



VORT HR 350 AVEL

NEW

Wall-mounted heat recovery systems

A

Dual flow centralised unit with heat recovery for floor and wall installation. Ideal for ventilation of homes and residential and commercial premises with surface areas up to 240 m².

- 1 model.
- Casings in fire-resistant expanded polypropylene (DIN EN 13501). Brackets for wall-installation included in standard supply.
- Front plastic resin panels incorporating the panels for direct access to the filters.
- Extraction and delivery spigots compatible with pipes having nominal diameter equal to 150 mm.
- Pair of electric fans driven by external rotor EC motors (brushless) with shafts mounted on ball bearings to ensure virtually "maintenance-free" operation, directly coupled to backward-curved centrifugal impellers for high aeraulic efficiency. 2 operating speeds, can be set independently on installation.
- High efficiency counter cross flow heat exchanger, made in plastic resin (PS).
- Automatically activated anti-freeze protection to prevent the formation of frost at the heat exchanger.
- Mechanical by-pass, automatic and 100% filtered to guarantee the comfort of the occupants of the rooms in mid-season, or however when the outdoor temperature does not require the action of the heat exchanger.
- Wired remote control unit supplied as per standard, with LCD for:
 - product switch-on and switch-off;
 - the initial configuration of the product;
 - selection of operating speed;
 - programming operation;
 - display of the time and room temperature,
 - monitoring of the correct operation of the product (any malfunctioning is highlighted through error messages shown on the display);
 - indication of the condition of the saturated filters on the display.
- Pair of M5 filters (F7 filter available as an optional for the delivery duct), easily accessible for periodic maintenance interventions.
- Condensate collection tray with drain devices.
- Possibility of interlocking to outdoor environmental sensors (optionals) for automatic control of the operating mode.
- Safety certified by third party body (CE).
- Protection rating from dusts and water: IPX2.
- Class of electric isolation: I (earthing not required).





KEY FEATURES

- High (up to 92%) heat exchange efficiency.
- High performance, suitable for the correct ventilation of large apartments and villas.
- Wired remote control unit with LCD.
- Mechanical by-pass, 100% filtered, for natural ventilation (free-cooling) on summer evenings.



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TECHNICAL DATA

MODELS	CODE	V ~ 50 Hz	W	A	MAX AIRFLOW		MAX PRESSURE		°C* max	Kg
					m³/h	l/s	mmH ₂ O	Pa		
VORT HR 350 AVEL	12106	230	165	1.4	350	100	90	880	40	22

* Product continuous operation maximum temperature.

ENERGY DATA

	UNIT OF MEASUREMENT	VORT HR 350 AVEL 12106
Supplier's name or trade mark	-	Vortice
Specific Energy Consumption class SEC in average climate zone	-	A
Specific Energy Consumption class SEC average	-	-38,4
Specific Energy Consumption class SEC cold	kWh/m ² year	-77,0
Specific Energy Consumption class SEC warm	-	-13,6
Declared typology	-	BRVU*
Type of drive	-	VSD**
Type of heat recovery system HRS	-	recuperative
Thermal efficiency of heat recovery at reference air flow	%	88,9
Maximum flow rate [m³/s]	m³/h	315
Electric power input of the fan drive, including any motor control equipment, at maximum flow rate	W	170,0
Sound power level LWA	LWA [dB(A)]	57
Reference flow rate	m³/s	0,0613
Reference pressure difference	Pa	70
SPI***	W/(m³/h)	0,31746
Control factor CTRL	-	0,85
Control typology	-	central demand control
Maximum internal leakage rates	%	3,4
Maximum external leakage rates	%	3,3
Mixing rate	-	NA*
Position and description of visual filter warning	-	see user manual
Airflow sensitivity to pressure variations at + 20Pa and - 20 Pa	-	NA*
Indoor/outdoor air tightness	m³/h	NA*
Annual electricity consumption (AEC)	kWh electricity/year	332
AHS average Annual heating saved	-	4600
AHS cold Annual heating saved	kWh primary energy/year	8999
AHS warm Annual heating saved	-	2080

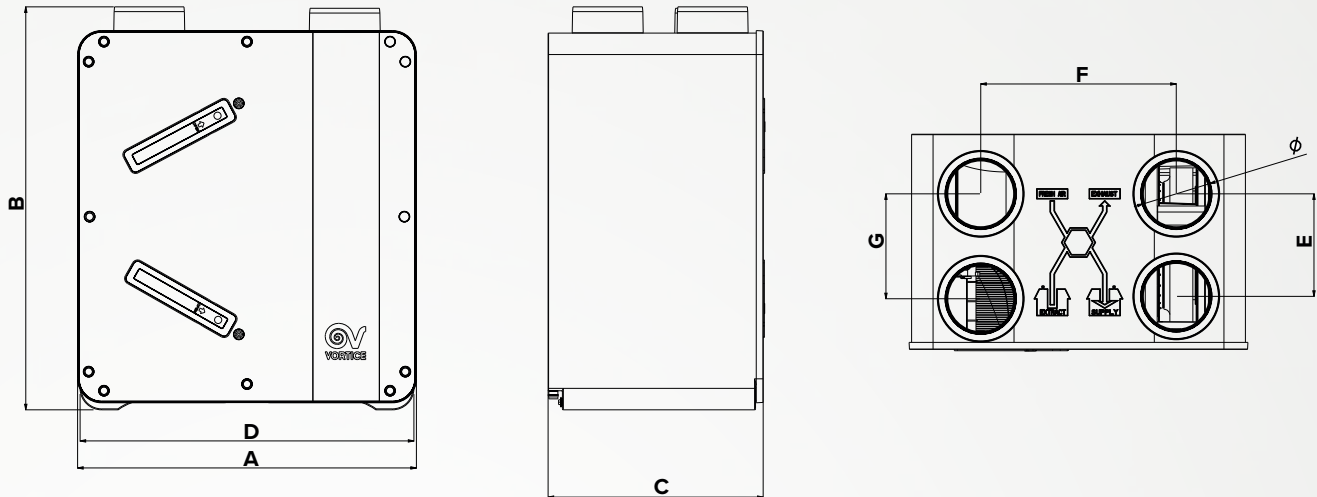
*BRVU: Bidirectional Residential Ventilation Unit
*URVU: Unidirectional Residential Ventilation Unit

