During installation and service, the cover can be temporarily hung on the lower left nut.

Type of maintenance	How often?
Inspection and cleaning of filters	Every six months
Replacement of filters	Recommended annually

Supply air unit air filter

Clean the air filters in the supply air unit once every six months. A general recommendation is to replace the filters once a year. New air filters can be purchased through resellers or at comfortzone.se.





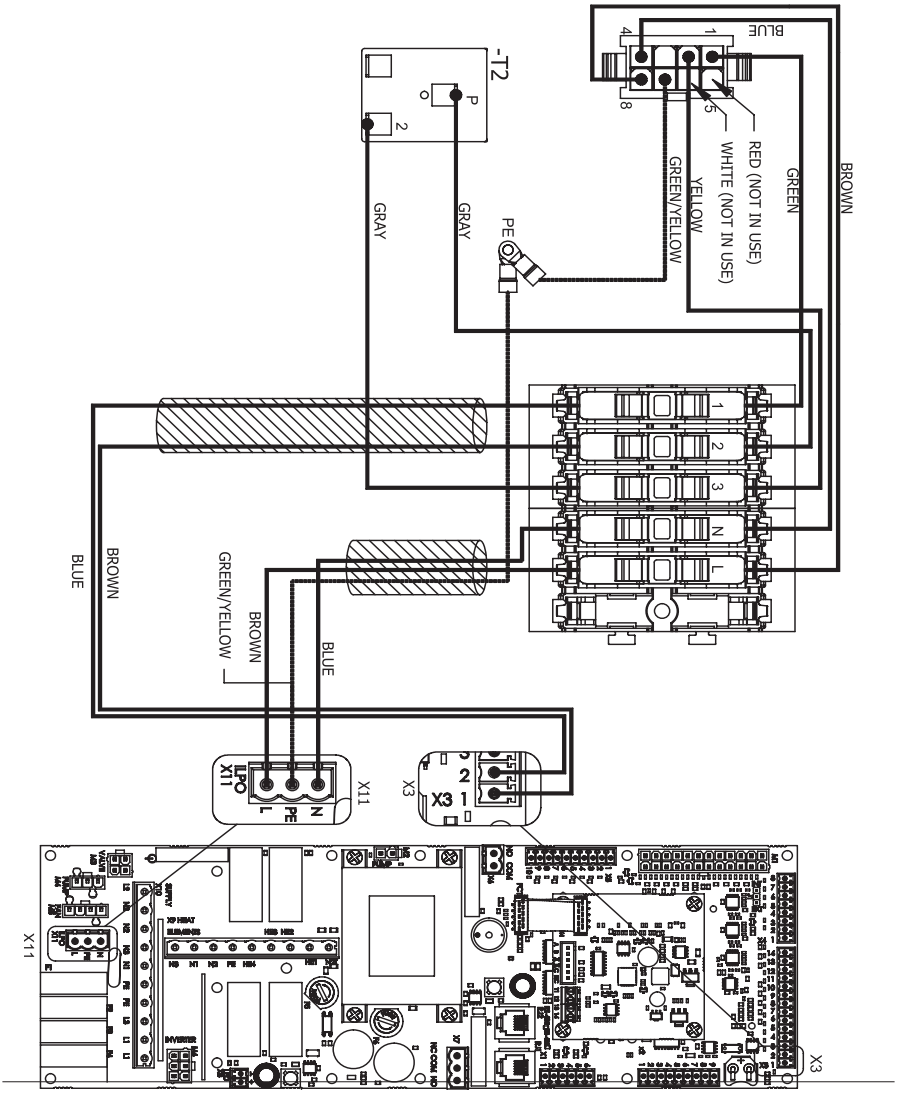
1. Switch off the supply air unit using the heat pump's main switch.
2. Remove the front cover of the supply air unit by loosening the four screws. Note that a ground cable is connected to the cover. When replacing filters, the front cover can be temporarily hung on the lower left nut.
3. Remove the filter set from the supply air unit.
4. Inspect the old filter set. If cleaning is required, make sure not to use water or other liquids. Also check that the filter set is free from any damage.
5. Replace the existing filter set with a new one.
6. Reinstall the front cover on the supply air unit and tighten the screws.
7. Start the supply air unit using the heat pump's main switch.

