

Description

GE Premium 1/1L is a ventilation unit consisting of a counter current heat exchanger, a heat pump, supply and extract air fans, F7 supply air filter, G4 extract air filter, complete Optima 300 automatics, control panel and comfort cooling option.

GE Premium 1/1L can be delivered with the following options:

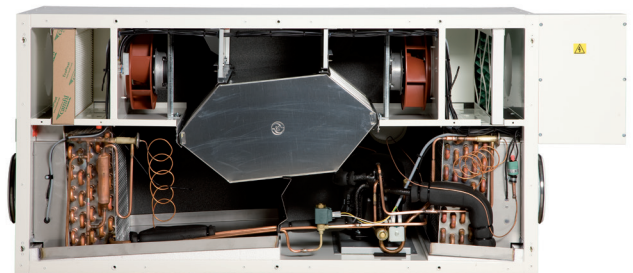
- Water or electrical reheater for Ø160 mm duct
- Water frost sensor for water reheater
- Thermostat or motor valve for water reheater
- Electrical preheater for Ø160 mm duct
- Summer box

Suitability

GE Premium 1/1L is suitable in ventilation systems where balanced ventilation, heat recovery and warm/cool supply air is needed.

At first the heat will be recovered in the counter current heat exchanger and then further heat or cooling will be supplied to the supply air by the heat pump. During the summer the heat pump can be switched to a cooling mode which means that the heat pump will supply comfort cooling to the supply air.

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

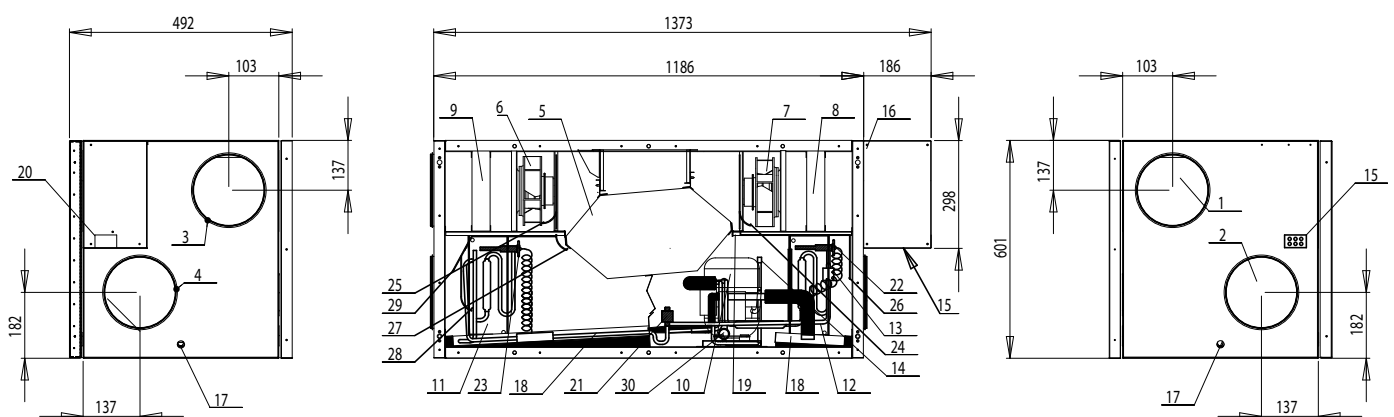


Types

- GE Premium 1 - H (right hand) & V (left hand)
- GE Premium 1L - H (right hand) & V (left hand)

Dimensions

GE Premium 1/1L (right hand version)
Dimension in mm.



