COMFORT AIR CURTAIN

SensAir

biddle
CLIMATE SOLUTIONS

A new wave in climate separation

SensAir air curtains are the ideal solution for retailers and other end-users to combat the issue of climate separation across their outlet or office building doorway. The importance of accessibility to attract customers in the retail sector is well-known, but with this free form of access through 'open door' trading, cold draughts and high-energy bills are often the consequence.

High comfort and energy efficient

The SensAir technology has been improved to deliver greater comfort for all, whether it is in a supermarket, high street store or office building. The SensAir air curtain, does not act as a barrier in the place of a door, its prime role is to reduce the amount of warm air leaving the building and condition the incoming air to a comfortable temperature. BSRIA and Biddle research produced documented evidence proving that air curtains operate best with specific velocities and air volumes. The SensAir air curtain satisfies these needs by delivering the right air flow and temperature at the right time automatically, reducing energy loss. Furthermore it is the only commercially available air curtain of its kind that now offers a unique air damper system to improve efficiency, by controlling the outlet velocity.

Intelligent auto-active control and monitoring

The auto-active control is the next generation of controls. Knowing that manual control of air curtains often leads to the incorrect setting the inclusion of the **automatic** CHIPS (Corrective Heating & Impulse Prediction System) technology ensures the most appropriate setting at any moment in time. The i-sense in the discharge grille measures the indoor and outdoor temperatures **active** in the door opening resulting in accurate data. This auto-active control has been demonstrated to produce energy saving savings of up to 75% when compared with a manually controlled air curtain. Biddle has an extensive range of control options: the b-touch control panel, remote monitoring of comfort and energy performance and connecting to a BMS is easy through the standard integrated Modbus connection.

Benefits

Energy efficient and high comfort

- improved accuracy of temperature data collection
- correct settings are adjusted actively and automatically
- comfortable inside climate and inviting appearance
- low sound level

Intelligent control and monitoring

- self-regulating: auto-active control
- remote monitoring: b-connect
- Modbus: integrated as standard

Installation & maintenance-friendly

- easy to assemble and set up (b-touch)
- ready-to-use, integrated control

Complete customized solution

- customer specific styling possible
- suitable for various heat sources

Optimal functioning

Carefully choosing your device, installing it correctly and maintaining it regularly are crucial elements when it comes to ensuring your SensAir functions effectively.

Selection considerations

An air curtain functions correctly when it shields the whole doorway and possesses sufficient heating capacity to warm the incoming cold air. Installation height, door width and the volume of natural ventilation are key when it comes to making the right choice. The table shown below provides relevant indications. The volume of natural ventilation in the building will determine whether the situation is favourable, normal or unfavourable.

	situation		
	favourable	normal	unfavourable
type	**door height (cm)**		
S	< 240	< 220	-
M	< 280	< 250	< 220
L	< 330	< 300	< 280
XL	< 400	< 350	< 320

Installation considerations

For best results, the distance between the air curtain and the door should be as small as possible, whilst the curtain itself should be at least as wide as the doorway. Installation comprises the following stages:

Easy to configure

1. Installation

Assembly time is made as short as possible. Attaching the SensAir to the ceiling or the wall is easily achieved using suspension rails and threaded rods.

2. Connection

After the assembly phase is completed, the SensAir and the b-touch control panel are connected to each other. Water-heating units are all equipped with an integrated air and water-side control package. The electric and hybrid units are also easy to connect.

3. Settings

The installation menu located in the b-touch control panel provides step-by-step instructions for selecting appropriate settings. Once configured, the system can also function without the b-touch control panel being connected.

Regular maintenance

Regular cleaning and filter replacements are essential to ensure the SensAir device functions properly. The b-touch control panel warns you when the filters require maintenance. Filters are easily cleaned using a vacuum cleaner.

You will find more information regarding SensAir's commercial advantages in a separate brochure.

A suitable solution for every situation

The SensAir has endless possibilities. The SensAir creates optimum climate separation in all doorways and is also suitable for a range of heating sources. There is a solution available for many monitoring and control options.

Example type code: SR S-100-H3-F

SR	=	SensAir
Capacity		
S	=	Small (200 - 240 cm)
M	=	Medium (220 - 280 cm)
L	=	Large (250 - 330 cm)
XL	=	Extra Large (300 - 400 cm)
Length (cm)		
100 - 150 - 200 - 250		
Coil type		
H3	=	Hot water heating
E	=	Electrical heating
H3E	=	Hybrid heating (water & electric)
A	=	Ambient (no heating)
Model		
F	=	Free hanging model
R	=	Recessed model
C	=	Cassette model

For the DX version a separate brochure is available.

For every door width

Doors wider than 250 cm are covered by placing multiple units next to each other.

Control options

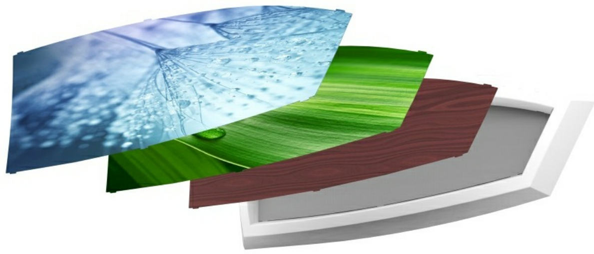
- auto-active control with b-touch control panel
- b-connect monitoring module
- Modbus communication

Standard colours

- Traffic white (RAL 9016) with accent end panels in silver grey (RAL 9006)
- Silver grey (RAL 9006)
- Other RAL classic colours available on request

Customer-specific styling

The inlays in the end panels are supplied in grey and white as standard. The removable inlays in the end panels can also be styled specifically if required (e.g. colour and logo).



End panels with styled inlays

Delivery and accessories


i-sense

Technologies

- i-sense infrared technology to collect accurate temperature data in the door opening
- CHIPS technology to adjust the settings automatically
- Controlled air strength technology for the best downward penetration
- Rectifier technology to reach the floor at the lowest possible speed


b-touch control panel

Standard delivery

- Water-side control: 3 way valve and control (water and hybrid unit)
- Modbus communication
- Air filters
- Ceiling mounting brackets
- Duct connections R-model (ducts not included)


end panels - 2 colours

Accessory set for auto-active control

- b-touch control panel
- Two Biddle low voltage cables: 1 x 5 m, 1 x 25 m
- Two end panels (model F)

Optional

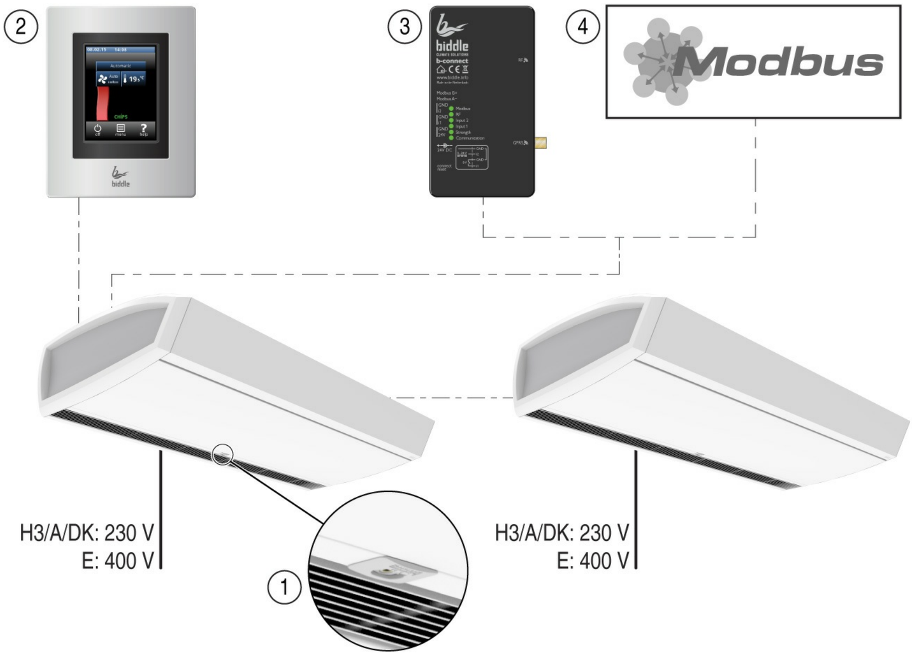
- b-connect monitoring module
- Filter sensor
- Wall mounting brackets: standard and design
- Threaded rod covers
- Door contact switch
- External outdoor sensor

Installation possibilities

- Wall mounting brackets
- M8 threaded rods (see also - threaded rod covers)

Electrical connections

The SensAir is delivered as standard with the b-touch control panel and i-sense infrared technology. It is also possible to specify the optional b-connect monitoring module or communicate via Modbus, the latter of which is a standard feature on all units.



1. i-sense infrared technology
2. b-touch control panel
3. b-connect monitoring module
4. Modbus communication

Specifications

Casing

The casing is made of zinc plated sheet steel, and has an inspection panel in the bottom. The inlet grilles are made of anodised aluminium with fixed fins. The inlet module and the end panels as well as the casing are, as a standard, supplied in silver grey (RAL 9006) or traffic white (RAL 9016). The end panels of the white SensAir have a grey inlay. Other RAL casing colour finishes are available for an additional charge.

Motor / Fan assembly

The air curtain is equipped with two or more (depending on type) dual-inlet, vibration free suspended centrifugal fans. Each fan is driven by a rotor motor on bearings, which are seal for life and no maintenance is required. The fan casing and the impeller are made of zinc coated plate steel. The motors, as standard, are fitted with thermal contacts. These thermal contacts break the circuit of the motor when the maximum permissible motor temperature is exceeded.

Heating coil

Water: made up of 3/8" (S/M) and 1/2" (L/XL) copper tubes and aluminium fins. The water connections are G1" female thread. The maximum operating pressure is 6 bar at 110°C. Higher pressure levels, up to 10 bar, are available upon request. The permissible pressure difference is with S / M $\Delta p = 0.5$ bar, and with L / XL $\Delta p = 1.0$ bar.

Electric: made up of electric heating elements with aluminium fins. The exchanger is controlled by the electronic control unit and is fitted with overload protection. When the unit is switched off, the fans will continue to run until the heating coils have cooled off sufficiently.

Hybrid: a combination of water heating coil with an electrical stitched wire heating element.

Connections

To connect hot water and ambient units to the mains supply, they come with a fixed cable (approx. 2 m long) with a moulded, earthed plug. The pipework connections for water and hybrid units and the connector plate are fitted on the top of the unit.

The mains cable to electrically heated (and hybrid) units must be connected within the unit. The top of the unit has a cable gland for feeding through the mains cable. A 5-core cable (3 phases + earth + neutral) is required for connection.

Explanation technical data

Because of the auto-active control of the SensAir comfort air curtain the outlet temperature varies at all speeds, depending on the situation. The SensAir is equipped with a low water temperature coil for every water temperature from 45/35°C to 90/70°C. The SensAir with hybrid heating is available for lower water temperatures than 45/35°C.

Selection boiler capacity

For the selection of the boiler one can take the heating capacity at speed 6 at a discharge air temperature of 40 °C.

Maximum heating capacity

For the maximum heating capacity of water, electric and hybrid units, the heating capacity has been taken at speed 6 with a discharge air temperature of 50°C.

