# GE ENERGY 1

## Description

**GE ENERGY 1 is a ventilation appliance, equipped with a counter-flow heat exchanger with a recovery rate of up to 95%. This appliance has supply air and extract air fans with energy saving EC motors and backward curved fan blades. GE ENERGY 1 is equipped with a 100% modulating summer bypass*[1].**

**As standard, the fresh air source has been filtered through an F8*[2] (pollen filter) and the exhaust air has a G4 plain filter. GE ENERGY 1 is delivered with an Optima 250 Design controller.**

**GE ENERGY 1 can be fitted with the following options:**
- Bag filter F5, F7, F8*[2] or a plain G4 filter
- 100% modulating summer bypass*[1]
- Water or electrical heating element for mounting on the duct
- Water frost sensor
- Motor valve for water heating element
- Fan guard and filter guard
- Fresh air valve, motor driven with spring return
- Hydrostat for moisture reduction ventilation

## Suitability

GE ENERGY 1 is suitable for ventilating domestic properties where there is a demand for temperature efficiency and low energy consumption. This means that the new regulations for low energy consumption should be met.

GE ENERGY 1 can be used in living areas of up to 275m² at 2.4m ceiling height that need an airflow of up to 330m³/h at 125 pa.

## Types

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

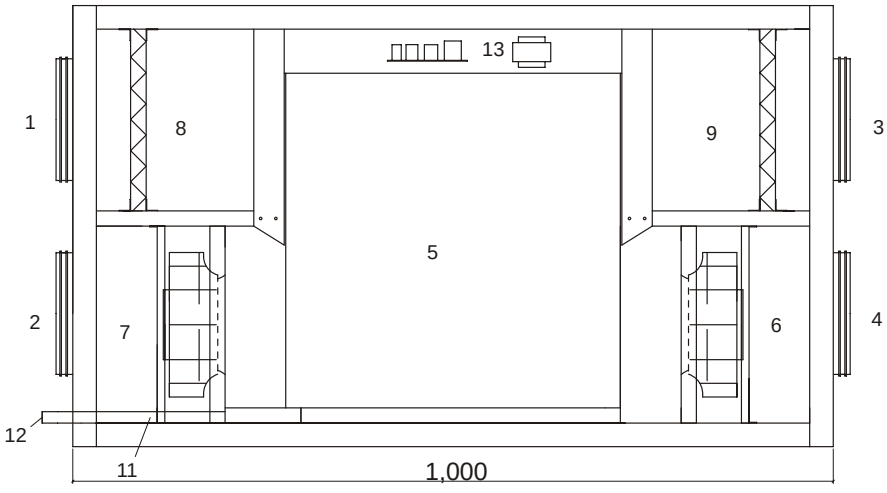
## Dimensions

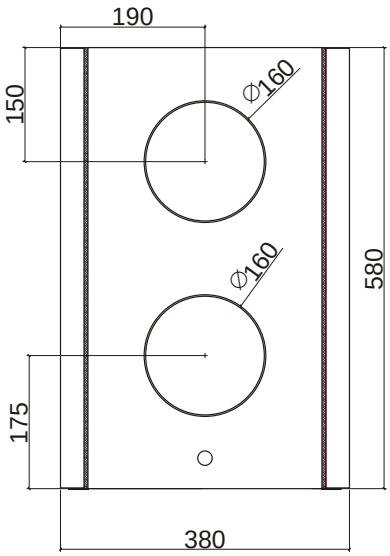
GE ENERGY 1 (right)

Dimensions in mm

**Bypass:**

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




Minimum distance above unit for electrical connection 300 mm

1: Fresh air
2: Exhaust air
3: Extract air
4: Supply air
5: Counter fow heat exhanger
6: Supply air fan
7: Extract air fan
8: Fresh air filter
9: Extract air filter
10: Electric box
11: Condensation tub
12: Condensation connection Ø15 mm

*[1] 100% modulating summer bypass fitted as standard in Great Britain only
*[2] F8 pollen filter fitted as standard in Great Britain, otherwise G4 plain filters fitted as standard

# GE ENERGY 1

## Technical data

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

**Fans**
R3G 190

**Motor**
EC-motor with integrated electronics

**Isolation class**
B
**Class**
IP 44

**Motor Data:**
3,320 Rpm
71W (max/motor)
0.50A (max/motor)

## Construction

**Size:**
(l x d x h) excl. connections
1,000 x 380 x 580 mm

**Cabinet:**
Double plated galvanized steel plate with 30mm insulation

**Duct connection:**
∅160 mm with double rubber lip

**Front:**
Two parts, one folds down with quick locks for filter service

**Back plate:**
Mounted with 6mm bolts

**Heat exchanger:**
Sea-water resistant aluminium

**Condensate pipe:**
∅15mm rust-proof steel

**Filters:**
G4 plain filters on extract air
F8 pollen filters on fresh air*

**Weight:**
55kg

## Automatic Settings

GE ENERGY 1 is delivered with a complete Optima 250 Design controller.

