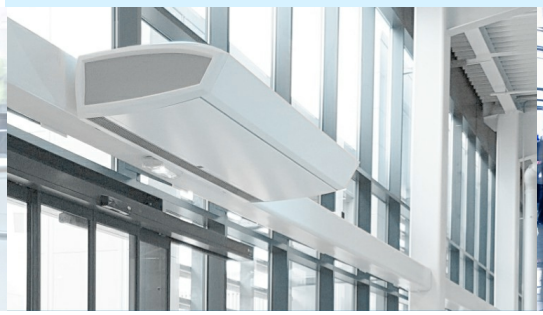
DX AIR CURTAIN

SR



Biddle

Complete climate system

Since 2006 Biddle and Daikin have joined forces to provide a complete climate system for shops and public buildings. By combining Biddle air curtains with the highle efficient Daikin heat pump systems, a lot of energy is saved and comfort in the building is optimum.

Maximum comfort Both visitors and personnel can enjoy maximum comfort during the whole year, under all weather conditions. This is the result of the efficient climate separation created by Biddle air curtains, while heat pump systems heat, cool or ventilate to provide a comfortable indoor climate.

Integrated air conditioning solutions

The advantage of combining air curtains with heat pumps and heat recovery is that climate separation, heating, cooling and ventilation are combined in one system. Considerable savings on energy costs can be made as compared with traditional systems; this means that the payback time is very short, generally about 1.5 years. The stable indoor climate due to efficient climate separation reduces heat loss through the doorway and also increases the efficiency of the Daikin systems. A Daikin heat pump is very efficient and saves up to 40% of energy costs as compared with a high-efficiency central heating boiler. A Biddle air curtain in combination with Daikin's heat pump systems is the ultimate energy-saving solution for cooling, heating, ventilation and climate separation and means that other energy generators, such as a central heating system, are not required.

Daikin climate systems

Biddle air curtains can be installed plug&play to various Daikin climate systems.

- **Heat pump/heat recovery:** for heating and/or cooling a building. The heat released from cooling systems (residual heat) is recycled for the Biddle air curtain.
- **Conveni-pack:** a unique total solution for refrigerated storage and air conditioning, where energy consumption is reduced to a minimum as up to 100% of the heat is recovered from cooling equipment and used to heat the area. This is without additional costs.

A new wave in climate separation

SR 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 SR technology has been improved to deliver greater comfort for all, whether it is in a supermarket, high street store or office building. The SR 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 SR 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

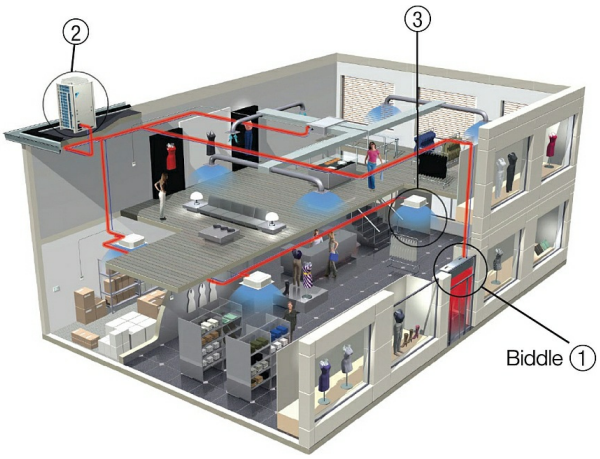
- easy to assemble and set up (b-touch)
- ready-to-use, integrated control

Complete customized solution

- customer specific styling possible
- suitable for various heat sources

Energy-efficient climate concept

Biddle and Daikin supply a complete plug & play climate concept. Within this energy-efficient climate concept two different versions are available: the SRV and SRQ models.



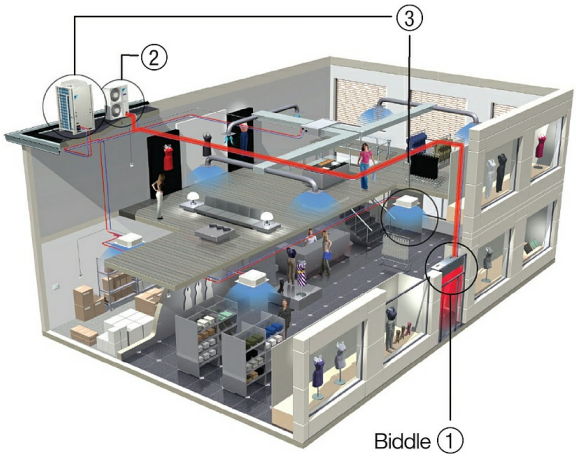
Complete SRV air curtain – climate system

The climate system consisting of the SR air curtain, model SRV **(1)**, Daikin VRV outdoor unit **(2)** and indoor units **(3)** supplies heating, cooling, ventilation and climate separation in one energy-efficient installation. By heating and cooling at the same time the heat extracted from the cooling systems can be extracted for the air curtain, thus resulting in considerable reduction in energy costs. This integrated climate system is energy efficient, has a quick payback time and provides a comfortable indoor climate.

Standalone SRQ air curtain – heat pump

The SR air curtain, model SRQ **(1)**, is available in combination with a Daikin ERQ heat pump **(2)**. The heat pump provides the heating energy required for climate separation in the doorway. The heating and cooling in the building are controlled separately **(3)**. Considerable energy savings are obtained by connecting the SR to a heat pump: up to 40% as compared with a high-efficiency boiler and even 73% as compared with an electric air curtain. This climate solution is sustainable, energy saving and creates a pleasant indoor climate.

The SR is also available as a hybrid DX version



Constant heating with hybrid SR

The hybrid SR consists of a DX and an additional electric heating element. First maximum use is made of the available heat from the DX. If necessary, the electric element switches on automatically so that the required discharge temperature can be achieved continuously. In cold weather the electric element switches on automatically if the outdoor unit is not adequate to supply the capacity required. The electric element also supplies the heating required during the defrosting cycle. In this way climate separation is always guaranteed.