Water volume

The water volumes for water units are based on a water temperature of 80/60°C, a room temperature of 20°C and an discharge air temperature of 40°C. For hybrid units the water volumes are based on a water temperature of 40/30°C, a room temperature of 20°C and a discharge air temperature of 35°C. With different values it is necessary to calculate the water flow rate using the formula below. The formula is also useful to determine the required water volume to achieve the necessary heating capacity or to determine the maximum heating capacity at a certain water volume.

m_W = water volume [l/h]

Q = heating capacity [kW]

C_{pw} = specific heat capacity of water (=4.18) [kJ/kg°C]

ΔT_W = temperature difference water [°C]

ρ_W = density of water at 90°C (=0.984) [kg/l]

$$m_W = \frac{Q}{C_{pw}\ \Delta T_W\ \rho_W} 3600\ [l/h]$$

Water pressure loss

If different water temperatures than 80/60°C or 40/30°C (hybrid) are concerned, the water pressure loss can be roughly calculated with the formula below. To do this the water volume flow rate should first be calculated (see above).

Δp_{W1} = water pressure loss table value [kPa]

Δp_{W2} = water pressure loss [kPa]

m_{W1} = water volume table value [l/h]

m_{W2} = water volume formula [l/h]

$$\Delta p_{W_2} = \Delta p_{W_1} \left(\frac{m_{W_2}}{m_{W_1}}\right)^2 [kPa]$$

Sound

The sound data is based on the direct field, in a situation with an open door and a sound absorbing ceiling. The sound data for different situations can be determined by adding the adjacent values to the table values.

Closed door	**+ 1 - 2 dB(A)**
Acoustical "hard" ceiling	**+ 2 - 3 dB(A)**

Deviating distances and several units next to each other can be calculated with the table below. Data from the 1 m unit, measured at a distance of 3 m, is the basic assumption. The factors apply to all types of air curtains.

Correction factors for sound pressure in dB(A)

distance (m)	total unit length (m)					
	1	**1,5**	**2**	**2,5**	**3**	**3,5**
1	+9.5	+11.3	+12.6	+13.5	+14.3	+15.0
2	+3.5	+5.3	+6.5	+7.5	+8.3	+9.0
3	0	+1.8	+3.0	+4.0	+4.8	+5.4
4	-2.5	-0.7	+0.5	+1.5	+2.3	+2.9
5	-4.4	-2.7	-1.4	-0.5	+0.3	+1.0

Water heating

SR S-100-H3							
nominal unit length	m	**1**					
door height	m	**2 - 2.4**					
electrical supply	V/ph/Hz	230/1/50					
max. input current (1 phase)	A	0,88					
max. fan power	kW	0,2					
max. specific fan power	W/l/s	0,63					
max heating capacity	kW	11,4					
water flow rate	l/h	590					
water pressure drop with 3-port valve	kPa	2,82					
water range	°C	80/60					
weight casing style F / R / C	kg	46/60/58					
air inlet temperature	°C	20					
discharge air temperature	°C	35					40
speed		**1**	**2**	**3**	**4**	**5**	**6**
air volume	m³/h	440	600	680	880	1010	1130
heating capacity	kW	2,2	3	3,4	4,4	5,1	7,6
sound pressure level at 3m	dB(A)	27	33	37	42	46	48

SR S-150-H3							
nominal unit length	m	**1,5**					
door height	m	**2 - 2.4**					
electrical supply	V/ph/Hz	230/1/50					
max. input current (1 phase)	A	1,32					
max. fan power	kW	0,3					
max. specific fan power	W/l/s	0,63					
max heating capacity	kW	17					
water flow rate	l/h	935					
water pressure drop with 3-port valve	kPa	8,1					
water range	°C	80/60					
weight casing style F / R / C	kg	65/87/82					
air inlet temperature	°C	20					
discharge air temperature	°C	35					40
speed		**1**	**2**	**3**	**4**	**5**	**6**
air volume	m³/h	660	910	1020	1320	1520	1700
heating capacity	kW	3,3	4,5	5,1	6,6	7,6	11,4
sound pressure level at 3m	dB(A)	28	35	39	43	47	50

Water heating

SR S-200-H3							
nominal unit length	m	**2**					
door height	m	**2 - 2.4**					
electrical supply	V/ph/Hz	230/1/50					
max. input current (1 phase)	A	1,76					
max. fan power	kW	0,39					
max. specific fan power	W/l/s	0,63					
max heating capacity	kW	22,7					
water flow rate	l/h	1280					
water pressure drop with 3-port valve	kPa	16,97					
water range	°C	80/60					
weight casing style F / R / C	kg	79/108/102					
air inlet temperature	°C	20					
discharge air temperature	°C	35					40
speed		**1**	**2**	**3**	**4**	**5**	**6**
air volume	m³/h	880	1210	1360	1770	2020	2260
heating capacity	kW	4,4	6,1	6,8	8,9	10,1	15,1
sound pressure level at 3m	dB(A)	30	36	40	45	49	51

SR S-250-H3							
nominal unit length	m	**2,5**					
door height	m	**2 - 2.4**					
electrical supply	V/ph/Hz	230/1/50					
max. input current (1 phase)	A	2,2					
max. fan power	kW	0,49					
max. specific fan power	W/l/s	0,63					
max heating capacity	kW	28,4					
water flow rate	l/h	1625					
water pressure drop with 3-port valve	kPa	30,15					
water range	°C	80/60					
weight casing style F / R / C	kg	102/138/130					
air inlet temperature	°C	20					
discharge air temperature	°C	35					40
speed		**1**	**2**	**3**	**4**	**5**	**6**
air volume	m³/h	1100	1510	1700	2210	2530	2830
heating capacity	kW	5,5	7,6	8,5	11,1	12,7	18,9
sound pressure level at 3m	dB(A)	31	37	41	46	50	52

Water heating

SR M-100-H3							
nominal unit length	m	**1**					
door height	m	**2.2 - 2.8**					
electrical supply	V/ph/Hz	230/1/50					
max. input current (1 phase)	A	1,25					
max. fan power	kW	0,27					
max. specific fan power	W/l/s	0,63					
max heating capacity	kW	15,4					
water flow rate	l/h	726					
water pressure drop with 3-port valve	kPa	4,18					
water range	°C	80/60					
weight casing style F / R / C	kg	52/66/64					
air inlet temperature	°C	20					
discharge air temperature	°C	35					40
speed		**1**	**2**	**3**	**4**	**5**	**6**
air volume	m³/h	490	740	880	1180	1310	1530
heating capacity	kW	2,4	3,7	4,4	5,9	6,6	10,3
sound pressure level at 3m	dB(A)	25	34	39	45	50	53

SR M-150-H3							
nominal unit length	m	**1,5**					
door height	m	**2.2 - 2.8**					
electrical supply	V/ph/Hz	230/1/50					
max. input current (1 phase)	A	1,87					
max. fan power	kW	0,4					
max. specific fan power	W/l/s	0,63					
max heating capacity	kW	23,1					
water flow rate	l/h	1155					
water pressure drop with 3-port valve	kPa	12,08					
water range	°C	80/60					
weight casing style F / R / C	kg	74/96/91					
air inlet temperature	°C	20					
discharge air temperature	°C	35					40
speed		**1**	**2**	**3**	**4**	**5**	**6**
air volume	m³/h	730	1100	1320	1780	1960	2300
heating capacity	kW	3,7	5,5	6,6	8,9	9,8	15,4
sound pressure level at 3m	dB(A)	26	35	40	47	51	54

Water heating

SR M-200-H3							
nominal unit length	m	**2**					
door height	m	**2.2 - 2.8**					
electrical supply	V/ph/Hz	230/1/50					
max. input current (1 phase)	A	2,49					
max. fan power	kW	0,54					
max. specific fan power	W/l/s	0,63					
max heating capacity	kW	30,8					
water flow rate	l/h	1584					
water pressure drop with 3-port valve	kPa	25,38					
water range	°C	80/60					
weight casing style F / R / C	kg	92/121/115					
air inlet temperature	°C	20					
discharge air temperature	°C	35					40
speed		**1**	**2**	**3**	**4**	**5**	**6**
air volume	m³/h	970	1470	1750	2370	2610	3070
heating capacity	kW	4,9	7,4	8,8	11,9	13,1	20,5
sound pressure level at 3m	dB(A)	28	37	42	48	53	56

SR M-250-H3							
nominal unit length	m	**2,5**					
door height	m	**2.2 - 2.8**					
electrical supply	V/ph/Hz	230/1/50					
max. input current (1 phase)	A	3,12					
max. fan power	kW	0,67					
max. specific fan power	W/l/s	0,63					
max heating capacity	kW	38,5					
water flow rate	l/h	2013					
water pressure drop with 3-port valve	kPa	45,11					
water range	°C	80/60					
weight casing style F / R / C	kg	114/150/142					
air inlet temperature	°C	20					
discharge air temperature	°C	35					40
speed		**1**	**2**	**3**	**4**	**5**	**6**
air volume	m³/h	1210	1840	2190	2960	3270	3840
heating capacity	kW	6,1	9,2	11	14,9	16,4	25,7
sound pressure level at 3m	dB(A)	29	38	43	49	54	57

Water heating

SR L-100-H3							
nominal unit length	m	**1**					
door height	m	**2.5 - 3.3**					
electrical supply	V/ph/Hz	230/1/50					
max. input current (1 phase)	A	3,03					
max. fan power	kW	0,57					
max. specific fan power	W/l/s	0,66					
max heating capacity	kW	31,5					
water flow rate	l/h	1327					
water pressure drop with 3-port valve	kPa	5,38					
water range	°C	80/60					
weight casing style F / R / C	kg	64/82/80					
air inlet temperature	°C	20					
discharge air temperature	°C	35					40
speed		**1**	**2**	**3**	**4**	**5**	**6**
air volume	m³/h	1010	1440	1710	2240	2680	3140
heating capacity	kW	5	7,2	8,6	11,2	13,5	21
sound pressure level at 3m	dB(A)	33	40	43	48	53	56

SR L-150-H3							
nominal unit length	m	**1,5**					
door height	m	**2.5 - 3.3**					
electrical supply	V/ph/Hz	230/1/50					
max. input current (1 phase)	A	4,55					
max. fan power	kW	0,86					
max. specific fan power	W/l/s	0,66					
max heating capacity	kW	47,3					
water flow rate	l/h	2188					
water pressure drop with 3-port valve	kPa	17,02					
water range	°C	80/60					
weight casing style F / R / C	kg	96/121/118					
air inlet temperature	°C	20					
discharge air temperature	°C	35					40
speed		**1**	**2**	**3**	**4**	**5**	**6**
air volume	m³/h	1510	2160	2560	3360	4020	4720
heating capacity	kW	7,6	10,9	12,8	16,9	20,2	31,5
sound pressure level at 3m	dB(A)	34	41	44	50	54	58

Water heating

SR L-200-H3							
nominal unit length	m	**2**					
door height	m	**2.5 - 3.3**					
electrical supply	V/ph/Hz	230/1/50					
max. input current (1 phase)	A	6,07					
max. fan power	kW	1,15					
max. specific fan power	W/l/s	0,66					
max heating capacity	kW	63,1					
water flow rate	l/h	3051					
water pressure drop with 3-port valve	kPa	37,51					
water range	°C	80/60					
weight casing style F / R / C	kg	121/155/151					
air inlet temperature	°C	20					
discharge air temperature	°C	35					40
speed		**1**	**2**	**3**	**4**	**5**	**6**
air volume	m³/h	2010	2880	3410	4480	5360	6290
heating capacity	kW	10,1	14,5	17,1	22,5	26,9	42,1
sound pressure level at 3m	dB(A)	36	43	46	51	56	59

