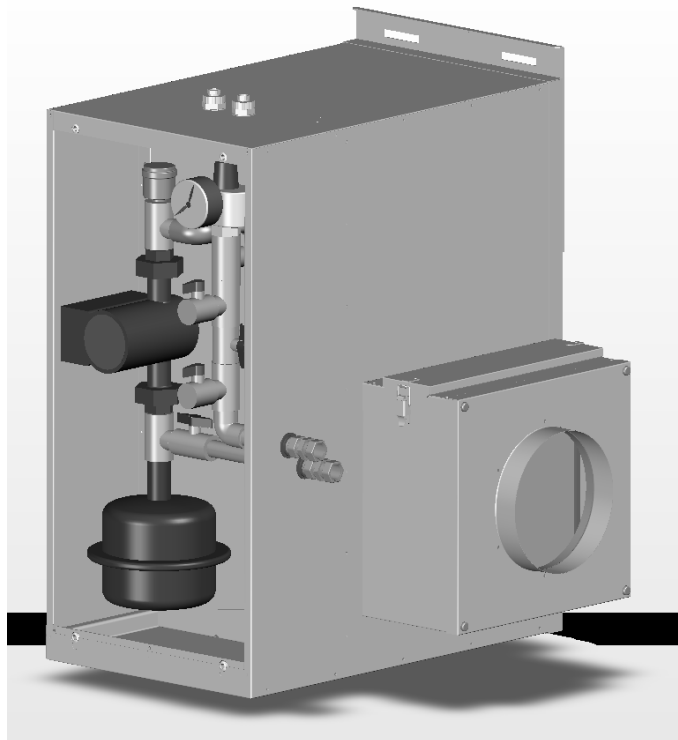
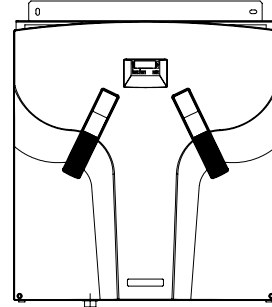
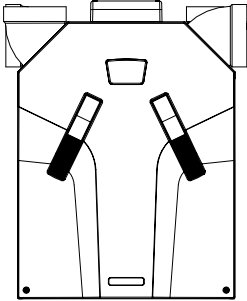


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# Comfond - L

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## Manual

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## Foreword

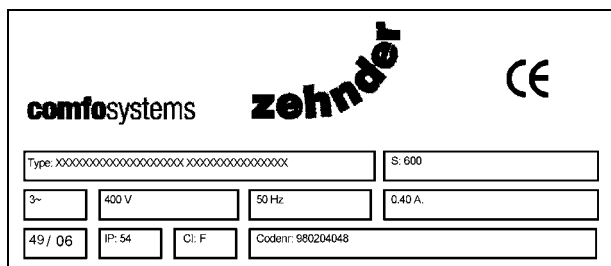
Congratulations on purchasing a Comfofond-L, a J.E. StorkAir geothermal collector. This manual contains instructions for fitting, operating and maintaining your Comfofond-L.

### Please read these instructions carefully before use.

This manual provides all the information required to fit, operate and maintain the Comfofond-L safely and effectively. It is also intended as a reference work for servicing, ensuring this is carried out in a responsible manner. This unit is constantly being developed and improved. As a result, it is possible that your Comfofond-L differs slightly from the descriptions given in this manual. We wish you every comfort.

N.B.: This manual has been compiled with the greatest care. However, no rights can be derived from it. J.E. StorkAir also retains all rights to change the contents of this manual without prior notification.

**The identification plate is located on the unit beside the filter casing.**



A. Identification plate

## 1. Warranty and liability

### General

Comfofond-L sales and warranty conditions for companies in the metals, plastics and technology industries were deposited with the Clerk of the District Courts of the Hague on the 19th of October 1998.

