

TECHNICAL DATA SHEET



TECHNICAL DATA

- Maximum flow rate (ErP2018) 540 m³/h at 75 Pa working pressure
- Counterflow heat recovery unit, aluminium, with ~80% efficiency
- EC fans, backward curved centrifugal, low consumption
- Low pressure drop filters: F7 (ePM1 80%) for fresh air and M5 (ePM10 50%) for extraction
- Structure in aluminium profiles and sandwich panels (pre-painted sheet metal outside, galvanised sheet metal inside)
- Rock wool thermal/acoustic insulation 25 mm thick
- Nominal voltage: 230 V 1F 50-60 Hz Max. absorption: 1.5A 180W
- Dimensions excluding ducts and condensate drain (l x w x h): 1210x830x410 mm
- Nominal pipe diameter: Ø 200 mm
- Weight: 107 kg
- Integrated bypass for free-cooling / free-heating (manual, motorised or automatic operation)
- Horizontal or vertical configuration with the possibility of changing the orientation of the air ducts on jobsite
- Available with the following controls: 3-speed Easy 3E, electronic with white LCD display Smart EB
- Integrated frost protection
- 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).

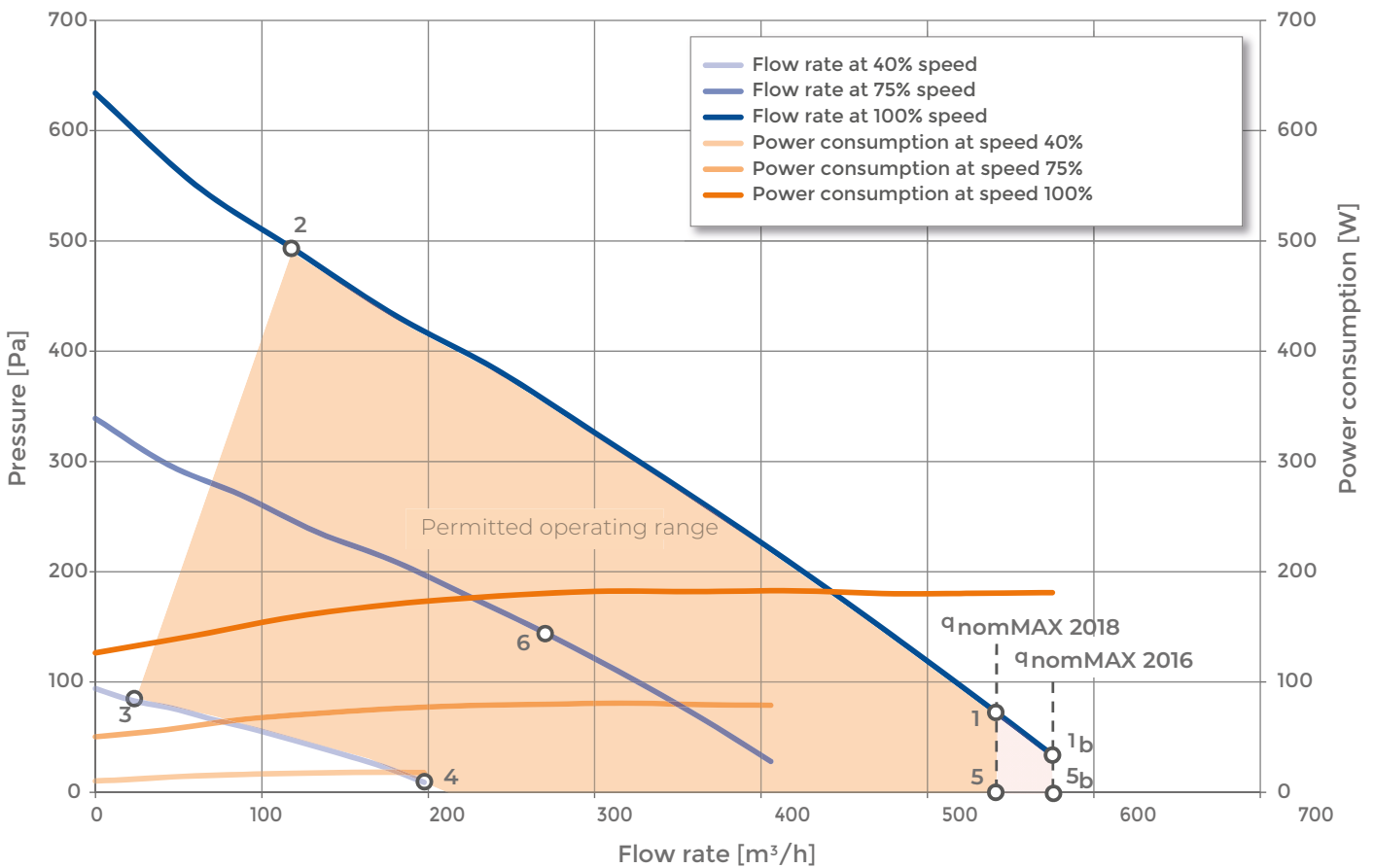


Smart EB - Electronic control/connection board installed on the machine, which can be combined with a thin white LCD display, with integrated humidity and ambient temperature probes (can be installed on a type 503 horizontal box); fan speed can be selected manually from 3 preset speeds (modifiable from 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

