

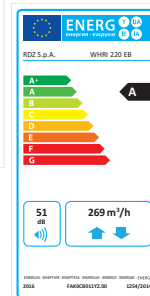
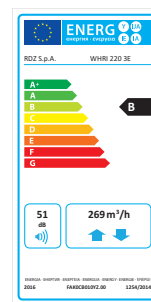
## TECHNICAL DATA SHEET



Description	Size (l x h x p)	Code
WHRI 220 3E	600X1000X267 mm	7045530
WHRI 220 EB	600X1000X267 mm	7045531

### TECHNICAL DATA

- Flow rate 269 m<sup>3</sup>/h at 100 Pa working pressure
- Counterflow heat recovery unit, polypropylene, with >90% efficiency
- EC fans, backward curved centrifugal, low consumption
- F7 filters (ePM1 70%) with low pressure drop, for both extract and fresh air
- Self-supporting structure in pre-painted sheet metal; 22 mm thick rock wool thermal/acoustic insulation
- Nominal voltage: 230 V 1F 50-60 Hz. Absorption at max. flow rate: 1,5A 173W
- Overall dimensions excluding ducts and condensate drain (l x w x h): 600x1000x267 mm
- Nominal pipe diameter: Ø 160 mm Weight: 47 kg
- Sound pressure level at 1,5 m (L<sub>pa</sub> in dB(A)): 39 dB(A)
- Integrated bypass for free-cooling / free-heating (manual, motorised or automatic operation)
- Available with the following controls: 3-speed EVO (Easy 3E), electronic with white LCD display (Smart EB)
- Integrated frost protection (only versions with electronics: Easy 3E, Smart EB)
- Operating conditions: ambient temperature between 0 °C and 45 °C, humidity <80%.



### AVAILABLE CONTROLLER



**Easy 3E** - Electronic control/connection board installed on board the machine; remote control with on/off, speed selection from 3 preset speeds (speed calibration can be changed using trimmers on the board), opening/closing signalling. (it is possible to modify the speed setting by acting on the trimmers on the board), by-pass opening/closing signalling (with automatic control), anti-blocking protection signalling. closure by-pass signalling (with automatic control), frost protection signalling (with automatic control by reducing the fan speed). by reducing the speed of the inlet fan, dirty filters signalling

(counting of operating hours) and hours of operation) and temperature probe failure. Possibility of controlling the unit through simple digital inputs (on-off and remote speed). The remote control can be installed inside a type 503 horizontal box. Possibility of (automatic) control of a possible antifreeze heater (even 2 stages).



**Smart EB** - Electronic control/connection board installed on the machine, which can be combined with a thin white LCD display, with integrated humidity and ambient temperature probes (can be installed on a type 503 horizontal box); Fan speed can be selected manually from 3 preset speeds (modifiable from 10% to 100%) or managed automatically by the control board (depending on humidity, air quality, temperature and/or other external probes); possibility of differentiating the speed of the inlet fan with respect to the exhaust fan; automatic control of the by-pass, with both free-cooling and free-heating functions; integrated frost protection with reduction in the speed of the inlet fan or, if present, with an

anti-freeze resistor; automatic management of any post-treatment batteries/resistors (both with on/off and 0-10V valves); display of any active alarms and alarm history; filter clogging alarm both with counting of operating hours and with differential pressure switches; hourly/weekly programming. Possibility of controlling the control board with simple digital inputs (remote on/off contacts, speed, summer/winter...) and of combining it with external 0-10V probes (CO2/air quality, humidity, temperature, constant flow rate/pressure control...); ModBus on RS485 for connection to external controllers/supervisors; provision for expansion modules (LAN, RS485, RS232, GSM...), available in the future.

