



# VORT HRI FLAT RANGE

Ceiling-mounted heat recovery systems

## A

Centralized double flow ventilation unit with heat recovery unit for false-ceiling installation. The ideal compromise between performance, functions, purchase and operating costs makes the VORT HRI FLAT range the most cost-effective solution for the ventilation of residential and commercial premises up to 90 m<sup>2</sup> (VORT HRI 200 FLAT) or 240 m<sup>2</sup> (VORT HRI 350 FLAT), characterised by high levels of heat insulation.

- Galvanized sheet steel enclosure, fully clad with sound-absorbing, fire-resistant material (DIN EN 13501).
- Fittings connection ports with a nominal diameter of 125 mm or 150 mm depending on the model.
- Ultra high-efficiency crossed counter-flow type heat exchanger in PS resin.
- High-efficiency fans equipped with centrifugal impellers with backward-curved blades driven by EC motors (brushless) with 3 speeds.
- Automatic thermo-dynamic by-pass
- 2xM5 filters (optional F7 filter for the air intake duct), which are easily accessible for maintenance purposes.
- Integrated frost protection
- Remote control unit, for inline connection, for:
  - Switching on and off
  - Selecting the operating speed from the 3 available settings.
  - Signaling, via LED, of filter clogged status (the duration of the time frequency between two cleaning/filter replacement operations, depending on the appliance operating speed, can be set at the time of installation).
- Tie-rods for suspended installation.
- Water protection rate IPX2.
- Insulation class: I ⊕.



## KEY FEATURES

- Excellent compromise between high output, reduced purchase price and limited operating costs.
- Compact overall size; specifically, the limited thickness makes it fit for installation in false ceilings, which is useful when there are no dedicated technical premises.
- Sturdy and concurrently light-weight construction, which makes handling and installation easy.
- High efficiency, compliant with the most recent ErP regulations (Reg. No. 327/2011/EU, 1253/2014/EU, 1254/2014/EU).
- Superior (up to 92%) heat exchange efficiency levels in the conditions (+5°C, 50%RH/25°C, 28%RH) set by the applicable international regulations (EN 308).
- Simplified extraordinary maintenance thanks to rational internal inner layout of the main components, easily accessible once the product is installed.



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## TECHNICAL DATA

MODELS	CODE	V ~ 50 Hz	W max	A max	MAX AIRFLOW		MAX PRESSURE		°C max	Kg
					m³/h	l/s	mmH <sub>2</sub> O	Pa		
VORT HRI 200 FLAT	11281	230	102	1.0	206	57,2	43.5	426	40	24
VORT HRI 350 FLAT	11282	230	250	2.0	380	105	56	550	50	33

## ENERGY DATA

	UNIT OF MEASUREMENT	VORT HRI 200 FLAT 11281	VORT HRI 350 FLAT 11282
Supplier's name or trade mark	-	Vortice	Vortice
Specific Energy Consumption class SEC in average climate zone	-	A	A
Specific Energy Consumption class SEC average	-	-36,3	-38
Specific Energy Consumption class SEC cold	kWh/m² year	-74,7	-77
Specific Energy Consumption class SEC warm	-	-11,7	-13
Declared typology	-	BRVU*	BRVU*
Type of drive	-	VSD**	VSD**
Type of heat recovery system HRS	-	recuperative	recuperative
Thermal efficiency of heat recovery at reference air flow	%	87,8	90,4
Maximum flow rate [m³/s]	m³/h	163	280
Electric power input of the fan drive, including any motor control equipment, at maximum flow rate	W	100	165
Sound power level LWA	LWA [dB(A)]	43	51
Reference flow rate	m³/s	0,0317	0,0544
Reference pressure difference	Pa	50	70
SPI***	W/(m³/h)	0,39474	0,35204
Control factor CTRL	-	0,85	0,85
Control typology	-	central demand control	central demand control
Maximum internal leakage rates	%	8,5	8,7
Maximum external leakage rates	%	8,5	5,2
Mixing rate	-	NA	NA
Position and description of visual filter warning	-	see user manual	see user manual
Airflow sensitivity to pressure variations at + 20Pa and - 20 Pa	-	NA	NA
Indoor/outdoor air tightness	m³/h	NA	NA
Annual electricity consumption (AEC)	kWh electricity/year	402	364
AHS average Annual heating saved	-	4570	4641
AHS cold Annual heating saved	kWh primary energy/year	8940	9078
AHS warm Annual heating saved	-	2067	2098

