



Description

GE ENERGY 1 is a ventilation unit, equipped with a counter flow heat exchanger, with a recovery rate up to 95%. The ventilation unit has supply air and extract air fans with energy saving EC motors and backward curved fan blades.

The air is as standard, both the fresh air and the exhaust air side, filtered thru a G4 plain filter (F7 and F 8 are options). GE ENERGY 1 is delivered with a Optima 250 control.

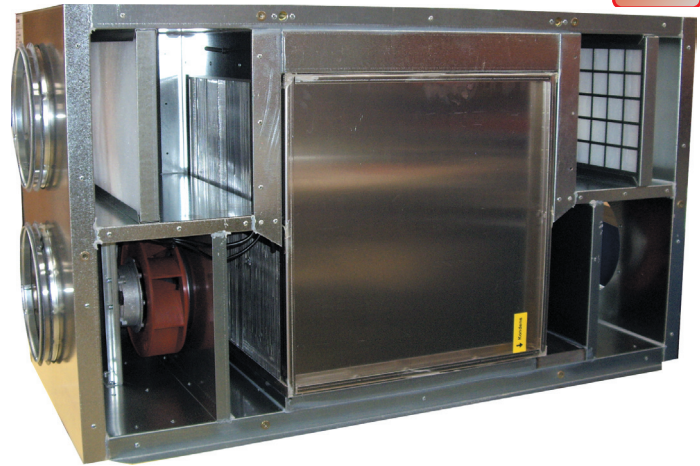
GE ENERGY 1 can be delivered with the following options:

- Bagfilter F7 eller F8 (Pollen filter)
- Modulating bypass
- Water or electrical heating element for duct mounting
- Water frost sensor
- Motor valve for water heating element
- Fan guard and filter guard
- Fresh air valve, motor driven and spring return
- Hygrostat for need based ventilation

Used in area

GE ENERGY 1 is used for ventilation systems in the domestic area, where there is a wish for high temperature efficiency and a low energy consumption. This means that new demands for low energy consumption can be held..

GE ENERGY 1 can be uses in living areas up to 180 m² that need up to 216 m³/h at 90 Pa.



Types

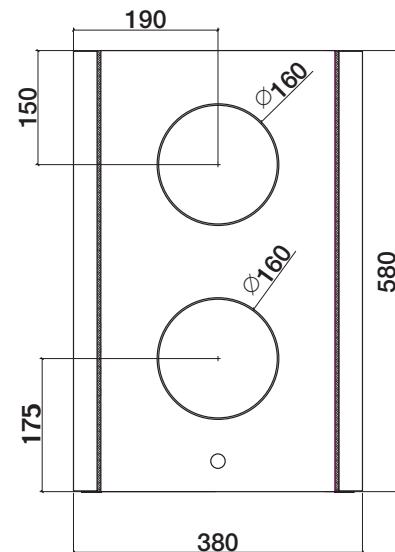
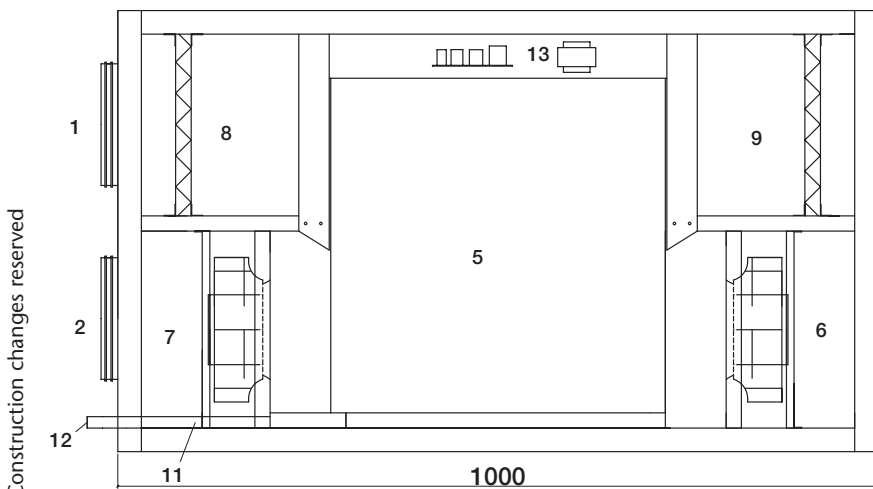
GE ENERGY 1 can be made either a right or a left version, by switching the front and the back hatch (not when bypass is mounted).

