VORT HR AVEL RANGE

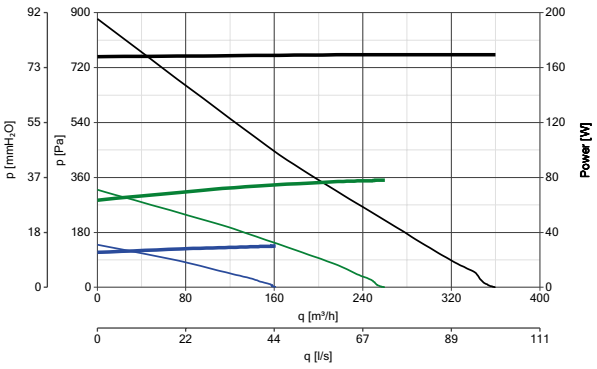
WALL-MOUNTED HEAT RECOVERY UNIT

A | **CENTRALIZED VENTILATION** | **WALL MOUNTED** | **UP TO 240 M²**

Centralized dual flow units with heat recovery for floor and wall installation, ideal for ventilation of homes and residential and commercial premises with a surface area of up to 240 m², characterized by high levels of thermal insulation.

- Internal and external structure in high density expanded polypropylene 40kg/m³.
- Connection spigots to pipes with a nominal diameter of 150 mm, centrifugal fans with backward curved blades directly coupled to EC motors.
- High efficiency counter flow heat exchanger in plastic material (PS).
- Automatic mechanical by-pass for free-cooling.
- Filters ePM10 50% (M5) and Coarse 30% (G3), located respectively in correspondence with the inlet and outlet ducts.
- Automatic anti frost function.
- Wired remote LCD control panel, can be housed in a 503 box.
- Bracket for wall installation supplied as an option
- Floor or wall installation. Can be integrated into residential home automation systems (ModBus protocol) on RS485 SLAVE mode.

PERFORMANCE AND ABSORPTION



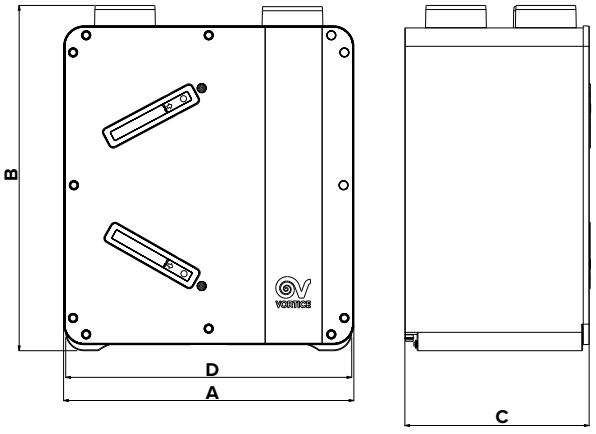
CONSUMPTION CURVES
max
med
min

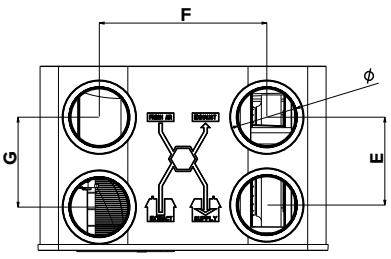
PERFORMANCE CURVES
max
med
min

TECHNICAL DATA

CODE	Nom. Ø (mm)	(m³/h)	(W)	(PA)	Lp [dB (A)] 3m
12106	150	350	165	880	23.1

DIMENSIONS





PRODUCTS	A	B	C	D	E	F	G	Ø
VORT HR 350 AVEL	712	845	455	700	215	410	220	150

Dimensions in mm

ENERGY DATA

	UNIT OF MEASURE	VORT HR 350 AVEL
MANUFACTURER'S NAME OR TRADE NAME	-	VORTICE
CLASS OF SPECIFIC ENERGY CONSUMPTION FOR TEMPERATE CLIMATE	-	A
SPECIFIC ENERGY CONSUMPTION SEC (TEMPERATE CLIMATE)	kWh/m² year	-38.4
SPECIFIC ENERGY CONSUMPTION SEC (COLD CLIMATE)		-77.0
SPECIFIC ENERGY CONSUMPTION SEC (WARM CLIMATE)		-13.6
DECLARED TYPE OF THE VENTILATION UNIT	-	UVR-B**
DRIVE TYPE	-	VSD***
HRS TYPE HEAT EXCHANGER	-	recovery
THERMAL EFFICIENCY OF HEAT RECOVERY AT THE HRS REFERENCE FLOW RATE	%	88.9
MAXIMUM FLOW RATE	m³/h	315
TOTAL ELECTRIC POWER ABSORBED BY THE FAN AT MAXIMUM FLOW RATE	w	170.0
Sound LEVEL	LWA [dB(A)]	57
REFERENCE FLOW RATE	m3/s	0.0613
REFERENCE PRESSURE DIFFERENCE	Pa	70
SPI****	W/(m³/h)	0.31746
CTRL CONTROL FACTOR	-	0.85
CONTROL TYPE	-	centralized env.
MAXIMUM PERCENTAGE OF INTERNAL LEAKAGE	%	3.4
MAXIMUM PERCENTAGE OF EXTERNAL LEAKAGE	%	3.3
MIXING RATE	-	NA*
POSITION AND DESCRIPTION OF THE VISUAL FILTER SIGNAL	-	see instruction booklet
AIR FLOW SENSITIVITY AT PRESSURE VARIATIONS OF ± 20 PA	-	NA*
INDOOR/OUTDOOR AIR SEALING	m³/h	NA*
AEC ANNUAL ELECTRICITY CONSUMPTION	kWh of electricity/year	332
TEMPERATE AHS ANNUAL HEATING SAVINGS	kWh of primary energy /year	4600
COLD AHS ANNUAL HEATING SAVINGS		8999
WARM AHS ANNUAL HEATING SAVING		2080

