

HRV unit

NIBE GV-HR 120-400

NIBE GV-HR 120-400 is a heat recovery ventilation unit equipped with counter flow heat exchanger with a temperature efficiency of up to 92%. NIBE GV-HR 120-400 is for wall mounting.

NIBE GV-HR 120-400 are delivered with counter flow heat exchanger, humidity sensor, energy saving fans, EC motors, supply air filter, exhaust air side filter and is complete with a control system with a user-friendly control panel.

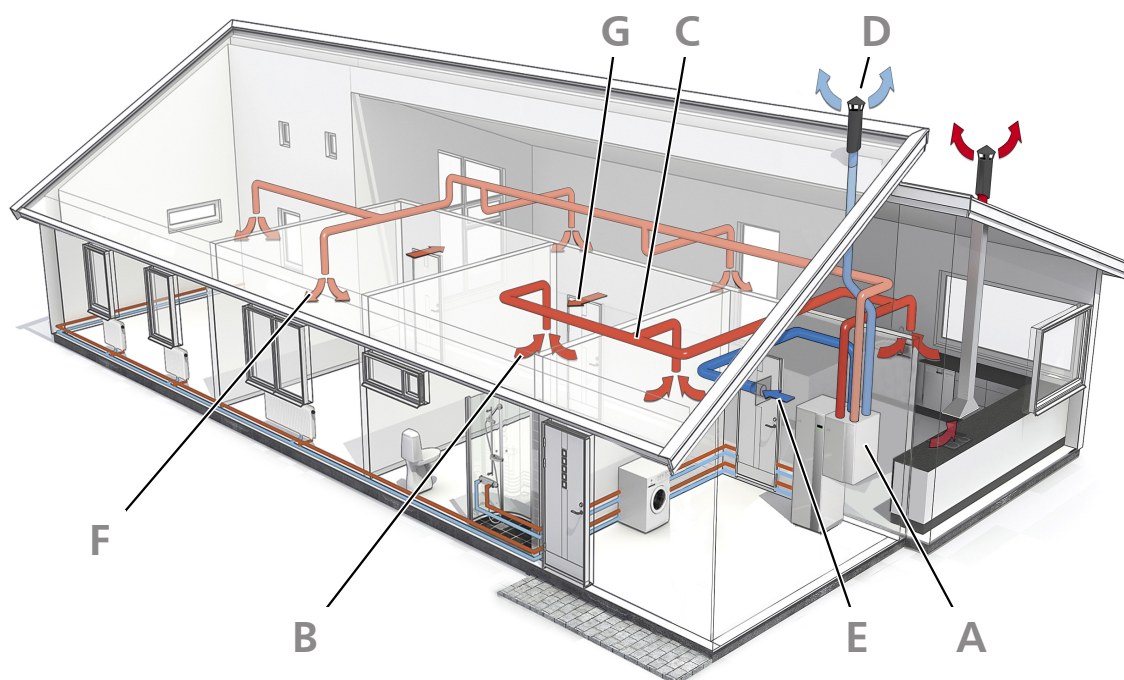
The elegant display shows instructions, settings and operating information. You navigate easily in the menu, setting the ventilation or getting other information.

- Heat recovery ventilation unit with integrated bypass function, humidity control and low noise level.
- Simple care and service.
- Easy to control from the stylish supplied display.



This is how GV-HR 120 works

Principle



GV-HR 120 is an HRV unit with inbuilt fans and counter-current heat exchanger.

Energy is recovered from the ventilation air and supplied to your home, which reduces energy costs considerably.

The unit is intended for both new installations and replacement in houses or similar.

GV-HR 120 is suitable for ventilation systems where high thermal efficiency and low energy consumption are required.

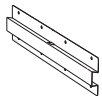
- A** GV-HR 120 ventilates your home and heats the supply air.
- B** The warm room air is drawn into the air duct system.
- C** The warm room air is fed to GV-HR 120.
- D** The room air is released when it has passed GV-HR 120. The air temperature has then been reduced as GV-HR 120 has extracted the energy in the room air.
- E** Outdoor air is drawn into GV-HR 120.
- F** Air is blown out into rooms with supply air inlets.
- G** Air is transported from rooms with supply air inlets to rooms with exhaust air valves.

