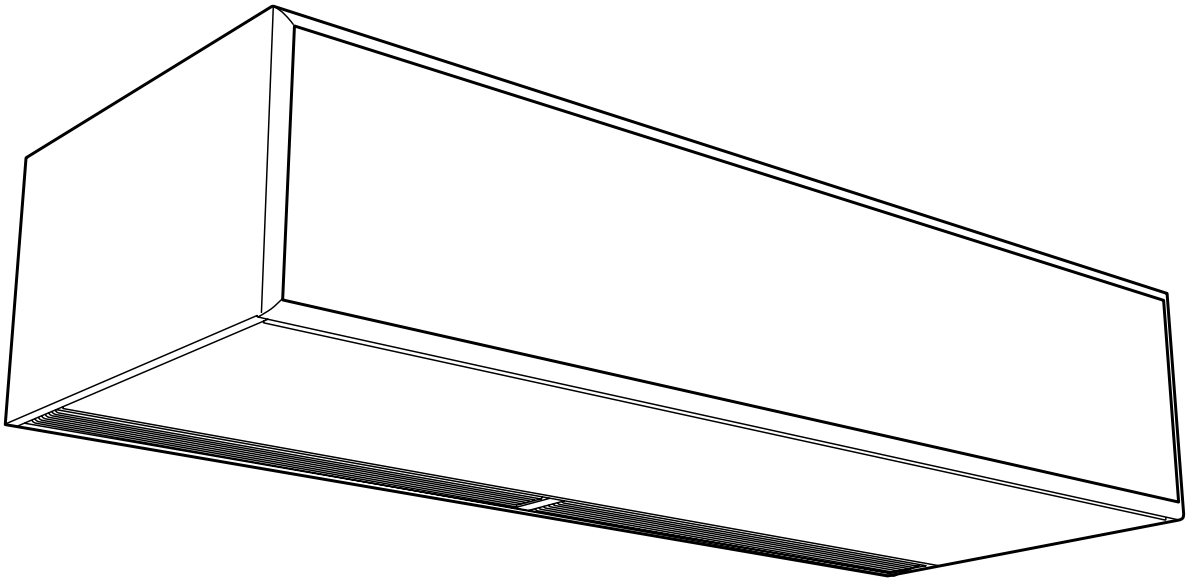
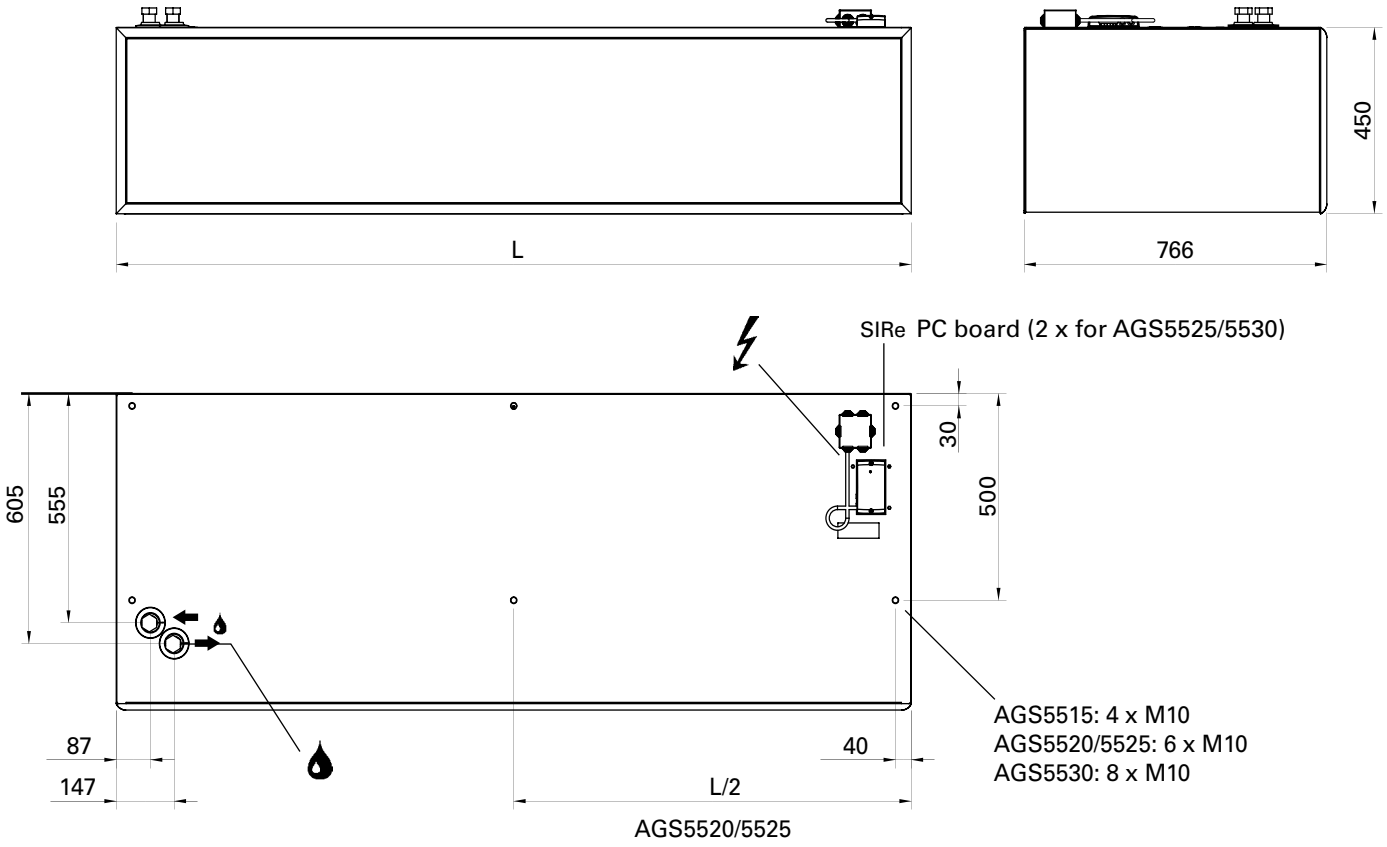
Original instructions

AGS5500



GB

The introduction pages consist mainly of pictures. For translation of the English texts used, see the respective language pages.



