

General description

HXV 5

FUNCTION

HXV 5 is the perfect ventilation solution to create and maintain a healthy living environment.

The unit is supplied as standard with a user-friendly control panel in a modern design.

APPLICATION

HXV 5 is particularly suitable for apartments and 1 or 2 bedroom residential homes of between 80 and 200 m² where an air change rate of 0.5 / hour is required.

INSTALLATION

The HXV 5 compact dimensions and light weight ensure that it can be placed instead of a standard 60 cm wide wall unit closet.

The HXV 5 flexible configuration means that it can easily be converted to left or right hand installation.

The HXV 5 unit can be installed in a utility room with the control panel remotely located to suit the homeowner.

CHARACTERISTICS

- Easy to operate and service
- Compact dimensions
- Variable air volume
- Built-in electric heater for supply air
- Heat exchanger frost protection
- Filter change timer with audible alarm
- Summer ambient cooling using adjustable by-pass damper
- Configurable for left or right hand installation

ILLUSTRATION OF AIR FLOW IN HXV 5

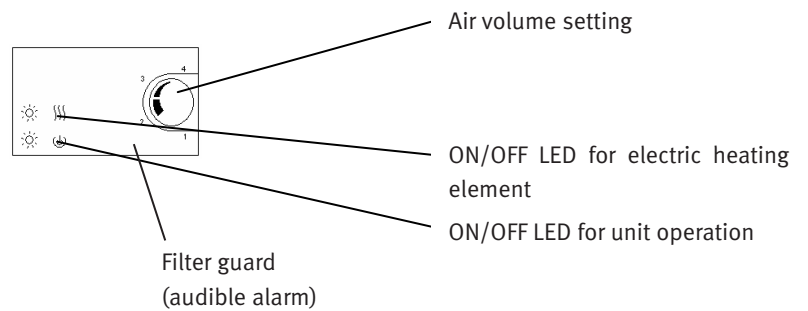
- 1 Fresh air intake
- 2 Supply air
- 3 Return air
- 4 Exhaust air



CONTROL PANEL

Operation of the HXV 5 is extremely user-friendly using the standard control panel. Simply select the required air volume from one of 4 pre-sets. In addition there are two LED's to indicate when the unit and heating element are in operation and an audible alarm for the filter guard. The control panel is connected to the unit using a 12 metre RJ45 cable.

Additional functions are offered with the high end user panel which can be selected as an optional accessory.



PART NUMBERS

Standard model

HXV 5 unit plus standard control panel.