Good to know about GV-HR 120

Transport and storage

GV-HR 120 should be transported and stored in the dry.

Supplied components



Rail for wall mounting



Display

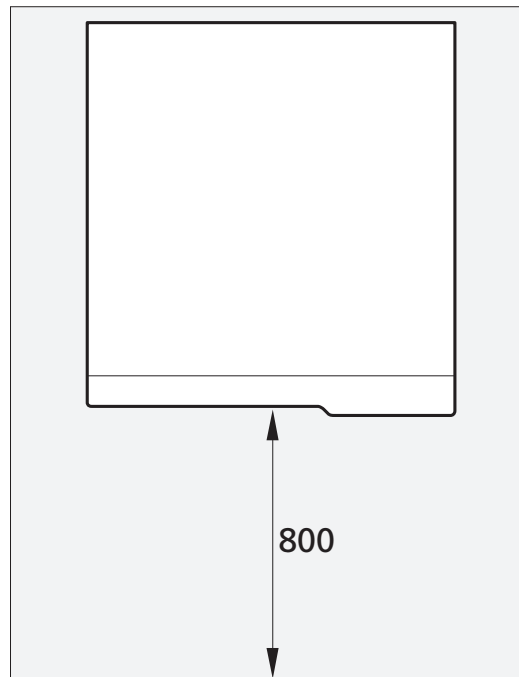
Installation and positioning

GV-HR 120 is installed using the enclosed rail on a solid wall. Noise from the fans can be transferred to the rail.

- Install with its back to an outside wall, ideally in a room where noise does not matter, in order to eliminate noise problems. If this is not possible, avoid placing it against a wall behind a bedroom or other room where noise may be a problem.
- Wherever the unit is located, walls to sound sensitive rooms should be fitted with sound insulation.
- Condensation water comes from the HRV unit. A condensation outlet with a water seal must be installed and routed to an internal drain.
- The HRV unit's installation area always has to have a temperature of at least 10 °C and max. 35 °C.

INSTALLATION AREA

Leave a free space of 800 mm in front of the product.



Ensure that there is sufficient space (300 mm) above the HRV unit for installing ventilation hoses.

Installation

Condensation water drain

GV-HR 120 can produce several litres of condensation water per day. It is therefore important that the condensation outlet is correctly executed and the HRV unit installed horizontally.

Check that the water seal is airtight and firmly in position. The connection must be made so that the user can check and top up the water seal, without opening GV-HR 120.

The condensation outlet is adapted for the type of water seal that is traditionally used for a wash basin (connection G32).

Ventilation

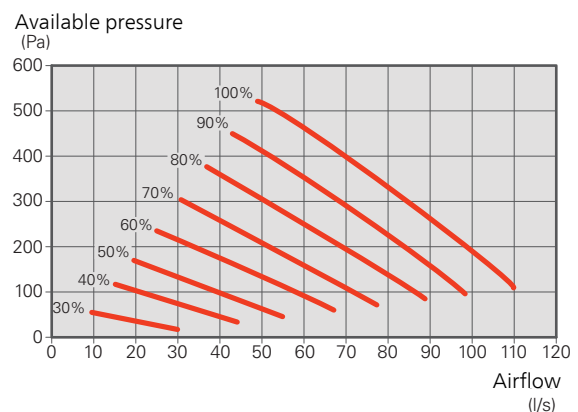
- Connect GV-HR 120 so that all the exhaust air, except kitchen duct air (kitchen fan), passes through the heat exchanger in the product.
- The ventilation flow must comply with the applicable national standards.
- The supply air flow must be lower than the exhaust air flow to prevent over pressure in the house.
- The air duct system must be a minimum of air tightness class B.
- To prevent fan noise being transferred to the ventilation devices, install silencers in suitable locations in the duct system.
- When the extract air and outdoor air temperature is/becomes cold, the extract air and outdoor air duct must be insulated using diffusion-proof material (at least PE30 or equivalent) along its entire length.
- Exhaust and supply air ducts that are routed in cold areas must be insulated.
- All joints in the ducting must be sealed to prevent leakage.