	L [mm]
AGS5515	1515
AGS5520	2010
AGS5525	2520
AGS5530	3030

Inside thread

	WL	WH
AGS5515	DN25 (1")	DN20 (3/4")
AGS5520	DN32 (1 1/4")	DN25 (1")
AGS5525	DN32 (1 1/4")	DN32 (1 1/4")
AGS5530	DN40 (1 1/2")	DN32 (1 1/4")

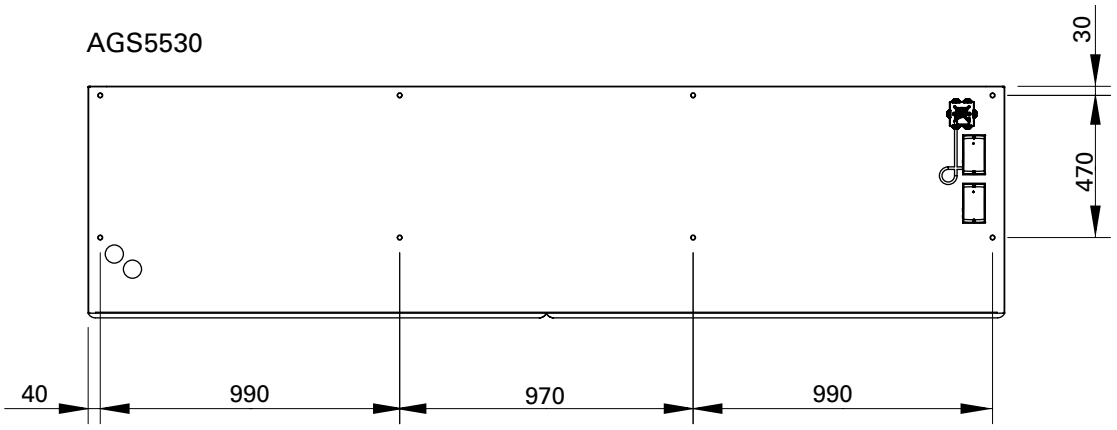


Fig.1. Dimensions

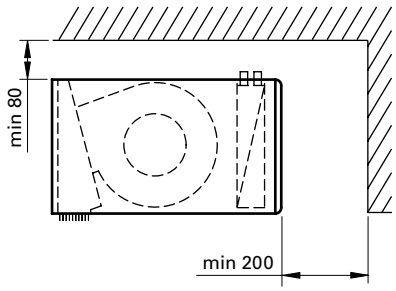


Fig. 2. Minimum distance

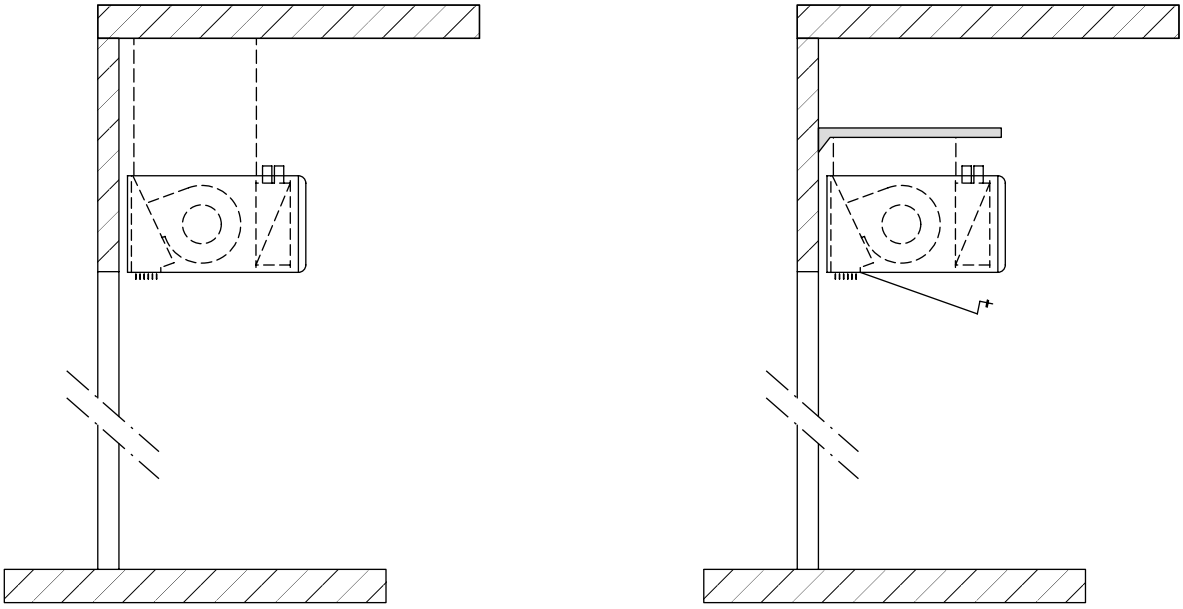


Fig. 3. Installation alternatives

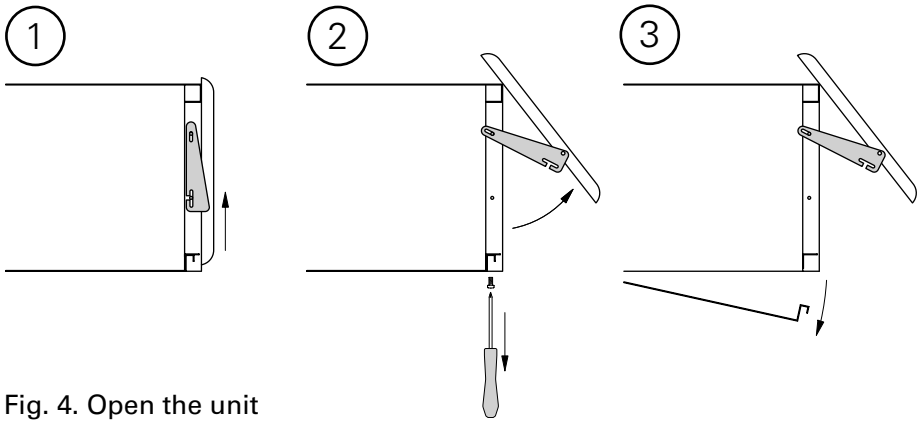
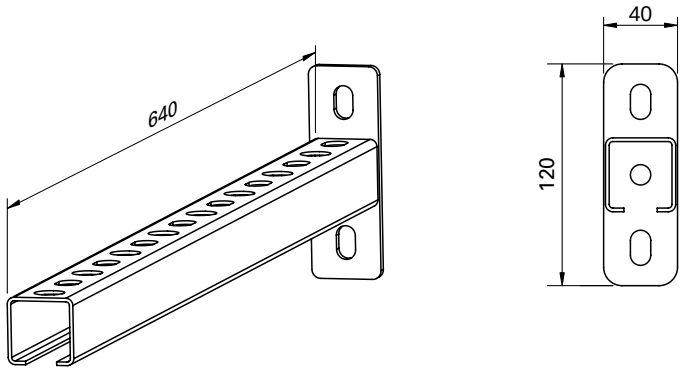