Optima 250 is delivered with default factory settings, so that the appliance can be started, without first setting-up the menu. The factory settings are standard and can be changed to your requirements, thereby getting the most out of the appliance.

## Control panel

**Speed (1)**
This sets the fan speed to levels 0-1-2-3-4.

**Extended operation (2)**
This sets the timer to forced operation from 0 to 9 hours.

**After-heat (3)**
This turns the supplementary after-heat on or off.

**Temperature (7)**
This sets the room temperature.

**Information (6)**
This gives a good overview of the appliance's current operating condition.

**Filter (5)**
Use this function to reset the filter alarm.

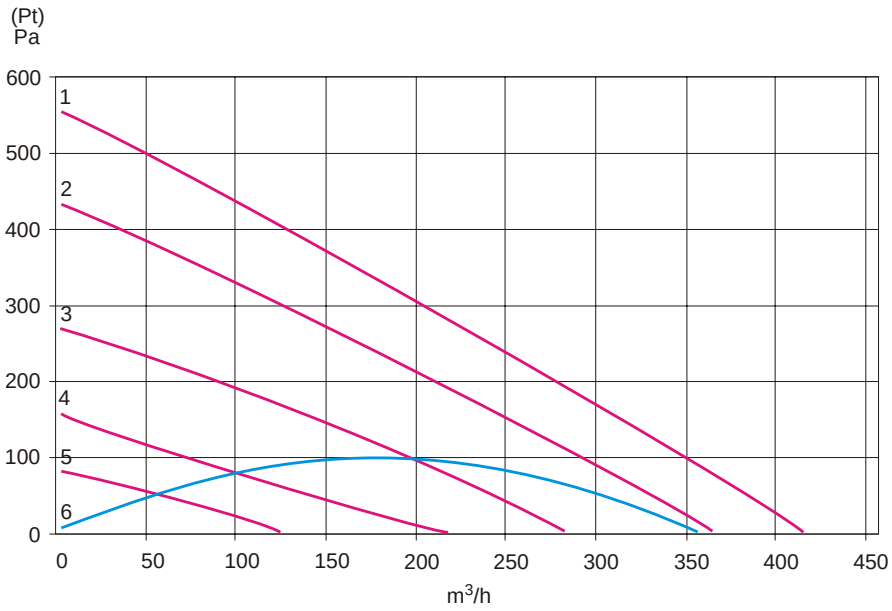
*F8 pollen filter fitted as standard in Great Britain only, otherwise G4 plain filters fitted

# Capacity curves

**Air volume and SFP 1,200 j / m³line:**

The capacity lines are based on average of supply and extract air, in an appliance with plain filters.

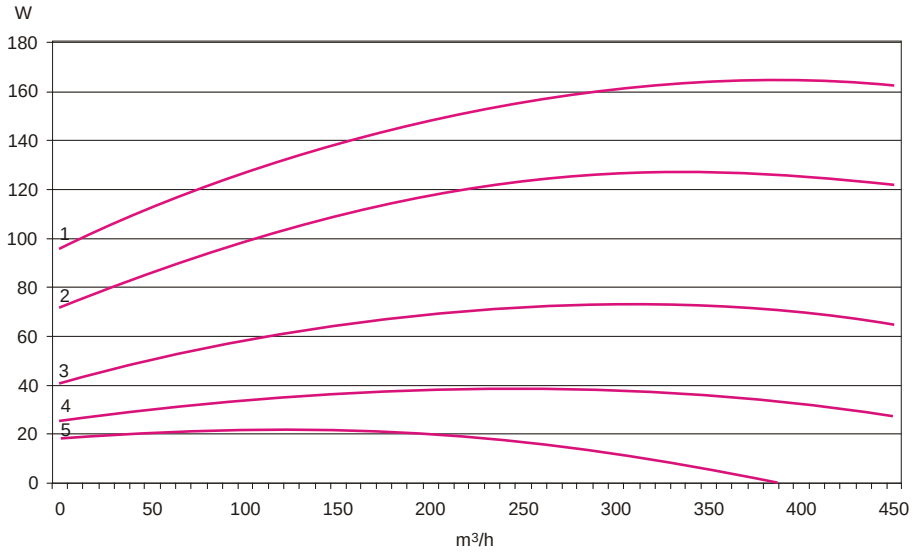
1 = 100%
2 = 80%
3 = 60%
4 = 40%
5 = 25%
6 = SFP 1200




# Total energy consumption:

For both fans and controller.

