

TECHNICAL DATA SHEET



PRODUCT CODE	TYPE OF CONTROLLER	VERSION	DIMENSIONS (WxHxD) mm
701HR80V1EB1002	Smart EB	V1 vertical, floor-standing, outdoor	2448x1681x1998
701HR80V13E1000	Easy 3E		

TECHNICAL DATA

- Flow rate up to 8500 m³/h, head up to 1300 Pa
- Counterflow heat recovery unit, aluminium, with efficiency >90% (Erp-2018), Eurovent certified
- EC fans, centrifugal backward-curved blades, low consumption
- Low pressure drop filters: F7 (ePM1 70%) for fresh air and M5 (ePM10 50%) for extraction
- Aluminium profile and sandwich panel structure (pre-painted sheet metal outside, galvanised sheet metal inside)
- Rock wool thermal/acoustic insulation, 50 mm thick
- Nominal voltage: 400 V 3F 50-60 Hz Max. absorption: 7,6A 5,0kW
- Overall dimensions excluding ducts and plinth h.100 mm (w x d x h): 2250x1800x1500 mm
- Nominal pipe dimensions: 800x510 mm
- Weight: 780 kg
- Integrated bypass for free-cooling / free-heating (manual, motorised or automatic operation)
- Vertical configuration with possibility of integrating a water battery
- 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%
- Standard indoor installation with possibility of outdoor installation*: fresh air temperature -7 °C** to +40 °C

* supplied with IP55 control panel and rain canopy; condensate drain insulation required.

** for lower temperatures, the use of an antifreeze heater is recommended.

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

POSSIBLE CONFIGURATIONS



FRESH AIR INLET



EXHAUST AIR

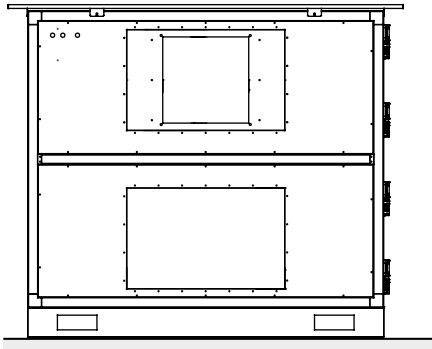


STALE AIR EXTRACTION

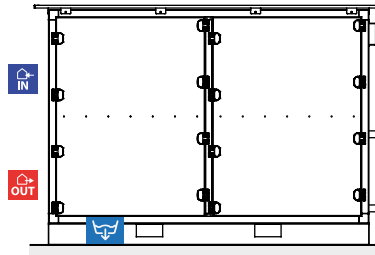


SUPPLY AIR

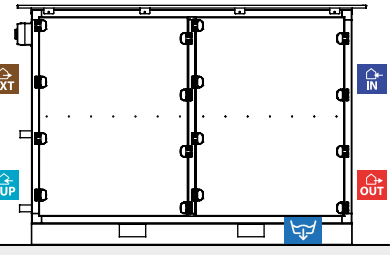
OUTDOOR FLOOR INSTALLATION (with canopy and feet)



V1 version



V5 version (to order)