Fig. 4. Open the unit

AGS5500 + GWB640



Type	Wall bracket GWB640
AGS5515	2 pcs
AGS5520	3 pcs
AGS5525	3 pcs
AGS5530	4 pcs

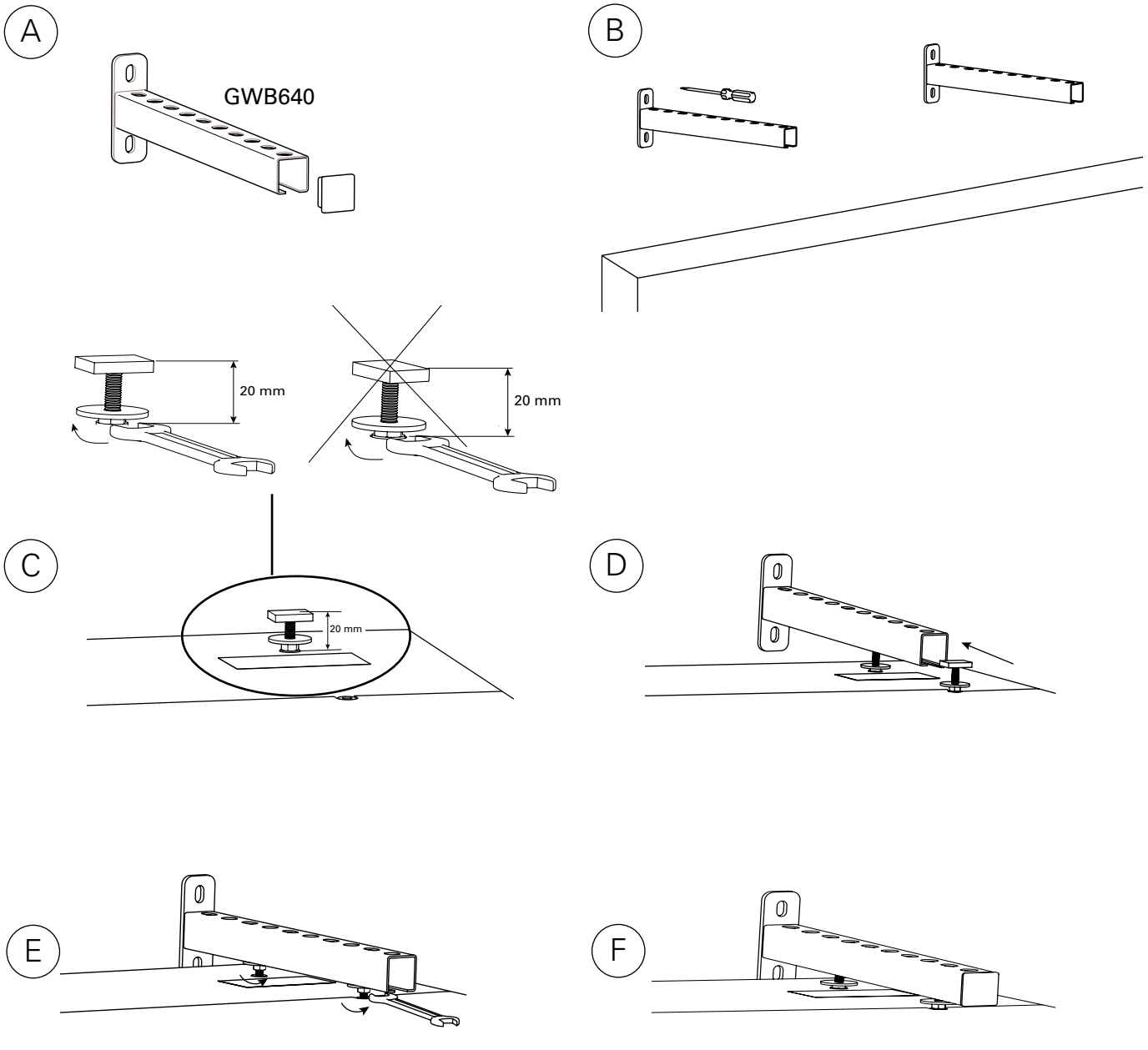
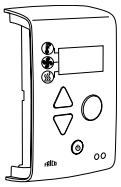


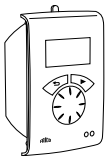
Fig. 5. Mounting bracket GWB640

SIRe

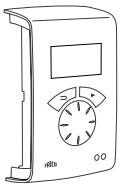
SIReBN	
SIReAC	
SIReAA	
SIReRTX	70x33x23 mm
SIReUR	114x70x50 mm
SIReWTA	
SIReCJ4	
SIReCJ6	
SIReCC603	3 m
SIReCC605	5 m
SIReCC610	10 m
SIReCC615	15 m
SIReCC640	40 m
SIReCC403	3 m
SIReCC405	5 m
SIReCC410	10 m
SIReCC415	15



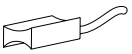
SIReB



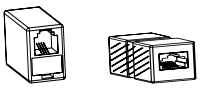
SIReUR



SIReAC/SIReAA



SIReWTA

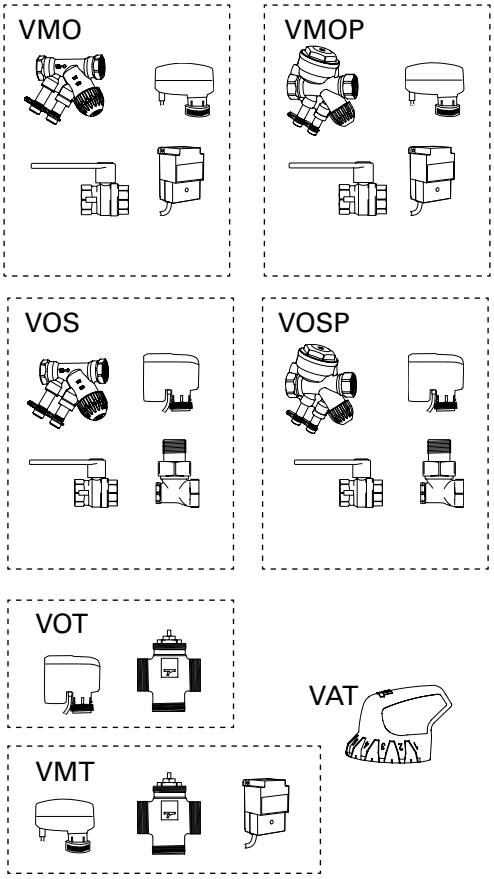


SIReCJ4/SIReCJ6

SIReRTX

SIReCC

VMO20	DN20
VMO25	DN25
VMOP20	DN20
VMOP25	DN25
VOS20	DN20
VOS25	DN25
VOSP20	DN20
VOSP25	DN25
VOT20	DN20
VOT25	DN25
VMT20	DN20
VMT25	DN25
VAT	



