

- Non residential
- Counterflow
- R-COVERY by SALDA
- $Q_v \leq 3500 \text{ m}^3/\text{h}$
- Horizontal/Vertical
- Heat recovery unit with efficiency  $\geq 75\%$



## HRU with counterflow exchanger type HRS-E/W

Heat recovery units with **counterflow** heat exchanger and electrical or water post-heating. The unit is available in different versions, 700 m<sup>3</sup>/h until 3500 m<sup>3</sup>/h with vertical outlets in left or right execution or with horizontal outlets. The unit has been tested according to NBN EN308.

### Brand

- R-COVERY by SALDA

### Application

- Ventilation for both residential and non-residential applications
- For indoor mounting in a frost protected area
- Outside mounting only possible for horizontal versions (from model 700Hand on) with a roof (with electrical resistance to be built into the control box)

### Composition

- Housing in prelacquered steel plate RAL9016 (model 700) and RAL7040 (other models)
- 30 mm insulation for for model 700, 50 mm for models 1200 - 3500
- Round or rectangular connections depending on the model
- 2 motorised dampers included for horizontal model 2500 or higher
- Evacuation drain with connection 20 mm
- Electrical or warm water post-heating (**external warm water battery optional**)
- Automatic bypass
- Filter detection with timer for model 700 and with pressure switch for other models
- Standard Modbus communication
- Possibility of **regulation by constant pressure** or **regulation by CO<sub>2</sub>** (sensors not included)
- The remote control is not included

### Fan

- Directly driven EC direct current fan with backward inclined blades
- Can be regulated 20-100%



### Exchanger

- High efficiency counterflow heat exchanger in aluminium
- Heat exchanger certified according Eurovent EN 13141-7

### Filter

- **HRS-E / HRS-W** is equipped with two filters
- Type **HRS-E / HRS-W 700**: 2 x bagfilter M5 - ISO 16890 ePM10 65% (exhaust/supply)
- Other types: 2 x panelfilter M5 - ISO 16890 ePM10 55% / F7 - ISO 16890 ePM1 70% (exhaust/supply)

### Versions

Vertical execution:

- Type **HRS-EV xxx L**: vertical unit, left execution, electrical battery
- Type **HRS-EV xxx R**: vertical unit, right execution, electrical battery
- Type **HRS-WV xxx L**: vertical unit, left execution, warm water battery (**external battery not included**)
- Type **HRS-WV xxx R**: vertical unit, right execution, warm water battery (**external battery not included**)

Horizontal execution:

- Type **HRS-EH xxx**: horizontal unit, electrical battery
- Type **HRS-WH xxx**: horizontal unit, warm water battery (**external battery not included**)

### Mounting

- The HRS 3500 can be delivered in 1 part or in 3 parts depending on the available article number. See the list of article numbers below.

### Accessories

- Airtight control valve **AKH**
- Manual control with weekly timer, type **MC-HRS**
- Air outlet, type **UT** (for models up to 2200 m³/h)
- Connection piece, type **MDV** (for models up to 2200 m³/h)
- Rain roof for outside application, type **RF-HRS**
- Warm water battery, type **CWA / CWAR**
- Replacement filters, type **FS-HRS**
- Touchscreen controller **TS-AIR**

### Order example

#### HRS-EV 700 L

Explanation

**HRS** = type of heat recovery unit

**E** = electrical post-heating

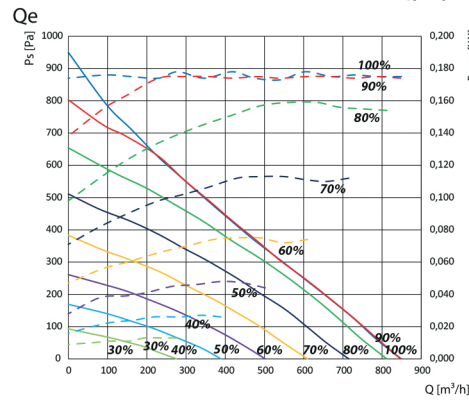
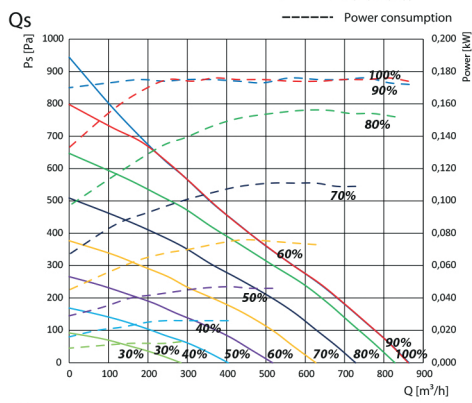
**V** = vertical execution