- The air must be routed to the outdoor air duct through an outer wall grille in the facade. The outer wall grille must be installed so that it is protected from the weather and must be designed so that no rainwater and/or snow can penetrate the facade or follow the air into the duct.
- When positioning the outdoor air and extract air hood/grille, bear in mind that the two air flows must not short circuit to prevent the extract air from being drawn into GV-HR 120 again.
- A duct in a masonry chimney stack must not be used for extract air or outdoor air.
- If a stove or similar is installed, it must have airtight doors. It must also be able to take combustion air from outside.
- Incorrect adjustment of the ventilation may lead to reduced installation efficiency and thus poorer operating economy, a poorer indoor climate and moisture damage in the building.

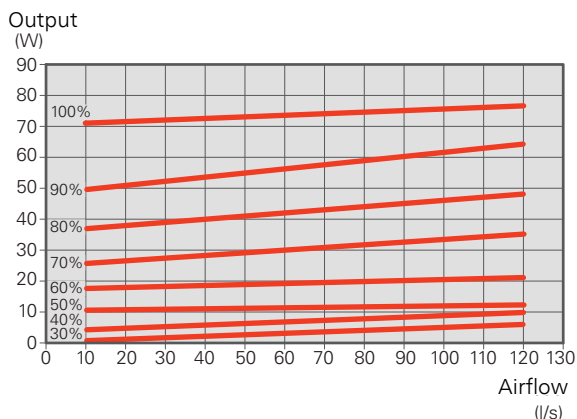
SETTING THE FAN CAPACITY

Select the ventilation capacity steplessly in the display.

Ventilation capacity

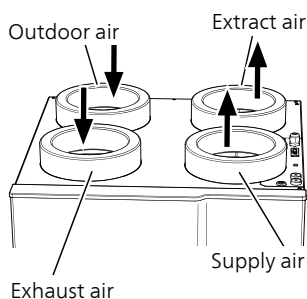


Fan rating¹



¹The diagram shows the power consumption per fan.

VENTILATION CONNECTIONS



Electrical connections

- Disconnect GV-HR 120 before insulation testing the house wiring.
- To prevent interference, sensor cables to external connections must not be laid close to high voltage cables.
- If the supply cable is damaged, only NIBE, its service representative or similar authorised person may replace it to prevent any danger and damage.

GV-HR 120 is equipped from the factory with a supply cable with a plug (cable length 2.4 m).

Electrical installation and service must be carried out under the supervision of a qualified electrician. Electrical installation and wiring must be carried out in accordance with the stipulations in force.

Functions

GV-HR 120 is controlled using a clear and easy to use display.

Instructions, settings and operational information are shown on the display. You can easily navigate between the different menus and options to set the comfort or obtain the information you require.

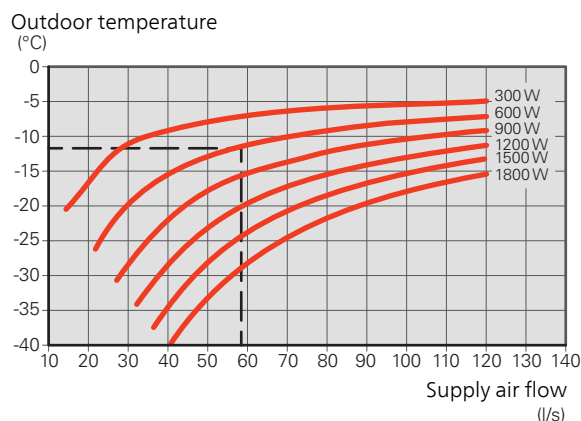
AIR HEATER EAH 21

In houses where the outdoor temperature can be continuously lower than -5°C, GV-HR 120 should be supplemented with an electrical air heater (EAH 21). In cold weather, EAH 21 heats the incoming outdoor air slightly to prevent the condensation in GV-HR 120 from freezing to form ice.

EAH 21 is connected to full power at the factory and automatically adapts the output according to the building's needs.

It is possible to reconnect the power if you want, for example due to the choice of fuse, any building regulations, etc.