### Warranty conditions

The manufacturer guarantees the Comfofond-L for a period of one year following installation. Warranty claims may only be submitted for material faults and/or construction faults arising during the warranty period. In case of a warranty claim, the Comfofond-L may not be dismantled without written permission from the manufacturer. The manufacturer only guarantees spare parts that have been fitted by a factory-approved fitter. Use of the unit without filters is not covered by the warranty and will reduce the working life of the Comfofond-L.

### The warranty becomes invalid if:

- the unit is used without filters;
- parts are used which were not supplied by the manufacturer;
- unofficial changes or modifications are made to the unit;
- the warranty period has elapsed.

### Liability

The Comfofond-L has been designed and manufactured for use in balanced ventilation systems. Any other application is seen as 'inappropriate use' and can result in damage to the Comfofond-L or personal injury, for which the manufacturer cannot be held liable.

### The manufacturer is not liable for losses arising from:

- non-compliance with the safety, operating and maintenance instructions in this guide;
- the use of components not supplied by the manufacturer; responsibility for the use of such components lies entirely with the fitter.
- normal wear and tear.

## 2. Safety

### General safety regulations

- Always comply with safety regulations in this manual. Personal injury or damage to the Comfofond-L can arise from non-compliance with the safety regulations, warnings, comments and instructions in this manual.
  - Installation of the Comfofond-L must be carried out in accordance with the general and locally applicable construction, safety and installation instructions of the local council, electricity and water boards.
  - The Comfofond-L may only be fitted, connected and commissioned by a registered installer.
  - Always follow the safety regulations, warnings, comments and instructions given in this manual.
  - Store the manual in the vicinity of the Comfofond-L for its entire working life.
  - Instructions relating to cleaning or replacing the filters of the supply and exhaust fans must be followed closely.
  - The specifications provided in this document must not be modified.
  - Do not modify the Comfofond-L in any way whatsoever.
  - The Comfofond-L is not suitable three-phase connection. We recommend taking out a maintenance agreement to ensure the unit is checked regularly. Your manufacturer can provide you with addresses of authorised fitters in your region.
- ### Safety provisions and measures
- The fans must not be accessible in operation. For this reason, the Comfofond-L must be connected to ducting. These ducts must be at least 900 mm long.
  - It must not be possible to open the unit without the relevant tools.

## Pictograms used

The following pictograms are used in the manual:

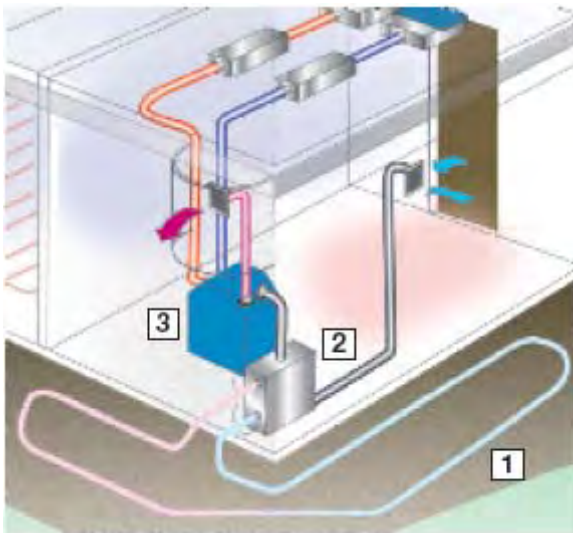
 Take note

### Use properly

The Comfofond-L is designed to extract stale air from a dwelling and supply it with fresh air. Any other or more extensive use is considered improper use. The manufacturer will not accept any liability for damage or injury resulting from such inappropriate use.

