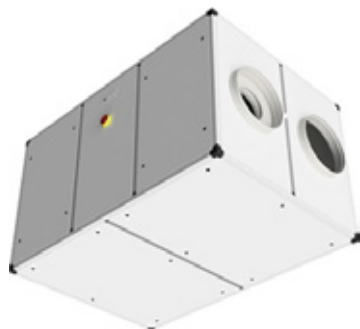


TECHNICAL DATA SHEET



PRODUCT CODE	TYPE OF CONTROLLER	VERSION	DIMENSIONS (WxHxD) mm
701HR40V1EB1002	Smart EB	V1 vertical, floor-standing, outdoor	2000x1591x1254
701HR40V13E1000	Easy 3E		

TECHNICAL DATA

- Flow rate up to 4400 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: 4,0A 2,6kW
- Overall dimensions excluding ducts and condensate drain (w x d x h): 1800x1250x1050 mm
- Nominal pipe diameter: Ø 400 mm
- Weight: 381 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

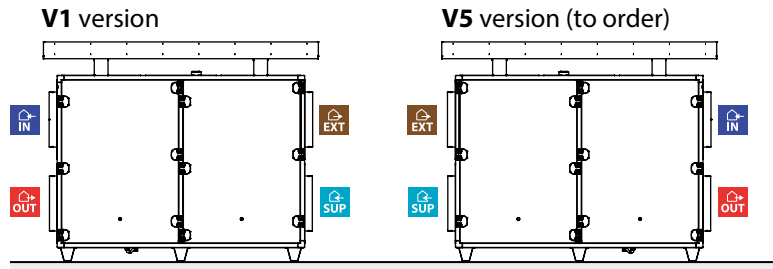
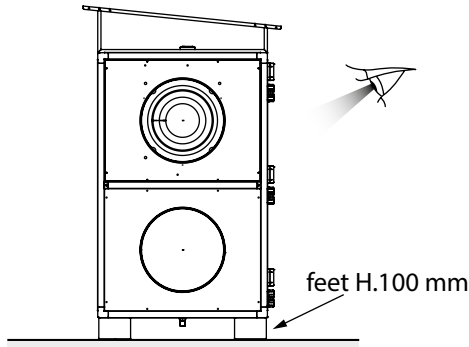


STALE AIR EXTRACTION



SUPPLY AIR

OUTDOOR FLOOR INSTALLATION (with canopy and feet)

