

TECHNICAL DATA SHEET



PRODUCT CODE	TYPE OF CONTROLLER	VERSION	DIMENSIONS (WxHxD) mm
701HR30V1EB1002	Smart EB	V1 vertical, floor-standing	2000x1594x1002
701HR30V13E1000	Easy 3E		

TECHNICAL DATA

- Flow rate up to 3500 m³/h, head up to 1250 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: 3,8A 2,4kW
- Overall dimensions excluding ducts and condensate drain (w x d x h): 1800x1250x800 mm
- Nominal pipe diameter: Ø 400 mm
- Weight: 304 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

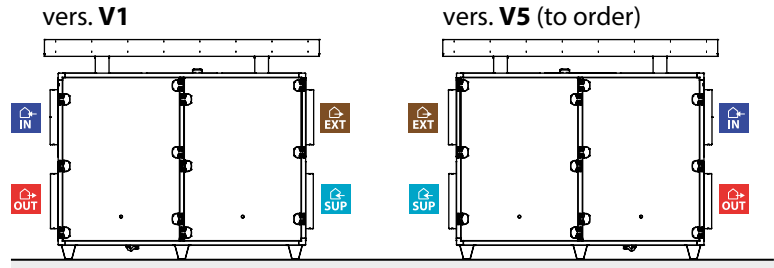
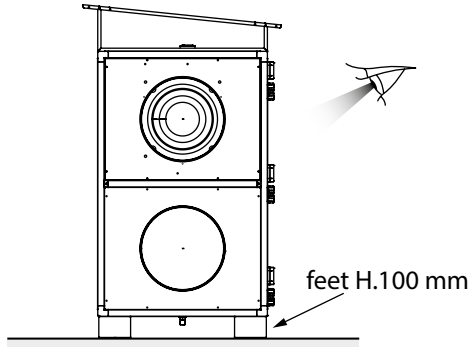


STALE AIR EXTRACTION



SUPPLY AIR

OUTDOOR FLOOR INSTALLATION (with canopy and feet)