**700** = air flow rate in m³/h

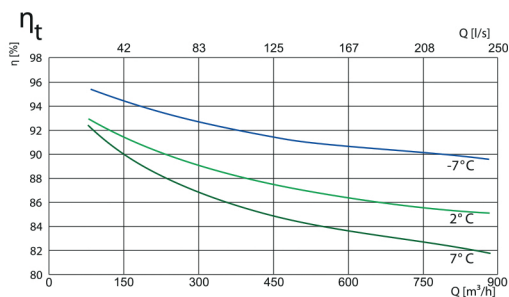
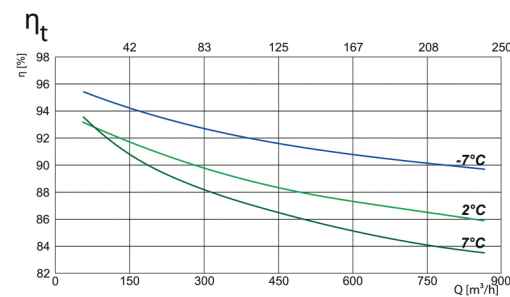
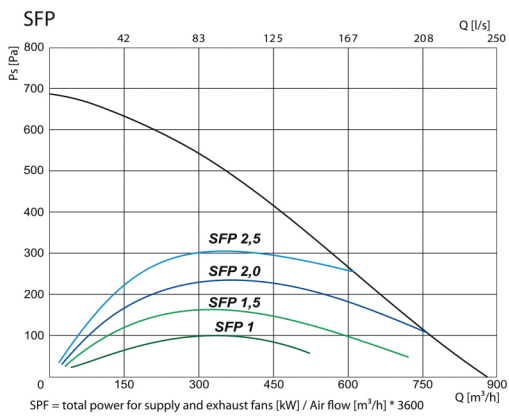
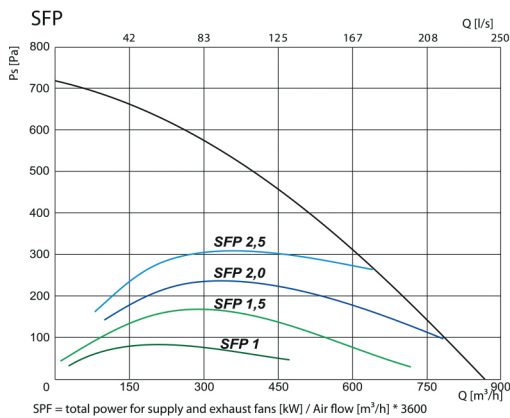
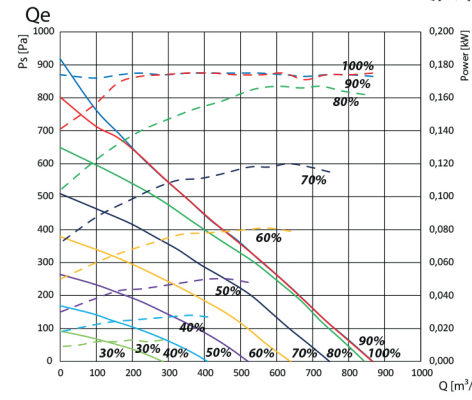
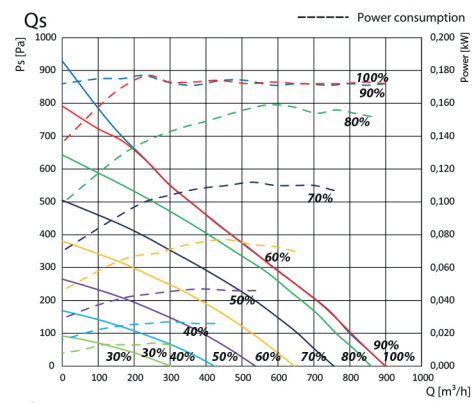
**L** = left execution

