



Recessed air curtain for smaller entrances

AR200, with a recommended installation height of 2,5 m, is a compact air curtain, suitable for most small entrances. A low height makes it possible to install AR200 where ceiling space is limited. The recessed installation and low sound level makes AR200 very discreet. Units with electrical heat are convertible between several outputs making it simple and flexible to adapt the output to current need.

Great energy savings

In many premises doors remain open for a significant part of the day, this results in huge losses of expensively heated or cooled air, especially when the temperature difference between outdoor and indoor air is great. With correctly installed air curtains great energy savings can be obtained.

Control system SIRE

AR200 is supplemented with SIRE control system via an external PC board. SIRE enables many smart and energy saving features. One SIRE can control up to nine AR200 air curtains. Each AR200 requires an external PC board SIREB1XA.




High performance

Frico air curtains are developed and manufactured in Sweden. The air curtains are tested in one of the most modern and advanced air and sound laboratories in Europe which means that we can guarantee a high performance product.

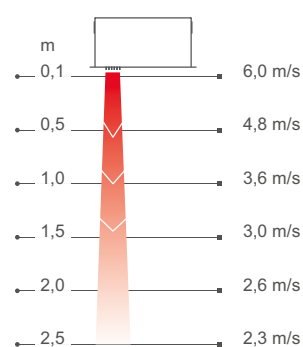
AR200



Available in 3 versions:

-  Ambient (without heat)
-  Electrical heating
-  Water heating

Air velocity profile




Measurements according to ISO 27327-1. Average values for products in the series.

 Ambient, no heat - AR200 A (IP20)

Voltage motor: 230V~

Item number	Type	Output [kW]	Airflow* ¹ [m ³ /h]	Sound power* ² [dB(A)]	Sound pressure* ³ [dB(A)]	Amperage [A]	Length [mm]	Weight [kg]
3261	AR210A	0	650/1200	66	34/50	0,5	1042	18
3262	AR215A	0	950/1750	66	34/50	0,6	1552	25
3260	AR220A	0	1300/2400	70	40/54	1,0	2042	36

 Electrical heat - AR200 E (IP20)

Item number	Type	Output steps 400V3N~ [kW]	Output steps 230V~ [kW]	Airflow* ¹ [m ³ /h]	Δt * ⁴ [°C]	Sound power* ² [dB(A)]	Sound pressure* ³ [dB(A)]	Voltage [V]	Amperage 400V3N~ [A]	Amperage 230V~ [A]	Length [mm]	Weight [kg]
3263	AR210E09	3	-	650/1200	13/7	66	34/50	400V3N~	4,3	-	1042	23
		6/9	-	650/1200	41/22	66	34/50	400V3N~	13	-	1042	23
		-	3	650/1200	13/7	66	34/50	230V~	-	13	1042	23
		-	3/5	650/1200	23/12	66	34/50	230V~	-	22	1042	23
3264	AR215E11	4,5	-	950/1750	14/8	66	34/50	400V3N~	6,5	-	1552	32
		6,8/11,3	-	950/1750	35/20	66	34/50	400V3N~	16	-	1552	32
		-	4,5	950/1750	14/8	66	34/50	230V~	-	20	1552	32
		-	4,5/6,8	950/1750	21/12	66	34/50	230V~	-	30	1552	32
3265	AR220E18	6	-	1300/2400	13/7	70	40/54	400V3N~	8,7	-	2042	44
		12/18	-	1300/2400	41/22	70	40/54	400V3N~	26	-	2042	44
		-	6	1300/2400	13/7	70	40/54	230V~	-	26	2042	44
		-	6/10	1300/2400	23/12	70	40/54	230V~	-	43	2042	44

 Water heat - AR200 W (IP20)

Item number	Type	Output* ⁵ [kW]	Airflow* ¹ [m ³ /h]	Δt * ^{4,5} [°C]	Water volume [l]	Sound power* ² [dB(A)]	Sound pressure* ³ [dB(A)]	Amperage [A]	Length [mm]	Weight [kg]
2435	AR210W	6,6	700/1000	24/21	0,5	64	41/49	0,4	1042	21
2436	AR215W	10	1000/1600	24/20	0,9	66	37/50	0,6	1552	39
2437	AR220W	13	1400/2000	32/20	1,1	69	44/53	1,0	2042	42

*¹) Lowest/highest airflow of totally 3 fan steps.

*²) Sound power (L_{WA}) measurements according to ISO 27327-2: 2014, Installation type E.