SR L-250-H3							
nominal unit length	m	**2,5**					
door height	m	**2.5 - 3.3**					
electrical supply	V/ph/Hz	230/1/50					
max. input current (1 phase)	A	7,58					
max. fan power	kW	1,44					
max. specific fan power	W/l/s	0,66					
max heating capacity	kW	78,9					
water flow rate	l/h	3642					
water pressure drop with 3-port valve	kPa	25,37					
water range	°C	80/60					
weight casing style F / R / C	kg	154/197/191					
air inlet temperature	°C	20					
discharge air temperature	°C	35					40
speed		**1**	**2**	**3**	**4**	**5**	**6**
air volume	m³/h	2520	3610	4270	5600	6700	7860
heating capacity	kW	12,6	18,1	21,4	28,1	33,6	52,6
sound pressure level at 3m	dB(A)	37	44	47	52	57	60

Water heating

SR XL-100-H3							
nominal unit length	m	**1**					
door height	m	**3 - 4**					
electrical supply	V/ph/Hz	230/1/50					
max. input current (1 phase)	A	5,02					
max. fan power	kW	1,03					
max. specific fan power	W/l/s	0,94					
max heating capacity	kW	39,6					
water flow rate	l/h	1513					
water pressure drop with 3-port valve	kPa	6,9					
water range	°C	80/60					
weight casing style F / R / C	kg	68/86/84					
air inlet temperature	°C	20					
discharge air temperature	°C	35					40
speed		**1**	**2**	**3**	**4**	**5**	**6**
air volume	m³/h	1170	1580	2030	2720	3370	3950
heating capacity	kW	5,9	7,9	10,2	13,7	16,9	26,4
sound pressure level at 3m	dB(A)	38	42	47	52	57	62

SR XL-150-H3							
nominal unit length	m	**1,5**					
door height	m	**3 - 4**					
electrical supply	V/ph/Hz	230/1/50					
max. input current (1 phase)	A	7,53					
max. fan power	kW	1,54					
max. specific fan power	W/l/s	0,94					
max heating capacity	kW	59,4					
water flow rate	l/h	2506					
water pressure drop with 3-port valve	kPa	21,99					
water range	°C	80/60					
weight casing style F / R / C	kg	102/127/124					
air inlet temperature	°C	20					
discharge air temperature	°C	35					40
speed		**1**	**2**	**3**	**4**	**5**	**6**
air volume	m³/h	1750	2370	3050	4090	5060	5920
heating capacity	kW	8,8	11,9	15,3	20,5	25,4	39,6
sound pressure level at 3m	dB(A)	39	44	48	54	59	63

Water heating

SR XL-200-H3							
nominal unit length	m	**2**					
door height	m	**3 - 4**					
electrical supply	V/ph/Hz	230/1/50					
max. input current (1 phase)	A	10,04					
max. fan power	kW	2,05					
max. specific fan power	W/l/s	0,94					
max heating capacity	kW	79,2					
water flow rate	l/h	3502					
water pressure drop with 3-port valve	kPa	48,57					
water range	°C	80/60					
weight casing style F / R / C	kg	130/164/160					
air inlet temperature	°C	20					
discharge air temperature	°C	35					40
speed		**1**	**2**	**3**	**4**	**5**	**6**
air volume	m³/h	2330	3170	4060	5450	6740	7890
heating capacity	kW	11,7	15,9	20,4	27,3	33,8	52,8
sound pressure level at 3m	dB(A)	41	45	50	55	60	65

SR XL-250-H3							
nominal unit length	m	**2,5**					
door height	m	**3 - 4**					
electrical supply	V/ph/Hz	230/1/50					
max. input current (1 phase)	A	12,55					
max. fan power	kW	2,57					
max. specific fan power	W/l/s	0,94					
max heating capacity	kW	99					
water flow rate	l/h	4172					
water pressure drop with 3-port valve	kPa	33,05					
water range	°C	80/60					
weight casing style F / R / C	kg	163/206/200					
air inlet temperature	°C	20					
discharge air temperature	°C	35					40
speed		**1**	**2**	**3**	**4**	**5**	**6**
air volume	m³/h	2920	3960	5080	6810	8430	9870
heating capacity	kW	14,6	19,9	25,5	34,2	42,3	66
sound pressure level at 3m	dB(A)	42	46	51	56	61	66

Electrical heating

SR S-100-E							
nominal unit length	m	**1**					
door height	m	**2 - 2.4**					
electrical supply	V/ph/Hz	400/3N/50					
max. cable size allowed (solid/stranded)	mm²	16/10					
max. current consumption (unit)	A	16					
max. fan power	kW	0,2					
max. power consumption, heating	kW	10,5					
max. specific fan power	W/l/s	0,63					
max heating capacity	kW	10					
weight casing style F / R / C	kg	55/65/63					
air inlet temperature	°C	20					
discharge air temperature	°C	35					
speed		**1**	**2**	**3**	**4**	**5**	**6**
air volume	m³/h	440	600	680	880	1010	1130
heating capacity	kW	2,2	3	3,4	4,4	5,1	5,7
sound pressure level at 3m	dB(A)	27	33	37	42	46	48

SR S-150-E							
nominal unit length	m	**1,5**					
door height	m	**2 - 2.4**					
electrical supply	V/ph/Hz	400/3N/50					
max. cable size allowed (solid/stranded)	mm²	16/10					
max. current consumption (unit)	A	23,8					
max. fan power	kW	0,3					
max. power consumption, heating	kW	15,6					
max. specific fan power	W/l/s	0,63					
max heating capacity	kW	14,8					
weight casing style F / R / C	kg	76/92/87					
air inlet temperature	°C	20					
discharge air temperature	°C	35					
speed		**1**	**2**	**3**	**4**	**5**	**6**
air volume	m³/h	660	910	1020	1320	1520	1700
heating capacity	kW	3,3	4,5	5,1	6,6	7,6	8,5
sound pressure level at 3m	dB(A)	28	35	39	43	47	50

Electrical heating

SR S-200-E							
nominal unit length	m	**2**					
door height	m	**2 - 2.4**					
electrical supply	V/ph/Hz	400/3N/50					
max. cable size allowed (solid/stranded)	mm²	16/10					
max. current consumption (unit)	A	32,1					
max. fan power	kW	0,39					
max. power consumption, heating	kW	21					
max. specific fan power	W/l/s	0,63					
max heating capacity	kW	20					
weight casing style F / R / C	kg	97/118/112					
air inlet temperature	°C	20					
discharge air temperature	°C	35					
speed		**1**	**2**	**3**	**4**	**5**	**6**
air volume	m³/h	880	1210	1360	1770	2020	2260
heating capacity	kW	4,4	6,1	6,8	8,9	10,1	11,4
sound pressure level at 3m	dB(A)	30	36	40	45	49	51

SR S-250-E							
nominal unit length	m	**2,5**					
door height	m	**2 - 2.4**					
electrical supply	V/ph/Hz	400/3N/50					
max. cable size allowed (solid/stranded)	mm²	16/10					
max. current consumption (unit)	A	39,9					
max. fan power	kW	0,49					
max. power consumption, heating	kW	26,1					
max. specific fan power	W/l/s	0,63					
max heating capacity	kW	24,8					
weight casing style F / R / C	kg	118/144/136					
air inlet temperature	°C	20					
discharge air temperature	°C	35					
speed		**1**	**2**	**3**	**4**	**5**	**6**
air volume	m³/h	1100	1510	1700	2210	2530	2830
heating capacity	kW	5,5	7,6	8,5	11,1	12,7	14,2
sound pressure level at 3m	dB(A)	31	37	41	46	50	52

Electrical heating

SR M-100-E							
nominal unit length	m	**1**					
door height	m	**2.2 - 2.8**					
electrical supply	V/ph/Hz	400/3N/50					
max. cable size allowed (solid/stranded)	mm²	16/10					
max. current consumption (unit)	A	22,7					
max. fan power	kW	0,27					
max. power consumption, heating	kW	14					
max. specific fan power	W/l/s	0,63					
max heating capacity	kW	13,3					
weight casing style F / R / C	kg	59/69/67					
air inlet temperature	°C	20					
discharge air temperature	°C	35					
speed		**1**	**2**	**3**	**4**	**5**	**6**
air volume	m³/h	490	740	880	1180	1310	1530
heating capacity	kW	2,4	3,7	4,4	5,9	6,6	7,7
sound pressure level at 3m	dB(A)	25	34	39	45	50	53

SR M-150-E							
nominal unit length	m	**1,5**					
door height	m	**2.2 - 2.8**					
electrical supply	V/ph/Hz	400/3N/50					
max. cable size allowed (solid/stranded)	mm²	16/10					
max. current consumption (unit)	A	33,8					
max. fan power	kW	0,4					
max. power consumption, heating	kW	20,8					
max. specific fan power	W/l/s	0,63					
max heating capacity	kW	19,8					
weight casing style F / R / C	kg	85/101/96					
air inlet temperature	°C	20					
discharge air temperature	°C	35					
speed		**1**	**2**	**3**	**4**	**5**	**6**
air volume	m³/h	730	1100	1320	1780	1960	2300
heating capacity	kW	3,7	5,5	6,6	8,9	9,8	11,6
sound pressure level at 3m	dB(A)	26	35	40	47	51	54

Electrical heating

SR M-200-E							
nominal unit length	m	**2**					
door height	m	**2.2 - 2.8**					
electrical supply	V/ph/Hz	400/3N/50					
max. cable size allowed (solid/stranded)	mm²	35/35					
max. current consumption (unit)	A	45,5					
max. fan power	kW	0,54					
max. power consumption, heating	kW	28					
max. specific fan power	W/l/s	0,63					
max heating capacity	kW	26,6					
weight casing style F / R / C	kg	108/129/123					
air inlet temperature	°C	20					
discharge air temperature	°C	35					
speed		**1**	**2**	**3**	**4**	**5**	**6**
air volume	m³/h	970	1470	1750	2370	2610	3070
heating capacity	kW	4,9	7,4	8,8	11,9	13,1	15,4
sound pressure level at 3m	dB(A)	28	37	42	48	53	56

SR M-250-E							
nominal unit length	m	**2,5**					
door height	m	**2.2 - 2.8**					
electrical supply	V/ph/Hz	400/3N/50					
max. cable size allowed (solid/stranded)	mm²	35/35					
max. current consumption (unit)	A	56,5					
max. fan power	kW	0,67					
max. power consumption, heating	kW	34,8					
max. specific fan power	W/l/s	0,63					
max heating capacity	kW	33,1					
weight casing style F / R / C	kg	130/156/148					
air inlet temperature	°C	20					
discharge air temperature	°C	35					
speed		**1**	**2**	**3**	**4**	**5**	**6**
air volume	m³/h	1210	1840	2190	2960	3270	3840
heating capacity	kW	6,1	9,2	11	14,9	16,4	19,3
sound pressure level at 3m	dB(A)	29	38	43	49	54	57

