

TECHNICAL INFORMATION
HCV 300 / HCV 500 / HCV 700
Home ventilation unit for wall installation



Dantherm[®]
CONTROL YOUR CLIMATE

HCV 300-500-700

Home ventilation

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GENERAL DESCRIPTION



HCV 300



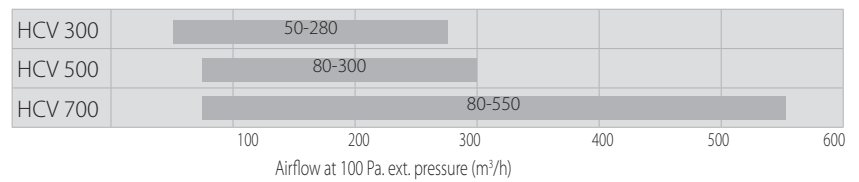
HCV 300-500-700 range

The HCV 300-500-700 home ventilation units are primarily designed for 1 and 2 family houses. The units are supplied as packaged basic ventilation units complete with built-in control panel, and includes needed parts for wall installation.

A wide range of additional accessories, internally as well as externally fitted, are available in order to cover any specific need for ventilation.

The home ventilation units are fitted with highly efficient aluminium counter-flow heat exchangers, which are optimized to a high efficiency level thus achieving a low power consumption (SPL value) for the entire unit.

For a quick selection you can use the selection chart below. The selection chart shows the air volumes at a max. pressure loss



Model range

The HCV home ventilation units are vertical models designed for wall-mounting. They fulfill ventilation requirements of houses up to 450 m² or more, depending on national requirements and the actual pressure loss in the installation.

The HCV 300 unit is perfect for concealed installation instead of a 60x60 cm cupboard modules, e.g. in a modern utility room environment, where everything is hidden behind doors. All ducts are connected to the top of the unit. On the HCV 300 it is also possible to connect the supply duct to the base if ducts are to run beneath the floor.

The HCV 500-700 are ideal for free wall installation with minimum 700 mm. space. A standard wall rail is supplied with the HCV 300 and HCV 500, and a larger adjustable wall console is supplied with the HCV 700.

All units are equipped with easy-access filter slots behind the upper front cover. In an opening in the front cover you find the control panel with LED light indicators.

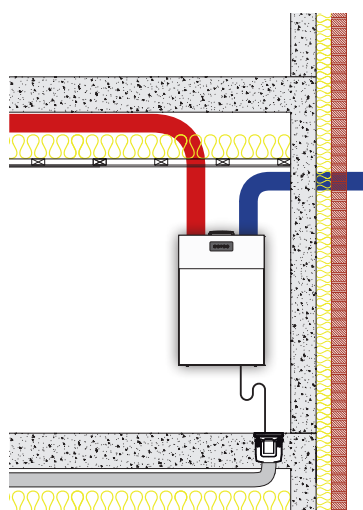
Cabinet

The HCV series are made from expanded polystyrene (EPS) components with a minimum wall thickness of 32 mm. This insulation thickness allows the units to be placed in rooms with temperatures as low as +12°C.

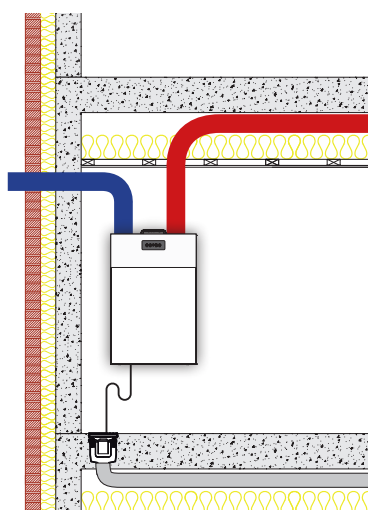
The entire EPS body is clad in 0.8 mm Aluzink coated sheet metal, painted in RAL 9016.

The HCV series complies with European fire safety requirements as specified in EN 13501 class E.

The leakage rate of the unit (internal and external) is <2% as specified in EN13141-7 leakage class A1.



Left setup (A)



Right setup (B)

Duct connections

By default the inside duct connections are placed on the left of the top cover plate on the unit. The unit can be electronically swapped, interchanging the duct connections, so that the inside air duct connection changes to the right hand side of the top cover plate.

This swapping functionality allows the unit to be mounted with the outside ducts connected to either the right or the left hand side of the unit, covering all installation demands, with only one type unit.

Function

The unit will ventilate residential homes by extracting the inside humid air, and replacing it with fresh outside air, which has been heated with the heat energy of the extracted air. This results in efficient, residential ventilation with a low energy loss.

The air volume can be controlled by:

- Selecting a fixed fan speed from 0-4, and additionally a special boost mode.
- Demand mode, in which a built in sensor (VOC* or RH%) continuously adjusts the fan speed depending on any immediate demand, determined by the quality of the extracted air.
- Week timer program - the fan speed will increase or decrease according to an hourly time schedule, or specific demand.

When very humid inside air is extracted, the humidity will condensate inside the heat exchanger, and collected by the embedded drip tray. This water is drained from the unit with the enclosed hose, and disposed of to a nearby drainage.

*Please note that the VOC sensor is an accessory.



Filter change



RH% demand sensor

Key Features

- Demand mode in which a built-in RH sensor continuously adjusts the fan speed depending on any immediate demand, determined by the quality of the extracted air
- Time controlled ventilation level, based on built in 11 different pre-programmed week programs. This reduces power consumption at times with low ventilation demands.
- Summer mode, in which the supply fan is stopped, and any open window will supply cooler outside air, lowering the room temperature.
- Fireplace mode, creating a temporary inside overpressure, to enhance chimney functionality.
- High efficiency heat recovery – up to 95%
- EC fan motors with extremely low energy consumption (low SPI)
- Easy-to-install and commission solution with built-in air pressure spigots for easy calibration.
- Highly customizable units, by adding a high variety of internal as well as external accessories. See more in the accessory section.

Filters

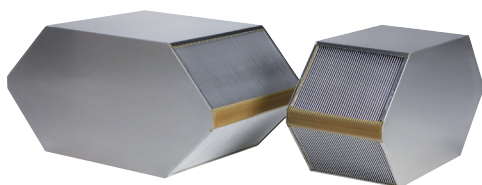
All models use 50 mm G4 cartridge filters as standard for both supply air and extract air. This will cater for the majority of air cleaning needs. The advantage of compact filters is that they have a considerably larger filter surface area than fibrous filters and small bag-filters. The filter thus works for longer and under normal conditions it will not need changing more often than twice a year, equivalent to the filter timer setting. If necessary, F7 filters (pollen filters) are available as accessories, which ensure that allergens do not enter the home through the ventilation system.

Fans

The entire HCV series uses the latest EC (Electromagnetic Commutation) fan motor technology. I.e., use of modern motors and fan rotors which offer the very best in air technology and electrical efficiency. Thanks to the EC technology the bearings are the only moving parts to produce resistance and therefore the lifetime of these fans is approx. 10 years when mounted in a home ventilation unit. The fans are powered by 230V AC and the stepless speed control is facilitated by means of a 0-10 V signal from the control panel of the ventilation unit.

