ATTIC AND WALL-MOUNTED UNITS

HCH 8

The HCH 8 residential ventilation units are primarily designed for 1-2 family houses. The units are supplied as packaged ventilation units complete with built-in demand-control and a control panel. The residential ventilation units are fitted with highly efficient counter-flow heat exchangers which are optimised to a very high efficiency level thus achieving a very low specific fan power (SPI value) for the entire unit.

- Demand-controlled ventilation with integrated humidity sensor, reducing power consumption at times with low ventilation demands
- High-efficiency heat recovery
- EC motors with extremely low energy consumption (low SPI)
- Easy-to-install solution with pressure pipes for air volume measurement and adjustment via PC-Tool
- HCH models are suitable for installation on uninsulated attics
- Summer mode in which the supply fan is stopped and any open window will supply cooler outside air, lowering the room temperature
- Automatic 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 temporary inside overpressure to enhance chimney functionality
- Highly customisable units with the option to add a high variety of internal as well as external accessories
- Internal pre-heater as accessory

Third party testing and certifications

Code	Description
PHI	Passivhaus certified
PCDB listed SAP App. Q	Listed in the UK database for balanced whole-house mechanical ventilation with heat recovery
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

HCH 8

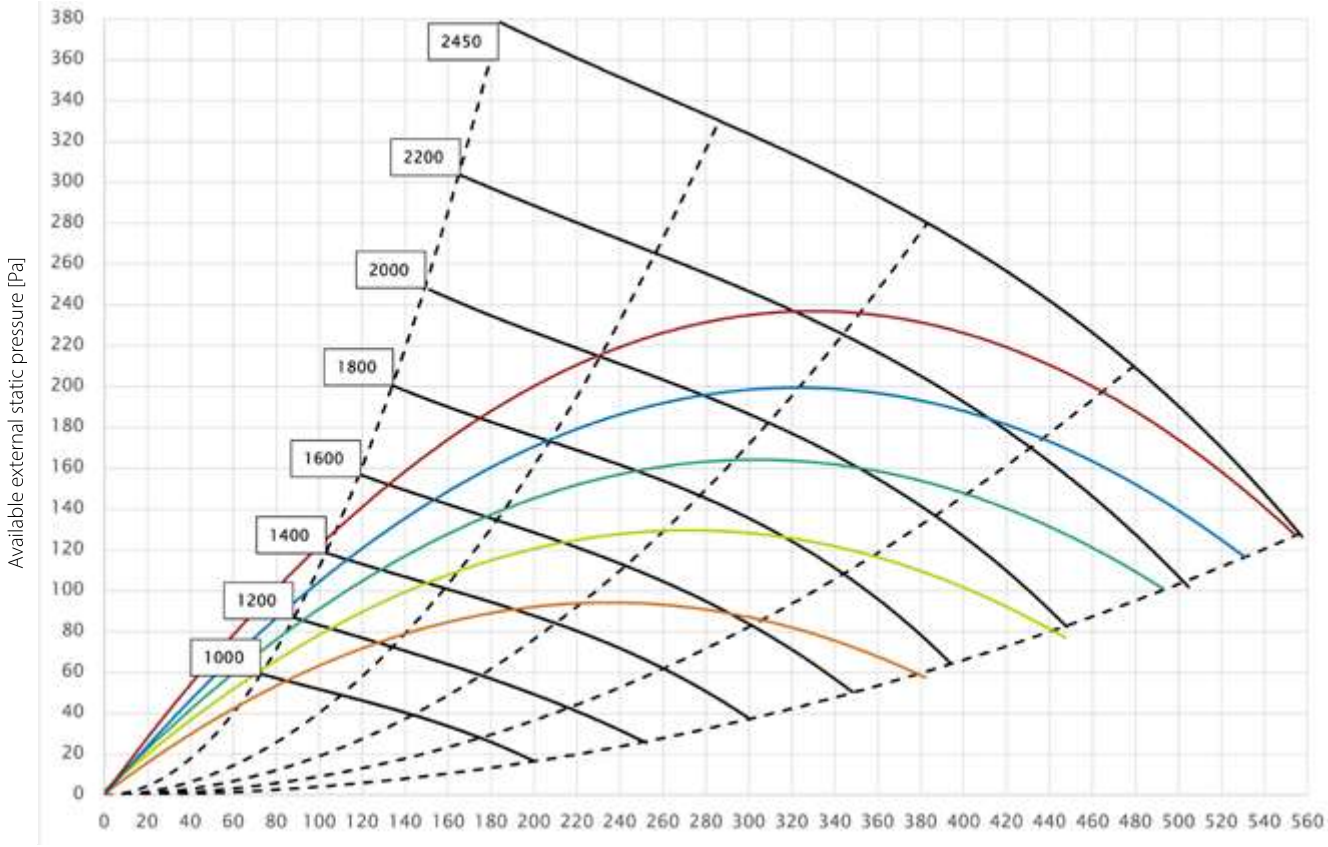
TECHNICAL DATA

Specifications	Units	HCH 8
Performance		
Max. flow at 100Pa	m^3/h	500
Max. rated flow at 100Pa	Vmax.rated + m^3/h	500
Recommended operating range	V + m^3/h	80 - 500
EN 13141-7 reference flow at 50Pa	V_{REF} + m^3/h	350
Energy consumption class – average climate	SEC-class	A
Energy consumption class – average climate	SEC-class	A+ *
Heat exchanger type		Dantherm aluminium counter-flow heat exchanger
Thermal efficiency		Up to 92% **
Bypass		Yes
Filters in accordance with EN779		G4 (optional on supply: F7)
Filters in accordance with ISO 16890		ISO Coarse 75% (optional on supply: ePM1>50%)
Surrounding temperature where the unit is installed	°C	-20 to +50
Operational temperature range without preheating	°C	-13 *** to +50
