



# VORT HRW MONO D RANGE

DECENTRALIZED HEAT RECOVERY UNITS

**A**

**CENTRALIZED VENTILATION**

**WALL MOUNTED**

**UP TO 20 M<sup>2</sup>**

Decentralized ventilation system with heat recovery, high efficiency, suitable for recessed installation (nominal hole diameters 160 mm) in outside walls of thickness between 300 mm and 700 mm. Quiet, efficient, energy saving and antiallergic (thanks to built-in filters preventing the release of pollutants and allergens into the surrounding air), easy to install and maintain, the VORT HRW 20 MONO D (code 11671), represents the ideal alternative to traditional dual flow centralized ventilation systems.



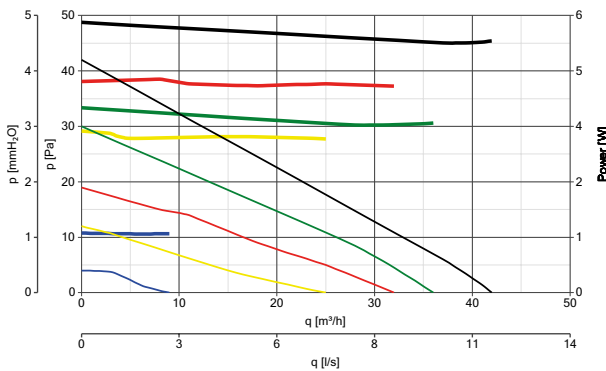
VORT HRW 20 MONO D CODE 11671



REMOTE CONTROL UNIT  
CODE 11671

- Single room alternating flow MCV unit with a very high efficiency heat recovery unit (up to 90%), piping Ø 160mm, ceramic exchange pack.
- Recessed wall-mount installation with housing made of expanded polypropylene (PPE).
- 5 adjustable speeds (from 18 to 40 m<sup>3</sup>/h).
- G3 Filters (F5 opt.).
- High efficiency storage heat exchanger, made of ceramic honeycomb material designed to maximize the heat exchange surface.

## PERFORMANCE AND ABSORPTION



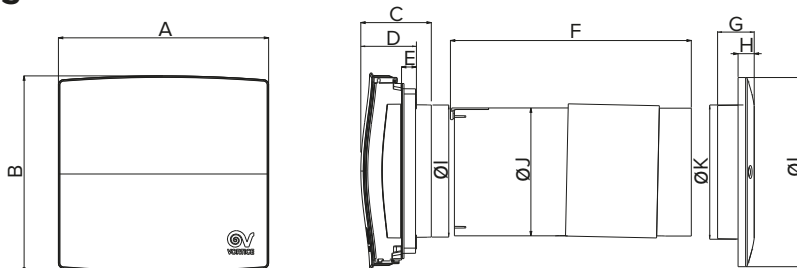
## TECHNICAL DATA

PRODUCT	CODE	Nom. Ø (mm)	(m <sup>3</sup> /h)	(W)	(PA)	Lp [dB (A)] 3m
VORT HRW 20 MONO D	11671	160	42	5	40.6	26

CONSUMPTION CURVES: 5<sup>th</sup> sp. (max), 4<sup>th</sup> sp., 3<sup>th</sup> sp., 2<sup>th</sup> sp., 1<sup>st</sup> sp. (min)

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## DIMENSIONS



VORT HRW 20 MONO D (code 11671)

