

## TECHNICAL DATA SHEET



PRODUCT CODE	TYPE OF CONTROLLER	VERSION	DIMENSIONS (WxHxD) mm
701HR22H1EB0002	Smart EB	H1 horizontal, ceiling mounting	1762x621x1250
701HR22H13E0000	Easy 3E		
701HR22B1EB1002	Smart EB	B1 horizontal floor-mounted, outdoor	1798x752x1448
701HR22B13E1000	Easy 3E		
701HR22V1EB0002	Smart EB	V1 vertical, floor-standing	1762x1350x621
701HR22V13E0000	Easy 3E		
701HR22V1EB1002	Smart EB	V1 vertical, floor-standing outdoor	1800x1562x824
701HR22V13E1000	Easy 3E		

### TECHNICAL DATA

- Flow rate up to 2700 m<sup>3</sup>/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, 25 mm thick
- Nominal voltage: 230 V 1F 50-60 Hz Max. absorption: 7,4A 1,7kW
- Overall dimensions excluding ducts and condensate drain (w x d x h): 1600x1250x621 mm
- Nominal pipe diameter: Ø 355 mm
- Weight: 242 kg
- Integrated bypass for free-cooling / free-heating (manual, motorised or automatic operation)
- Horizontal or 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).

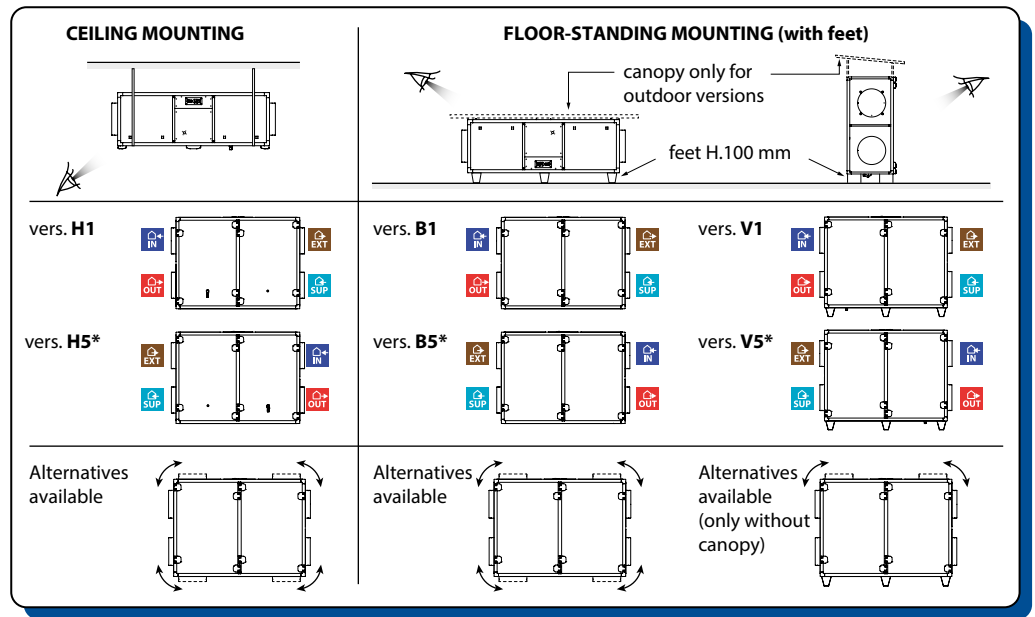


**Smart EB** - Electronic control/connection board installed on the machine, which can be combined with a thin white LCD display, with integrated humidity and ambient temperature probes (can be installed on a type 503 horizontal box); fan speed can be selected manually from 3 preset speeds (modifiable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