RH% demand sensor (included in the Energy Efficiency Class A+ kit)

The home ventilation unit can be fitted with a humidity sensor (RH%). This sensor will continuously monitor the humidity of the extract air and adjust the air flow level accordingly. This operation is named demand mode. If a wireless remote control is connected, the level will be shown in the display using a 3 level icon. Using demand mode will result in the correct level of ventilation with lowest possible electrical power consumption. If both VOC and RH% sensors are fitted, the ventilation level is set by the highest demand from just any one of the sensors.



Heat Exchanger

Heat Exchanger

Heat recovery takes place in a highly efficient counterflow heat exchanger made of aluminium, customised by Dantherm to achieve optimum efficiency with the least possible loss of pressure in connection with the low air volumes used in housing.

Bypass cooling**Automatic bypass function**

The HCV home ventilation units are fitted with a bypass module as a standard, that is regulated automatically and exploits the colder outdoor air to cool down the home, e.g. after a hot summer's day, when the outdoor night time temperature falls below the temperature of the house. The bypass module leads all the hot exhaust air past the heat exchanger in order to achieve the best possible cooling effect. In order for the unit automatically to open the bypass module, the hot extract temperature (T3) must be $\geq 24^{\circ}\text{C}^*$, and the outdoor air (T1) $\geq 15^{\circ}\text{C}^*$. The outdoor air (T1) must also be 2°C colder than the hot extract temperature (T3).

*These factory settings can be adjusted from the remote control or the PC tool.

Manual bypass function

In addition to the system providing cooling by means of the automatic bypass function, there is also a manual bypass function which can be activated by the user whenever required from any of the control interfaces. This provides bypass cooling for 6 hours, provided that the extract temperature (T3) is $\geq 15^{\circ}\text{C}$, the outdoor temperature (T1) is above 2°C and the outdoor air is minimum 2°C cooler than the warm extract temperature, (T3).

Frost protection of the heat exchanger

The intelligent control system of the HCV systems ensures that the heat exchanger does not ice up. Frost protection is activated if the exhaust air temperature (T4) is $< +2^{\circ}\text{C}$, which will usually occur when the outdoor air temperature (T1) falls below approx. -3°C .

When the exhaust temperature (T4) falls to $+2^{\circ}\text{C}$, the system reduces the volume of supply air (T2) so that the final exhaust temperature (T4) is maintained at minimum $+2^{\circ}\text{C}$. If it is particularly cold, the supply air volume will be turned down to $0\text{ m}^3/\text{h}$ for short intervals in order to keep the heat exchanger frost-free. If the outdoor air (T1) is lower than -13°C for a longer period (more than 4 minutes), the unit will be stopped for 30 minutes to prevent icing.

In areas where the outdoor temperatures are often lower than -6°C , we recommend to mount pre-heating. In other areas, where the outdoor temperature may fall below -10°C , preheating is a must for obtaining a balanced and reliable solution.



Calibration using Windows™



Calibration using control panel



Filter timer reset

Installation

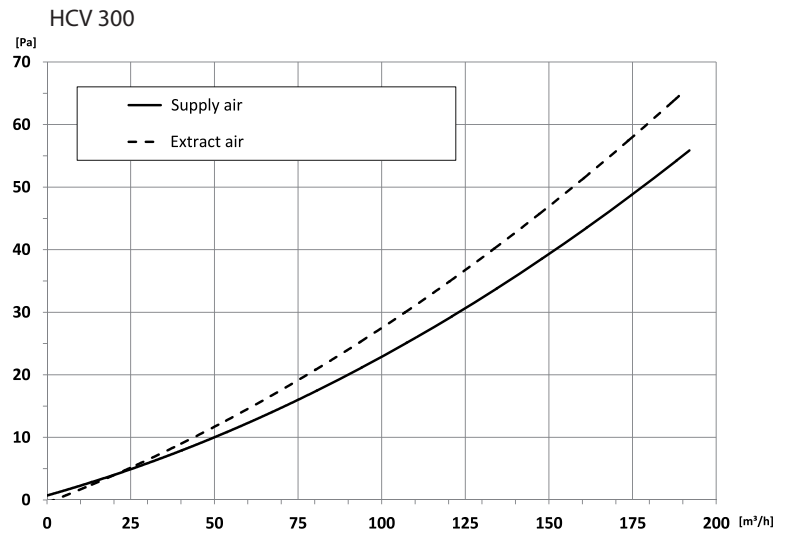
After installation of the unit, ducts and condensate hose, the unit needs to be calibrated to the specific environment.

Measurements of air volumes are carried out via built-in air pressure ports.

Appropriate initial adjustments are performed directly on the control panel OR through a Windows application, on a computer connected to the unit via a USB connection.

An air performance graph is adhered to the front cover, showing the pressure and air volumes the installer must use to determine the correct fan speeds.

(See example below)



Maintenance

In general, the only regular maintenance required by the HCV home ventilation units, is to check/change the air filters twice a year, when the alarm sounds from the unit, or flashes on any connected remote control.

The user changes the filter by opening the filter cover, changing the filters and resetting the filter timer on the built-in control panel.

Apart from changing the air filters and cleaning the outside of the unit, any other form of service will have to be carried out by qualified personnel.

Local Dantherm technicians and Dantherm partners are always available to solve any problem with the unit that might arise.

Any kind of service, user or installer, is done by removing the front cover only.



Embedded controller

CONTROL

Controller

The unit's main controller measures and adjusts all parameters continuously in order to maintain a correct ventilation level, with the lowest possible energy consumption.

The controller has a wide range of connections, for both internal and external accessories.

For external connections you will find:

- Wired LAN interface, that supplies data communication to ModBus over TCP/IP. This is useful for connecting this unit range to external building management systems e.g. KNX.
- ModBus over RS485, solely used for the HAC accessory control.
- Antenna socket for the wireless remote control.
- 2 pcs. additional digital inputs, that can be programmed to signal specific events to the controller.

Please see the chapter "Accessories" for more details about the wide variety of options for internal accessories.

For the professional installer, this controller offers a USB connection, from which all settings and adjustments can be done safely, with the corresponding Windows™ application. This PC-tool can also display live as well as historical raw data, for all of the unit components, ensuring a high information knowledge in maintenance situations. The USB port offers firmware update option by means of the PC-tool.

The controller also has a "real time" error detection, which will protect any other component by terminating all operation, in case of malfunction.

Errorcodes provided are helpful in order to determine what spareparts to bring for a corrective maintenance.