Selection curves

HRS-EV/HRS-WV 700

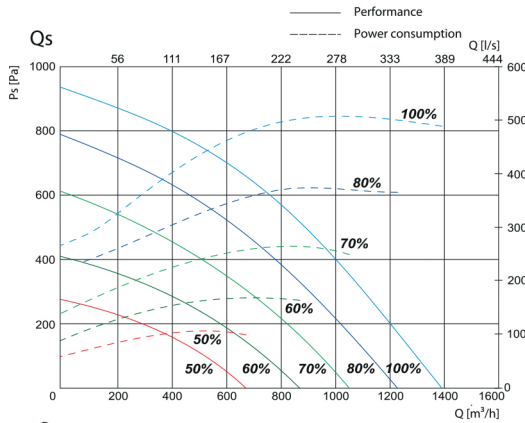


HRS-EH/HRS-WH 700

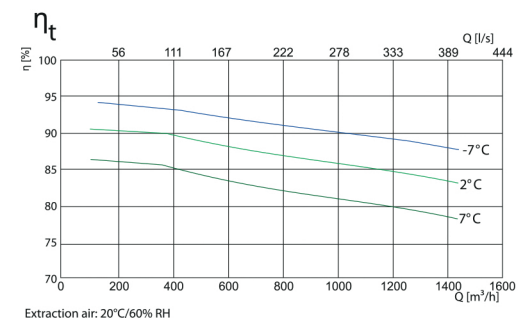
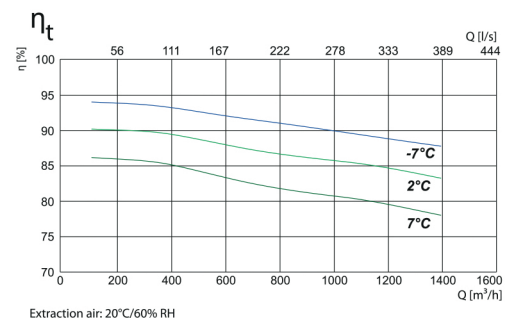
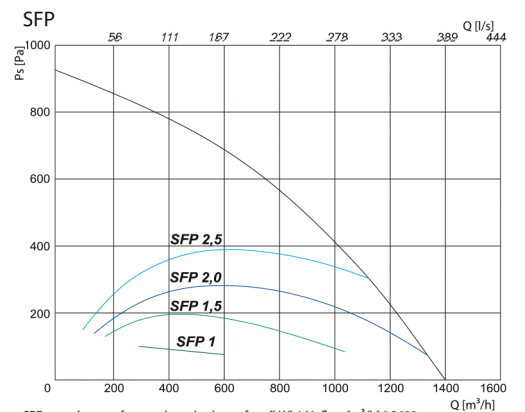
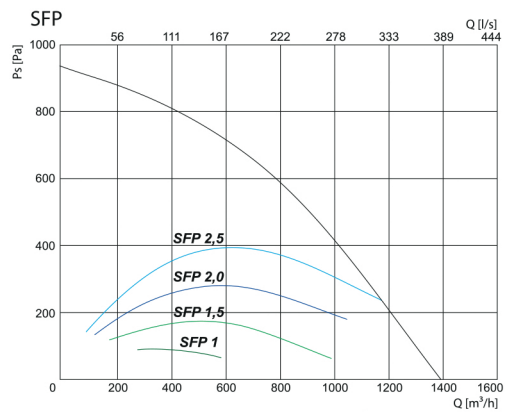
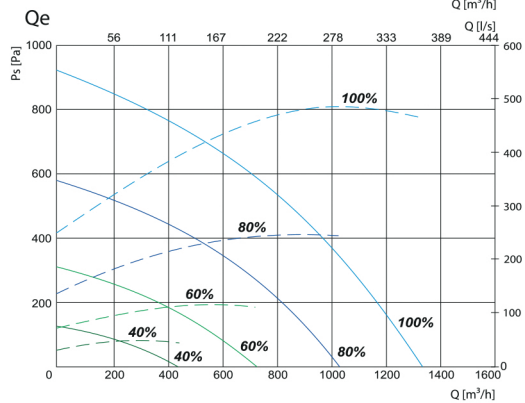
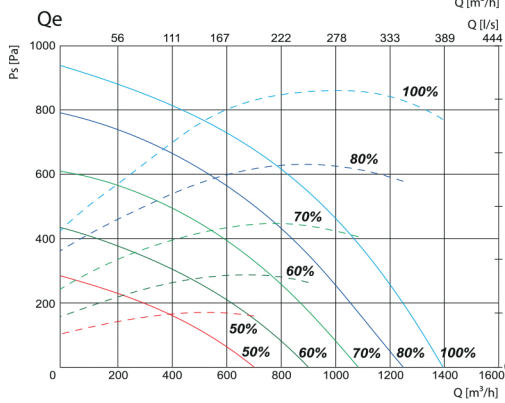
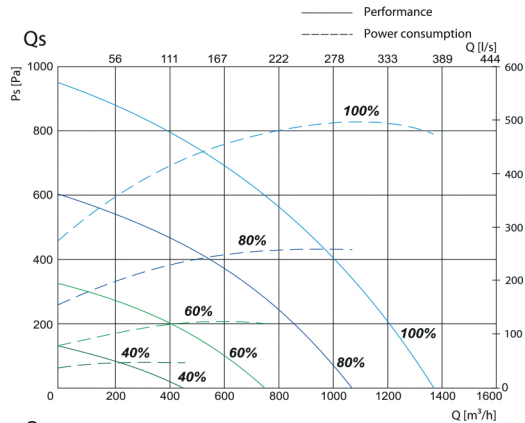