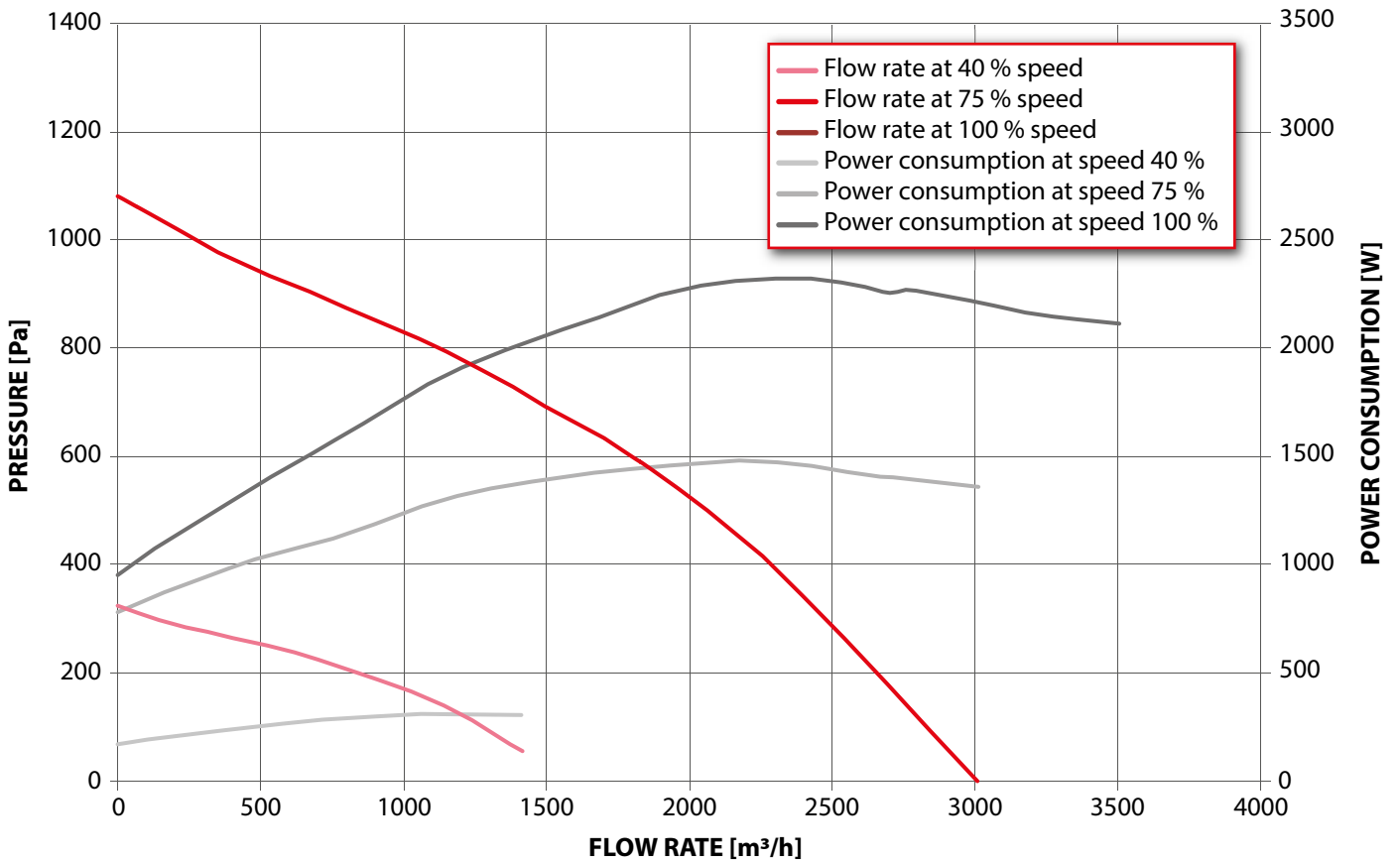


NOISE

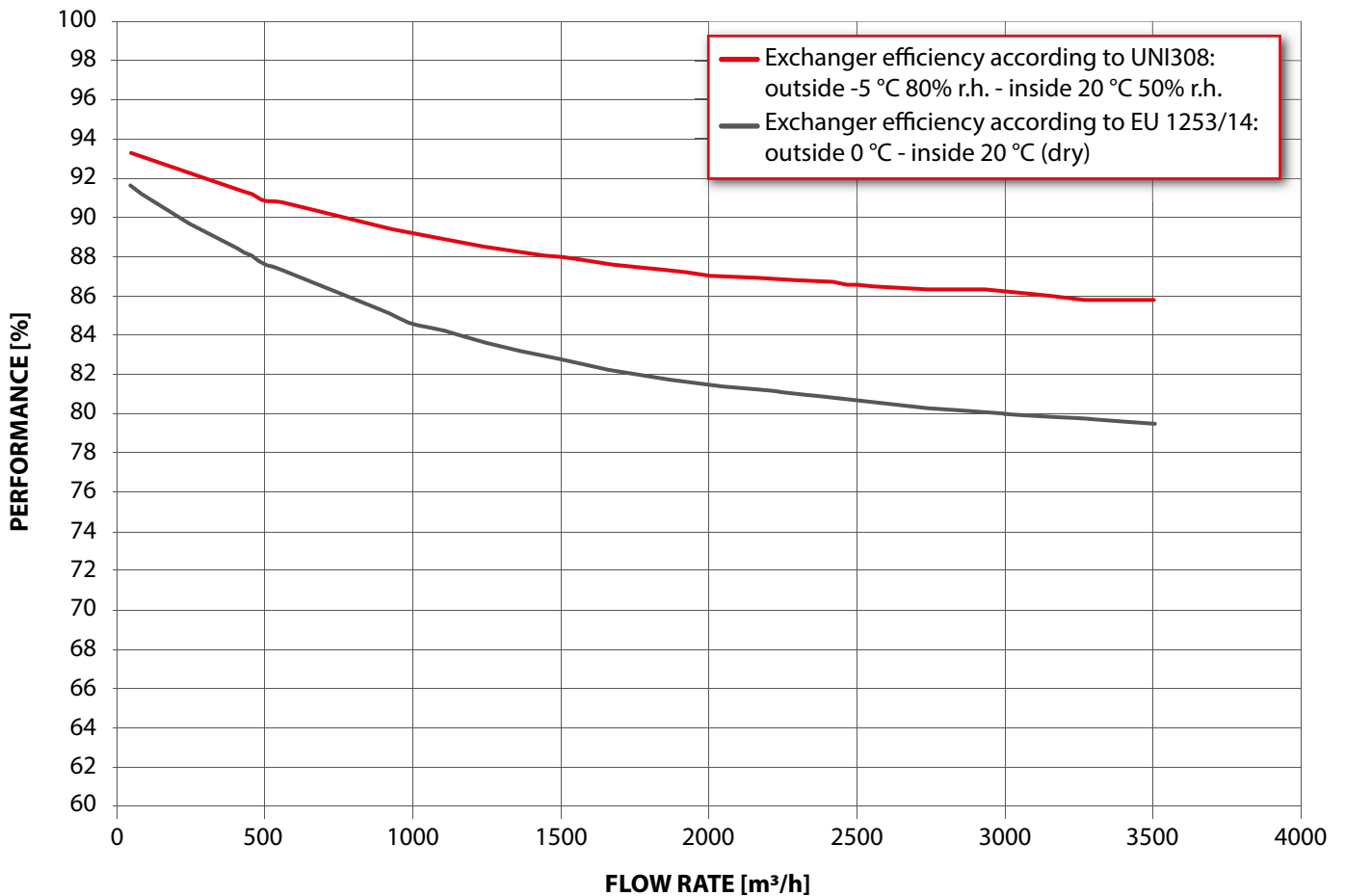
FAN SPEED	FAN FLOW RATE (m ³ /h)	NOISE RADIATED BY THE BOX (dB)									NOISE TRANSMITTED TO AIR DUCTS (outside air) (dB)								
		L _w dB (A)	63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	L _w dB (A)	63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz
40%	1195	53	45	41	47	51	47	45	42	43	58	50	46	53	57	53	50	47	48
40%	1060	52	44	40	47	50	45	44	42	39	57	49	45	52	56	51	49	47	44
40%	873	52	43	39	51	48	45	44	42	38	57	48	44	57	54	50	49	47	43
40%	689	54	45	41	59	50	45	45	42	38	60	50	46	65	56	51	50	47	42
40%	525	55	50	51	59	53	46	45	42	38	61	56	57	66	59	52	51	47	42
40%	277	56	53	54	58	55	48	45	42	37	62	59	61	65	61	54	51	47	41
40%	36	56	53	54	58	55	48	45	42	37	62	59	61	65	61	54	51	47	41
75%	2541	67	54	51	61	65	60	59	58	57	74	61	57	68	72	67	66	65	64
75%	2260	65	57	53	59	63	59	56	54	55	72	64	59	66	70	66	63	60	61
