

Sentinel Apex HR06

- Very low sound levels independently tested and verified by SRL
- Low SFP utilising IE 5 equivalent motors
- High Heat Recovery Efficiency – up to 93% (EN308)
- Automatic summer bypass sized to eliminate performance loss
- ePM10 50% and ePM1 55% filters as standard (M5 / F7 equivalent)
- Filter access from bottom and side as standard
- Digital on board controller and remote room controller as standard
- App connectivity as standard
- Wired and Wireless communication sensors available
- Integral condensate tray and pump
- Electric frost protection heater as standard



Performance simply delivered with more as standard

Vent-Axia's Sentinel Apex range of commercial heat recovery units with up to 93% EN308 heat recovery efficiency, low sound levels and low specific fan powers the range provides high levels of performance efficiently. A new advanced control system that provides on board control, in room control and App based control full functionality commissioning and monitoring is simply provided. This control can be coupled with Vent-Axia's new range of sensors with wired or wireless communication providing close control of, and monitoring of your indoor air quality. Sensors include CO₂, humidity and temperature and provide both proportional and switch control.

The Sentinel Apex HR06 unit is manufactured with a double skinned pentapost construction incorporating aluzinc frames and panels. The panels are acoustically and thermally treated with 90kg/m³ high efficiency acoustic and thermally insulating foam (fire retardant to BS476 Part 7 Class 1 & Part 6 Class O). The construction of the unit, IPX4, allows for internal and external mounting as standard, however, the roof assembly should be included for full external locations.

The housing is designed to be as compact as possible for concealed false ceiling applications with top and bottom access panels for maintenance. Access panels are sized to enable single person maintenance.

The fans utilised in the Sentinel Apex HR06 are the latest EC/DC external rotor motors specifically chosen for their low power consumption and low noise characteristics. The assembly is dynamically balanced to DIN ISO 1940 Grade 6.3. Ball bearings are greased for life. Insulation is Class 'B' (from -25°C to +60°C). All models incorporate internal electronic overload protection and a soft start function.

The Sentinel Apex HR06 is complete as standard with ISO ePM10 50% (M5) extract filter and ISO ePM1 55% (F7) supply, complete with a filter change warning. Filters have been selected to fully comply with the requirements of ISO16890 whilst having low pressure loss characteristics.

An integral electric frost heater is included to provide frost protection of the cell and filters down to -10°C. The integral controls also allow this heater to be utilised as a top up heater.

The unit is complete with an integral summer bypass facility which has

been designed to provide full bypass without impact to the airflow or power consumption of the unit whilst in bypass mode.

Airflow and power consumption tested in accordance with BS EN 5801. Sound data derived from independent testing at Sound Research Laboratories in accordance with EN ISO 3741:2010. Published dB(A) figures are free field sound pressure levels at 3m with spherical propagation at a reference level of 2 x 10⁻⁵ Pa. The inlet/outlet sound power level spectra figures are dB with a reference of 10⁻¹² watts.

An integral condensate tray is fitted along with an internal quiet running high quality pump allowing for removal of the condensate via a 10mm condensate pipe.

To facilitate normal access and maintenance to the unit there are both side and bottom access panels as standard. Should it be required, all panels are removable allowing access and removal of the heat recovery cell and all other components. A lockable isolator is fitted to the control panel preventing accidental operation whilst any maintenance is being carried out.