Electrical heating

SR L-100-E							
nominal unit length	m	**1**					
door height	m	**2.5 - 3.3**					
electrical supply	V/ph/Hz	400/3N/50					
max. cable size allowed (solid/stranded)	mm²	35/35					
max. current consumption (unit)	A	37,9					
max. fan power	kW	0,57					
max. power consumption, heating	kW	24,5					
max. specific fan power	W/l/s	0,66					
max heating capacity	kW	23,3					
weight casing style F / R / C	kg	74/87/85					
air inlet temperature	°C	20					
discharge air temperature	°C	35					
speed		**1**	**2**	**3**	**4**	**5**	**6**
air volume	m³/h	1010	1440	1710	2240	2680	3140
heating capacity	kW	5	7,2	8,6	11,2	13,5	15,8
sound pressure level at 3m	dB(A)	33	40	43	48	53	56

SR L-150-E							
nominal unit length	m	**1,5**					
door height	m	**2.5 - 3.3**					
electrical supply	V/ph/Hz	400/3N/50					
max. cable size allowed (solid/stranded)	mm²	35/35					
max. current consumption (unit)	A	56,3					
max. fan power	kW	0,86					
max. power consumption, heating	kW	36,4					
max. specific fan power	W/l/s	0,66					
max heating capacity	kW	34,6					
weight casing style F / R / C	kg	111/129/126					
air inlet temperature	°C	20					
discharge air temperature	°C	35					
speed		**1**	**2**	**3**	**4**	**5**	**6**
air volume	m³/h	1510	2160	2560	3360	4020	4720
heating capacity	kW	7,6	10,9	12,8	16,9	20,2	23,7
sound pressure level at 3m	dB(A)	34	41	44	50	54	58

Electrical heating

SR L-200-E							
nominal unit length	m	**2**					
door height	m	**2.5 - 3.3**					
electrical supply	V/ph/Hz	400/3N/50					
max. cable size allowed (solid/stranded)	mm²	35/35					
max. current consumption (unit)	A	75,8					
max. fan power	kW	1,15					
max. power consumption, heating	kW	49					
max. specific fan power	W/l/s	0,66					
max heating capacity	kW	46,6					
weight casing style F / R / C	kg	146/171/167					
air inlet temperature	°C	20					
discharge air temperature	°C	35					
speed		**1**	**2**	**3**	**4**	**5**	**6**
air volume	m³/h	2010	2880	3410	4480	5360	6290
heating capacity	kW	10,1	14,5	17,1	22,5	26,9	31,5
sound pressure level at 3m	dB(A)	36	43	46	51	56	59

SR L-250-E							
nominal unit length	m	**2,5**					
door height	m	**2.5 - 3.3**					
electrical supply	V/ph/Hz	400/3N/50					
max. cable size allowed (solid/stranded)	mm²	35/35					
max. current consumption (unit)	A	94,2					
max. fan power	kW	1,44					
max. power consumption, heating	kW	60,9					
max. specific fan power	W/l/s	0,66					
max heating capacity	kW	57,9					
weight casing style F / R / C	kg	181/213/207					
air inlet temperature	°C	20					
discharge air temperature	°C	35					
speed		**1**	**2**	**3**	**4**	**5**	**6**
air volume	m³/h	2520	3610	4270	5600	6700	7860
heating capacity	kW	12,6	18,1	21,4	28,1	33,6	39,4
sound pressure level at 3m	dB(A)	37	44	47	52	57	60

Electrical heating

SR XL-100-E							
nominal unit length	m	**1**					
door height	m	**3 - 4**					
electrical supply	V/ph/Hz	400/3N/50					
max. cable size allowed (solid/stranded)	mm²	35/35					
max. current consumption (unit)	A	39,7					
max. fan power	kW	1,03					
max. power consumption, heating	kW	24,5					
max. specific fan power	W/l/s	0,94					
max heating capacity	kW	23,3					
weight casing style F / R / C	kg	78/91/89					
air inlet temperature	°C	20					
discharge air temperature	°C	35					
speed		**1**	**2**	**3**	**4**	**5**	**6**
air volume	m³/h	1170	1580	2030	2720	3370	3950
heating capacity	kW	5,9	7,9	10,2	13,7	16,9	19,8
sound pressure level at 3m	dB(A)	38	42	47	52	57	62

SR XL-150-E							
nominal unit length	m	**1,5**					
door height	m	**3 - 4**					
electrical supply	V/ph/Hz	400/3N/50					
max. cable size allowed (solid/stranded)	mm²	35/35					
max. current consumption (unit)	A	59,1					
max. fan power	kW	1,54					
max. power consumption, heating	kW	36,4					
max. specific fan power	W/l/s	0,94					
max heating capacity	kW	34,6					
weight casing style F / R / C	kg	117/135/132					
air inlet temperature	°C	20					
discharge air temperature	°C	35					
speed		**1**	**2**	**3**	**4**	**5**	**6**
air volume	m³/h	1750	2370	3050	4090	5060	5920
heating capacity	kW	8,8	11,9	15,3	20,5	25,4	29,7
sound pressure level at 3m	dB(A)	39	44	48	54	59	63

Electrical heating

SR XL-200-E							
nominal unit length	m	**2**					
door height	m	**3 - 4**					
electrical supply	V/ph/Hz	400/3N/50					
max. cable size allowed (solid/stranded)	mm²	35/35					
max. current consumption (unit)	A	79,4					
max. fan power	kW	2,05					
max. power consumption, heating	kW	49					
max. specific fan power	W/l/s	0,94					
max heating capacity	kW	46,6					
weight casing style F / R / C	kg	155/180/176					
air inlet temperature	°C	20					
discharge air temperature	°C	35					
speed		**1**	**2**	**3**	**4**	**5**	**6**
air volume	m³/h	2330	3170	4060	5450	6740	7890
heating capacity	kW	11,7	15,9	20,4	27,3	33,8	39,6
sound pressure level at 3m	dB(A)	41	45	50	55	60	65

SR XL-250-E							
nominal unit length	m	**2,5**					
door height	m	**3 - 4**					
electrical supply	V/ph/Hz	400/3N/50					
max. cable size allowed (solid/stranded)	mm²	35/35					
max. current consumption (unit)	A	98,8					
max. fan power	kW	2,57					
max. power consumption, heating	kW	60,9					
max. specific fan power	W/l/s	0,94					
max heating capacity	kW	57,9					
weight casing style F / R / C	kg	190/222/216					
air inlet temperature	°C	20					
discharge air temperature	°C	35					
speed		**1**	**2**	**3**	**4**	**5**	**6**
air volume	m³/h	2920	3960	5080	6810	8430	9870
heating capacity	kW	14,6	19,9	25,5	34,2	42,3	49,5
sound pressure level at 3m	dB(A)	42	46	51	56	61	66

Hybrid heating

SR S-100-H3E							
nominal unit length	m	**1**	-				
door height	m	**2 - 2.4**					
electrical supply	V/ph/Hz	400/3N/50					
max. cable size allowed (solid/stranded)	mm²	6/4					
max. current consumption (unit)	A	8,1					
max. fan power	kW	0,2					
max. power consumption, heating	kW	5					
max. specific fan power	W/l/s	0,63					
max heating capacity - water	kW	11,4					
max heating capacity - electric	kW	4,8					
water flow rate	l/h	302					
water pressure drop with 3-port valve	kPa	0,84					
water range	°C	40/30					
weight casing style F / R / C	kg	50/60/58					
air inlet temperature	°C	20					
discharge air temperature	°C	35					
speed		**1**	**2**	**3**	**4**	**5**	**6**
air volume	m^3/h	440	600	680	880	1010	1130
heating capacity - water	kW	1,8	2,3	2,5	3	3,2	3,5
heating capacity - electric	kW	0,4	0,7	0,9	1,5	1,8	2,2
sound pressure level at 3m	dB(A)	27	33	37	42	46	48

SR S-150-H3E							
nominal unit length	m	**1,5**	-				
door height	m	**2 - 2.4**					
electrical supply	V/ph/Hz	400/3N/50					
max. cable size allowed (solid/stranded)	mm²	6/4					
max. current consumption (unit)	A	12,2					
max. fan power	kW	0,3					
max. power consumption, heating	kW	7,5					
max. specific fan power	W/l/s	0,63					
max heating capacity - water	kW	17					
max heating capacity - electric	kW	7,1					
water flow rate	l/h	505					
water pressure drop with 3-port valve	kPa	2,71					
water range	°C	40/30					
weight casing style F / R / C	kg	71/87/82					
air inlet temperature	°C	20					
discharge air temperature	°C	35					
speed		**1**	**2**	**3**	**4**	**5**	**6**
air volume	m^3/h	660	910	1020	1320	1520	1700
heating capacity - water	kW	3	3,8	4,1	4,9	5,4	5,9
heating capacity - electric	kW	0,4	0,8	1	1,7	2,2	2,7
sound pressure level at 3m	dB(A)	28	35	39	43	47	50

Hybrid heating

SR S-200-H3E								
nominal unit length	m	**2**	-					
door height	m	**2 - 2.4**						
electrical supply	V/ph/Hz	400/3N/50						
max. cable size allowed (solid/stranded)	mm²	6/4						
max. current consumption (unit)	A	16,3						
max. fan power	kW	0,39						
max. power consumption, heating	kW	10						
max. specific fan power	W/l/s	0,63						
max heating capacity - water	kW	22,7						
max heating capacity - electric	kW	9,5						
water flow rate	l/h	709						
water pressure drop with 3-port valve	kPa	6,03						
water range	°C	40/30						
weight casing style F / R / C	kg	87/108/102						
air inlet temperature	°C	20						
discharge air temperature	°C	35						
speed		**1**	**2**	**3**	**4**	**5**	**6**	
air volume	m^3/h	880	1210	1360	1770	2020	2260	
heating capacity - water	kW	4,1	5,2	5,7	6,9	7,6	8,2	
heating capacity - electric	kW	0,3	0,8	1,1	1,9	2,5	3,1	
sound pressure level at 3m	dB(A)	30	36	40	45	49	51	

SR S-250-H3E							
nominal unit length	m	**2,5**	-				
door height	m	**2 - 2.4**					
electrical supply	V/ph/Hz	400/3N/50					
max. cable size allowed (solid/stranded)	mm²	6/4					
max. current consumption (unit)	A	20,3					
max. fan power	kW	0,49					
max. power consumption, heating	kW	12,5					
max. specific fan power	W/l/s	0,63					
max heating capacity - water	kW	28,4					
max heating capacity - electric	kW	11,9					
water flow rate	l/h	913					
water pressure drop with 3-port valve	kPa	11,11					
water range	°C	40/30					
weight casing style F / R / C	kg	112/138/130					
air inlet temperature	°C	20					
discharge air temperature	°C	35					
speed		**1**	**2**	**3**	**4**	**5**	**6**
air volume	m^3/h	1100	1510	1700	2210	2530	2830
heating capacity - water	kW	5,3	6,7	7,3	8,9	9,8	10,6
heating capacity - electric	kW	0,3	0,9	1,2	2,2	2,9	3,6
sound pressure level at 3m	dB(A)	31	37	41	46	50	52

