



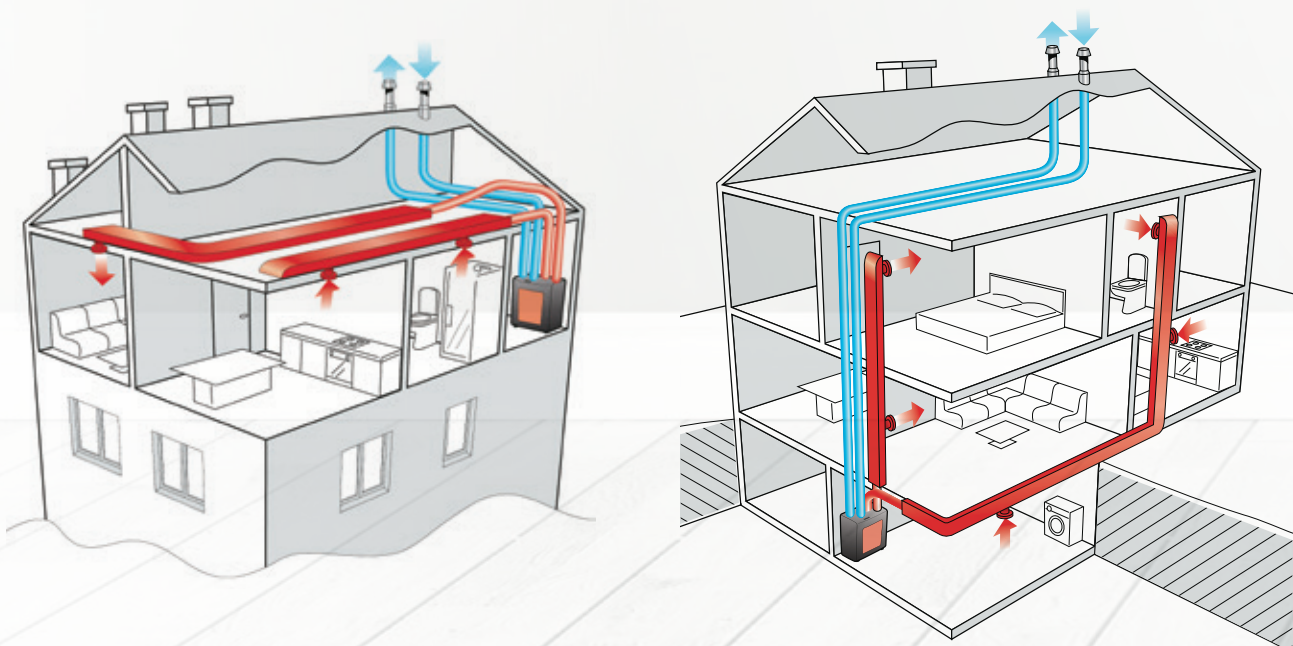
# VORT PROMETEO PLUS HR 400 RANGE

Heat recovery units

## A

Dual flow centralised unit with heat recovery for floor and wall horizontal or vertical installation. Ideal for ventilation of homes and residential and commercial premises with surface areas up to 240 m<sup>2</sup>.

- Materials: fire-resistant expanded polypropylene (PPE); front panel made of filled thermoplastic resin
- Duct connection ports of nominal diameter 150 mm
- 2 x EC brushless motor with shafts turning in ball bearings, each coupled to a backward curved centrifugal impeller; 3 speeds, selectable independently at the moment of installation.
- Air flow settable between 50 m<sup>3</sup>/h and 380 m<sup>3</sup>/h
- Ultra high-efficiency counter-flow type heat exchanger fashioned from moulded plastic
- Automatic or manual operation
- 100% bypass, automatic or manual control
- Equipped with two way radio remote control used for the purposes of initial setting, selection of operating mode and diagnostics.
- Filter clogging status monitored automatically
- Equipped with Temperature + Relative Humidity (R.H.) sensor and CO<sub>2</sub> sensor, providing signals that will control operating speed automatically, achieving the best possible balance between quality of the ambient air, energy consumption and noise emissions.
- Automatically activated system designed to prevent icing of the heat exchanger.
- 2 x M5 filter (option of additional F7 filter on outlet duct)
- condensate drain hose;
- pipette for connection of drain hose
- silencer of nominal diameter 150 mm and length 0.5 m, for installation downstream of the appliance on the supply duct connecting with the rooms.
- 2 x metal bracket for suspended vertical mounting of the appliance;
- 4 x mount for horizontal installation
- Energy performance certified by CASACLIMA (Italy), BRE (UK), CETIAT (France), EPBD (Belgium)





## KEY FEATURES

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- High (up to 93%) heat exchange efficiency.
- Simplicity of control configuration thanks to the supplied RF remote control.
- Can be integrated into a residential home automation network
- Mechanical by-pass for natural ventilation (free-cooling) on summer evenings.