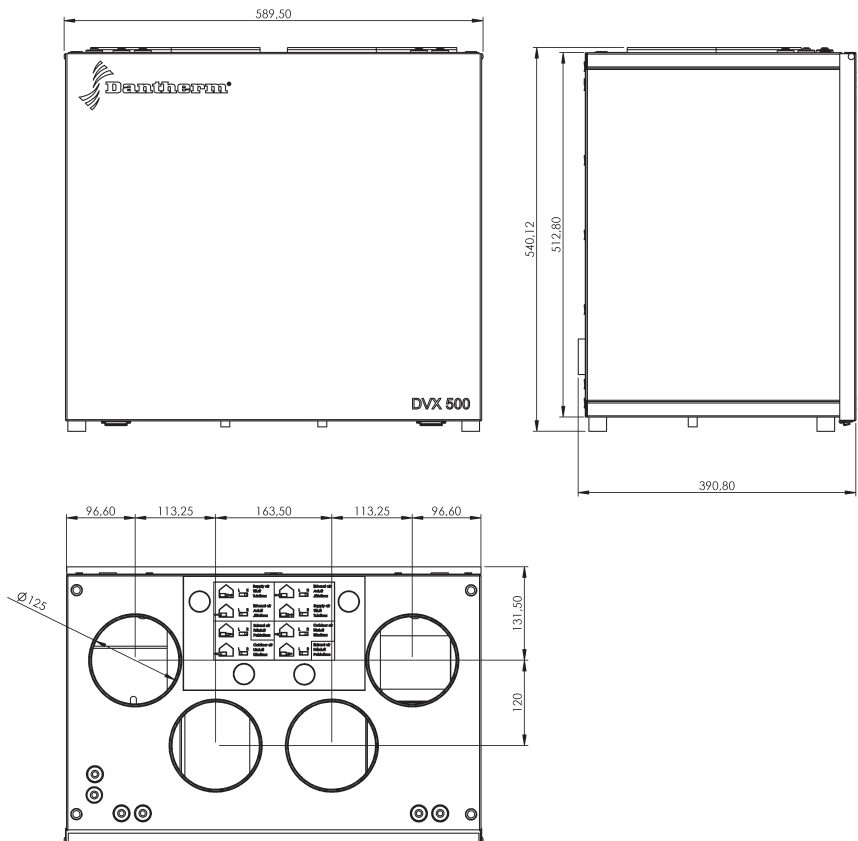
Dantherm No. 031366

Technical data

Heat exchanger type		Cross flow heat exchanger
Efficiency	%	up to 70%
Max. air volume	m ³ /h	360m ³ /h at 150 Pa
Power supply	V/Hz	230 V/50Hz
Operating temperature range	°C	-20 to +50
Max power consumption with and without electric heating element	Watt	874/374
Sound level (1 meter from the cabinet)	dB(A)	44*
Weight	kg	36,5
Colour (cabinet and panel)	RAL	9016
Protection class		IP 44
Duct connection	mm	Ø125
Filter types	F/G	G3 exhaust air and G3 plus F7 supply air
Material, cabinet		Hot galvanized steel
Material, control panel		Polystyrene

