



Water heat

5 models

CE

Fan heater SWH

Intelligent fan heaters with extremely low sound levels, for water connection

Application

SWH belongs to a new generation of intelligent fan heaters with SIRe integrated controls. SWH and SIRe together can provide fully automatic room heating, adaptable to each area of use.

SWH is suitable for use in premises where fan heaters are traditionally used, such as industrial buildings, as well as environments with low sound requirements.

Comfort

With its extremely low sound level SWH is Frico's quietest fan heater. With the integrated SIRe the fan is automatically controlled as required, which reduces the sound levels even further.

A simple and safe ventilation solution can be achieved using mixing cabinets which, thanks to SIRe, also have built-in frost protection.

Operation and economy

The SWH fan heater is energy efficient, with the integrated control the fan never uses more energy than is necessary. Eco mode is available for further energy savings.

The pre-programmed factory settings and calendar function make SWH and SIRe easy to install and use. SWH can be controlled and monitored by the BMS system.

Design

The SWH fan heater has an attractive design in white sheet steel to blend into both industrial and shop environments.

Product specifications

- Integrated control system SIRe.
- Very low sound level.
- Five fan speeds.
- Mounted on the wall or ceiling.
- Intended for water temperatures up to +125 °C and 10 bar in standard design.
- Supplied with air director with individually adjustable louvres that direct the air flow on one plane.
- Max. surrounding temperature +40 °C.
- Heating coil with aluminum fins and copper pipes. Smooth pipe connection, for soldering or clamping ring pipe connection.
- Wide range of controls and accessories, e.g. mixing cabinet that combines heating and ventilation, and a separate filter section.
- Corrosion proof housing made of hot zinc-plate and powder enameled steel panels. Colour: RAL 9016, NCS 0500 (white). Housing without lacquer or in other colours available on request. Aluminium louvres.



Thanks to the low sound level combined with powerful performance SWH is suitable for everything from warehousing to shops.



By turning the SWH, pipe connections are possible on both sides which makes it very easy to position. The air director, which has individually adjustable louvres directs the air flow as required.



Thanks to extremely silent operation and refined design, SWH can be used in conference rooms for example.

Fan heater SWH

Technical specifications | Fan heater SWH with water heat

Type	Heat output * ¹ [kW]	Air flow* ² [m ³ /h]	Air flow* ² [m ³ /s]	Sound level* ^{2,3} [dB(A)]	Δt* ^{1,4} [°C]
SWH02	12	530 - 1120	0,15 - 0,31	26 - 39	28
SWH12	20	840 - 1810	0,23 - 0,50	31 - 48	22
SWH22	33	1470 - 3260	0,41 - 0,91	29 - 55	23
SWH32	51	2870 - 5860	0,80 - 1,63	41 - 58	23
SWH33	66	2625 - 5420	0,73 - 1,51	41 - 58	31

Type	Air throw* ⁵ [m]	Water volume* ⁶ [l]	Voltage [V]	Amperage [A]	HxWxD [mm]	Weight [kg]
SWH02	4	1,3	230 V~	0,34	525x515x320	15
SWH12	8	1,5	230 V~	0,64	600x535x340	19
SWH22	10	2,7	230 V~	1,12	725x680x370	27
SWH32	12	3,8	230 V~	2,12	850x820x450	46
SWH33	11	5,2	230 V~	2,13	850x820x450	46

*¹) Applicable at water temperature 80/60 °C, air temperature, in +15 °C.

*²) Applies to fan position 1 – 4.

*³) Conditions: Distance to the unit 5 metres. Directional factor: 2. Equivalent absorption area: 200 m².

