

HCH 8



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The HCH 8 residential ventilation unit is 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 (SFP 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 SFP)
- 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% by-pass, 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

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
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

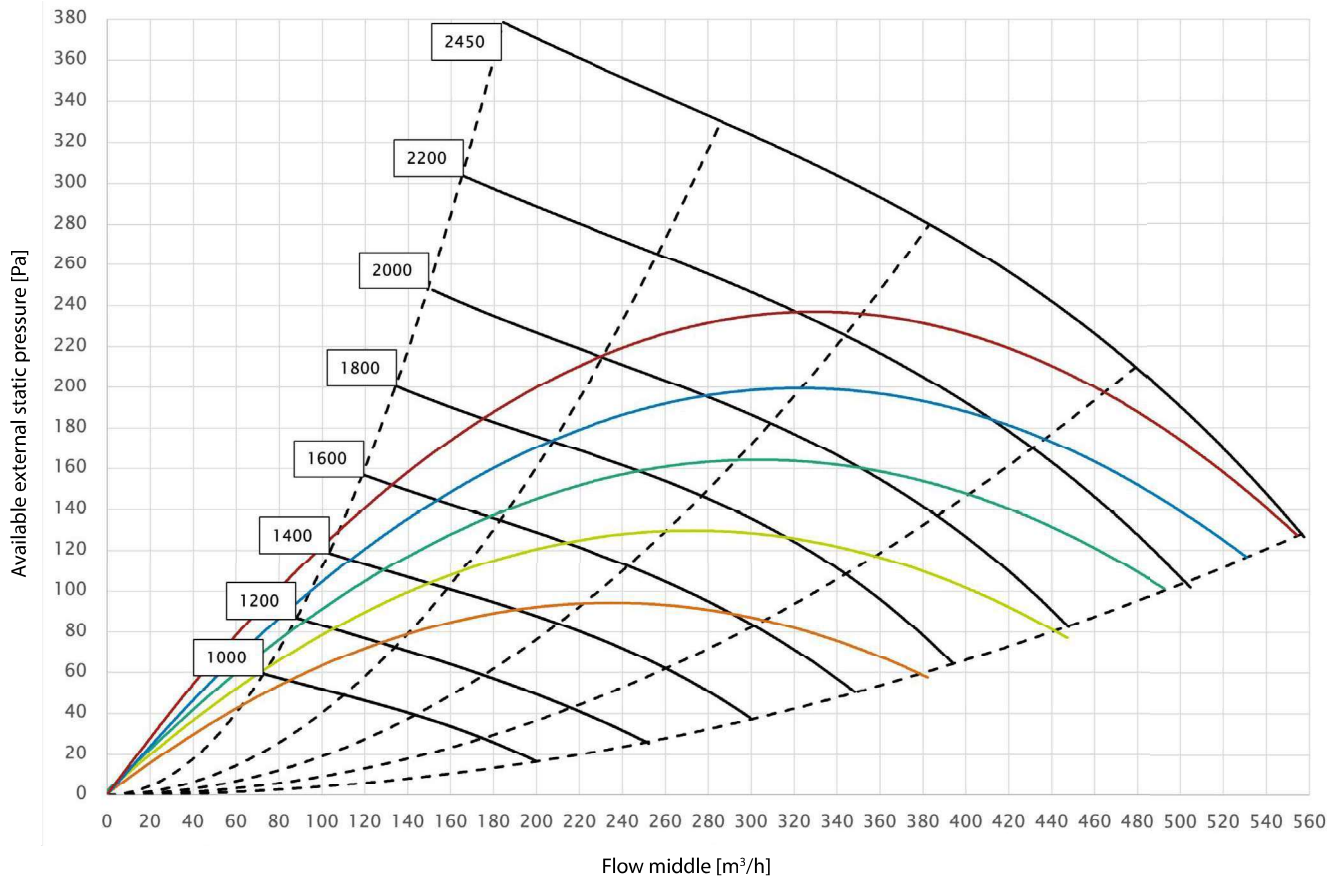
Specifications	Units		HCH 8
Maximum achievable flow at 100Pa	V _{100Pa}	m ³ /h	500
Maximum declared flow at 100Pa	V _{max.rated}	m ³ /h	500
Recommended operating range	V	m ³ /h	80-500
EN 13141-7 reference flow at 50Pa	V _{ref}	m ³ /h	350
Performance			
Thermal efficiency	η_{EN}	%	Up to 92%**
By-pass			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	-12 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			
Dimensions	w x d x h	mm	1180 x 780 x 600
Duct connection	Ø	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			galvanised metal
Colour	RAL		galvanised metal grey
Cabinet insulation – polystyrene		mm	40
Insulation factor – cabinet		W/m ² x °K	0.78
Fire classification – polystyrene cabinet			DIN 4102 class B1
Fire classification – whole unit			EN 13501 class E
Protection class			IP20
Electrical			
Voltage	U	V	1 x 230
Frequency	f	Hz	50
Max. current consumption, without pre- and after-heat		A	1.1
Max. power consumption, without pre- and after-heat	P	W	246

* Requires an Energy Efficiency Class A+ kit (including CO₂ sensor and HAC accessory control). Described under Accessories.

** Condensing operation.

We recommend preheating at temperatures under -3°C to ensure a balanced operation.

Capacity and SPI curves with G4/G4 filters



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SFP/SPI/SEL*	0.45 W/m ³ /h	0.39 W/m ³ /h	0.33 W/m ³ /h	0.28 W/m ³ /h	0.22 W/m ³ /h
	1620 J/m ³	1400 J/m ³	1200 J/m ³	1000 J/m ³	800 J/m ³
	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

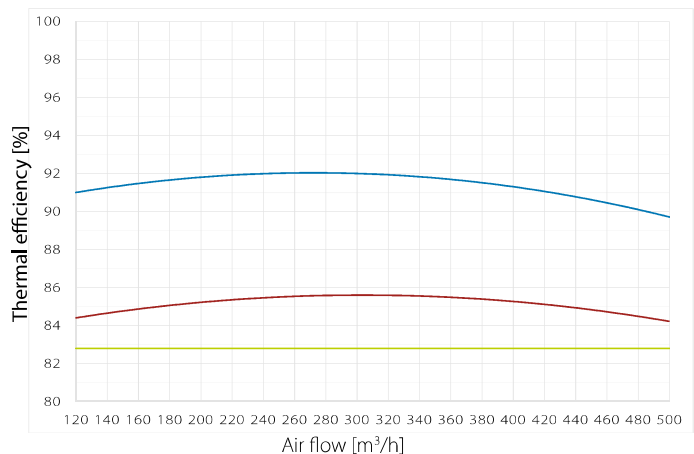
* SFP/SPI/SEL includes power consumption of both fans and the control.

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



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Sound data with G4/G4 filters

Flow	Pres.	Measure point	Frequency band sound power L _w (A)								Total sound power L _w (A)	Sound pres. L _p (A) Standard room*
			dB(A)									
m ³ /h	Pa		63Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	8000Hz	dB(A)	dB(A)
350	100	Supply air	44	51	56	50	43	38	23	7	63	
		Extract air	41	47	48	46	41	36	23	2	59	
		Cabinet	26	37	52	43	40	37	23	17		52
450	100	Supply air	39	48	62	55	52	50	37	22	67	
		Extract air	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