Output charts water AGS5500WH

			Supply water temperature: 110 °C Room temperature: +18 °C Outlet air temperature: +35 °C*1				Water temperature: 110/80 °C Room temperature: +18 °C			
Type	**Fan position**	**Airflow [m³/h]**	**Output [kW]**	**Return water temp. [°C]**	**Water flow [l/s]**	**Pressure drop [kPA]**	**Output*2 [kW]**	**Outlet air temp. [°C]**	**Water flow [l/s]**	**Pressure drop [kPA]**
AGS5515WH	max	5500	32	47	0,13	1,2	51	45	0,42	10,9
	min	2500	14	34	0,05	0,2	31	55	0,26	4,4
AGS5520WH	max	8250	48	42	0,17	0,8	85	48	0,70	10,7
	min	3750	22	32	0,07	0,1	52	59	0,43	4,2
AGS5525WH	max	11000	62	42	0,22	0,7	111	48	0,92	10,0
	min	5000	29	33	0,09	0,1	68	58	0,56	3,9
AGS5530WH	max	13750	80	47	0,31	1,0	138	48	1,14	10,6
	min	6250	36	37	0,12	0,2	87	59	0,72	4,5

			Supply water temperature: 90 °C Room temperature: +18 °C Outlet air temperature: +35 °C*1				Water temperature: 90/70 °C Room temperature: +18 °C			
Type	**Fan position**	**Airflow [m³/h]**	**Output [kW]**	**Return water temp. [°C]**	**Water flow [l/s]**	**Pressure drop [kPA]**	**Output*2 [kW]**	**Outlet air temp. [°C]**	**Water flow [l/s]**	**Pressure drop [kPA]**
AGS5515WH	max	5500	32	52	0,20	2,9	41	40	0,51	16,1
	min	2500	15	39	0,07	0,4	26	48	0,31	6,5
AGS5520WH	max	8250	48	47	0,28	1,9	69	43	0,85	15,8
	min	3750	22	36	0,10	0,3	42	51	0,52	6,1
AGS5525WH	max	11000	63	47	0,36	1,7	90	42	1,11	14,7
	min	5000	29	36	0,13	0,3	55	51	0,68	5,7
AGS5530WH	max	13750	77	50	0,47	2,2	113	42	1,38	15,8
	min	6250	36	40	0,18	0,4	71	51	0,87	6,7

			Supply water temperature: 80 °C Room temperature: +18 °C Outlet air temperature: +35 °C*1				Water temperature: 80/60 °C Room temperature: +18 °C			
Type	**Fan position**	**Airflow [m³/h]**	**Output [kW]**	**Return water temp. [°C]**	**Water flow [l/s]**	**Pressure drop [kPA]**	**Output*2 [kW]**	**Outlet air temp. [°C]**	**Water flow [l/s]**	**Pressure drop [kPA]**
AGS5515WH	max	5500	33	58	0,35	8,3	34	36	0,41	11,2
	min	2500	14	40	0,09	0,6	21	43	0,26	4,5
AGS5520WH	max	8250	48	50	0,39	3,7	57	38	0,70	10,9
	min	3750	22	38	0,13	0,5	35	45	0,42	4,3
AGS5525WH	max	11000	62	50	0,51	3,3	74	38	0,91	10,1
	min	5000	29	38	0,17	0,4	46	45	0,56	4,0
AGS5530WH	max	13750	81	54	0,75	5,3	92	38	1,12	11,0
	min	6250	35	40	0,22	0,6	58	45	0,70	4,7

			Supply water temperature: 82 °C Room temperature: +18 °C Outlet air temperature: +35 °C*1				Water temperature: 82/71 °C Room temperature: +18 °C			
Type	**Fan position**	**Airflow [m³/h]**	**Output [kW]**	**Return water temp. [°C]**	**Water flow [l/s]**	**Pressure drop [kPA]**	**Output*2 [kW]**	**Outlet air temp. [°C]**	**Water flow [l/s]**	**Pressure drop [kPA]**
AGS5515WH	max	5500	31	54	0,27	5,1	40	39	0,89	47,9
	min	2500	14	40	0,08	0,6	25	47	0,55	19,0
AGS5520WH	max	8250	48	50	0,37	3,3	67	42	1,49	47,6
	min	3750	22	37	0,12	0,4	41	50	0,91	18,2
AGS5525WH	max	11000	63	50	0,48	3,0	88	42	1,96	44,8
	min	5000	29	38	0,16	0,4	54	50	1,19	17,1
AGS5530WH	max	13750	79	52	0,64	4,0	111	42	2,47	47,1
	min	6250	36	40	0,21	0,5	70	51	1,55	19,6

*1) Recommended outlet air temperature for good comfort and optimized output.
*2) Nominal output at given supply and return water temperature.

Output charts water AGS5500 WL

			Supply water temperature: 80 °C Room temperature: +18 °C Outlet air temperature: +35 °C*1				Water temperature: 80/60 °C Room temperature: +18 °C			
Type	**Fan position**	**Airflow [m³/h]**	**Output [kW]**	**Return water temp. [°C]**	**Water flow [l/s]**	**Pressure drop [kPA]**	**Output*2 [kW]**	**Outlet air temp. [°C]**	**Water flow [l/s]**	**Pressure drop [kPA]**
AGS5515WL	max	5500	31	40	0,19	1,3	47	43	0,58	9,8
	min	2500	14	33	0,07	0,2	28	51	0,35	3,7
AGS5520WL	max	8250	49	34	0,26	2,4	78	46	0,95	27,3
	min	3750	21	26	0,09	0,4	47	55	0,57	10,4
AGS5525WL	max	11000	64	34	0,34	4,4	100	45	1,22	49,1
	min	5000	29	26	0,13	0,8	61	54	0,74	18,7
AGS5530WL	max	13750	78	36	0,44	4,9	124	45	1,51	43,2
	min	6250	35	29	0,17	0,9	73	52	0,89	16,6