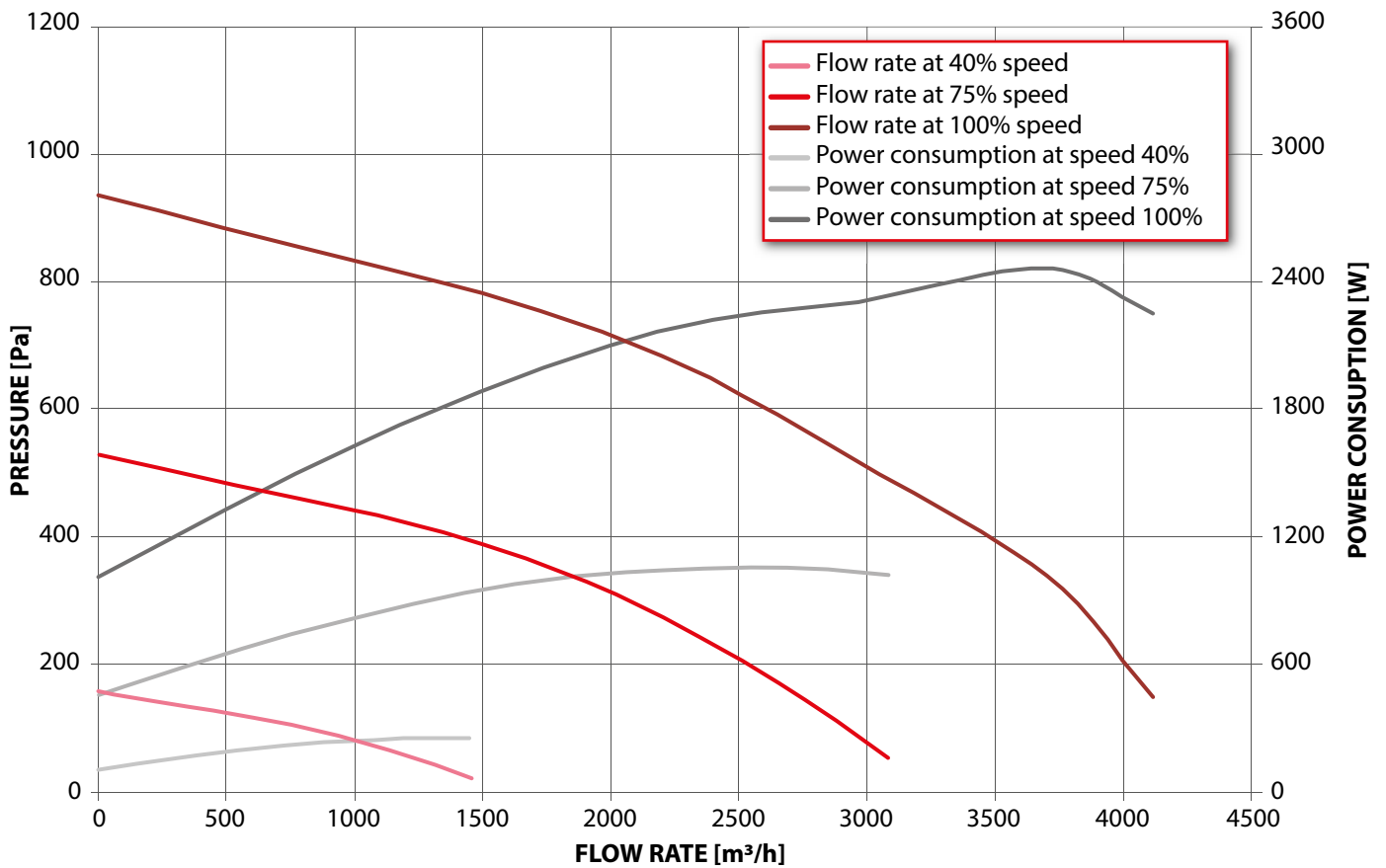


NOISE

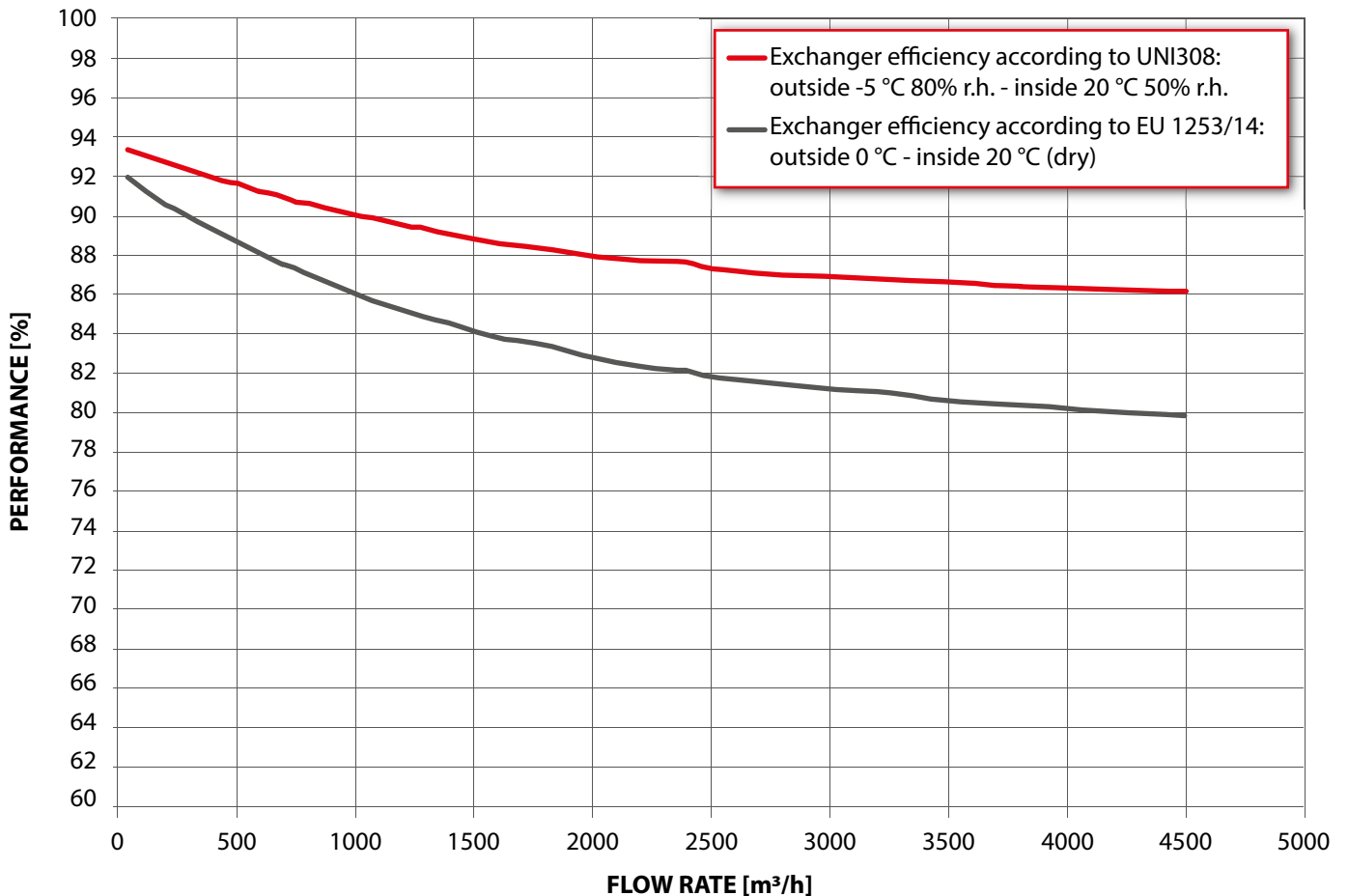
FAN SPEED	FAN FLOW RATE (m ³ /h)	NOISE RADIATED BY THE BOX (dB)									NOISE TRANSMITTED TO AIR DUCTS (outside air) (dB)								
		L _w dB (A)	63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	L _w dB (A)	63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz
40%	1656	48	45	43	44	45	42	41	37	32	52	50	48	49	50	46	46	42	36
40%	1448	47	44	43	45	44	41	41	35	28	52	50	48	50	49	46	46	39	32
40%	1194	47	45	41	44	45	41	41	33	27	52	50	45	50	46	46	37	31	
40%	926	49	50	46	50	49	42	41	33	27	55	56	51	56	54	47	46	37	31
40%	650	53	56	53	59	50	43	42	35	28	59	63	59	66	55	48	46	39	31
40%	346	54	59	60	58	51	46	43	36	29	60	66	67	65	57	51	48	41	32
40%	1	53	58	57	53	50	47	44	38	30	58	65	64	59	56	52	49	42	33
75%	3538	66	56	54	58	60	58	57	61	56	73	63	61	65	67	65	63	69	63
75%	3083	61	54	53	57	57	54	54	53	50	67	61	59	63	64	60	60	59	56
