

Description

GE Energy 1 is a heat recovery ventilation unit equipped with a counter flow heat exchanger with a heat recovery rate up to 82%. The ventilation unit has energy saving supply air and extract air fans with backward curved fan blades and EC motors.

The unit is delivered with F7 supply air filter and G4 extract air filter and a complete Optima 250 control with a nicely designed user panel.

The unit can be demand controlled with the OPT250:

- With the humidity control
- With the week program

GE Energy 1 can be delivered with the following options:

- Modulating automatic bypass
- Water duct reheater incl. motor valve
- Electric duct reheater with variable power levels
- Electric duct preheater with variable power levels *)

*) Recommended by Genvex A/S at outdoor temperatures lower than -5 °C.



Suitability

GE Energy 1 is suitable for dwellings, where a high heat recovery rate and a low energy consumption are requested.

GE Energy 1 can deliver an air volume of up to appr. 300 m³/h at an external pressure of 100 Pa.

Due to a high degree of insulation it can be installed outside the climate screen of the dwelling in dry environments down to -10 °C.

Types

GE Energy 1 **with bypass** can be delivered in a right hand or a left hand version. With a bypass the unit is 70 mm wider as a unit without a bypass

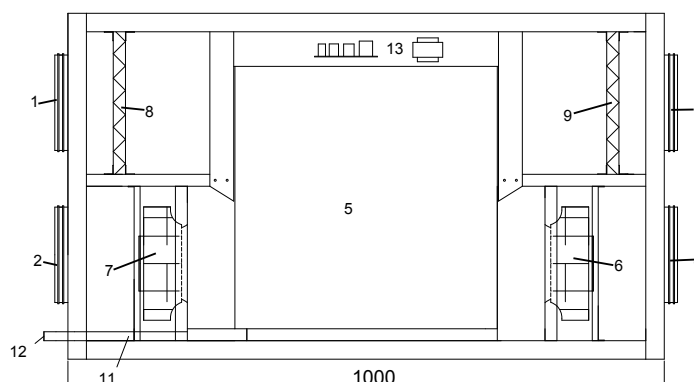
GE Energy 1 **without bypass** is delivered in a right hand version. The unit can be mirror-reversed by interchanging front and rear panels.

Dimensions

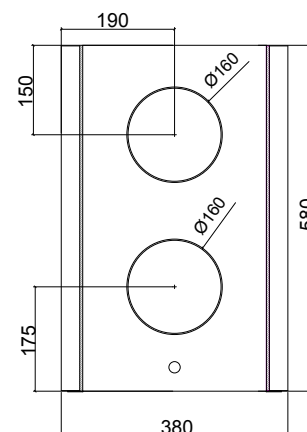
GE Energy 1 (right hand)
Dimensions in mm

Minimum distance above unit for electrical connection 300 mm

01. Fresh air
02. Exhaust air
03. Extract air
04. Supply air
05. Counter flow heat exchanger
06. Supply air fan
07. Extract air fan
08. Fresh air filter
09. Extract air filter
11. Condensation tub
12. Condensation connection Ø15 mm
13. Electrical box (on the top)



Bypass:
With bypass the width is 450 mm.



Technical data

Electrical connection:

1 x 230 V + N + PE, 10 A, 50 Hz

Fans:

R3G 190

Motor:

EC motor with integrated electronics

Isolation class:

B

Protection class, fans:

IP 44

Motor speed, max.:

3320 rpm

Input power (max. per motor):

71 W

Power consumption (max. per motor):

0.50 A

Construction

Size:

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

Cabinet:

Double plated galvanized steel plate with 30 mm Isolation

Duct connection:

Ø160 mm with double rubber ring seal

Front:

To parts with quick locks for filter service

Back plate:

Mounted with 6 mm bolts

Heat exchanger:

See water resistant aluminium

Condensating tub and drain:

Stainless steel with Ø15 mm drain

Filters:

F7 + G4 filters (Standard)

Weight:

55 kg

Automatics

GE Energy 1 is delivered with Optima 250 automatics.

Optima 250 DESIGN is delivered with factory settings which means that the unit can be started without setting up the menu. The factory settings are standard settings that can be changed to specific needs and demands of your living area.

Control panel



Speed (1)

Use this function to set the fan speed to levels 0-1-2-3-4.

Extended operation (2)

Use this function to set the timer to forced operation from 0 to 9 hours.

After-heat (3)

Use this function to turn on or off the supplementary afterheat.

Main menu (4)

Use this function to enter the main menu and access the sub-items date, calendar, user menu, display, information menu and service menu.

