

# **HR 800**



#### TECHNICAL DATA SHEET



#### **TECHNICAL DATA**

- Maximum flow rate (ErP2018) 880 m<sup>3</sup>/h at 120 Pa working pressure
- Counterflow heat recovery unit, aluminium, with >80% efficiency
- EC fans, backward curved centrifugal, low consumption
- Low pressure drop filters: F7 (ePM1 70%) 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: 2,9A 380W
- Dimensions excluding ducts and condensate drain (I x w x h): 1350x970x410 mm
- Nominal pipe diameter: Ø 250 mm
- · Weight: 131 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).



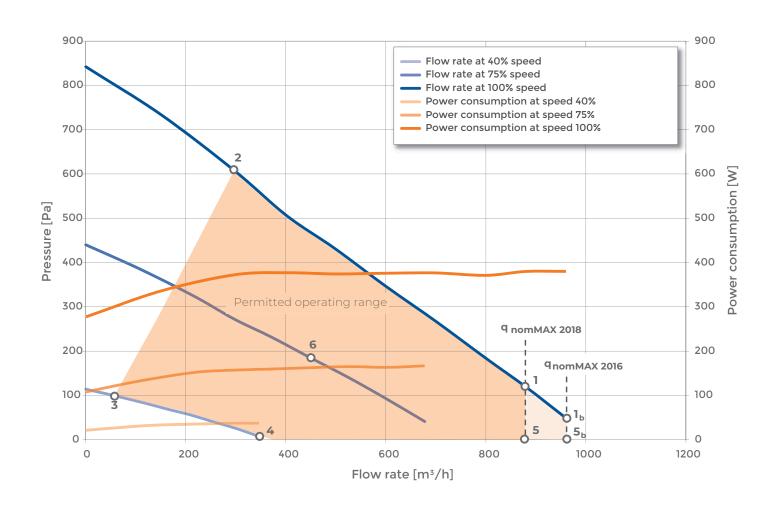
**Smart EB** - Electronic control/connection board installed on the machine, which can be combined with a thin white LCD display, with integrated humidity and ambient temperature probes (can be installed on a type 503 horizontal box); Fan speed can be selected manually from 3 preset speeds (modifiable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

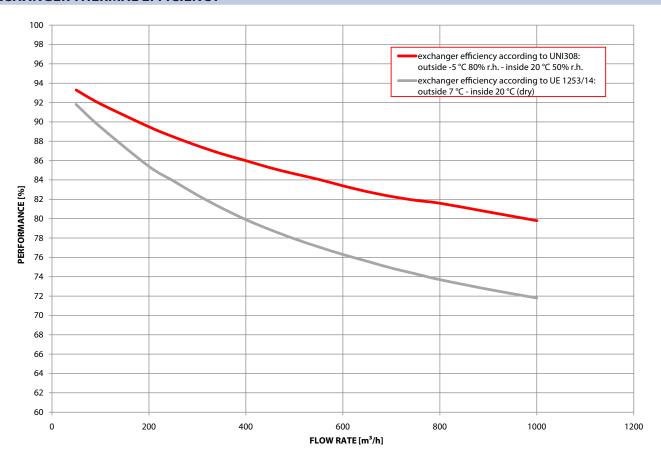
# **AERAULIC PERFORMANCES**

	nominal flow rate	nominal flow rate	fan efficiency	exchanger efficiency	Sound power	specific internal power	nominal external pressure
	[m³/h]	qnom [m³/s]	ηs,Fan [%]	ηt_nrvu [%]	LWA [dB(A)]	SFPint [W/ (m³/s)]	Δps,ext [Pa]
1	880	0,244	52,7	73,1	58	1059,4	119
1b	960	0,267	52,6	72,2	58	1205	49
2	298	0,083	32,3	82,5	65	547,9	607
3	59	0,016	13,9	91,3	49	148,6	99
4	347	0,096	38,9	81,2	42	338,7	7
5	880	0,244	51,5	73,1	57	1059,4	0
5b	960	0,267	51,5	72,2	58	1222,4	0
6	449	0,125	46,3	88,7	56	524	185



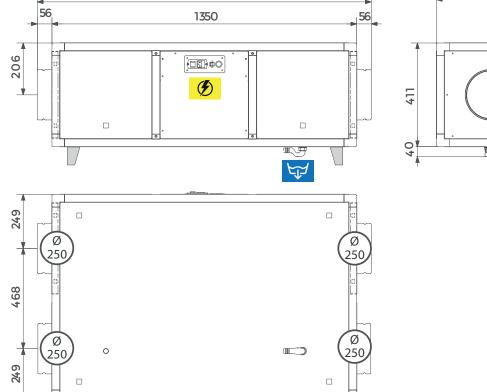
#### **TECHNICAL DATA SHEET**

# **EXCHANGER THERMAL EFFICIENCY**



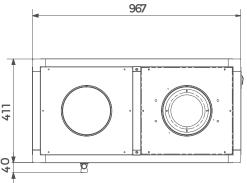
# **DIMENSIONS**

- · Aeraulic connections Ø 250 mm
- · Condensate drain Ø 20 mm



1462





#### **TECHNICAL DATA SHEET**

#### **POSSIBLE CONFIGURATIONS**



FRESH AIR INLET



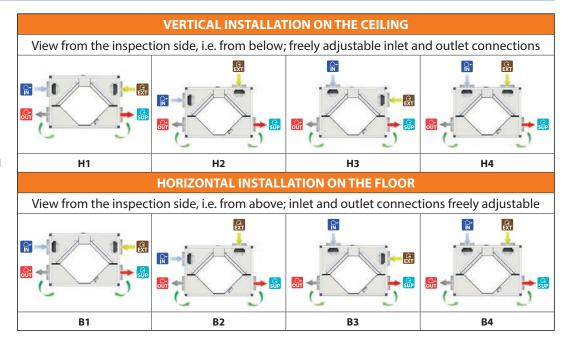
**EXHAUST AIR** 



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 aeraulic performance graph)

Supplier's brand	RDZ S.p.A.		
Model identifier		HR 800	
Type of product		UVNR, bidirectional	
Type of motorisation		Variable speed	
Heat recovery system	Countercurrent recuperator		
Heat recovery system thermal efficiency*	73,1%		
Nominal flow rate (m <sup>3</sup> /s)	0,244 m <sup>3</sup> /s		
Effective electric power input (kW)	0,380 kW		
Specific internal ventilation power SFPint (W/(m³/s))*	1059 W/(m³/s)		
Frontal speed at nominal flow rate (m/s)*	1,96 m/s		
Nominal outside pressure Δps,ext (Pa)	119 Pa		
Internal pressure drop of ventilation components Δps,int (Pa)*	271 Pa		
Fan static efficiency ηs,Fan**		52,7%	
	inside	6,0%	
Drawing rate (%)	external	5,3%	
	recirculation	not applicable	
Filter classification		Renewal: F7 (ePM1 70%) Revival: M5 (ePM10 50%)	
Logation and description of viewal signal filter manning signal	Version 3E: Signalling	LED on remote control	
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 (Lwa in dB(A))*	el (Lwa in dB(A))*		
Internet address with pre-assembly and disassembly instructions	www.rdz.it		
* FU D   - 1252/2014			

<sup>\*</sup> as per EU Regulation 1253/2014

<sup>\*\*</sup> calculated in accordance with EU Regulation No. 327/2011



FACOCB002BZ.02

09/2021

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