## 4. Principle

As with the standard Comfofond, the Comfofond-L adjusts the temperature of the supply air, but does this instead using a geothermal collector. The air is pre-heated or pre-cooled by the Comfofond-L. The ground heat required is obtained using a geothermal collector (probe) and a circulating glycol/water mix (*brine*). This mix releases its heat to the intake air through a heat exchanger fitted ahead of the ventilation unit. In spring and autumn, when the air is about the same temperature as the ground, the brine pump can be switched off as the incoming air no longer requires heating. The Comfoair 350 and Comfoair 500 ventilation units (type BE or BFB) monitor the required temperature and regulate the pump accordingly. Since the geothermal collector is easy to fit, the Comfofond-L is particularly suited to larger single/multiple family homes as an effective alternative to the Comfofond air/ground heat exchanger.



## 5. Maintenance by the user

Users are required to carry out the following maintenance on the Comfofond-L:


- Open the filter cover (see ill. 1 and 2).
- Remove the filter.
- Clean the filter with a vacuum cleaner.
- Refit the filter.
- Close the filter cover.

## 6. Fitting

### Fitting conditions

The following points are key to assessing whether a Comfofond-L can be fitted in a certain space together with the Comfoair:

- The Comfofond-L must be installed according to the general and locally applicable safety and installation regulations of power and water companies, as well as the instructions in this manual.
- The location provides sufficient room around the unit for air duct connections, supply and exhaust pipes and for maintenance.
- The following must be available: air duct connections, 230 Volt power source and facilities for condensation drainage.
- Both the outside air supply duct and the air exhaust duct between the roof/wall passage and the Comfofond-L must be rendered damp proof. This prevents the formation of condensation on the outside of the duct.
- A double-skinned or insulated roof passage must be fitted to the exhaust duct to prevent condensation forming between the roofing panels.
- The exhaust duct must drain in the direction of the unit.
- The Comfofond-L must be fitted in a frost-free space. The condensation must be drained off frost-free, at a gradient, using a siphon.
- Never connect a powered extractor hood to the system.

 Due to restrictions in permitted noise levels, a silencer tube of 1 to 1.5 m and  $\varnothing 180$  mm must be fitted to the supply section directly to the rear of the unit.

### 6.1 Transport and unpacking

Take care when transporting and unpacking the unit. Make sure the packing material is disposed of in an environmentally friendly manner.

### 6.2 Checking the delivery

Contact your supplier immediately in case of damage or an incomplete delivery. The delivery includes:

- Comfofond-L, manual, condensation drain connector and mounting bracket. The Comfofond-L is supplied in two models: Comfoair G90/91 and Comfoair 500. Both models can be supplied in a left-handed or right-handed version: Comfofond-L Comfoair G90/91L, Comfofond-L Comfoair G90/91R, Comfofond-L Comfoair 500L and Comfofond-L Comfoair 500 R.

• Check whether you have received the correct type. Please refer to the sticker on the Comfofond-L and the identification plate beside the filter casing.

