

VORT HRI MINI RANGE

FALSE CEILING MOUNTED HEAT RECOVERY UNIT



# **CENTRALIZED VENTILATION**

FOR FALSE CEILING

**UP TO 80 M<sup>2</sup>** 

Centralized dual-flow ventilation unit with heat recovery for false ceiling mounting, ideal for the ventilation of homes, hotel rooms or general premises with a surface area of up to 80 m<sup>2</sup>, characterized by high levels of thermal insulation.



- Suitable for false ceiling installation.
- Internal structure in high density expanded polypropylene 40kg/m<sup>3</sup>.
- · Aesthetic paneling in galvanized sheet.
- Connection spigots to pipes with a nominal diameter of 100/125 mm, backward curved centrifugal fans directly coupled to EC motors.
- High efficiency counter flow heat exchanger in plastic material (PS).
- G2 Class filters (Coarse 30% UNI ISO 16890).
- Wired remote LCD control panel supplied (optional LCD panel housed in a 503 box).
- Automatic thermodynamic bypass, based on the temperature probes present in the machine.
- Its small size makes the product suitable for installation in niches (inside or outside).

## PERFORMANCE AND ABSORPTION



### **TECHNICAL DATA**

max

min

DIMENSIONS







# ENERGY DATA

	UNIT OF MEASURE	VORT HRI MINI	
MANUFACTURER'S NAME OR TRADE NAME	-	VORTICE	
CLASS OF SPECIFIC ENERGY CONSUMPTION FOR TEMPERATE CLIMATE	-	А	
SPECIFIC ENERGY CONSUMPTION SEC (TEMPERATE CLIMATE)		-39.4	
SPECIFIC ENERGY CONSUMPTION SEC (COLD CLIMATE)	kWh/m² vear	-78.4	
SPECIFIC ENERGY CONSUMPTION SEC (WARM CLIMATE)		-14.4	
DECLARED TYPE OF THE VENTILATION UNIT	-	UVR-B**	
DRIVE TYPE	-	VM ***	
HRS TYPE HEAT EXCHANGER	-	recovery	
THERMAL EFFICIENCY OF HEAT RECOVERY AT THE HRS REFERENCE FLOW RATE	%	87.7	
MAXIMUM FLOW RATE	m³/h	103	
TOTAL ELECTRIC POWER ABSORBED BY THE FAN AT MAXIMUM FLOW RATE	w	79.0	
Sound LEVEL	LWA [dB(A)]	42	
REFERENCE FLOW RATE	m³/s	0.0200	
REFERENCE PRESSURE DIFFERENCE	Pa	50	
SPI****	W/(m <sup>3</sup> /h)	0.50000	
CTRL CONTROL FACTOR	-	0.65	
CONTROL TYPE	-	local env.	
MAXIMUM PERCENTAGE OF INTERNAL LEAKAGE	%	5	
MAXIMUM PERCENTAGE OF EXTERNAL LEAKAGE	%	5	
MIXING RATE	-	NA*	
POSITION AND DESCRIPTION OF THE VISUAL FILTER SIGNAL	-	NA*	
AIR FLOW SENSITIVITY AT PRESSURE VARIATIONS OF $\pm$ 20 PA	-	NA*	
INDOOR/OUTDOOR AIR SEALING	m³/h	NA*	
AEC ANNUAL ELECTRICITY CONSUMPTION	kWh of electricity/year	310	
TEMPERATE AHS ANNUAL HEATING SAVINGS		4646	
COLD AHS ANNUAL HEATING SAVINGS	kWh of primary energy /vear	9088	
WARM AHS ANNUAL HEATING SAVING		2101	

\* 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.
- **Casings in galvanized sheet steel** integrating support brackets for false ceiling mounting; internal shell covered in sound-absorbing and heat-insulating fire-resistant material (DIN EN 13501).
- Intake and delivery spigots compatible with pipes with a nominal diameter of 100 mm and 125 mm.
- Pair of motor fans driven by EC motors (brushless) of the external rotor type, with shafts mounted on ball bearings directly coupled to backward curved centrifugal impellers to guarantee high aeraulic efficiency. 2 operating speeds, independently settable at the time of installation, managed by the control electronics which include the monitoring function of any malfunctions, recorded in the microcontroller memory.
- High efficiency heat exchanger, of the cross-flow type with counterflow, made of plastic resin (PS).
- Automatic activation frost protection, to prevent the formation of frost at the heat exchanger.
- **Thermodynamic by-pass**, manually and automatically operated and 100% filtered, 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.
- Remote control unit, wire connected, for:
  - selecting the minimum or maximum operating speed;
  - manual opening/closing of the thermodynamic by-pass;
  - setting the operation of the product in Manual or Automatic mode (see instruction booklet);
  - signaling, by means of an indicator light, the saturated filters condition.
- Pair of G2 filters, at the intake and delivery spigots.
- Condensate collection tray with overflow protection and discharge devices.
- Degree of dust and water protection: IPX2.
- Electrical insulation class: II (grounding not required).

### **TECHNICAL DATA**

PRODUCTS	CODE V~50HZ		W A min/max min/max	MAX FLOW RATE		MAX PRESSURE		°C* MAX	KG	
				m³/h min/max	l/s min/max	mmH <sub>2</sub> O min/max	Pa min/max			
VORT HRI MINI	12163	230	6 86	0.1 0.37	64 122	17 34	10 20	100 200	40	8.3

Maximum temperature with continuous operation of the product.





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

