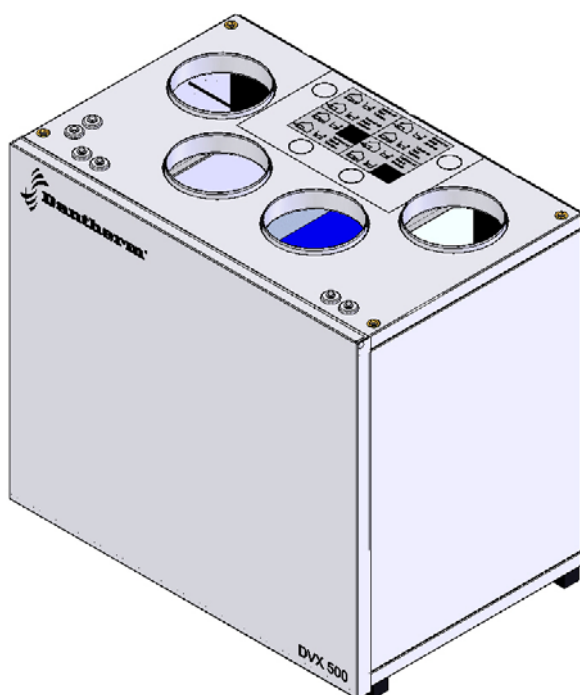


HXV 5

Service manual

EN

No. 039343 • rev. 2.0 • 22.12.2009



Der tages forbehold for trykfejl og ændringer
Dantherm can accept no responsibility for possible errors and changes
Irrtümer und Änderungen vorbehalten
Dantherm n'assume aucune responsabilité pour erreurs et modifications éventuelles

Introduction

Overview

Introduction This is the service manual for the Dantherm Air Handling HXV 5 unit.
 The table of content below gives you an overview of the main sections. Please see the complete table of content for further information about the sections.

Serial number This manual covers units with serial numbers equal or higher than:
0606020842980

Table of contents This service manual covers the following main topics:

Topic	See page
Table of content, complete	next page
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Get ready for use	13
User's guide	19
Service guide	21
Technical information	29
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Table of content

Introduction This is the complete table of content covering all sections in this service manual.
Each main section will begin with an introduction including a separate table of content covering the exact section.

Table of content This service manual covers the following topics:

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General information

Introduction	This section gives you the general information about this service manual and about the unit.
Manual, part no.	Part number of this service manual is 039343.
Target group	The target group for this service manual are the technicians who install and maintain the HXV 5 unit as well as the users of the unit.
Copyright	Copying of this service manual, or part of it, is forbidden without prior written permission from Dantherm Air Handling.
Reservations	Dantherm Air Handling reserves the right to make changes and improvements to the product and the service manual at any time without prior notice or obligation.

EC-Declaration of Conformity Dantherm Air Handling A/S, Marienlystvej 65, DK-7800 Skive hereby declare that the units mentioned below:



031366

HXV 5

are in conformity with the following directives:

98/37/EEC

Directive on the safety of machines

73/23/EEC

Low Voltage Directive

89/336/EEC

EMC Directive

- and are manufactured in conformity with the following harmonized standards:

EN 292

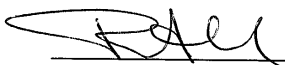
Machine safety

EN 50 081-82

EMC

EN 60 335-1

Low Voltage



Skive, 19.03 2007

Managing director Per Albæk



Project manager

Recycling	The unit is designed to last for many years. When the time comes for the unit to be recycled, the unit should be recycled according to national rules and procedures to protect the environment.
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Product description

Overview

Introduction This section will give you a description of the HXV 5 and its functionality.

Content This section covers the following topics:

Topic	See page
General description	next page
Description of parts	8
Description of the control board	10
Functional description	11

General description

Introduction

This section gives you a description of the unit as a whole. The following section describes the different parts in details.

Usage of HXV 5

The HXV 5 is used for ventilation of private homes.

The unit supplies fresh outdoor air through the unit into the house.

Dirty and humid air is drawn out of the house where its heat is used for heating up the fresh outdoor air.

Left/Right

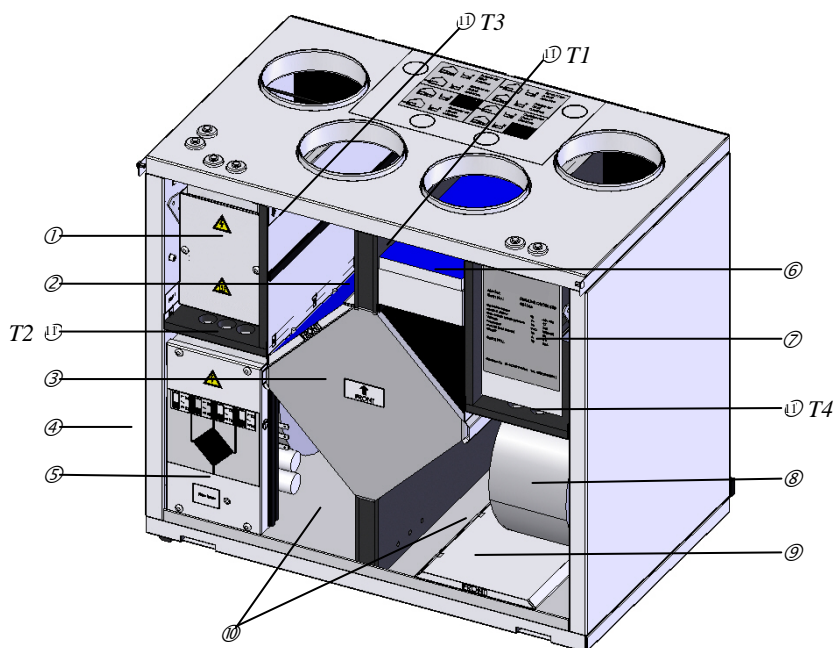
The illustration shows the unit in Right operation (factory), see more about Left/Right in section "Left/Right version", page 17.

Installation

The unit will most often be mounted in the utility room, a heated shed or the like in connection with single-family houses or apartments.