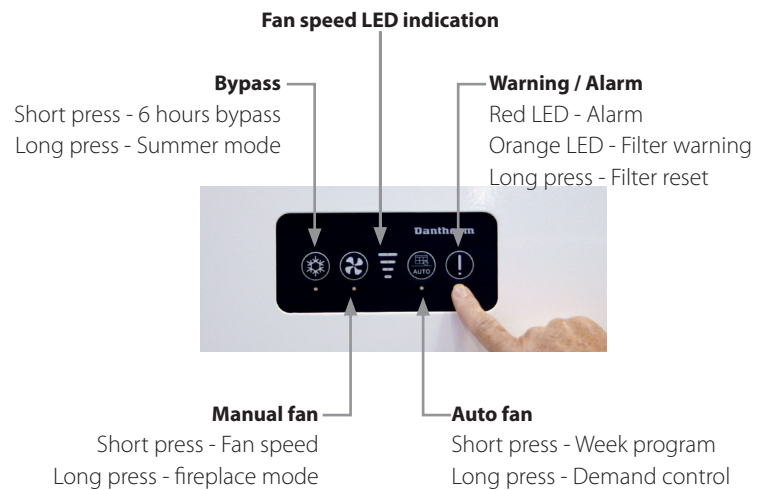
Control strategies

The installation is always secured against incorrect and uneconomical operation over a longer period. This is because several of the functions return to default after 4 hours. This prevents inconvenient excessive energy consumption if you forget that you have set the unit to full speed or manual bypass. If you switch off the installation it will automatically restart after 4 hours, so you can be sure that your home will be properly ventilated and that condensation will not form in the ducts or in the unit.

In emergency situations where there is a warning message about switching off ventilation systems and closing doors and windows, the supply current to the system must be interrupted by a safety switch or the like.

Control panel

The HCV unit has an built-in foil based control panel with four buttons for controls, and nine LED feedback signals.



Fan control

During initial calibration, fan speed no. 3 is set on the control panel to the nominal air volume the house requires under normal usage.

The correlation between the four fan speeds on the control panel is as follows:

- Fan speed 0 = both fans stopped for 4 hours.
- Fan speed 1 = 30 % lower than fan speed 2
- Fan speed 2 = 30 % lower than fan speed 3
- Fan speed 3 = Nominal air change, set by installer during the initial calibration.
- Fan speed 4 = 30% higher than fan speed 3 (4 hours time out)

When the installation is set to demand control, it never runs faster than the adjusted air volume at step 3. This avoids unnecessary inconvenience in special situations during which external factors would otherwise cause the installation to run at maximum air volume.

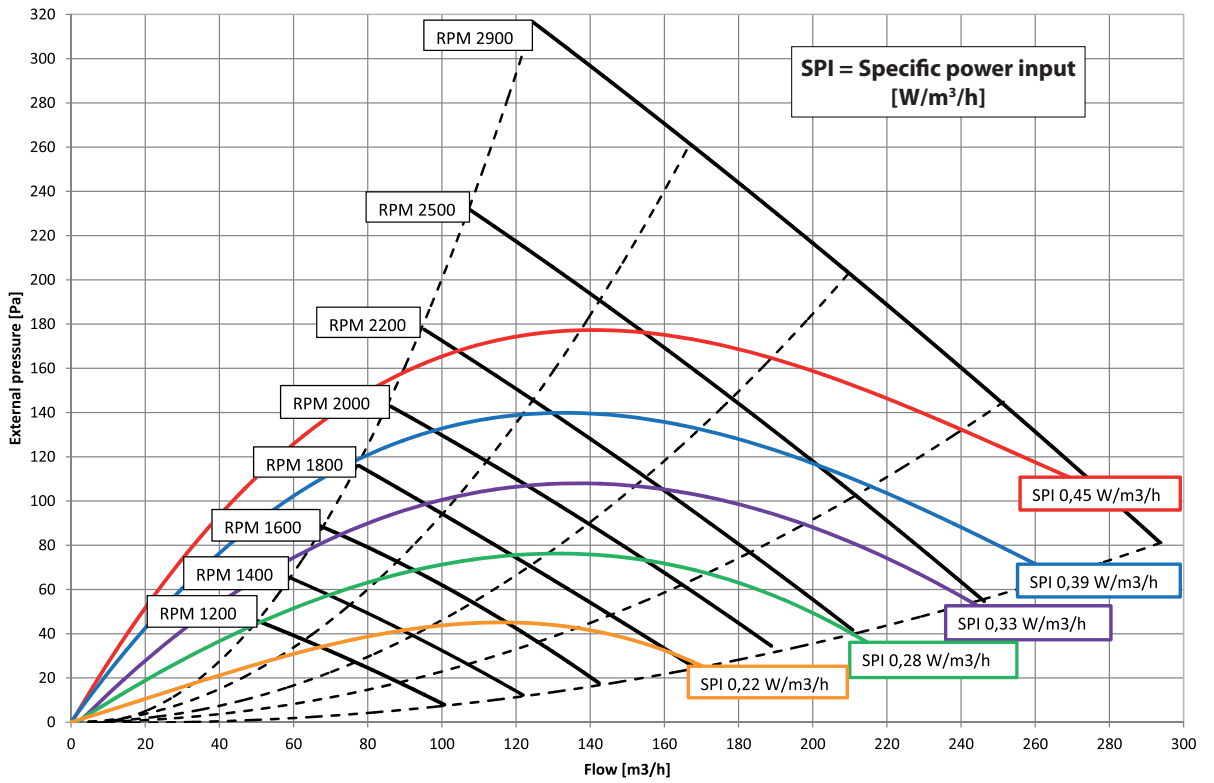
Filter control

Because filter pressure is expected to increase thus reducing air volumes during the period preceding a filter change, this is compensated for by the two fans running faster and faster, until the filter alarm sounds/lights up and the filter timer is reset.

TECHNICAL DATA

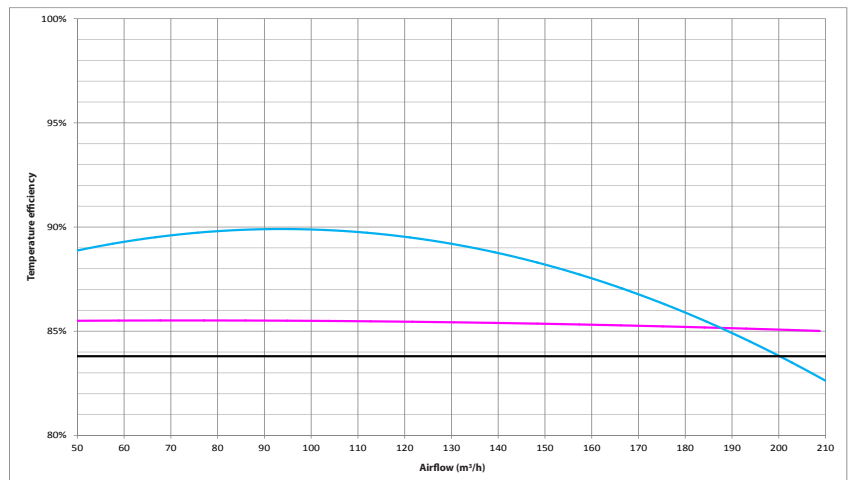
MODEL			HCV 300	HCV 500	HCV 700
SPECIFICATION					
Operating range (min. - max. @100Pa)		m ³ /h	50 to 280	80 to 300	80 to 550
PERFORMANCE					
Efficiency EN13141-7 dry	η_{SUP}	%	86	86	85
Cabinet sound pressure / cabinet sound power	LpA /LwA	dB(A)	46/51 @ 140 m ³ /h; 100Pa	46/51 @ 230 m ³ /h; 100Pa	53/58 @ 350 m ³ /h; 100Pa
Sound power - ducts (extract/supply)	LwA	dB(A)	58/52 @ 140 m ³ /h; 100Pa	61/55 @ 230 m ³ /h; 100Pa	64/59 @ 350 m ³ /h; 100Pa
Filters according to EN779 (extract/outdoor)	class	-	G4/G4 (F7 option)		
Installation surrounding temperature		°C	+12 to +50		
Outdoor temperature without preheater installed	t _{ODA}	°C	-12 to +50		
Outdoor temperature with preheater installed	t _{ODA}	°C	-25 to +50		
Max. absolute humidity in extract air	RH	g/kg	10		
CABINET					
Dimensions (without bracket)	WxHxD	mm	600 x 1000 x 430	700 x 1050 x 603	700 x 1050 x 750
Ducts	Ø	mm	125 - female	160 - female	200 - female
Weight		kg	36	49,5	70
Heat conductivity of the polystyrene insulation	λ	W/(mK)	0,031		
Heat transfer coefficient of the polystyrene insulation	U	W/(m ² K)	<1		
Fire classification of the polystyrene insulation	class	-	DIN 4102-1 class B2; EN 13501 class E		
Drainage hose included	Ø/length	" / m	3/4" - 1m		
Cabinet colour	RAL	-	9016		
ELECTRICAL					
Voltage		V	230		
Max. power consumption		W	170/870	170/1370	234/1834
Frequency		Hz	50		
IP-class	class	-	21		