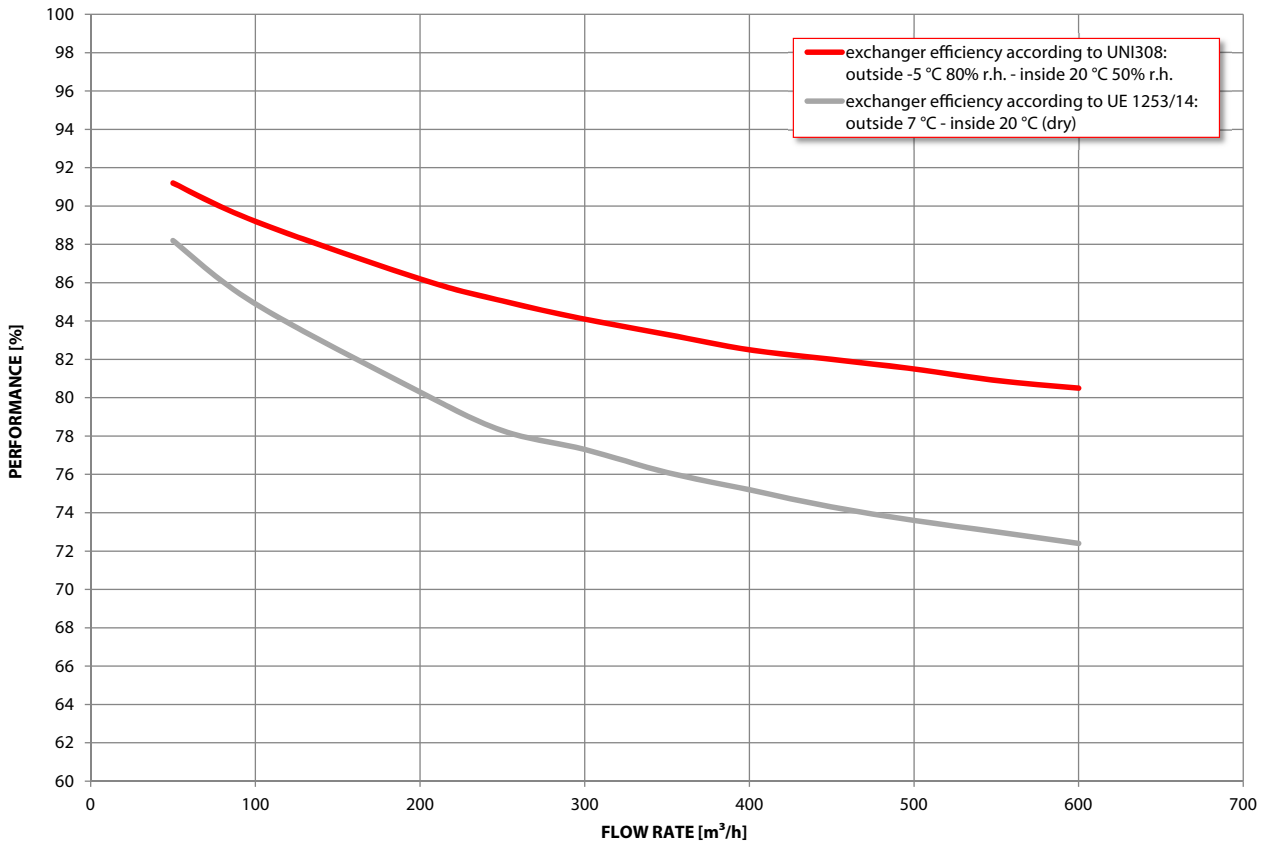
AERAULIC PERFORMANCES

	nominal flow rate	nominal flow rate	fan efficiency	exchanger efficiency	Sound power	specific internal power	nominal external pressure
	[m ³ /h]	q _{nom} [m ³ /s]	η _{s,Fan} [%]	η _{t_nrvu} [%]	LWA [dB(A)]	SFP _{int} [W/(m ³ /s)]	Δp _{s,ext} [Pa]
1	540	0,150	43,6	73	57	833,5	74
1b	575	0,160	41,7	72,8	57	947	34
