Ventilation heat exchanger NIBE ERS 30-400

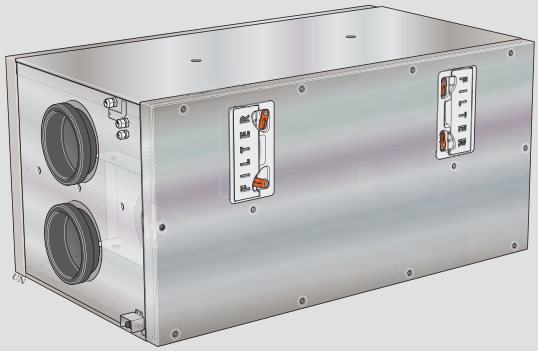
The NIBE ERS 30 is a heat recovery ventilation unit with high thermal efficiency up to 94% and low energy consumption. The heat recovery ventilation unit is designed for property floor areas of up to approximately 350 m^2.

The NIBE ERS 30 is intended for installation with a NIBE ground source heat pump or a NIBE air-to-water heat pump to provide a fully-integrated heating and ventilation system. The unit is simple to operate and control via the heat pump.

Thanks to smart technology, this product lets you keep track of your energy consumption and will become a key part of your connected lifestyle. The efficient control system automatically regulates the indoor climate to deliver maximum comfort. And you're doing the environment a favour too.

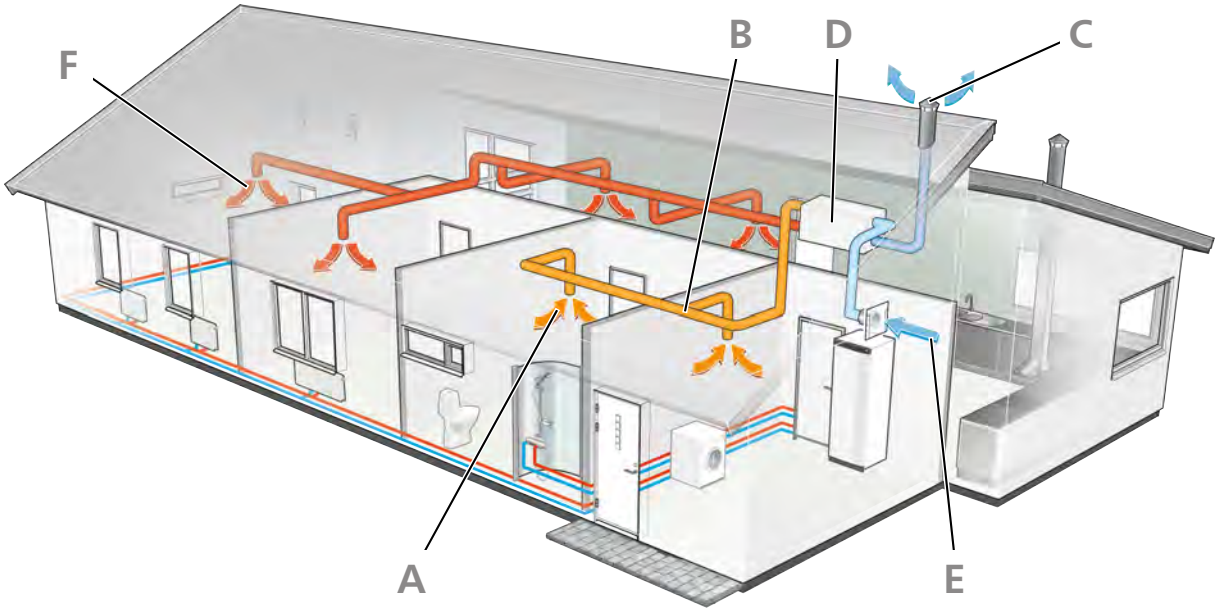
The NIBE ERS 30 has been specifically designed for use in attics and other cool spaces.

- A heat recovery ventilation unit with high thermal efficiency and low energy consumption.
- Combined with a NIBE ground source heat pump or air-to-water heat pump, the unit provides a fully-integrated solution in properties with balanced ventilation.
- Simple to operate and part of your smart home in combination with a NIBE heat pump.



This is how NIBE ERS 30 works

Principle



NIBE ERS 30 is a ventilation heat exchanger 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.

NIBE ERS 30 is suitable for ventilation systems where high temperature efficiency and low energy consumption are required. NIBE ERS 30 is normally used in homes with an area of up to approx. 350 m^2.