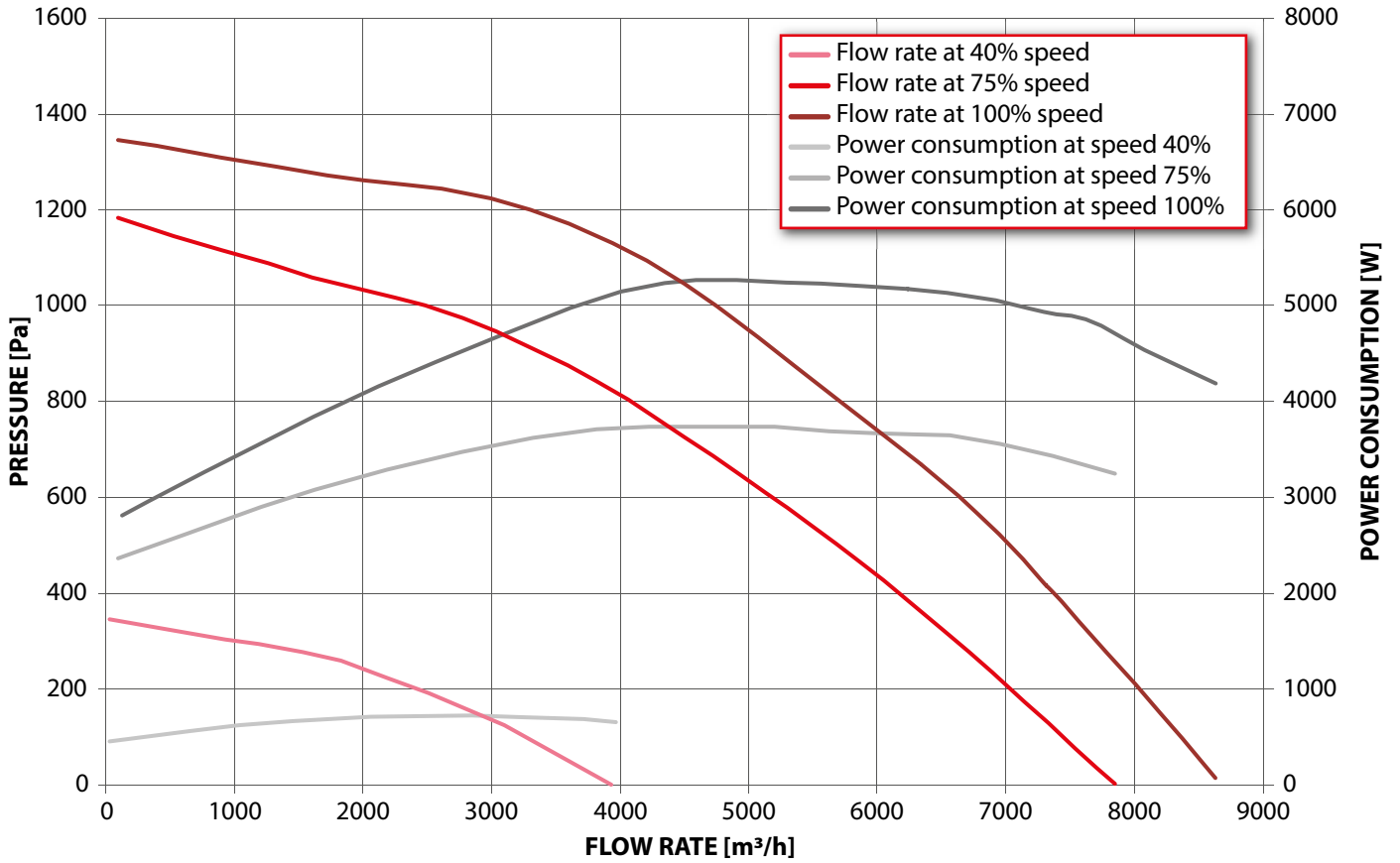


NOISE

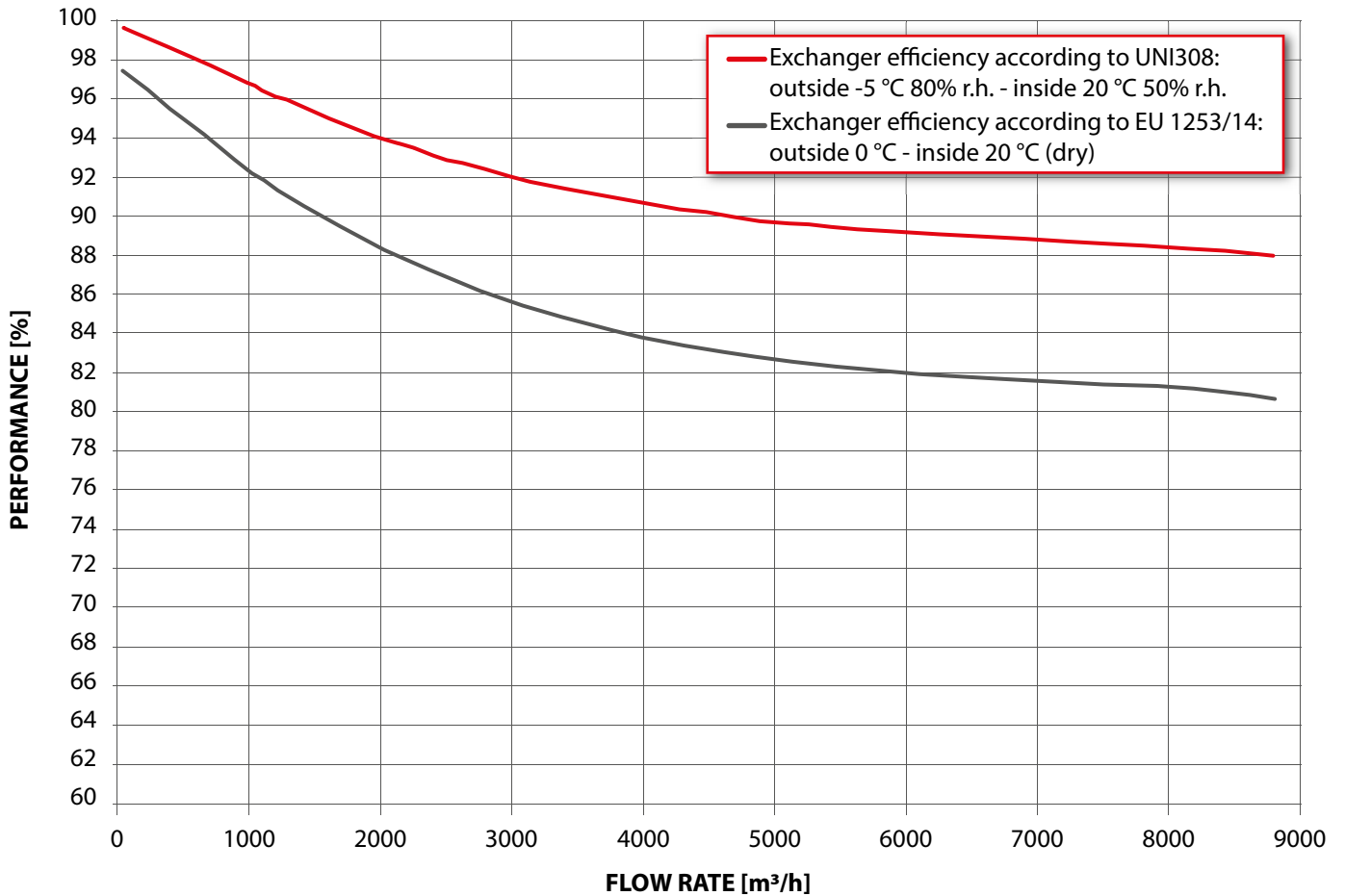
FAN SPEED	FAN FLOW RATE (m ³ /h)	NOISE RADIATED BY THE BOX (dB)									NOISE TRANSMITTED TO AIR DUCTS (outside air) (dB)								
		L _w dB (A)	63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	L _w dB (A)	63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz
40%	4050	62	52	56	55	55	51	56	57	42	68	59	63	62	61	57	63	63	47
40%	3740	57	52	53	51	51	50	52	49	41	63	59	59	57	57	56	58	55	46
40%	3209	56	51	51	52	51	49	51	45	39	62	57	57	58	57	55	57	51	44
40%	2683	56	59	58	52	51	50	49	45	40	61	66	65	58	57	56	55	50	44
40%	2012	57	65	62	54	53	51	49	45	41	63	73	70	61	59	57	55	51	46
40%	1525	58	67	61	58	54	52	49	45	41	64	75	68	64	61	58	55	51	46
40%	882	60	68	63	61	58	53	50	46	41	66	76	70	68	65	59	56	51	46
40%	35	61	66	63	62	59	55	51	47	42	68	74	71	70	66	61	57	53	47
75%	7863	73	55	61	65	65	62	63	68	69	81	62	68	72	72	70	70	76	77
75%	6817	70	52	62	63	61	62	62	65	61	77	58	70	70	68	69	69	72	68