			Supply water temperature: 70 °C Room temperature: +18 °C Outlet air temperature: +35 °C*1				Water temperature: 70/50 °C Room temperature: +18 °C			
Type	**Fan position**	**Airflow [m³/h]**	**Output [kW]**	**Return water temp. [°C]**	**Water flow [l/s]**	**Pressure drop [kPA]**	**Output*2 [kW]**	**Outlet air temp. [°C]**	**Water flow [l/s]**	**Pressure drop [kPA]**
AGS5515WL	max	5500	32	44	0,30	2,9	37	38	0,45	6,2
	min	2500	14	35	0,10	0,4	22	44	0,27	2,4
AGS5520WL	max	8250	48	38	0,36	4,5	62	40	0,75	17,7
	min	3750	22	28	0,13	0,7	37	47	0,46	6,8
AGS5525WL	max	11000	63	38	0,47	8,2	80	39	0,97	31,8
	min	5000	29	28	0,17	1,3	49	47	0,59	12,3
AGS5530WL	max	13750	81	41	0,67	10,6	98	39	1,19	28,9
	min	6250	36	32	0,23	1,6	58	45	0,70	11,2

			Supply water temperature: 60 °C Room temperature: +18 °C Outlet air temperature: +35 °C*1				Water temperature: 60/40 °C Room temperature: +18 °C			
Type	**Fan position**	**Airflow [m³/h]**	**Output [kW]**	**Return water temp. [°C]**	**Water flow [l/s]**	**Pressure drop [kPA]**	**Output*2 [kW]**	**Outlet air temp. [°C]**	**Water flow [l/s]**	**Pressure drop [kPA]**
AGS5515WL	max	5500	33	48	0,63	11,9	27	32	0,32	3,4
	min	2500	15	37	0,16	0,9	16	37	0,19	1,3
AGS5520WL	max	8250	48	42	0,67	14,4	46	34	0,55	10,1
	min	3750	21	31	0,18	1,2	28	40	0,34	4,0
AGS5525WL	max	11000	65	45	1,06	38,2	59	34	0,72	18,1
	min	5000	30	32	0,26	2,7	36	39	0,44	7,2
AGS5530WL	max	13750	81	45	1,30	35,0	71	33	0,87	17,0
	min	6250	36	35	0,35	3,4	42	38	0,51	6,7

			Supply water temperature: 55 °C Room temperature: +18 °C Outlet air temperature: +35 °C*1				Water temperature: 55/35 °C Room temperature: +18 °C			
Type	**Fan position**	**Airflow [m³/h]**	**Output [kW]**	**Return water temp. [°C]**	**Water flow [l/s]**	**Pressure drop [kPA]**	**Output*2 [kW]**	**Outlet air temp. [°C]**	**Water flow [l/s]**	**Pressure drop [kPA]**
AGS5515WL	max	5500	32	48	1,14	37,4	21	29	0,26	2,2
	min	2500	14	38	0,21	1,5	13	33	0,15	0,9
AGS5520WL	max	8250	49	46	1,31	52,4	37	31	0,45	7,0
	min	3750	21	32	0,23	2,0	23	36	0,28	2,8
AGS5525WL	max	11000	62	46	1,68	94,3	49	31	0,59	12,6
	min	5000	29	34	0,33	4,2	30	36	0,36	5,1
AGS5530WL	max	13750	78	46	2,10	83,9	58	30	0,70	12,0
	min	6250	37	37	0,49	6,4	34	34	0,42	4,8

*1) Recommended outlet air temperature for good comfort and optimized output.
*2) Nominal output at given supply and return water temperature.

Technical specifications

AGS5500 A without heat

Type	Output [kW]	Airflow*1 [m³/h]	Sound level*2 [dB(A)]	Voltage motor [V]	Amperage motor [A]	Length [mm]	Weight [kg]
AGS5515A	0	2500/5800	51/70	230V~	8,1	1515	109
AGS5520A	0	3750/8700	52/72	230V~	12,1	2010	144
AGS5525A	0	5000/11600	53/73	230V~	16,2	2520	183
AGS5530A	0	6250/14500	55/74	230V~	20,3	3030	218

AGS5500 WH with water heat, coil for high temperature water ≥ 80/60 °C

Type	Output*4 [kW]	Airflow*1 [m³/h]	Δt*3,4 [°C]	Water volume [l]	Sound level*2 [dB(A)]	Voltage motor [V]	Amperage motor [A]	Length [mm]	Weight [kg]
AGS5515WH	34	2500/5500	25/18	3,8	50/70	230V~	7,7	1515	129
AGS5520WH	57	3750/8250	27/20	4,9	51/71	230V~	11,6	2010	169
AGS5525WH	74	5000/11000	27/20	6,4	52/72	230V~	15,4	2520	213
AGS5530WH	92	6250/13750	27/20	7,6	54/74	230V~	19,3	3030	258

AGS5500 WL with water heat, coil for low temperature water < 80/60 °C

Type	Output*5 [kW]	Airflow*1 [m³/h]	Δt*3,5 [°C]	Water volume [l]	Sound level*2 [dB(A)]	Voltage motor [V]	Amperage motor [A]	Length [mm]	Weight [kg]
AGS5515WL	26	2500/5500	19/14	4,0	50/70	230V~	7,7	1515	129
AGS5520WL	45	3750/8250	22/16	8,1	51/71	230V~	11,6	2010	169
AGS5525WL	59	5000/11000	21/16	9,2	52/72	230V~	15,4	2520	213
AGS5530WL	71	6250/13750	20/15	11,0	54/74	230V~	19,3	3030	258