Illustration, internal

This drawing illustrates the unit with its different parts, visible from the internal side:



Parts

This table gives an overview of the main parts of the unit:

No.	Part	No.	Part
①	Electrical heater	⑦	Type signage
②	Filter (G3)	⑧	Fan 2
③	Heat exchanger	⑨	By pass (winter position)
④	Fan 1 (behind the control board)	⑩	Drain holes (left/right)
⑤	Control board	⑪	Temperature sensor
⑥	Filter (G3/F7)	-	-

Description of parts

Introduction	<p>This section will give you a more detailed description of the parts of the HXV 5. See an illustration in section "General description" on page 7.</p> <p>The described parts are:</p> <ul style="list-style-type: none"> • Cabinet • Heater • Filters • Heat exchanger • Fans • Control board • User's panel • By pass • Drain • Temperature sensors
Cabinet	<p>The cabinet is made of painted, hot galvanizing sheet steel, which is insulated with a fire retardant polyester foam. The foam has both thermal and acoustic purpose.</p>
Heater	<p>The unit is equipped with an electric heater. The heater is placed inside the unit. It is protected with an overheat protection switch.</p> <p>The heater keeps the internal temperature at an adequate level at low ambient temperatures. See the "User's guide", page 19 for adjustment of the supply air temperature.</p> <p>The heater should be off when using the by-pass at summer time. At winter time when the by-pass is not in use, the heater should be on.</p>
Filters	<p>The purpose of the filters is to protect the heat exchanger and to filter dust from the outdoor air before it enters the house.</p> <p>The unit is standard equipped with filters class G3 before the F7 cassette filter on supply air and G3 filter on exhaust air.</p>
Heat exchanger	<p>The heat exchanger ensures that as much of the heat in the exhaust air, is reused to warm up the supply air, when both air flows passes each other in the heat exchanger.</p>
Fans	<p>There are two fans in the unit. The purpose of the fans is described below. Whenever the description refers to Fan 1 or 2 it is because of the left/right possibility. The left/right principle is described in section "Left/Right version", page 17.</p> <p>Supply fan</p> <p>The supply fan draws fresh outdoor air through the unit and heat exchanger, and supplies it with recovered heat to bedrooms, living rooms and possibly sauna or steam bath.</p> <p>Exhaust fan</p> <p>The exhaust fan draws air from kitchen (in some cases the cooker hood), toilets, baths, sauna and/or steam bath through the unit and heat exchanger where the heat is recovered and exhausts it to outside.</p>
Control board	<p>The control board is described in details in "Description of the control board", page 10.</p> <p>For changing settings, please see the "User's guide", page 19.</p>

Continued overleaf

Description of parts , *continued*

Basic user panel The user panel is described in details in "Description of the control board", page 10. For changing settings, please see the "User's guide", page 19.

By pass damper

Winter:

In winter the by pass damper is not in use. When not in use, the by pass damper is placed below fan 2.

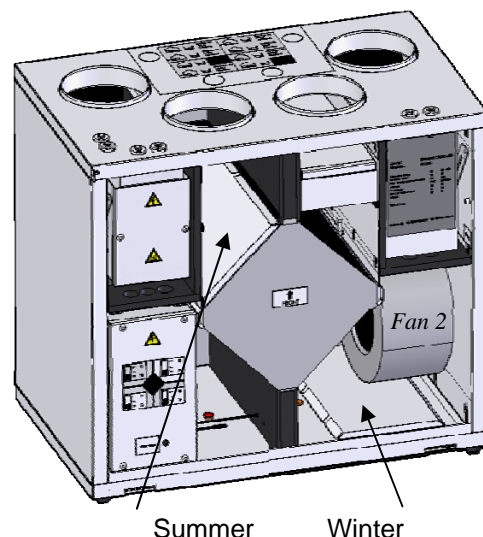
At winter the heat exchanger recovers heat from the air leaving the house and uses it to heat the fresh air from the outside before it is supplied into the house.

Summer:

In summer operation when it is warm outside, it is unnecessary to heat the outdoor air before it is blown into the house.

For summer operation the by pass damper passes the fresh outdoor air by the heat exchanger directly into the house.

Placement of the by pass damper:



See section "User's guide", page 19 to change from summer to winter operation and vice versa.

Drain

The drain is placed in the bottom of the cabinet. Independent on the left/right version of the unit, condense water is let out of the unit in both sides.

Temperature sensors

The unit is equipped with four temperature sensors. The placement of each sensor is illustrated in section "General description", page 7.

Part	Function	
T1	Outdoor air temperature	Gives information about the outdoor temperature ^{*)}
T2	Supply air temperature	For heater purpose. See more about heating in the "Functional description", page 11
T3	Warm and humid air from the house	Gives information about the temperature of the air that is drawn into the unit from the house ^{*)}
T4	Exhaust air temperature	For frost protection. See more about frost protection in the "Functional description", page 11

^{*)} Can only be read out from the high end user panel (accessory)

Description of the control board

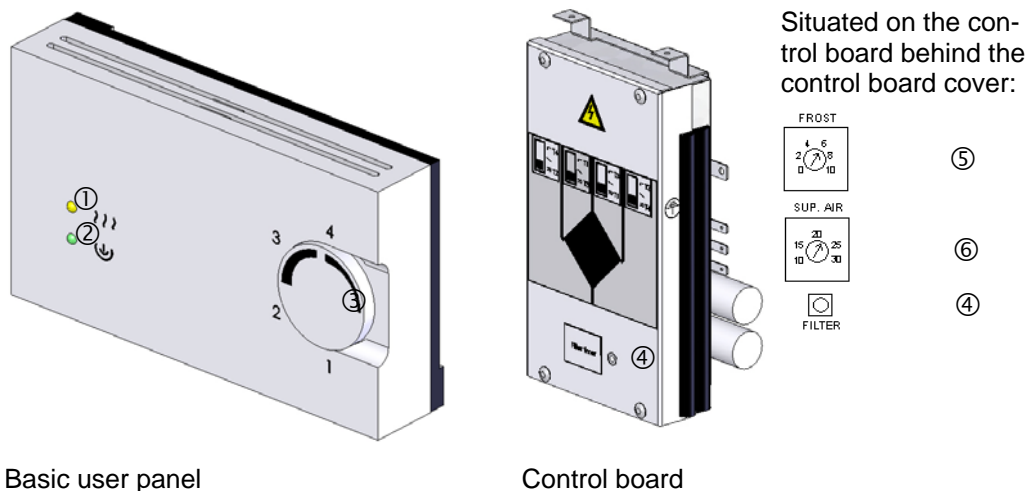
Introduction

This section gives you a detailed description of the control board and the basic user panel.

Description of how to change settings is to find in section “User’s guide”, page 19.

Illustration

This drawing illustrates the basic user panel and the control board:



Basic user panel

Control board

Part/function

This table gives you a description of each customer relevant part on the control board:

Part	Function
① Heater LED	Yellow: Heater ON OFF: Heater OFF
② Power LED	Green: Power ON OFF: Power OFF
③ Fan speed regulator	Regulator to regulate the fan speed steplessly See more about the regulation of the fan speed in the “User’s guide”, page 19
④ Filter timer reset	When activating the filter timer is reset
⑤ Defrosting set point	Shows the defrosting set point. See more about defrosting set point/frost protection in the “Functional description”, page 11
⑥ Heater set point	Shows the heater set point. See more about heater in the “Functional description”, page 11

Functional description

Important

The ventilation system should operate continuously!

It is not advisable to stop ventilation even for longer holidays.

The following describes the HXV 5 with the factory set up in Right operation. See more about Left/Right in section "Left/Right version", page 17

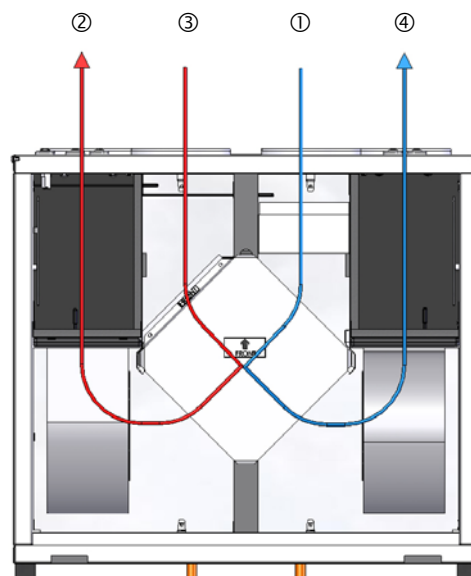
Function

The unit supplies fresh air, drawn in from the outside, to living rooms including sauna and steam bath if present.