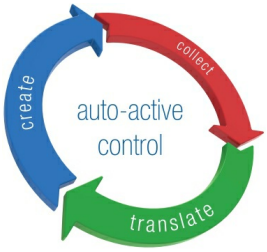
Intelligent control and monitoring

There are an extensive range of control options; touchscreen control (b-touch), remote operation and integration with a Building Management System (BMS). It is possible to monitor the energy performance and comfort levels remotely by means of the b-connect monitoring module. Connecting to a BMS is easy through a standard Modbus Protocol connection, whilst it is also possible to communicate via BACnet. All SR devices are fitted with Biddle's innovative auto-active control, the next generation of controls.

Auto-active control

Generally, installing an air curtainis typically set to operate at a mid-speed setting and rarely adjusted. This results in the air curtain continually operating at a single air volume, velocity and temperature. However, as internal and external conditions constantly vary this means the air curtain will only be operating at the optimum setting some of the time, and for the rest of the time will be on either too high or too low a setting. 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 process ensures that the SR is always functioning correctly and yields an ideal, energy-efficient indoor climate without interference of the user.

b-touch control panel



A revolutionary combination of technologies

SR's auto-active control combines no fewer than four renowned Biddle technologies. The revolutionary patented i-sense infrared technology **collects** all temperature-related data in the doorway. CHIPS technology **translates** this information into the correct setting, whilst the adaptable discharge width (Controlled Air strength technology) and the patented rectifier **create** the perfect climate separation.

Benefits

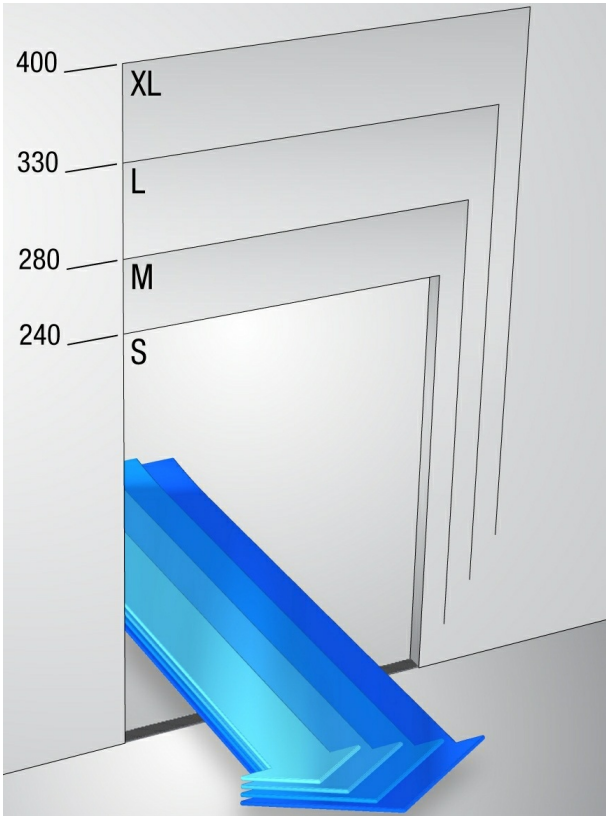
Combination SR - Daikin

- Sustainable climate solution
- Integrated climate system possible
- Extensive control options
- Extremely low energy consumption
- Low investment costs (no central heating needed)
- Optimal comfort
- Low CO_2-emission

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

Air curtain selection

Selecting the right air curtain is crucial in order to ensure the SR works optimally. An air curtain performs properly when it completely shields the doorway and is strong enough to heat the cold air streaming in from outside to a comfortable temperature.



Air curtain product selector

The selector enables a simple selection of the most appropriate product for your entrance and depends on:

- **Door height:** mounting height, measured from floor to bottom of unit.
- **Door width:** recommended unit overhang - minimum of 100mm each side.
- **Natural ventilation:** volume and temperature of the outside air entering through the open door.

The following guidelines generally apply:

- **S:** small medium high street: retail outlets, small offices, commercial reception (up to 200 m^2)
- **M:** medium retail outlets, foodstores, larger commercial entrances (200 - 2,500 m^2)
- **L:** large retail outlets, superstores, leisure complexes (2,000 - 6,000 m^2)
- **XL:** large retail outlets, hypermarkets, department stores, shopping centres with high performance requirements (>5,000 m^2)

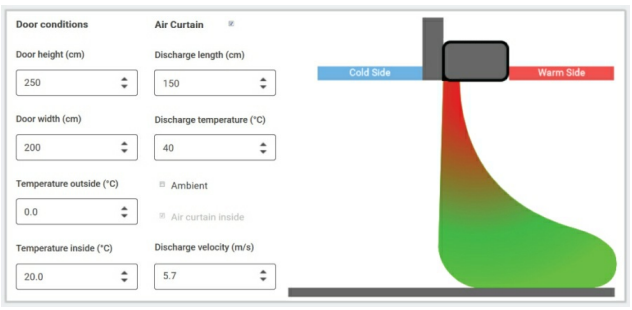
Design considerations

Biddle is part of your team and works closely with consultants and architects from the earliest design stages to ensure the optimum air curtain solution is achieved for both new build and refurbishment projects. Critical design considerations include:

- Store location, layout and age
- Building leakage characteristics
- Positive/negative pressurisation of the store
- Standard of mechanical air supplies
- Entrance doorway, width and height
- Multiple doors on different elevations
- Employee awareness of the problems caused by leaving bulk store doors open in foodstores
- Lobbied/no door environment
- Environmental factors - wind data, direction or speed

Simulation tool

Biddle has developed a simulation tool to help you select the right air curtain: **VACP (Visual Air Curtain Performance)**. Biddle has specific advice for all doorway scenarios. For more information, please contact the Biddle sales office.