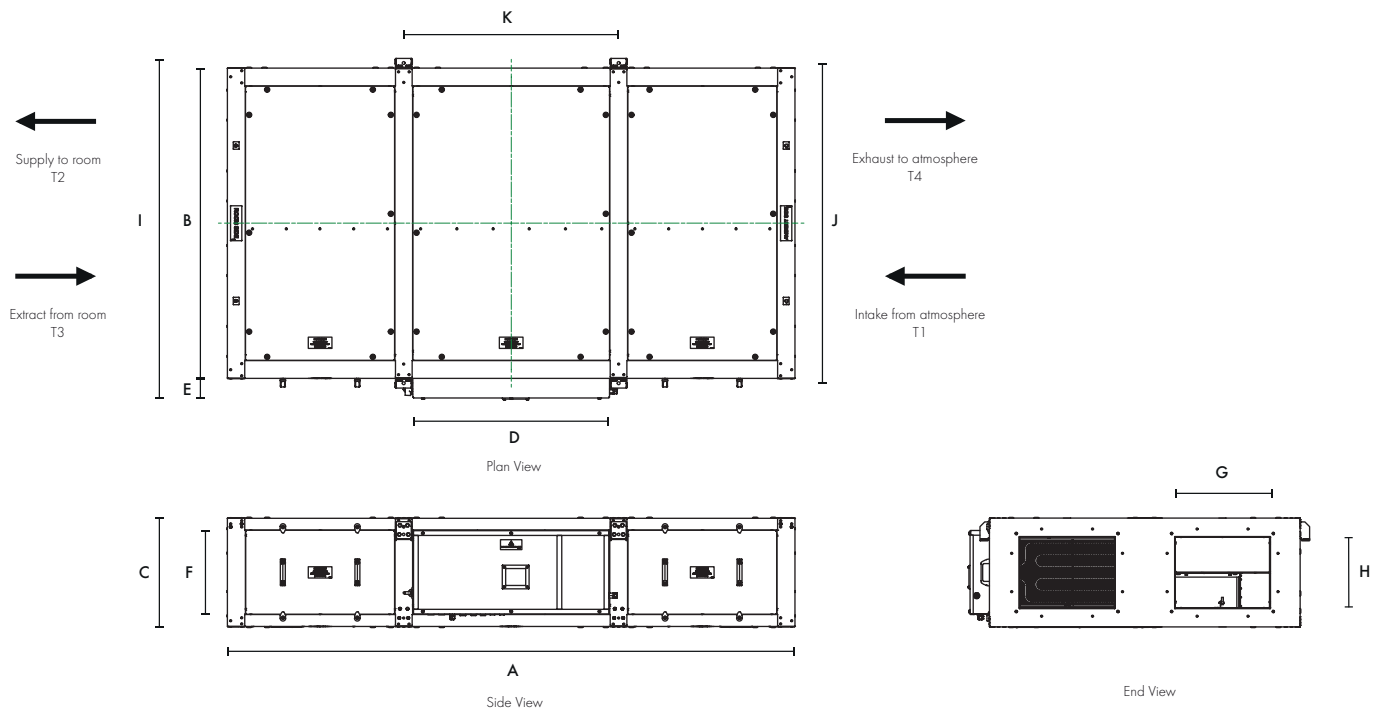
The electrical supply for the unit is 230V +/- 10% / 50/60Hz / 1ph. A 24V DC power is available from the unit for powering any of the matched sensors and switches.

The Sentinel Apex HR06 unit is fitted with an integrated control system as standard with a purpose designed user interface controller incorporating an alphanumerical 2 line display with 4 button keypad for fan status and a basic commissioning setup mounted within the control panel. A remote HMI is also included for that can be mounted within the room that is being ventilated. This allows for local monitoring of the unit along with the commissioning set-up.

App based control is also available via the Vent-Axia Connect App. This provides detailed commissioning and monitoring information and the ability to control the unit remotely.

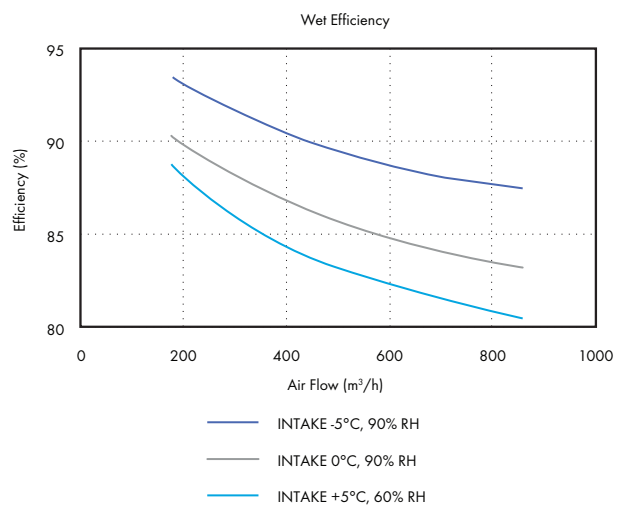
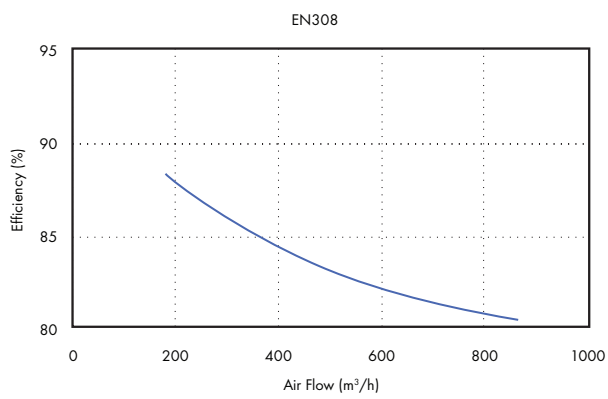
A full range of sensors is available including humidity, temperature and CO₂ monitoring. These sensors are available for both wired and wireless communication with the wireless sensors being either local mains or battery powered.