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

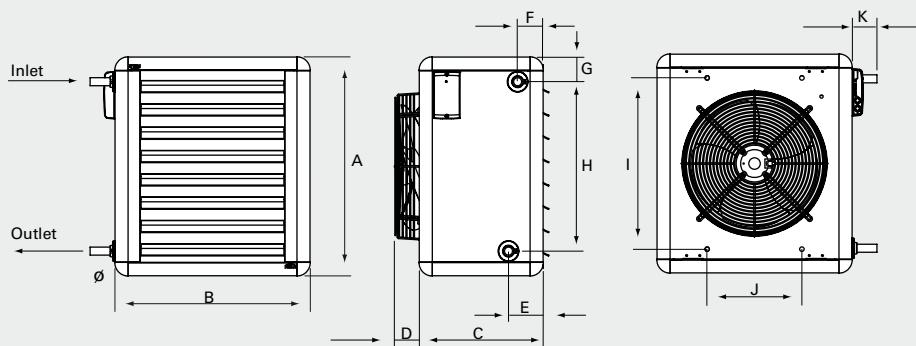
*⁵) The air throw data above is valid for highest airflow when the horizontally adjustable air director is used and the outlet temperature is +40 °C and the room temperature is +18 °C. The air throw is defined as the distance in a straight angle from the fan heater to the point where the air speed has dropped to 0,2 m/s.

*⁶) Water volume inside battery.

Protection class: IPX4.

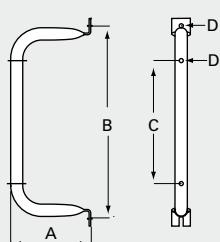
CE compliant.

Dimensions

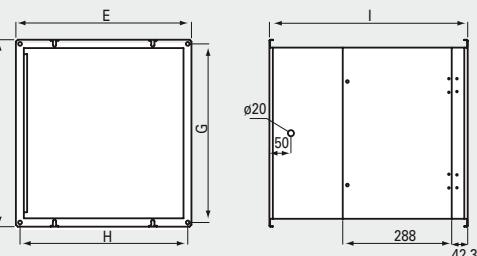


Type	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]	G [mm]	H [mm]	I [mm]	J [mm]	K [mm]	Ø [mm]
SWH02	525	515	320	40	95	70	70	390	405	260	70	22
SWH12	600	535	340	70	95	70	70	465	470	260	70	22
SWH22	725	680	370	50	100	70	70	585	580	400	75	28
SWH32/33	850	820	450	75	100	70	70	710	700	530	75	28

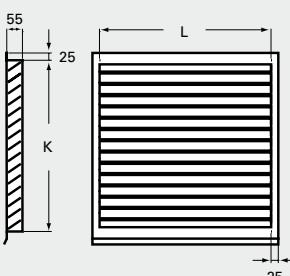
Mounting brackets, SWB



Filter section, SWF



Outer wall grille, SWY

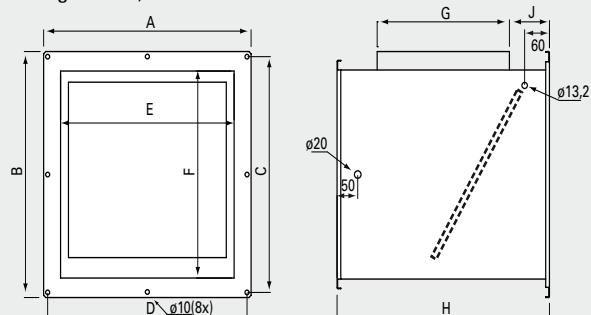


Type	A [mm]	B [mm]	C [mm]	D [mm]
SWB0	195	405	235	10
SWB1	195	470	300	10
SWB2	250	580	410	10
SWB3	335	700	530	10

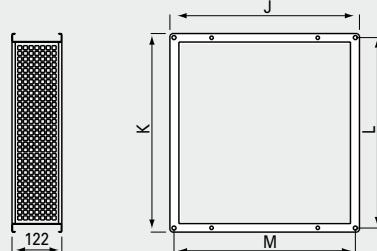
Type	E [mm]	F [mm]	G [mm]	H [mm]	I [mm]
SWF1	466	492	470	444	524
SWF2	616	602	580	594	524
SWF3	746	722	700	724	524