A suitable solution for every situation

The SR has endless possibilities. The SR creates optimum climate separation in all doorways and is also suitable for Daikin systems. There is a solution available for many monitoring and control options.

Example type code:
SRV S-100-DK-80-F

SRV	=	SR with Daikin VRV
SRQ	=	SR with Daikin ERQ
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		
DX	=	Refrigerant R410a
DXE	=	DK + Electrical heating
Capacity index		
80 - 100 - 125 - 140 - 250		
Model		
F	=	Free hanging model
R	=	Recessed model
C	=	Cassette model

For the water, electrical, hybrid and ambient versions a separate brochure is available.

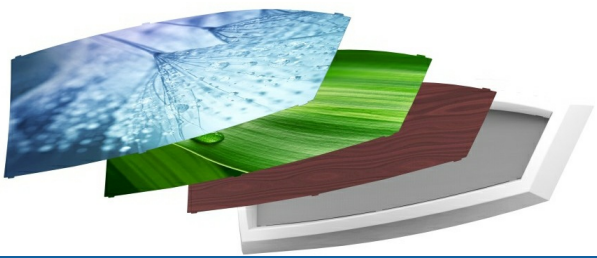
For every door width
Doors wider than 250 cm are covered by placing multiple units next to each other.

Control options
- Auto-active control with b-touch control
- panel b-connect monitoring module
- Modbus communication

Daikin
- DX: Direct expansion SRQ
- S-100 not available

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).



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

DX version

For a complete installation of model SRV or SRQ several additional components to be delivery by Daikin are necessary.

b-touch control panel

Standard delivery

- Modbus communication
- Air filters
- Ceiling mounting brackets
- Duct connections R-model (ducts not included)

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)


end panels - 2 colours

Optional

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

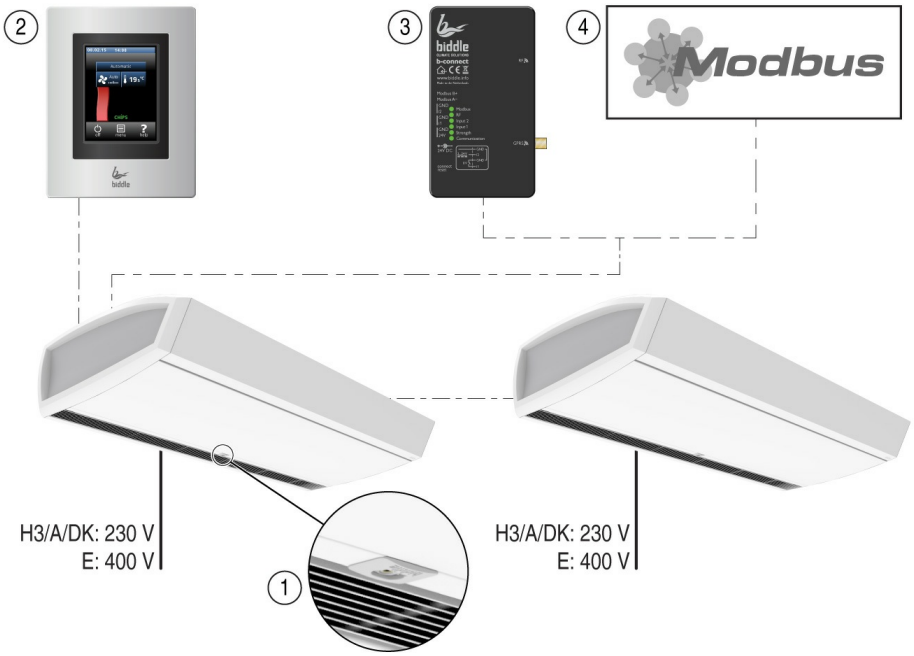
Installation possibilities

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

Electrical connections

The SR 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 SR 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 arotor 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

DX: made up of 3/8" copper tubes and aluminium fins. The fluid connection is 9.52 mm, and the gas connection is 16 mm (with 100, S/M-150 & 200, S-250), 19 mm (with M-250, L/XL-150) or 22 mm (with L-200 en 250).

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

Connections

To connect DX units to the mains supply, they come with a fixed cable (approx. 2 m long) with a moulded, earthed plug. The connection for Daikin units and the connector plate are fitted on the top of the unit.

The mains cable for electrical heating must be connected within the unit. The top of the unit has a cable gland for feeding through the feeder cable. A 5-core cable (3 phases + earth + neutral) is required for proper connection.

Explanation technical data

Because of the auto-active control of the SR DX air curtain the outlet temperature varies at all speeds, depending on the situation. The maximum heating capacity of the DX air curtains is the same as the heating capacity in the highest fan speed.

Selection Daikin outdoor unit

To determine the correct Daikin outdoor unit for model SRV, you need to add together the capacity indexes of all the indoor units.

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 à 2 dB(A)**
Acoustical "hard" ceiling	**+ 2 à 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

Note

The SRQ S-100 unit is not available.

DX heating

SRV S-100-DK							
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	7,8					
capacity index		80					
weight casing style F / R / C	kg	52/62/60					
air inlet temperature	°C	20					
discharge air temperature	°C	30 - 45					
speed		**1**	**2**	**3**	**4**	**5**	**6**
air volume	m³/h	440	600	680	880	1010	1130
heating capacity	kW	3,6	4,7	5,2	6,4	7,1	7,8
sound pressure level at 3m	dB(A)	27	33	37	42	46	48

SRV/Q S-150-DK							
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	9,7					
capacity index		80					
weight casing style F / R / C	kg	73/89/84					
air inlet temperature	°C	20					
discharge air temperature	°C	30 - 45					
speed		**1**	**2**	**3**	**4**	**5**	**6**
air volume	m³/h	660	910	1020	1320	1520	1700
heating capacity	kW	4,9	6,2	6,8	8,2	9	9,7
sound pressure level at 3m	dB(A)	28	35	39	43	47	50

