

VORT PROMETEO PLUS HR400



VENTILATION AIR CONDITIONING AIR CLEANING HEATING



VORT PROMETEO PLUS RANGE





HEAT RECOVERY UNITS

Product specifications:

- 2 models:
 VORT PROMETEO PLUS HR 400
 VORT PROMETEO PLUS HR 400 M.
- External Casing in polypropylene (PPE).
- Heat Exchanger Crossed Counter-Flow type, made of PS (Polystyrene).
- Extremely high heat recovery rate (up to 92%).
- Electronically controlled EC brushless motors independently adjustable.
- Max airflow 380 m³/h.
- 3 available speeds.
- Automatic frost protection.
- By-pass 100%.
- Horizontal and Vertical installation.
- Provided with 2 F5 filters (F7 optional).
- 0.5 m long silencer with nominal diameter of 150 mm supplied.
- 2 mounting brackets for vertical installation and 4 feet for horizontal installation supplied.
- Protection rate: IPX2.
- Insulation class: Cl.II. 🗆

VORT PROMETEO PLUS HR 400:

- RF remote control supplied.
- 2 operating modes: automatic and manual.
- Automatic By-pass.
- Option of setting the temperature, humidity and CO, thresholds.
- Timer.

VORT PROMETEO PLUS HR 400 M:

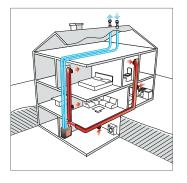
- 3 available speeds chosen through external device (speed selector supplied).
- Manual By-pass.
- Can be used in conjunction with Vortice ambient sensors.

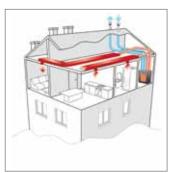
CE Marking

- Comply with the following European Directives:
- 2006/95/EC Low Voltage Directive (LVD)
- 2004/108/EC Electromagnetic Compatibility Directive (EMC)
- 2006/42/EC
- According to the following state-of-the-ar t Standards:
- Safety: EN 60335-1, EN 60335-2-80, EN 60335-2-31, EN 62233, EN 60529 EMC: EN 55014-1, EN 55014-2, EN 61000-3-2, EN 61000-3-3
- PERFORMANCE: EN 308, EN 13141-7

KEY FEATURES

- Offers continuous ventilation of the home.
- Energy saving thanks to brushless motors.
- Can be integrated into a residential home automation network (ModBus).
- Software can be easily updated through USB connection.
- The PCB is easily accessed by removing the bottom panel.
- Recommended application in residential buildings (such as small detached homes) up to 200 m² and commercial buildings.
- Horizontal or vertical installation facilitated by the minimal weight of the appliance (just 25 kg).

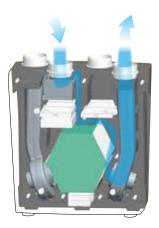






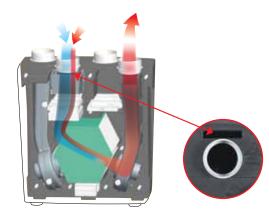


FUNCTIONS AND SUPPLIES VORT PROMETEO PLUS RANGE



By-pass

In ISOTHERMAL conditions (similar indoor and outdoor air temperatures) or where the outdoor temperature is close to desired indoor temperature, the By-pass valve can be activated automatically or manually, allowing fresh air to By-pass (the heat exchanger) for natural ventilation (FREE-COOLING).



Frost protection (Defrosting)

In situations where the outdoor air temperature and RH % cause ice forming on heat exchanger, the frost protection valve automatically opens to mix up fresh outside air with installation room milder air. Simultaneously changes motor speed via the electronic control makes the defrosting process quicker and more efficient.

In particularly harsh climates Vortice recommends the installation of 500 W, 1200 W or 1800 W in-duct pre-heaters, available as an optional accessories, each are automatically activated by the on-board electronics.

Filter

VORT PROMETEO PLUS RANGE is supplied with 2 F5 filters, for cleaning fresh and stale air flows.