- | | | | |
|-------------------------------|------------------------|----------------------------------|-------------------------------|
| 1: Fresh air Ø160 | 9: Filter, supply air | 17: Condensat.conn. Ø15 | 25: Sensor for fresh air |
| 2: Exhaust air Ø160 | 10: Compressor | 18: Condensation tub | 26: Sensor for supply air |
| 3: Extract air Ø160 | 11: Evaporator | 19: Supply boss at the back Ø100 | 27: Sensor before cooling air |
| 4: Supply air Ø160 | 12: Condensator | 20: Switch | 28: Sensor for cooling coil |
| 5: Counter current heat exch. | 13: High-pressure gov. | 21: Magnetic valve defrosting | 29: Sensor for exhaust air |
| 6: Supply air fan | 14: Process valve | 22: Therموvalve condenser | 30: Four-way valve |
| 7: Extract air fan | 15: Cable entry | 23: Therموvalve evaporater | |
| 8: Filter, extract air | 16: Electrical box | 24: Sensor for extract air | |

Technical data

Electrical connections (Input power supply):
Without electrical heating and preheating coil
 1 x 230V + N + PE + 10 A, 50 Hz

With electrical heating and preheating coil
 Max 1.2 + 1.0 kW
 1 x 230V + N + PE + 16 A, 50 Hz

Fans:
 R3G 190

Motor:
 EC motor with integrated electronics

Insulation class (fans):
 B

Fan protection class:
 IP 44

Fan speed (Max. per motor):
 3320 Rpm

Fan power input (Max. per motor):
 71 W

Fan current (Max. per motor):
 0.50 A

Fan speed regulation:
 Individually the fans can be set to 3 different speeds

The working area of the heat pump:
 -15°/+35°C

Compressor:
 NB 6165 GK / NE 6210 GK (1/1L)

Min. air volume:
 100 / 150 m³/h (1/1L)

Effect collection (max.):
 331/585W (1/1L)

Power consumption (max.):
 1,9/3.14A (1/1L)

Average performance:
 895/1363W (1/1L)

Average effect consumption:
 295/425W (1/1L)

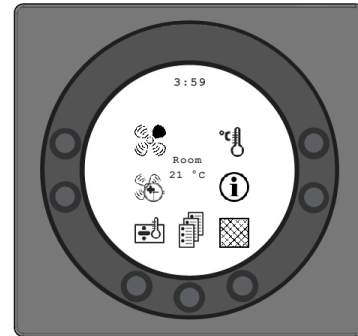
Refrigerant:
 R407c


Weight:
 1000 g


Automatics


GE Premium 1/1L is delivered with Optima 300 automatics with a factory settings so that the unit can be started, without setting up the menu. The factory settings are standard settings, that can be changed to the 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 un-set 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 room temperature.

GE Premium 1/1L sound data

| Measuring point | 1 m in front of the unit | | | Extract duct | | | Supplyduct | | | |
|--------------------|--------------------------|-------|----|--------------|--------|----|------------|--------|----|---|
| | Airflow | 1 | 2 | 3 | 1 | 2 | 3 | 1 | 2 | 3 |
| | | Lo dB | | | Lwu dB | | | Lwi dB | | |
| 63 Hz | 53 | 46 | 52 | 93 | 95 | 98 | 85 | 89 | 93 | |
| 125 Hz | 47 | 52 | 54 | 87 | 95 | 97 | 81 | 88 | 91 | |
| 250 Hz | 43 | 50 | 53 | 84 | 91 | 95 | 78 | 83 | 87 | |
| 500 Hz | 33 | 37 | 44 | 66 | 77 | 84 | 60 | 73 | 83 | |
| 1000 Hz | - | - | 34 | 60 | 70 | 76 | 58 | 68 | 73 | |
| 2000 Hz | - | - | 30 | 57 | 68 | 73 | 54 | 63 | 68 | |
| 4000 Hz | - | - | - | 44 | 61 | 67 | 43 | 50 | 55 | |
| 8000 Hz | - | - | - | 32 | 49 | 58 | 39 | 40 | 43 | |
| Average (A-vægtet) | Lp dB(A) | | | Lwu dB(A) | | | Lwi dB(A) | | | |
| | 37 | 43 | 47 | 77 | 85 | 89 | 71 | 78 | 84 | |

01. Measured at 40% of max. speed with compressor on
02. Measured at 70% of max. speed with compressor on
03. Measured at 100% of max. speed with compressor on

Construction

Size:

(h x l x d) ex. connecting pieces and electric box
600 x 1186 x 492 mm

Cabinet:

Fully closed hot galvanised plate with 30 mm Isolation.
Plastic-coated white RAL 9010.