Comfofond-L with Comfoair 500

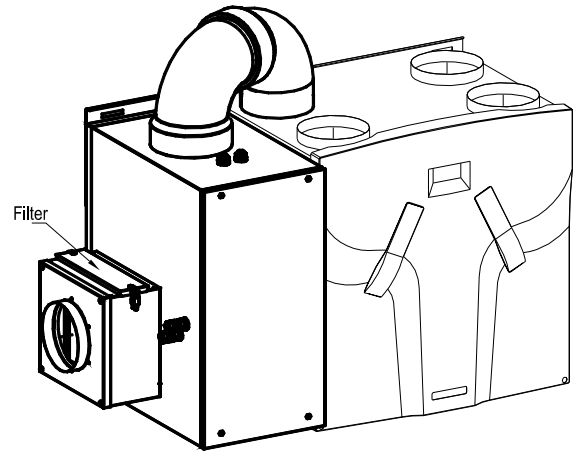


Fig. 1

Comfofond-L with Comfoair 350

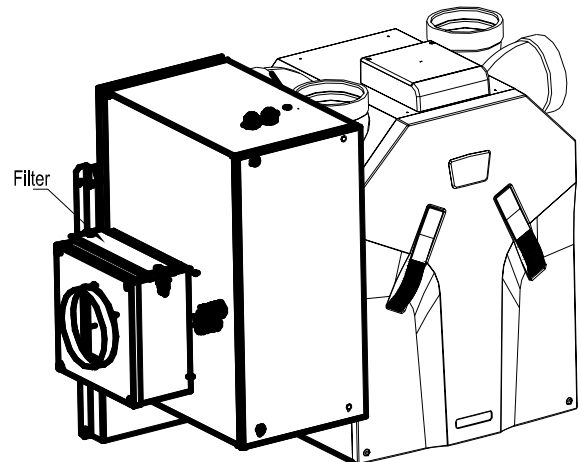


fig. 2

7. Dimensions for Comfond-L with Comfoair 500

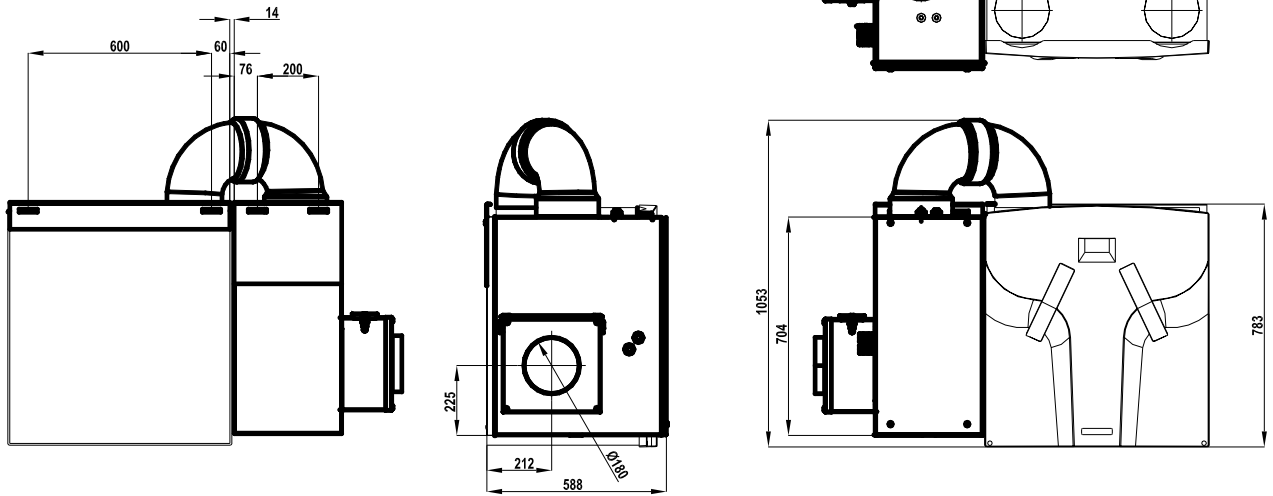


fig. 3

8. Dimensions for Comfond-L with Comfoair 350

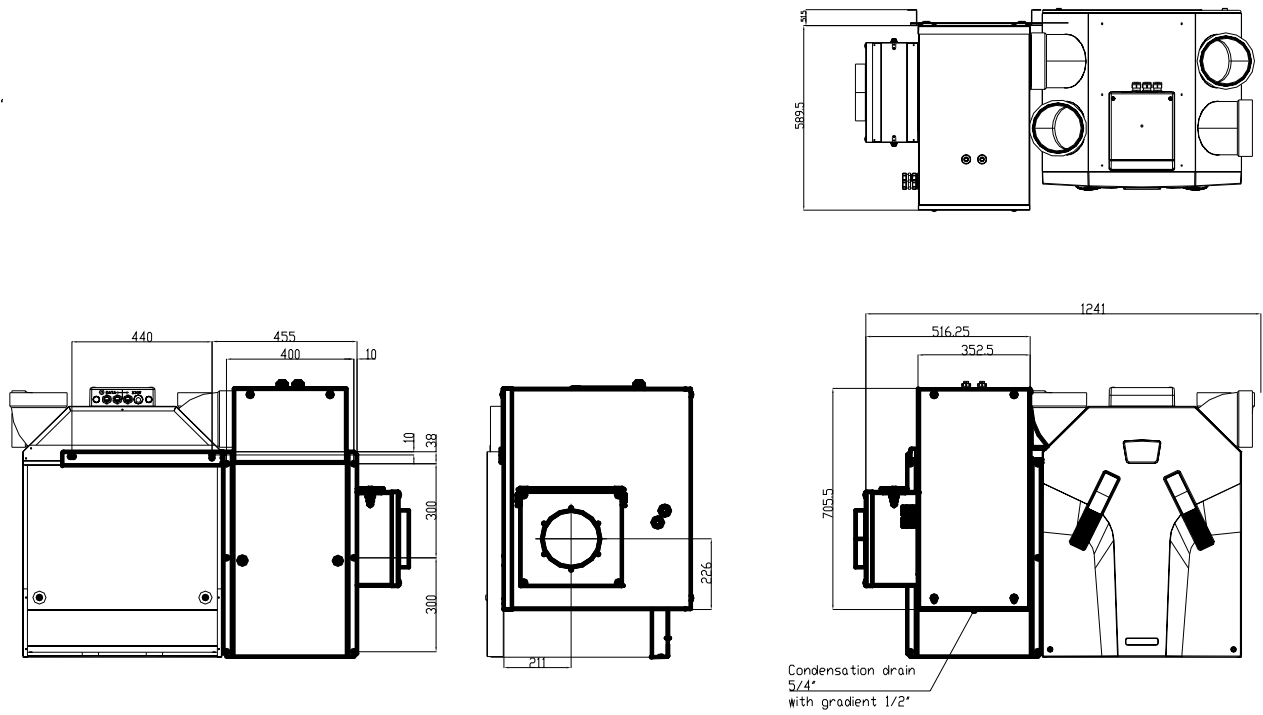


fig. 4

## 9. Filling the system

Open the front panel of the Comfofond and fill the system as follows:

1. The system can be filled with water using valves V1 and V3. V2 remains closed and V4 is opened as a vent.
2. Connect a short hose to both V1 and V3 and immerse it in a bucket of ethylene glycol (4 litres for geothermal collector with 60 m PE pipe  $\varnothing$  20/16 or 12 litres for geothermal collector with 120 m PE pipe  $\varnothing$  25/20.4).

3. Open V2 and V3 and close V1. Using the circulation pump, mix the water with the glycol in the bucket for 15 minutes. (The pump must be powered using a separate power cable!)
4. Fill the system to a bleed pressure of 1.5 bar.
5. Allow the glycol/water mix (*brine*) to circulate for 30 minutes until the system is completely bled. Adjust the bleed pressure if necessary.
6. Then open V2 and close fill valves V1 and V3.
7. The pipes connected to V1 and V3 can now be removed or left connected for top-up if required. Store the hoses close to the pump or its junction box.