HCV 300 capacity and SPI curves



HVC 300 temperature efficiency curves

- Temperature ratio acc. to EN 13141-7
Balanced flow
Outdoor air: 7°C / RH 85%
Extract air: 20°C / RH 38%
- Temperature ratio acc. to EN 13141-7 with condensate
Balanced flow
Outdoor air: 2°C / RH 80%
Extract air: 20°C / RH 60%
- Temperature ratio (PassivHaus)
Balanced flow
Outdoor air: 4°C / RH 75%
Extract air: 21°C / RH 30%

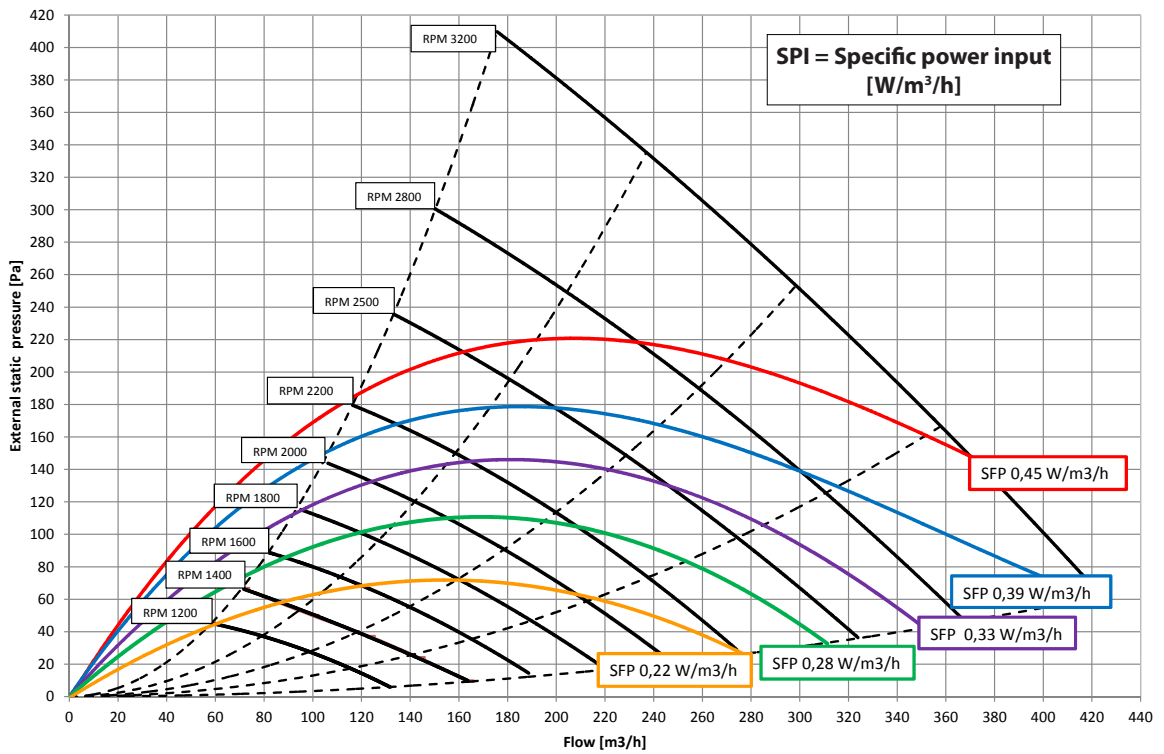


HCV 300 Sound Data

Air volume m ³ /h	Pressure Pa	Operational point	Frequency band sound power Lw(A)								Sound pressure Standard room* Lp(A) dB(A)
			dB(A)								
			63Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	8000Hz	
140	100	Supply air	45	48	49	51	46	42	32	26	46
		Extract air	47	51	60	59	48	46	39	34	
		Kabinet	22	38	46	47	44	38	25	19	

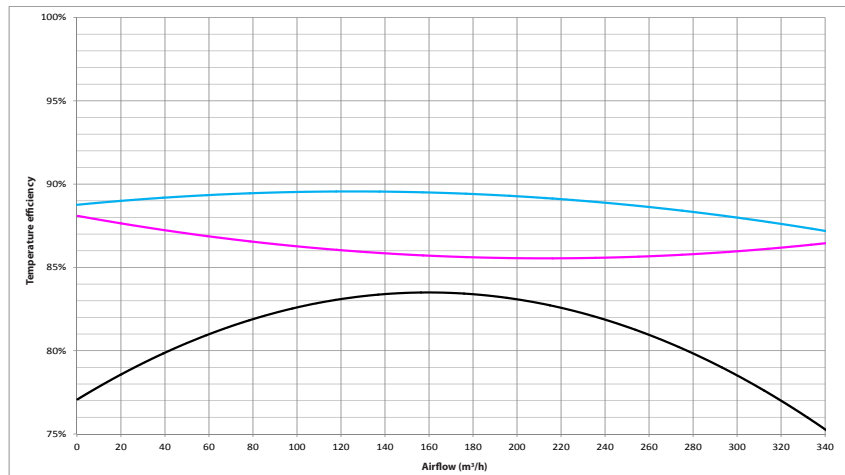
*Standard room = room with 10m² floor, 2,4m ceiling height, mean adsorption 0,2

HCV 500 capacity and SPI curves



HCV 500 temperature efficiency curves

- Temperature ratio acc. to EN 13141-7
Balanced flow
Outdoor air: 7°C / RH 88%
Extract air: 20°C / RH 38%
- Temperature ratio acc. to EN 13141-7 with condensate
Balanced flow
Outdoor air: 2°C / RH 87%
Extract air: 20°C / RH 60%
- Temperature ratio (PassivHaus)
Balanced flow
Outdoor air: 4°C / RH 75%
Extract air: 21°C / RH 26%