A further optional F7 filter is available for additional filtering of the incoming air. An F5 filter box accessory is also available, for installation outside the machine. Filter efficiency is monitored by the on-board electronics, providing visual and acoustic warnings via the RF remote control.

REGULATION AND CONTROL VORT PROMETEO PLUS MODEL



Each Vort Prometeo Plus feature is controlled by the radio frequency (RF) remote control.

The RF remote control with LCD display featuring new integrated graphics can be used for the following purposes:

- Switching on/off.
- Selecting the appliance operating mode (Manual/Automatic).
- Easy initial setting of minimum and maximum speed (no needs to directly operate the machine).
- Selecting one of the 3 speed settings.
- Selecting the By-pass function.
- Setting the Timer function (the product, working in Manual mode, will work at the maximum speed for: 10', 20', 30' or indefinitely, automatically slowing down to min speed).
- Configuring the automatic operating parameters:
 desired indoor temperature (for bypass management only) can be set by the user between +15 °C and +30 °C (each step 1 °C);
 relative humidity can be set by the user between 40% and 90% (each step 5%);
 - Max. CO₂ air concentration in the room can be set by the user between 500 ppm and 3.000 ppm (at step of 50 ppm); CO₂ level can be disabled.
- Viewing machine malfunction information.

An additional radio frequency (RF) antenna, part code (22479) including a connection cable, is available as an option, and allows control Vort Prometeo Plus even if the position chosen for its installation is screened from radio waves.

FILTER SPECIFICATIONS

 The air we breathe contains a huge number of potentially harmful particles, over 90% of them are smaller than 1 µm, for example:

- **Fine particles** emitted by motor vehicles and heating systems.

- Viruses.

- Bacteria.

it is very important to use air exchange systems with high-efficiency filters, which capture most of these toxic particles.

 Mechanically controlled ventilation systems such as VORT PROMETEO PLUS heat recovery units filter air as it enters served ambients, protecting the health and wellbeing of people occupying the rooms served by the appliance.

DON'T FORGET:



Over time, filters become clogged, leading to a greater pressure loss in the air circuit; the filters therefore require regular maintenance and

should be replaced when they are no longer effective.

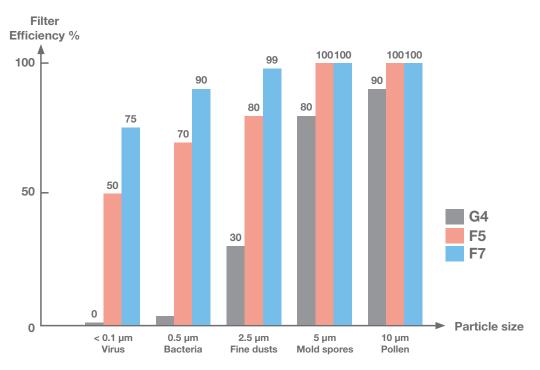
Filters can be split into 2 main categories, based on their filtering efficiency:

- Type G: coarse filter

- Type F: fine filter

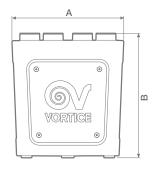
These categories are defined by European standard **EN779**.

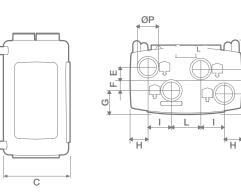
Within the two categories, a progressive number indicates the efficiency level of the filter: the higher the number, the more efficient the filter is at capturing particles, as you can see from the chart below.



F filters are the most efficient at capturing small particles.