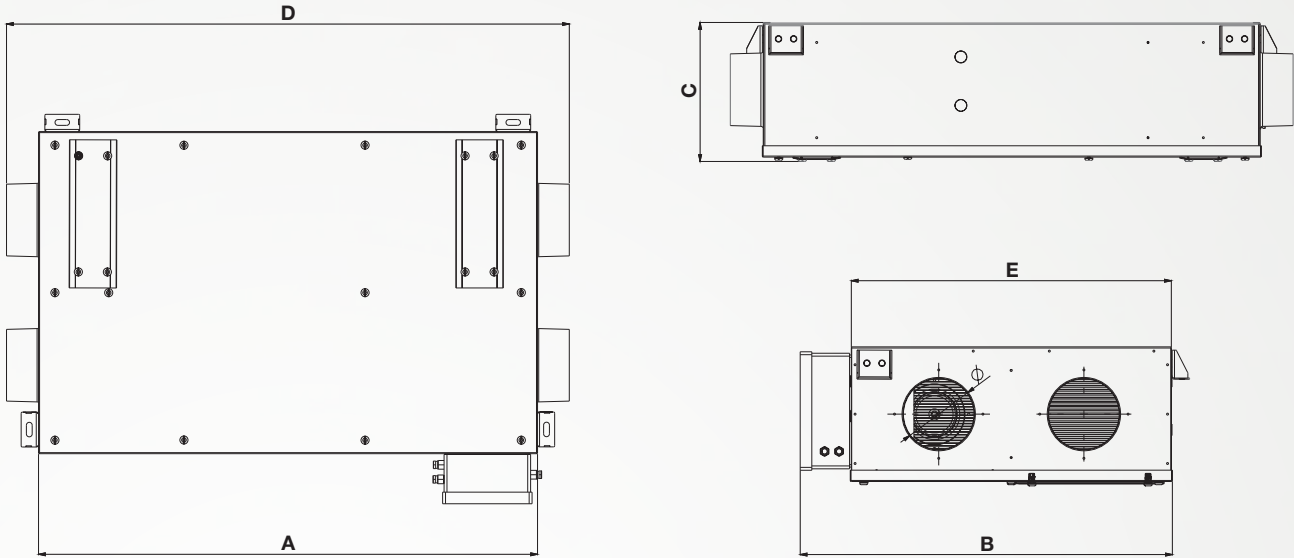
\*BRVU: Bidirectional Residential Ventilation Unit  
 \*URVU: Unidirectional Residential Ventilation Unit

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

\*\*\*SPI: Specific Power Input

NA: data not applicable

**DIMENSIONS**



MODELS	CODE	A	B	C	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 (mm)

**SOUND LEVELS**

		Sound power						Sound power Tot.	Pressure power Tot.	
		Lw dB (A)						Lw dB (A)	Lp dB (A)*	
		125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz		
VORT HRI 200 FLAT	Nom. speed									
	Supply to internal	22.7	31.4	17.4	14.9	10.1	n.a.**	n.a.**	43.3	22.8
	Extract to internal	24.2	36.8	23	15.4	14.0	7.3	n.a.**	36.5	16.0
	Breakout	35.7	36.9	29.2	22.2	17.0	9.8	n.a.**	43.1	22.6
		Sound power						Sound power Tot.	Pressure power Tot.	
		Lw dB (A)						Lw dB (A)	Lp dB (A)*	
		125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz		
VORT HRI 350 FLAT	Nom. speed									
	Supply to internal	16.7	27.4	24.3	17.1	16.9	7.1	n.a.	37.2	16.7
	Extract to internal	16.3	32.1	22.2	11.3	15.5	6.2	n.a.	37.8	17.3
	Breakout	33.4	35.6	41.6	38.0	37.2	30.4	27.3	51.0	30.5

Tests carried out according EN9614 standard, product featuring 270 m³/h at 110 Pa.

\*Sound pressure calculated at 3 m distance in free-field.

n.a. = data not available.