A The warm room air is drawn into the air duct system.

B The warm room air is fed to NIBE ERS 30.

C The room air is released when it has passed NIBE ERS 30. The air temperature has then been reduced as NIBE ERS 30 has extracted the energy in the room air.

D NIBE ERS 30 ventilates your home and heats the supply air.

E Outdoor air is drawn into NIBE ERS 30.

F Air is blown out into rooms with supply air inlets.

Good to know about NIBE ERS 30

NIBE ERS 30 is covered by a 3-year product guarantee.

For the simultaneous purchase and installation of NIBE heat pump and NIBE ERS 30, there is a six year protection insurance, which is a supplement to your house, villa or weekend cottage insurance. The protection insurance can then be extended annually up to 18 years.

For full terms and conditions, see nibe.se.

Transport and storage

NIBE ERS 30 should be transported and stored in the dry.

Installation and positioning

NIBE ERS 30 must be placed on a stable surface to minimise the risk of vibrations.

- Wherever the unit is located, any joists that back onto a sound-sensitive room should be fitted with sound-proofing.
- Condensation comes from the ventilation heat exchanger. A condensation outlet with a water seal must be installed and routed to an internal drain.
- The ventilation heat exchanger's installation area should always have a temperature of at least -25 °C and max. 50 °C.

Installation

Condensation water drain

NIBE ERS 30 can produce several litres of condensation water per day. It is therefore important for the condensation outlet to be correctly executed and for the ventilation heat exchanger to be 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 NIBE ERS 30.

The connection for the condensation outlet measures Ø15 mm.

If the ventilation heat exchanger has to be installed in a cold area, the condensation water drain pipe must be insulated so the condensation water in the pipe does not freeze. It is also recommended that the water seal is mounted in a warm area to guarantee that the water in the water seal does not freeze. If it cannot be guaranteed that insulation will protect the condensation water drain pipe against frost, a thermostat-controlled heating cable must be installed around the condensation water drain pipe. The installation from the water seal to the drain must be carried out with a requisite slope of at least 1 %.

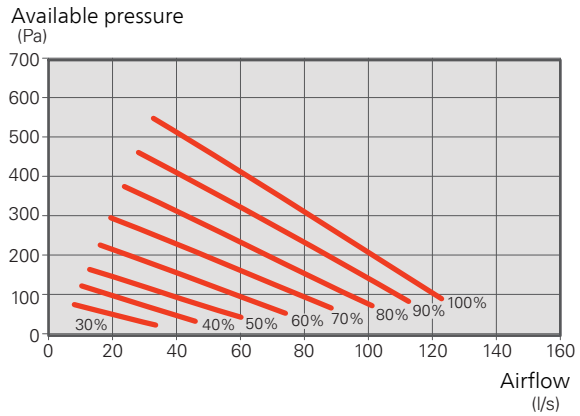
Ventilation

- Connect NIBE ERS 30 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, silencers should be installed in the duct system. In the event of ventilation devices in noise-sensitive rooms, silencers must be installed.
- 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 air ducts that are routed in cold areas must be insulated.
- All joins 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 NIBE ERS 30 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, and may cause moisture damage in the building

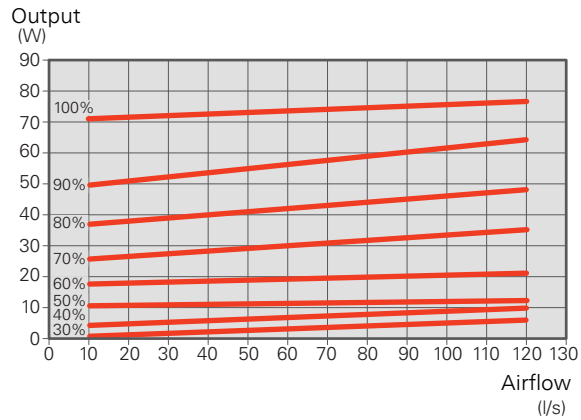
SETTING THE FAN CAPACITY

Select the ventilation capacity steplessly in the display.

Ventilation capacity



Fan rating[1]



[1]The diagram shows the power consumption per fan.

Electrical connections

- Disconnect NIBE ERS 30 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.

NIBE ERS 30 is equipped with a communication cable from the factory (cable length 2.0 m), which is connected to a circuit board in the heat pump. It is also equipped 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.