75%	2007	63	56	52	58	62	57	55	53	51	70	62	58	65	69	64	62	60	57
75%	1652	63	55	51	63	60	57	56	54	50	70	62	57	70	67	64	63	60	56
75%	1305	66	57	53	70	62	57	57	54	50	73	63	60	79	69	64	63	60	55
75%	994	67	62	63	71	64	58	57	54	49	74	69	70	79	72	65	64	60	55
75%	523	68	65	66	70	66	60	57	54	49	75	72	74	79	74	67	64	60	55
75%	67	68	65	66	70	66	60	57	54	49	75	72	74	79	74	67	64	60	55
100%	3005	70	62	58	64	68	64	62	59	60	77	69	65	72	76	72	69	66	67
100%	2950	70	62	58	64	68	64	61	59	59	77	69	65	71	76	72	69	66	66
100%	2620	69	61	57	64	67	62	61	59	56	76	68	64	72	75	70	68	66	63
100%	2197	69	60	56	68	65	62	61	59	55	76	67	63	76	73	69	68	66	62
100%	1735	71	62	58	76	67	62	62	59	55	79	69	65	84	75	70	69	66	61
100%	1322	72	67	68	76	70	63	62	59	55	80	75	76	85	78	71	70	66	61
100%	695	73	70	71	75	72	65	62	59	54	81	78	80	84	80	73	70	66	60
100%	89	73	70	71	75	72	65	62	59	54	81	78	80	84	80	73	70	66	60