Hybrid heating

SR M-100-H3E								
nominal unit length	m	**1**	-					
door height	m	**2.2 - 2.8**						
electrical supply	V/ph/Hz	400/3N/50						
max. cable size allowed (solid/stranded)	mm²	6/4						
max. current consumption (unit)	A	8,5						
max. fan power	kW	0,27						
max. power consumption, heating	kW	5						
max. specific fan power	W/l/s	0,63						
max heating capacity - water	kW	15,4						
max heating capacity - electric	kW	4,8						
water flow rate	l/h	366						
water pressure drop with 3-port valve	kPa	1,21						
water range	°C	40/30						
weight casing style F / R / C	kg	56/66/64						
air inlet temperature	°C	20						
discharge air temperature	°C	35						
speed		**1**	**2**	**3**	**4**	**5**	**6**	
air volume	m^3/h	490	740	880	1180	1310	1530	
heating capacity - water	kW	1,9	2,6	3	3,6	3,8	4,2	
heating capacity - electric	kW	0,5	1,1	1,4	2,3	2,7	3,5	
sound pressure level at 3m	dB(A)	25	34	39	45	50	53	

SR M-150-H3E							
nominal unit length	m	**1,5**	-				
door height	m	**2.2 - 2.8**					
electrical supply	V/ph/Hz	400/3N/50					
max. cable size allowed (solid/stranded)	mm²	6/4					
max. current consumption (unit)	A	12,7					
max. fan power	kW	0,4					
max. power consumption, heating	kW	7,5					
max. specific fan power	W/l/s	0,63					
max heating capacity - water	kW	23,1					
max heating capacity - electric	kW	7,1					
water flow rate	l/h	616					
water pressure drop with 3-port valve	kPa	3,95					
water range	°C	40/30					
weight casing style F / R / C	kg	80/96/91					
air inlet temperature	°C	20					
discharge air temperature	°C	35					
speed		**1**	**2**	**3**	**4**	**5**	**6**
air volume	m^3/h	730	1100	1320	1780	1960	2300
heating capacity - water	kW	3,2	4,3	4,9	6	6,4	7,1
heating capacity - electric	kW	0,5	1,2	1,7	2,9	3,4	4,4
sound pressure level at 3m	dB(A)	26	35	40	47	51	54

Hybrid heating

SR M-200-H3E							
nominal unit length	m	**2**	-				
door height	m	**2.2 - 2.8**					
electrical supply	V/ph/Hz	400/3N/50					
max. cable size allowed (solid/stranded)	mm²	6/4					
max. current consumption (unit)	A	17					
max. fan power	kW	0,54					
max. power consumption, heating	kW	10					
max. specific fan power	W/l/s	0,63					
max heating capacity - water	kW	30,8					
max heating capacity - electric	kW	9,5					
water flow rate	l/h	868					
water pressure drop with 3-port valve	kPa	8,82					
water range	°C	40/30					
weight casing style F / R / C	kg	100/121/115					
air inlet temperature	°C	20					
discharge air temperature	°C	35					
speed		**1**	**2**	**3**	**4**	**5**	**6**
air volume	m^3/h	970	1470	1750	2370	2610	3070
heating capacity - water	kW	4,4	6,1	6,9	8,5	9,1	10,1
heating capacity - electric	kW	0,4	1,3	1,9	3,4	4,1	5,3
sound pressure level at 3m	dB(A)	28	37	42	48	53	56

SR M-250-H3E							
nominal unit length	m	**2,5**	-				
door height	m	**2.2 - 2.8**					
electrical supply	V/ph/Hz	400/3N/50					
max. cable size allowed (solid/stranded)	mm²	6/4					
max. current consumption (unit)	A	21,2					
max. fan power	kW	0,67					
max. power consumption, heating	kW	12,5					
max. specific fan power	W/l/s	0,63					
max heating capacity - water	kW	38,5					
max heating capacity - electric	kW	11,9					
water flow rate	l/h	1121					
water pressure drop with 3-port valve	kPa	16,29					
water range	°C	40/30					
weight casing style F / R / C	kg	124/150/142					
air inlet temperature	°C	20					
discharge air temperature	°C	35					
speed		**1**	**2**	**3**	**4**	**5**	**6**
air volume	m^3/h	1210	1840	2190	2960	3270	3840
heating capacity - water	kW	5,7	7,8	8,8	10,9	11,7	13
heating capacity - electric	kW	0,4	1,4	2,2	3,9	4,7	6,3
sound pressure level at 3m	dB(A)	29	38	43	49	54	57

Hybrid heating

SR L-100-H3E							
nominal unit length	m	**1**	-				
door height	m	**2.5 - 3.3**					
electrical supply	V/ph/Hz	400/3N/50					
max. cable size allowed (solid/stranded)	mm²	35/35					
max. current consumption (unit)	A	15,8					
max. fan power	kW	0,57					
max. power consumption, heating	kW	8,8					
max. specific fan power	W/l/s	0,66					
max heating capacity - water	kW	31,5					
max heating capacity - electric	kW	8,4					
water flow rate	l/h	593					
water pressure drop with 3-port valve	kPa	1,26					
water range	°C	40/30					
weight casing style F / R / C	kg	69/82/80					
air inlet temperature	°C	20					
discharge air temperature	°C	35					
speed		**1**	**2**	**3**	**4**	**5**	**6**
air volume	m^3/h	1010	1440	1710	2240	2680	3140
heating capacity - water	kW	3,5	4,4	4,9	5,7	6,3	6,9
heating capacity - electric	kW	1,5	2,8	3,7	5,5	7,1	8,4
sound pressure level at 3m	dB(A)	33	40	43	48	53	56

SR L-150-H3E							
nominal unit length	m	**1,5**	-				
door height	m	**2.5 - 3.3**					
electrical supply	V/ph/Hz	400/3N/50					
max. cable size allowed (solid/stranded)	mm²	35/35					
max. current consumption (unit)	A	23,7					
max. fan power	kW	0,86					
max. power consumption, heating	kW	13,2					
max. specific fan power	W/l/s	0,66					
max heating capacity - water	kW	47,3					
max heating capacity - electric	kW	12,5					
water flow rate	l/h	1087					
water pressure drop with 3-port valve	kPa	4,94					
water range	°C	40/30					
weight casing style F / R / C	kg	103/121/118					
air inlet temperature	°C	20					
discharge air temperature	°C	35					
speed		**1**	**2**	**3**	**4**	**5**	**6**
air volume	m^3/h	1510	2160	2560	3360	4020	4720
heating capacity - water	kW	6,2	7,9	8,8	10,4	11,5	12,6
heating capacity - electric	kW	1,4	3	4,1	6,5	8,7	11,1
sound pressure level at 3m	dB(A)	34	41	44	50	54	58

Hybrid heating

SR L-200-H3E							
nominal unit length	m	**2**	-				
door height	m	**2.5 - 3.3**					
electrical supply	V/ph/Hz	400/3N/50					
max. cable size allowed (solid/stranded)	mm²	35/35					
max. current consumption (unit)	A	31,6					
max. fan power	kW	1,15					
max. power consumption, heating	kW	17,6					
max. specific fan power	W/l/s	0,66					
max heating capacity - water	kW	63,1					
max heating capacity - electric	kW	16,7					
water flow rate	l/h	1588					
water pressure drop with 3-port valve	kPa	12,04					
water range	°C	40/30					
weight casing style F / R / C	kg	130/155/151					
air inlet temperature	°C	20					
discharge air temperature	°C	35					
speed		**1**	**2**	**3**	**4**	**5**	**6**
air volume	m^3/h	2010	2880	3410	4480	5360	6290
heating capacity - water	kW	8,8	11,3	12,7	15,1	16,8	18,4
heating capacity - electric	kW	1,3	3,1	4,4	7,4	10,1	13,1
sound pressure level at 3m	dB(A)	36	43	46	51	56	59

SR L-250-H3E							
nominal unit length	m	**2,5**	-				
door height	m	**2.5 - 3.3**					
electrical supply	V/ph/Hz	400/3N/50					
max. cable size allowed (solid/stranded)	mm²	35/35					
max. current consumption (unit)	A	39,5					
max. fan power	kW	1,44					
max. power consumption, heating	kW	22					
max. specific fan power	W/l/s	0,66					
max heating capacity - water	kW	78,9					
max heating capacity - electric	kW	20,9					
water flow rate	l/h	1768					
water pressure drop with 3-port valve	kPa	6,51					
water range	°C	40/30					
weight casing style F / R / C	kg	165/197/191					
air inlet temperature	°C	20					
discharge air temperature	°C	35					
speed		**1**	**2**	**3**	**4**	**5**	**6**
air volume	m^3/h	2520	3610	4270	5600	6700	7860
heating capacity - water	kW	10,1	12,8	14,3	16,9	18,7	20,5
heating capacity - electric	kW	2,5	5,3	7,1	11,2	14,9	18,9
sound pressure level at 3m	dB(A)	37	44	47	52	57	60

Hybrid heating

SR XL-100-H3E							
nominal unit length	m	**1**	-				
door height	m	**3 - 4**					
electrical supply	V/ph/Hz	400/3N/50					
max. cable size allowed (solid/stranded)	mm²	35/35					
max. current consumption (unit)	A	17,8					
max. fan power	kW	1,03					
max. power consumption, heating	kW	8,8					
max. specific fan power	W/l/s	0,94					
max heating capacity - water	kW	39,6					
max heating capacity - electric	kW	8,4					
water flow rate	l/h	667					
water pressure drop with 3-port valve	kPa	1,57					
water range	°C	40/30					
weight casing style F / R / C	kg	73/86/84					
air inlet temperature	°C	20					
discharge air temperature	°C	35					
speed		**1**	**2**	**3**	**4**	**5**	**6**
air volume	m^3/h	1170	1580	2030	2720	3370	3950
heating capacity - water	kW	3,9	4,7	5,4	6,4	7,1	7,7
heating capacity - electric	kW	2	3,3	4,8	7,3	8,4	8,4
sound pressure level at 3m	dB(A)	38	42	47	52	57	62

SR XL-150-H3E							
nominal unit length	m	**1,5**	-				
door height	m	**3 - 4**					
electrical supply	V/ph/Hz	400/3N/50					
max. cable size allowed (solid/stranded)	mm²	35/35					
max. current consumption (unit)	A	26,7					
max. fan power	kW	1,54					
max. power consumption, heating	kW	13,2					
max. specific fan power	W/l/s	0,94					
max heating capacity - water	kW	59,4					
max heating capacity - electric	kW	12,5					
water flow rate	l/h	1232					
water pressure drop with 3-port valve	kPa	6,25					
water range	°C	40/30					
weight casing style F / R / C	kg	109/127/124					
air inlet temperature	°C	20					
discharge air temperature	°C	35					
speed		**1**	**2**	**3**	**4**	**5**	**6**
air volume	m^3/h	1750	2370	3050	4090	5060	5920
heating capacity - water	kW	6,8	8,4	9,8	11,6	13,1	14,3
heating capacity - electric	kW	1,9	3,5	5,5	8,9	12,3	12,5
sound pressure level at 3m	dB(A)	39	44	48	54	59	63

Hybrid heating

SR XL-200-H3E							
nominal unit length	m	**2**	-				
door height	m	**3 - 4**					
electrical supply	V/ph/Hz	400/3N/50					
max. cable size allowed (solid/stranded)	mm²	35/35					
max. current consumption (unit)	A	35,5					
max. fan power	kW	2,05					
max. power consumption, heating	kW	17,6					
max. specific fan power	W/l/s	0,94					
max heating capacity - water	kW	79,2					
max heating capacity - electric	kW	16,7					
water flow rate	l/h	1806					
water pressure drop with 3-port valve	kPa	15,3					
water range	°C	40/30					
weight casing style F / R / C	kg	139/164/160					
air inlet temperature	°C	20					
discharge air temperature	°C	35					
speed		**1**	**2**	**3**	**4**	**5**	**6**
air volume	m^3/h	2330	3170	4060	5450	6740	7890
heating capacity - water	kW	9,8	12,1	14,2	16,9	19,2	20,9
heating capacity - electric	kW	1,9	3,8	6,2	10,4	14,7	16,7
sound pressure level at 3m	dB(A)	41	45	50	55	60	65