DX heating

SRV/Q S-200-DK							
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	12,6					
capacity index		100					
weight casing style F / R / C	kg	88/109/103					
air inlet temperature	°C	20					
discharge air temperature	°C	30 - 45					
speed		**1**	**2**	**3**	**4**	**5**	**6**
air volume	m³/h	880	1210	1360	1770	2020	2260
heating capacity	kW	6,4	8,1	8,9	10,6	11,7	12,6
sound pressure level at 3m	dB(A)	30	36	40	45	49	51

SRV/Q S-250-DK							
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	17,3					
capacity index		140					
weight casing style F / R / C	kg	113/139/131					
air inlet temperature	°C	20					
discharge air temperature	°C	30 - 45					
speed		**1**	**2**	**3**	**4**	**5**	**6**
air volume	m³/h	1100	1510	1700	2210	2530	2830
heating capacity	kW	8,5	10,9	12	14,5	16	17,3
sound pressure level at 3m	dB(A)	31	37	41	46	50	52

DX heating

SRV/Q M-100-DK							
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	9,7					
capacity index		80					
weight casing style F / R / C	kg	59/69/67					
air inlet temperature	°C	20					
discharge air temperature	°C	30 - 45					
speed		**1**	**2**	**3**	**4**	**5**	**6**
air volume	m³/h	490	740	880	1180	1310	1530
heating capacity	kW	3,9	5,6	6,4	8	8,6	9,7
sound pressure level at 3m	dB(A)	25	34	39	45	50	53

SRV/Q M-150-DK							
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	11,7					
capacity index		80					
weight casing style F / R / C	kg	81/97/92					
air inlet temperature	°C	20					
discharge air temperature	°C	30 - 45					
speed		**1**	**2**	**3**	**4**	**5**	**6**
air volume	m³/h	730	1100	1320	1780	1960	2300
heating capacity	kW	5,3	7,2	8,1	9,9	10,6	11,7
sound pressure level at 3m	dB(A)	26	35	40	47	51	54

DX heating

SRV/Q M-200-DK							
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	15,2					
capacity index		100					
weight casing style F / R / C	kg	101/122/116					
air inlet temperature	°C	20					
discharge air temperature	°C	30 - 45					
speed		**1**	**2**	**3**	**4**	**5**	**6**
air volume	m³/h	970	1470	1750	2370	2610	3070
heating capacity	kW	6,9	9,4	10,6	12,9	13,8	15,2
sound pressure level at 3m	dB(A)	28	37	42	48	53	56

SRV/Q M-250-DK							
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	21,1					
capacity index		140					
weight casing style F / R / C	kg	125/151/143					
air inlet temperature	°C	20					
discharge air temperature	°C	30 - 45					
speed		**1**	**2**	**3**	**4**	**5**	**6**
air volume	m³/h	1210	1840	2190	2960	3270	3840
heating capacity	kW	9,2	12,7	14,5	17,8	19	21,1
sound pressure level at 3m	dB(A)	29	38	43	49	54	57

DX heating

SRV/Q L-100-DK							
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	17,1					
capacity index		125					
weight casing style F / R / C	kg	72/85/83					
air inlet temperature	°C	20					
discharge air temperature	°C	30 - 45					
speed		**1**	**2**	**3**	**4**	**5**	**6**
air volume	m³/h	1010	1440	1710	2240	2680	3140
heating capacity	kW	7,6	10,1	11,4	13,8	15,5	17,1
sound pressure level at 3m	dB(A)	33	40	43	48	53	56

SRV/Q L-150-DK							
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	25,6					
capacity index		200					
weight casing style F / R / C	kg	106/124/121					
air inlet temperature	°C	20					
discharge air temperature	°C	30 - 45					
speed		**1**	**2**	**3**	**4**	**5**	**6**
air volume	m³/h	1510	2160	2560	3360	4020	4720
heating capacity	kW	11,4	15,1	17,1	20,7	23,2	25,6
sound pressure level at 3m	dB(A)	34	41	44	50	54	58

DX heating

SRV/Q L-200-DK							
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	32,3					
capacity index		250					
weight casing style F / R / C	kg	134/159/155					
air inlet temperature	°C	20					
discharge air temperature	°C	30 - 45					
speed		**1**	**2**	**3**	**4**	**5**	**6**
air volume	m³/h	2010	2880	3410	4480	5360	6290
heating capacity	kW	14,9	19,5	22	26,4	29,5	32,3
sound pressure level at 3m	dB(A)	36	43	46	51	56	59

SRV/Q L-250-DK							
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	34,4					
capacity index		250					
weight casing style F / R / C	kg	167/199/193					
air inlet temperature	°C	20					
discharge air temperature	°C	30 - 45					
speed		**1**	**2**	**3**	**4**	**5**	**6**
air volume	m³/h	2520	3610	4270	5600	6700	7860
heating capacity	kW	16,9	21,8	24,3	28,7	31,7	34,4
sound pressure level at 3m	dB(A)	37	44	47	52	57	60

DX heating

SRV/Q XL-100-DK							
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	19,6					
capacity index		125					
weight casing style F / R / C	kg	76/89/87					
air inlet temperature	°C	20					
discharge air temperature	°C	30 - 45					
speed		**1**	**2**	**3**	**4**	**5**	**6**
air volume	m³/h	1170	1580	2030	2720	3370	3950
heating capacity	kW	8,5	10,8	12,9	15,7	17,9	19,6
sound pressure level at 3m	dB(A)	38	42	47	52	57	62

