CEILING AND WALL-MOUNTED

HCC RANGE

When very humid inside air is extracted, the humidity will condensate inside the heat exchanger, and be collected by the embedded drip tray. This water is drained from the unit through the enclosed hose and then disposed of in the nearest drainage.

Mirroring all duct connections

The air flow direction can be electronically swapped, providing ability to route the connected ducts, either to the right or to the left. This means that the supply air duct connections can be either to the right or to the left hand side of the unit. (Supply air and extract air duct connections always towards the inside of the house and outside air and exhaust air ducts always towards the outside of the house).

All electrical cables can be connected from either the left or the right hand side, regardless of fan direction.

Filters

Requiring no tools, users can change the filter on their own and then reset the filter timer using the standard filter resetting button (HCC 260 and HCC 360) or the optional HCP 11 wired control. If no controls are available, the filter is to be changed by an installer with the appropriate PC Tool on his laptop for resetting the filter timer.

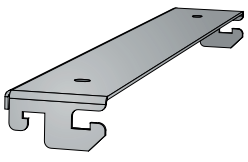
Apart from changing the air filters and cleaning the outside of the unit, any other form of service will have to be carried out by qualified personnel. Local Dantherm technicians and Dantherm partners are always available to solve any problem with the unit that might arise.

Removing the front cover gives access to all types of service and repair.

Installation parts

The enclosed mounting bracket is designed to conduct a safe installation process, and is suitable for both wall and ceiling installation.

The mounting bracket will tilt the unit slightly towards the drainage spigot, ensuring correct drainage of any condensed water inside the unit when used for ceiling installation. It will also offer a easy wall installation process.

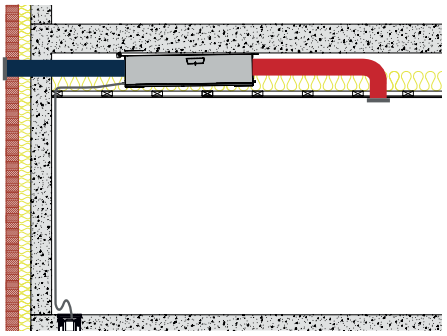


UNIVERSAL MOUNTING BRACKET

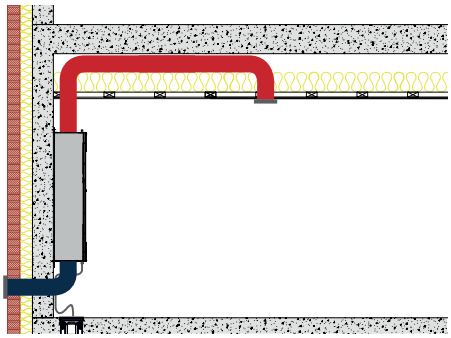
FILTER CHANGE

ILLUSTRATION OF DUCT CONNECTIONS IN FAN DIRECTION MODE A

ILLUSTRATION OF DUCT CONNECTIONS IN FAN DIRECTION MODE B



HCC 2 IN SUSPENDED CEILING



HCC 2 ON WALL

CEILING AND WALL-MOUNTED

HCC 2PLA

The HCC 2 is a unique and flexible residential ventilation solution. With only 30cm installation headroom it is ideal for installation in suspended ceilings or onto a wall, even hidden inside a closet. The unit can be electronically reversed, meaning that both air flows will be reversed. This allows the same unit type to be mounted with the inside/outside ducts connected to either the right or the left hand side of the unit. Electrical connections can be connected from either the left or the right.

- High efficiency heat recovery – up to 94%
- EC fan motors with low energy consumption (low SPI)
- Only 300mm installation headroom height is required
- Time controlled ventilation level, based on 11 different built-in pre-programmed week programs, reducing power consumption in periods with low ventilation demands
- Summer cooling mode
- AAutomatic free-cooling features via inbuilt 100% bypass, including the possibility of increasing the air flow automatically, lets in cool night air following hot days to help maintain a comfortable temperature throughout the day
- Fireplace mode, creating a momentary inside overpressure, to enhance chimney functionality
- Easy-to-install and commissioning solution with built in air measure ports, for easy balancing with PC Tool
- Electronically left/right fan direction switching, allowing same unit type to adapt any physical installation requirements, regardless of ceiling and wall selection
- TCP/IP ModBus connection, for inter-operation with Building Management System
- Electrical connections can be connected from either the left or the right