2	120	0,033	23,6	83,9	62	410,7	492
3	23	0,006	9,6	90	45	32,9	83
4	198	0,055	32,1	80,2	40	259,3	9
5	540	0,150	40,1	73	56	888,5	0
5b	575	0,160	39,7	72,8	57	983,4	0
6	271	0,075	42,2	77,6	53	338,4	144



TECHNICAL DATA SHEET

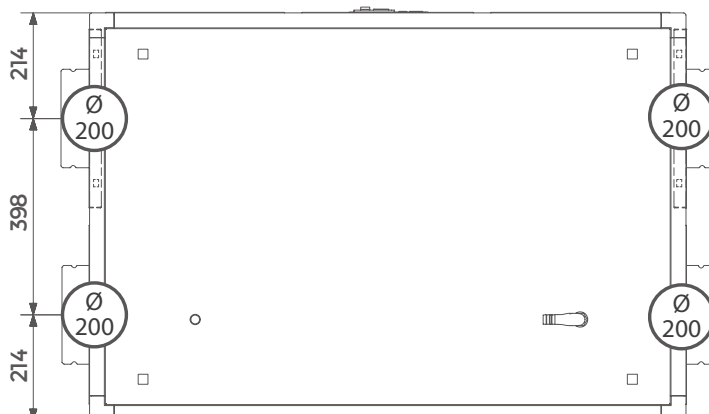
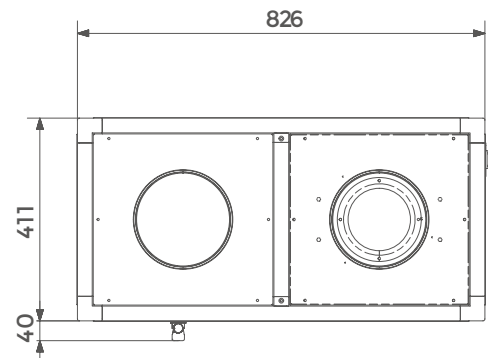
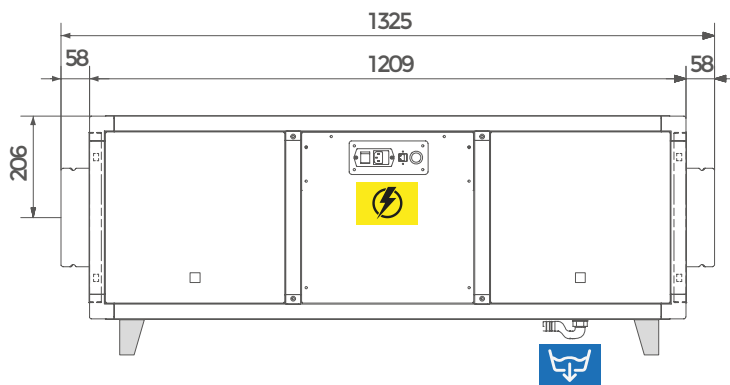
EXCHANGER THERMAL EFFICIENCY