AIR HEATER EAH 20

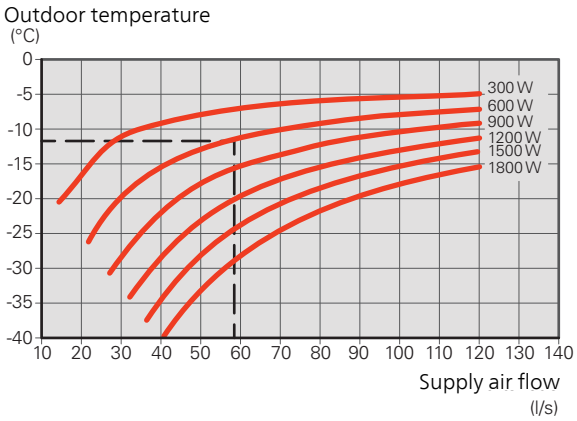
The electrical air heater, EAH 20, is installed in the outdoor air duct before NIBE ERS 30.

EAH 20 heats incoming outdoor air to prevent the condensate in NIBE ERS 30 freezing.

The power of EAH 20 is selected taking into consideration the needs of the building, the choice of fuse, any building regulations, and the outdoor temperature at which the supply air fan in EAH 20 is permitted to start to slow down.

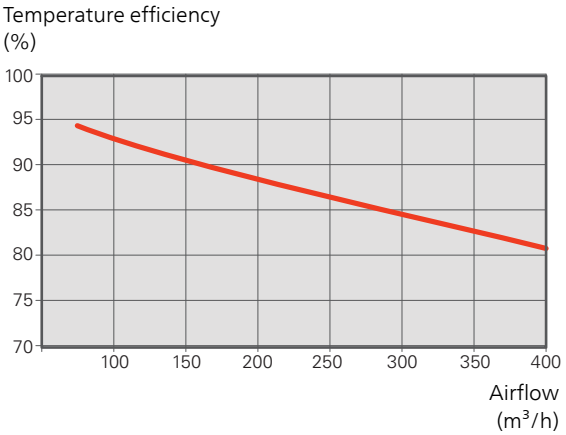
The energy saving increases the lower the power of the air heater that is selected. However, this increases the outdoor air flow that enters the house via leakage (instead of through NIBE ERS 30) at low outdoor temperatures.

The choice of power of EAH 20



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.

Dry temperature efficiency according to EN 308



Functions

Using the Internet and myUplink for the S-series and NIBE Uplink for the F-series, you can obtain a quick overview and the present status of the installation and the heating in your home. You can obtain a good overall view, allowing you to monitor and control the heating and hot water comfort efficiently. If the installation is affected by a malfunction, you receive a reliable alert via e-mail that allows you to react quickly.

myUplink / NIBE Uplink also gives you the opportunity to easily control the comfort in the home, no matter where you are.

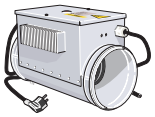
You have access to different levels of service via myUplink / NIBE Uplink. A basic level that is free and a premium level where you can select different extended service functions for a fixed annual subscription fee (the subscription fee varies depending on the selected functions).

The service is also available as an app from App Store and Google Play.