75%	5908	69	57	61	62	61	62	61	63	55	76	63	68	69	68	69	68	71	62
75%	4981	68	58	70	65	62	62	61	60	55	75	65	78	73	69	69	68	67	61
75%	3823	69	60	76	69	64	63	62	59	56	77	67	85	77	72	70	69	66	62
75%	2722	72	68	77	73	70	64	63	59	56	80	76	86	82	78	71	70	66	63
75%	1597	74	72	77	76	74	66	64	60	57	83	81	86	85	82	74	72	67	63
75%	96	76	73	76	77	75	68	66	62	58	85	81	85	86	84	76	74	69	65
100%	8626	76	57	60	65	66	63	66	67	74	84	64	67	73	74	71	74	74	83
100%	8000	73	55	61	66	65	63	65	66	70	81	61	68	73	72	70	73	74	78
100%	7631	72	53	62	66	64	62	65	65	67	80	60	69	74	71	69	72	73	75
100%	7200	71	55	61	66	63	62	64	66	65	79	62	68	73	71	69	72	73	72
100%	6661	71	58	61	65	63	62	64	66	62	79	65	68	73	71	70	72	74	69
100%	5609	71	59	67	72	65	63	64	62	58	78	66	75	81	73	70	72	70	64
100%	4305	73	62	74	77	68	64	65	61	59	81	69	83	86	76	72	73	68	66
100%	3067	74	69	79	77	73	66	65	61	59	83	77	88	86	82	73	73	68	66
100%	1753	77	74	79	78	76	68	67	62	59	85	82	88	88	85	76	75	70	66
100%	102	78	73	77	78	77	70	68	63	60	86	82	86	88	86	78	76	71	67

