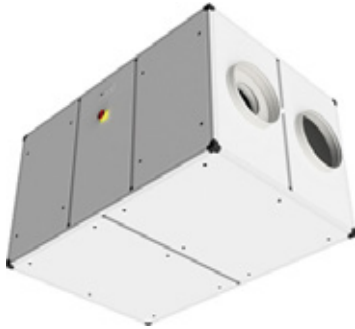


TECHNICAL DATA SHEET



PRODUCT CODE	TYPE OF CONTROLLER	VERSION	DIMENSIONS (xWHxD) mm
701HR50V1EB1002	Smart EB	V1 vertical, floor standing, outdoor	2000x1611x1556
701HR50V13E1000	Easy 3E		

TECHNICAL DATA

- Flow rate up to 5300 m³/h, head up to 900 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, 25 mm thick
- Nominal voltage: 400 V 3F 50-60 Hz Max. absorption: 4,7A 2,9kW
- Overall dimensions excluding ducts and condensate drain (w x d x h): 1800x1250x1350 mm
- Nominal pipe diameter: Ø 450 mm
- Weight: 455 kg
- Integrated bypass for free-cooling / free-heating (manual, motorised or automatic operation)
- Vertical configuration, air duct orientation can be changed on site
- 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

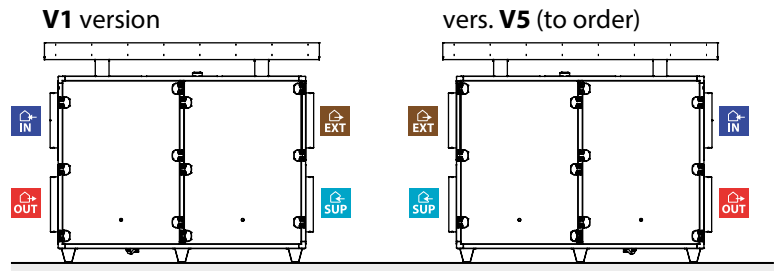
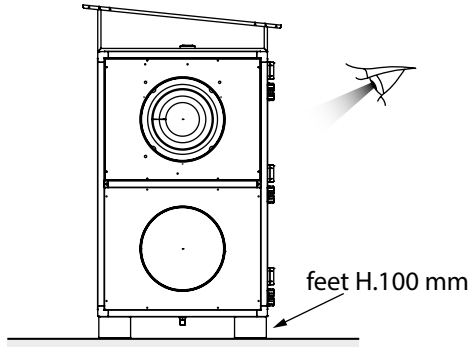


STALE AIR EXTRACTION



SUPPLY AIR

OUTDOOR FLOOR INSTALLATION (with canopy and feet)