8 TECHNICAL INFORMATION

Specifications	T12
Dimensions (HxWxD)	460x519x550 mm
Voltage	230V~50Hz
Maximum current	0,8A
Fan, power consumption	83W
Type of coarse filter	G2
Type of fine filter	F7
Weight (incl. mounting bracket)	35Kg
IP rating	IP21

9 WIRING DIAGRAM

Supply air unit

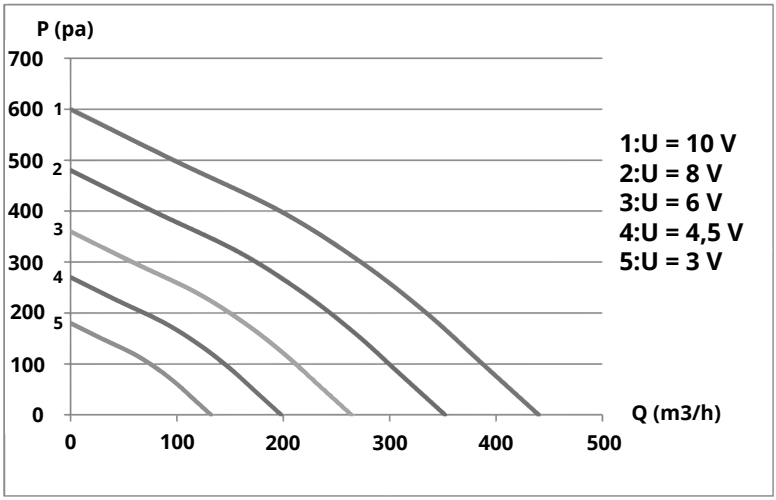


10 PROJECT PLANNING

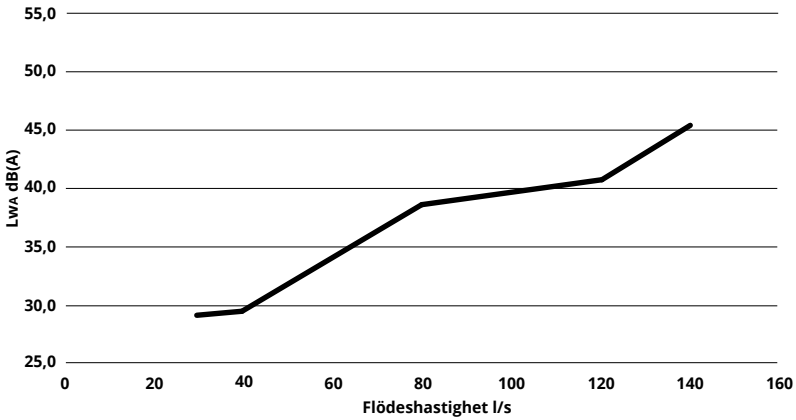
Air flows

The building's airflows must be designed in accordance with applicable building regulations. In normal cases, the system is dimensioned based on the exhaust airflow. To ensure a slight negative pressure in the building, the supply airflow should be approximately 10–20% lower than the exhaust airflow. For recirculated airflow, 10–20% of the outdoor airflow is recommended.

Fan diagram



Sound level LWA (dBA rel 1 pW) in diagram and table



Flöde l/s	Lwa
30	29,2
40	29,5
55	32,7
80	38,7
120	45,3
140	48,4

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In case of faults or problems, always contact the reseller who sold the product or the house where the heat pump is installed.

12 WARRANTY

The warranty conditions apply only to the Swedish market. It is therefore important to note that certain specific conditions must be met for warranty and claims rights to apply. For complete information, please refer to ComfortZone's terms of purchase for consumers and businesses, as well as ComfortZone's warranty conditions. The latest version of these terms can be found on ComfortZone's website.

Product Warranty – Exhaust Air Heat Pump & Supply Air Unit

Validity: 3 years

Coverage: Covers original defects detected within 3 years from the installation date.

Safety Warranty – Exhaust Air Heat Pump & Supply Air Unit

Validity: 3 years

Coverage: Covers deductible and depreciation in case of mechanical damage. Valid from the expiry of the product warranty. Requires an insurance policy issued by a Swedish insurance company and that the mechanical damage is approved by the insurance company. Does not apply if the cost is lower than the deductible.

Extended Safety Warranty for Exhaust Air Heat Pump

Validity: 1–18 years

Coverage: The customer has the option to extend the Safety Warranty by signing a dedicated heat pump insurance with Söderberg & Partners. Covers deductible and depreciation in case of mechanical damage. ComfortZone's responsibility ends at the expiry of the standard Safety Warranty.

Spare parts for exhaust air heat pumps and supply air units

Validity: 1 year

Coverage: Includes original defects and applies only to new original parts from ComfortZone installed by an authorized service company. Does not cover spare parts installed to remedy faults already covered by the product warranty.



www.comfortzone.se

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