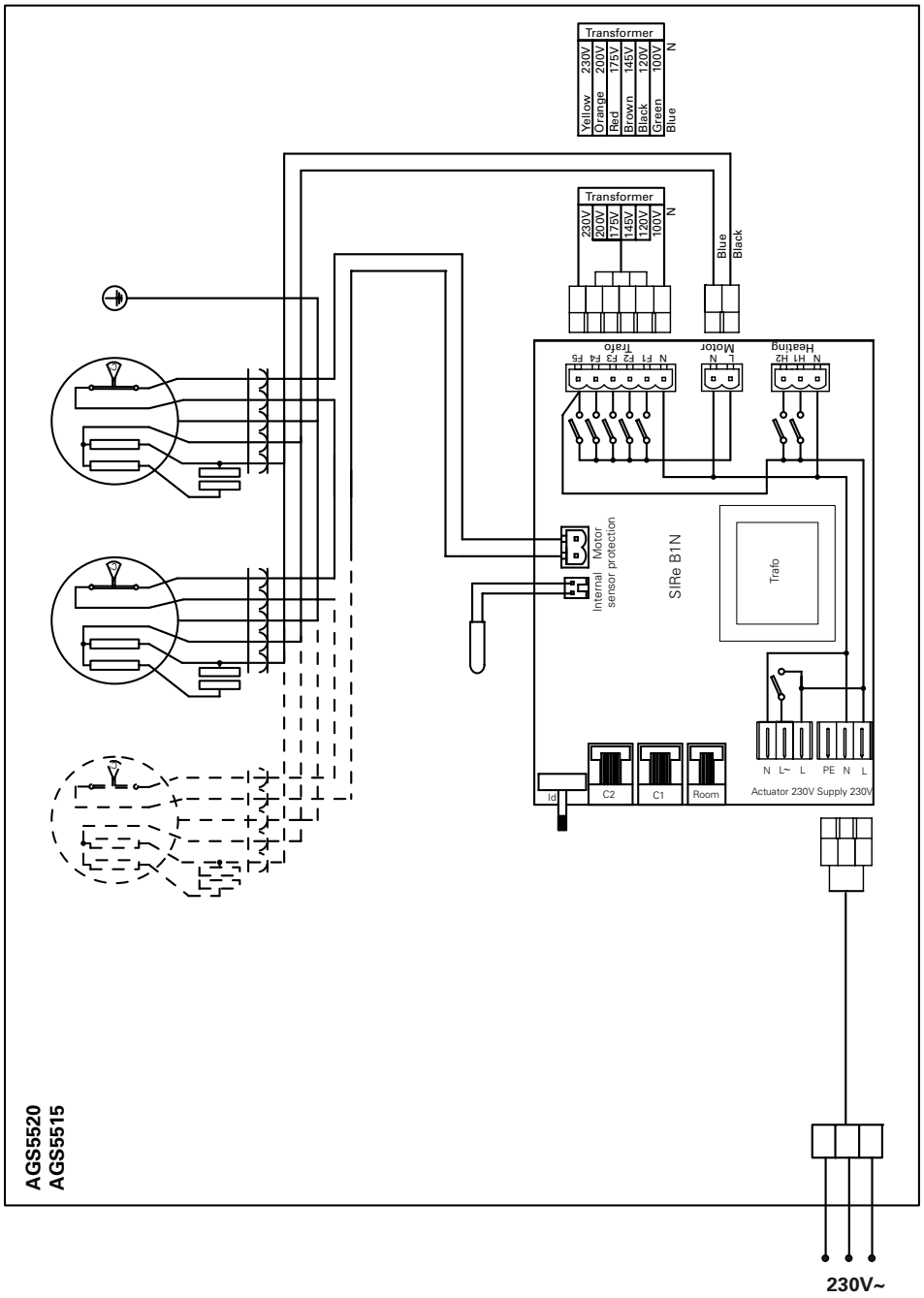
*1) Lowest/highest airflow of totally 5 fan steps.
*2) Conditions: Distance to the unit 5 metres. Directional factor: 2. Equivalent absorption area: 200 m². At lowest/highest airflow.
*3) Δt = temperature rise of passing air at maximum heat output and lowest/highest airflow.
*4) Applicable at water temperature 80/60 °C, air temperature, in +18 °C.
*5) Applicable at water temperature 60/40 °C, air temperature, in +18 °C.

See www.frico.se for additional calculations.

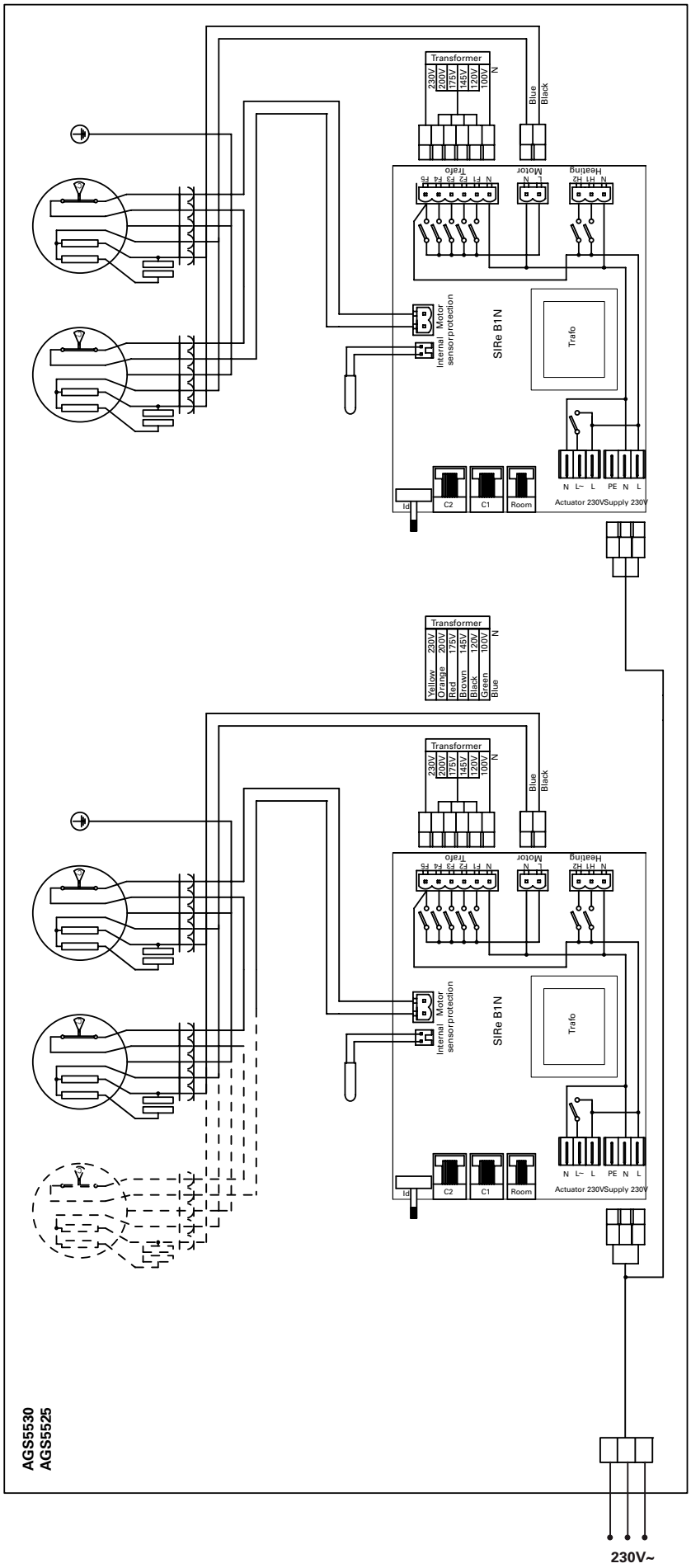
Protection class: IP24.

CE compliant.