* at max. fan speed

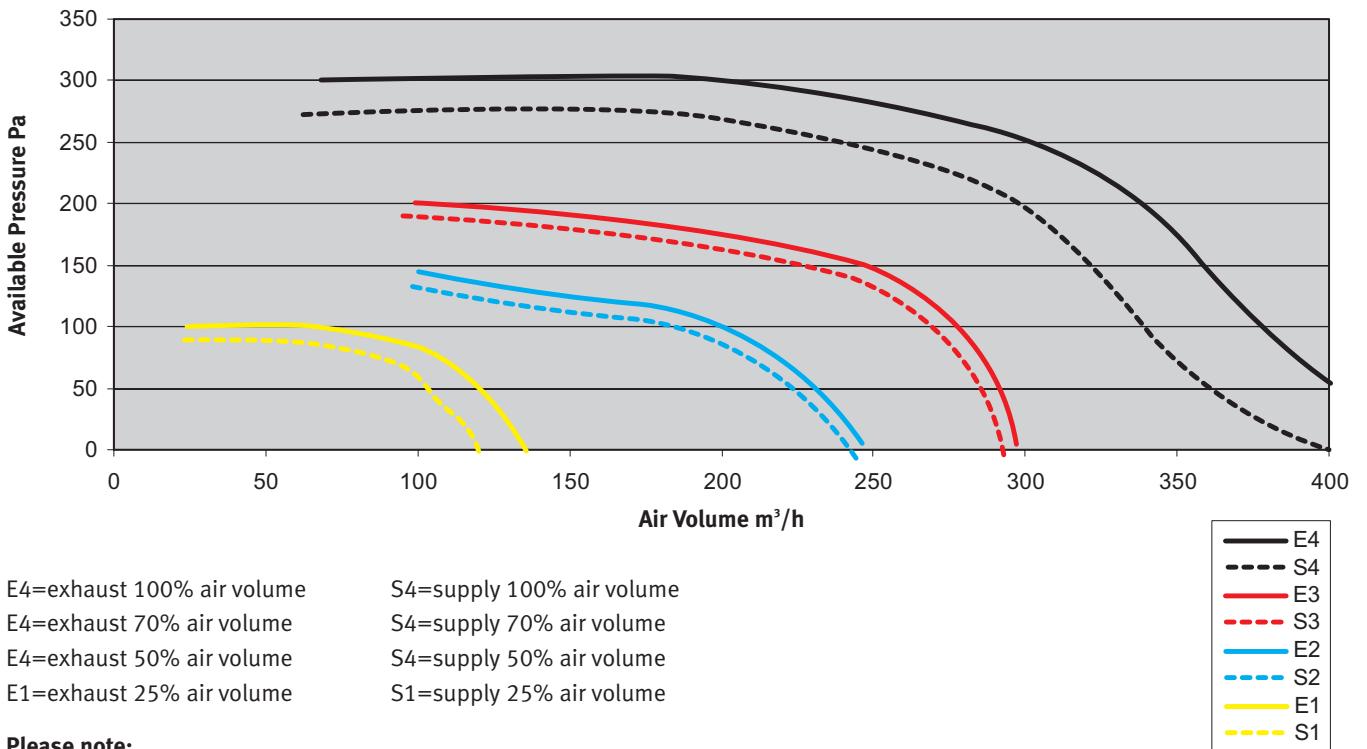
DIMENSIONS



All dimensions are in mm.

PERFORMANCE CURVES

Air Volume Performance Curves of HXV 5



E4=exhaust 100% air volume S4=supply 100% air volume
 E4=exhaust 70% air volume S4=supply 70% air volume
 E4=exhaust 50% air volume S4=supply 50% air volume
 E1=exhaust 25% air volume S1=supply 25% air volume

Please note:

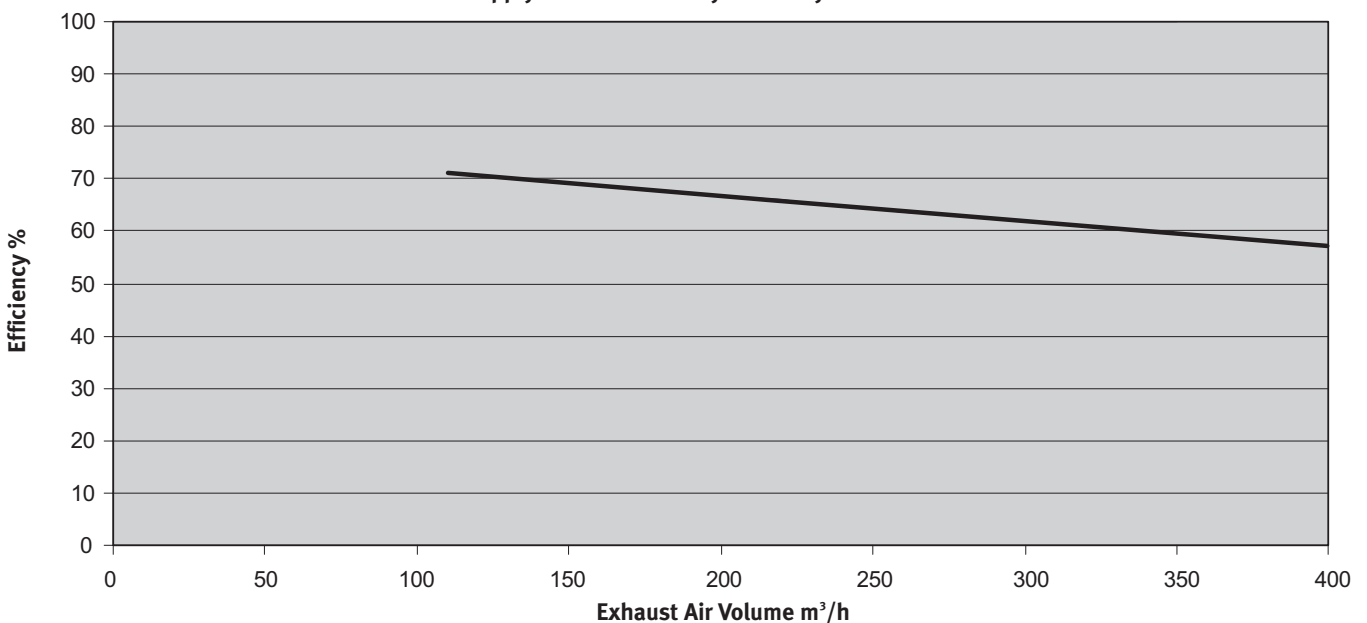
HXV 5 has four different settings for air volume, where each setting can be set between 25 and 100%.