DIMENSIONS





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Models	Code	A	В	С	D	Е	F	G	н	I	L	М	N	0	ØP
VORT PROMETEO PLUS HR 400	11582	840	935	502	560	85	100	156.7	133.6	176	220	180.7	76	99	150
VORT PROMETEO PLUS HR 400 M	11585	040	930	502	500	00	100	150.7	133.0	170	220	100.7	10	39	130

Dimensions (mm)

TECHNICAL DATA

					Max A		-	ressure		
Models	Code	V ~ 50 Hz	W	Α	m³/h	l/s	mmH ₂ O	Pa	Kg	Max °C
VORT PROMETEO PLUS HR 400	11582	230	160	1.3	380	106	68.8	675	25	50
VORT PROMETEO PLUS HR 400 M	11585	230	100	1.5	300	100	00.0	075	20	50

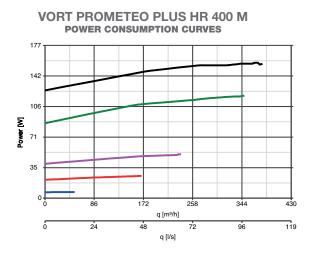
SOUND LEVELS* VORT PROMETEO PLUS RANGE

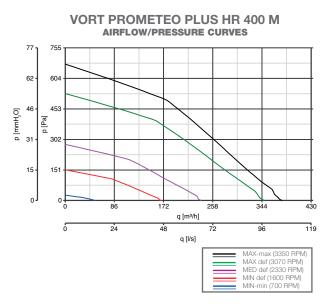
				Lw dB	Lp dB (A)					
RPM		125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	(A)	3m
	Inlet	8.4	9.3	14	22.6	5	9.2	10.1	28	7.5
700	Outlet	5.7	15	18.1	16.4	13.9	12.2	7.5	27.5	7
	Radiated	14.3	39.2	18.3	20.6	2.9	7.1	na**	44	23.5
	Inlet	18.5	24.1	29.4	37.5	24.8	15.6	13.3	43.2	22.7
1600	Outlet	16	25.6	27.9	28.4	18.8	6.8	3.3	37.6	17.1
	Radiated	21.7	31.9	38.3	34	23.8	11.8	7.5	48.4	27.9
	Inlet	16.9	32.3	36.6	48.3	35.8	24.7	10.2	56.7	36.2
2100	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	37.5
	Inlet	20.3	40.9	46	64.7	41.8	33.7	18.5	65.5	45
2650	Outlet	19.1	42.5	38.4	60	36	25.6	13.8	60.7	40.2
	Radiated	31.3	43	48.1	59.2	41.4	29.1	13.6	61.3	40.8
	Inlet	23.5	41.3	47.5	52	44.1	37.1	22.8	59.4	38.9
3000	Outlet	19.7	42.7	40.6	43.2	38	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
	Inlet	25.3	44.4	49.7	54.8	48.4	42.3	28.8	62.7	42.2
3350	Outlet	23.6	43.4	43.2	45.7	41.5	31.6	13.5	55.5	35
	Radiated	31.8	46.7	51.5	55.2	47.5	37.4	22	62.4	41.9

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

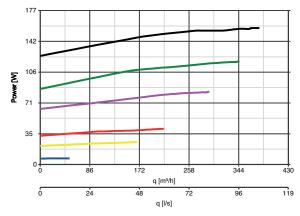
** Data not available.

PERFORMANCE CURVES

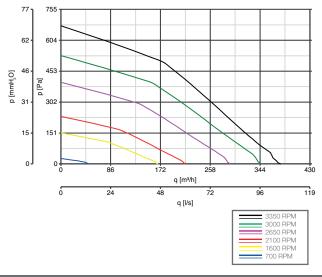




VORT PROMETEO PLUS HR 400 POWER CONSUMPTION CURVES



VORT PROMETEO PLUS HR 400 AIRFLOW/PRESSURE CURVES



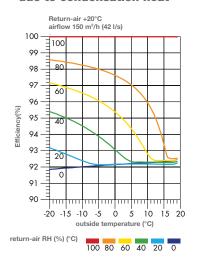
EFFICIENCY CURVES

Test according to EN 308

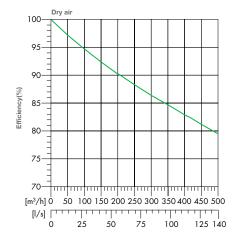
TOTAL EXHAUST FLOW RATE (m ³ /h)	HEAT RECOVERY EFFICIENCY (%)
54	92
76	91
98	90
119	90
140	89
162	88
184	88
205	87

Test conditions: -5°C/70%; +25°C/28%. Data referred to test performed at BRE according to BRITISH SAP-Q system 4 standard.