AGS5515 / AGS5520

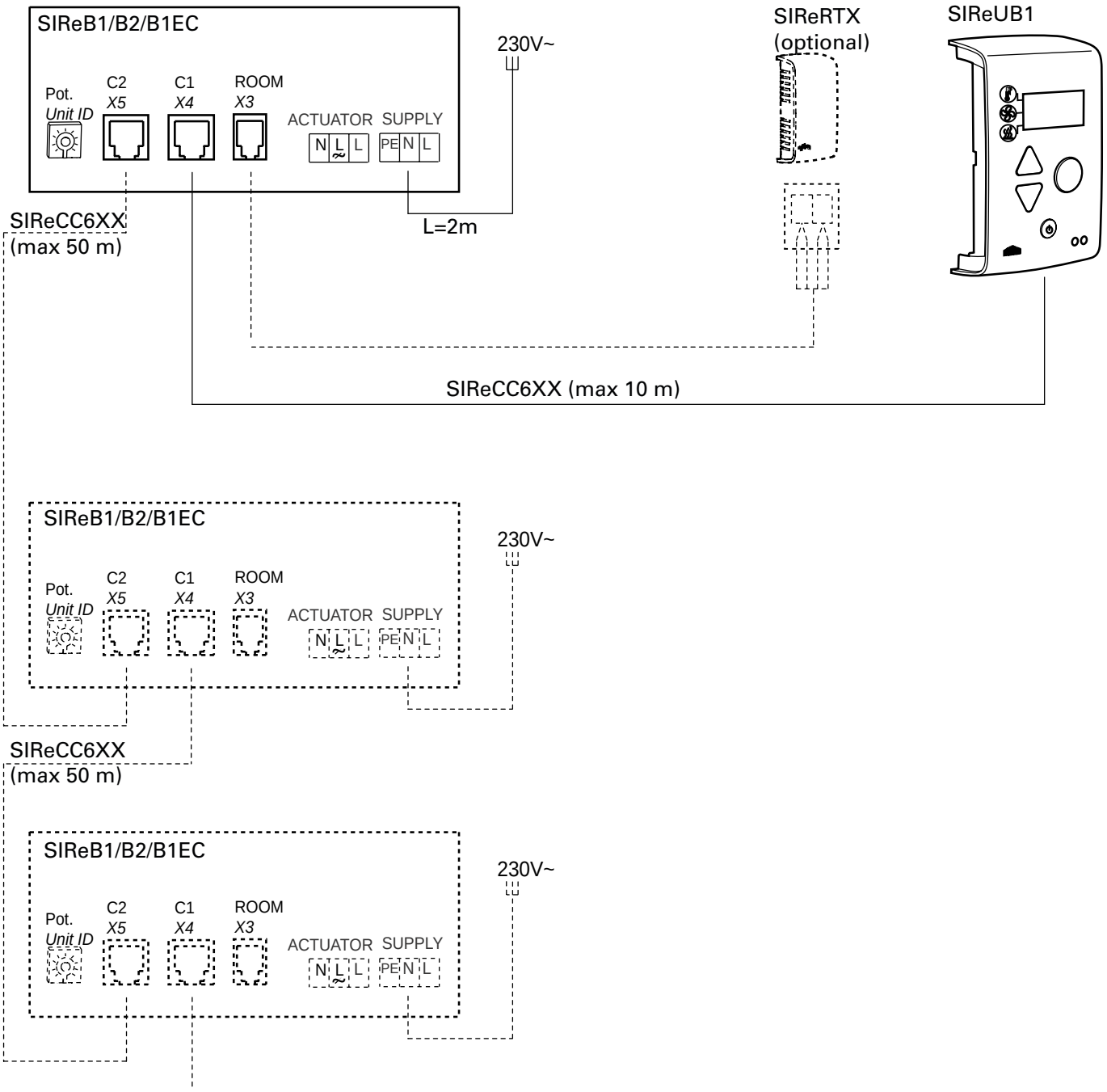


AGS5525 / AGS5530



SIReB Basic

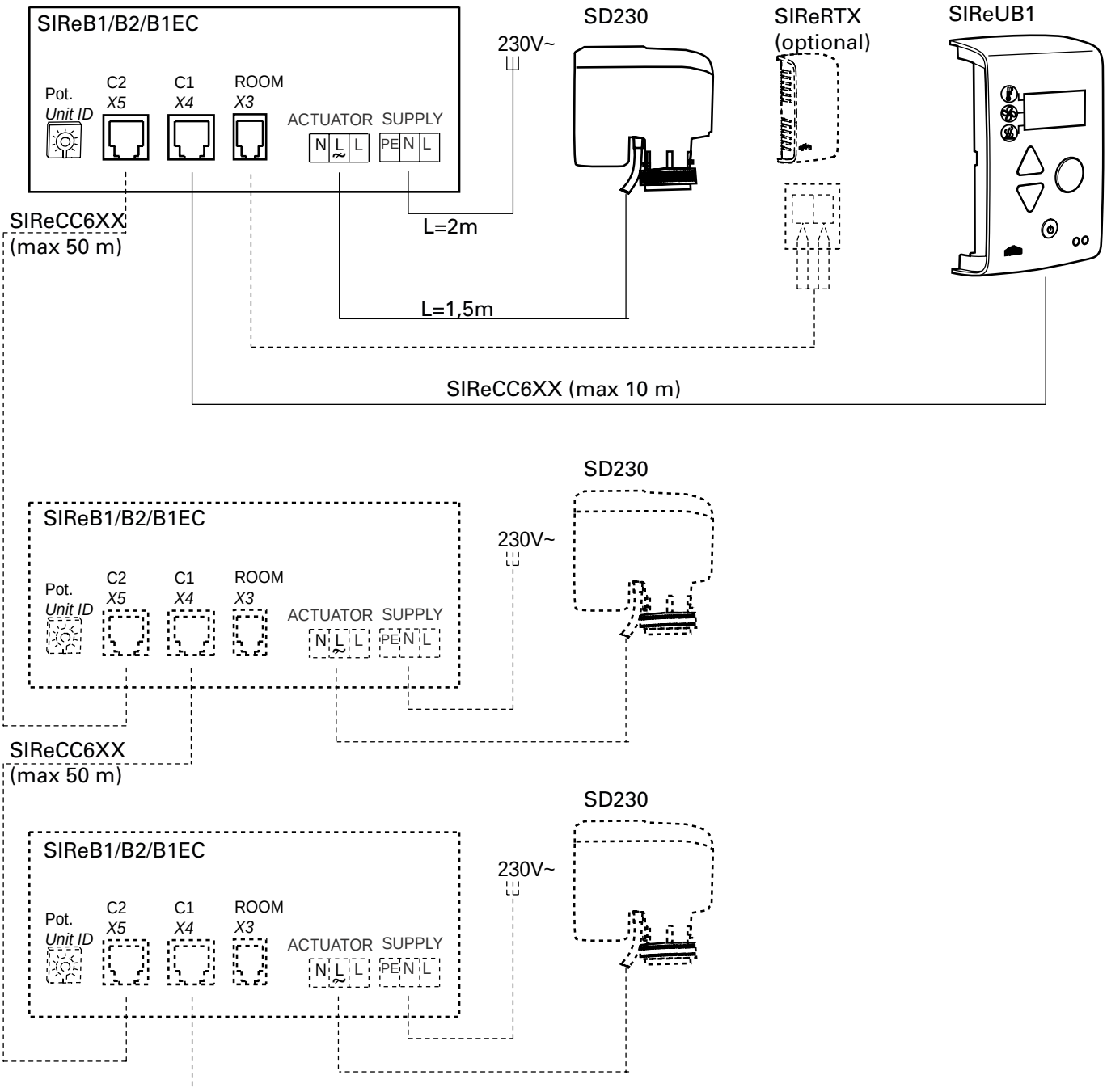
AGS5500A



Wiring diagrams for SIReAC Competent, see manual for SIRe.

SIReB Basic

AGS5500 W



Wiring diagrams for SIReAC Competent and SIReAA Advanced, see manuals for SIRe.

Assembly and operating instructions

General Instructions

Read these instructions carefully before installation and use. Keep this manual for future reference.
The product may only be used as set out in the assembly and operating instructions. The guarantee is only valid if the product is used in the manner intended and in accordance with the instructions.

Application area

The AGS5500 air curtain unit is supplied without heating or hot water heating. AGS5500 is intended for entrances and doors, with installation height up to 5,5 metres. Protection class: IP24.

Operation

Air is drawn in at the front side of the unit and blown out downwards towards the entrance so that it shields the door opening and minimizes heat loss.

To get the best curtain effect the unit must extend the full width of the door opening.

The grille nearest the door is adjustable and is normally angled outwards to achieve the best protection against incoming cold air.

The efficiency of the air curtain depends on the air temperature, pressure differences across the doorway and any wind pressure.

NOTE! Negative pressure in the building considerably reduces the efficiency of the air curtain. The ventilation should therefore be balanced.

Mounting

The air curtain is installed horizontally with the supply air grille facing downwards as close to the door as possible. For the protection of wider doorways, several units can be mounted next to each other. Ensure that the service hatch is accessible and can be fully opened.

The unit has 4 M10 fixed nuts on the upper side (6 on 2 and 2,5 meter models, 8 on 3 meter model) for ceiling installation using threaded bars, or for installation using wall brackets (accessories). See fig. 5.

Electrical installation

The installation, which should be preceded by an omnipolar switch with a contact separation of at least 3 mm, should only be wired by a competent electrician and in accordance with the latest edition of IEE wiring regulations.

The control system is pre-installed in the air curtain with an integrated control card. SIRe is supplied pre-programmed with quick-fit connections. Modular cables are connected to the control board. AGS5525/5530 have two SIRe-cards, one of them being slave connected. See manual for SIRe.

Operation (230V~) is connected to terminal block in the junction box on top of the unit. See wiring diagrams.

Connecting the water coil (W)

The installation must be carried out by an authorised installer.

The water coil has copper tubes with aluminium fins and is suitable for connection to a closed water heating system. The heating coil must not be connected to a mains pressure water system or an open water system.

Note that the unit shall be preceded by a regulating valve, see Frico valve kit.
The water coil is connected on the upper side of the unit via connections, see table fig. 1.

The connections to the heating coil must be equipped with shut off valves to allow problem free removal. Water coil is equipped with a drain valve. A vent valve should be connected at a high point in the pipe system.
Air valves are not included.

Adjustment of the air curtain and air flow