Selection curves

HRS-EV/HRS-WW 1200



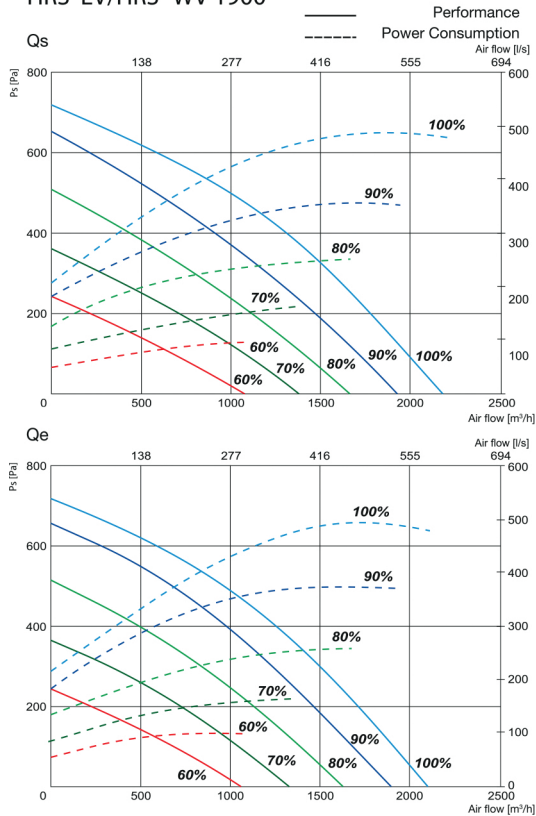
HRS-EH/HRS-WH 1200



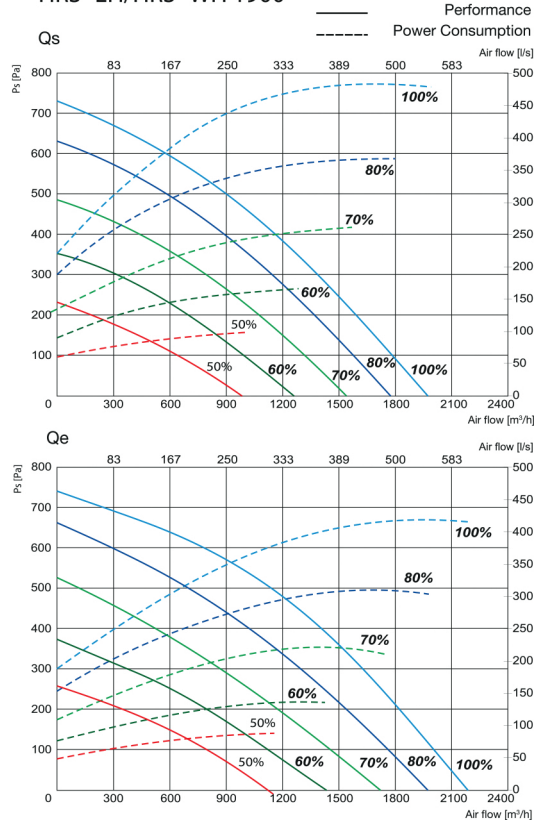


Selection curves

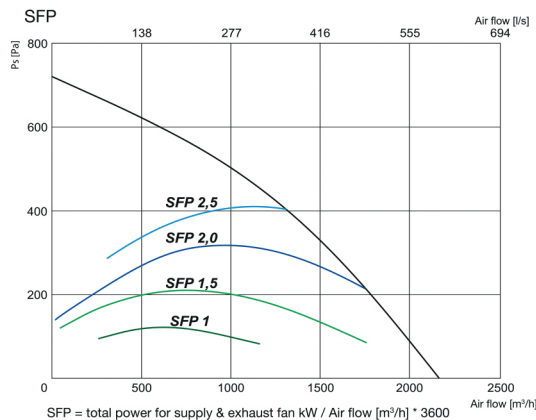
HRS-EV/HRS-WV 1900



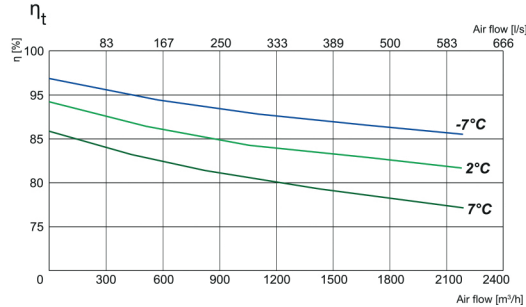
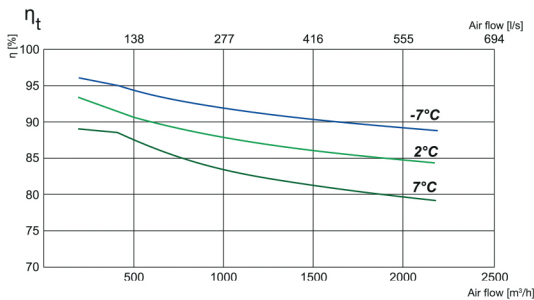
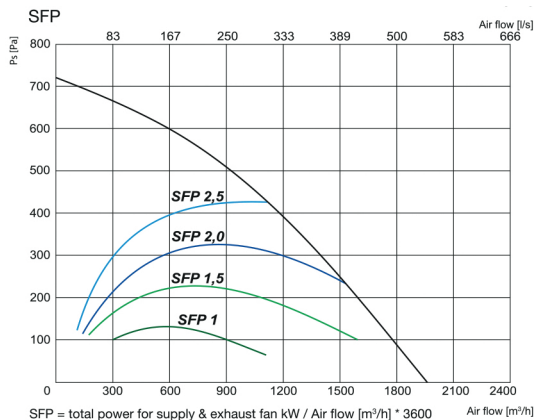
HRS-EH/HRS-WH 1900