Influence on efficiency due to condensation heat



Efficiency as a function of the airflow



ACCESSORIES

	Descri	ption				Code	Models
 C TEMP-TEMPERATURE: Measures ar temperature exceeds the preset value. Ou adjust the over-run timer from 3 to 20 mir	nce the temp					12992	
 C SMOKE: Measures the air quality, deter pollutants, and starts the fan when the co adjust the over-run timer from 3 to 20 min		12993					
C HCS-HUMIDITY: Measures ambient m It incorporates an over-run timer (adjustat		12994	11585				
C PIR- MOVEMENT DETECTOR: Dete starts the fan automatically. You can adju	sor range, and	12998					
C TIMER: Adjustable over-run timer betv	veen 3 and 2	0 minutes.				12999	
		DIMEN	ISIONS (mn	n)			
	Code	Model	Α	В	С		
	12992	C TEMP	144	54	55.8		
	12993	C SMOKE	144	54	55.8		
	12994	C HCS	144	54	55.8		
	12998		144	54	55.8		
	12999	C TIMER	144	54	55.8		

If external room sensors are connected, specific wiring is required.

 ſ	Descrij	otion					C	ode	Models
AIR VALVE FOR EXTRACTION: - Ø 80 - Ø 125								2326 2327	
 AUTOMATIC AIR INLET: EA 15 BL Automa EA 30 BL Automa		012 014							
AUTOMATIC ACOUSTIC AIR INLET: EAA22-BL Automatic acoustic air inlet 22 m ³ /h EAA30-BL Automatic acoustic air inlet 30 m ³ /h EAA40-BL Automatic acoustic air inlet 45 m ³ /h.									11582 11585
ADDITIONAL SPIGOT: Additional spigot.									
CONTROLS: External RF Receiver Module RF Remote Controller White. An additional remote-controlled radiofrequency RF device including a connection cable is available as an optional accessory and allows control of the appliance even if the position chosen for its installation is shielded from radio waves.									
 SPEED REGULATOR: three-speed selector	r switch.						22	2478	11585
ELECTRIC HEATER: When the temperature Prometeo unit are such that frost may form of efficiency of the unit. It can also affect the co- the VORT PROMETEO PLUS HR 400 and V0 changes in fan speeds that, in the vast major In particularly harsh climates, this may not so installation of a 500 W, 1200 W or 1800 W p be warmed.	on the he mpletely ORT PR rity of ca plve the	eat exchanger s v automatic syst OMETEO PLUS ases, allow defro problem. In suc	surface, tem in S HR 40 osting to h cases	this can 0 M tha be carr	affect th t manag- ried out.	ne es nend the	22	2467 2468 2469	11582 11585
This heater will operate automatically for the minimum time needed and will ensure the problem of frosting is solved.									
	Code	Model	A	В	С	ØD	Е	F	Weight [kg]
	22467	Electric heater 500 W	150	285	40	150	380	250	2.2
	22468	Electric heater 1200 W	150	285	40	150	380	250	2.6
	22469	Electric heater 1800 W	164	278	42	147	375	250	2.8

