



VORT HRI FLAT RANGE

HEAT RECOVERY UNITS FOR FALSE CEILING MOUNTING

A

CENTRALIZED VENTILATION

FOR FALSE CEILING

UP TO 240 M²

Centralized dual flow ventilation units with heat recovery for false ceiling. The ideal balance between performance, functions and purchase and operating costs makes the VORT HRI FLAT range the most cost-effective solution for the ventilation of homes and residential and commercial premises with an area of up to 90 m² (VORT HRI 200 FLAT) or 240 m² (VORT HRI 350 FLAT), characterized by high levels of thermal insulation.



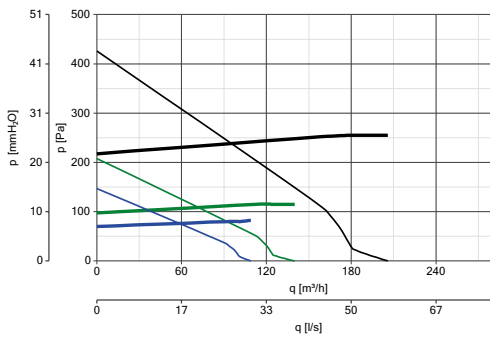
- Suitable for false ceiling installation.
- Self-supporting casing in galvanized sheet metal (10/10), with internal sound-absorbing coating.
- Connection spigots to pipes with a nominal diameter of 125mm (FLAT200) and 150mm (FLAT350), centrifugal fans backward with curved blades directly coupled to EC motors.
- High efficiency heat exchanger of the counterflow type in plastic material (PS).
- Automatic thermodynamic bypass, based on the temperature probes present in the machine.
- Pair of filters Class ePM10 (M5) 50% (F5).
- Three-speed control panel supplied as standard, suitable for a 503 box.

PERFORMANCE AND ABSORPTION

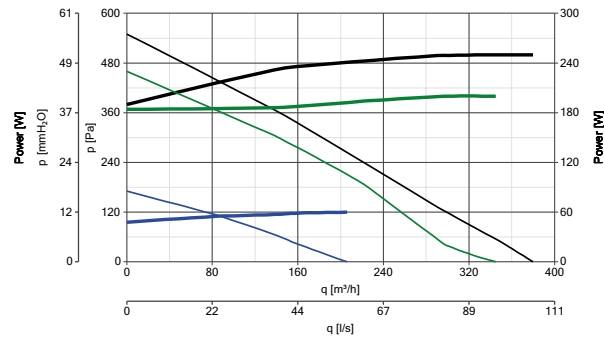
TECHNICAL DATA

PRODUCTS	CODE	Nom. Ø (mm)	(m ³ /h)	(W)	(PA)	Lp [dB (A)] 3m
VORT HRI 200 FLAT	11281	125	206	102	426	22.8
VORT HRI 350 FLAT	11282	150	380	250	550	16.7

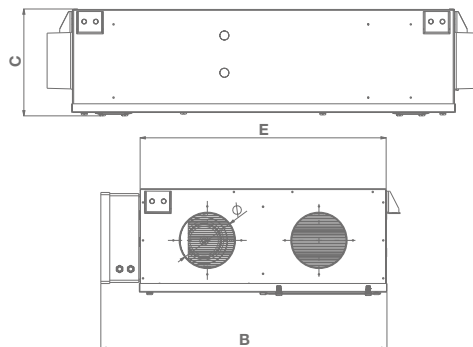
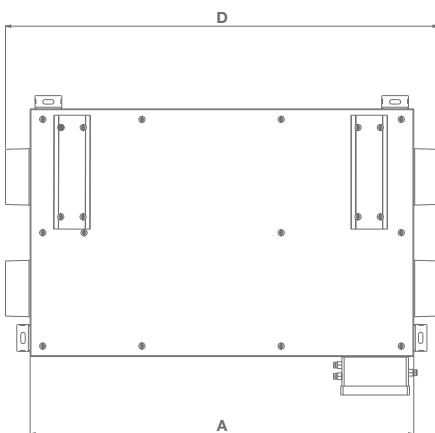
VORT HRI 200 FLAT



VORT HRI 350 FLAT



DIMENSIONS



PRODUCTS	CODE	A	B	C	D	E	Ø
VORT HRI 200 FLAT	11281	860	643	240	969	551	125
VORT HRI 350 FLAT	11282	1183	740	288	1287	650	150