SFP

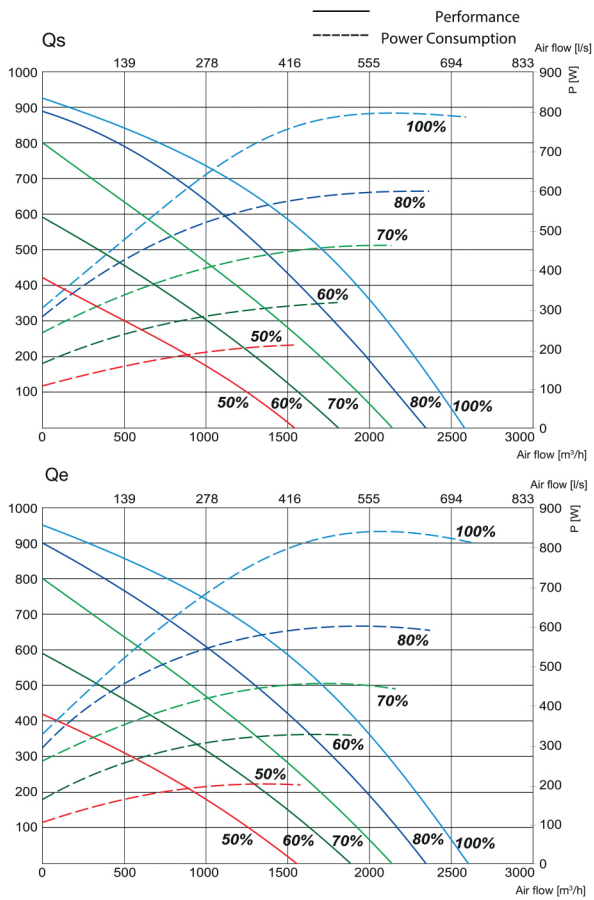


SFP

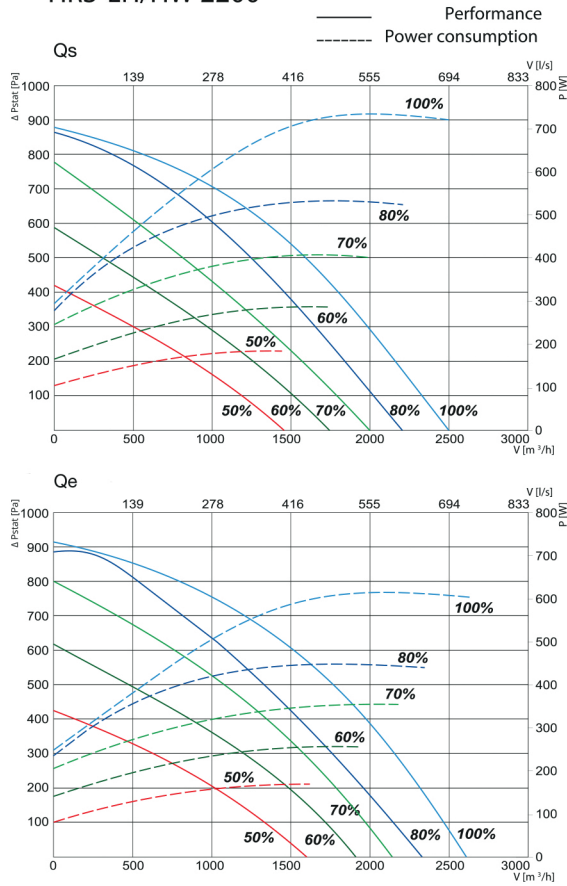


**Selection curves**

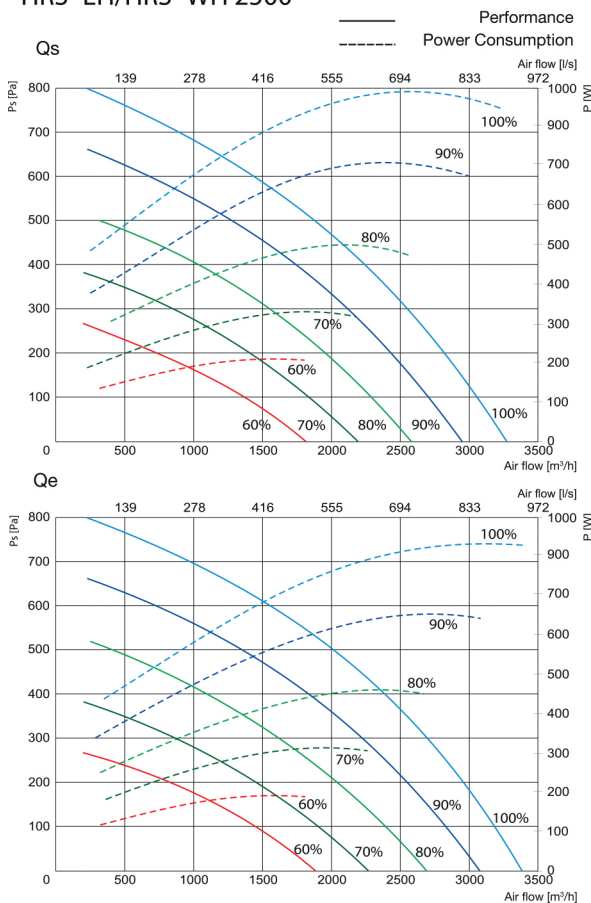
HRS-EV/HRS-WV 2200



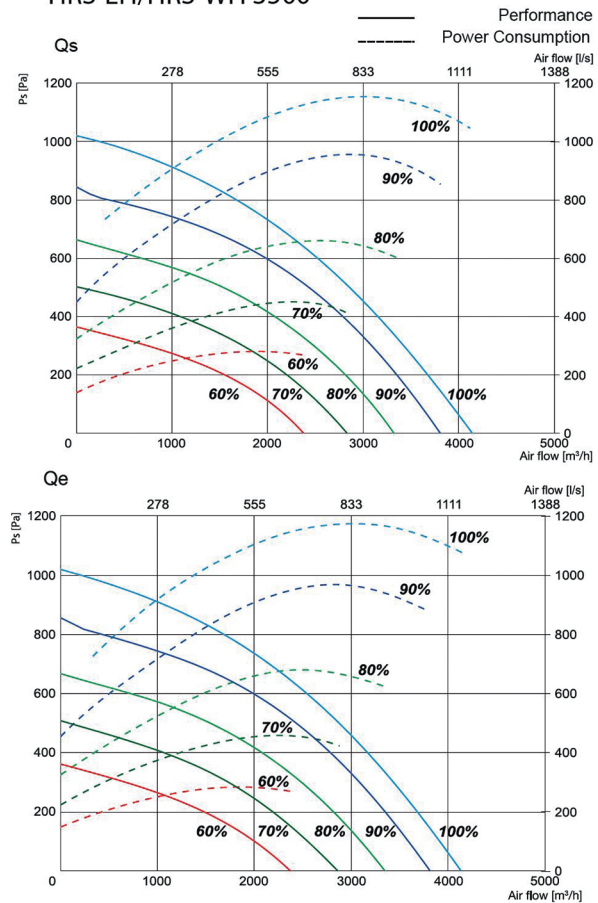
HRS-EH/HW 2200



HRS-EH/HRS-WH 2500



HRS-EH/HRS-WH 3500



- Qs = Supply air
- Qe = Exhaust air
- SFP = Specific fan power
- $\eta_t$  = Temperature efficiency

EPB values			
	Q [m³/h]	$\eta_t$ , epb [%]	Pelec, epb [W]
HRS-EV 700	450	78.8	188
HRS-EV 2200	1409	79	521
HRS-WH 2500 R	2509	79.8	1295
HRS-WH 3500 L	3509	77.2	1808

Technical data						
			HRS-EV 700	HRS-EV 1200	HRS-EV 1900	HRS-EV 2200
Main power supply		[50Hz/VAC]	1 x 230	1 x 230	1 x 230	1 x 230
Heating battery	Electrical power	[kW]	1,2	2	3	3
EC Fans	Power supply	[50Hz/VAC]	1 x 230	1 x 230	1 x 230	1 x 230
Extract fan	Power/current	[kW/A]	0,17/1,4	0,38/2,5	0,47/2,04	0,72/3,1
Extract fan	Fan speed	[rpm]	3230	3370	2530	2800
Supply fan	Power/current	[kW/A]	0,17/1,4	0,38/2,5	0,47/2,04	0,72/3,1
Supply fan	Fan speed	[rpm]	3230	3370	2530	2800
Max. electrical power		[kW/A]	1,54/8,01	2,76/13,7	3,94/17,08	4,43/19,2
Automatic defrost			integrated	integrated	integrated	integrated
Filterclass	Extraction		M5	M5	M5	M5
Filterclass	Supply		M5	F7	F7	F7
Thermal insulation		[mm]	30	50	50	50

Working temperature between -5°C and +40°C to maintain balanced air volumes

Technical data						
			HRS-WV 700	HRS-WV 1200	HRS-WV 1900	HRS-WV 2200
Main power supply		[50Hz/VAC]	1 x 230	1 x 230	1 x 230	1 x 230
EC Fans	Power supply	[50Hz/VAC]	1 x 230	1 x 230	1 x 230	1 x 230