# TECHNICAL DATA SHEET

## DIMENSIONS



FRESH AIR  
INLET



EXHAUST  
AIR



STALE AIR  
EXTRACTION



SUPPLY  
AIR



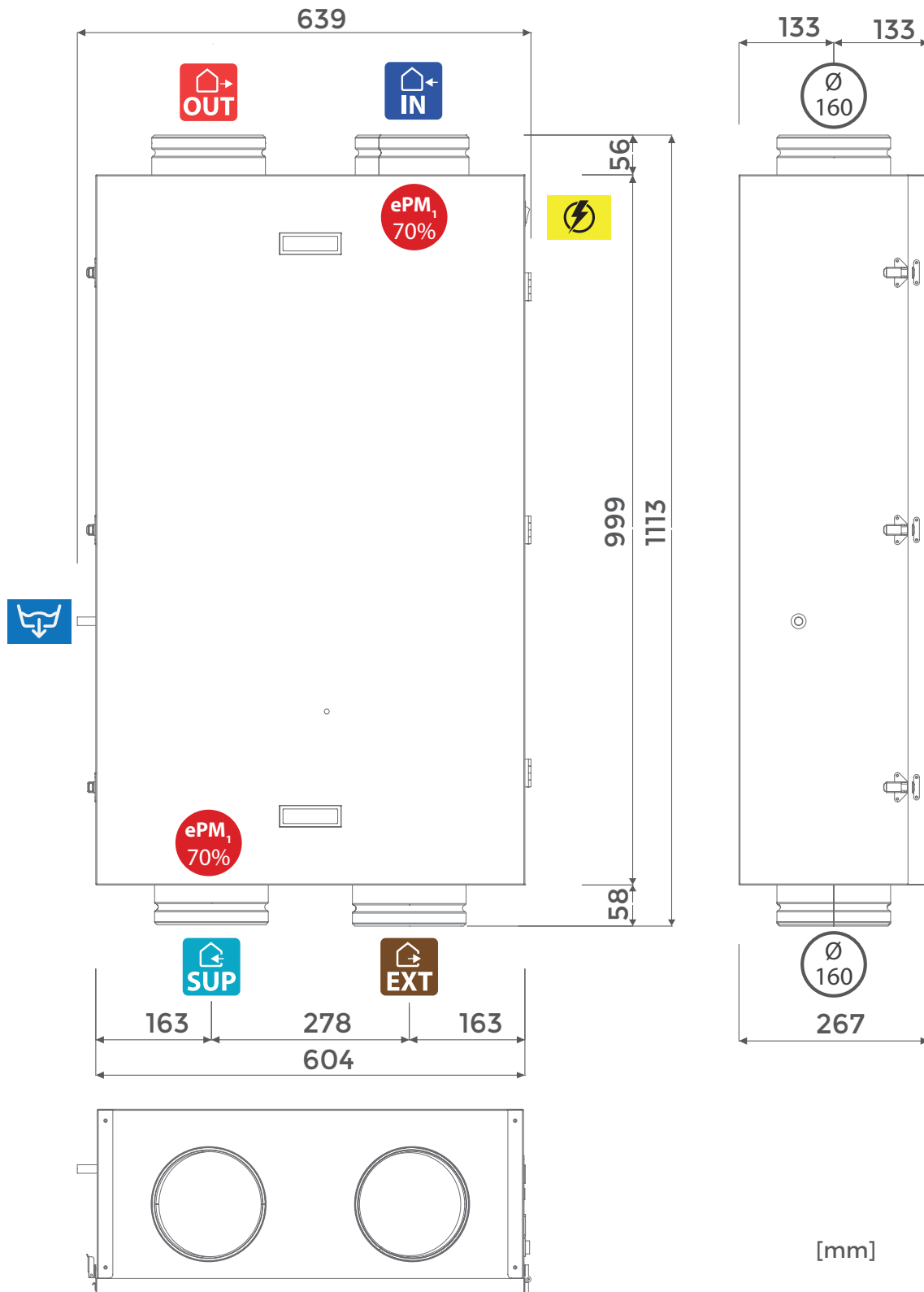
AIR FILTER  
ISO ePM1 | e(PM1) min ≥ 50 %