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## POSSIBLE CONFIGURATIONS

-  FRESH AIR INLET
-  EXHAUST AIR
-  STALE AIR EXTRACTION
-  SUPPLY AIR



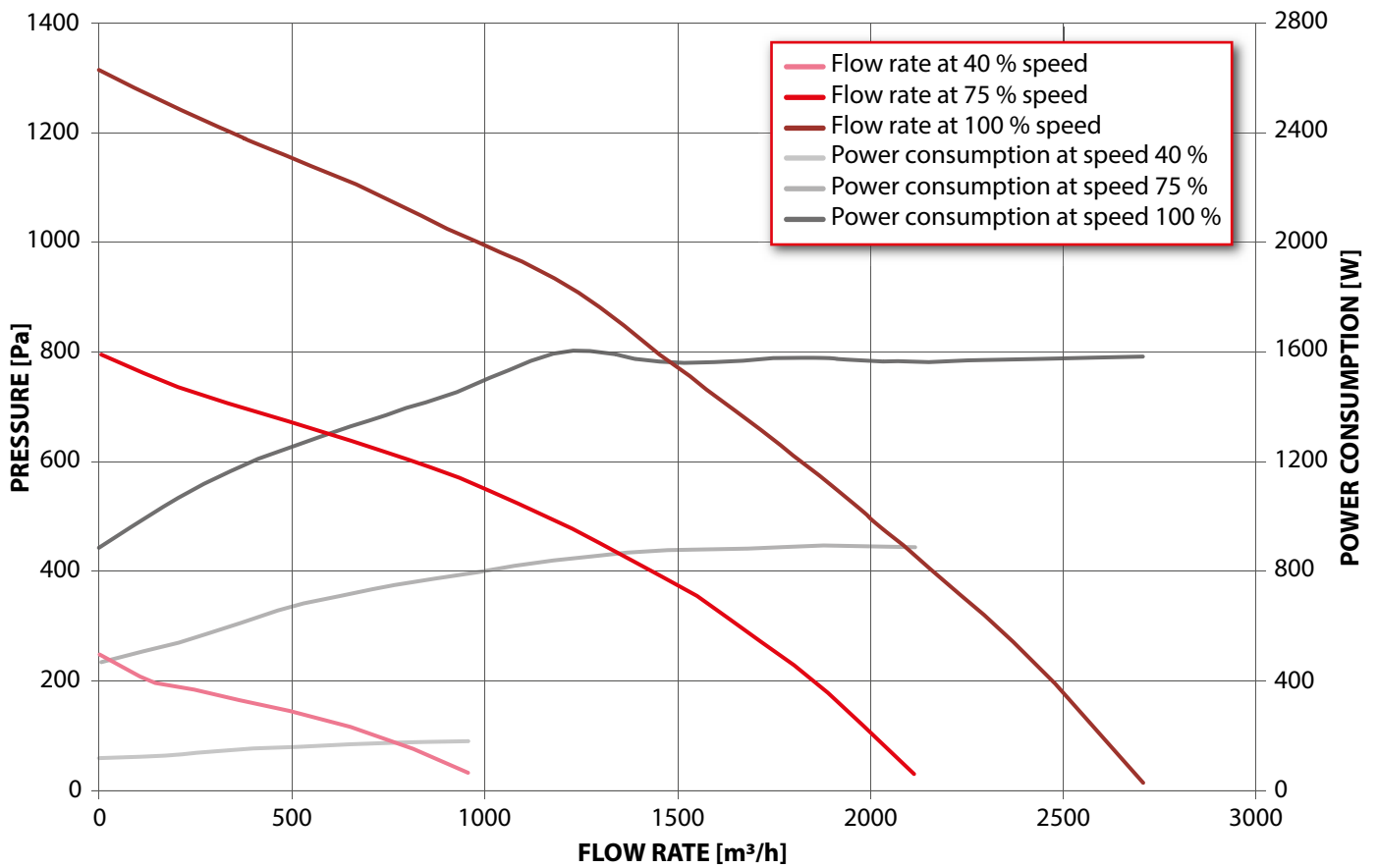
\* H5, B5 and V5 versions on order only.