The dirty and humid air is drawn out from the kitchen, the living rooms, the baths etc and led into the unit, where the unit reuses the heat form the dirty air to warm up the fresh outdoor air before this is blown into the house.

Illustration of air flow

This illustrates the air flow of the HXV 5 with the factory set up in Right operation:



Air flow description

This describes the air flow in details:

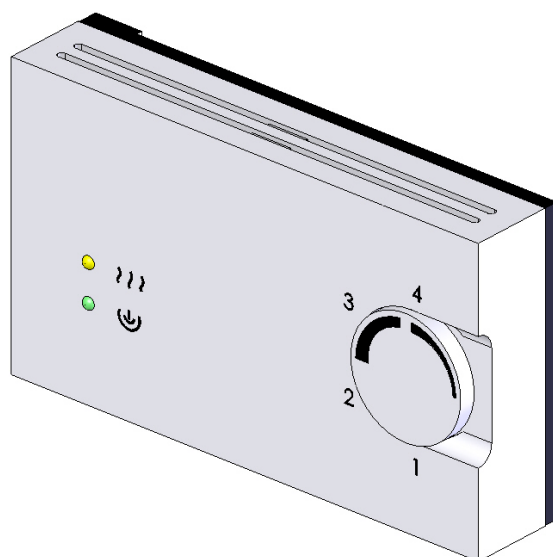
No.	Description	
①	Outdoor air	Fresh air entering the heat exchanger ready to be heated by the exhaust air from the inside of the house (③)
②	(Heated) supply air	Comfort air heated by the exhaust air from inside the house (③)
③	Extract air	Used to heat the incoming fresh outdoor air (①)
④	Exhaust air	The heat has been drawn out of the old indoor air to warm up the fresh outdoor air (①). The exhaust air is led out of the house and system

Continued overleaf

Functional description, *continued*

Stepless fan speed

The fan regulator is used to adjust the air volume.



Speed	Function
1	To be used during absence. When the dwelling is empty, ventilation can temporarily be diminished.
2	To be used when the need of ventilation is normal
3	To be used when the need for ventilation is normal to high When cooking, taking a sauna bath, drying clothes, use of toilet, guests, excess heat and "large dwellings"
4	To be used as needed for example during cooking, parties and hot weathers. Cooking fumes are taken out with a cooker hood or an integrated hood and ventilator

Frost protection

If the exhaust air temperature decreases to below the frost protection set point (factory setting = 4 °C), the supply air fan will stop.

The supply air fan will start again when the temperature increases to at least 3 °C above the frost protection set point.

See the User's guide, page 19 to change the defrosting set point.

Filter guard

After 4 months use a timer will activate the filter alarm buzzer in the user panel. See more about filter maintenance in section "Preventive maintenance", page 22

This timer has to be manual reset (see the User's guide, page 19).

Heater

The built-in heater turns on when the supply air temperature decreases to below the heater set point (factory setting = 18 °C).

The heater turns off when the temperature has increased to at least 2 °C above the heater set point.

See the User's guide, page 19 to change the heater set point.

Get ready for use

Overview

Content

This section covers the following topics:

Topic	See page
Mounting and installation	14
Left/Right version	17

Mounting and installation

Introduction This section will guide you through the unpacking, mounting and installation of the HXV 5.

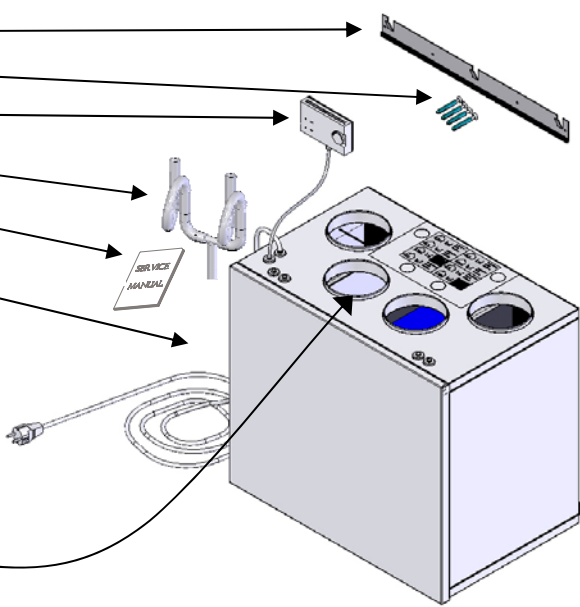
Important Only trained and certified technicians are allowed to install the unit!
The RJ 45 cable with plug from the unit is not for pc connection! Pc connection will damage the unit or pc!

Before you start Make sure you have the following available before you start the installation:

- Tools for wire connections

Wrapping The HXV 5 is delivered in a cardboard box.

Check content Follow this procedure to check the content of the box:

Step	Action
1	Unpack the unit carefully
2	Check the contents of the box before mounting
3	<div> <ul style="list-style-type: none"> • Mounting bracket • Bag with screws • Basic user's panel^{*)} • Water seal • Manual • HXV 5  <p>^{*)} The user's panel, the water seal and a bag with accessories for the water seal are packed separately and placed here</p> </div>

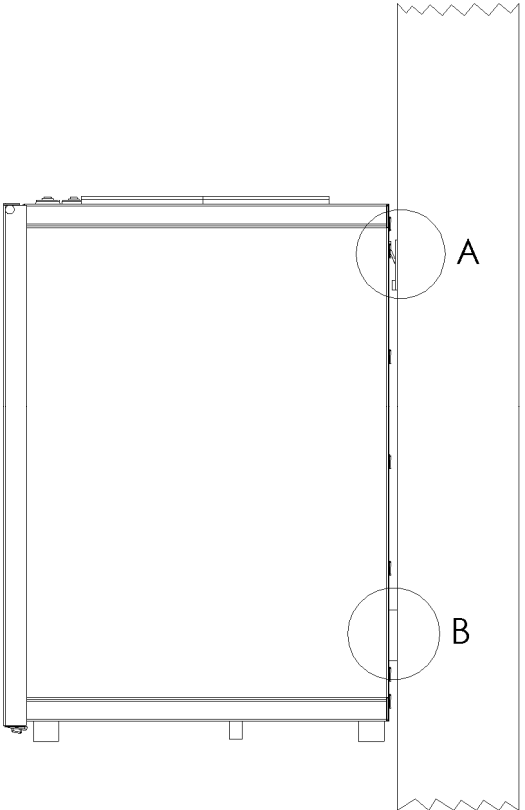
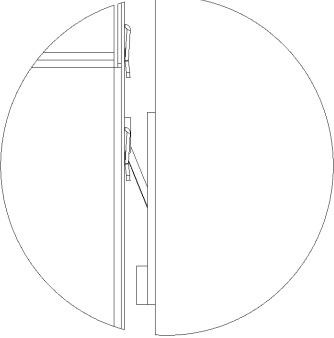
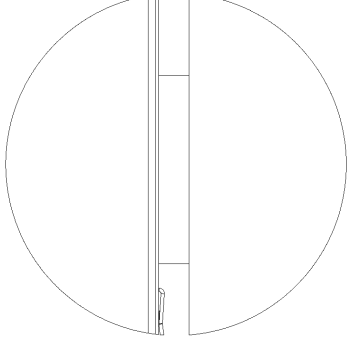
Feet For protection until the installation, the unit is delivered on feet, which are easily dis-mounted when the unit is mounted.