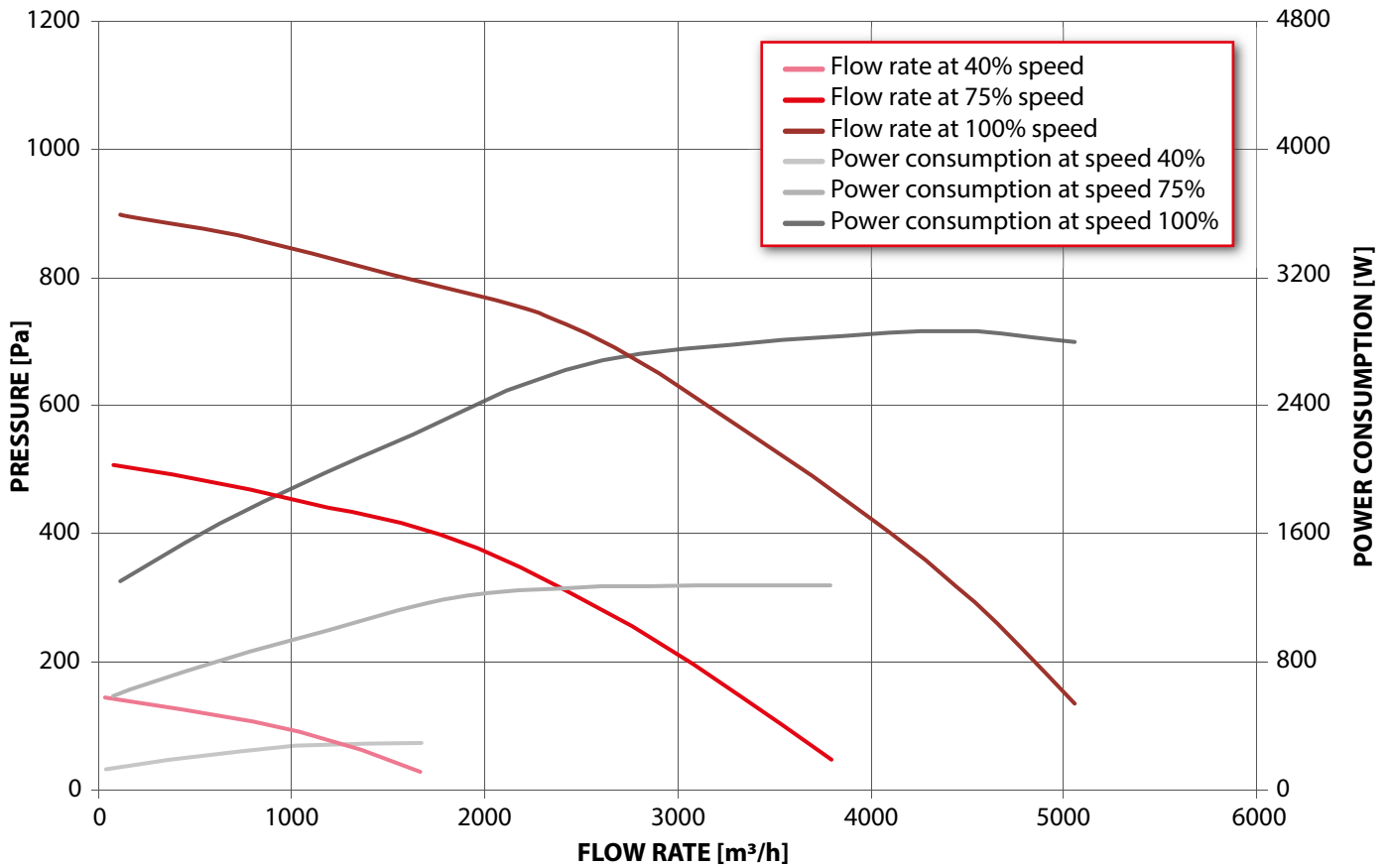


NOISE

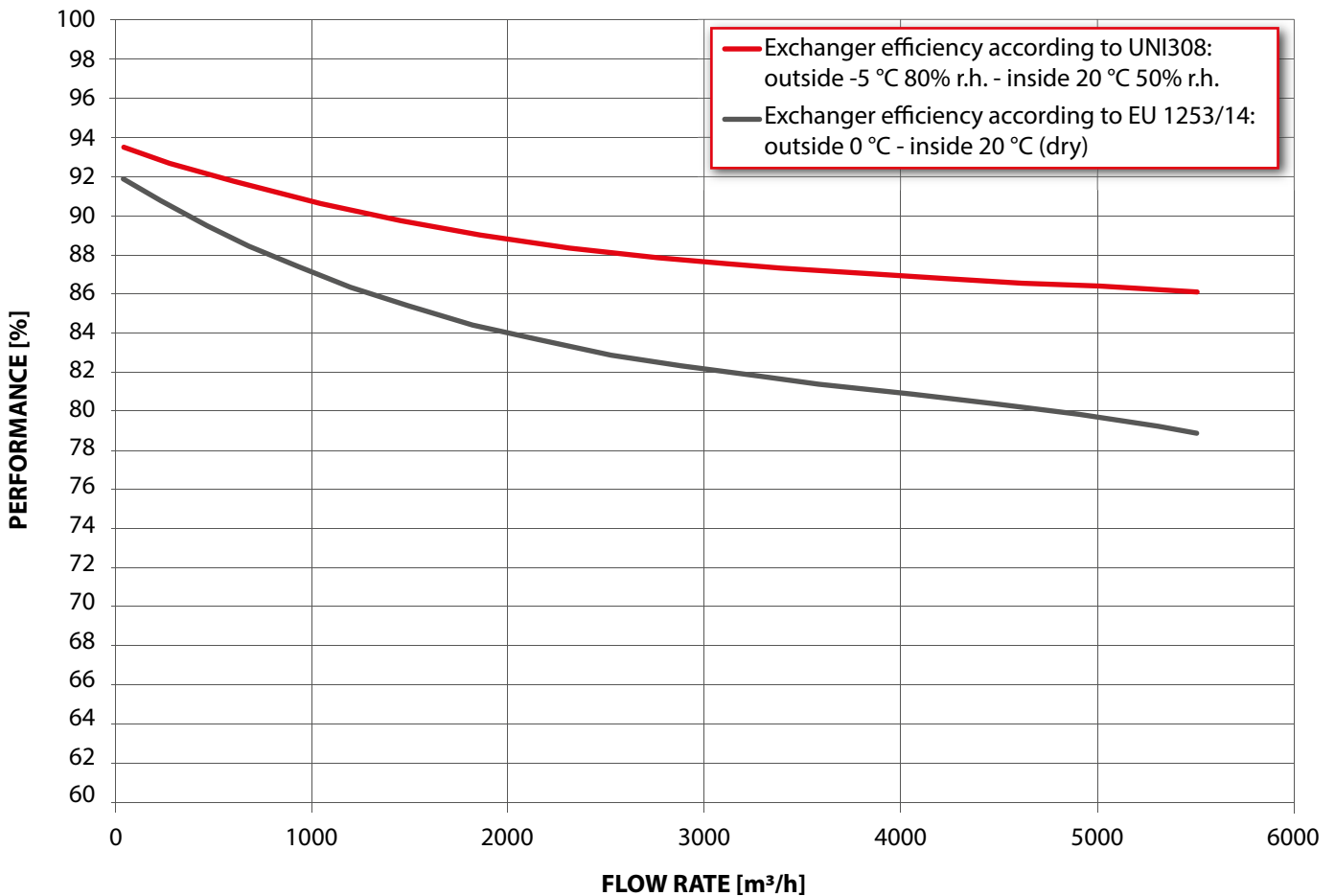
FAN SPEED	FAN FLOW RATE (m ³ /h)	NOISE RADIATED BY THE BOX (dB)									NOISE TRANSMITTED TO AIR DUCTS (outside air) (dB)								
		L _w dB (A)	63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	L _w dB (A)	63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz
40%	3150	60	50	55	53	53	50	56	52	41	67	56	61	59	60	56	63	58	46
40%	2866	58	48	54	50	52	49	54	49	41	64	53	61	56	58	55	61	55	46
40%	2476	56	48	52	50	50	49	52	47	41	62	53	58	56	56	55	58	53	45
40%	2175	56	50	52	50	51	49	51	46	39	62	56	58	56	57	55	57	51	44
40%	1903	56	51	56	52	52	50	50	46	40	62	57	63	58	58	56	56	51	45
40%	1491	58	54	68	53	53	51	51	47	42	64	60	76	60	59	57	57	53	47
40%	772	60	65	65	60	58	52	52	48	43	66	73	73	67	64	58	58	53	48
40%	30	61	65	64	61	59	53	52	48	42	67	73	72	69	66	60	58	53	47
75%	6035	73	60	59	66	66	61	64	69	67	81	67	66	74	74	69	71	77	74
75%	5362	70	54	57	64	63	60	62	66	61	77	61	64	71	70	67	69	73	68