Operational temperature range with preheating	°C	-20 to +50
Leakage (external and internal) according to EN 13141-7	class	<2% (Class A1)
Cabinet		
Height	mm	600
Width	mm	1180
Depth (standard mounting rail/rail for plan mounting)	mm	780
Duct connection	mm	250
Weight, unit	kg	70
Weight including packaging	kg	84
Dimensions including packaging and pallet (w x d x h)	mm	1200 x 800 x 775
Outer cabinet material		Aluzinc
Colour	RAL	Alzunik grey
Cabinet insulation – polystyrene	mm	40
Insulation factor – cabinet	W/m2x °K	0.78
Fire classification – polystyrene cabinet		DIN 4102 class B1
Fire classification – whole unit		EN 13501 class E
Protection class		IP20
Electrical data		
Supply voltage	V	1 x 230
Frequency	Hz	50
Max. current consumption, without pre- and after-heat	A	1.1
Max. power consumption, without pre- and after-heat	W	246

** Requires an Energy Efficiency Class A+ kit (including CO_2 sensor and HAC 1 accessory control). Described under Accessories.*
*** Condensing operation.*
**** We recommend preheating at temperatures under -3°C to ensure a balanced operation.*

HCH 8

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

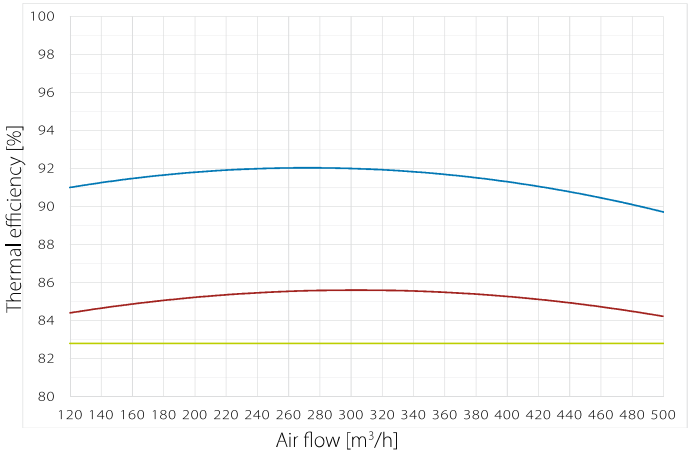
* SFP/SPI/SEL includes power consumption of both fans and the control.

THERMAL EFFICIENCY CURVES

Legend

- Thermal efficiency according to EN 13141-7 (dry)
  Operational conditions: outdoor air: 7°C, 80% RH; extract air: 20°C, 38% RH
- Thermal efficiency (with condensation)
  Operational conditions: outdoor air: -10°C, 50% RH; extract air: 25°C, 55% RH
- Thermal efficiency according Passivhaus Institut
  Operational conditions: outdoor air: 4°C, 90% RH; extract air: 21°C, 32% RH

All values at balanced flow



Dantherm CLIMATE SOLUTIONS

HCH 8

SOUND DATA WITH G4/G4 FILTERS

Flow m³/h	Pressure Pa	Measure Point	Frequency band sound power Lw dB(A)								Total sound power Lw dB(A)	Sound pressure Standard room* Lp dB(A)
			63Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	8000Hz		
350	100	Supply air duct	44	51	56	50	43	38	23	7	63	
		Extract air duct	41	47	48	46	41	36	23	2	59	
		Cabinet	26	37	52	43	40	37	23	17		52
450	100	Supply air duct	39	48	62	55	52	50	37	22	67	
		Extract air duct	39	47	61	55	53	48	37	20	66	
		Cabinet	38	46	60	52	50	47	36	22		61

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

DIMENSIONS