75%	2695	60	54	53	58	56	53	54	50	46	66	60	59	64	63	60	60	56	52
75%	2224	60	55	51	57	58	53	54	48	45	66	61	57	64	64	60	60	54	51
75%	1727	62	60	56	62	61	54	54	48	45	69	67	63	70	68	60	60	54	51
75%	1212	65	65	63	70	62	55	54	49	46	73	73	70	79	69	62	61	55	51
75%	645	66	69	71	69	63	58	56	51	47	73	77	79	78	71	65	62	57	52
75%	1	65	68	67	65	63	59	57	53	48	72	76	75	72	70	66	64	59	53
100%	5289	76	61	61	67	69	66	65	69	73	84	68	68	74	77	73	72	77	81
100%	4725	73	60	59	64	66	63	63	69	65	81	68	66	71	74	71	70	77	72
100%	4050	67	59	58	62	63	59	60	59	58	74	66	65	70	70	66	67	66	64
100%	3500	66	58	57	63	62	59	60	57	55	73	65	64	71	70	66	67	63	61
100%	2972	66	59	56	63	63	59	60	55	54	73	66	62	70	71	66	67	62	60
100%	2309	68	64	61	68	67	60	60	55	54	75	71	68	76	75	67	67	62	60
100%	1621	71	70	68	76	68	61	60	56	54	79	78	76	85	76	68	68	63	61
100%	862	72	73	76	75	69	63	62	58	55	80	82	85	84	77	71	69	65	62
100%	1	71	72	72	71	69	65	63	60	56	79	81	81	79	77	72	70	67	63