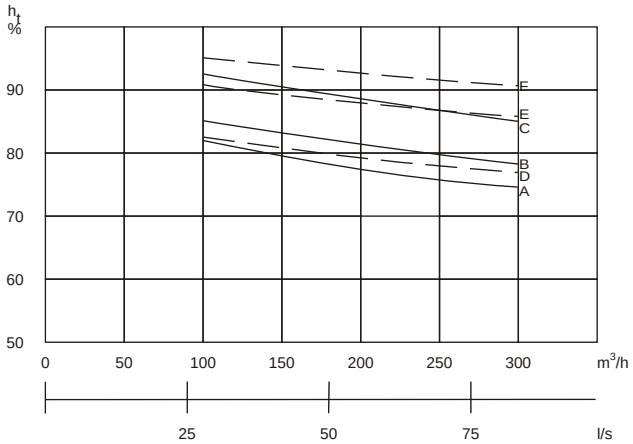
1 = 100%
2 = 80%
3 = 60%
4 = 40%
5 = 25%




# Heat recovery rate

| Heat recovery rate, Volume fow m ind = mud | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | 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 |

NB: There has been no consideration taken for freezing of the heat exchanger at low external temperatures.

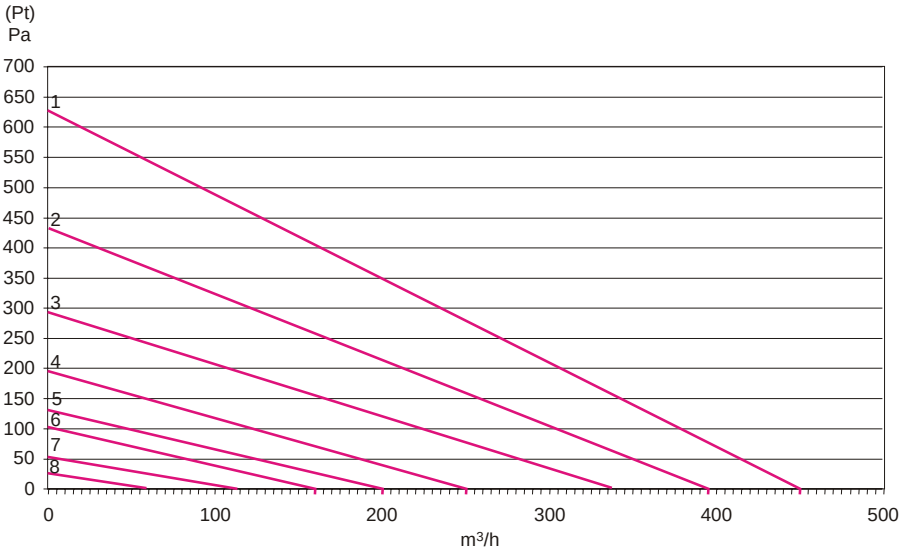


# Sound data

Sound curves are made by interpolation of the sound data measured by The Danish Technologic Institute.

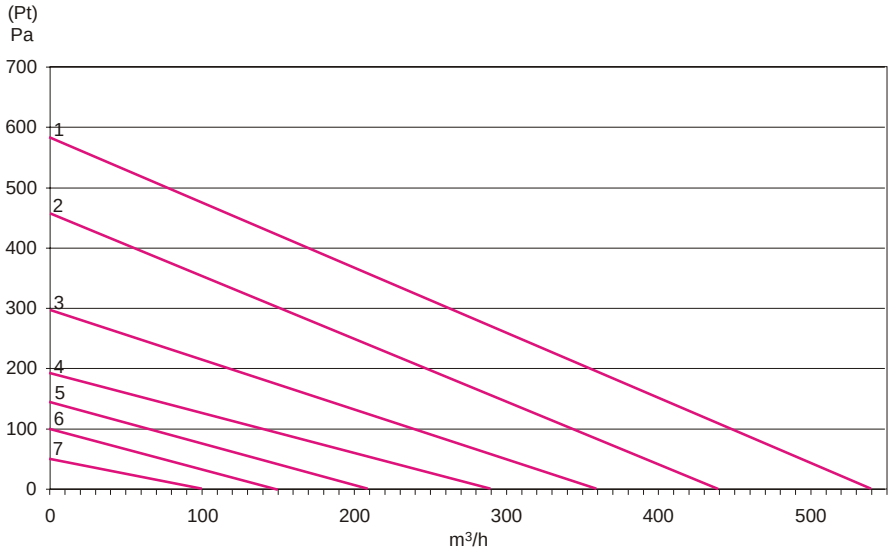
LWA Energy 1 Supply air duct

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




Correction tables:

Supply air duct:

| Correction fgures | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 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 fgures | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 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 |