SR XL-250-H3E							
nominal unit length	m	**2,5**	-				
door height	m	**3 - 4**					
electrical supply	V/ph/Hz	400/3N/50					
max. cable size allowed (solid/stranded)	mm²	35/35					
max. current consumption (unit)	A	44,4					
max. fan power	kW	2,57					
max. power consumption, heating	kW	22					
max. specific fan power	W/l/s	0,94					
max heating capacity - water	kW	99					
max heating capacity - electric	kW	20,9					
water flow rate	l/h	2002					
water pressure drop with 3-port valve	kPa	8,27					
water range	°C	40/30					
weight casing style F / R / C	kg	174/206/200					
air inlet temperature	°C	20					
discharge air temperature	°C	35					
speed		**1**	**2**	**3**	**4**	**5**	**6**
air volume	m^3/h	2920	3960	5080	6810	8430	9870
heating capacity - water	kW	11,2	13,6	15,9	18,9	21,3	23,2
heating capacity - electric	kW	3,5	6,2	9,6	15,3	20,9	20,9
sound pressure level at 3m	dB(A)	42	46	51	56	61	66

Ambient

SR S-100-A							
nominal unit length	m	**1**					
door height	m	**2 - 2.4**					
electrical supply	V/ph/Hz	230/1/50					
max. input current (1 phase)	A	0,88					
max. fan power	kW	0,2					
max. specific fan power	W/l/s	0,63					
weight casing style F / R / C	kg	40/54/52					
speed		**1**	**2**	**3**	**4**	**5**	**6**
air volume	m^3/h	440	600	680	880	1010	1130
sound pressure level at 3m	dB(A)	27	33	37	42	46	48

SR S-150-A							
nominal unit length	m	**1,5**					
door height	m	**2 - 2.4**					
electrical supply	V/ph/Hz	230/1/50					
max. input current (1 phase)	A	1,32					
max. fan power	kW	0,3					
max. specific fan power	W/l/s	0,63					
weight casing style F / R / C	kg	58/80/75					
speed		**1**	**2**	**3**	**4**	**5**	**6**
air volume	m^3/h	660	910	1020	1320	1520	1700
sound pressure level at 3m	dB(A)	28	35	39	43	47	50

SR S-200-A							
nominal unit length	m	**2**					
door height	m	**2 - 2.4**					
electrical supply	V/ph/Hz	230/1/50					
max. input current (1 phase)	A	1,76					
max. fan power	kW	0,39					
max. specific fan power	W/l/s	0,63					
weight casing style F / R / C	kg	70/99/93					
speed		**1**	**2**	**3**	**4**	**5**	**6**
air volume	m^3/h	880	1210	1360	1770	2020	2260
sound pressure level at 3m	dB(A)	30	36	40	45	49	51

SR S-250-A							
nominal unit length	m	**2,5**					
door height	m	**2 - 2.4**					
electrical supply	V/ph/Hz	230/1/50					
max. input current (1 phase)	A	2,2					
max. fan power	kW	0,49					
max. specific fan power	W/l/s	0,63					
weight casing style F / R / C	kg	91/127/119					
speed		**1**	**2**	**3**	**4**	**5**	**6**
air volume	m^3/h	1100	1510	1700	2210	2530	2830
sound pressure level at 3m	dB(A)	31	37	41	46	50	52

Ambient

SR M-100-A								
nominal unit length	m	**1**						
door height	m	**2.2 - 2.8**						
electrical supply	V/ph/Hz	230/1/50						
max. input current (1 phase)	A	1,25						
max. fan power	kW	0,27						
max. specific fan power	W/l/s	0,63						
weight casing style F / R / C	kg	46/60/58						
speed		**1**	**2**	**3**	**4**	**5**	**6**
air volume	m^3/h	490	740	880	1180	1310	1530
sound pressure level at 3m	dB(A)	25	34	39	45	50	53

SR M-150-A							
nominal unit length	m	**1,5**					
door height	m	**2.2 - 2.8**					
electrical supply	V/ph/Hz	230/1/50					
max. input current (1 phase)	A	1,87					
max. fan power	kW	0,4					
max. specific fan power	W/l/s	0,63					
weight casing style F / R / C	kg	66/88/83					
speed		**1**	**2**	**3**	**4**	**5**	**6**
air volume	m^3/h	730	1100	1320	1780	1960	2300
sound pressure level at 3m	dB(A)	26	35	40	47	51	54

SR M-200-A							
nominal unit length	m	**2**					
door height	m	**2.2 - 2.8**					
electrical supply	V/ph/Hz	230/1/50					
max. input current (1 phase)	A	2,49					
max. fan power	kW	0,54					
max. specific fan power	W/l/s	0,63					
weight casing style F / R / C	kg	83/112/106					
speed		**1**	**2**	**3**	**4**	**5**	**6**
air volume	m^3/h	970	1470	1750	2370	2610	3070
sound pressure level at 3m	dB(A)	28	37	42	48	53	56

SR M-250-A							
nominal unit length	m	**2,5**					
door height	m	**2.2 - 2.8**					
electrical supply	V/ph/Hz	230/1/50					
max. input current (1 phase)	A	3,12					
max. fan power	kW	0,67					
max. specific fan power	W/l/s	0,63					
weight casing style F / R / C	kg	103/139/131					
speed		**1**	**2**	**3**	**4**	**5**	**6**
air volume	m^3/h	1210	1840	2190	2960	3270	3840
sound pressure level at 3m	dB(A)	29	38	43	49	54	57

Ambient

SR L-100-A								
nominal unit length	m	**1**						
door height	m	**2.5 - 3.3**						
electrical supply	V/ph/Hz	230/1/50						
max. input current (1 phase)	A	3,03						
max. fan power	kW	0,57						
max. specific fan power	W/l/s	0,66						
weight casing style F / R / C	kg	56/74/72						
speed		**1**	**2**	**3**	**4**	**5**	**6**
air volume	m^3/h	1010	1440	1710	2240	2680	3140
sound pressure level at 3m	dB(A)	33	40	43	48	53	56

SR L-150-A							
nominal unit length	m	**1,5**					
door height	m	**2.5 - 3.3**					
electrical supply	V/ph/Hz	230/1/50					
max. input current (1 phase)	A	4,55					
max. fan power	kW	0,86					
max. specific fan power	W/l/s	0,66					
weight casing style F / R / C	kg	85/110/107					
speed		**1**	**2**	**3**	**4**	**5**	**6**
air volume	m^3/h	1510	2160	2560	3360	4020	4720
sound pressure level at 3m	dB(A)	34	41	44	50	54	58

SR L-200-A							
nominal unit length	m	**2**					
door height	m	**2.5 - 3.3**					
electrical supply	V/ph/Hz	230/1/50					
max. input current (1 phase)	A	6,07					
max. fan power	kW	1,15					
max. specific fan power	W/l/s	0,66					
weight casing style F / R / C	kg	109/143/139					
speed		**1**	**2**	**3**	**4**	**5**	**6**
air volume	m^3/h	2010	2880	3410	4480	5360	6290
sound pressure level at 3m	dB(A)	36	43	46	51	56	59

SR L-250-A							
nominal unit length	m	**2,5**					
door height	m	**2.5 - 3.3**					
electrical supply	V/ph/Hz	230/1/50					
max. input current (1 phase)	A	7,58					
max. fan power	kW	1,44					
max. specific fan power	W/l/s	0,66					
weight casing style F / R / C	kg	139/182/176					
speed		**1**	**2**	**3**	**4**	**5**	**6**
air volume	m^3/h	2520	3610	4270	5600	6700	7860
sound pressure level at 3m	dB(A)	37	44	47	52	57	60

Ambient

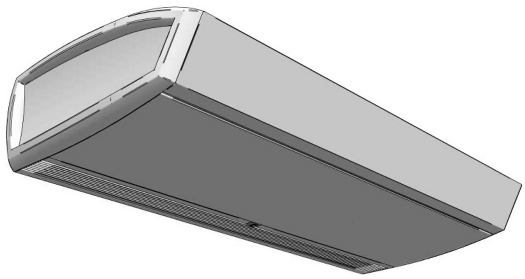
SR XL-100-A							
nominal unit length	m	**1**					
door height	m	**3 - 4**					
electrical supply	V/ph/Hz	230/1/50					
max. input current (1 phase)	A	5,02					
max. fan power	kW	1,03					
max. specific fan power	W/l/s	0,94					
weight casing style F / R / C	kg	60/78/76					
speed		**1**	**2**	**3**	**4**	**5**	**6**
air volume	m^3/h	1170	1580	2030	2720	3370	3950
sound pressure level at 3m	dB(A)	38	42	47	52	57	62

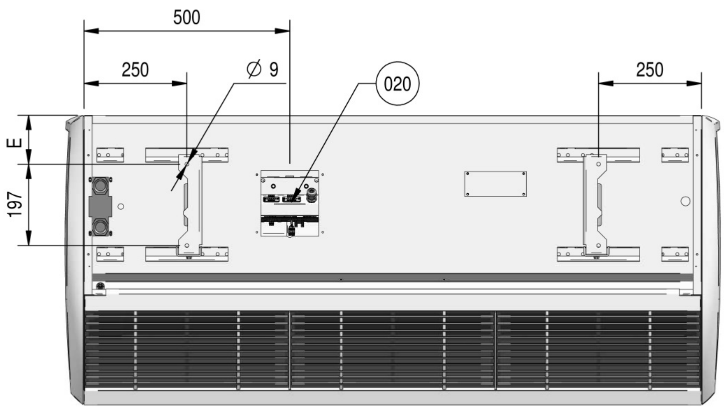
SR XL-150-A							
nominal unit length	m	**1,5**					
door height	m	**3 - 4**					
electrical supply	V/ph/Hz	230/1/50					
max. input current (1 phase)	A	7,53					
max. fan power	kW	1,54					
max. specific fan power	W/l/s	0,94					
weight casing style F / R / C	kg	91/116/113					
speed		**1**	**2**	**3**	**4**	**5**	**6**
air volume	m^3/h	1750	2370	3050	4090	5060	5920
sound pressure level at 3m	dB(A)	39	44	48	54	59	63

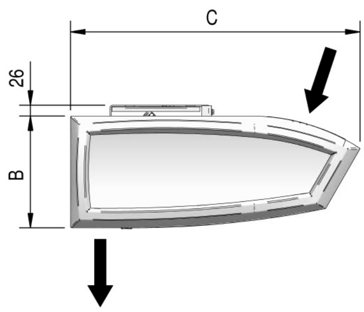
SR XL-200-A							
nominal unit length	m	**2**					
door height	m	**3 - 4**					
electrical supply	V/ph/Hz	230/1/50					
max. input current (1 phase)	A	10,04					
max. fan power	kW	2,05					
max. specific fan power	W/l/s	0,94					
weight casing style F / R / C	kg	118/152/148					
speed		**1**	**2**	**3**	**4**	**5**	**6**
air volume	m^3/h	2330	3170	4060	5450	6740	7890
sound pressure level at 3m	dB(A)	41	45	50	55	60	65