Dimensions in mm



SOUND LEVELS

VORT HRI 200 FLAT		Lw dB (A)							Lw dB (A)	Lw dB (A)
		125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	3m*	
MIN. SPEED	Delivery	22.7	31.4	17.4	14.9	10.1	na**	na**	43.3	22.8
	Intake	24.2	36.8	23.0	15.4	14.0	7.3	na**	36.5	16.0
	Casing	35.7	36.9	29.2	22.2	17.0	9.8	na**	43.1	22.6

VORT HRI 350 FLAT		Lw dB (A)							Lw dB (A)	Lw dB (A)
		125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	3m*	
MIN. SPEED	Delivery	16.7	27.4	24.3	17.1	16.9	7.1	na**	37.2	16.7
	Intake	16.3	32.1	22.2	11.3	15.5	6.2	na**	37.8	17.3
	Casing	33.4	35.6	41.6	38.0	37.2	30.4	27.3	51.0	30.5

* Acoustic pressure measured at 3 m in free field with the intensimetric method in a semi-anechoic cabin at maximum speed in accordance with ISO 9614. ** Data not available.

ENERGY DATA

	UNIT OF MEASURE	VORT HRI 200 FLAT	VORT HRI 350 FLAT
MANUFACTURER'S NAME OR TRADE NAME	-	VORTICE	VORTICE
CLASS OF SPECIFIC ENERGY CONSUMPTION FOR TEMPERATE CLIMATE	-	A	A
SPECIFIC ENERGY CONSUMPTION SEC (TEMPERATE CLIMATE)	kWh/m ² year	-36.3	-38.0
SPECIFIC ENERGY CONSUMPTION SEC (COLD CLIMATE)		-74.7	-77.0
SPECIFIC ENERGY CONSUMPTION SEC (WARM CLIMATE)		-11.7	-13.0
DECLARED TYPE OF THE VENTILATION UNIT	-	UVR-B**	UVR-B**
DRIVE TYPE	-	VSD***	VSD***
HRS TYPE HEAT EXCHANGER	-	recovery	recovery
THERMAL EFFICIENCY OF HEAT RECOVERY AT THE HRS REFERENCE FLOW RATE	%	87.8	90.4
MAXIMUM FLOW RATE	m ³ /h	163	280
TOTAL ELECTRIC POWER ABSORBED BY THE FAN AT MAXIMUM FLOW RATE	w	100.0	165.0
Sound LEVEL	LWA [dB(A)]	43	51
REFERENCE FLOW RATE	m ³ /s	0.0317	0.0544
REFERENCE PRESSURE DIFFERENCE	Pa	50	70
SPI****	W/(m ³ /h)	0.39474	0.35204
CTRL CONTROL FACTOR	-	0.85	0.85
CONTROL TYPE	-	centralized env.	centralized env.
MAXIMUM PERCENTAGE OF INTERNAL LEAKAGE	%	8.5	8.7
MAXIMUM PERCENTAGE OF EXTERNAL LEAKAGE	%	8.5	5.2
MIXING RATE	-	NA*	NA*
POSITION AND DESCRIPTION OF THE VISUAL FILTER SIGNAL	-	see instruction booklet	see instruction booklet
AIR FLOW SENSITIVITY AT PRESSURE VARIATIONS OF ± 20 PA	-	NA*	NA*
INDOOR/OUTDOOR AIR SEALING	m ³ /h	NA*	NA*
AEC ANNUAL ELECTRICITY CONSUMPTION	kWh of electricity/year	402	364
TEMPERATE AHS ANNUAL HEATING SAVINGS	kWh of primary energy /year	4570	4641
COLD AHS ANNUAL HEATING SAVINGS		8940	9078
WARM AHS ANNUAL HEATING SAVING		2067	2098

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

**** SPI: Specific power input.



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TECHNICAL CHARACTERISTICS

- **2 models**, different in size and performance provided.
- **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). Tie rods for suspended installation included in the standard equipment.
- **Intake and delivery spigots** compatible with pipes with a nominal diameter of 125 mm (VORT HRI 200 FLAT) and 150 mm (VORT HRI 350 FLAT).
- **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. 3 operating speeds, independently settable at installation.
- **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.
- **Mechanical by-pass**, automatic 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:
 - switching the product on and off;
 - selecting the product's minimum, average or maximum speed;
 - signaling, by means of an indicator light, the saturated filters condition.
- **Pair of M5 filters** (F7 filter available as an option for the delivery duct), easily accessible for periodic maintenance.
- **Condensate collection tray** with drain devices.
- **Possibility of interlocking with external environmental sensors** (optional), for the automatic control of the operating mode.
- **Degree of dust and water protection**: IPX2.
- **Electrical insulation class**: II (grounding not required).