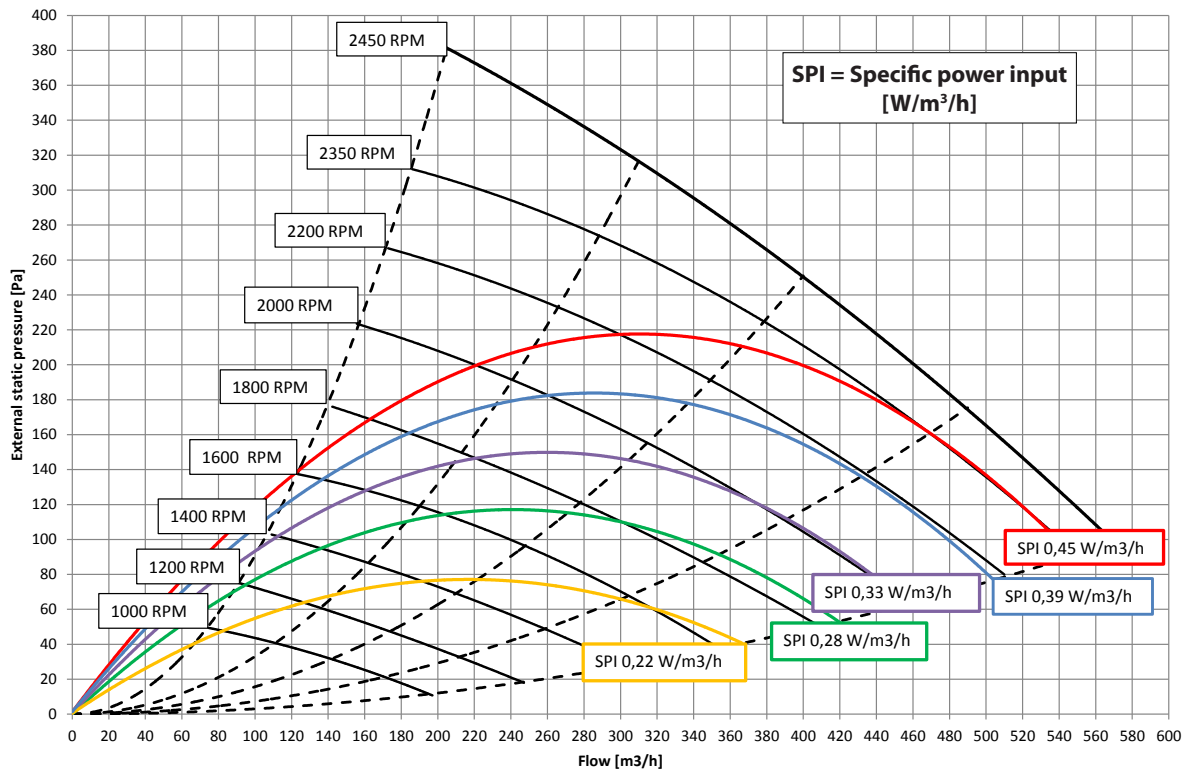


HCV 500 Sound Data

Air volume m³/h	Pressure Pa	Operational point	Frequency band sound power Lw(A)								Total sound power L _w (A)	Sound pressure Standard room* Lp(A)
			dB(A)									
			63Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	8000Hz	dB(A)	dB(A)
230	100	Supply air	41	44	52	49	42	37	29	22	55	46
		Extract air	49	50	59	54	46	44	37	27	61	
		Kabinet	30	41	46	48	42	37	25	19	51	

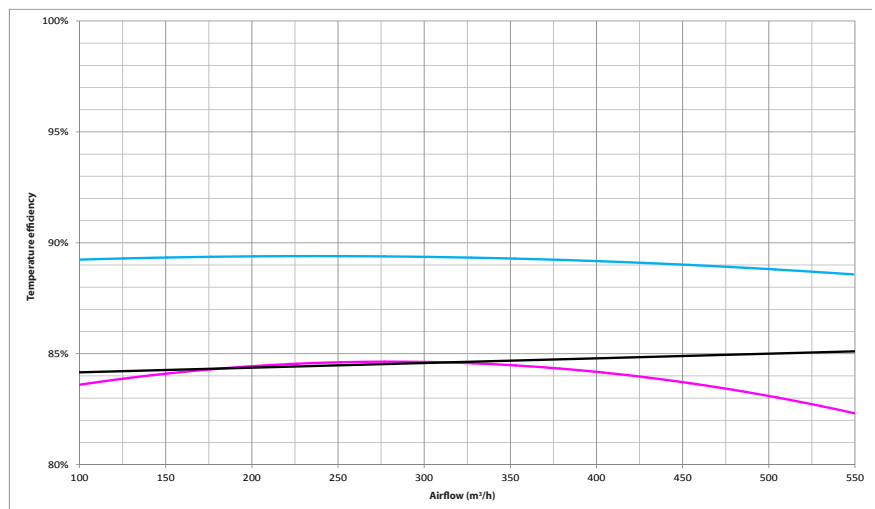
*Standard room = room with 10m² floor, 2,4m ceiling height, mean adsorption 0,2

HCV 700 capacity and SPI curves



HCV 700 temperature efficiency curves

- Temperature ratio acc. to EN 13141-7
 Balanced flow
 Outdoor air: 7°C / RH 85%
 Extract air: 20°C / RH 37%
- Temperature ratio acc. to EN 13141-7 with condensate
 Balanced flow
 Outdoor air: 2°C / RH 87%
 Extract air: 20°C / RH 60%
- Temperature ratio (PassivHaus)
 Balanced flow
 Outdoor air: 4°C / RH 90%
 Extract air: 21°C / RH 30%