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AEREAULIC PERFORMANCES

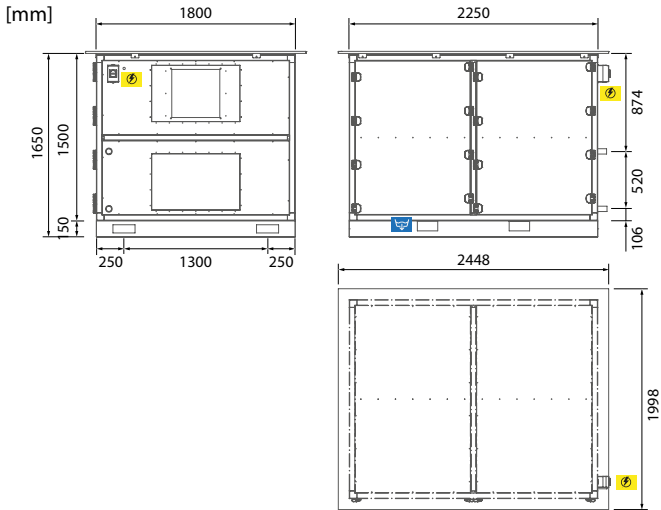


EXCHANGER THERMAL EFFICIENCY

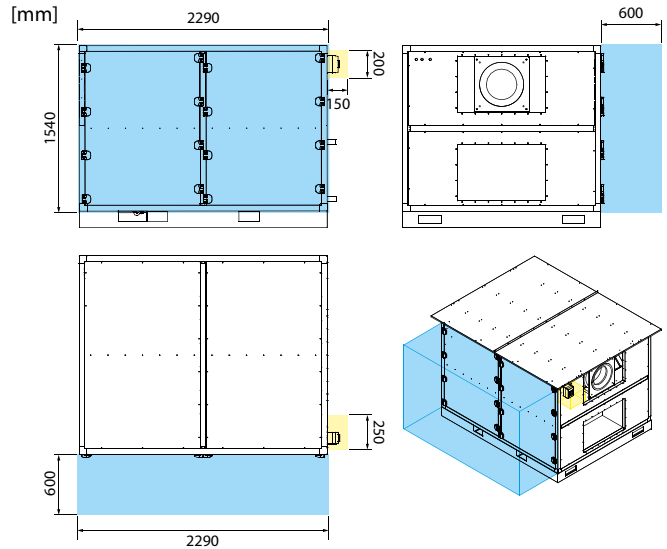






TECHNICAL DATA SHEET

DIMENSIONS



SPACE ALLOWANCES FOR MAINTENANCE/INSPECTION



-  Wiring box
-  Condensation drain
- Aeraulic connections Ø 400 mm
- Condensate drain Ø 20 mm
-  Unit inspection / exchanger and filter maintenance
-  Inspection/maintenance of wiring box

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 90 8000	
Type of product	UVNR, bidirectional	
Type of motorisation	Variable speed	
Heat recovery system	Countercurrent recuperator	
Heat recovery system thermal efficiency*	81,5%	
Nominal flow rate (m ³ /s)	2,028 m ³ /s	
Effective electric power input (kW)	4,936 kW	
Specific internal ventilation power SFP _{int} (W/(m ³ /s))*	1050 W/(m ³ /s)	
Frontal speed at nominal flow rate (m/s)*	1,92 m/s	
Nominal outside pressure Δp _{s,ext} (Pa)	422 Pa	
Internal pressure drop of ventilation components Δp _{s,int} (Pa)*	334 Pa	
Fan static efficiency η _{s,Fan} **	64,0%	
Drawing rate (%)	inside	1,9%
	external	1,7%
	recirculation	not applicable
Filter classification	Renewal: F7 (ePM1 70%) 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))*	71 dB(A)	
Internet address with pre-assembly and disassembly instructions	www.rdz.it	

* as per EU Regulation n° 1253/2014

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



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QUALITY SYSTEM
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ISO 9001