Duct connection:

Ø160 mm with rubber ring seal
Ø100 mm supply air connection pieces (back)

Front:

Front with quick locks for filter service

Heat exchanger:

See water resistant aluminium

Condensation tub:

Stainless steel

Condensation connection:

Stainless steel Ø15 mm

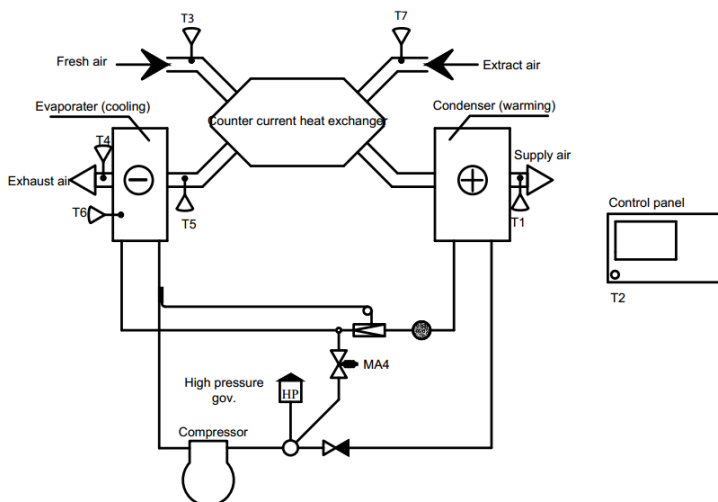
Filters:

Fresh air: F7 filter
Exhaust air: G4 filter

Weight:

105 kg

Flowdiagram



Sensors:

T1: Supply air
T2: Room
T3: Fresh air
T4: Exhaust air
T5: Before the cooling coil
T6: Cooling coil
T7: Extract air

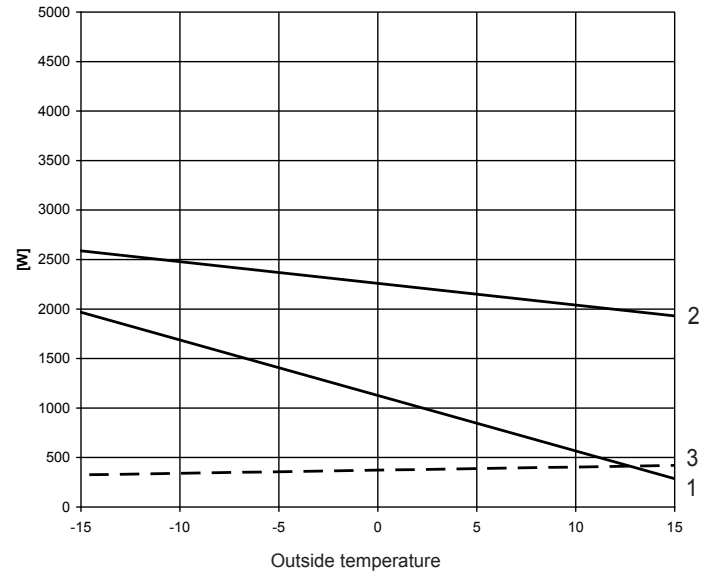
Magnetic valve:

MA4: Defrosting
MA7: Heat/cooling

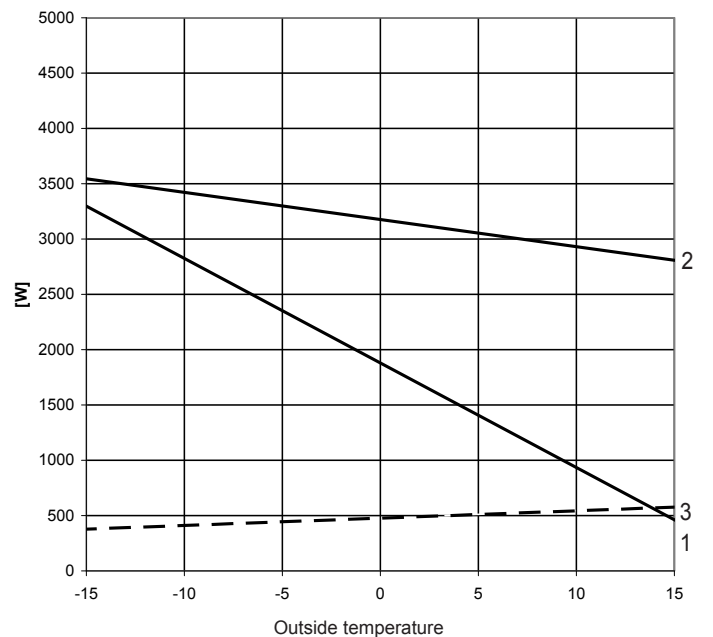
Capacity

GE Premium 1/1L' capacity varies with air quantity and outdoor air temperature

Airflow. 159 m³/h. (GE Premium 1L)



Airflow. 259 m³/h. (GE Premium 1L)



1) Energy consumption for heating supply air to room temperature 20°C.

2) Total capacity of the unit

3) Power input with compressor running

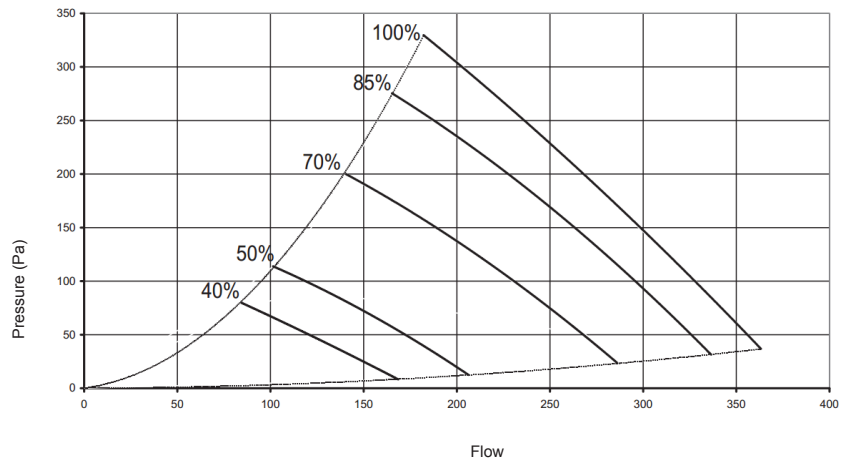
The area between 1 and 2 is GE Premium 1/1L's contribution for roomheating

Cooling capacity:

With an outside temperature of 26°C, relative humidity of 45% and full speed, the cooling power output is 685/1040 W.(1/1L)

Capacity

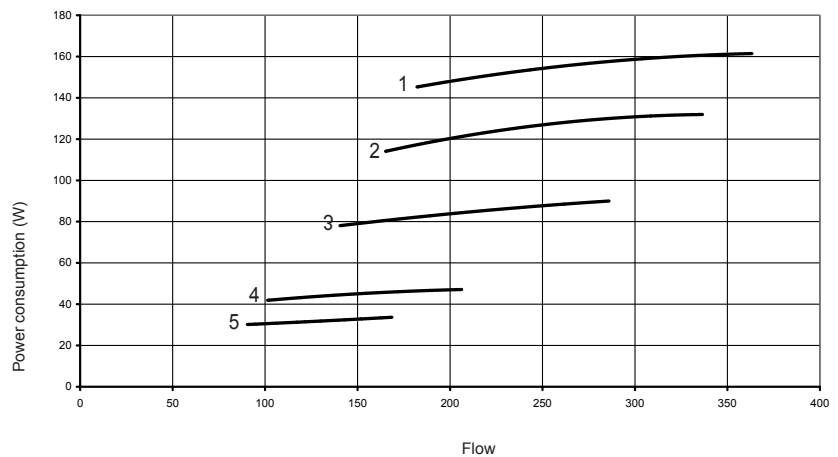
The capacity lines are based on an average of the supply and extract air volume in a unit with filters



Total power consumption

For both fans and control.

- 1 = 100 %
- 2 = 85 %
- 3 = 70 %
- 4 = 50 %
- 5 = 40 %



Heat recovery rate

Heat recovery rate, flow $m_{in} = m_{out}$
Icing of the heat exchanger at low outdoor temperatures has been left out of account.

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