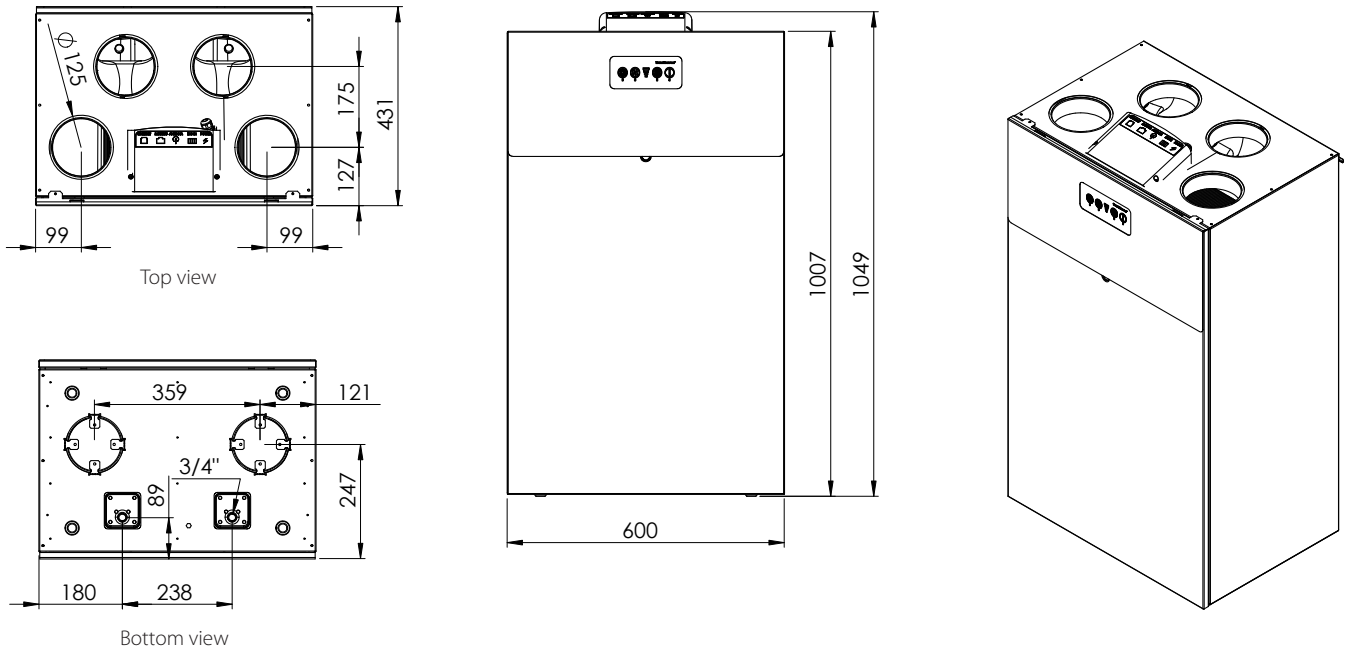
HCV 700 Sound Data

Air volume m ³ /h	Pressure Pa	Operational point	Frequency band sound power Lw(A)								Sound pressure Standard room* Lp(A) dB(A)
			dB(A)								
			63Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	8000Hz	
350	100	Supply air	54	55	64	57	53	45	35	27	53
		Extract air	63	62	68	63	56	52	44	34	
		Kabinet	36	45	55	52	50	43	28	20	

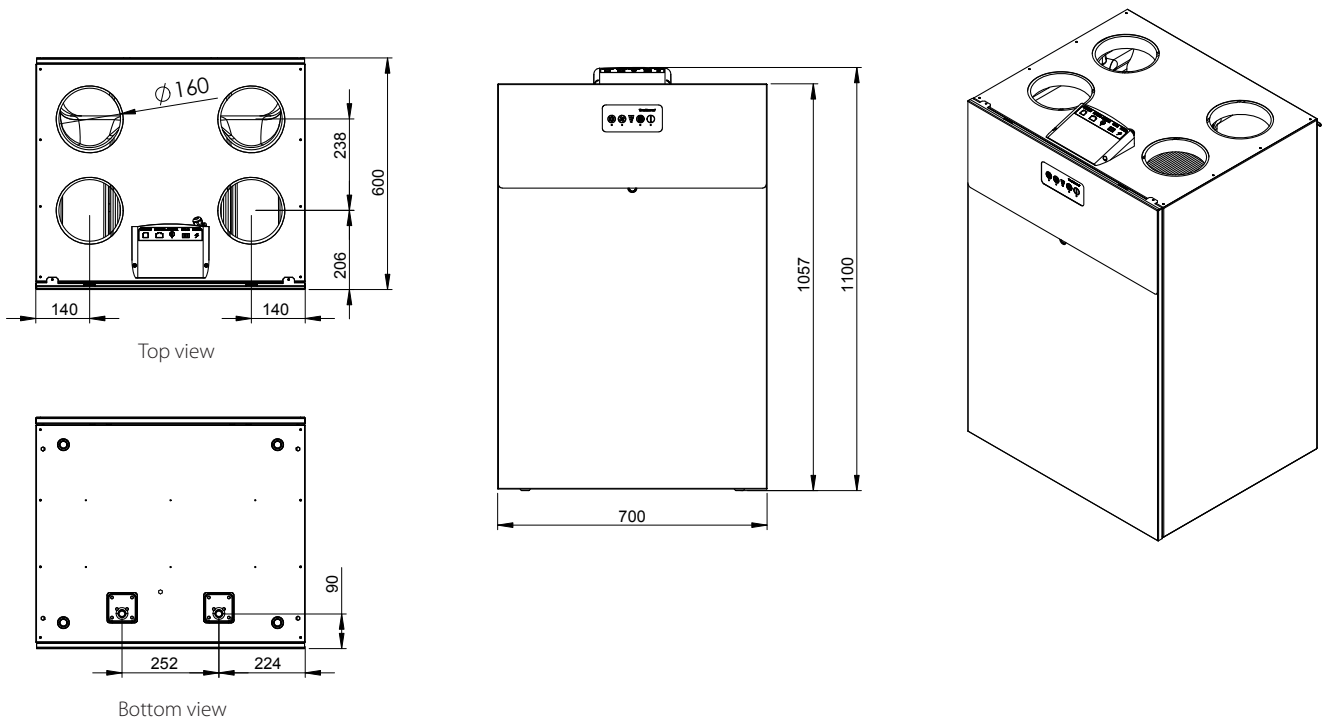
*Standard room = room with 10m² floor, 2,4m ceiling height, mean adsorption 0,2

HCV 300 dimensions

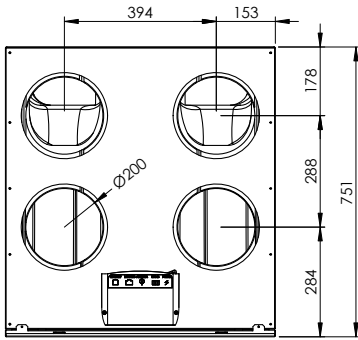
On the HCV 300 it is possible to connect the supply duct to the bottom if the ducts are to run beneath the floor.



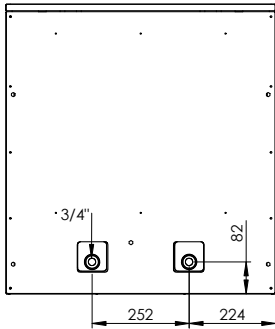
HCV 500 dimensioner



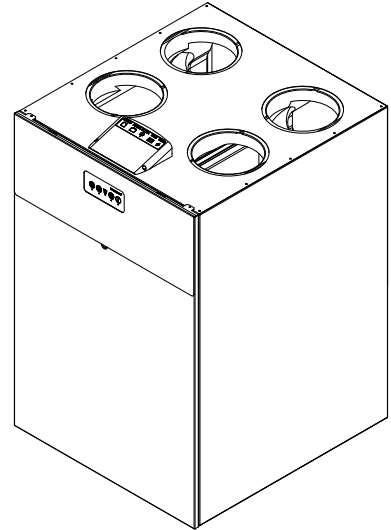
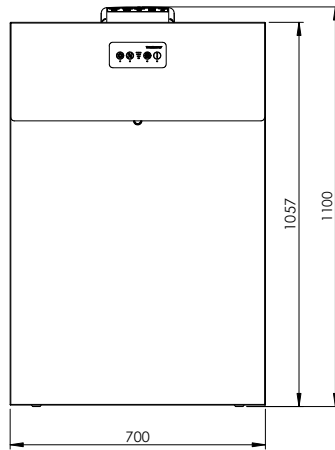
HCV 700 dimensions

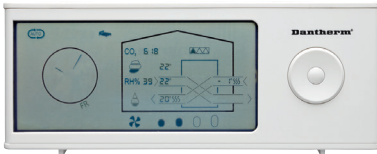


Top view



Bottom view





Wireless remote control

ACCESSORIES

Wireless remote control

Dantherm offers an LCD based wireless remote control, designed either to be mounted on the wall, or to be placed standing on a table or cabinet.