Continued overleaf

Mounting and installation, *continued*

Mounting

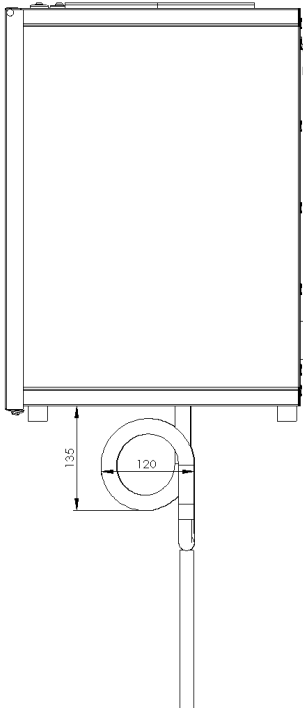
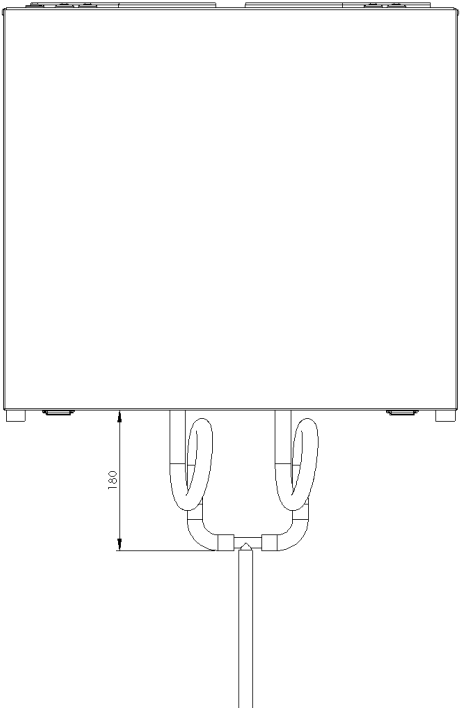
Follow this procedure to mount the unit:

Step	Action				
1	Mount the mounting bracket on the wall with 4 suitable fixing screws for the wall				
2	<p>Place the HXV 5 on the mounting bracket (detail A).</p> <p>One rubber suspensions at the bottom of the unit (detail B) will keep the unit horizontal and diminish vibrations and sound.</p> <p>The unit is now ready for connection to ducts on top of the unit.</p> <p>Important It is important that the unit is mounted vertically and horizontally in level</p>    <p style="text-align: center;">Detail A Detail B</p>				
3	<p>Decide if you need a right (from factory) or a left version. The left/right versions are described on page 17</p> <table border="1"> <thead> <tr> <th>Left version</th><th>Right version (from factory)</th></tr> </thead> <tbody> <tr> <td>Continue to section "Left/Right version", page 17</td><td>Proceed with step 4</td></tr> </tbody> </table>	Left version	Right version (from factory)	Continue to section "Left/Right version", page 17	Proceed with step 4
Left version	Right version (from factory)				
Continue to section "Left/Right version", page 17	Proceed with step 4				

Continued overleaf

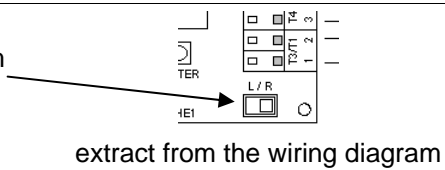
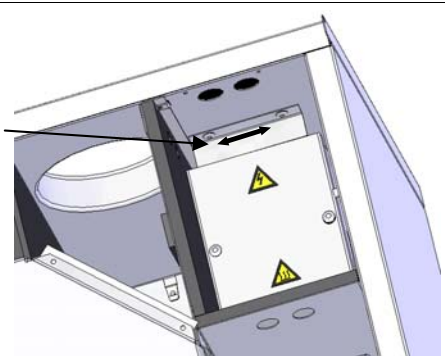
Mounting and installation, *continued*

Mounting, *continued*

Step	Action
4	<p data-bbox="501 403 802 432">Connect the drain hoses:</p> <div data-bbox="518 459 821 1164">  </div> <div data-bbox="949 459 1412 1164">  </div>
5	Place the user's panel in a convenient place and connect the RJ45 plug from the unit to the user panel
6	Connect the plug to 230 V AC

Left/Right version

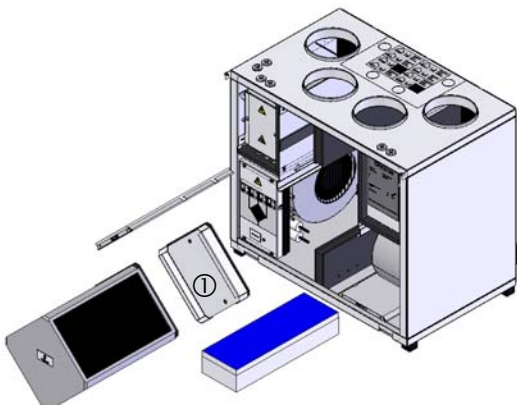
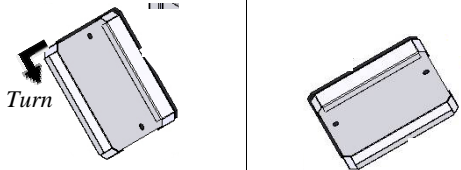
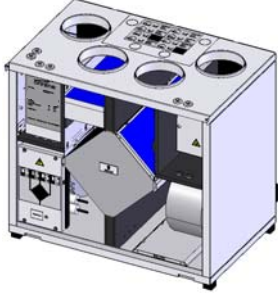
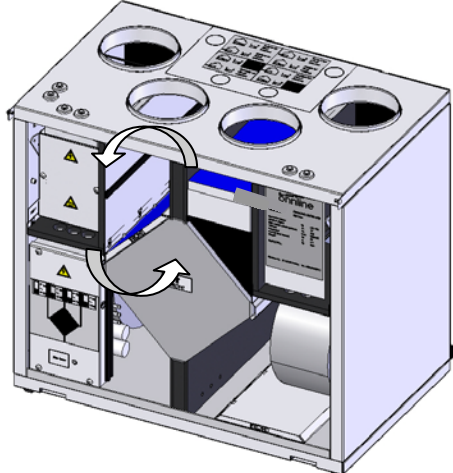
Introduction	This topic will guide you to change the unit from the factory version (Right) to a Left version of the HXV 5.
Left or Right?	If you need to change the HXV 5 from a Right version to a Left version depends on the mounting location. It might be more convenient to change the unit in preference to changing the mounting location.
Important	Only trained and certified technicians are allowed to make changes on the unit!
Note	This manual is based on the factory version of the unit (Right), therefore the drawings and explanations will not apply the unit after having changed to a Left version.
Before you start	Make sure you have the following available before you start the installation: <ul style="list-style-type: none"> • PZ2 Cross head screw driver • Pricker or small straight head screw driver
Procedure	Follow these steps to change the unit from a Right version to a Left version:

Step	Action
1	Open the front cover to the unit
2	Remove the front panel to the controller (4 screws)
3	Change the version on the control board by setting the L/R switch from Right to Left, see also Wiring diagram, page 32 <div data-bbox="941 1209 1388 1377">  <p>extract from the wiring diagram</p> </div>
4	Dismount the heater element by unscrewing the two upper screws and disconnect the wires from the control board
5	Dismount the name plate by unscrewing the two screws
6	Prick through the membranes at the insulation (the insulation is prepared) and lead the heating cable through the new holes and reconnect the wires to the control board (15/16)
7	Mount the heating element in the right side of the unit (where the name plate was placed). NB: The heater must be fixed to the two inner holes which are prepared for heater mounting <div data-bbox="957 1612 1404 1971">  </div>

Continued overleaf

Left/Right version, *continued*

Procedure, *continued*

Step	Action	
8	Mount the name plate in the left side of the unit	
9	Remove the filters and the heat exchanger to be able to reach the by pass duct ① which is placed behind the heat exchanger	
10	Turn the by pass duct 90° anti-clockwise	
11	Finish the conversion by mounting the filters, heat exchanger and by pass damper	 <p style="text-align: right;"><i>Result</i></p>
12	Exchange the two filters from respectively left to right and right to left side	
13	Continue the installation by following section "Mounting and installation", page 14	

User's guide

Overview

Introduction

This section only describes **how to** activate/use the different functions.

Further information about each of the functions is to be found in section "Functional description", page 11 and "Description of parts", page 8.

How to open the front cover

The front cover opens when the two buttons at the bottom of the unit is pressed up:



Fan speed

Turn the fan regulator to change the fan speed. The space in the middle of the regulator points at the actual setting.

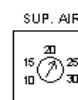
On this drawing the regulator is close to step 4.



Supply air set point

Turn the supply air set point button on the control board to change the supply air temperature.

The supply air set point can be adjusted between 10 - 30 °C.



Frost protection set point

Turn the frost protection set point button on the control board to change the frost protection set point.

The frost protection set point can be adjusted between 0 – 10 °C.

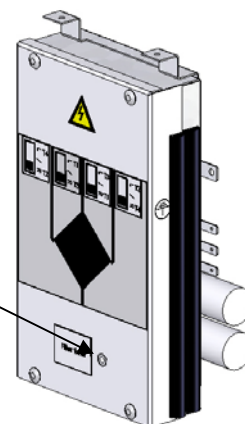


Continued overleaf

User's guide, *continued*

Reset filter guard timer

Lead a thin object e.g. a toothpick or a very thin screw-driver through the control board front cover against the reset button for the filter timer to reset the filter timer.



By pass damper

Follow this procedure to modify the unit from summer to winter operation and vice versa:

Step	Action				
1	Open the front cover by pushing the two buttons below the unit				
2	<p>Follow this procedure to modify either to summer or winter operation: Placement of the by pass damper:</p> <p>The diagram shows the internal components of the unit. A bypass damper is shown in two positions: 'Summer position' (above the heat exchanger) and 'Winter position' (below the heat exchanger). A filter frame is also shown in two positions: 'Summer bypass' (above the heat exchanger) and 'Filter frame' (below the heat exchanger). A heater control switch is labeled with a circled 1.</p> <table border="1"> <thead> <tr> <th>Summer operation</th><th>Winter operation</th></tr> </thead> <tbody> <tr> <td> <ul style="list-style-type: none"> Move the summer by pass from its winter position below fan 2 to over the heat exchanger for summer position Place the filter frame below fan 2 Turn off the heater (①) </td><td> <ul style="list-style-type: none"> Move the filter frame from its summer position over the heat exchanger to winter position Place the summer by pass below fan 2 Turn on the heater (①) </td></tr> </tbody> </table>	Summer operation	Winter operation	<ul style="list-style-type: none"> Move the summer by pass from its winter position below fan 2 to over the heat exchanger for summer position Place the filter frame below fan 2 Turn off the heater (①) 	<ul style="list-style-type: none"> Move the filter frame from its summer position over the heat exchanger to winter position Place the summer by pass below fan 2 Turn on the heater (①)
Summer operation	Winter operation				
<ul style="list-style-type: none"> Move the summer by pass from its winter position below fan 2 to over the heat exchanger for summer position Place the filter frame below fan 2 Turn off the heater (①) 	<ul style="list-style-type: none"> Move the filter frame from its summer position over the heat exchanger to winter position Place the summer by pass below fan 2 Turn on the heater (①) 				
3	Close the front cover				

Service guide

Overview

Serial numbers

All requests for information, service or parts should include serial number.

Product model and serial numbers are available from the nameplate, which is located behind the front cover which can be opened without the use of tools.

Contents

This section covers the following topics:

Topic	See page
Preventive maintenance	next page
Accessories	24
Spare part list	26
Fault finding guide	27
Service agreement	28

Preventive maintenance

Introduction

To keep the home application ventilation unit fit to meet the specifications, preventive maintenance has to be carried out.

The unit needs preventive maintenance with specific intervals to avoid breakdown or inefficient operation and to maximize the lifetime. It is important to notice that interval between maintenance can vary depending on the specific environment.

The following parts need preventive maintenance:

- Filters
- Heat exchanger
- By pass
- Fans
- Drip tray

The maintenance instructions are listed later in this section.

Caution

Switch off the power supply before working on the unit!

Filters

Replace the filters when the filter alarm sounds.

Reset the filter timer after having changed the filters. See how to in the User's guide, page 19.

Cleaning

Keep the unit clean to ensure its flawless operation and hygiene.

Check the inner surface of the unit. If dirty, clean with a damp cloth, brush, vacuum cleaner or similar.

Heat exchanger

Check the cleanliness of the heat exchanger every two years or so. Grab the ears at the ends of the cell and pull the cell out of the unit. If the cell is contaminated, soak it in a solution of water and washing-up liquid. Rinse the cell clean with a jet of water. When all the water has drained from between the laminas, push the cell back in place.

By pass

Check in autumn and spring the position of the by pass and the leaving of condensing water from the unit as well as the position of the internal water coil thermostat (accessory).

Fans

Caution!

- Only trained and certified technicians are allowed to service the fans
- Switch off both the DC and AC supply before working on the unit
- Make sure that all work has been performed before switching on the power again

Clean the fan blades with compressed air or with a brush. Each blade has to be so clean that the fan stays balanced. Take care not to remove the balancing pieces attached to the fan blades.

Drip tray

Make sure that the condensing water outlet in the drip tray is not clogged.