PRODUCTS	A	B	C	D	E	F	G	H	ØI	ØJ	ØK	ØL
VORT HRW 20 MONO HCS	240	224	80	64	17	275	42	18	151	146	153	216

Dimensions in mm



## ENERGY DATA

	UNIT OF MEASURE	VORT HRW 20 MONO D
MANUFACTURER'S NAME OR TRADE NAME	-	VORTICE
CLASS OF SPECIFIC ENERGY CONSUMPTION FOR TEMPERATE CLIMATE	-	A
SPECIFIC ENERGY CONSUMPTION SEC (TEMPERATE CLIMATE)	kWh/m <sup>2</sup> year	-40.2
SPECIFIC ENERGY CONSUMPTION SEC (COLD CLIMATE)		-83.3
SPECIFIC ENERGY CONSUMPTION SEC (WARM CLIMATE)		2.5
DECLARED TYPE OF THE VENTILATION UNIT	-	UVR-U**
DRIVE TYPE	-	VSD***
HRS TYPE HEAT EXCHANGER	-	recovery
THERMAL EFFICIENCY OF HEAT RECOVERY AT THE HRS REFERENCE FLOW RATE	%	89
MAXIMUM FLOW RATE	m <sup>3</sup> /h	35
TOTAL ELECTRIC POWER ABSORBED BY THE FAN AT MAXIMUM FLOW RATE	w	5
Sound LEVEL	LWA [dB(A)]	46
REFERENCE FLOW RATE	m <sup>3</sup> /s	25
REFERENCE PRESSURE DIFFERENCE	Pa	19
SPI****	W/(m <sup>3</sup> /h)	0.12598
CTRL CONTROL FACTOR	-	1
CONTROL TYPE	-	manual
MAXIMUM PERCENTAGE OF INTERNAL LEAKAGE	%	NA*
MAXIMUM PERCENTAGE OF EXTERNAL LEAKAGE	%	NA*
MIXING RATE	-	NA*
POSITION AND DESCRIPTION OF THE VISUAL FILTER SIGNAL	-	NA*
AIR FLOW SENSITIVITY AT PRESSURE VARIATIONS OF ± 20 PA	-	0.27
INDOOR/OUTDOOR AIR SEALING	m <sup>3</sup> /h	0
AEC ANNUAL ELECTRICITY CONSUMPTION	kWh of electricity/year	174
TEMPERATE AHS ANNUAL HEATING SAVINGS	kWh of primary energy /year	4515
COLD AHS ANNUAL HEATING SAVINGS		2732
WARM AHS ANNUAL HEATING SAVING		2042

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

\*\*\*\* SPI: Specific power input.



# VORT HRW MONO D RANGE

## DECENTRALIZED HEAT RECOVERY UNITS

### TECHNICAL CHARACTERISTICS

- **Ultra low power consumption** (2.8 W to 8.6 W), perfectly compatible with operation 24/7.
- **High heat exchange efficiency (up to 89%)**, certified by independent body, guaranteeing comfort and minimal waste of energy.
- **Extremely low noise levels**, compatible with installation in living rooms (lounge, study, bedroom), and use during the night.
- Offering **compact dimensions**, plus ease of installation and set-up, these VORT HRW 20 MONO D units are ideal both for new buildings and for renovation projects.
- **Wide range of alternative operating modes**, allowing selection of the best balance between performance, power consumption and noise levels.
- **Simple and intuitive to use.**
- **Ventilation duct with damper mechanism**, to prevent the risk of contaminants entering from outside and maximize heat insulation in the event that the room will not be occupied for extended periods.
- **Facility of operation in conjunction with an extractor fan**, to ensure continuous and correct ventilation of the dwelling.
- **Option of operation** in automatic mode, enabled by installing temperature and relative humidity sensors (optional).
- Possibility of installation on outside walls of thickness between 300 mm and 700 mm (with optional accessory).
- Operation permissible across a wide range of outdoor temperatures (-20° / 50° C).
- **Internal panel made of self-extinguishing plastic polymer (ABS VO)**, coated with heat-insulating material to avoid condensation and designed without frontal vents so as to blend effortlessly into the interior decor (peripheral intake and outlet vents). Provision made for chased wiring.
- External grille made of plastic resin, complete with fly screen.
- **Fan unit with EC motor, guaranteeing ultra low energy usage**, powered at low voltage and with shaft mounted on ball bearings to ensure virtually “maintenance free” operation. 5 fan speeds, favouring selection of the best balance between volume of air handled, power consumption and noise level.
- **G3 filter, mounted in separate frame to facilitate user serviceability**, washable and easily accessible for cleaning and maintenance.
- **Mesh prefilter** housed adjacent to the external grille.
- **Wired remote control unit supplied as standard accessory (code 21145)**, wall-mounted and compatible with DIN standard circular back box, diameter 60 mm. Complete with circuit board designed for use in combination with three alternative power adapters (optional), in versions for recessed mounting or panel installation (DIN rail) and designed to serve a maximum of 4 or 6 products, the control unit includes 2 Leds (indicating the operational status of the product and warning when the filter is clogged) and is factory prepared for use in combination with IR remote control.
- **Degree of dust and water protection:** IPX4.
- **Electrical insulation class:** II (grounding not required).