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## TECHNICAL DATA

MODEL	CODE	V~50HZ	W max	A max	MAX AIRFLOW m³/h	MAX AIRFLOW l/s	MAX PRESSURE mmH <sub>2</sub> O	MAX PRESSURE Pa	°C* MAX	Kg
VORT PROMETEO PLUS HR 400	11582	230	160	1.3	380	106	68.8	675	50	25

\* Max operating temperature in continuous conditions

## ENERGY DATA

	UNIT OF MEASUREMENT	VORT PROMETEO PLUS HR 400 MP
Supplier's name or trade mark	-	Vortice
Specific Energy Consumption class SEC in average climate zone	-	A
Specific Energy Consumption class SEC average	kWh/m² anno	-38.8
Specific Energy Consumption class SEC cold	-	-77.3
Specific Energy Consumption class SEC warm	-	-14.2
Declared typology	-	UVR-B**
Type of drive	-	VSD***
Type of heat recovery system HRS	-	recuperative
Thermal efficiency of heat recovery at HRS reference air flow	%	88.3
Maximum flow rate [m³/s]	m³/h	340
Electric power input of the fan drive, including any motor control equipment, at maximum flow rate	W	161.0
Sound power level LWA	LWA [DB(A)]	62
Reference flow rate	m³/s	0.0661
Reference pressure difference	Pa	240
SPI****	W/(m³/h)	0.28992
Control factor CTRL	-	0.85
Control typology	%	central demand control
Maximum internal leakage rates	%	1.2
Maximum external leakage rates	-	3.2
Mixing rate	-	NA*
Position and description of visual filter warning	-	see user manual
Airflow sensitivity to pressure variations at ± 20 PA	m³/h	NA*
Indoor/outdoor air tightness	-	NA*
Annual electricity consumption (AEC)	kWh electricity/year	307
AHS average Annual heating saved	-	4584
AHS cold Annual heating saved	kWh primary energy/year	8967
AHS warm Annual heating saved	-	2073

Energy data pursuant to 1254/2014 EU Regulation

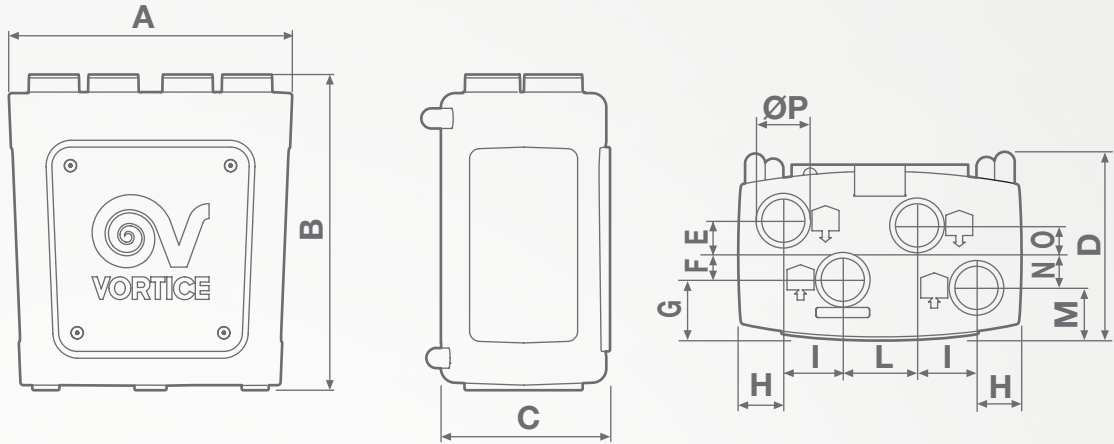
\* NA: Data not applicable

\*\* UVR-B: Bidirectional Residential Ventilation Unit.

\*\*\* VSD: Variable Speed Drive.

\*\*\*\* SPI: Specific Power Input

## DIMENSIONS



MODEL	A	B	C	D	E	F	G	H	I	L	M	N	O	ØP
VORT PROMETEO PLUS HR 400	840	935	502	560	85	100	156.7	133.6	176	220	180.7	76	99	150

Dimensions (mm)

## SOUND LEVELS

Sound Power									Sound Power Tot.	Pressure Power Tot.
		Lw dB(A)							Lw dB(A)	Lp dB(A)* 3m
RPM		125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz		
700	Inlet	8.4	9.3	14.0	22.6	5.0	9.2	10.1	28.0	7.5
	Outlet	5.7	15.0	18.1	16.4	13.9	12.2	7.5	27.5	7.0
	Radiated	14.3	39.2	18.3	20.6	2.9	7.1	nd**	44.0	23.5
1600	Inlet	18.5	24.1	29.4	37.5	24.8	15.6	13.3	43.2	22.7
	Outlet	16.0	25.6	27.9	28.4	18.8	6.8	3.3	37.6	17.1
	Radiated	21.7	31.9	38.3	34.0	23.8	11.8	7.5	48.4	27.9
2100	Inlet	16.9	32.3	36.6	48.3	35.8	24.7	10.2	56.7	36.2
	Outlet	14.9	34.7	32.8	38.4	29.2	15.7	nd**	46.4	25.9
	Radiated	24.6	41.1	41.6	47.1	34.8	20.8	5.6	58.0	37.5
2650	Inlet	20.3	40.9	46.0	64.7	41.8	33.7	18.5	65.5	45.0
	Outlet	19.1	42.5	38.4	60.0	36.0	25.6	13.8	60.7	40.2
	Radiated	31.3	43.0	48.1	59.2	41.4	29.1	13.6	61.3	40.8
3000	Inlet	23.5	41.3	47.5	52.0	44.1	37.1	22.8	59.4	38.9
	Outlet	19.7	42.7	40.6	43.2	38.0	27.1	12.2	53.6	33.1
	Radiated	28.9	45.7	47.9	47.4	43.9	33.3	16.2	59.5	39.0
3350	Inlet	25.3	44.4	49.7	54.8	48.4	42.3	28.8	62.7	42.2
	Outlet	23.6	43.4	43.2	45.7	41.5	31.6	13.5	55.5	35.0
	Radiated	31.8	46.7	51.5	55.2	47.5	37.4	22.0	62.4	41.9

