VORT PENTA RANGE

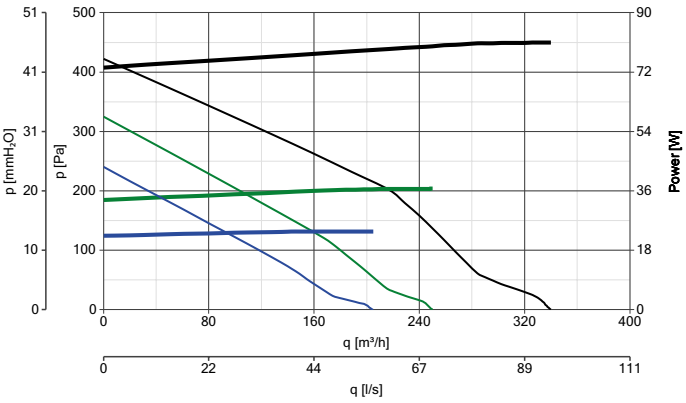
CENTRALIZED MECHANICAL VENTILATION UNIT

C | **CENTRALIZED VENTILATION** | **FALSE CEILING MOUNT**

Unit for simple flow centralized mechanical ventilation. Installed in a false ceiling or in the attic, it extracts stale air from service rooms and facilitate the return of fresh external air through openings appropriately positioned in living rooms. A pair of relative humidity sensors enables the automatic adjustment of the performance to the actual needs of the moment.

- Centralized unit for single flow residential MCV for up to 6 rooms.
- ABS casing, centrifugal-axial motor-fan mounted on ball bearings.
- Low consumption single phase DC-EC motor.
- Delivery spigot Ø125mm, intake spigots 5 x Ø80mm + 1 x Ø125mm.
- Class II insulation.
- Integrated adjustable timer (max 30').
- Protection degree IPX4.
- Integrated relative humidity sensor.

PERFORMANCE AND ABSORPTION



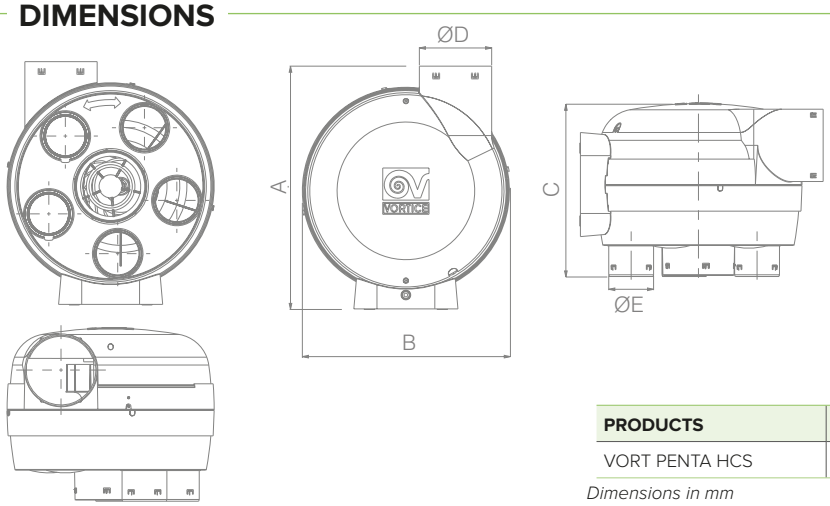
TECHNICAL DATA

PRODUCT	CODE	Nom. Ø (mm)	(m³/h)	(W)	(PA)	Lp [dB (A)] 3m
VORT PENTA HCS	12103	125	340	73	421.9	31.9

CONSUMPTION CURVES
- max
- med
- min

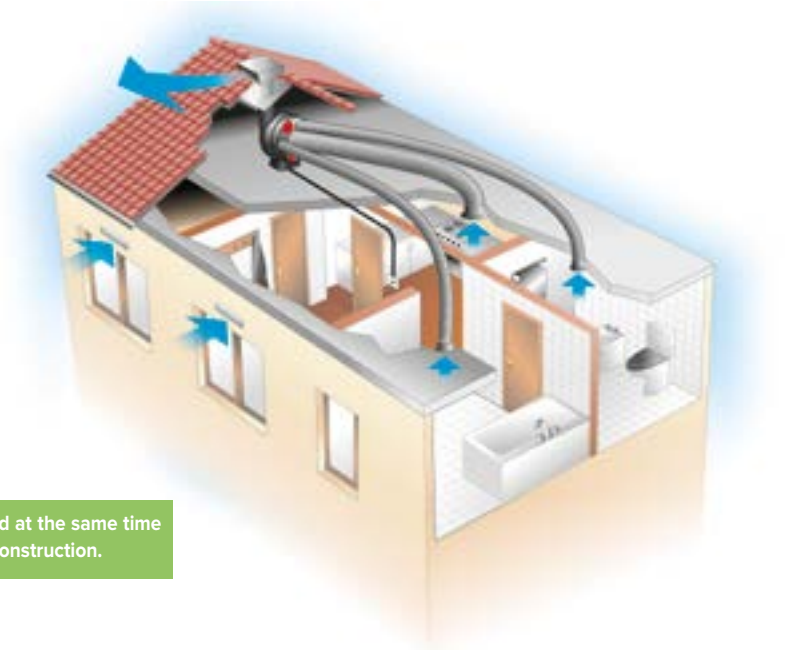
PERFORMANCE CURVES
- max
- med
- min

DIMENSIONS



PRODUCTS	A	B	C	ØD	ØE
VORT PENTA HCS	420	358	300	125	77.5

Dimensions in mm



Light and at the same time robust construction.