Dimensions (mm)

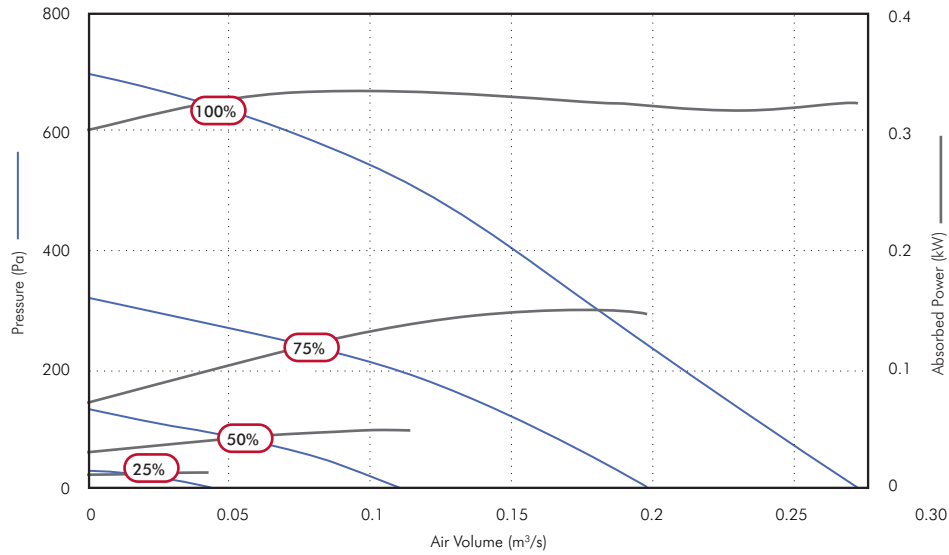


A (LENGTH)	B (WIDTH)	C (HEIGHT)	D	E	F	G	H	I	J	K	kg
2141	1323	350	719	89	248	400	200	1450	1363	791	275

Heat Recovery Efficiency



Performance Guide - Sentinel Apex HR06



Speed	Airflow, m³/s @ Pa										Fans F.L.C.	Supply Voltage	Frost Heater	Unit Rated Current	
	0	25	50	100	150	200	250	300	400	500					
100%	m³/s	0.27	0.27	0.26	0.24	0.22	0.21	0.19	0.18	0.15	0.12	1.5A	230/1/50	2.4kW	12A
	SFP	1.19	1.21	1.25	1.34	1.42	1.51	1.67	1.82	2.19	2.78				
	kW	0.323	0.320	0.320	0.318	0.318	0.318	0.320	0.323	0.334	0.334				
75%	m³/s	0.20	0.19	0.18	0.16	0.13	0.11	0.07							
	SFP	0.73	0.77	0.84	0.93	1.07	1.23	1.66							
	kW	0.144	0.145	0.147	0.147	0.143	0.132	0.116							
50%	m³/s	0.11	0.10	0.08	0.04										
	SFP	0.41	0.47	0.55	0.95										
	kW	0.045	0.045	0.044	0.036										
25%	m³/s	0.04	0.01												
	SFP	0.012	0.27												
	kW	0.011	1.06												