75%	4557	68	55	57	63	62	60	61	62	57	75	61	64	71	69	67	68	70	64
75%	4078	68	58	59	64	62	60	61	61	55	75	65	65	71	69	67	68	69	62
75%	3500	68	59	62	68	64	61	61	60	56	75	66	69	76	72	68	68	67	62
75%	2774	71	61	69	76	66	62	62	60	57	79	69	77	85	74	69	70	67	63
75%	1449	74	70	76	75	73	65	64	61	58	82	78	84	84	82	73	72	68	64
75%	98	76	72	75	77	75	68	66	62	58	84	80	84	86	84	76	74	69	65
100%	7233	79	67	62	70	70	65	67	74	76	87	75	69	78	78	73	74	82	85
100%	6834	77	68	61	69	69	64	66	72	73	85	76	68	78	77	72	74	81	82
100%	6516	75	66	60	67	67	63	65	69	72	83	74	67	75	75	70	73	77	80
100%	5904	72	63	57	65	64	61	63	66	67	79	71	64	73	72	68	71	74	75
100%	5000	70	63	58	65	64	61	63	64	61	77	70	64	73	71	68	70	71	68
100%	4300	70	64	60	68	65	62	63	63	58	77	72	67	76	73	69	70	70	65
100%	4012	70	64	61	71	66	62	63	62	58	78	72	68	79	74	70	70	69	65
100%	3144	74	65	65	79	69	64	64	62	59	83	72	72	89	78	71	72	69	66
100%	1649	76	70	76	79	76	67	66	63	60	85	79	85	88	85	75	74	71	67
100%	103	17	11	11	11	11	10	10	10	9	18	12	12	12	12	11	11	11	11