## NOISE

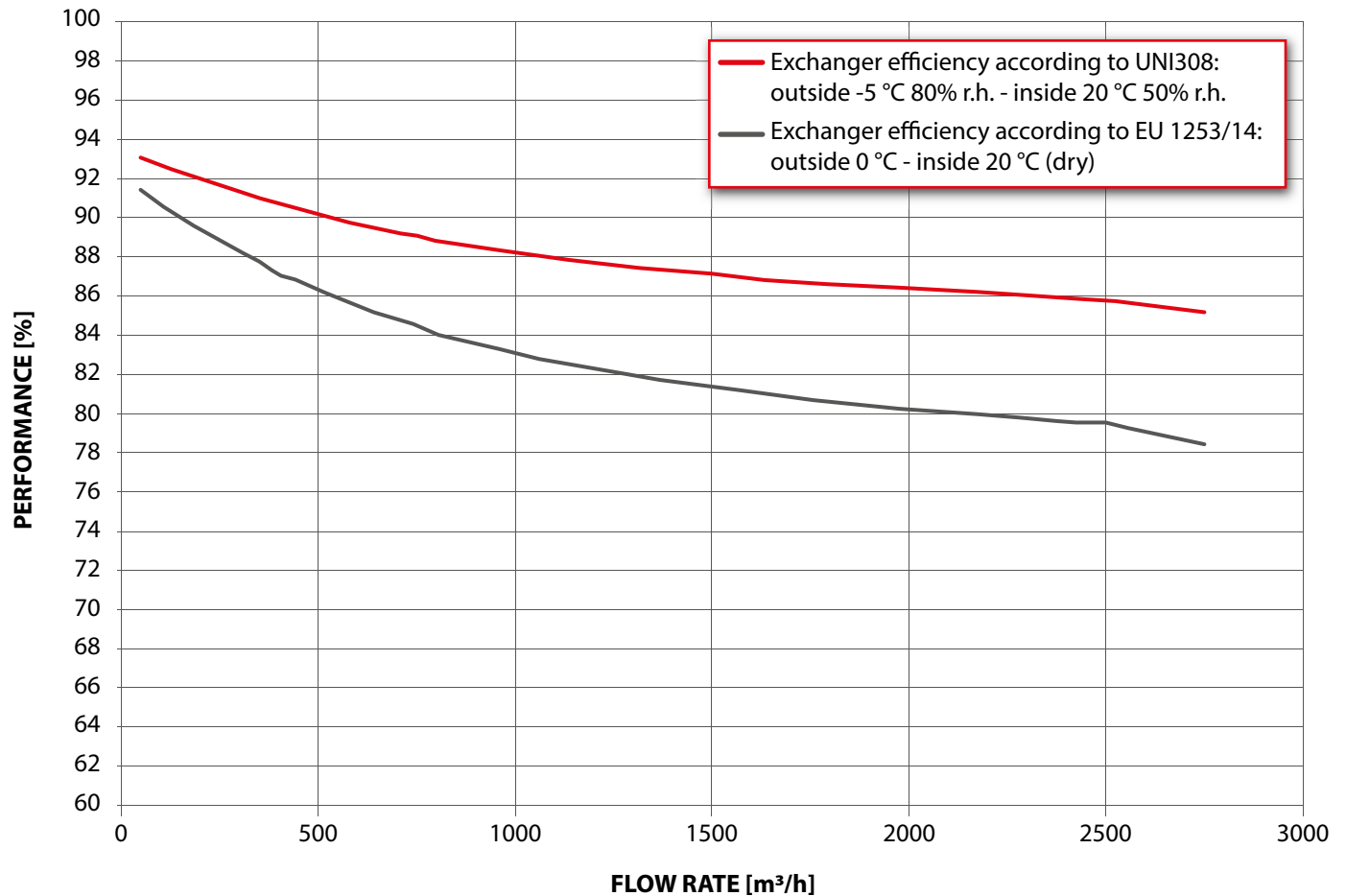
FAN SPEED	FAN FLOW RATE (m³/h)	NOISE RADIATED BY THE BOX (dB)									NOISE TRANSMITTED TO AIR DUCTS (outside air) (dB)								
		L <sub>w</sub> dB (A)	63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	L <sub>w</sub> dB (A)	63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz
40%	914	51	52	42	46	48	45	42	40	45	57	58	47	51	54	51	47	45	50
40%	761	50	54	45	45	47	44	41	39	40	55	60	50	50	52	49	46	44	45
40%	617	50	53	45	50	47	43	42	40	37	55	60	51	56	52	48	47	45	42
40%	434	55	52	48	59	52	46	44	42	38	61	58	53	66	59	52	50	47	42
40%	170	56	54	56	58	55	49	46	44	38	62	60	63	65	61	55	51	49	43
40%	0	55	54	55	56	54	49	45	42	37	61	60	61	63	60	54	50	47	41
75%	1901	64	64	52	57	61	59	56	54	53	71	72	58	64	68	65	63	61	59
75%	1704	63	64	53	57	60	57	54	52	57	69	71	60	64	67	64	60	58	63
75%	1418	61	65	56	57	58	55	53	51	51	67	73	63	63	65	62	59	57	57
75%	1150	61	65	57	62	58	55	53	52	49	68	73	64	69	65	61	60	58	54
75%	810	66	64	59	71	64	58	56	54	49	74	71	66	79	71	65	63	60	55
75%	316	68	65	68	70	66	61	57	55	50	75	73	76	78	74	68	64	62	56
75%	0	67	66	66	68	65	60	56	53	48	74	73	74	76	73	67	63	60	54
100%	2522	69	69	57	63	66	64	61	60	58	76	77	64	70	74	71	68	67	65
100%	2340	68	69	58	62	65	63	60	58	60	75	77	65	70	73	70	67	64	67
100%	2259	68	69	58	62	65	62	59	57	62	75	77	65	70	72	69	66	63	69
100%	2050	67	70	60	62	64	61	58	56	59	74	78	67	69	72	68	65	63	66
100%	1879	66	70	62	62	63	60	58	56	57	73	79	69	69	71	67	65	63	63
100%	1525	67	70	62	67	63	60	59	57	54	74	78	69	75	71	67	66	63	60
100%	1074	72	69	64	76	69	63	61	59	55	80	77	72	85	77	70	68	66	61
100%	419	73	70	73	75	71	66	63	60	55	81	78	81	84	80	74	70	67	61
100%	0	72	71	72	73	70	65	61	58	53	80	79	80	81	79	73	68	65	60