Continued overleaf

Preventive maintenance, *continued*

Recommended approach

The recommended approach when performing a preventive maintenance visit is:

Step	Action
1	Make sure that the power to the unit is safely switched off
2	Clean the unit carefully: <ul style="list-style-type: none"> • Filters • Heat exchanger • By pass • Fans • Drip tray
3	Switch on the power again. In case of an alarm signal, please see section "Fault finding guide", page 27

Tasks

The following must be checked when performing the preventive maintenance visit:

Item	Yes	No
Are the fans clean and free of corrosion?	<input type="checkbox"/>	<input type="checkbox"/>
Are the fans securely mounted and free of excessive vibration?	<input type="checkbox"/>	<input type="checkbox"/>
Are all fan blades free of obstruction, cracks, missing blades and in balance?	<input type="checkbox"/>	<input type="checkbox"/>
Do the fans rotate freely and are they free from excessive vibration or noise?	<input type="checkbox"/>	<input type="checkbox"/>
Is all wiring and insulation free of damage?	<input type="checkbox"/>	<input type="checkbox"/>

Condition for warranty

The factory warranty is only valid if documented preventive maintenance has been carried out with an interval of maximum 6 months. The documentation could be in form of a written log.

Accessories

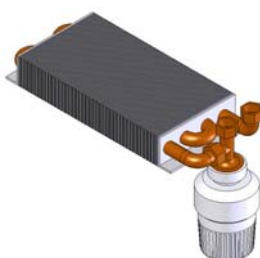



Introduction

This section will give you an overview of the available accessories for HXV 5. You will find a list of accessories as well as a short description including part number for ordering.

Additional information is available on each accessory; please contact Dantherm Air Handling A/S.

List



Here you have the complete list with drawing, description and part number for all available accessories for HXV 5:

Accessory	Illustration	Description	Part No.
Internal water coil		A water coil can be placed in the unit. The water coil will not be connected to the controller, but will have its own thermostat (like a normal radiator)	035579
Humidity controller		A humidity sensor can be connected to a potential free contact. Upon activation the unit will switch to maximum speed	016361
High end user's panel		The panel has the following functions: <ul style="list-style-type: none"> • Setting of fan speed • Setting of supply air temperature • Setting of maximum relative humidity • Build-in air quality sensor • "Fireplace function" when lighting up the fire 	036418
Shield with steam preventing plate (for use with unit on wall)		To avoid steam/moisture to enter the ceiling construction, where a hole has been cut out to get the ducts through	035484

Continued overleaf

Accessories, *continued*

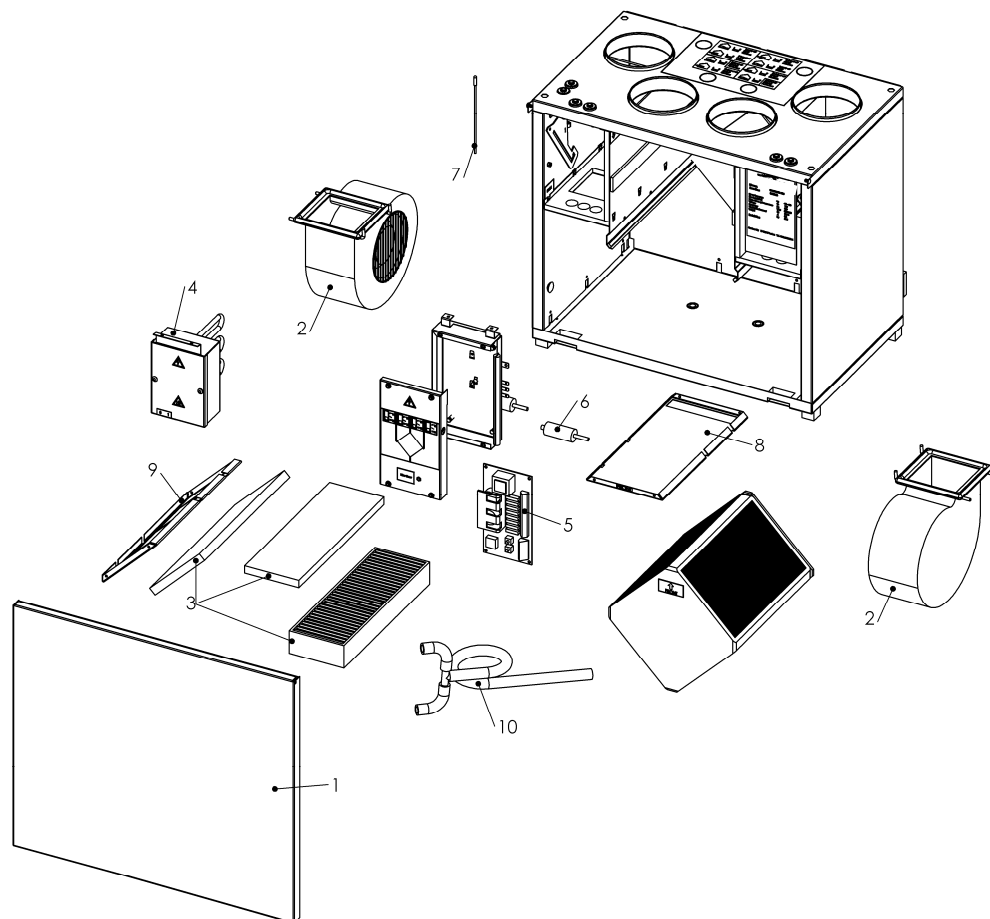
List, *continued*

Accessory	Illustration	Description	Part No.
RJ 45 cable		RJ45 cable, white, 12 metre, male plugs in both ends, straight connection	032985
Ceiling suspension with steam preventing plate		The steam preventing plate prevents steam/moisture from entering the ceiling construction, where a hole has been cut out to get the ducts through	036422

Spare part list

Illustration

Available spare parts for HXV 5:



List

List of spare parts including spare part numbers:

Pos.	Dantherm no.	Description
1	039705	Front door
2	032778	Fan 1/2 – Internal/External
3	032798	Panel filter pack 3x3 filters
4	032793	Heating unit 500 W
5	032791	Control board
6	032796	Run capacitor for fan, 4 μ F 1 pcs.
7	032806	Temperature sensor
8	038049	Filter frame for filter – Summer
9	038052	Filter frame for filter – Winter
10	036419	Water seal
11	033250	Basic user panel

Fault finding guide

Fault finding

Operating errors may occur.