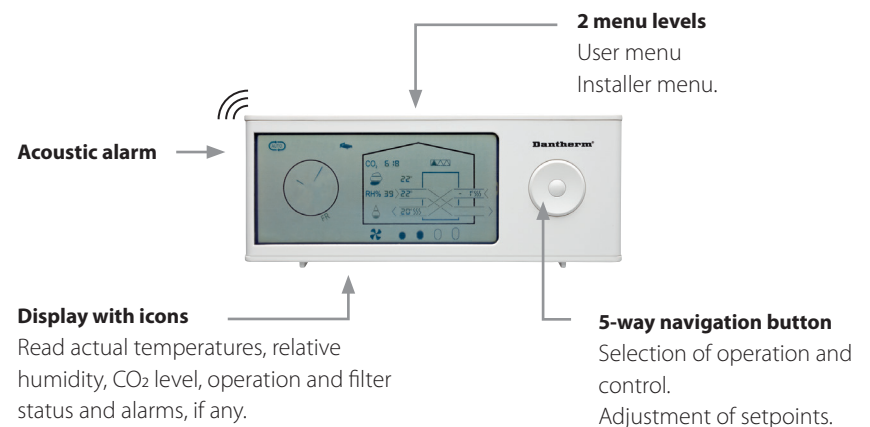
This remote control is designed for the user, but also includes a special installer menu, where it is possible for the installer to do extensive settings, without the use of the PC-tool.

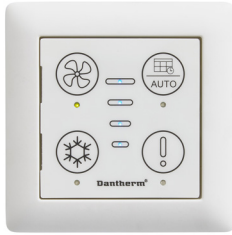
The user features are:

- Fan speed in manual mode
- Select demand mode
- Select week mode, as well as selecting week program 1-11
- Summer mode, in which the supply fan is shut down.
- Manually activated by-pass. Will close automatically
- Enable fireplace boost mode. 4 minutes with overpressure inside the house, for easy ignition of a fireplace
- Enable/disable away mode, in which the unit decreases permanently to speed 1 Auto off after 4 weeks
- Enable/disable night mode, in which the unit increases to fan speed 1
- The hour for enable/disable can be adjusted with appropriate control accessory
- Filter timer reset
- Reading air temperatures in all four duct connections, including the remote controls embedded temperature sensor
- Setting time and date

The remote control has an acoustic alarm, that will sound when filter needs to be inspected or replaced. This insures correct maintenance even when the unit is set to demand mode, and regular attention is not towards the remote control.

The wireless remote control uses 2 AAA alkaline batteries. Battery lifetime up to 2 years is possible, as the display and remote goes into hibernation mode after 2 minutes without user interaction.





Wired control

Wired control (HCP 10)

Dantherm offers a prewired control unit, which is connected to the ventilation unit with a 6 m cable. The wired control comes with a white plastic frame and a metal frame for fastening into a standard junction box. Alternatively Dantherm can supply a box for fixing to the wall in an appropriate place.

The HCP 10 wired control gives the user the following possibilities :

- ▶ Manual control of air change (step 0-4)
- ▶ Control of air change with week program
- ▶ Demand controlled air change (when RH and VOC sensors are connected)
- ▶ Enable summer mode (only extract air)
- ▶ Enable manual bypass
- ▶ Enable fireplace mode
- ▶ Reading and resetting of alarms, including filter alarm.

The wired HCP 10 control offers to the installer the possibility of adjusting the air volumes during commissioning without using Dantherm's PC Tool.



Hygrostat

Hygrostat, Sauter HSC 120 F001

The hygrostat is connected to the accessory control in case that a higher air change rate is required in rooms with high humidity.



Power supply

Power supply 230VAC – 24VDC, for duct control

Power supply to be mounted in the accessory control if the ventilation unit controls a duct damper.



CO₂ sensor

CO₂ sensor

The CO₂ sensor is connected to the accessory control if the air change has to be controlled in accordance with the CO₂ level in a given room.



USB cable, 3 m



PC Tool Kit



VOC air quality demand sensor



Accessory control HAC 2

USB cable, 3 m

USB cable to be used in connection with software update and Dantherm PC Tool (HPT 1).

Dantherm PC Tool Kit (HPT 1)

The PC Tool Kit contains a USB plug with program and quick guide + USB cable. The Dantherm PC Tool has an installer menu, where the installer can adjust the unit, connect extra accessories, adjust various user settings, read and reset alarms, if any.

It also has a user menu, where the user can read and adjust various settings, such as week programs, set points, alarms and historical data about temperatures and air quality (accessory).

VOC air quality demand sensor

The unit can be fitted with a VOC air quality sensor.

This sensor will continuously monitor the level of artificial as well as natural organic fumes in the air. Examples of included fumes:

- ▶ Natural fumes, e.g. formaldehyde from building materials.
- ▶ Chemical fumes from sprays, e.g. hair spray or perfumes.
- ▶ Indoor pollution e.g. from smoking and printing with laser printer.
- ▶ Fumes from fire retardant substances in carpets, paint and furniture.

Using the VOC sensor in demand mode will result in the correct level of ventilation with lowest possible electrical power consumption. If a wireless remote control is connected, the actual VOC level will be shown in the display using a 3 level icon. If both VOC and HR sensors are connected, the ventilation will be adjusted after the highest registered value.

Accessory control HAC 2

One or more of the following functions can be connected to the accessory control:

- ▶ After heating coils for water or electricity
- ▶ Geothermal preheating/precooling coils
- ▶ 24 VDC duct damper outlet
- ▶ Stop function inlet
- ▶ Fire/smoke detector inlet
- ▶ External CO₂ sensor for demand control
- ▶ External hygrostat
- ▶ Filter alarm outlet
- ▶ General alarm

HAC 2 comes with 3 m cable.



Built-in electric heating coil



Circular electric duct heater,
0-10 V



Circular electric duct heater,
direct control

Built-in electric heating coil

The electric heating coil protects the heat exchanger against icing up at low temperatures and ensures balanced ventilation down to approx. -15°C. The heating coil can be mounted inside the cabinet and is connected directly on the unit. It is controlled by the embedded controller. No accessory control is needed.

Circular electric duct heaters for reheating of supply air

The electric duct heaters are designed for installation in the supply air duct. The duct heater is provided with duct connections with a rubber sealing gasket. The duct heater is not suitable for outdoor installation. The control current is connected to the accessory control HAC 2. Connection to supply voltage 230V is made separately.

The duct heater is controlled by a stepless regulation via the accessory control HAC 2.