DIMENSIONS

- Aeraulic connections Ø 200 mm
- Condensate drain Ø 20 mm

 Condensate drain  Electrical cabinet



Foot size for installation on floor version: 100 mm

TECHNICAL DATA SHEET

POSSIBLE CONFIGURATIONS



FRESH AIR INLET



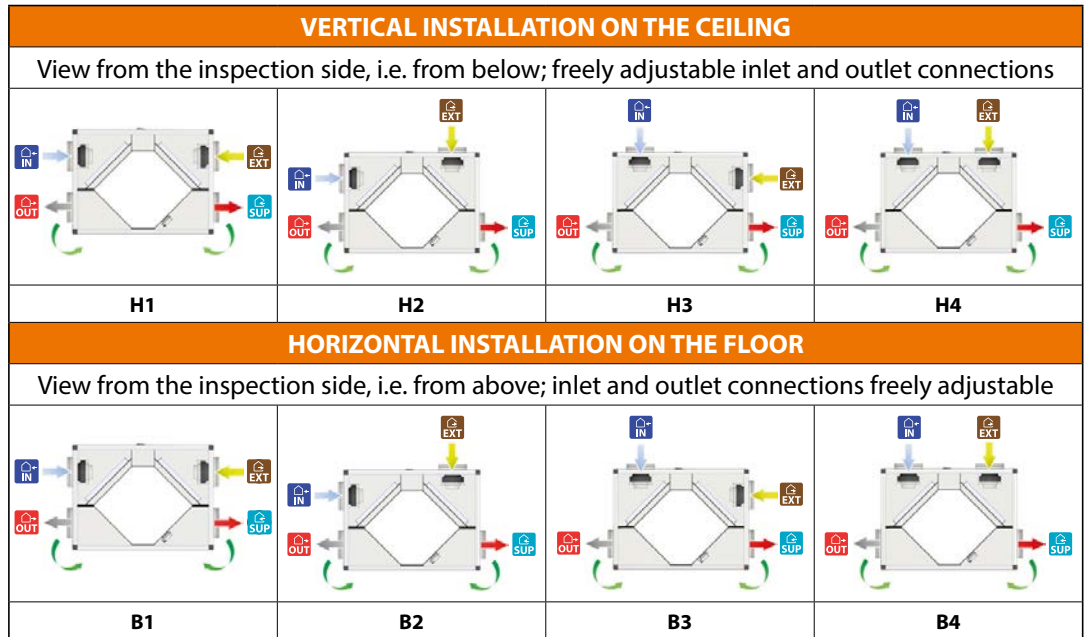
EXHAUST AIR



STALE AIR EXTRACTION



SUPPLY AIR



PRODUCT SHEET

According to Regulations (EU) No. 1253/2014 and No. 1254/2014 - Data referring to maximum nominal flow rate (for other operating points check the aerulic performance graph)

Supplier's brand	RDZ S.p.A.	
Model identifier	HR 500	
Type of product	UVNR, bidirectional	
Type of motorisation	Variable speed	
Heat recovery system	Countercurrent recuperator	
Heat recovery system thermal efficiency*	73,0%	
Nominal flow rate (m ³ /s)	0,150 m ³ /s	
Effective electric power input (kW)	0,180 kW	
Specific internal ventilation power SFP _{int} (W/(m ³ /s))*	834 W/(m ³ /s)	
Frontal speed at nominal flow rate (m/s)*	1,47 m/s	
Nominal outside pressure Δp _{s,ext} (Pa)	74 Pa	
Internal pressure drop of ventilation components Δp _{s,int} (Pa)*	176 Pa	
Fan static efficiency η _{s,Fan} **	43,6%	
Drawing rate (%)	inside	6,3%
	external	5,4%
	recirculation	not applicable
Filter classification	Renewal: F7 (ePM1 80%) Revival: M5 (ePM10 50%)	
Location and description of visual signal filter warning signal	Version 3E: Signalling LED on remote control	
	Lcd EB version: Alarm shown on remote display	
Sound power level (L _{wa} in dB(A))*	57 dB(A)	
Internet address with pre-assembly and disassembly instructions	www.rdz.it	

* as per EU Regulation 1253/2014

** calculated in accordance with EU Regulation No. 327/2011



RDZ S.p.A. 🏠 V.le Trento, 101 - 33077 SACILE (PN) - Italy

☎ Tel. +39 0434.787511 📠 Fax +39 0434.787522

✉ info@rdz.it 🌐 www.rdz.it

FAC0CB001BZ.02 09/2021

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

CLICK I SCAN



qr.rdz.it/?qr=P33