The performance curves for max. air volume (E4; S4) shown are not the factory setting. The factory setting corresponds to approx. 70% of the stated max. air volume (E3; S3).

The performance curves E2; S2 (= 50% air volume) and E1; S1 (= 25% air volume) correspond to the factory setting for these two air volumes.

TEMPERATURE EFFICIENCY

Supply Air Heat Recovery Efficiency of HXV 5



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



Accessories

HIGH END CONTROL PANEL

The high end panel has the following key functions:

- 4 Variable fan speed settings
- Control of relative humidity (RH)
- Fire place function
- Ability to connect up to 5 high end panels to the unit in series
- Control of air quality (AQ)

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FIRE PLACE FUNCTION

The fire place function is a help when e.g. the wood burning stove, fireplace or the like is to be lit.

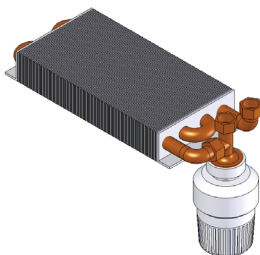
The function disables the exhaust air fan for 15 minutes by which the inlet fan established an overpressure in the house.

AIR QUALITY (AQ)

The high-end control panel provides the user with the option to control both the relative humidity and air quality levels.

Air quality is maintained by entering a value of between 0 and 100 into the control panel. An air quality value of 30-40 (100 is perfect air quality) is normally considered as a good and healthy level but it is recommended that the user establish their own personal comfort level by monitoring and adjusting the levels over a period of time.

Once a value is entered, the HXV 5 continually automatically adjusts the air volume to maintain the air quality to the specified value. This ensures that the unit is constantly operating at the optimum level to maintain the conditions and as a result considerable operating cost savings can be achieved when compared to the standard control panel.

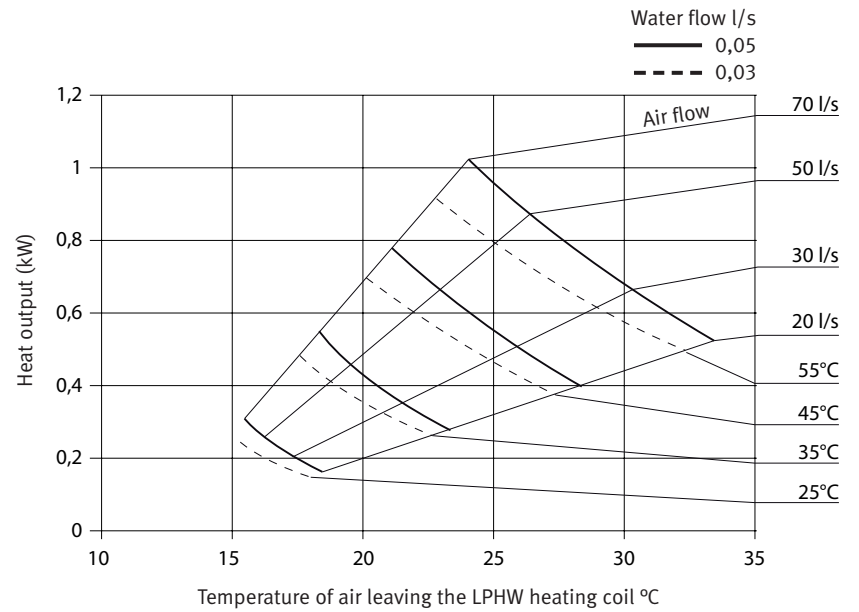


LPHW HEATING COIL

A LPHW coil can be connected within the unit. This operates not via the controller, but uses its own thermostat in conjunction with a remote sensor.