Locate your problem in the left column and follow the instructions to the right:

Problem	Cause	Solution
The red LED illuminates constantly	Too high temperature in the shelter, above 60 °C or a fan failure	Replace the fan
The red LED is flashing	The on board sensor has been disconnected/shorted	Replace the controller
The internal fan runs at low speed	The temperature in the shelter is below 20 °C	This is due to the control strategy
The external fan runs at low speed	The temperature in the shelter is below 30 °C	This is due to the control strategy

Service agreement

Introduction	<p>The unit includes mechanical and electrical parts and the unit is often placed in a rough environment where the components are exposed to different climate conditions. Therefore the unit will need preventative maintenance on a regular basis.</p>
Hotline	<p>The After Sales Support Department of Dantherm Air Handling A/S is ready to help you in case of a problem.</p> <p>To be able to offer quick and efficient help, please have the following information ready when contacting Dantherm Air Handling A/S:</p> <ul style="list-style-type: none"> • Name • Phone no. • Site/location (unit) • Company • Email • Serial no/order no. • Country • Type (unit) • Description of the problem <p>Contact Dantherm Air Handling A/S, ask for the After Sales Support department and help will be provided as soon as possible:</p> <p>Phone: +45 96 14 37 00 Fax: +45 96 14 38 00 Email: service@dantherm.com</p>
Preventive maintenance	<p>Dantherm Air Handling A/S offers to do the preventive maintenance on the units so that they at all times will operate according to factory standards.</p>
Corrective and emergency repair	<p>In case of malfunctions of the product Dantherm Air Handling A/S offers to do emergency repair on the climate units. Agreements will be made with the customer on response time and price.</p>
Setup	<p>Dantherm Air Handling A/S has established a network of service partners to do the preventative maintenance. The partner is trained and certified on the actual climate units. The partner will also carry an adequate number of spare parts – so that any repairs can be made during the same visit.</p> <p>The agreement will be made with Dantherm Air Handling A/S – and the overall responsibility for the agreement will be Dantherm Air Handling A/S's.</p>
Further information	<p>For further information about a service agreement in your country or region, please contact:</p> <p>Henrik Hersted After Sales Support Manager Dantherm Air Handling A/S Phone: +45 9614 4767 Mobile: +45 2399 4066 Email: heh@dantherm.com</p>

Technical information

Overview

Contents

This section covers the following topics:

If further technical details are requested, please contact Dantherm Air Handling A/S.

Topic	See page
Technical data	Next page
Dimensions	31
Wiring diagram	32

Technical data

Data

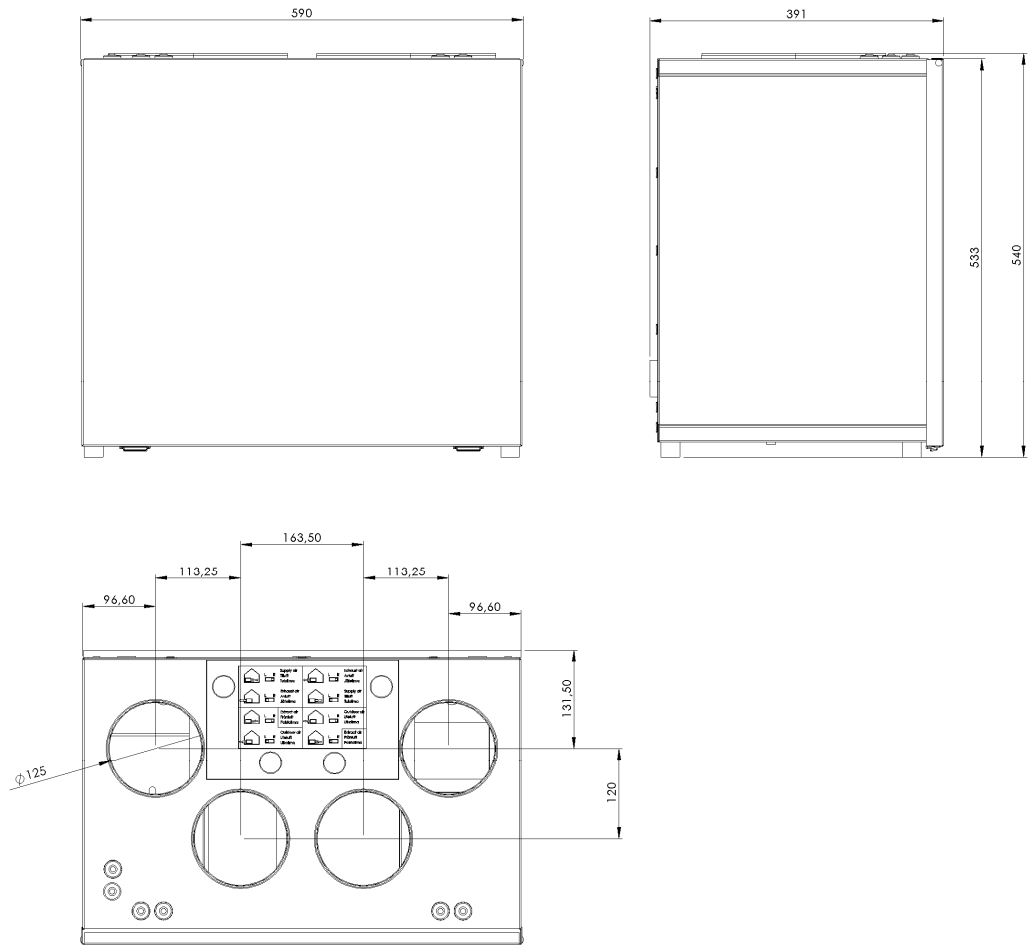
The below table gives the technical data of the HXV 5.

Specification	Unit	Value
Voltage, frequency	V/Hz	1 x 230 V/50/60 Hz \pm 10 %
Max. power consumption with/without heater	W	874/374
Control voltage, input power of fans, (2 fans), see also appendix A, page 33	V/W	70 V 48,8 W 150 V 170 W 230 V 249 W
Operating range	°C	\div 10 - + 50
Sound level	L _{pA} .10m ²	70 V 20,8 120 V 33,9 160 V 39,5 230 V 44,4
Dimensions, W x H x D	mm	590 x 526 x 391
Dimensions, packaging, W x H x D	mm	605 x 595 x 405
Weight	kg	36,5
Weight, packaging, W x H x D	kg	40
Cabinet, hot galvanized sheet steel	mm	0.9
Colour	RAL	9016 (white)
Filter sizes G3 F7 G3	mm	336 x 111 x 18 338 x 114 x 48 336 x 146 x 18
Power, fans, forward curved radial	V AC	230
By pass, sheet metal plate	mm	0.9
Cross type heat exchanger	-	Aluminium plate
Heat recovery efficiency	%	up to 70
IP	-	44
Fire resistance of insulation material	-	DIN 4102 B2