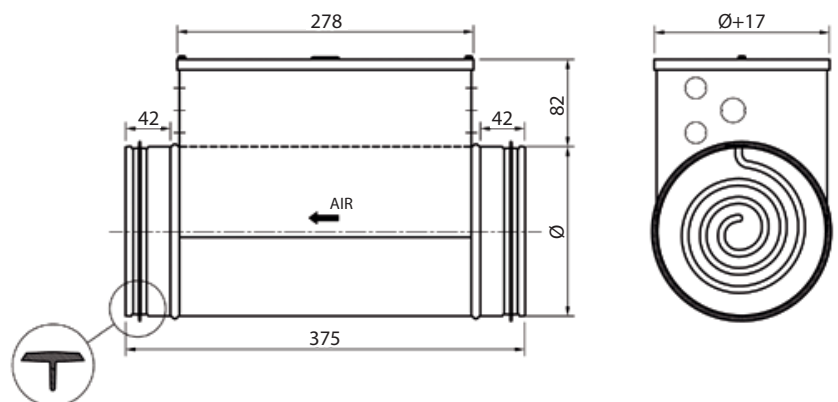
Circular electric duct heater, direct control by the built-in thermostat

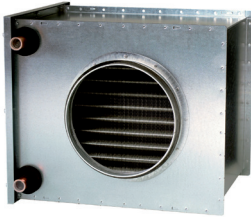
This duct heater is controlled by the built-in thermostat. Both heaters are supplied with a duct sensor.

Capacity, dimensions and weight

The duct heaters are un-finned and therefore the resulting air pressure loss is negligible.

		HCV 300	HCV 500	HCV 700
Air volume	m ³ /h	180	300	450
Heat output	kW	0,9	1,2	1,8
Temperature rise	°C	16,8	14,2	13,4
Power consumption, 1x230V	A	4.1	5,5	8,2
Duct connection	Ø mm	125	160	250
Weight	Kg	3.0	3,5	5,0





Water heating coil



Servo motor



2-way water valve



230/24 V AC trafo

Water heating coils

The water heating coil kit includes 2RR, 2-way water valve, 0-10V servo motor, 230/24VAC trafo, duct sensor and tube sensor for frost protection. It is controlled by the accessory control HAC 2.

HCV 300 (CWW 125-2-2.5)		Max. capacity						Supply air temperature 21°C					
		80°C/60°C			60°C/40°C			80°C/60°C			60°C/40°C		
Air volume	m ³ /h	85	150	215	85	150	215	85	150	215	85	150	215
Air temp. out*	°C	40	36	34	28	25	23	21	21	21	21	21	21
Pressure loss	Pa	11	28	51	11	28	51	11	28	51	11	28	51
Capacity	kW	0,7	1,1	1,4	0,4	0,5	0,6	0,2	0,3	0,5	0,2	0,3	0,5
Water flow	L/h	36	36	72	36	36	36	9	10	23	17	22	28
Pressure loss, max.	KPa	0,5	0,5	1	0,5	0,5	0,5	0,2	0,2	0,4	0,3	0,4	0,5

HCV 500/HCV 700 (CWW 160-2-2.5)**		Max. capacity						Supply air temperature 21°C					
		80°C/60°C			60°C/40°C			80°C/60°C			60°C/40°C		
Air volume	m ³ /h	145	250	355	145	250	355	145	250	355	145	250	355
Air temp. out*	°C	47	43	40	33	31	29	21	21	21	21	21	21
Pressure loss	Pa	6	15	27	6	15	27	6	15	27	6	15	27
Capacity	kW	1,6	2,4	3,0	0,9	1,3	1,7	0,3	0,5	0,7	0,3	0,5	0,7
Water flow	L/h	72	108	144	36	72	72	14	24	35	12	28	30
Pressure loss, max.	KPa	1	3	4	0,5	1	2	0,2	0,4	0,5	0,1	0,4	0,5

HCV 700 (CWW 250-2-2.5)***		Max. capacity				Supply air temperature 21°C			
		80°C/60°C		60°C/40°C		80°C/60°C		60°C/40°C	
Air volume	m ³ /h	360	630	360	630	360	630	360	630
Air temp. out*	°C	44	40	31	29	21	21	21	21
Pressure loss	Pa	10	25	10	25	10	25	10	25
Capacity	kW	3,6	5,3	2,0	3,0	0,74	1,29	0,74	1,28
Water flow	L/h	144	252	108	144	30	61	40	61
Pressure loss, max.	KPa	1	3	1	2	0,5	1,0	0,7	1,0

*Air in 15°C

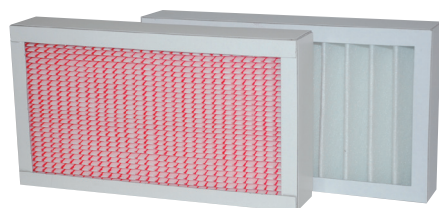
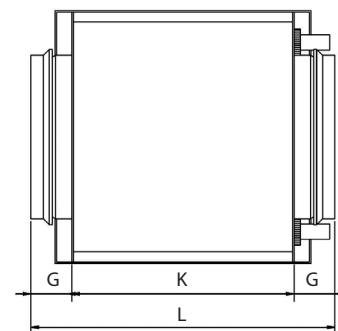
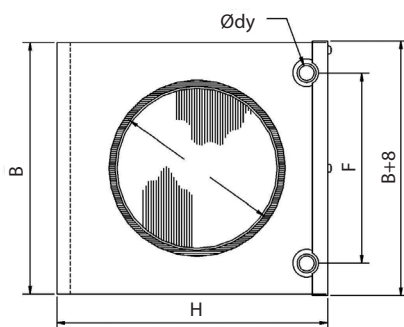
** Please be aware that this heater coil has 160 mm duct connections, so 2 pcs of Ø160/200 mm duct reduction parts are needed for installation with a HCV 700 (Ø200).

*** Please be aware that this heater coil has 250 mm duct connections, so 2 pcs of Ø200/250 mm duct reduction parts are needed for installation with a HCV 700 (Ø200).

Water heating coils (continued)

Dimensions and weight

	Ød	B	H	Ødy	F	G	K	L	Weight
	mm								
HCV 300 (CWW 125-2-2.5)	125	238	180	10	137	40	276	356	3,5
HCV 500 (CWW 160-2-2.5)	160	313	255	10	212	40	276	356	5,4
HCV 700 (CWW 250-2-2.5)	250	398	330	10	250	40	276	356	7,7



Panel filters

Panel filters are supplied as a set with either two G4 filters or one G4 filter and one F7 filter. G4 is standard. F7 filters can be used on the supply air as a pollen filter.

ABOUT THE DANTHERM GROUP

Control your climate

The Dantherm Group is a leading provider of climate control products and solutions. The group companies have more than 60 years of experience in designing and manufacturing high quality and energy efficient equipment for heating, cooling, drying and ventilation for a wide range of mobile and fixed applications.

Every year Dantherm Group uses significant resources on product development to stay in the forefront and are constantly adapting the products to changing market demands and legislation.

The Dantherm Group has a number of strong brands with well established market positions in the mobile, pool, commercial/industrial and residential markets.

Dantherm Group customers benefit from our comprehensive knowledge base and the experience and expertise that we have gained from more than three million climate control products and solutions sold worldwide.

Global reach

The Dantherm Group is headquartered in Skive, Denmark and has an own market presence in Norway, Sweden, United Kingdom, Germany, Switzerland, Italy, Spain, Poland, Russia, China and United Arab Emirates.

In 2016 the Dantherm Group was acquired by the Swedish equity fund Procuritas Capital Investors V LP – a strong owner with the ambition to continue the development and growth of the company.

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