# TECHNICAL DATA SHEET

## AEREAULIC PERFORMANCES

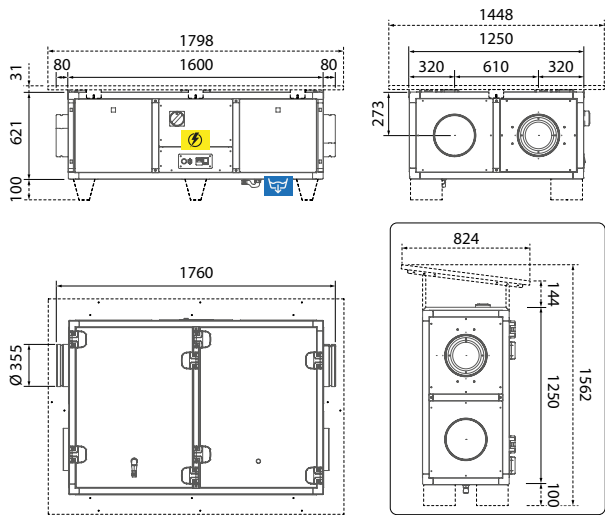


## EXCHANGER THERMAL EFFICIENCY



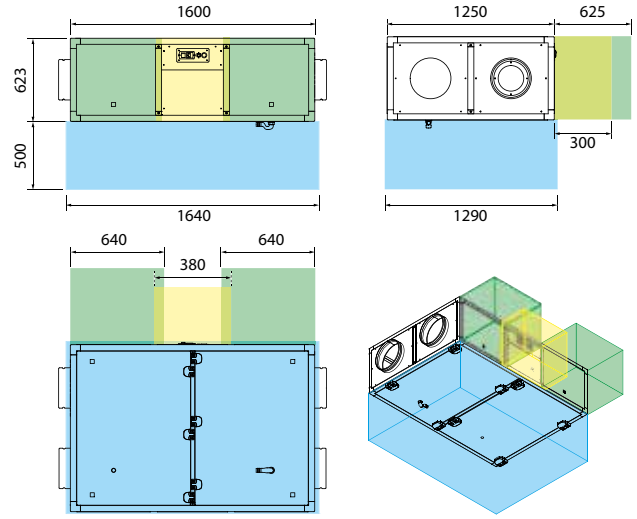
# TECHNICAL DATA SHEET

## DIMENSIONS



Dimensions in mm

## SPACE ALLOWANCES FOR MAINTENANCE/INSPECTION



Dimensions in mm

- Wiring box
- Aerulic connections  $\varnothing$  355 mm
- Condensation drain
- 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 2200	
Type of product	UVNR, bidirectional	
Type of motorisation	Variable speed	
Heat recovery system	Countercurrent recuperator	
Heat recovery system thermal efficiency*	80,3%	
Nominal flow rate (m <sup>3</sup> /s)	0,569 m <sup>3</sup> /s	
Effective electric power input (kW)	1,563 kW	
Specific internal ventilation power SFPint (W/(m <sup>3</sup> /s)*	1228 W/(m <sup>3</sup> /s)	
Frontal speed at nominal flow rate (m/s)*	2,02 m/s	
Nominal outside pressure $\Delta p_{s,ext}$ (Pa)	465 Pa	
Internal pressure drop of ventilation components $\Delta p_{s,int}$ (Pa)*	335 Pa	
Fan static efficiency $\eta_{s,Fan}$ **	61,2%	
Drawing rate (%)	inside	6,4%
	external	5,8%
	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))*	67 dB(A)	
Internet address with pre-assembly and disassembly instructions	www.rdz.it	

\* as per EU Regulation No. 1253/2014

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



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 QUALITY SYSTEM  
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 ISO 9001