TECHNICAL DATA SHEET

AEREAULIC PERFORMANCES

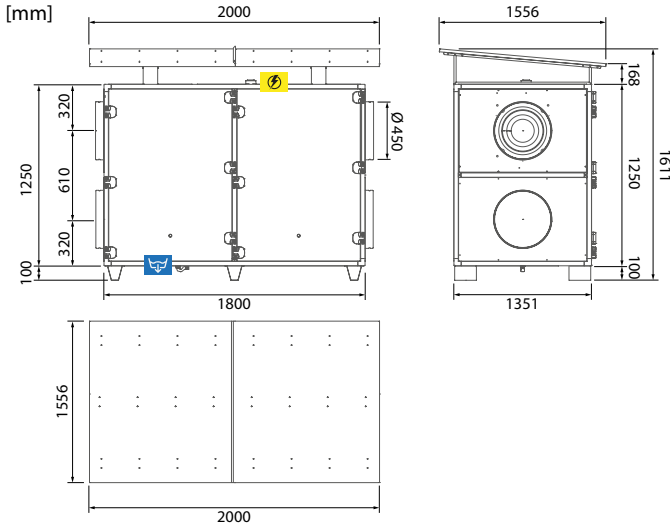




EXCHANGER THERMAL EFFICIENCY



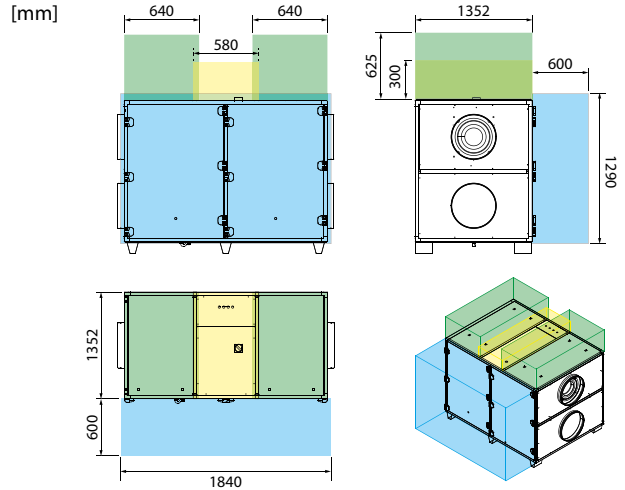
TECHNICAL DATA SHEET




DIMENSIONS



-  Wiring box
-  Condensation drain
- Aeraulic connections \varnothing 450 mm
- Condensate drain \varnothing 20 mm

SPACE ALLOWANCES FOR MAINTENANCE/INSPECTION



-  Unit inspection / exchanger and filter maintenance
-  Inspection/maintenance of wiring box
-  Filter inspection

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 5000	
Type of product	UVNR, bidirectional	
Type of motorisation	Variable speed	
Heat recovery system	Countercurrent recuperator	
Heat recovery system thermal efficiency*	80,5%	
Nominal flow rate (m ³ /s)	1,222 m ³ /s	
Effective electric power input (kW)	2,864 kW	
Specific internal ventilation power SFPint (W/(m ³ /s)*	1139 W/(m ³ /s)	
Frontal speed at nominal flow rate (m/s)*	1,81 m/s	
Nominal outside pressure $\Delta p_{s,ext}$ (Pa)	330 Pa	
Internal pressure drop of ventilation components $\Delta p_{s,int}$ (Pa)*	326 Pa	
Fan static efficiency $\eta_{s,Fan}$ **	58,8%	
Drawing rate (%)	inside	6,4%
	external	5,7%
	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 (Lwa in dB(A))*	64 dB(A)	
Internet address with pre-assembly and disassembly instructions	www.rdz.it	

* come da regolamento UE n° 1253/2014

** calcolati come da regolamento UE n°327/2011



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