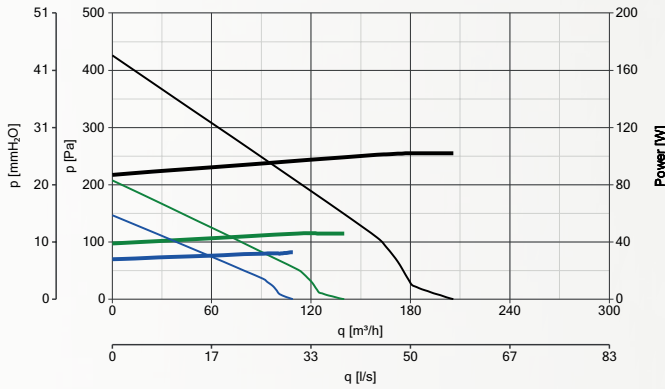


# VORT HRI FLAT RANGE

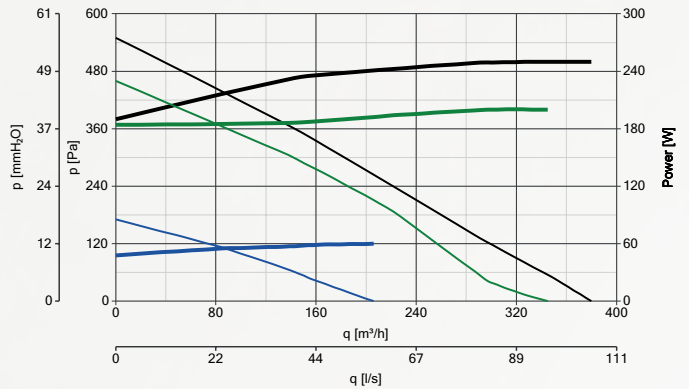
Ceiling-mounted heat recovery systems

## PERFORMANCE CURVES

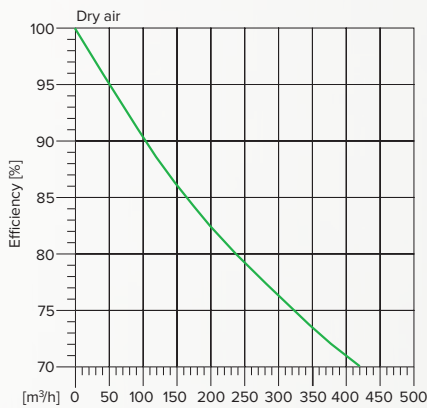
VORT HRI 200 FLAT



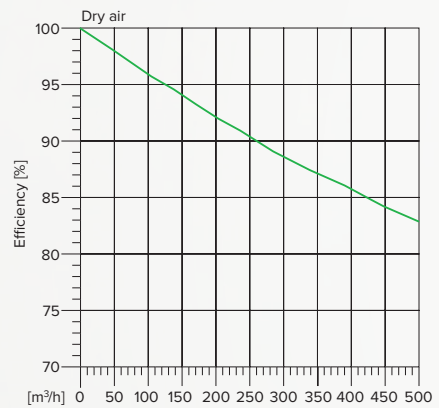
VORT HRI 350 FLAT



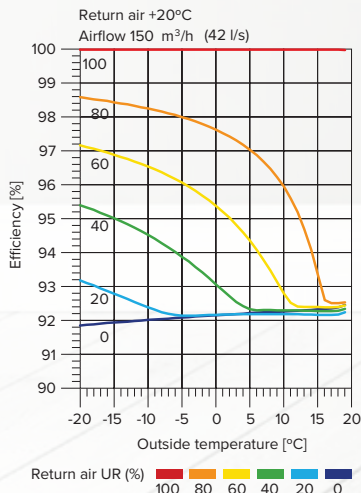
Efficiency as a function of the airflow



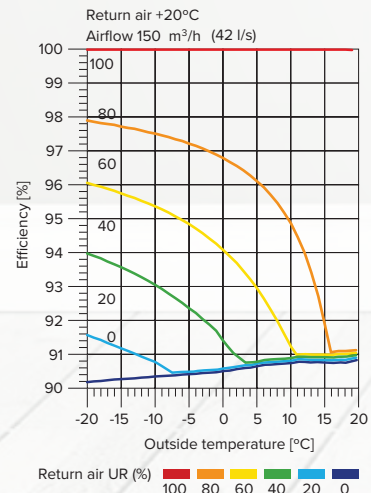
Efficiency as a function of the airflow



Influence on efficiency due to condensation heat



Influence on efficiency due to condensation heat



ACCESSORIES



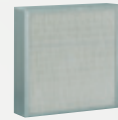
Electric heater 750 W - code 22734  
for VORT HRI 200 FLAT (11281)



Electric Heater 750 W -code 22735  
for VORT HRI 350 FLAT (11282)



F7 Internal filter - code 22625  
Filter for HRI-ONE



F7 Internal filter - code 22628  
Filter for HRI-TWO

code 21431  
FILTER KIT 227x212x24 M5

code 21432  
FILTER KIT 227x212x24 F7