Third party testing and certifications

Code	Description
PHI	Passivhaus certified
DIBt	Certified by the German Institute of Construction Technology
EPB	Listed in the database for Energy Performance of Buildings in Belgium
ErP	Compliant with EU regulations for Eco-design
Nordic Swan Ecolabel	Listed in the Nordic Swan database for products suitable for Ecolabelled buildings

CEILING AND WALL-MOUNTED

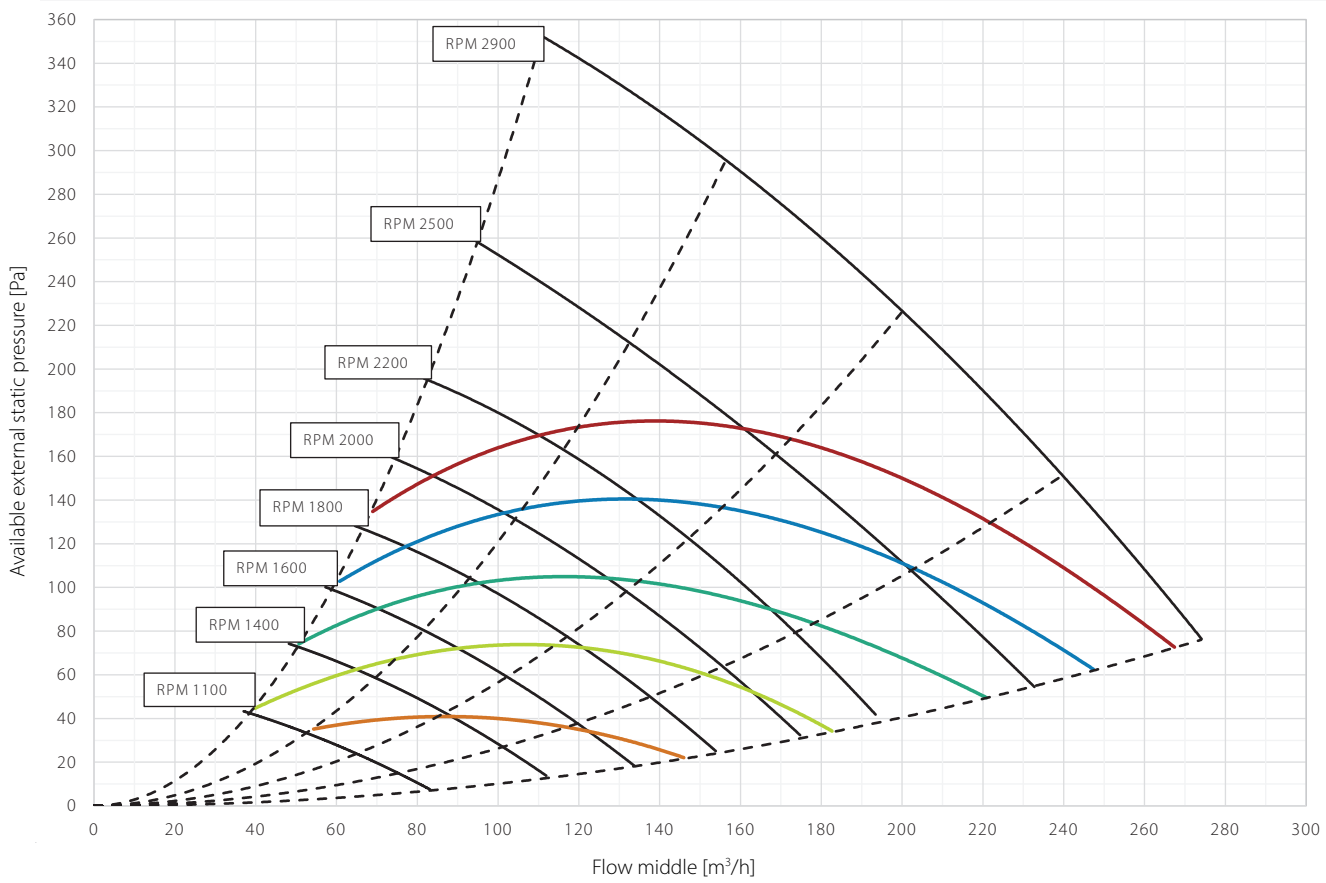
HCC 2PLA

TECHNICAL DATA

Specifications	Units		HCC 2PLA
Max. flow	V100Pa	m^3/h	260
Max. rated flow at 100Pa	Vmax.rated	m^3/h	180
Recommended operating range	V	m^3/h	50 - 180
Operating range DIBt	V_{DBIt}	m^3/h	70 to 140
Operating range Passivhaus at 100Pa	V_{PHI}	m^3/h	70 to 140
EN 13141-7 reference flow at 50Pa	V_{REF}	m^3/h	126
Performance			
Thermal efficiency DIBt	η_{DBIt}	%	93.8
Thermal efficiency Passivhaus	η_{PHI}	%	93
Thermal efficiency EN 13141-7 at reference flow	η_{EN}	%	94
Filters in accordance with ISO16890	-	-	ISO Coarse 75% (optional on supply: ePM1>50%)
Filters in accordance with EN779	-	-	G4 (optional on supply: F7)
Installation surrounding temperature range	t_{surr}	°C	+12 to +40
Maximum humidity in extract air at 25°C	RH	%	55
Outdoor temperature range without preheating installed	t_{ODA}	°C	-12* to +45
Outdoor temperature range with preheating installed	t_{ODA}	°C	-15 to +45
Cabinet			
Dimensions (without wall bracket)	w x d x h	mm	600 x 279 x 1122