Type	K [mm]	L [mm]
SWY1	500	400
SWY2	600	600
SWY3	800	700

Mixing cabinet, SWBS



Return air intake, SWD

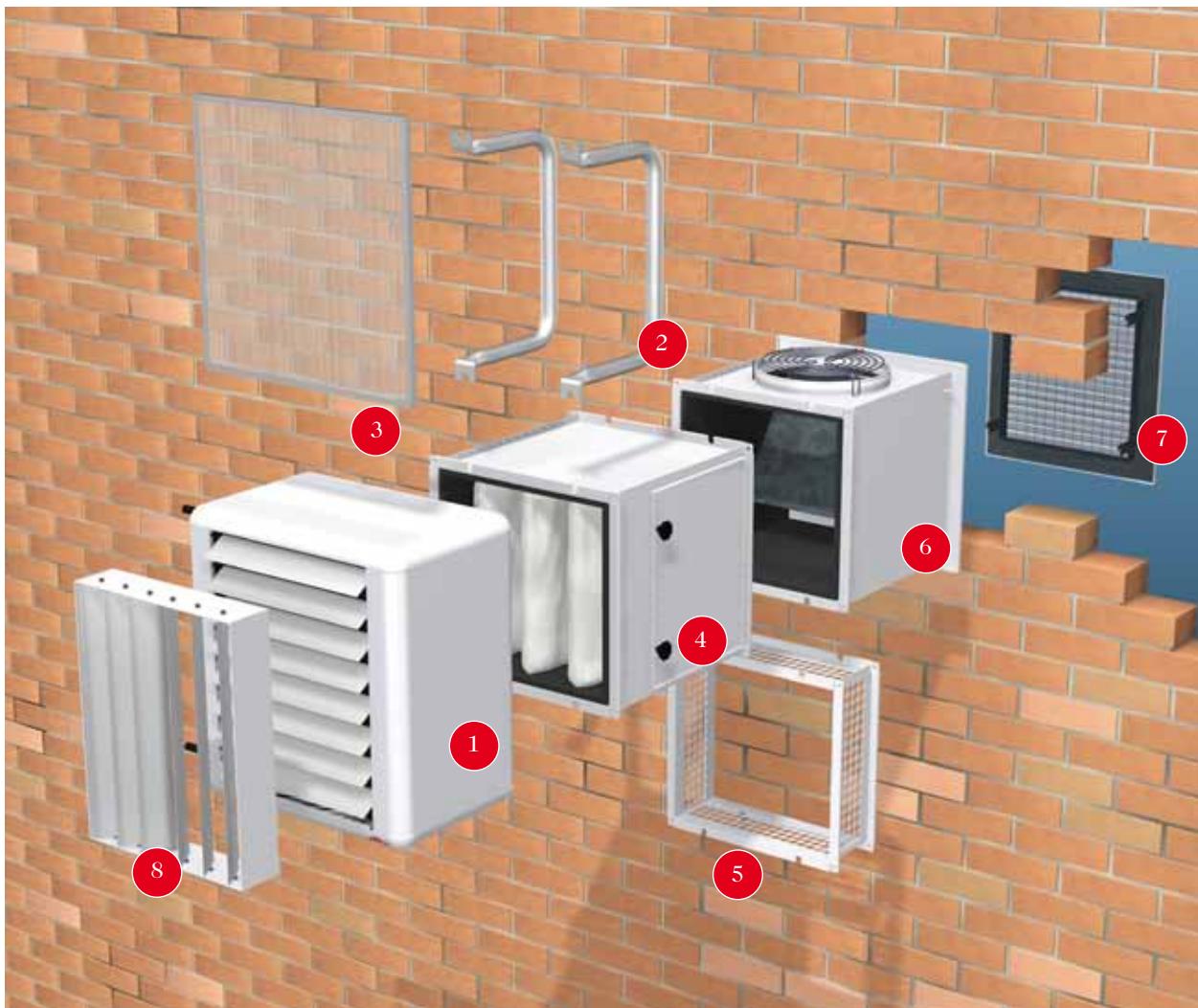


Type	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]	G (ø) [mm]	H [mm]	J [mm]
SWBS1	502	600	578	480	422	448	320	564	97
SWBS2	702	702	680	680	572	558	405	672	109
SWBS3	802	902	880	780	702	678	504	772	114