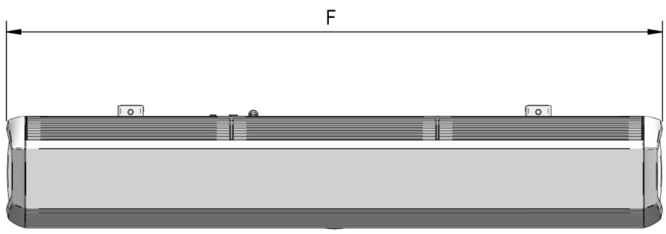
SR XL-250-A							
nominal unit length	m	**2,5**					
door height	m	**3 - 4**					
electrical supply	V/ph/Hz	230/1/50					
max. input current (1 phase)	A	12,55					
max. fan power	kW	2,57					
max. specific fan power	W/l/s	0,94					
weight casing style F / R / C	kg	148/191/185					
speed		**1**	**2**	**3**	**4**	**5**	**6**
air volume	m^3/h	2920	3960	5080	6810	8430	9870
sound pressure level at 3m	dB(A)	42	46	51	56	61	66

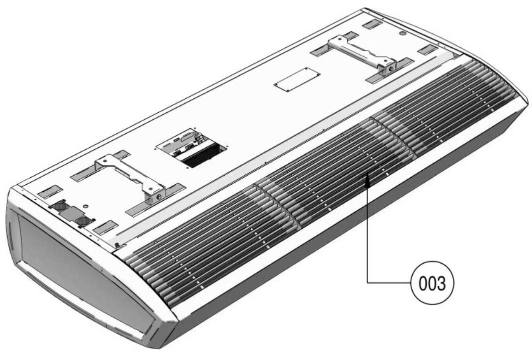
Free hanging model

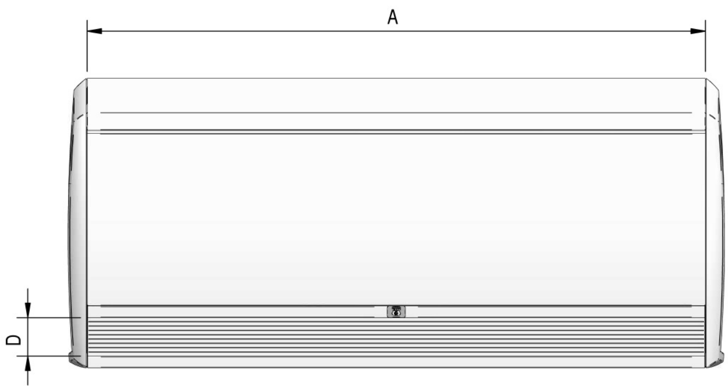






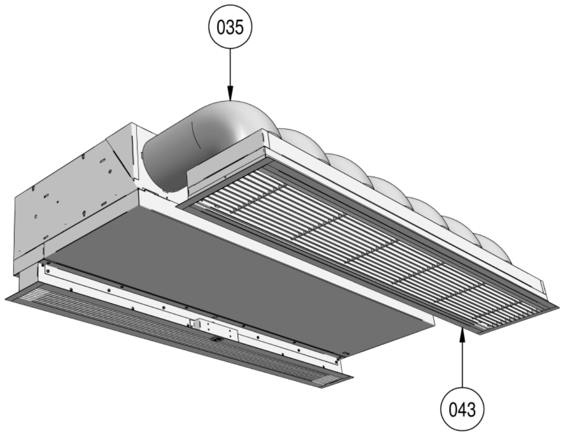


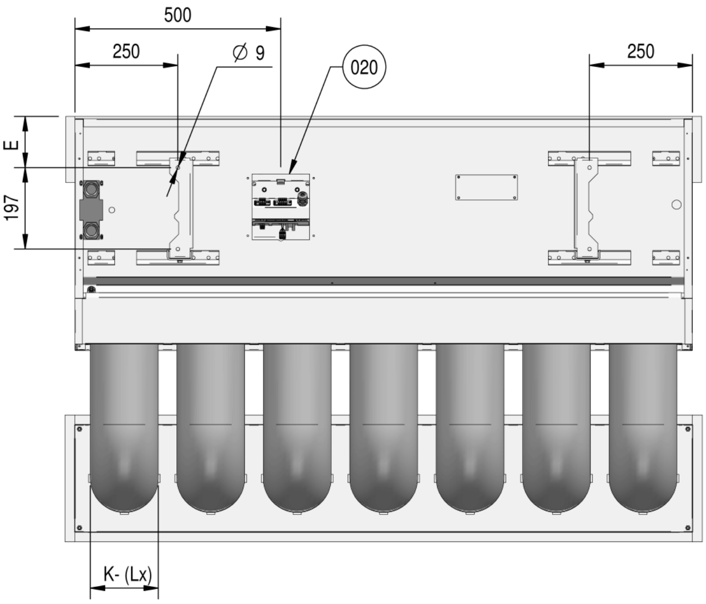


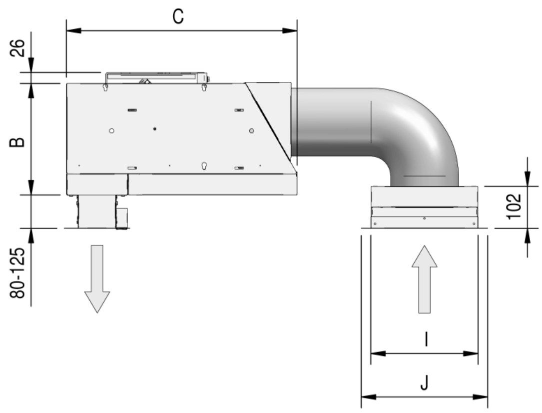


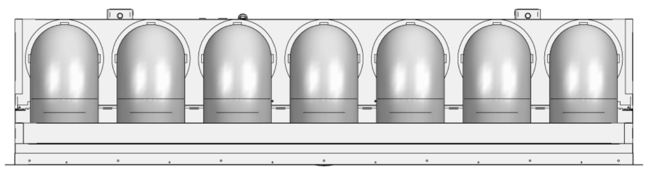
	A	B	C	D	E	F
SR S / M 100	1000	270	702	93	119	1093
SR S / M 150	1500	270	702	93	119	1593
SR S / M 200	2000	270	702	93	119	2093
SR S / M 250	2500	270	702	93	119	2593
SR L / XL 100	1000	370	940	125	200	1138
SR L / XL 150	1500	370	940	125	200	1638
SR L / XL 200	2000	370	940	125	200	2138
SR L / XL 250	2500	370	940	125	200	2638

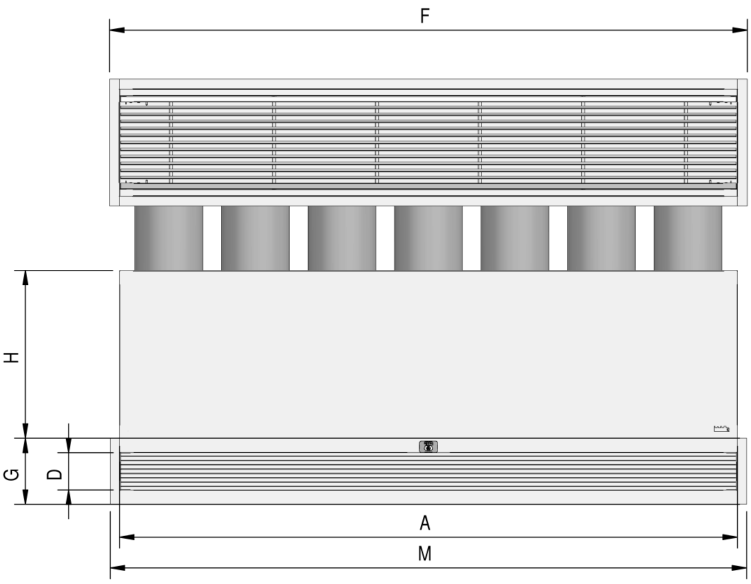
Recessed model





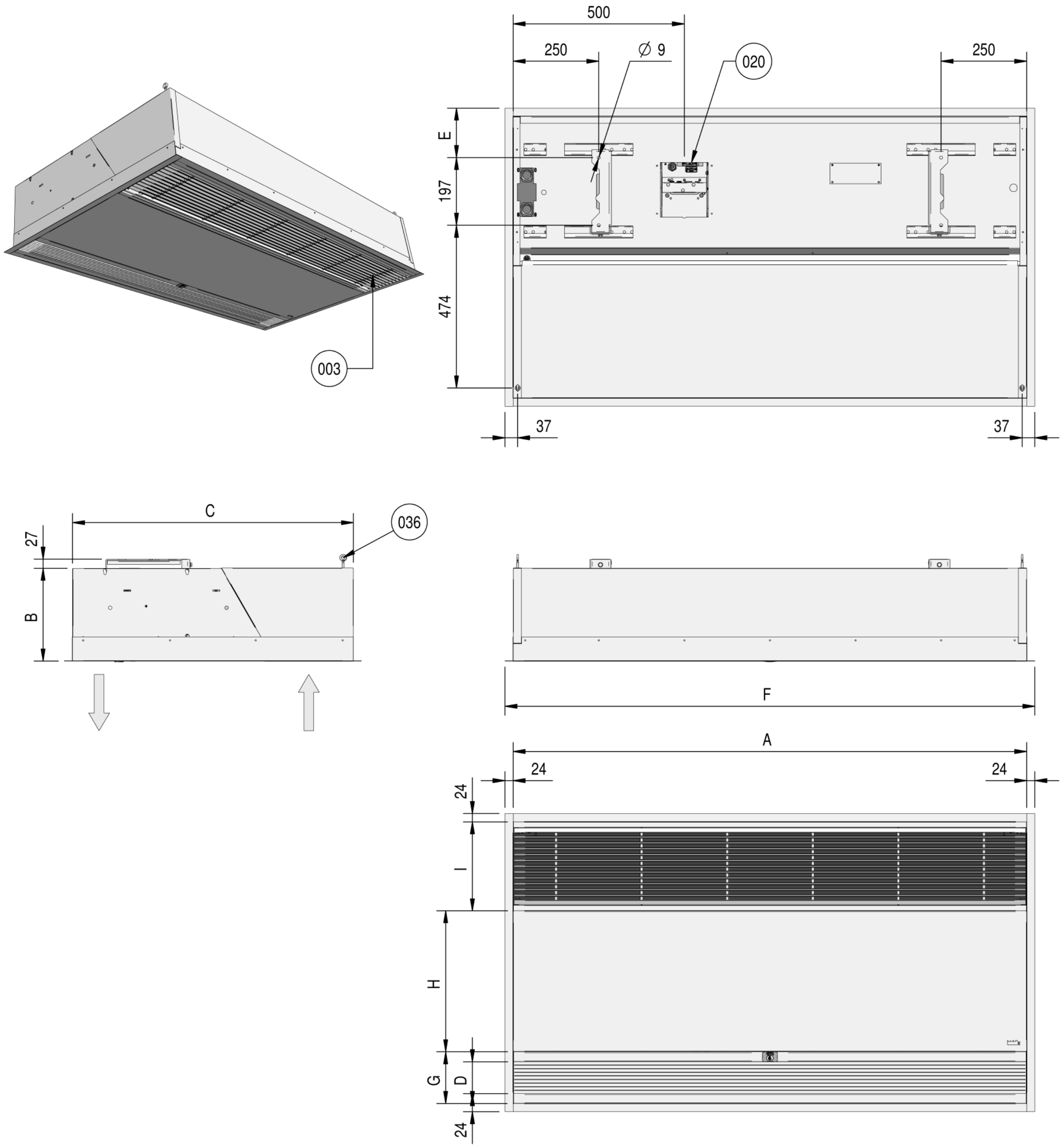






	A	B	C	D	E	F	G	H	I	J	K	L	M
SR S / M 100	1000	270	561	90	125	1048	160	406	261	307	ø160	5	1045
SR S / M 150	1500	270	561	90	125	1548	160	406	261	307	ø160	7	1545
SR S / M 200	2000	270	561	90	125	2048	160	406	261	307	ø160	10	2045
SR S / M 250	2500	270	561	90	125	2548	160	406	261	307	ø160	12	2545
SR L / XL 100	1000	370	745	122	206	1048	191	559	361	407	ø250	3	1045
SR L / XL 150	1500	370	745	122	206	1548	191	559	361	407	ø250	5	1545
SR L / XL 200	2000	370	745	122	206	2048	191	559	361	407	ø250	6	2045
SR L / XL 250	2500	370	745	122	206	2548	191	559	361	407	ø250	8	2545