TECHNICAL DATA

PRODUCTS	CODE	V~50HZ	W max	A max	MAX FLOW RATE		MAX PRESSURE		°C* MAX	KG
					m³/h	l/s	mmH ₂ O	Pa		
VORT HRI 200 FLAT	11281	230	102	1.0	210	58.3	48.4	475	40	24
VORT HRI 350 FLAT	11282	230	250	2.0	380	105	56.0	550	50	33

* Maximum temperature with continuous operation of the product.



DETAILS



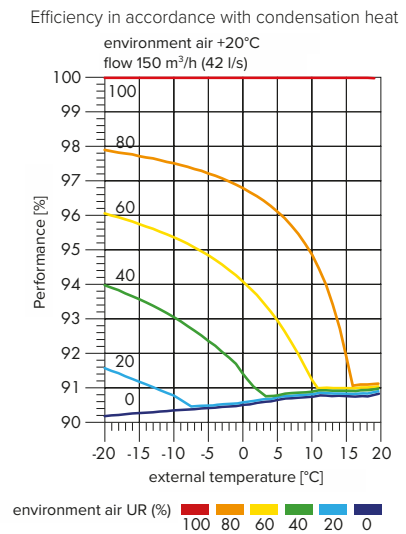
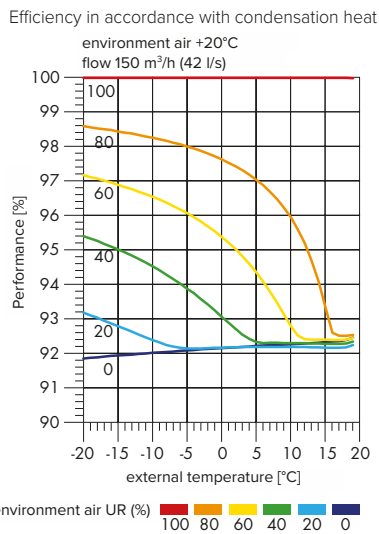
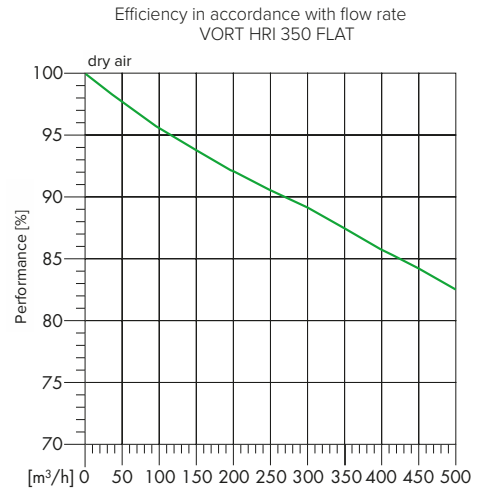
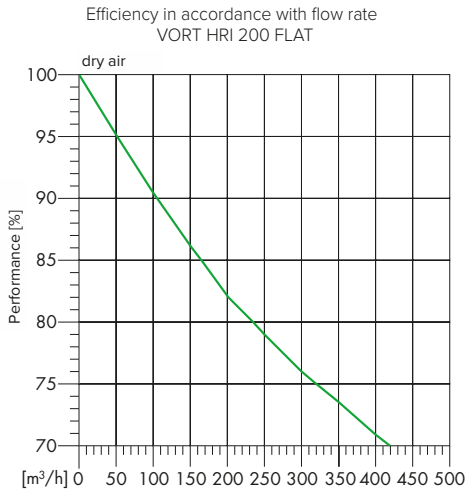
VORT HRI 200 FLAT code 11281
VORT HRI 350 FLAT cod. 11282



VORT HRI FLAT RANGE


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EFFICIENCY CURVES






FILTERS

MODELS	DESCRIPTION	DIMENSIONS	CODE	VORT HRI 200 FLAT code 11281	VORT HRI 350 FLAT cod. 11282
	F7 FILTER	228X224X24	22625	✓	
	F7 FILTER	230X250X48	22628		✓

ACCESSORIES

MODELS	DESCRIPTION	CODE	VORT HRI 200 FLAT code 11281	VORT HRI 350 FLAT cod. 11282
	500W HEATER Pre-heater to prevent the formation of frost in correspondence of the heat exchanger, also in particularly rigid climates	22734	✓	
	750W HEATER Pre-heater to prevent the formation of frost in correspondence of the heat exchanger, also in particularly rigid climates	22735		✓

System components (description and data from page 96).

Regulators (description and data from page 152).