*³) Sound pressure (L_{pA}). Conditions: Distance to the unit 5 metres. Directional factor: 2. Equivalent absorption area: 200 m². At lowest/highest airflow.

*⁴) Δt = temperature rise of passing air at maximum heat output and lowest/highest airflow.

*⁵) Applicable at water temperature 80/60 °C, air temperature, in +18 °C.

Approved for 220V/1ph/60Hz and 380V/3ph/60Hz. Product performance for 220V/1ph/60Hz and 380V/3ph/60Hz will differ from stated data. AR200E is delivered as 9 kW, 11 kW and 18 kW (400V3N~) models, but they are convertible to 230V~ and different outputs as shown in above table.

Manufactured in Sweden. Bottom plate in white lacquered aluminium. Colour: RAL 9016, NCS S 0500-N.
The bottom plate can easily be removed and painted in an optional colour. Non visible parts made of hot zinc plated steel panels.



Create the optimal solution to suit your specific needs

Select control system

Control system SIRE: There are three different levels with different functionality to choose from, Basic, Competent or Advanced.

Add valve system

Water heated units must be supplemented with a valve system.

Select mounting options

Add mounting accessories if needed.





Mounting

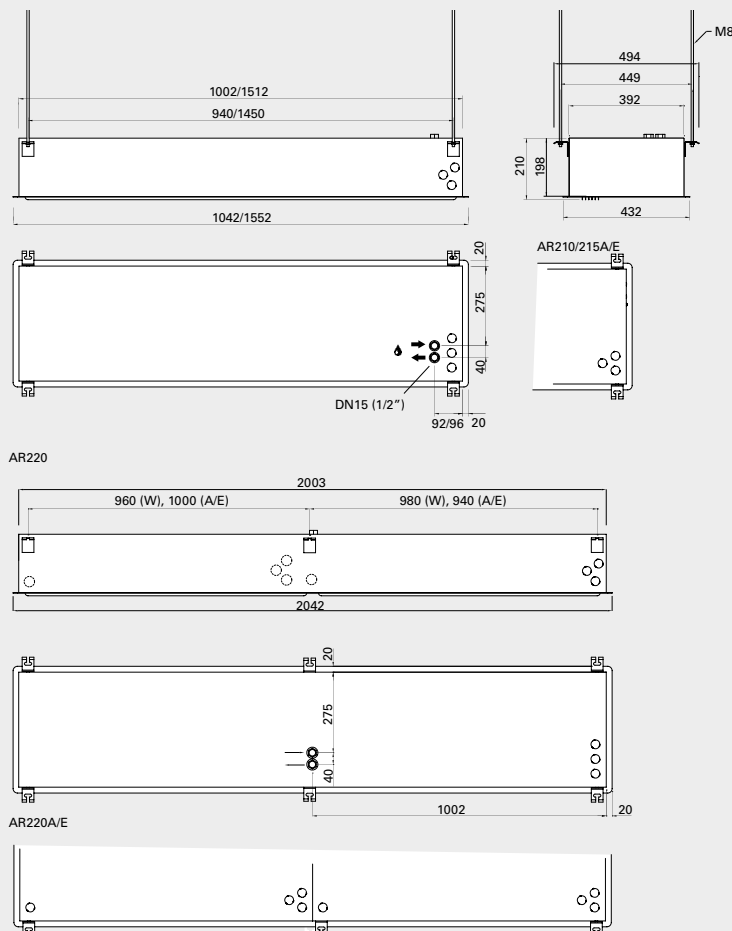
The recommended installation height of AR200 is 2,5 m. The air curtain is installed horizontally with the outlet air grille facing downwards as close to the door as possible, concealed in the false ceiling. The only visible part of the unit is the underside which is level with the ceiling. The bottom plate must be accessible, nothing should prevent it being fully opened. The unit is ready for suspension with threaded bars (accessory) on its outside, several units can be mounted in series alongside each other.

Connection

Service and maintenance are easily made through the service hatch at the bottom of the unit. The electrical connection is made on the side or on the top of the unit. Control (230V~) and power supply for heat (400V3~) should be connected to a terminal block in the terminal box. 2-metre and longer units require dual power supplies. The electrical heated units can be switched between different outputs and for 230V~/400V3~.

Water heated units are connected to the water system on top of the unit. Water heated units must always be supplemented with a valve kit mounted outside the unit. See Valves and Accessories.