Condensate drain Ø 12 mm



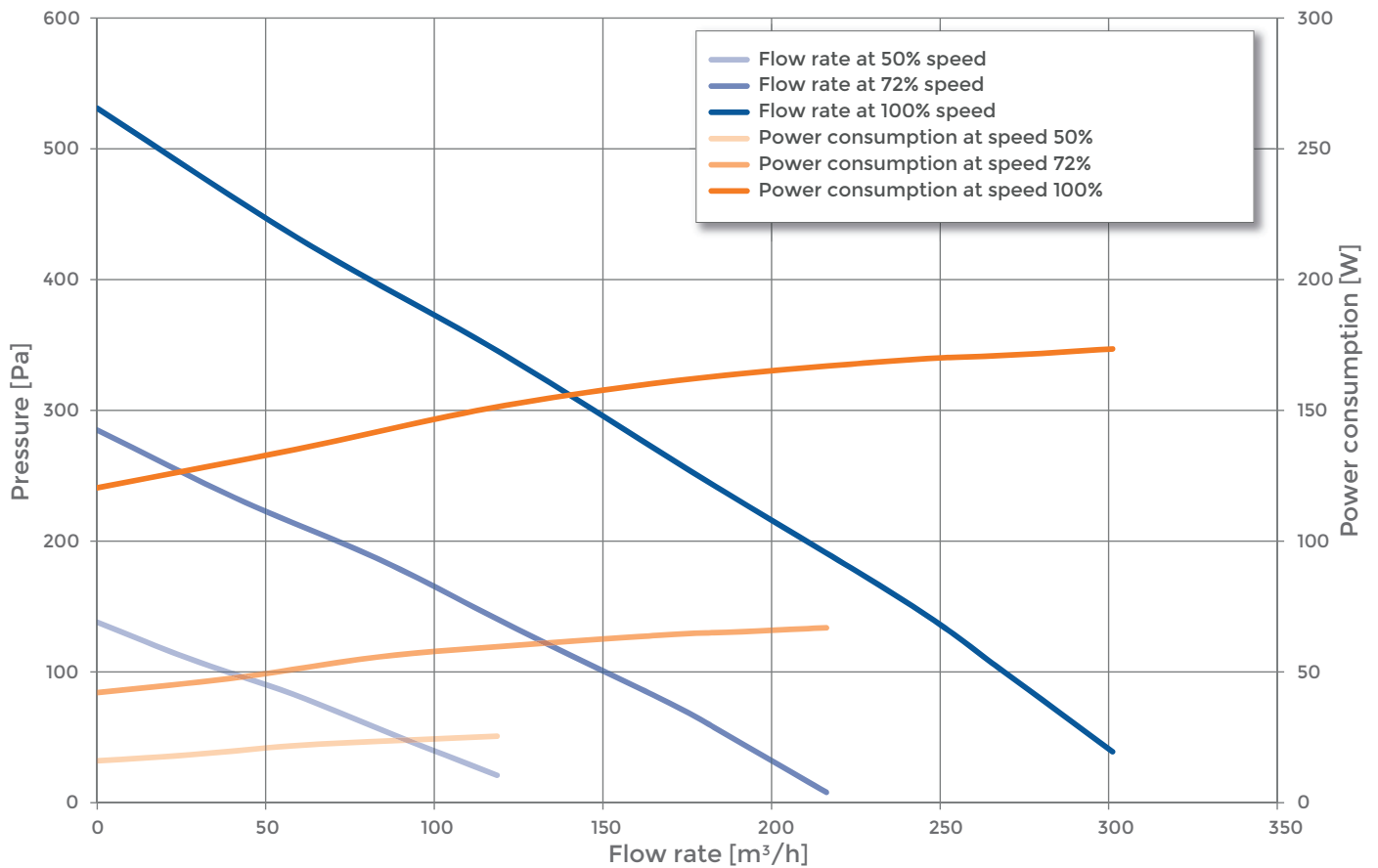
Electrical Cabinet



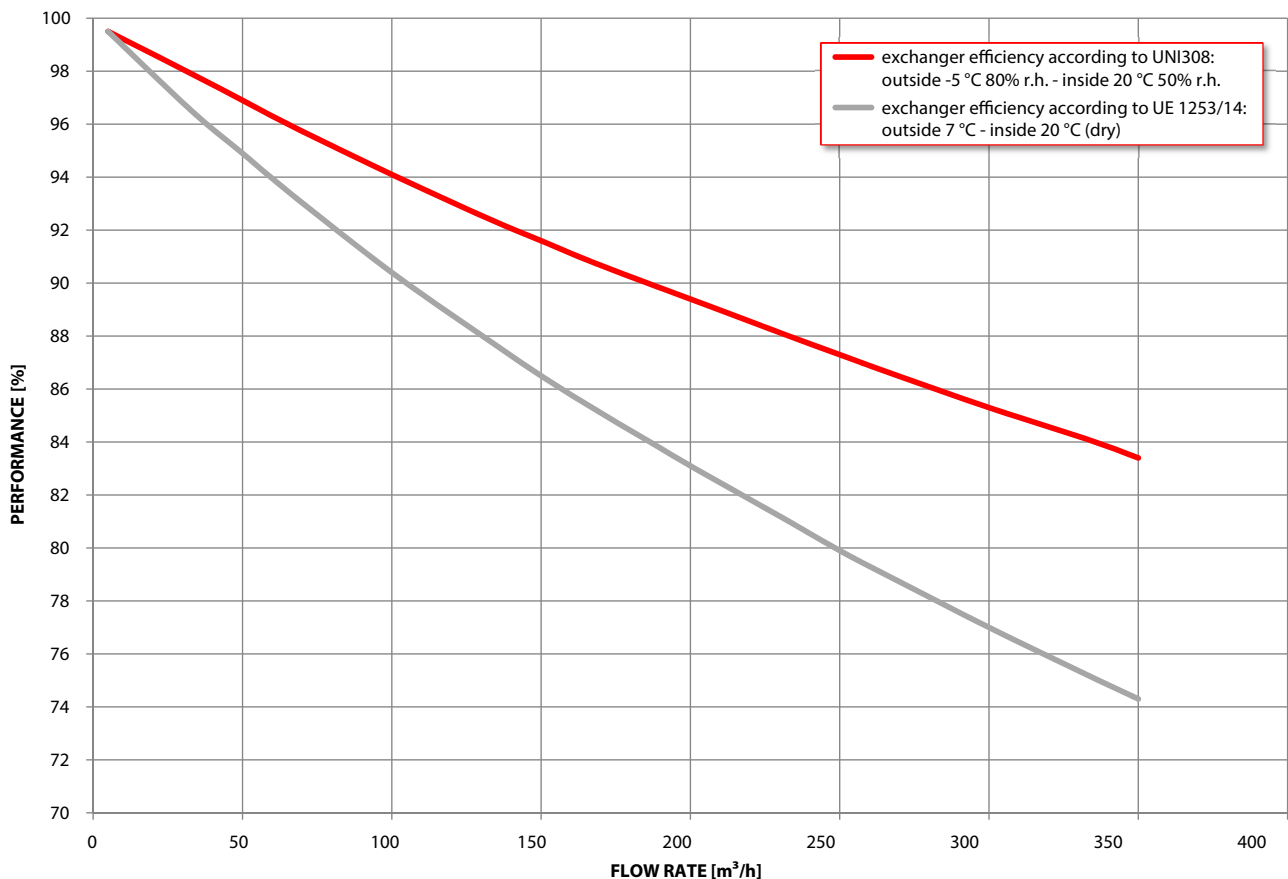
[mm]