Spigots/duct connections	Ø	mm	125 – female
Weight	m	kg	34
Heat conductivity – polystyrene insulation	λ	W/mK	0.031
Heat transfer coefficient – polystyrene insulation	U	W/m^2K	<1
Leakage (external and internal) according to EN 13141-7	class		<2% (Class A1)
Drainage hose (included)	Ø	"	1/2
Cabinet colour	RAL	-	9016
Fire classification of the polystyrene insulation	-	-	DIN 4102-1 class B2 EN 13501 class E
Electrical			
Voltage	U	V	230
Maximum power consumption (without/with preheater)	P	W	127/1,027
Frequency	f	Hz	50
Protection class	-	-	IP20

** In order to ensure balanced ventilation, preheater is recommended when outdoor temperature is below -3°C.*

CAPACITY AND SPI CURVES WITH G4/G4 FILTERS



SFP/SPI/SEL*	0.45 W/m³/h	0.39 W/m³/h	0.33 W/m³/h	0.28 W/m³/h	0.22 W/m³/h
	1620 J/m³	1400 J/m³	1200 J/m³	1000 J/m³	800 J/m³
	1.62 W/l/s	1.40 W/l/s	1.20 W/l/s	1.0 W/l/s	0.80 W/l/s

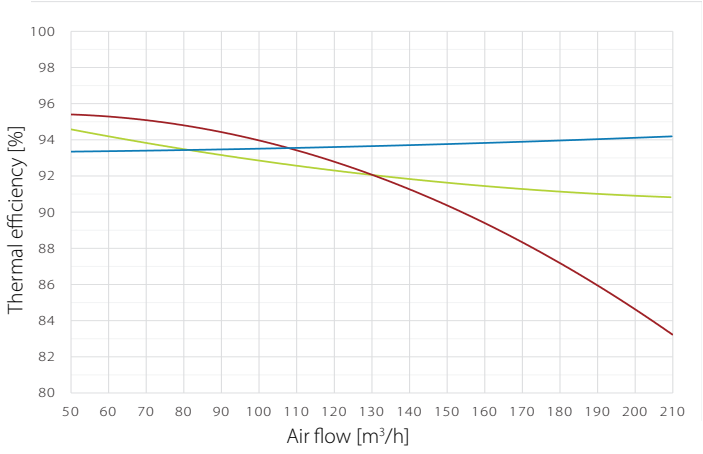
* SFP/SPI/SEL includes power consumption of both fans and the control.

THERMAL EFFICIENCY CURVES

Legend

- Thermal efficiency according to EN 13141-7 (dry)
  Operational conditions: outdoor air: 7°C, 88% RH; extract air: 20°C, 38% RH
- Thermal efficiency according to EN 13141-7 (with condensation)
  Operational conditions: outdoor air: 2°C, 85% RH; extract air: 20°C, 60% RH
- Thermal efficiency according Passivhaus Institut
  Operational conditions: outdoor air: 4°C, 94% RH; extract air: 21°C, 30% RH