\* Tests carried out using sound intensity measurement in a semi-anechoic chamber.



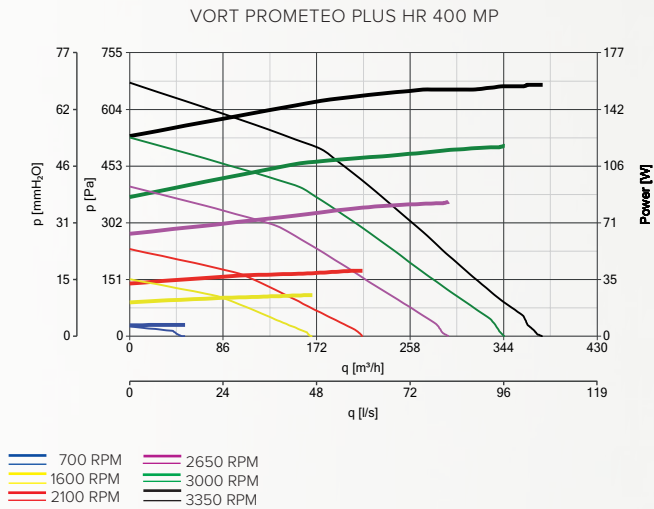


# VORT PROMETEO PLUS HR 400 RANGE

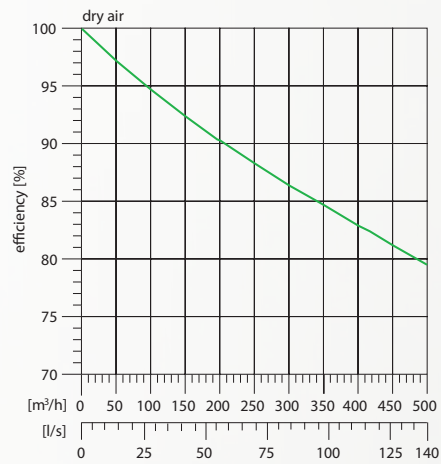
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## PERFORMANCE CURVES

### POWER CONSUMPTION CURVES



### Efficiency as a function of the airflow

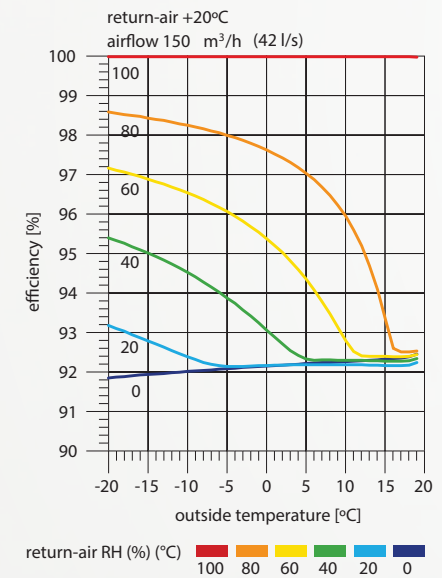


TEST RESULTS  
(tests according to EN 308 standards)

TOTAL EXHAUST FLOW RATE (m³/h)	HEAT RECOVERY EFFICIENCY (%)
54	93
76	91
98	90
119	89
140	89
162	88
184	88
205	87

Test conditions: +5°C/70%; +25°C/28%.

### Influence on efficiency due to condensation heat



## ACCESSORIES



RF - code 22464  
Remote Controller White



code 22469  
Electric Heater 1800



code 22479  
External RF Module HR 400  
PLUS



code 22342  
F5 Filter  
for external filter box



code 22343  
Vort Plenum 6+1



code 22347  
Vort Plenum 5+1 AR



code 22329  
F5 External Filter Box



code 22321  
F5 Filter



code 22323  
F7 Filter



code 22316  
Flexible silencer 150 (500 mm)



code 22318  
Heat Exchanger

code 22340  
Hexagonal Screwdriver for  
Maintenance



code 22751  
Flexible silencer  
150 (1000 mm)



code 22756  
Rigid Silencer NA 150  
(noise attenuator)