ENERGY DATA

	UNIT OF MEASURE	VORT PENTA HCS
MANUFACTURER'S NAME OR TRADE NAME	-	VORTICE
CLASS OF SPECIFIC ENERGY CONSUMPTION FOR TEMPERATE CLIMATE	-	C
SPECIFIC ENERGY CONSUMPTION SEC (TEMPERATE CLIMATE)	kWh/m² year	-25,124
SPECIFIC ENERGY CONSUMPTION SEC (COLD CLIMATE)		-52,187
SPECIFIC ENERGY CONSUMPTION SEC (WARM CLIMATE)		- 9,621
DECLARED TYPE OF THE VENTILATION UNIT	-	UVR-U**
DRIVE TYPE	-	VM***
HRS TYPE HEAT EXCHANGER	-	absent
THERMAL EFFICIENCY OF HEAT RECOVERY AT THE HRS REFERENCE FLOW RATE	%	NA*
MAXIMUM FLOW RATE	m³/h	268
TOTAL ELECTRIC POWER ABSORBED BY THE FAN AT MAXIMUM FLOW RATE	w	80
Sound LEVEL	LWA [dB(A)]	50
REFERENCE FLOW RATE	m³/s	0.052
REFERENCE PRESSURE DIFFERENCE	Pa	90
SPI****	W/(m³/h)	0.193
CTRL CONTROL FACTOR	-	0.65
CONTROL TYPE	-	local premise
MAXIMUM PERCENTAGE OF INTERNAL LEAKAGE	%	NA*
MAXIMUM PERCENTAGE OF EXTERNAL LEAKAGE	%	9.6
MIXING RATE	-	NA*
POSITION AND DESCRIPTION OF THE VISUAL FILTER SIGNAL	-	NA*
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	127
TEMPERATE AHS ANNUAL HEATING SAVINGS	kWh of primary energy /year	2830
COLD AHS ANNUAL HEATING SAVINGS		5536
WARM AHS ANNUAL HEATING SAVING		1280

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

TECHNICAL CHARACTERISTICS

• **1 model.**

• **Black plastic resin (ABS) casing** resistant to impact and aging due to sun exposure ("UV resistant"); the lower surface integrates 6 intake spigots, 5 with a nominal diameter of 80 mm and one with a 125 mm diameter. The discharge mouth, with a nominal diameter of 125 mm, is on the lateral surface.
On the upper surface, protected by a sealed black ABS cover.

• **Plastic resin bracket** (ABS) black, sliding along the side of the products and integrating the holes for fixing the appliance to the target surface

• **3 speed AC motor,** thermally protected, shaft mounted on ball bearings, guarantees prolonged service (at least 30,000 h) at the maximum rated temperature.

• Impeller, of the centrifugal type with backward curved blades, in plastic resin loaded with glass fibers, to combine **dimensional stability, strength and resistance to aggressive agents**.

• **Relative humidity sensors**, electronically managed, with threshold adjustable at installation.

• 2 sleeves connecting to the intake pipes in plastic resin (PP), designed for interlocking in the 80 mm spigots, integrating special mylar valves to maintain the extracted flow rate at 30 m^3/h, regardless of pressure drops and the number of connected rooms.

• **4 caps** with an 80 mm diameter, for closing any spigot that may not be used, supplied as standard.

• **Safety certified by a third party** (Ⓨ)

• **Degree of dust and water protection**: IPX4.

• **Electrical insulation class**: II (grounding not required).

TECHNICAL DATA

PRODUCTS	CODE	V~50HZ	W min/max	A min/max	RPM min/max	MAX FLOW RATE		MAX PRESSURE		Lp dB(A)* 3m min/max	°C* MAX	KG
						m^3/h min/max	l/s min/max	mmH_2O min/max	Pa min/max			
VORT PENTA HCS	12103	230	21 73	0.19 0.34	1245 2160	205 340	59.9 94.4	24.4 43.0	240.1 421.9	- 31.9	40	4.4

** Acoustic pressure measured from 3 m in free field, in compliance with ISO 3741.*

*** Maximum continuous operating temperature of the product.*

ACCESSORIES

MODELS	DESCRIPTION		CODE	VORT PENTA HCS code 12103
	FLOW REGULATOR	$15^3/h$	22324	✓
		$30^3/h$	22325	
	SPIGOT 80 HYGRO		22847	✓

DETAILS

Suitable for installation in false ceilings or attics, they are designed for suspended mounting using a cable supplied as standard.

The internal duct design guarantees high performance, low consumption and reduced sound levels.

Alternatively, an integrated rotating bracket is available, which facilitates the installation of the fan in any position, ensuring the correct arrangement for the needs of the system.

Reliability over time: the duration of the motors is guaranteed for at least 30,000 h of continuous operation at the maximum certified temperature.

LONG LIFE 30.000 h