Extract fan	Power/current	[kW/A]	0,17/1,4	0,38/2,5	0,47/2,04	0,72/3,1
Extract fan	Fan speed	[rpm]	3230	3370	2530	2800
Supply fan	Power/current	[kW/A]	0,17/1,4	0,38/2,5	0,47/2,04	0,72/3,1
Supply fan	Fan speed	[rpm]	3230	3370	2530	2800
Max. electrical power		[kW/A]	0,34/2,8	0,76/5	0,94/4,08	1,43/6,2
Automatic defrost			integrated	integrated	integrated	integrated
Filterclass	Extraction		M5	M5	M5	M5
Filterclass	Supply		M5	F7	F7	F7
Thermal insulation		[mm]	30	50	50	50

Working temperature between -5°C and +40°C to maintain balanced air volumes

Technical data									
			HRS-EH 700	HRS-EH 1200	HRS-EH 1900	HRS-EH 2200	HRS-EH 2500	HRS-EH 3500	HRS-EH 5500 *
Main power supply		[50Hz/VAC]	1 x 230	1 x 230	1 x 230	1 x 230	3 x 400	3 x 400	3 x 400
Heating battery	Electrical power	[kW]	1,2	2	3	3	3,6	6	12
EC Fans	Power supply	[50Hz/VAC]	1 x 230	1 x 230	1 x 230	1 x 230	1 x 230	1 x 230	1 x 230
Extract fan	Power/current	[kW/A]	0,17/1,4	0,38/2,5	0,47/2,04	0,72/3,1	0,87/3,92	1,3/5,65	1,84/2,88
Extract fan	Fan speed	[rpm]	3230	3370	2530	2800	2200	2390	2180
Supply fan	Power/current	[kW/A]	0,17/1,4	0,38/2,5	0,47/2,04	0,72/3,1	0,87/3,92	1,3/5,65	1,87/3,06
Supply fan	Fan speed	[rpm]	3230	3370	2530	2800	2200	2390	2180
Max. electrical power		[kW/A]	1,54/8,12	2,76/13,7	3,94/17,08	4,43/19,2	5,34/13,04	8,6/19,96	15,71/23,38
Automatic defrost			integrated	integrated	integrated	integrated	integrated	integrated	integrated
Filterclass	Extraction		M5	M5	M5	M5	M5	M5	M5
Filterclass	Supply		M5	F7	F7	F7	F7	F7	F7
Thermal insulation		[mm]	30	50	50	50	50	50	70