🔧 DN15 (1/2"), inside thread



Minimum distance from outlet to floor for electrically heated units is 1800 mm.

AR200 is supplemented with SIRE control system. With SIRE control system, the air curtain will always perform at its best. You'll never have to think about switching it on or off. It even adapts to the season outside, and with calendar function the air curtain automatically runs during the hours it is needed. The SIRE control system is available in three different versions with different functionalities; Basic, Competent and Advanced. One SIRE can control up to nine AR200 air curtains. Each AR200 requires an external PC board SIREB1XA.

SIRE Basic

- Manual regulation of the fan and temperature
- Automatic control of fan speed and temperature via the integrated temperature sensor

SIRE Competent

- All functions for Basic
- Calendar function
- Filter alarm
- Simple BMS control - on/off, fan speed and alarm functions
- Flexible mode - for doors that open and close frequently
- Open mode - for doors that stay open

SIRE Advanced

- All functions for Competent
 - Eco mode - extra energy-efficient mode
 - Comfort mode - when comfort is important
 - Advanced BMS control - 0-10V, potential free contact or Modbus
 - Max limit of return water temperature.*
 - Proactive regulation – measures outdoor temperatures for proactive reaction.
- * Requires sensor SIREWTA



SIREBN + SIREB1XA

SIRE Basic

SIRE Basic gives simple control at a low cost. Manual or automatic control of heat and fan speed via the integrated temperature sensor. Control system SIRE Basic for AR200 is composed of control kit SIREBN and PC board SIREB1XA (ordered separately).



SIREACY/Z + SIREB1XA

SIRE Competent

By using the included door contact, SIRE Competent learns the needs of the entrance it is installed in, e.g. opening frequency. It has calendar function, service timer, and analogue BMS communication (0-10V fan speed, on/off, common alarm signal). Control system SIRE Competent for AR200 is composed of control kit SIREAC and PC board SIREB1XA (ordered separately).



SIREAAY/Z + SIREB1XA

SIRE Advanced

SIRE Advanced anticipates and learns the needs of the entrance it is installed in, based on opening frequency, outdoor and indoor temperature, etc... It allows communication with BMS systems, analogue or via Modbus/RTU. Because the fan speed is adapted, the sound level is optimized and is never higher than is necessary for comfort. With SIRE Advanced it is possible to choose between Eco and Comfort mode dependent on whether energy savings or optimal comfort has been prioritised. The return water temperature can be limited, thus ensuring that the available heat is exploited to the maximum. Control system SIRE Advanced for AR200 is composed of control kit SIREAA and PC board SIREB1XA (ordered separately).

Item number	Type	Used for	Consists of
33481	SIREBN	AR200A/E/W	1
33488/33489	SIREACY/SIREACZ*	AR200A/E/W	1
33490/33491	SIREAAY/SIREAAZ*	AR200A/E/W	1
74061	SIREB1XAE	AR200E	1
74062	SIREB1XAW	AR200A/W	1

*1) SIRExxxY communicates in Swedish, Norwegian, English, German, French, Spanish, Dutch, Italian, Danish and Finnish. SIRExxxZ communicates in Russian, Ukrainian, Polish, Czech, Slovak, Romanian, Hungarian, Turkish, Portuguese and English.

SIRe Basic*Content*

- SIReUB1, control unit with built in room temperature sensor. Wall unit cover included.
- SIReCC, modular cable, RJ12 (6p/6c), 5 m
- SIReBX1A, external PC-board (ordered separately)

SIRe Competent*Content*

- SIReUA1Y, control unit with built in room temperature sensor. Wall unit cover included.
- SIReC1XN, PC board HUB Competent
- FCDC, door contact
- SIReCC, modular cables, RJ12 (6p/6c), 3 m resp. 5 m
- SIReBX1A, external PC-board (ordered separately)

SIRe Advanced*Content*

- SIReUA1Y, control unit with built in room temperature sensor. Wall unit cover included.
- SIReA1XN, PC board HUB Advanced
- SIReOTX, outdoor temperature sensor
- FCDC, door contact
- SIReCC, modular cables, RJ12 (6p/6c), 3 m resp. 5 m
- SIReBX1A, external PC-board (ordered separately)

**SIReBX1A, external PC-board**

External PC-board for AR200 units to allow SIRe control.

**FCDC, door contact**

Indicates door status. Potential free, changeover contact.

**SIReRTX, external room temperature sensor**

Used to obtain a better measuring point in the premises when the control unit is located so that the internal room temperature sensor does not show a relevant value. 10 m. cable with modular connector RJ11 (4p/4c).