Dantherm No. 035579

Calculation of heat emission from the LPHW heating coil and Δt



Assumption: Temperature of air coming to the LPHW is 12°C.

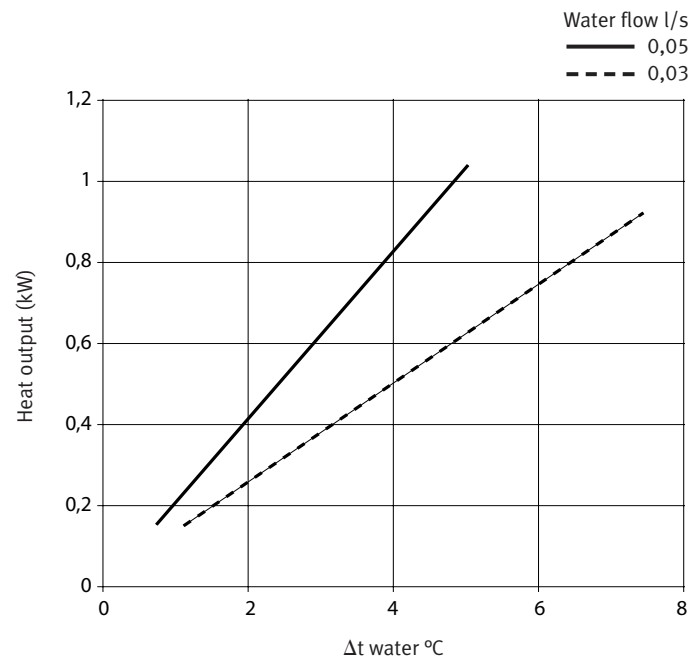
Example:

$t_{\text{water, flow}} = 55^\circ\text{C}$, $Q_{\text{water}} = 0,05 \text{ l/s}$

$Q_{\text{air}} = 70 \text{ l/s}$

→ $\Phi = 1 \text{ kW}$ & $t_{\text{air, return}} = 24^\circ\text{C}$

→ $\Delta t_{\text{air}} = 12^\circ\text{C}$



Example:

$\Phi = 1 \text{ kW}$

→ $\Delta t_{\text{water}} = 5^\circ\text{C}$

→ $t_{\text{water, return}} = 55 - 5 = 50^\circ\text{C}$



HUMIDITY CONTROLLER

A humidity sensor can be connected to the standard control panel which will switch the unit to maximum speed when the relative humidity is above the desired level.

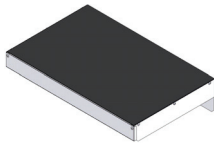
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RJ 45 CABLE

RJ45 cable, white, 12 metres, male plugs both ends, straight connection.

Dantherm No. 032985



CONDENSATION PREVENTING PLATE - WALL SUSPENSION

Prevents condensation/moisture entering the ceiling construction via ducting holes.

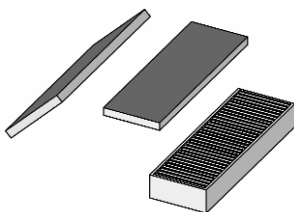
Dantherm No. 035484



CEILING SUSPENSION AND CONDENSATION PREVENTING PLATE

The condensation preventing plate prevents moisture from entering the ceiling construction via ducting holes.

Dantherm No. 036422



PANEL FILTER PACK 3X3

To ensure optimal performance of the unit filters should be changed regularly. The filter pack contains nine filters (three pos. F7 and six pos. G3).

Dantherm No. 032798