Accessories

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

Electrical air heater EAH 20

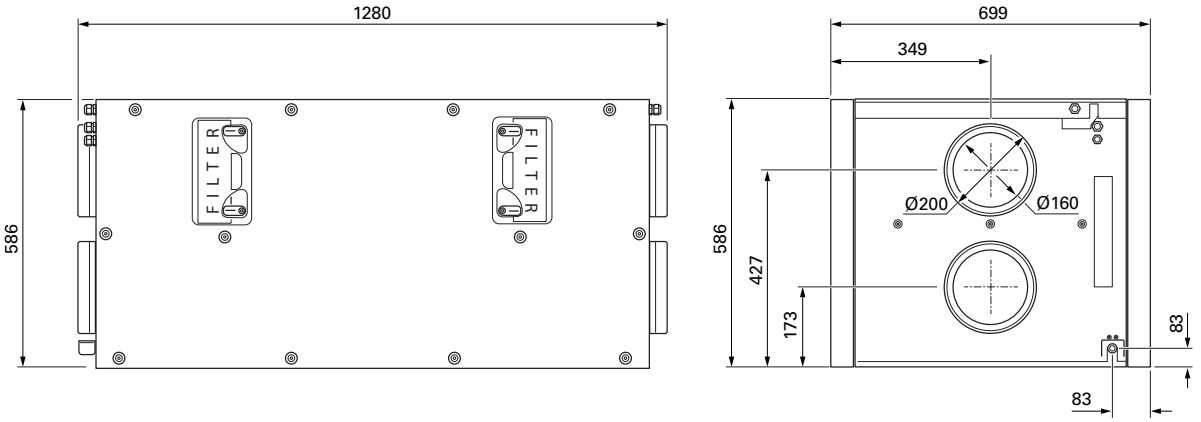


In cold weather, EAH 20-1800 heats the incoming outdoor air slightly to prevent the condensation in NIBE ERS 30 from freezing. Used mainly in colder climates.

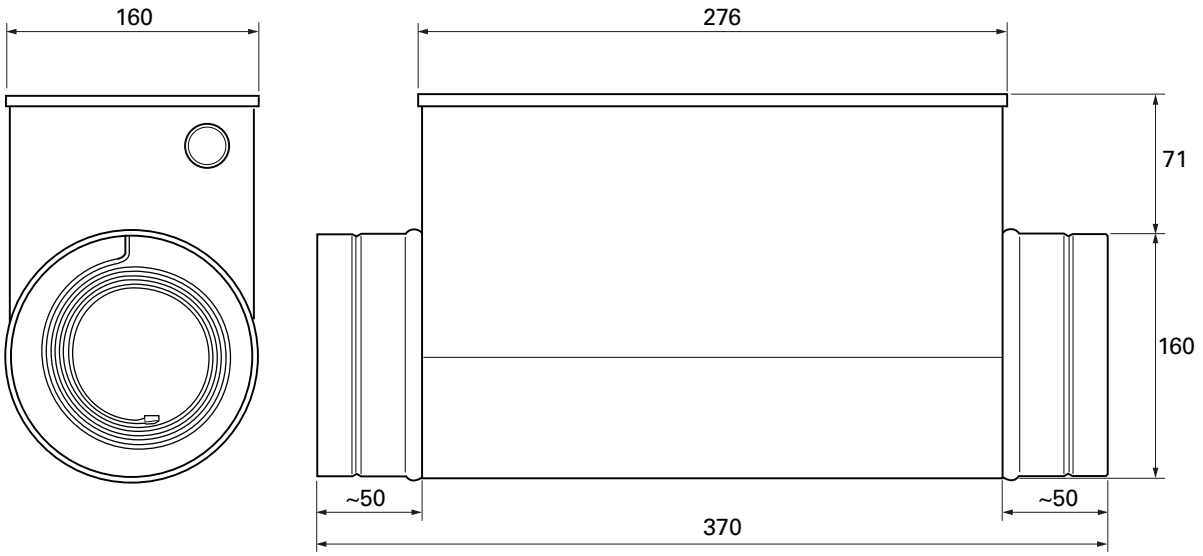
Part no. 067 603

Technical data

Dimensions



EAH 20



Technical specifications

Type		*ERS 30*
Electrical data		
Supply voltage	V	230 V ~ 50Hz
Fuse	A	10
Driving power fan	W	2 x 85
Enclosure class		IP X1
Ventilation		
Filter type, exhaust air filter		Grov
Filter type, supply air filter		ePM1 55%
Sound pressure levels		
Sound pressure level ($L_{P(A)}$) [1]	dB(A)	47
Pipe connections		
Ventilation Ø	mm	160
Condensation water drain Ø	mm	15
Miscellaneous		
Working temperature range for incoming air	°C	Min. -25 °C, Max. 40 °C
Efficiency class [2]		A
Length, supply cable	m	2.4
Length, control cable	m	2.0
Width	mm	1,280
Height	mm	586
Depth	mm	699
Weight	kg	56
Part No.		066 165

1 335 m³/h (93 l/s) at 50 Pa

2 Scale for efficiency class: A+ to G.

Type		*EAH 20*
Current strength for relevant output		
300 W	A	1.3
600 W	A	2.6
900 W	A	3.9
1,200 W	A	5.2
1,500 W	A	6.6
1,800 W	A	7.9
Ventilation		
Min. airflow	l/s	20
Pipe connections		
Ventilation Ø	mm	160
Dimensions		
Length	mm	370
Junction box (width x height x length)	mm	160x 230 x 276

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