TECHNICAL DATA SHEET

AEREAULIC PERFORMANCES

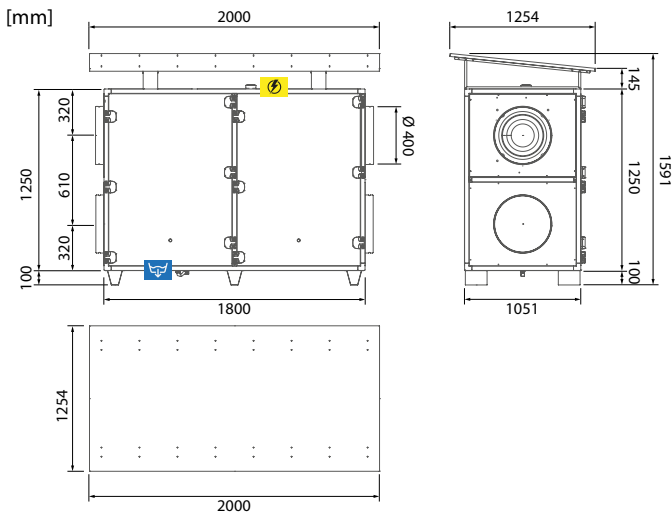


EXCHANGER THERMAL EFFICIENCY

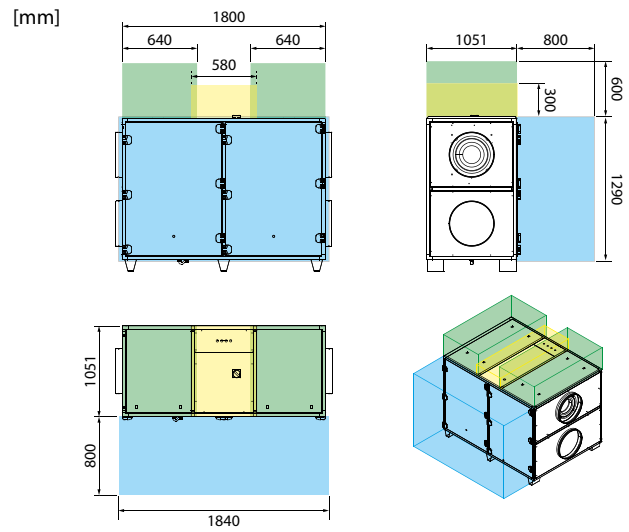




TECHNICAL DATA SHEET




DIMENSIONS



SPACE ALLOWANCES FOR MAINTENANCE/INSPECTION



-  Wiring box
-  Condensation drain
- Aerulic connections \varnothing 400 mm
- Condensate drain \varnothing 20 mm

-  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 aerulic performance graph).

Supplier's brand	RDZ S.p.A.	
Model identifier	HR 90 4000	
Type of product	UVNR, bidirectional	
Type of motorisation	Variable speed	
Heat recovery system	Countercurrent recuperator	
Heat recovery system thermal efficiency*	80,8%	
Nominal flow rate (m ³ /s)	1,028 m ³ /s	
Effective electric power input (kW)	2,463 kW	
Specific internal ventilation power SFPint (W/(m ³ /s)*	1177 W/(m ³ /s)	
Frontal speed at nominal flow rate (m/s)*	2,00 m/s	
Nominal outside pressure $\Delta p_{s,ext}$ (Pa)	340 Pa	
Internal pressure drop of ventilation components $\Delta p_{s,int}$ (Pa)*	342 Pa	
Fan static efficiency $\eta_{s,Fan}$ **	59,8%	
Drawing rate (%)	inside	6,5%
	external	6,1%
	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))*	66 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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05/2024

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