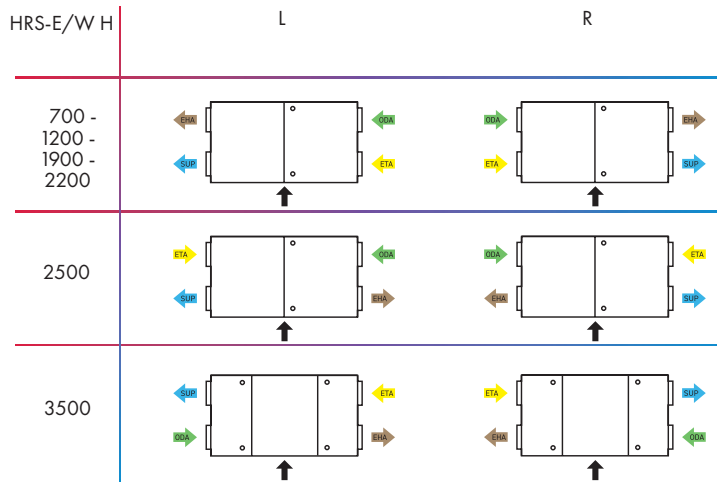
Working temperature between -5°C and +40°C to maintain balanced air volumes

Technical data									
			HRS-WH 700	HRS-WH 1200	HRS-WH 1900	HRS-WH 2200	HRS-WH 2500	HRS-WH 3500	HRS-WH 5500 *
Main power supply		[50Hz/VAC]	1 x 230	1 x 230	1 x 230	1 x 230	1 x 230	1 x 230	1 x 230
EC Fans	Power supply	[50Hz/VAC]	1 x 230	1 x 230	1 x 230	1 x 230	1 x 230	1 x 230	1 x 230
Extract fan	Power/current	[kW/A]	0,17/1,4	0,38/2,5	0,47/2,04	0,72/3,1	0,87/3,92	1,3/5,65	1,84/2,88
Extract fan	Fan speed	[rpm]	3230	3370	2530	2800	2200	2390	2180
Supply fan	Power/current	[kW/A]	0,17/1,4	0,38/2,5	0,47/2,04	0,72/3,1	0,87/3,92	1,3/5,65	1,87/3,06
Supply fan	Fan speed	[rpm]	3230	3370	2530	2800	2200	2390	2180
Max. electrical power		[kW/A]	0,34/2,9	0,76/5	0,94/4,08	1,43/6,2	1,74/7,84	2,6/11,3	3,72/6,04
Automatic defrost			integrated	integrated	integrated	integrated	integrated	integrated	integrated
Filterclass	Extraction		M5	M5	M5	M5	M5	M5	M5
Filterclass	Supply		M5	F7	F7	F7	F7	F7	F7
Thermal insulation		[mm]	30	50	50	50	50	50	70

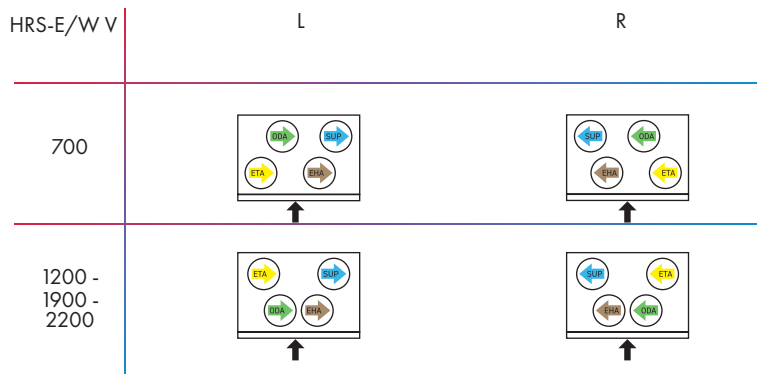
Working temperature between -5°C and +40°C to maintain balanced air volumes