Dimensions

GE ENERGY 1 (right)
Dimensions in mm

Bypass:

With bypass mounted the width expands with 70 mm from 380 mm to 450 mm.



Minimum distance above unit for electrical connection 300 mm

- | | |
|--------------------------------|---|
| 1: Fresh air | 8: Fresh air filter |
| 2: Exhaust air | 9: Extract air filter |
| 3: Extract air | 10: Electric box |
| 4: Supply air | 11: Kondensation tub |
| 5: Counter flow heat exchanger | 12: Kondensation connection \varnothing 15 mm |
| 6: Supply air fan | |
| 7: Extract air fan | |

Construction changes reserved



Technical data

Electrical connection
1 x 230 V + N, 10 A, 50 Hz

Fans
R3G 190

Motor
EC-motor med integreret elektronik

Isolation class
B
Class
IP 44

Motordata:
3320 Rpm
71W (max pr. motor)
0,50A (max pr. motor)

Construction

Size:
(l x d x h) excl. connections
1000 x 380 x 580 mm

Cabinet:
Double plated galvanized steel plate with 30 mm insulation

Duct connection:
Ø160 mm with double rubber lip

Front:
To parts with quick locks for filter service

Back plate:
Mounted with 6 mm bolts

Heat exchanger:
See water resistant aluminium

Condensating drain:
Ø15 mm rust proof steel

Filters:
G4 Plain filters (Standard)

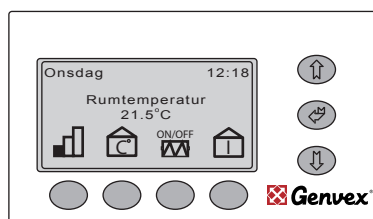
Weight:
55 kg

Automatic

GE ENERGY 1 is delivered with a complete Optima 250 automatic.

Optima 250 is delivered with a fabric setting, so that the unit can be started, without first setting up the menu. The fabric settings are a standard setting, that can be changed to the needs and demands, you have in your living area. And there by get the most out of the unit.

Control panel



On this button you can change between low, medium and high speed (step 1, step 2 and step 3) and stop the unit, by holding down the button in 3-4 seconds, until all steps are turned of. Heating elements will stop, while the fans will run for app. 2 minutes, so that the heating elements are cooled of.



On this button you can change the wanted room temperature.



Ventilation units with counterflow heatexchangers, can be delivered with preheating elements and after heating elements, and be connected to an extra cooling machine. On this button you can give signal to these elements to switch on, if there is a need.



Infomenu

On this button you can see all temperatures on the unit, and by pushing arrow down, you can see which relays are in action. This gives you at quick view over how the unit runs.



Press »Arrow down« to change from one menu point to the next. Press »Arrow up« to change from one menu point to the previous one.



If you wish to flick through the pages of the "operation menu" you may press the »Enter-button« in the middle and this will change the whole page to the next set of menu points.