** NA: Not applicable. ** UVR-U: Residential Ventilation Unit - Uni-directional. *** VM: Multiple speeds. VSD: Variable Speed Drive.*
***** SPI: Specific power input.*

VORT HR AVEL RANGE

WALL-MOUNTED HEAT RECOVERY UNIT

TECHNICAL CHARACTERISTICS

- Fire resistant expanded polypropylene casings (DIN EN 13501). Front panel in loaded plastic resin with panels for direct access to the filters.
- Spigots for **intake and delivery** compatible with pipes with a nominal diameter of 150 mm.
- **Pair of motor fans driven by EC motors** (brushless) of the external rotor type, with shafts mounted on ball bearings to ensure a virtually “maintenance free” operation, directly coupled to centrifugal impellers with backward curved blades to guarantee high aeraulic efficiency. 2 operating speeds.
- **High efficiency heat exchanger**, of the cross-flow type with counterflow, made of plastic resin (PS).
- **Automatic activation anti frost protection**, to prevent the formation of frost at the heat exchanger.
- **Mechanical, automatic and 100% filtered by-pass**, to guarantee the comfort of the occupants of the rooms in mid seasons, or whenever the outside temperature does not require the action of the heat exchanger.
- **Pair of M5 filters** (F7 filter available as an option for the delivery pipe) and **pair of filters Class ePM1 70%**
- **Condensate collection tray** with drain devices.
- **Brackets for wall installation** included in the standard equipment.
- Possibility of **interlocking with external environmental sensors** (optional), for the automatic control of the operating mode.
- **Degree of protection from dust and water**: IPX2
- **Electrical insulation class**: I (grounding required).

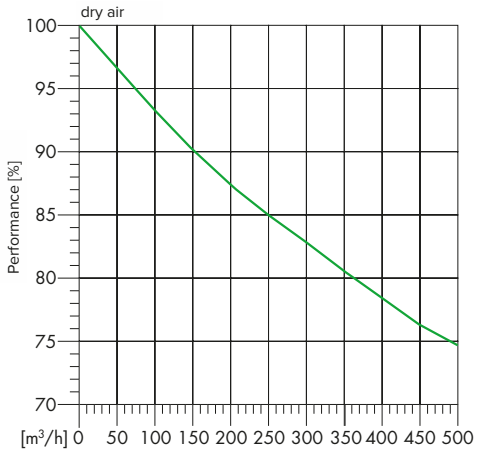
TECHNICAL DATA

PRODUCTS	CODE	V~50HZ	W max	A max	MAX FLOW RATE		MAX PRESSURE		°C* MAX	KG
					m^3/h	l/s	mmH_2O	Pa		
VORT HR 350 AVEL	12106	230	165	1.4	350	100	90	880	40	23

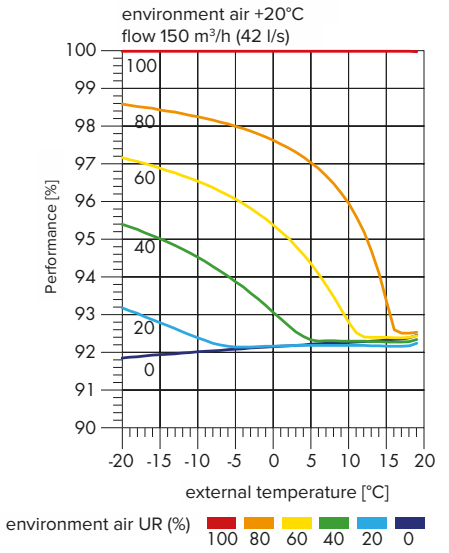
** Maximum temperature with continuous operation of the product.*

EFFICIENCY CURVES

EFFICIENCY IN ACCORDANCE WITH FLOW RATE



EFFICIENCY IN ACCORDANCE WITH CONDENSATION HEAT



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FILTERS

MODELS	DESCRIPTION	DIMENSIONS	CODE	VORT HR AVEL 350 code 12106
	G3 FILTER	198x398x15	22661	✓
	M5 FILTER	198X398X15	22662	✓

REGULATORS

MODELS	DESCRIPTION	DIMENSIONS	CODE	VORT HR AVEL 350 code 12106
	C TEMP Temperature detector	144x54x55.8	12992	✓
	C SMOKE Polluted air detector	144x54x55.8	12993	✓
	C HCS Humidity detector	144x54x55.8	12994	✓
	C PIR Presence detector	144x54x55.8	12998	✓

ACCESSORIES

MODELS	DESCRIPTION	CODE	VORT HR AVEL 350 code 12106
	AVEL WALL FIXING KIT	22663	✓
	750W HEATER Pre-heater to prevent the formation of frost in corre-spondenceof the heat exchanger, also in particularly harsh climates	22735	✓

System components (description and data from page 96).
Regulators (description and data from page 152).