Filter (5)

Use this function to reset the filter alarm.

Information (6)

Use this function to get a good overview of the device's current operating condition, e.g. temperature, fan setting, relay status/functions, alarm, timer etc.

Temperature (7)

Use this function to set the temperature.

Sound data

Measuring point	1 m in front of the unit			Extract duct			Supply duct		
	1	2	3	1	2	3	1	2	3
Airflow (%)									
	Lo dB			Lwu dB			Lwi dB		
63 Hz	46	53	56	44	55	58	48	55	58
125 Hz	55	62	66	48	59	62	60	67	71
250 Hz	53	57	66	40	51	54	55	62	71
500 Hz	51	55	63	38	49	52	53	60	68
1000 Hz	34	41	51	34	45	48	36	43	53
2000 Hz	33	40	50	34	45	48	35	42	52
4000 Hz	30	37	45	25	36	39	32	39	47
8000 Hz	25	32	36	17	28	31	27	34	38
	Lo dB(A)			Lwu dB(A)			Lwi dB(A)		
Average	50	55	63	41	52	55	52	59	67

01. Measured at 40% and an airflow of 75 m³/h

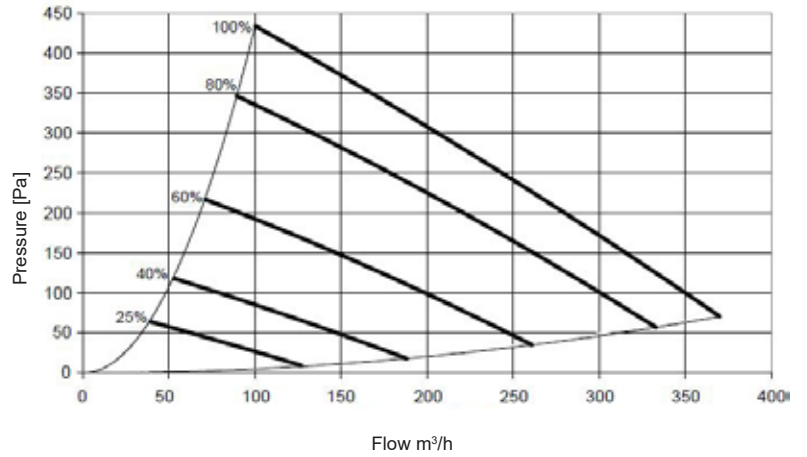
02. Measured at 80% and an airflow of 290 m³/h

03. Measured at 100% and an airflow of 350 m³/h

Capacity

The capacity lines are based on an average of the supply and extract air volume in a unit.

The curves indicate the average external pressure, which is available at a given airflow.

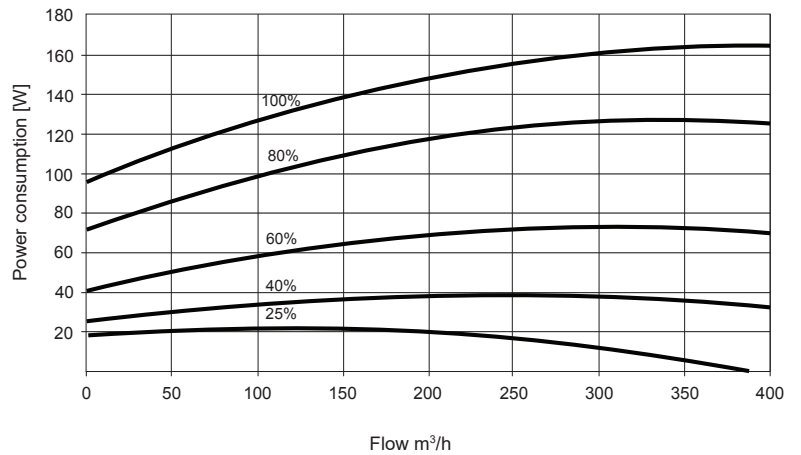


At a max. air volume the available pressure is 20 Pa higher with G4 (25 mm) than the displayed curves

Power consumption

For both fans and control.

- 01. = 100 %
- 02. = 80 %
- 03. = 60 %
- 04. = 40 %
- 05. = 25 %



Heat recovery rate

Heat recovery rate, flow $m_{\text{supply}} = m_{\text{extract}}$

Icing of the heat exchanger at low outdoor temperatures has been left out of account.

- 01. = Temp.: -12°C fresh air
RF: 50%
- 02. = Temp.: 4°C fresh air
RF: 50%