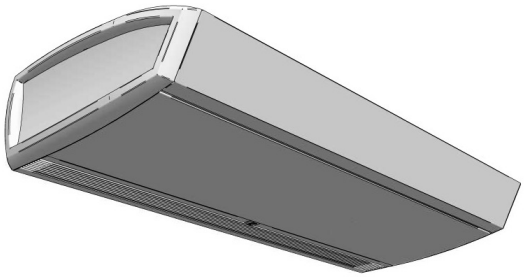
SRV/Q XL-150-DK							
nominal unit length	m	**1,5**					
door height	m	**3 - 4**					
electrical supply	V/ph/Hz	230/1/50					
max. input current (1 phase)	A	7,53					
max. fan power	kW	1,54					
max. specific fan power	W/l/s	0,94					
max heating capacity	kW	29,2					
capacity index		200					
weight casing style F / R / C	kg	112/130/127					
air inlet temperature	°C	20					
discharge air temperature	°C	30 - 45					
speed		**1**	**2**	**3**	**4**	**5**	**6**
air volume	m³/h	1750	2370	3050	4090	5060	5920
heating capacity	kW	12,8	16,2	19,3	23,4	26,7	29,2
sound pressure level at 3m	dB(A)	39	44	48	54	59	63

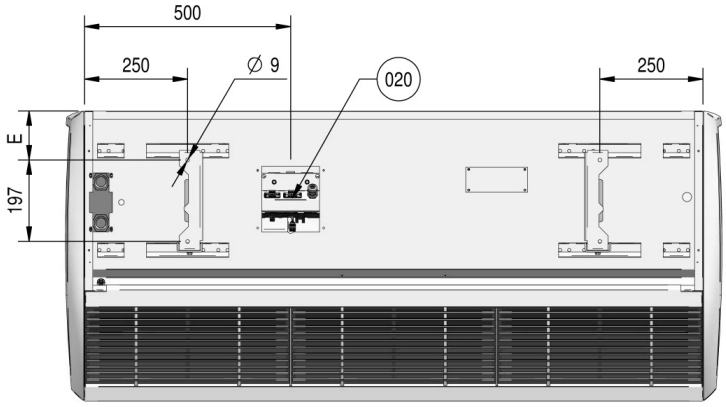
DX heating

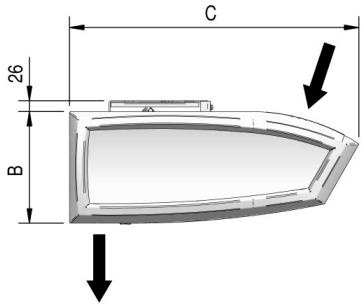
SRV/Q XL-200-DK							
nominal unit length	m	**2**					
door height	m	**3 - 4**					
electrical supply	V/ph/Hz	230/1/50					
max. input current (1 phase)	A	10,04					
max. fan power	kW	2,05					
max. specific fan power	W/l/s	0,94					
max heating capacity	kW	36,4					
capacity index		250					
weight casing style F / R / C	kg	143/168/164					
air inlet temperature	°C	20					
discharge air temperature	°C	30 - 45					
speed		**1**	**2**	**3**	**4**	**5**	**6**
air volume	m³/h	2330	3170	4060	5450	6740	7890
heating capacity	kW	16,7	20,9	24,7	29,7	33,6	36,4
sound pressure level at 3m	dB(A)	41	45	50	55	60	65

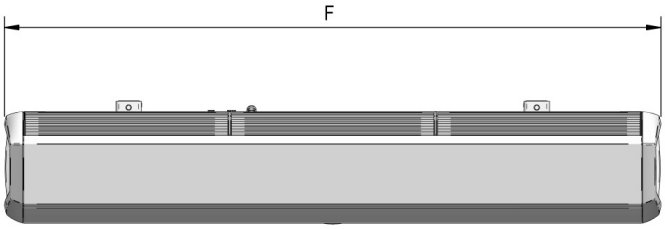
SRV/Q XL-250-DK							
nominal unit length	m	**2,5**					
door height	m	**3 - 4**					
electrical supply	V/ph/Hz	230/1/50					
max. input current (1 phase)	A	12,55					
max. fan power	kW	2,57					
max. specific fan power	W/l/s	0,94					
max heating capacity	kW	38,3					
capacity index		250					
weight casing style F / R / C	kg	176/208/202					
air inlet temperature	°C	20					
discharge air temperature	°C	30 - 45					
speed		**1**	**2**	**3**	**4**	**5**	**6**
air volume	m³/h	2920	3960	5080	6810	8430	9870
heating capacity	kW	18,8	23,2	27,1	31,9	35,6	38,3
sound pressure level at 3m	dB(A)	42	46	51	56	61	66