The direction and speed of the air flow should be adjusted considering the load on the opening. Pressure forces affect the air stream and make it bend inwards into the premises (when the premises are heated and the outdoor air is cold).

The air stream should therefore be directed outwards to withstand the load. Generally speaking, the higher the load, the greater the angle that is needed.

Basic setting fan speed
The fan speed when the door is open is set using the control. Note that the air flow direction and fan speed may need fine adjustment depending on the loading of the door.

Filter (W)
The distance between the coil plates in combination with the hole diameter of the intake grille protects against dirt and blockage. This normally makes a separate filter unnecessary.

Service, repairs and maintenance
For all service, repair and maintenance first carry out the following:
1. Disconnect the power supply.
2. The service hatch is opened by first opening the intake grille and then unscrew the screws in the underside of the unit, see fig. 4.

Maintenance
Since fan motors and other components are maintenance free, no maintenance other than cleaning is necessary. The level of cleaning can vary depending on local conditions. Undertake cleaning at least twice a year. Inlet and exhaust grilles, impeller and elements can be vacuum cleaned or wiped using a damp cloth. Use a brush when vacuuming to prevent damaging sensitive parts. Avoid the use of strong alkaline or acidic cleaning agents.

Overheating
All motors are equipped with an integral thermal safety cut-out. This will operate, stopping the air curtain should the motor temperature rise too high. The cut-out will automatically reset when the motor temperature has returned to within the motor's operating limits.

Temperature control
Temperature control of SIRe maintains the exhaust temperature. If the temperature should exceed anyway the overheating alarm goes off. For more information see the manual for SIRe.

Fan replacement
1. Determine which of the fans is not functioning.
2. Disconnect the cables to the relevant fan.
3. Remove the screws securing the fan and lift the fan out.
4. Install the new fan as above in reverse order.

Replacing the water coil (W)
1. Shut off the water supply to the unit.
2. Disconnect the connections to the water coil.
3. Remove the mounting screws securing the coil in the unit and lift the coil out.
4. Install the new coil in reverse order to the above.

Draining the water coil (W)
The drain valve is on the underside of the coil on the connector side. It can be accessed via the service hatch.

Trouble shooting

If the fans are not working or do not blow properly, check the following:
- That the intake grille/filter is not dirty.
- Functions and settings of the SIRe control system , see manual for SIRe.

If there is no heat, check the following:
- Functions and settings of the SIRe control system, see manual for SIRe.

For units with water coil, also check the following:
- That the water coil is air free.
- That there is enough water flow.
- That incoming water is heated enough.

If the fault cannot be rectified, please contact a qualified service technician.

Safety

- *Keep the areas around the air intake and exhaust grilles free from possible obstructions!*
- *The unit may have hot surfaces during operation and when cooling down!*
- *Lifting equipment must be used to lift the unit.*
- *This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.*

Art.no: 208148, 2015-10-19 HH/CH