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AEREAULIC PERFORMANCES

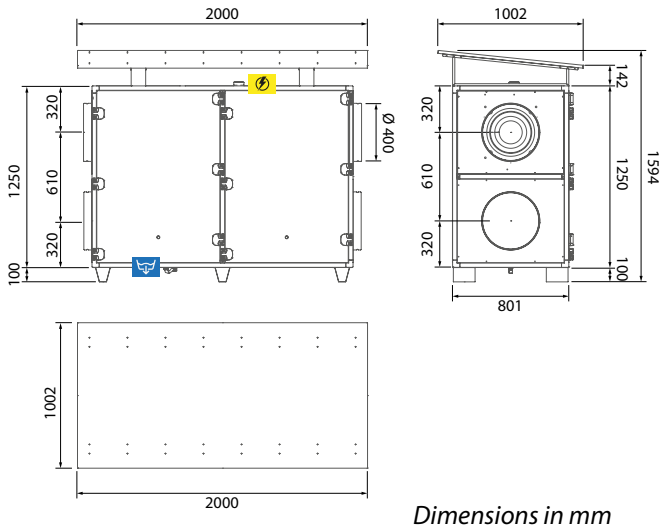


EXCHANGER THERMAL EFFICIENCY

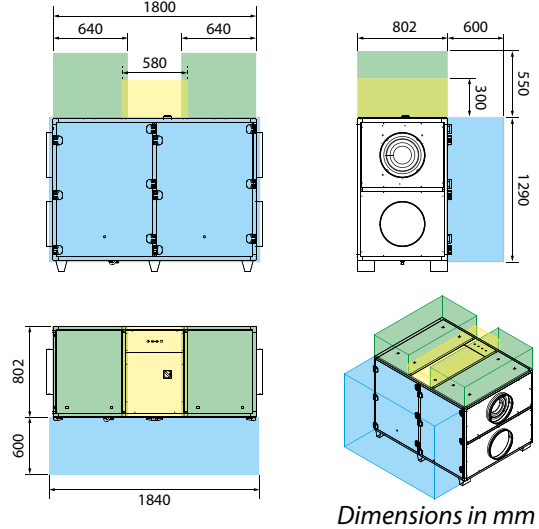


TECHNICAL DATA SHEET

DIMENSIONS



SPACE ALLOWANCES FOR MAINTENANCE/INSPECTION



- Wiring box
- Condensation drain
- Aeraulic 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 aeraulic performance graph)

Supplier's brand	RDZ S.p.A.	
Model identifier	HR 90 3000	
Type of product	UVNR, bidirectional	
Type of motorisation	Variable speed	
Heat recovery system	Countercurrent recuperator	
Heat recovery system thermal efficiency*	80,4%	
Nominal flow rate (m ³ /s)	0,772 m ³ /s	
Effective electric power input (kW)	2,270 kW	
Specific internal ventilation power SFP _{int} (W/(m ³ /s)*	1201 W/(m ³ /s)	
Frontal speed at nominal flow rate (m/s)*	2,03 m/s	
Nominal outside pressure $\Delta p_{s,ext}$ (Pa)	500 Pa	
Internal pressure drop of ventilation components $\Delta p_{s,int}$ (Pa)*	357 Pa	
Fan static efficiency $\eta_{s,Fan}$ **	57,5%	
Drawing rate (%)	inside	7,0%
	external	5,9%
	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))*	68 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



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 QUALITY SYSTEM
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