**VSD: Variable Speed Drive
**MSD: Multi Speed Drive

***SPI: Specific Power Input

NA: data not applicable

DIMENSIONS



MODELS	CODE	A	B	C	\emptyset	D	E	F	G
VORT HR 350 AVEL	12106	712	845	455	150	700	215	410	220

Dimensions (mm)

SOUND LEVELS

		Sound Power							Sound Power Tot.	Sound Pressure Tot.
		Lw dB (A)								
		125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	Lw dB (A)	Lp dB (A)*
Min. Speed	Supply to internal	23.6	26.7	30.1	26.6	25.4	13.9	5.3	39.4	18.9
	Extract to internal	17.4	26.9	28.1	32.8	35.3	26.5	21.8	43.0	22.5
	Breakout	3.0	10.6	19.9	20.4	13.9	3.5	1.2	28.1	7.6
Med. Speed	Supply to internal	30.2	42.4	39.7	36.1	36.3	28.1	19.2	49.0	28.5
	Extract to internal	15.5	40.3	43.6	41.5	45.8	37.2	37.5	53.0	32.5
	Breakout	1.7	24.4	28.2	28.8	24.1	12.2	9.6	36.6	16.1
Max. Speed	Supply to internal	35.3	42.0	43.8	43.1	43.1	36.5	30.7	57.3	36.8
	Extract to internal	17.8	37.8	43.9	48.1	53.0	45.8	48.6	60.2	39.7
	Breakout	8.7	23.7	33.4	34.5	31.6	21.3	20.6	43.6	23.1

* Sound pressure calculated at 3 m in free field conditions in compliance with the ISO 9614 Standard.



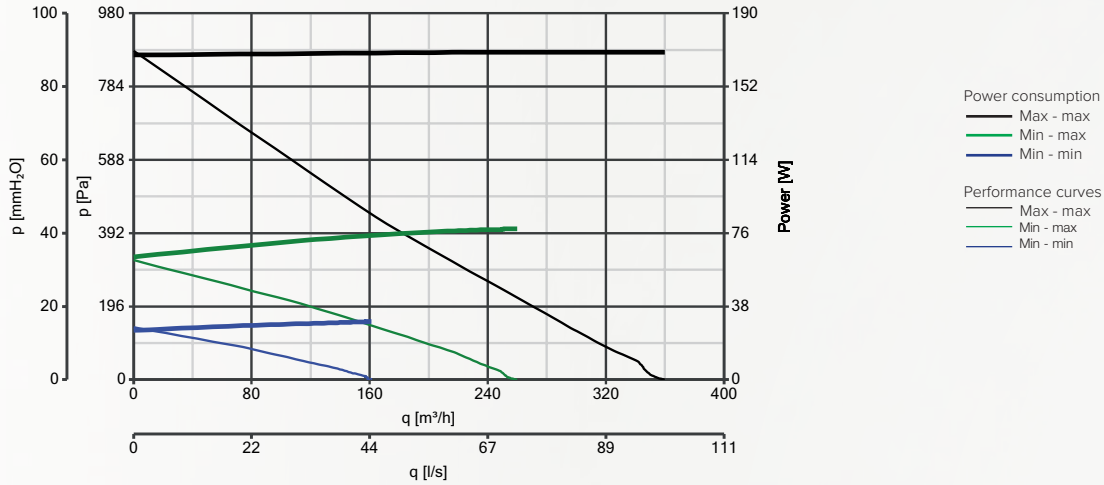
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PERFORMANCE CURVES

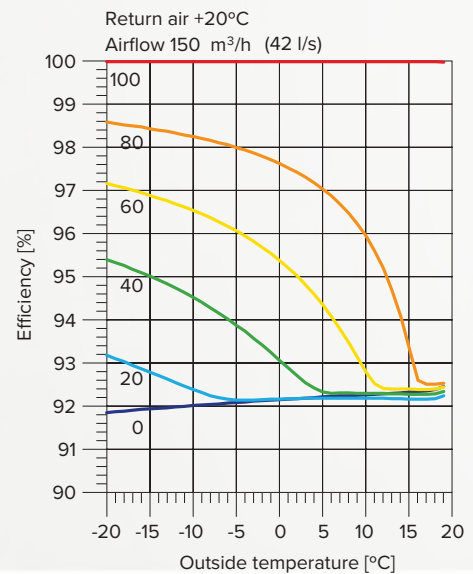
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Efficiency as a function of the airflow



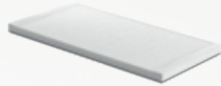
Influence on efficiency due to condensation heat



Return air UR (%) 100 80 60 40 20 0

ACCESSORIES

Electric heater 750 W - code 22735



G3 (Filter for Avel) - code 22661



M5 (Filter for Avel) - code 22662



Floor fixing kit - code 22663

CONTROLSC TEMP - code 12992
Temperature sensorC HCS - code 12994
Humidity sensorC SMOKE - code 12993
Temperature sensorC PIR - code 12998
Motion sensor