### TECHNICAL DATA

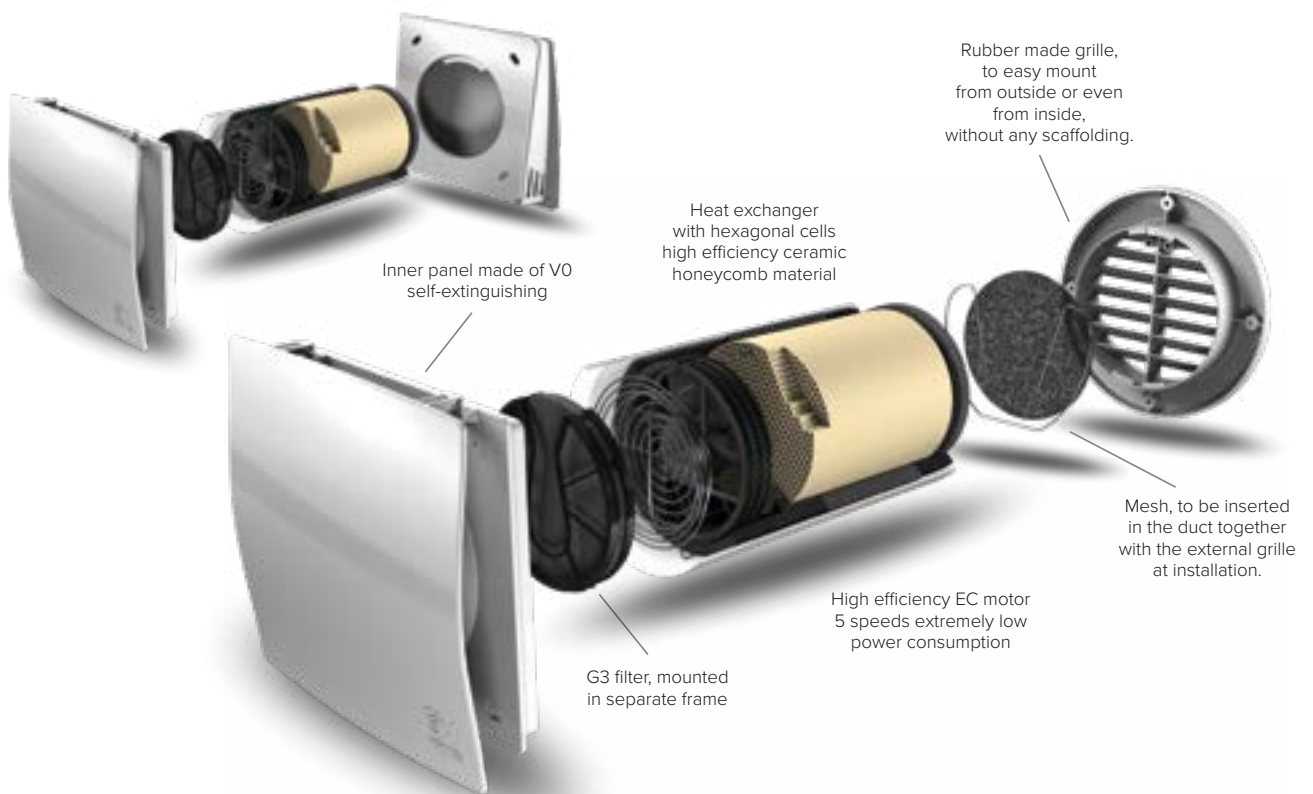
SPEED	1	2	3	4	BOOST
Supply/extract airflow at different speed leves m <sup>3</sup> /h	9	16	25	33	42
Fan power W	2	2,7	3,7	5,0	
Heat recovery efficiency	up to 89%				
Supply voltage V	input 230 V - 50/60 Hz /output 12 V				
Nominal current A	0,026	0,035	0,048	0,056	-
Weight Kg	2,55				
Temperature Max C°	-20° / 50° C				

## SOUNDS LEVELS




Sound pressure LPA dB(A)*	16/22/26
Standard sound pressure difference Dn,e,w**	32 - 48 dB

\* Sound pressure levels have been calculated at 3 mt in free field according to UNI EN ISO 3741:2010. \*\* Rating according to EN ISO 10140-2-2010 depending on accessories.

## MAIN COMPONENTS



## REGULATORS

MODELS	DESCRIPTION	DIMENSIONS	CODE	VORT HRW MONO D code 11671
	<b>C SMOKE</b> Smoke sensor	<b>116x83x68.5</b>	<b>12992</b>	✓
	<b>C TEMP</b> Temperature detector	<b>144x54x55.8</b>	<b>12992</b>	✓
	<b>C HCS</b> Humidity detector	<b>144x54x55.8</b>	<b>12994</b>	✓

System components (description and data from page 96).

Regulators (description and data from page 152).

## ACCESSORIES

MODELS	DESCRIPTION	CODE	VORT HRW MONO D code 11671
	<b>PVC HRW PIPE</b> Rigid PVC duct (diameter 160 and length 700 mm) for wall mounting.	<b>22599</b>	✓
	<b>MWS</b> Metal outer grille	<b>21148</b>	✓
	<b>MWS-A</b> Outside stainless steel windshield panel	<b>21219</b>	✓
	<b>WA KIT</b> Circular or rectangular adapter for mounting the window grille.	<b>21191</b>	✓
	<b>WSG-INOX</b> Rectangular stainless steel grille for WA KIT	<b>21193</b>	✓
	<b>WSG-W</b> White rectangular grille for WA KIT	<b>21192</b>	✓
	<b>M 5</b> Filter	<b>22699</b>	✓
	<b>M 5</b> Filter Kit	<b>22466</b>	✓