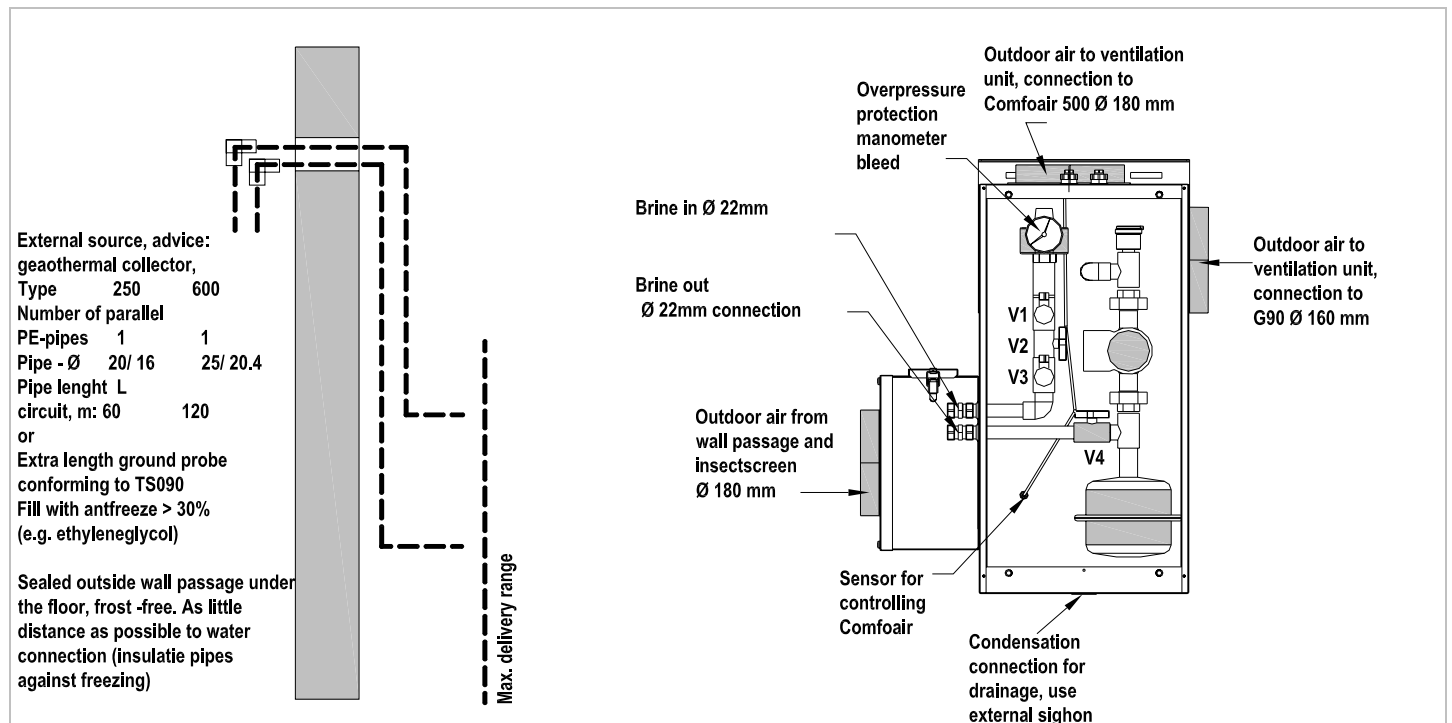
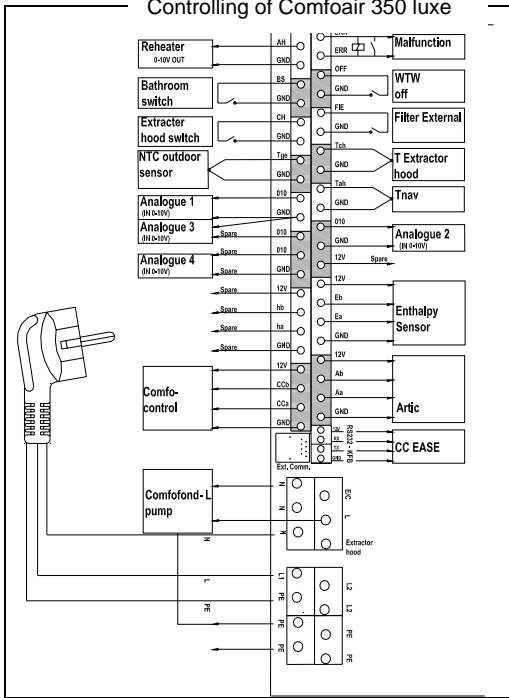