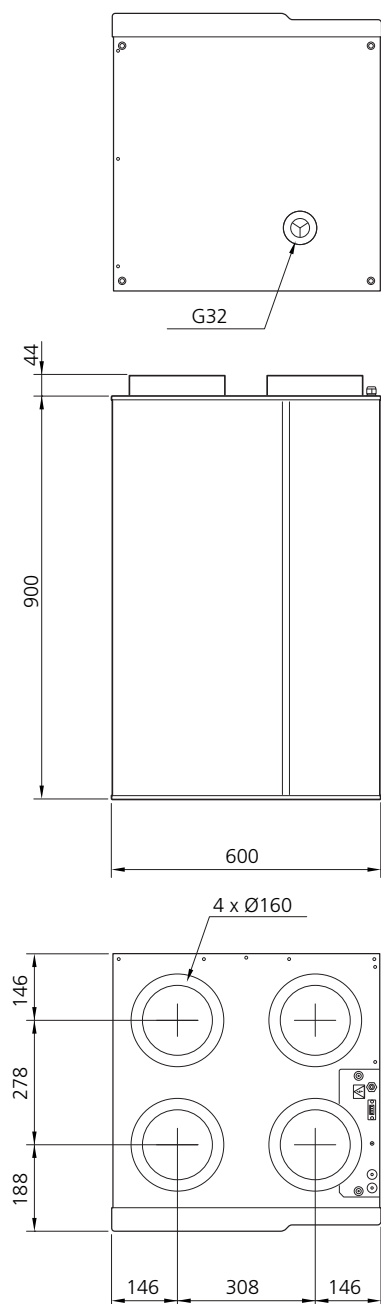
Choice of power on EAH 21



Example: In the case of a supply air flow of 58 l/s and a power of 600 W in the preheater, the supply air fan is permitted to start slowing down at an outdoor temperature of approx. -12°C.

Technical data

Dimensions



Accessories

Not all accessories are available on all markets.

Detailed information about the accessories and complete accessories list available at nibe.eu.

ELECTRICAL AIR HEATER EAH 21

In cold weather, EAH heats the incoming outdoor air slightly to prevent the condensation in GV-HR 120 from freezing to form ice. EAH should be used in houses where the outdoor temperature can be continuously lower than -5°C.

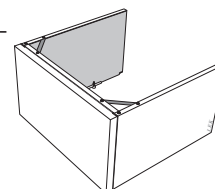


EAH 21-1800

(300-1800 W)

TOP CABINET TOC 40

Top cabinet that conceals the ventilation ducts and reduces the sound to the installation room.



Technical specifications

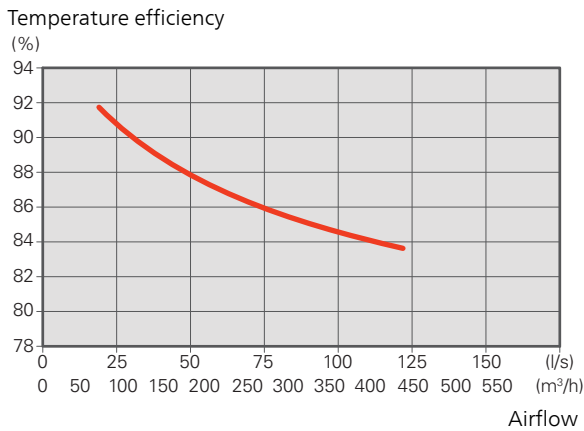
Type		GV-HR 120
<i>Electrical data</i>		
Supply voltage	V	230 V ~ 50Hz
Fuse	A	10
Driving power fan	W	2 x 85
Enclosure class		IP X1B
<i>Ventilation</i>		
Filter type, exhaust air filter		Coarse 65%
Filter type, supply air filter		ePM1 55%
<i>Noise</i>		
Sound power level ($L_{W(A)}$) ¹	dB(A)	47
Sound pressure level ($L_{P(A)}$) at 1 m ²	dB(A)	45
<i>Pipe connections</i>		
Ventilation Ø	mm	160
Condensation water drain		G32
<i>Miscellaneous</i>		
Efficiency class ³		A
Length, supply cable	m	2.4
Length, communication cable	m	2.0
Width	mm	600
Height	mm	900
Depth	mm	612
Weight	kg	40
Part No.		066 118

1 277 m³/h (77 l/s) at 50 Pa

2 230 m³/h (64 l/s) at 50 Pa

3 Scale for efficiency class: A+ to G.

Dry temperature efficiency according to EN 308



Outdoor air: 5 °C Exhaust air 25 °C RH exhaust air: <27.7 %

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