Dimensions

Illustration

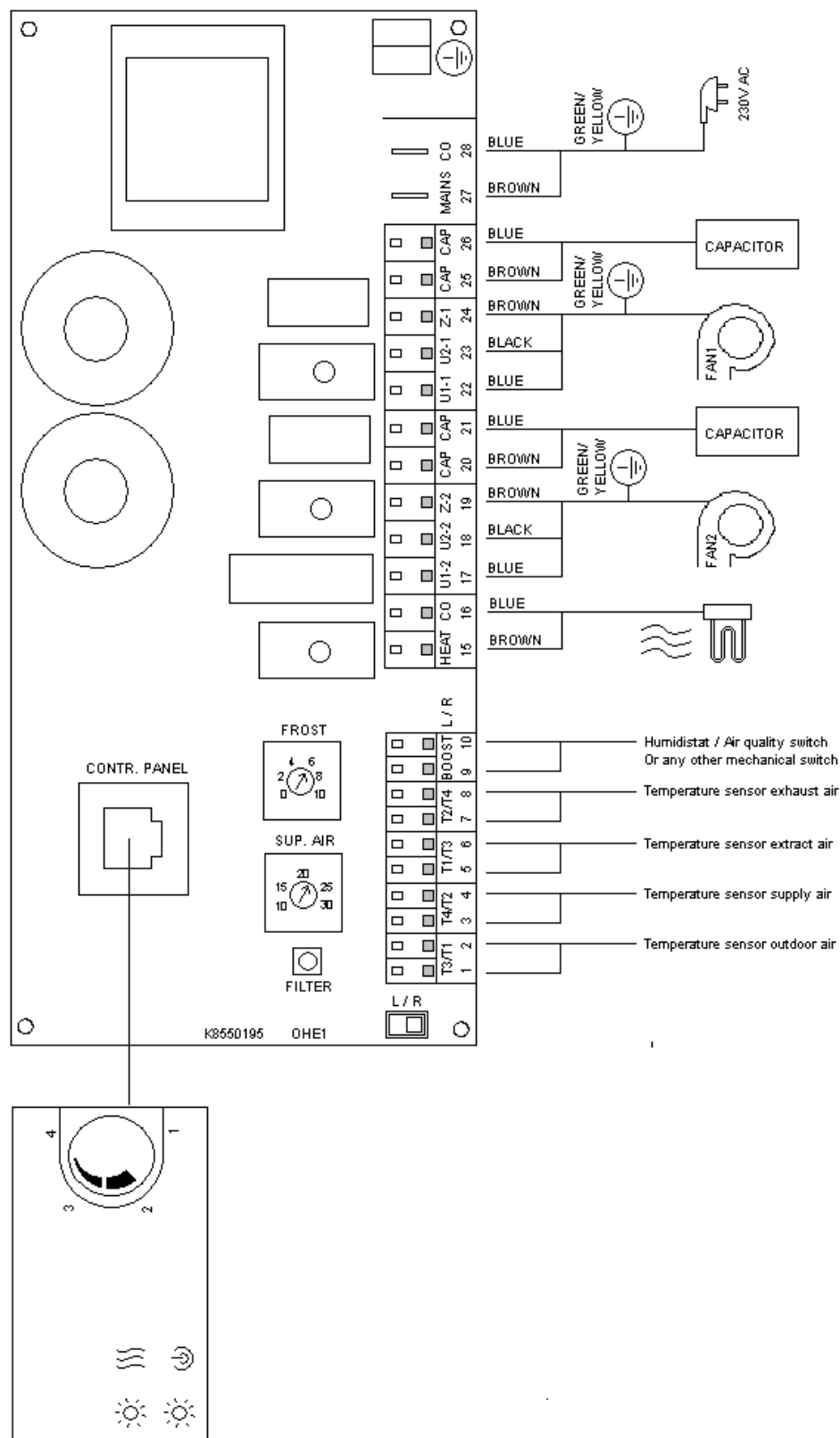
This drawing illustrates the dimensions of the HXV 5:



Wiring diagram

Introduction

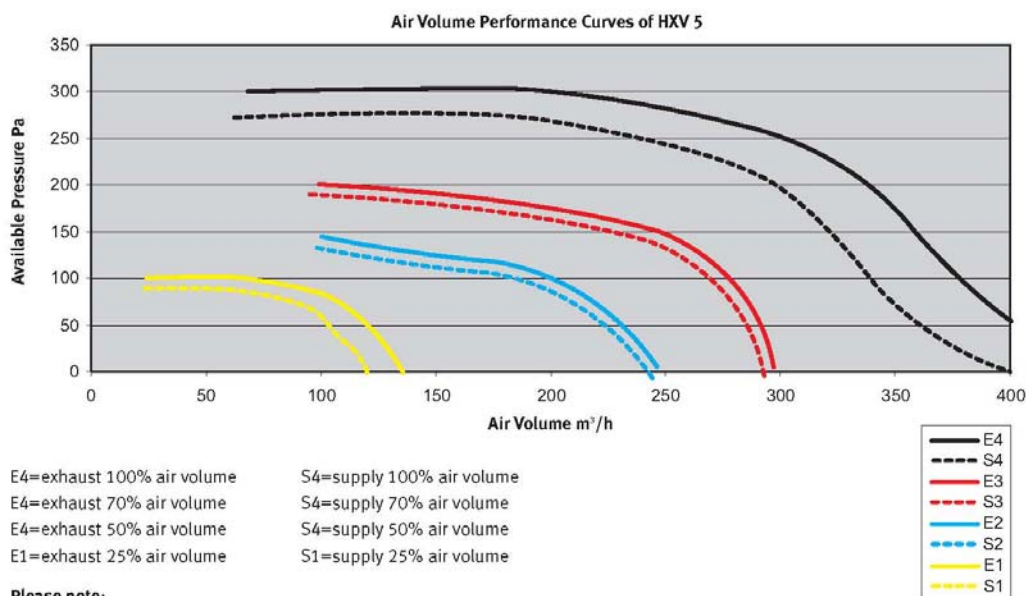
This section contains the electrical wiring diagrams for the following main parts:



Appendix A - Performance and specific fan power

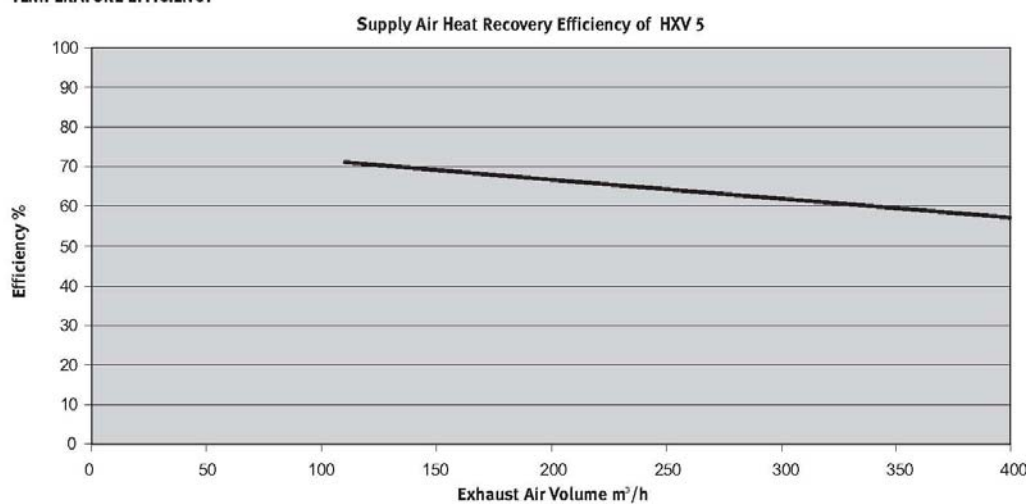
Performance

PERFORMANCE CURVES



Specific fan power

TEMPERATURE EFFICIENCY



Conditions: $t_{\text{fresh air}} = 4^{\circ}\text{C}$, $t_{\text{return air}} = 20^{\circ}\text{C}$ and $\text{RH}_{\text{return air}} = 50\%$.

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