fig. 5

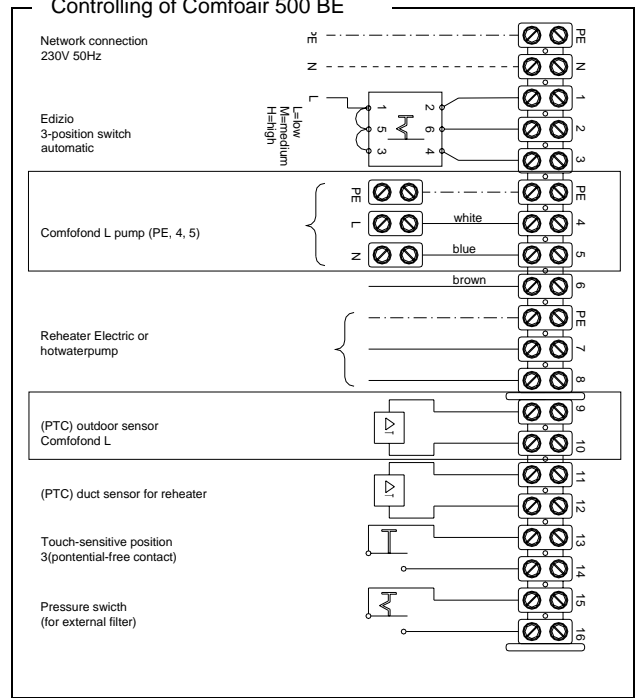


# 10. Wiring diagram

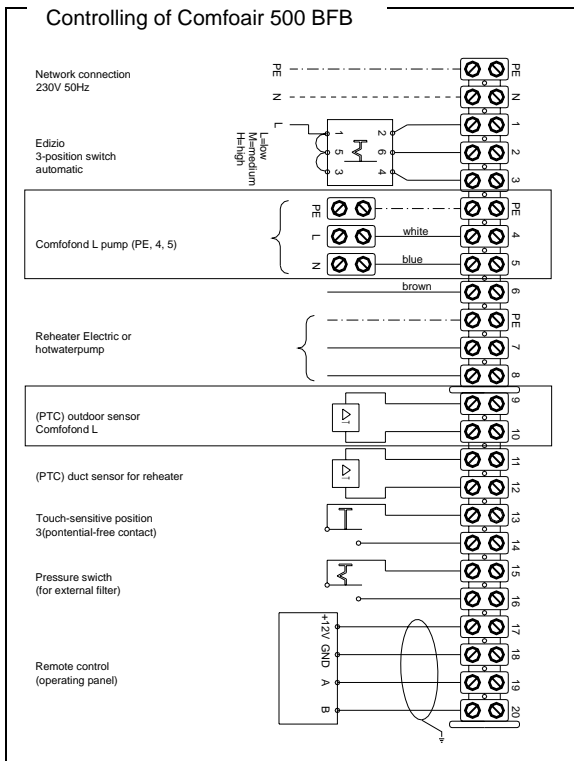
Controlling of Comfoair 350 luxe



Controlling of Comfoair 500 BE



Controlling of Comfoair 500 BFB



## 11. EC declaration of conformity

J.E. Stork Ventilatoren B.V.  
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8028 PM Zwolle-NL  
Tel.: +31 38-4296911  
Fax: +31 38-4225694  
Company register Zwolle 22293

# EC declaration of conformity

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### Machine description

: Geothermal exchanger brine: Comfofond-L

### Complies with directives

: : Machinedirective(98/37/EG)Low voltage directive(73/23/EEG)  
(98/37/EG)EMC-directive (89/336/EEG, 92/31/EEG en 93/68/EEG)

Zwolle, 06 February 2008

J.E. Stork Ventilatoren B.V.

A handwritten signature in black ink, appearing to read 'E v Heuveln', written over a light-colored rectangular background.

E v Heuveln,

Director



**comfo**systems

**zehnder**

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