**SIReWTA, return water sensor**

Clamp-on sensor for return water temperature control. 3 m. cable with modular connector RJ11 (4p/4c). Should be mounted on the return pipe on the heating coil.

**SIReCJ4/SIReCJ6, joint piece**

Used to join two RJ11 (4p/4c) respectively RJ12 (6p/6c).

**SIReCC, modular cables**

Modular cables RJ11 (4p/4c) and RJ12 (6p/6c). Available in lengths of 3, 5, 10 and 15 m (RJ12 also in 40 m).

Item number	Type	Used for	Consists of
74061	SIReB1XAE	AR200E	1
74062	SIReB1XAW	AR200A/W	1
17495	FCDC	AR200A/E/W	1
17539	SIReRTX	AR200A/E/W	1
17613	SIReWTA	AR200W	1
17616	SIReCJ4	AR200A/E/W	1
17615	SIReCJ6	AR200A/E/W	1
17542	SIReCC603	AR200A/E/W	1 (3 m)

Item number	Type	Used for	Consists of
17543	SIReCC605	AR200A/E/W	1 (5 m)
17544	SIReCC610	AR200A/E/W	1 (10 m)
17545	SIReCC615	AR200A/E/W	1 (15 m)
17773	SIReCC640	AR200A/E/W	1 (40 m)
17546	SIReCC403	AR200A/E/W	1 (3 m)
17547	SIReCC405	AR200A/E/W	1 (5 m)
17548	SIReCC410	AR200A/E/W	1 (10 m)
17549	SIReCC415	AR200A/E/W	1 (15 m)

Water heated units must be supplemented with valves. The valve system controls the water flow and activates maximum heat only when needed. By activating the built-in bypass feature, a small leakage flow is let through to make sure there is always hot water in the heating coil, providing frost protection and faster heating.



Used with SIRE Basic and Competent.

VLSP, pressure independent valve system on/off

Two way pressure independent control and adjustment valve with on/off actuator, shut-off valve and bypass. DN15/20/25/32. 230V.

VOT, three way control valve and actuator on/off

3-way control valve with on/off actuator, DN15/20/25. 230V.

The valve kit consists of the following:

TRVS, 3-way control valve

SD230, actuator on/off 230V

Item number	Type	Dimension valves	Flow range l/s
79379	VLSP15LF	DN15	0,012 - 0,068
79380	VLSP15NF	DN15	0,024 - 0,13
79381	VLSP20	DN20	0,058 - 0,32
79382	VLSP25	DN25	0,10 - 0,60
79417	VLSP32	DN32	0,22 - 1,03
19031	VOT15	DN15	
19032	VOT20	DN20	
19033	VOT25	DN25	



Used with SIRE Advanced.

VLP, pressure independent and modulating valve system

Two way pressure independent control and adjustment valve with modulating actuator and shut-off valve. DN15/20/25/32. 24V.

VMT, three way control valve and modulating actuator

3-way control valve with modulating actuator. DN15/20/25. 24V.

The valve kit consists of the following:

TRVS, 3-way control valve

SDM24, modulating actuator 24V

ST23024, 24V transformer for 1-7 actuators

Item number	Type	Dimension valves	Flow range l/s
79375	VLP15LF	DN15	0,012 - 0,068
79376	VLP15NF	DN15	0,024 - 0,13
79377	VLP20	DN20	0,058 - 0,32
79378	VLP25	DN25	0,10 - 0,60
19034	VMT15	DN15	
19035	VMT20	DN20	
19036	VMT25	DN25	

AR200

Accessories - mounting

PA34TR, threaded bars

Threaded bars for installing unit on to a ceiling. Length 1 m. Used together with ceiling brackets (PA34CB). Supplemented with vibration dampers (PA34VD) for reduced vibration.



PA34CB, ceiling brackets

Ceiling brackets for installing the unit from the ceiling using wires or threaded bars (not included). Best combined with vibration dampers (PA34VD) when using threaded bars.



PA34VD, vibration dampers

Reduces vibrations for ceiling installations with threaded bars.

Item number	Type	Used for	Consists of
18056	PA34TR15	AR210/AR215	4
18057	PA34TR20	AR220	6
18059	PA34CB15	AR210/AR215	4
18060	PA34CB20	AR220	6
18065	PA34VD15	AR210/AR215	4
18066	PA34VD20	AR220	6