## TECHNICAL DATA SHEET

### AERAULIC PERFORMANCES



### EXCHANGER THERMAL EFFICIENCY



# TECHNICAL DATA SHEET

## TECHNICAL SHEET

Supplier's brand		RDZ S.p.A.	RDZ S.p.A.
Model identifier		WHRI 220 3E	WHRI 220 EB
Specific energy consumption in KWh/(m <sup>2</sup> .a) for each climate zone and SEC class	Cold climate Mild climate Warm climate	-69,2 KWh/m <sup>2</sup> .a -32,6 KWh/m <sup>2</sup> .a -9,0 KWh/m <sup>2</sup> .a	-73,7 KWh/m <sup>2</sup> .a -36,4 KWh/m <sup>2</sup> .a -12,4 KWh/m <sup>2</sup> .a
Energy class		B	A
Product type		UVNR, bi-directional	UVNR, bi-directional
Type of motorisation		Variable speed	Variable speed
Heat recovery system		Counterflow recuperator	Counterflow recuperator
Heat recovery system thermal efficiency*		83,9%	83,9%
Maximum flow rate (m <sup>3</sup> /h)*		269 m <sup>3</sup> /h	269 m <sup>3</sup> /h
Electric power input at maximum flow rate (W)*		173 W	173 W
Sound power level (Lwa in dB(A))*		51 dB(A)	51 dB(A)
Reference flow rate (m <sup>3</sup> /s)*		0,052 m <sup>3</sup> /s	0,052 m <sup>3</sup> /s
Pressure difference (Pa)*		50 Pa	50 Pa
Specific input power (W(m <sup>3</sup> /h))		0,35 (W(m <sup>3</sup> /h))	0,35 (W(m <sup>3</sup> /h))
Type of control		Manual control	Room control centralised
Control coefficient		1,00	0,85
Drawing rate (%)	Internal External Recirculation	1,4% 2,2% not applicable	1,4% 2,2% not applicable
Mixing rate (%)		not applicable	not applicable
Location and description of visual filter warning signal		LED signalling on remote control	Alarm shown on display remote
Installation for new air inlet		not applicable	not applicable
Internet address with pre-assembly and disassembly instructions		www.rdz.it	www.rdz.it
Sensitivity of air flow to pressure variations at +20 Pa and -20 Pa (%)		not applicable	not applicable
Indoor/outdoor air handling (m <sup>3</sup> /h)		not applicable	not applicable
Annual electricity consumption (AEC) specific electricity consumption (AEC) for a 100 m <sup>2</sup> dwelling (KWh of electricity / a)**	Cold climate Mild climate Warm climate	1015,7 KWh elettr. / a 478,7 KWh elettr. / a 433,7 KWh elettr. / a	895,4 KWh elettr. / a 358,4 KWh elettr. / a 313,4 KWh elettr. / a
Specific annual heating savings for a for a house of 100 m <sup>2</sup> (KWh primary energy / a)**.	Cold climate Mild climate Warm climate	8583,3 KWh en.prim. / a 4387,6 KWh en.prim. / a 1984,0 KWh en.prim. / a	8733,8 KWh en.prim. / a 4464,5 KWh en.prim. / a 2018,8 KWh en.prim. / a

\* as per EU Regulation 1253/2014

\*\* calculated in accordance with Regulation 1254/2014



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**COMPANY WITH  
QUALITY SYSTEM  
CERTIFIED BY DNV GL  
= ISO 9001 =**