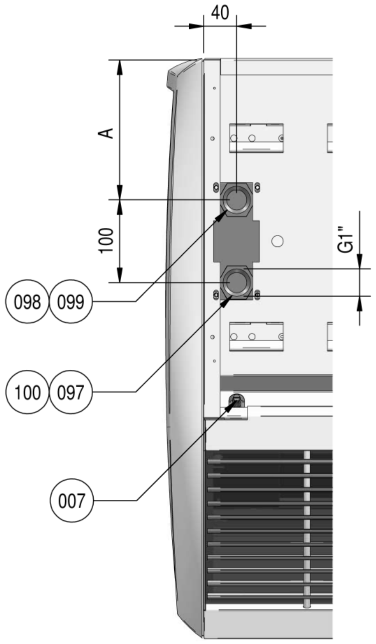
Cassette model



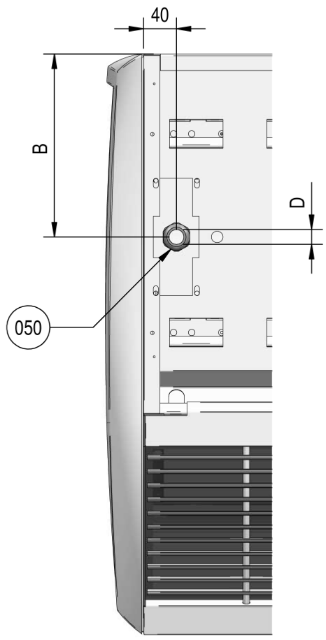
	A	B	C	D	E	F	G	H	I
SR S / M 100	1000	270	821	93	144	1048	150	411	260
SR S / M 150	1500	270	821	93	144	1548	150	411	260
SR S / M 200	2000	270	821	93	144	2048	150	411	260
SR S / M 250	2500	270	821	93	144	2548	150	411	260
SR L / XL 100	1000	370	1105	125	175	1048	182	564	360
SR L / XL 150	1500	370	1105	125	175	1548	182	564	360
SR L / XL 200	2000	370	1105	125	175	2048	182	564	360
SR L / XL 250	2500	370	1105	125	175	2548	182	564	360

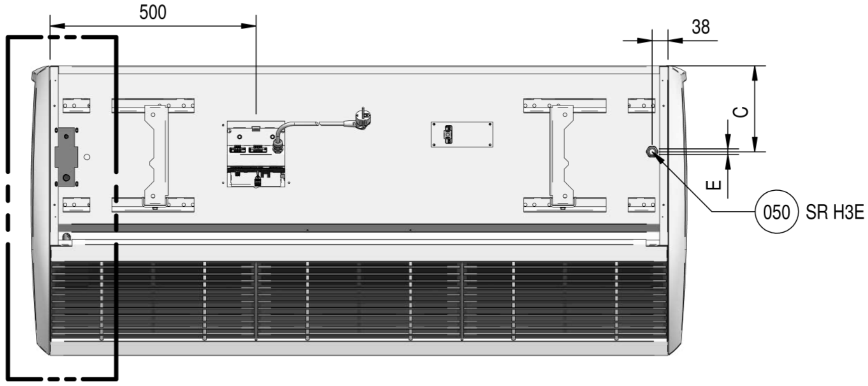
Connections

Water & Hybrid



Electric Heating

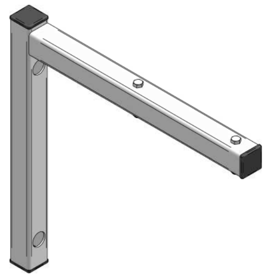


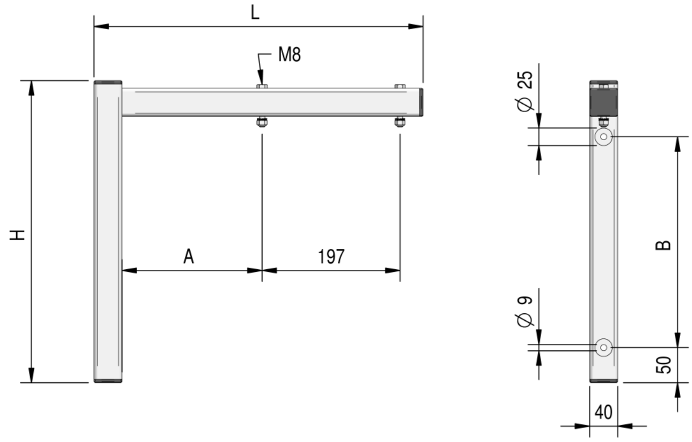


	A	B	C	D	E
SR S-100	170	220	208	PG21	PG16
SR S-150	170	220	208	PG21	PG16
SR S-200	170	220	208	PG21	PG21
SR S-250	170	220	208	PG21	PG21
SR M-100	170	220	208	PG21	PG16
SR M-150	170	220	208	PG21	PG16
SR M-200	170	220	208	PG29	PG21
SR M-250	170	220	208	PG29	PG21
SR L / XL-100	245	295	289	PG21	PG21
SR L / XL-150	245	295	289	PG29	PG21
SR L / XL-200	245	295	289	PG36	PG21
SR L / XL-250	245	295	289	PG36	PG29

Wall suspension brackets

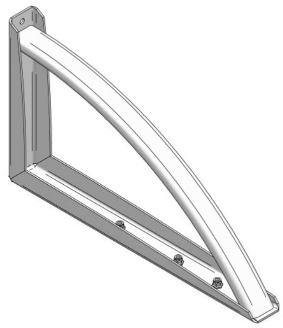
Standard

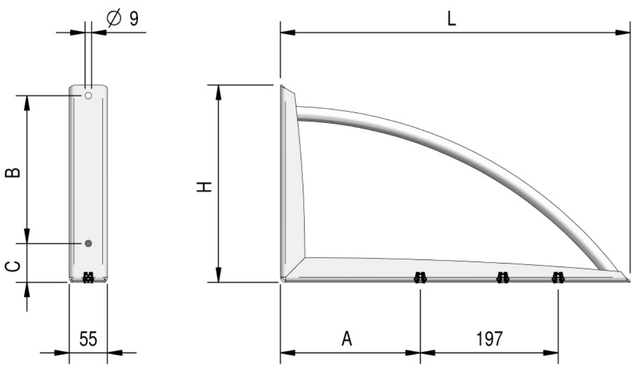




	L	H	A	B
SR S / M	389	330	119	200
SR L / XL	470	430	200	300

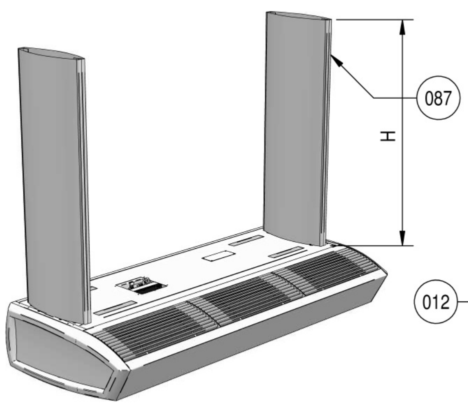
Design

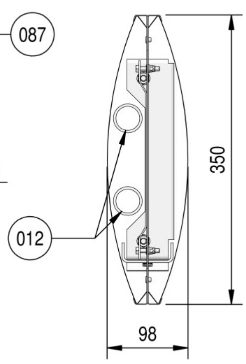


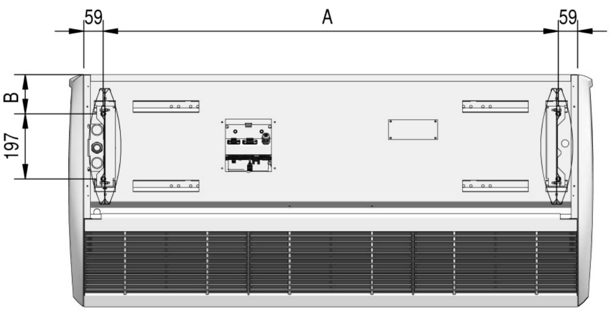


	L	H	A	B	C
SR S / M	425	240	119	190	35
SR L / XL	500	280	200	210	55

Threaded rod covers







	A	B
SR 100	882	119 (S/M) 200 (L/XL)
SR 150	1382	
SR 200	1882	
SR 250	1191 (2x)	

Size H is the distance between unit and ceiling. This size needs to be communicated on the order.

Index

The corresponding numbers in the dimensional sketches are explained below:

3 - Air inlet grille with filter
20 - Connection plate
35 - Ducts are not supplied
43 - Finishing sections supplied separately
36 - Eye bolt M6
7 - Air vent
50 - Gland
97 - Return (S/M)
98 - Return (L/XL)
99 - Supply (S/M)
100 - Supply (L/XL)
12 - Pipework
87 - Threaded rod covers (position is flexible)

Explanation of dimensional sketches

Models

Free hanging: by removing the end panels, the units are easy to interlink.
Cassette: apperture sizes = (A+8) x (C+8) mm.
Recessed: apperture sizes:
- for air discharge (A+8) x (D+8) mm
- for air inlet: (A+8) x (I+8) mm

If the recessed model is to be built into a bulkhead, it is also available in a design that has no inlet air plenum or flexible ducts.

Wall suspension brackets and threaded rod covers

• Material of threaded rod covers: zinc coated steel, painted, to a standard colour of RAL 9016 or RAL 9006.

Note

• All dimensions are in mm.
• SensAir 2500 mm units have 3 suspension brackets. All other sizes have 2 suspension brackets.

biddle

CLIMATE SOLUTIONS

Warranty 5 years

TÜVRheinland CERTIFIED

Management System

ISO 14001:2015

ISO 9001:2015

www.tuv.com

ID 0000033241

EUROPEAN PATENT

CE

Subject to change without notice.

Biddle Southern Europe & MENA

21 allée des Vendanges

77183 Croissy-Beaubourg

France

T +33 1 64 11 15 55

E contact@biddle.fr

I www.biddle.fr