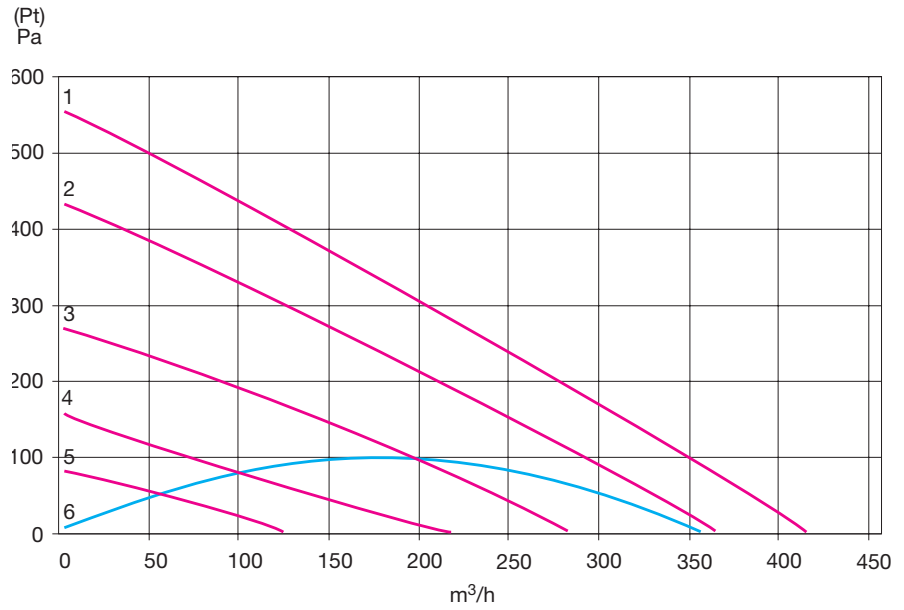


Capacity curves

Air volume and SFP 1200 j / m³ line:

The capacity lines are based on average of supply- and extract air, in a unit with plain filters

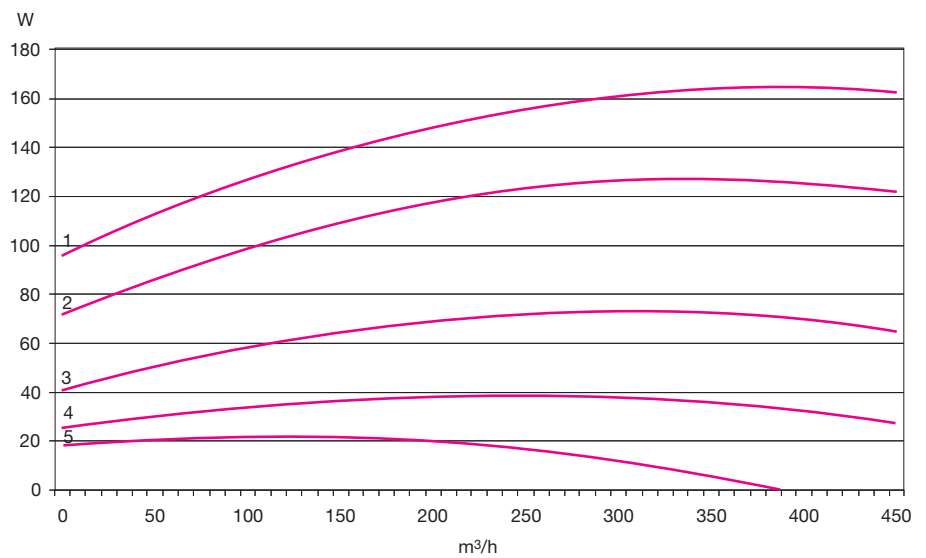
- 1 = 100%
- 2 = 80%
- 3 = 60%
- 4 = 40%
- 5 = 25%
- 6 = SFP 1200



Total energy consumption:

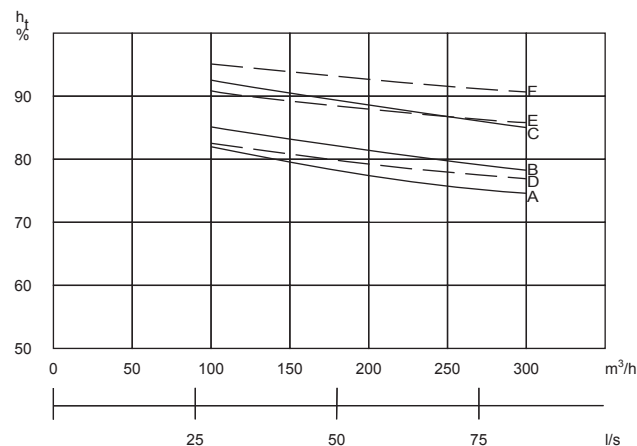
For both fans and control.

- 1 = 100%
- 2 = 80%
- 3 = 60%
- 4 = 40%
- 5 = 25%



Heat recovery rate

Heat recovery rate, Volume flow $m_{ind} = m_{ud}$							
		A	B	C	D	E	F
Extract	°C	20	20	20	20	20	20
Relative humidity	%	30	50	70	30	50	70
Fresh air	°C	4	4	4	-12	-12	-12



There has not been taken any consideration regarding icing of the heatexchanger at low outdoor temperatures.