\* No longer available

Configuration horizontal



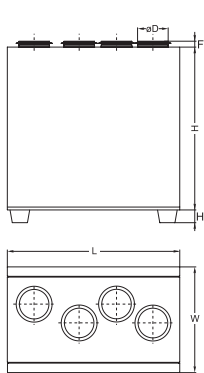
Configurations vertical



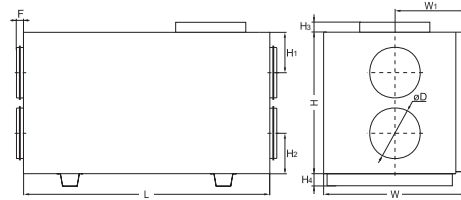
	Dimensions																	
	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	W [mm]	W1 [mm]	C [mm]	ØD [mm]	G [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	F [mm]	F1 [mm]	[kg]
HRS-EV / HRS-WV 700	1000	-	-	-	670	-	-	250	-	-	980	126	-	-	-	40	-	112/110
HRS-EV / HRS-WV 1200	1350	-	-	-	760	-	-	315	-	-	1200	144	-	-	-	40	-	171/169
HRS-EV / HRS-WV 1900	2000	-	-	-	798	-	-	400	-	-	1600	141	-	-	-	70	-	306/302
HRS-EV / HRS-WV 2200	2000	-	-	-	798	-	-	400	-	-	1600	141	-	-	-	70	-	311/307
HRS-EH / HRS-WH 700	1200	-	-	-	670	335	-	250	-	-	780	210	210	70	126	40	-	96/94
HRS-EH / HRS-WH 1200	1500	-	-	-	760	380	-	315	-	-	1000	269	269	70	141	40	-	176/173
HRS-EH / HRS-WH 1900	1800	-	-	-	800	400	-	400	-	-	1245	331	331	108	141	70	-	241/238
HRS-EH / HRS-WH 2200	1800	-	-	-	800	400	-	400	-	-	1245	331	331	108	141	70	-	250/246
HRS-EH / HRS-WH 2500	2100	-	-	-	900	490	20	-	600	350	1355	387	327	108	141	50	-	418/415
HRS-EH / HRS-WH 3500	2755	910	1182	710	945	494	20	-	800	500	1600	413	413	130	141	65	192	576/567
HRS-EH / HRS-WH 5500*	2644	1740	900	-	1670	835	20	-	800	500	1600	415	415	-	180	55	-	788/768

\*niet meer verkrijgbaar / ne plus disponible / no longer available

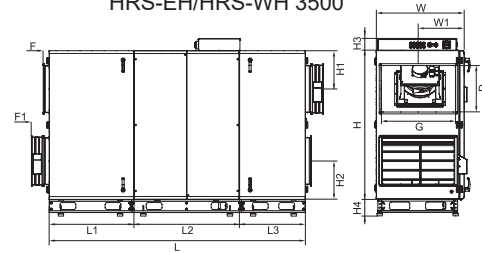
HRS-EV/HRS-WV 700-2200



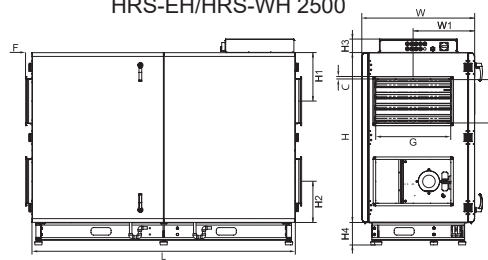
HRS-EH/HRS-WH 700-1900



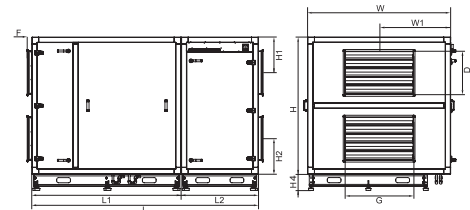
HRS-EH/HRS-WH 3500



HRS-EH/HRS-WH 2500



HRS-EH/HRS-WH 5500



Sound values								
HRS V 700	Lwa total.	Lwa, dB						
	dB(A)	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Supply	73	75	74	66	66	65	63	64
Extraction	64	70	74	57	53	48	41	38
Surrounding	48	53	50	47	37	34	32	37
720 m³/h - 125 Pa								
HRS V 1200	Lwa total.	Lwa, dB						
	dB(A)	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Supply	79	66	75	73	72	70	67	58
Extraction	68	62	63	64	58	53	48	43
Surrounding	58	51	52	53	50	49	45	40
1300 m³/h - 120 Pa								
HRS V 1900	Lwa total.	Lwa, dB						
	dB(A)	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Supply	75	78	78	69	68	66	64	64
Extract	67	72	75	59	55	49	42	38
Surrounding	51	56	54	50	39	35	33	37
1800 m³/h - 125 Pa								
HRS H 700	Lwa total.	Lwa, dB						
	dB(A)	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Supply	73	65	67	65	64	66	63	54
Extraction	61	54	55	57	49	46	41	40
Surrounding	56	45	49	54	45	43	40	37
760 m³/h - 101 Pa								
HRS H 1200	Lwa total.	Lwa, dB						
	dB(A)	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Supply	75	62	65	71	70	65	63	53
Extraction	57	51	49	52	51	45	40	32
Surrounding	53	44	43	48	47	43	40	33
1271 m³/h - 119 Pa								
HRS H 1900	Lwa total.	Lwa, dB						
	dB(A)	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Supply	75	78	79	69	68	66	64	63
Extract	65	71	73	58	54	48	41	37
Surrounding	51	56	55	50	39	35	33	36
1750 m³/h - 100 Pa								
HRS H 2500	Lwa total.	Lwa, dB						
	dB(A)	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Supply	83	65	73	75	78	79	71	61
Extraction	65	57	61	59	56	54	49	39
Surrounding	62	45	57	58	55	52	44	36
2976 m³/h - 121 Pa								
HRS H 3500	Lwa total.	Lwa, dB						
	dB(A)	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Supply	82	73	83	74	77	75	70	71
Extraction	73	73	81	66	60	54	45	47
Surrounding	56	52	59	56	48	44	39	45
3746 m³/h - 150 Pa								