Sound Data - Sentinel Apex HR06

Speed	Test Mode	63	125	250	500	1k	2k	4k	8k	Sound Pressure level @ 3.0m dBA
100%	Breakout	58	54	56	48	46	43	35	29	32
	Exhaust T4	58	55	61	54	54	54	46	36	
	Extract T3	64	64	72	64	56	56	55	48	
	Intake T1	64	64	71	63	57	56	55	48	
	Supply T2	58	54	59	53	53	54	46	36	
75%	Breakout	53	52	54	40	39	36	29	23	27
	Exhaust T4	52	50	52	47	46	47	39	28	
	Extract T3	60	59	68	54	48	48	47	40	
	Intake T1	59	59	67	55	50	49	47	39	
	Supply T2	52	50	54	46	47	48	39	28	
50%	Breakout	46	51	38	30	28	26	25	21	17
	Exhaust T4	45	55	41	36	35	35	26	23	
	Extract T3	53	64	53	44	37	36	34	26	
	Intake T1	54	68	53	44	39	37	34	26	
	Supply T2	45	49	41	35	35	36	26	24	
25%	Breakout	40	35	30	17	19	16	22	21	9
	Exhaust T4	38	32	27	21	19	17	18	23	
	Extract T3	44	43	35	28	20	18	19	23	
	Intake T1	44	40	35	27	21	18	18	23	
	Supply T2	37	32	27	21	19	18	19	24	

For full sound and performance data please use our Fan Selection Program www.vent-axia.com/fanselector/product/apex

Sound data derived from independent testing at Sound Research Laboratories in accordance with EN ISO 3741:2010. Published dB(A) figures are free field sound pressure levels at 3m with spherical propagation at a reference level of 2×10^{-5} Pa. The inlet/outlet sound power level spectra figures are dB with a reference of 10^{-12} watts.

Accessories

Attenuator



Single skinned attenuators purpose designed for the Apex Heat Recovery range to minimise in duct noise. Attenuators are supplied in standard lengths of 900mm, 1200mm and 1500mm, constructed from Galvanised steel with profiled perforated sheet internal, mineral wool sound absorbing material and 30mm profiled flanges for duct and unit mounting. Data has been obtained by testing in accordance with BS EN ISO7235:2009.

Stock Ref.	Dimensions (mm)			kg	Insertion Loss dB								m ³ /hr @ Pa		
	Length	Width	Height		63	125	250	500	1k	2k	4k	8k	300	600	1000
ATT900-HR06	900	400	200	17	2	5	11	19	33	39	31	24	8	30	83
ATT1200-HR06	1200	400	200	21	3	6	14	26	43	45	35	27	8	33	92
ATT1500-HR06	1500	400	200	31	4	7	18	32	52	52	38	30	9	37	103

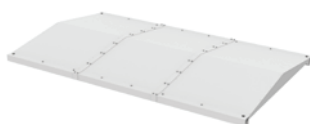
Duct mounted Heating / Cooling



Rectangular duct mounted heater battery with either electric heating complete with integral thyristor controls, or LPHW water heating, each designed to provide approximately 10°C temperature rise. Chilled water cooler also available with integral condensate tray. Note waterside controls are not included.

Stock Ref.	Type	Dimensions (mm)			kg	Heater rating kW	Electrical supply	Water Temp			m ³ /hr @ Pa		
		Length	Width	Height				Flow	Return	Connection	300	600	1000
EHB-HR06	HR 6 Duct mounted Rectangular electric heater with controls	300	400	200	5	2.00	230/1/50	N/A	N/A	N/A	8	33	92
HWB-HR06	HR 6 Duct mounted Rectangular LPHW heating battery	200	400	200	5	2.01	N/A	80°C	60°C	1/2"	8	33	92
CWB-HR06	HR 6 Duct mounted Rectangular water cooling battery	200	400	200	5	2.52	N/A	6°C	12°C	3/4"	8	33	92

Roof Assembly



Pitched roof for external mounting, supplied separate for fitting on site.

Stock Ref	Length mm	Width mm	Height mm	Weight kg
WRF-HR06	2141	1455	95	48

Intake / Exhaust Cowl



Weather inlet/discharge cowl for external mounting (one required for each airstream).

Stock Ref	Length mm	Width mm	Height mm	Weight kg
497218	294	402	274	4

Transformation Piece



Rectangular to round transformation piece designed to fix directly to the unit or any of the specific HR06 duct accessories to enable connection to 250mm round ducting.

Stock Ref	Length mm	Width mm	Height mm	Weight kg
497222	250	400	200	3

Flexible Connection



Stock Ref	Length mm	Width mm	Height mm	Weight kg
497018	130	400	200	3