Description	Code	Models							
EXTERNAL FILTER BOX: F5 External Filter Box Galvanised filter box (F5) designed to simplify maintaining the VORT PROMETEO PLUS HR 400 and VORT PROMETEO PLUS HR 400 M. The filter box is fitted to the outside of the appliance and protects the intake and outlet ducts serving various rooms (replacing standard filters). Time spent on maintenance is less (thanks to a specially sized filter that guarantees perfect filtering characteristics even when the unit is used for long periods), and maintenance work is simplified as direct access to the Prometeo unit is not required.	22329								
FILTERS: F5 filter for VORT PROMETEO PLUS HR 400 and PROMETEO PLUS HR 400 M external filter box. F5 internal filter (single) for VORT PROMETEO PLUS HR 400 and PROMETEO PLUS HR 400 M. F7 internal filter (single) for VORT PROMETEO PLUS HR 400 and PROMETEO PLUS HR 400 M.	22342 22321 22323								
SCREWDRIVER: Hexagonal screwdriver for maintenance.	22340								
NOISE ATTENUATOR: - To be installed in the ventilation system, always after the fan, and/or the filter box/duct heater. - Useful when noise level required is particularly low. - Working temperature: -30° +60° C. - Maximum working pressure: 2000 Pa. - Maximum air speed: 25 m/s max. SIZES (mm) Openation Openation - Maximum air speed: 25 m/s max. SIZES (mm) - Maximum air speed: 25 m/s max. SIZES (mm) - Maximum air speed: 22756 (Noise Attenuator) 1000 150 266 2 - 22751 Flexible Silencer 1000 150 200 0.93 - 22316 Flexible Silencer 500 150 200 0.3	22756 22751 22316	11582 11585							
BACKDRAUGHT SHUTTER: - To be directly mounted in ventilation ducts or on fan outlet. - Composed by a cylinder in electro galvanized sheet steel calendered and welded. - Closure and seal are ensured by a toroidal gasket in neoprene closed cell. Bild E - Code Model Ø A B C D Ø E Weight [kg] 22562 IN LINE-S 150 146 28 120 36.5 153 0.353									
GRAVITY SHUTTER: - To be installed at the duct outlet on vertical wall. - Useful to avoid air return from the outside and to protect the product. - Totally manufactured from shockproof thermoplastic anti UV resin. - Flaps are shaped in order to avoid their block. SIZES (mm) Code Model Ø A B C I/I D Nr flaps B I/I D Nr flaps 6	22334								

			Descrip	otion				Code	Models
	FIXED GRILLE: -To be mou	inted at the	beginning or	r the end of a	ventilation	duct.			
	- Totally ma								
A DESCRIPTION OF THE OWNER.	C	22165 22166							
	SIZES (mm)								
		22165	FG 100	99	8	28	140	22167	
		22166	FG 125	119	8	28	160	-	
		22167	FG 150	155	8	28	198		
	GRILLE KIT: - To be mounte - Totally manuf								
			N4 1 1		6 (mm)	-		22140 22141	
1 880		Code 22140	D 100	Ø A 99	8 8	28	140	22142	
		22140	D 100	119	8	28	140	-	
		22141	D 120	155	8	28	198	-	
	AIR VALVE: - To be applied - Allow flow rate - White thermore	e regulation	with a simple	e adjustment		0		22189	
	A ØC	Code	Model	A	ØB	ØC	Ø D	22190	
		22189	AV 100	13	80	140	140		
		22190	AV 125	15	115	166	160		
		22191	AV 150	17	130	204	198		
	ALUMINIUM FLEXIBLE DUCT: - Ideal for ventilation and air conditioning, low noise and for high pressure. - Totally manufactured from aluminium. - Length 4 m (Ø 100 mm -150 mm). SIZES (mm)							22175 22176	11582 11585
) [Code	Model		A	ØВ	22177	
			22175	AFD 100-4		00	102		
		ØB	22176	AFD 125-4	40	00	127		
			22177	AFD 150-4	40	00	152]	
		- Length 4 m (Ø 100 mm - 150 mm). 2218						22182 22183 22184	
			22182	AFD-I 100-4	40	00	102	1	
		ØB	22183	AFD-I 125-4	40	00	127]	
			22184	AFD-I 150-4	40	00	152]	
	VORT PLENUM: - VORT PL or extrac		-1: Air distribu 6 rooms + kit		inspection	opening fo	r air supply	22343	
	- VORT PLENUM 5 +1 AR: Air distribution box with inspection opening for								
	air extrac	ction up to	5 rooms + kit	tchen.					

Code 5.170.084.664

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