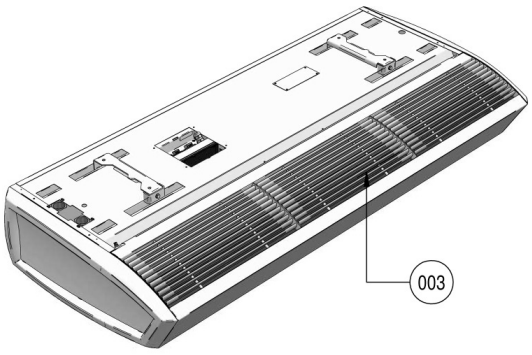
Free hanging model

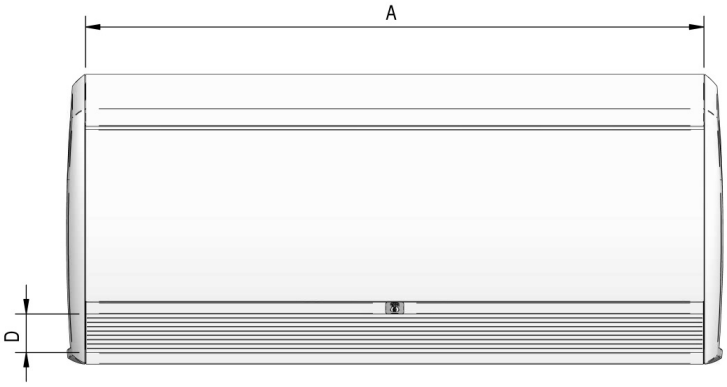






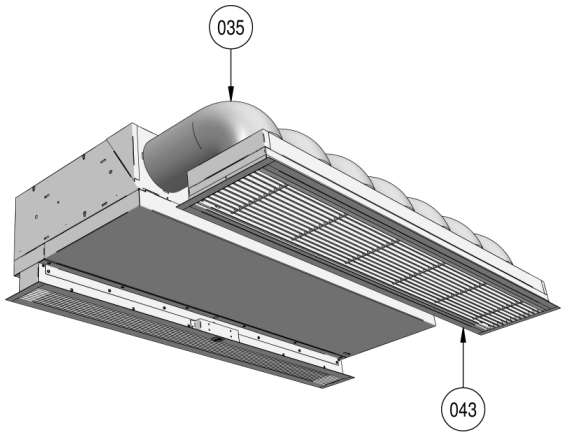


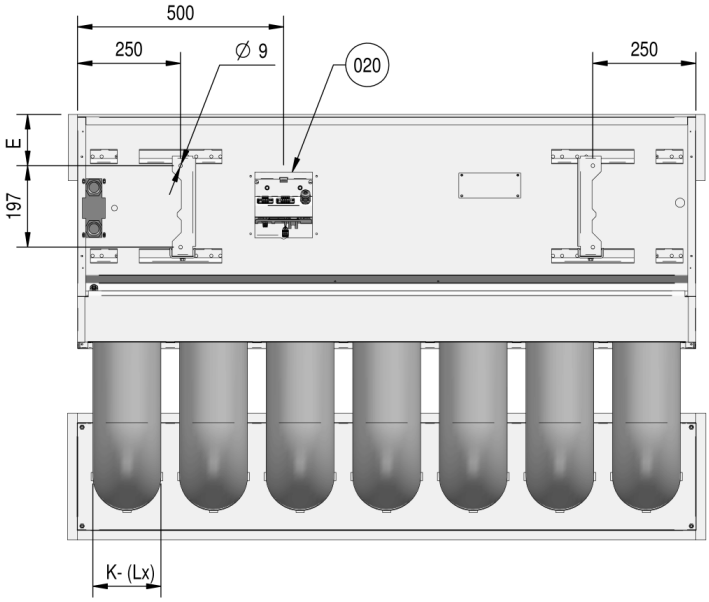


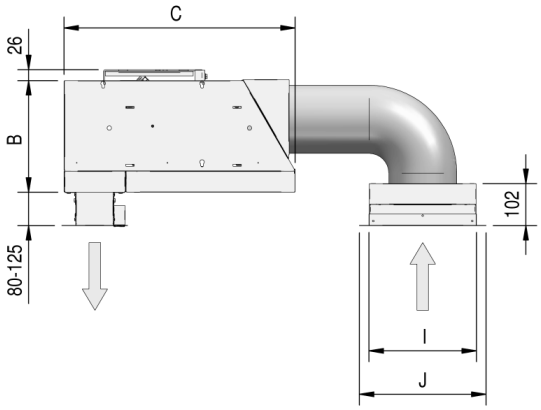


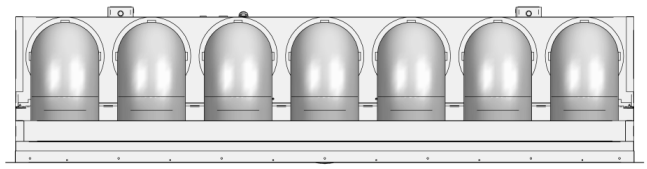
	A	B	C	D	E	F
SR S / M 100	1000	270	702	93	119	1093
SR S / M 150	1500	270	702	93	119	1593
SR S / M 200	2000	270	702	93	119	2093
SR S / M 250	2500	270	702	93	119	2593
SR L / XL 100	1000	370	940	125	200	1138
SR L / XL 150	1500	370	940	125	200	1638
SR L / XL 200	2000	370	940	125	200	2138
SR L / XL 250	2500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