Construction changes reserved

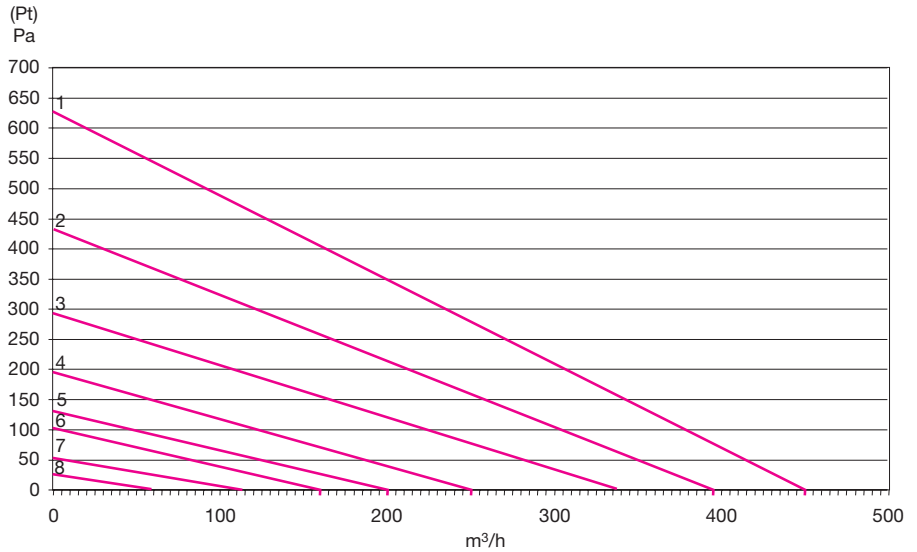


Sound data

Soundcurves are made by interpolation of the sound data measured by the The Danish Technologic Institute

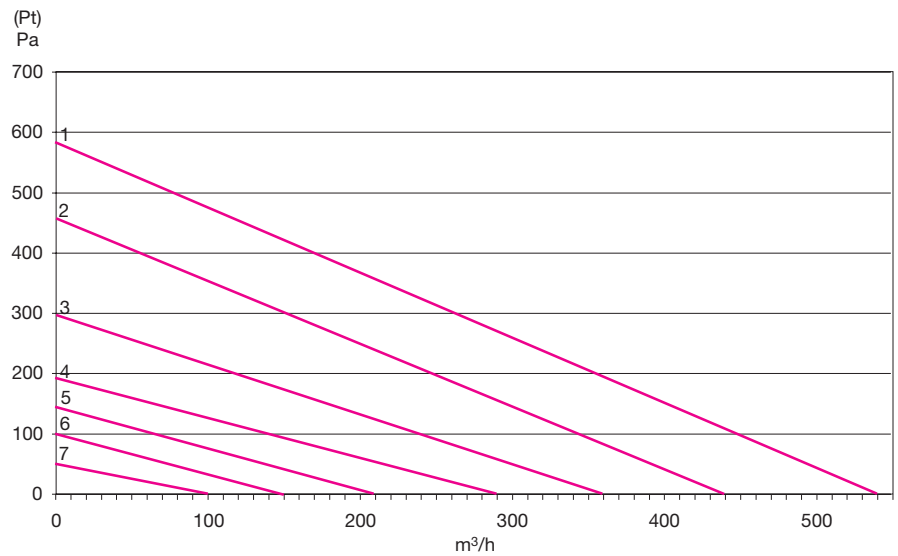
LWA Energy 1 Supply air duct

- 1 = 70dB
- 2 = 65dB
- 3 = 60dB
- 4 = 55dB
- 5 = 50dB
- 6 = 45dB
- 7 = 40dB
- 8 = 35dB



LWA Energy 1 Extract air duct

- 1 = 70dB
- 2 = 65dB
- 3 = 60dB
- 4 = 55dB
- 5 = 50dB
- 6 = 45dB
- 7 = 40dB
- 8 = 35dB



Corrections tables:

Supply air duct:

		Correction figures							
	LwA	63	125	250	500	1k	2k	4k	8k
GE 1 Su	60-100	7	3	4	3	6	6	13	26
GE 1 Su	20-59	14	9	5	3	5	5	10	26

Extract air duct:

		Correction figures							
	LwA	63	125	250	500	1k	2k	4k	8k
GE 1 Ex	60-100	11	-2	-4	0	14	16	25	34
GE 1 Ex	20-59	17	2	-3	-2	13	14	25	34

Construction changes reserved

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