All values at balanced flow



SOUND DATA WITH G4/G4 FILTERS

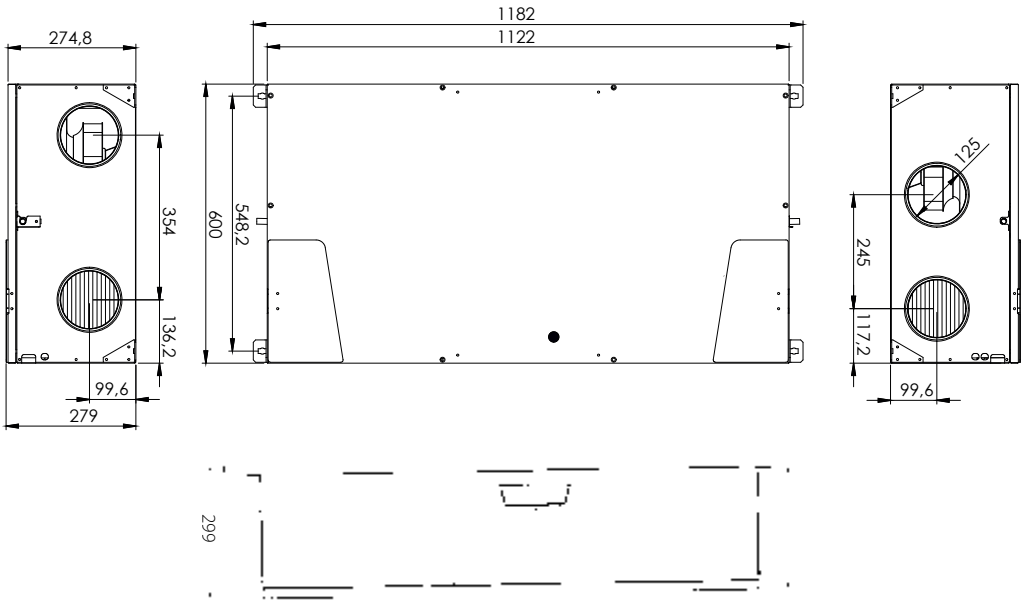
Air-volume	Pres.	Measure point	Frequency band sound power L_W(A) dB(A)								Total sound power L_W(A)	Sound pres. Lp(A) Standard room*
m³/h	Pa		63Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	8000Hz	dB(A)	dB(A)
80	30	Supply air	23	43	40	42	39	32	20	18	47	
		Extract air	12	26	24	24	16	16	17	18	30	
		Cabinet									30	25
98	50	Supply air	28	41	51	48	44	39	26	18	54	
		Extract air	16	27	31	29	19	16	17	18	35	
		Cabinet									34	29
100	100	Supply air	32	49	56	52	49	44	33	19	59	
		Extract air	19	31	42	33	23	19	17	18	43	
		Cabinet									37	32
126	70	Supply air	31	43	55	52	49	45	33	19	58	
		Extract air	19	30	42	33	23	19	17	18	42	
		Exhaust air	30	43	54	52	47	43	32	18	57	
		Cabinet									40	35
140	100	Supply air	34	46	56	56	52	49	37	21	60	
		Extract air	21	33	44	36	27	21	18	18	45	
		Exhaust air	33	45	56	56	51	47	36	20	60	
		Cabinet									43	38
162		Cabinet									46	41
198		Cabinet									48	43

** Standard room = room with 10m² floor, 2.4m ceiling height, mean absorption 0.2.*

CEILING AND WALL-MOUNTED

HCC 2PLA

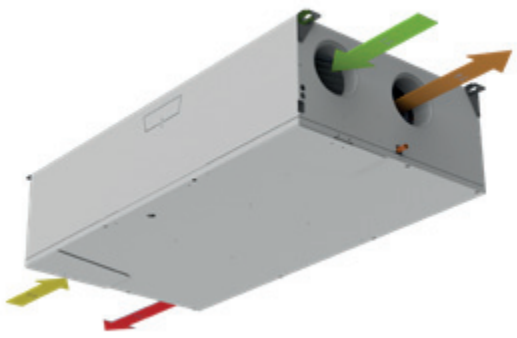
DIMENSIONS



DUCT CONNECTIONS

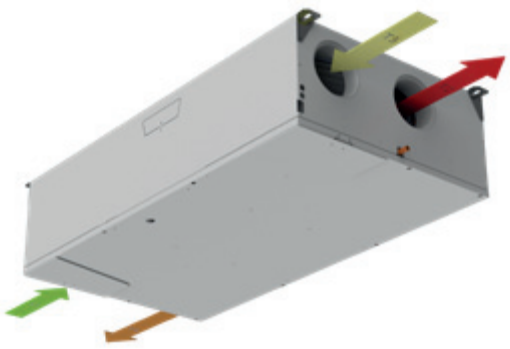
2 set-up in 1 unit, easy change on site

(A) LEFT SET-UP
Factory set-up



- **T1** Outdoor air
- **T2** Supply air
- **T3** Extract air
- **T4** Exhaust air

(B) RIGHT SET-UP Optional - easy change on site



On the HCC 2 it is possible to connect the supply duct to the bottom if the ducts are to run beneath the floor