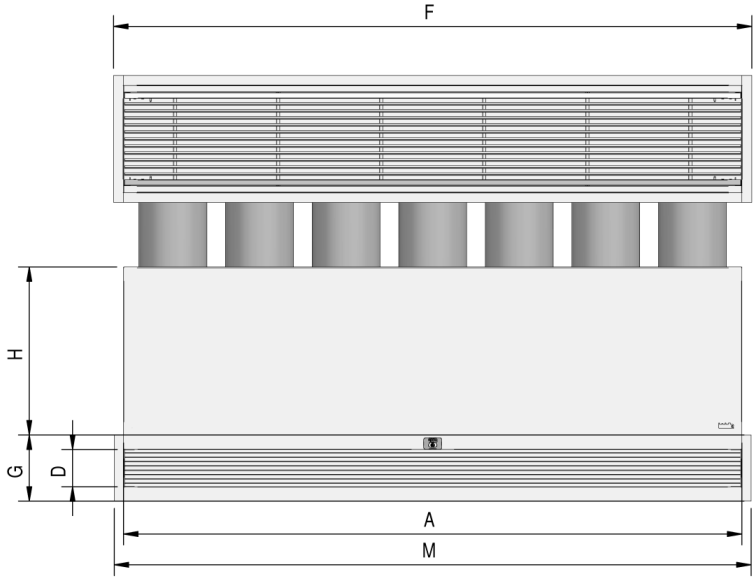
Recessed model





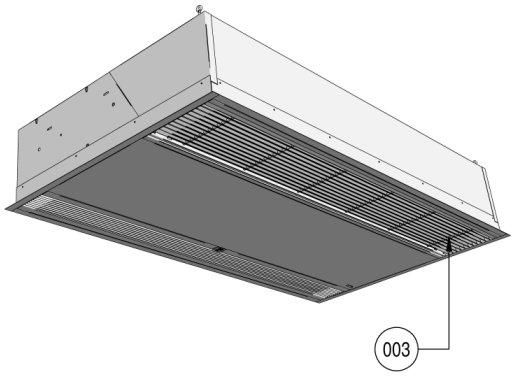


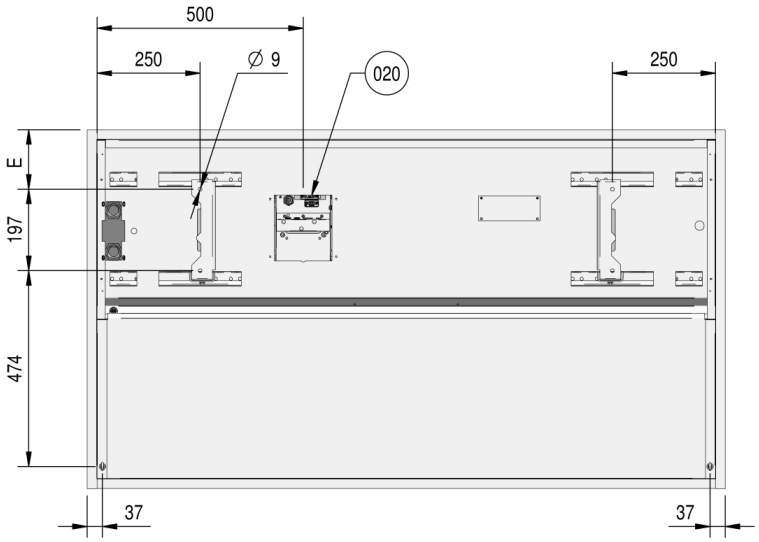


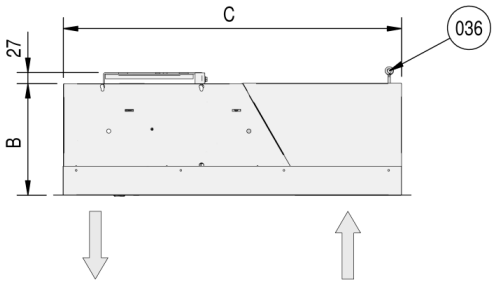


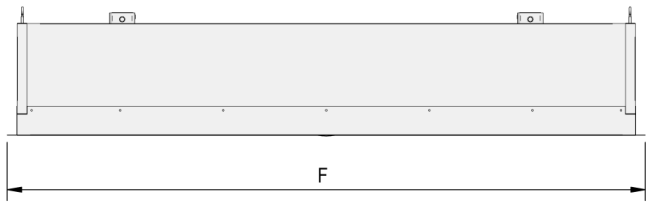
	A	B	C	D	E	F	G	H	I	J	K	L	M
SR S / M 100	1000	270	561	90	125	1048	160	406	261	307	ø160	5	1045
SR S / M 150	1500	270	561	90	125	1548	160	406	261	307	ø160	7	1545
SR S / M 200	2000	270	561	90	125	2048	160	406	261	307	ø160	10	2045
SR S / M 250	2500	270	561	90	125	2548	160	406	261	307	ø160	12	2545
SR L / XL 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

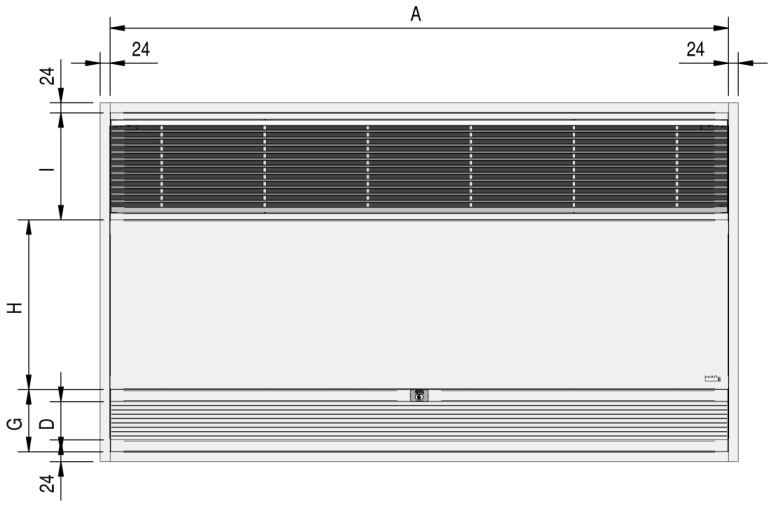
Cassette model







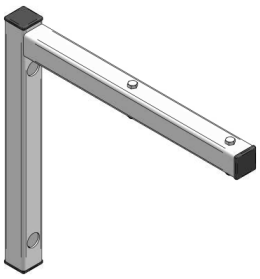


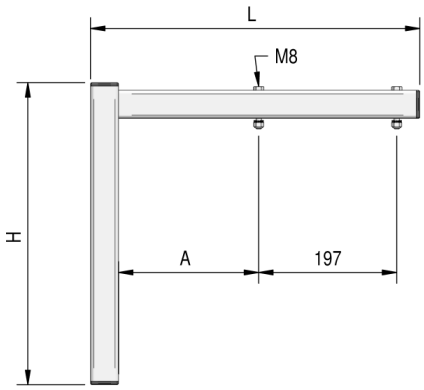


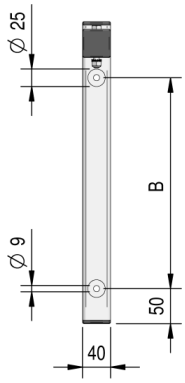
	A	B	C	D	E	F	G	H	I
SR S / M 100	1000	270	821	93	144	1048	150	411	260
SR S / M 150	1500	270	821	93	144	1548	150	411	260
SR S / M 200	2000	270	821	93	144	2048	150	411	260
SR S / M 250	2500	270	821	93	144	2548	150	411	260
SR L / XL 100	1000	370	1105	125	175	1048	182	564	360
SR L / XL 150	1500	370	1105	125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

Wall suspension brackets

Standard

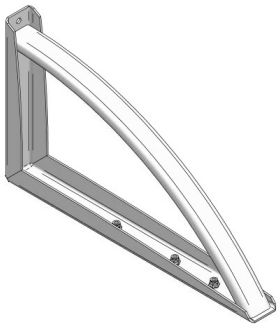


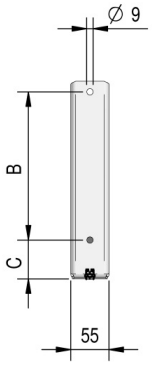


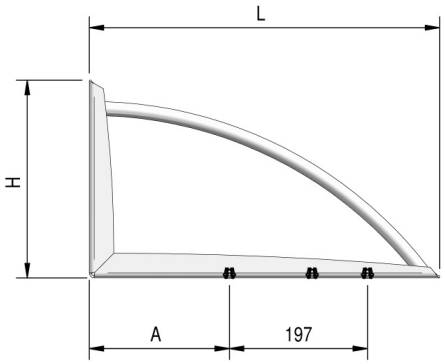


	L	H	A	B
SR S / M	389	330	119	200
SR L / XL	470	430	200	300

Design

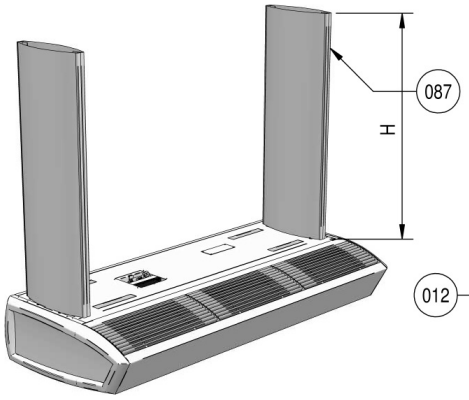


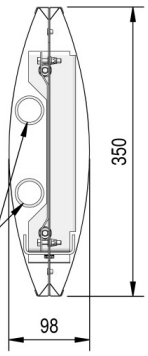


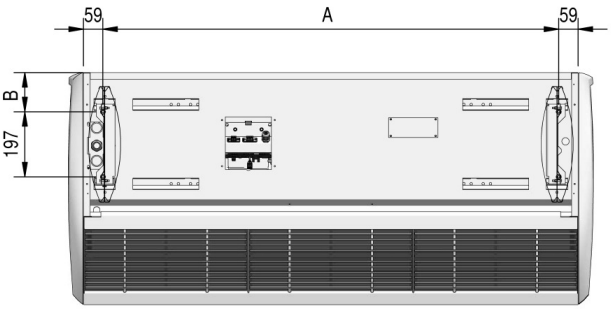


	L	H	A	B	C
SR S / M	425	240	119	190	35
SR L / XL	500	280	200	210	55

Threaded rod covers





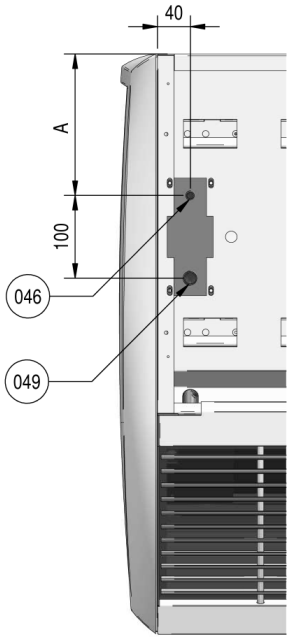


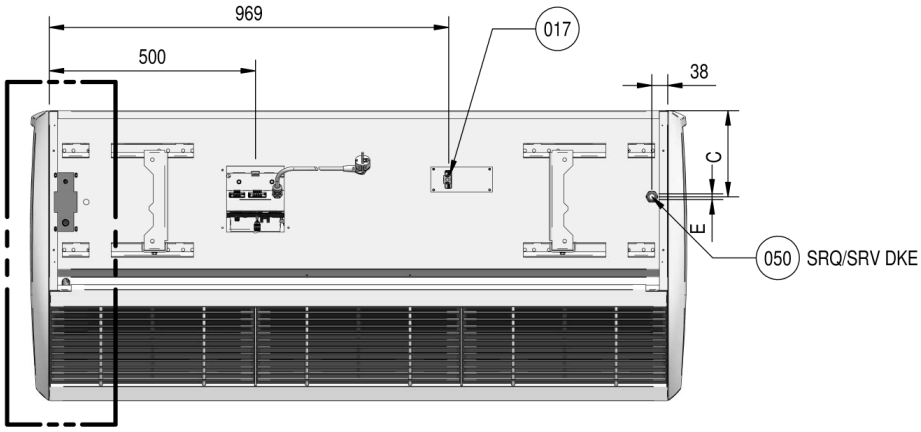
	A	B
SR 100	882	119 (S/M) 200 (L/XL)
SR 150	1382	
SR 200	1882	
SR 250	1191 (2x)	

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

Connections

DX





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

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
12 - Pipework
87 - Threaded rod covers (position is flexible)
17 - Connection Daikin units
46 - Fluid connection
49 - Gas connection
50 - Gland

Explanation dimensional sketches

Models

Free hanging: by removing the end panels, the units are easy to interlink.
Cassette: daylight opening if cover moldings are used in a suspended ceiling = (A+8) x (C+8) mm.
Recessed: daylight openings if cover moldings are used:

- 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 cove, it is also available in a design that has no inlet air plenum or flexible ducts. To prevent bad air from let in, the cove will need to be air-tight.

Wall suspension brackets and threaded rod covers

- Size H is the distance between unit and ceiling. This size needs to be communicated on the order.
- Material threaded rod covers: zink coated plate steel, painted, standard colour RAL 9016 and RAL 9006.

Note

- All dimensions are in mm.
- SR 2500 mm units have 3 suspension brackets. All other sizes have 2 suspension brackets.

Notes

Notes

Biddle

Subject to change without prior notice

Biddle Air Systems Limited
St. Mary's Road
Warwickshire CV11 5AU Nuneaton

T +44 24 7638 4233
E sales@biddle-air.co.uk
I www.biddle-air.co.uk