Type	J [mm]	K [mm]	L [mm]	M [mm]
SWD1	466	492	470	444
SWD2	616	602	580	594
SWD3	746	722	700	724

Fan heater SWH

Accessories



1) Fan heater SWH

2) Mounting brackets SWB

3) Basic filter SWFTN

4) Filter section SWF

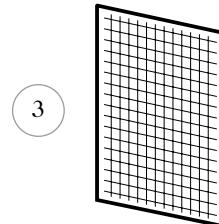
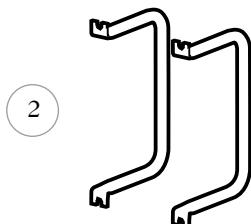
5) Return air intake SWD

6) Mixing cabinet SWBS

7) Outer wall grille SWY

8) Extra air director SWLR

Accessories SWH02-33



SWB, mounting brackets

When not using the filter section or mixing cabinet the main unit is suspended from the wall or ceiling using brackets SWB (fig 2). Brackets are extra and supplied as a pair.

SWFTN, basic filter

Used as an alternative to the filter section. Provides the heating coil with basic protection. The filter is easily fitted into the SW unit and can be cleaned from either the top or bottom. The SWH unit has a re-usable filter (fig 3).

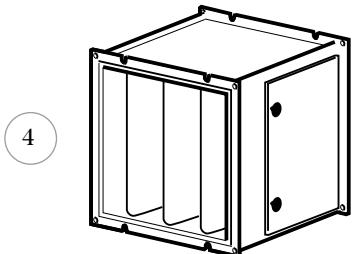
Accessories SWH12-33**SWF, filter section**

Fig. 4. Filters the outdoor air or/and return air from particles that might reduce the performance and reliability of SWH. The disposable deep-pleated bagfilter is a cassette of synthetic material. Filterclass G85 (EU3). The filter section is equipped with filter on delivery.

Note! If the filter section is not used in combination with the mixing cabinet, a return air intake (SWD) is required.

SWEF, extra filtercassette

Replacement filter for SWF.

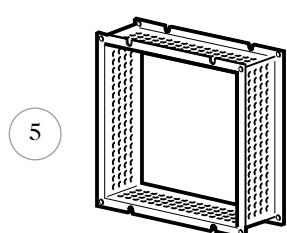
**SWD, return air intake**

Fig. 5. Allows air intake when filter section is used without mixing cabinet SWBS. Return air intake is not required when the mixing cabinet is used.

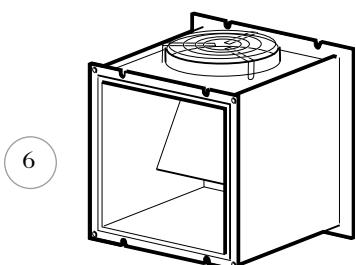
**SWBS, mixing cabinet**

Fig. 6. The mixing cabinet is used to combine ventilation with heating by mixing outdoor air with return air. The mixture ratio is controlled and infinitely variable with a damper, either manually or with a damper motor.

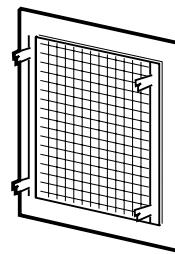
**SWY, outer wall grille**

Fig. 7. For intake of fresh air into the mixing cabinet. Grille of hot zinc-plated steel panels.

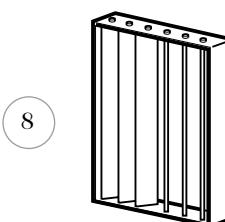
**SWLR, extra air director**

Fig. 8. To direct the air stream sideways. On delivery, SWH is equipped with an air director for vertical direction of the air stream. Individually adjustable louvres in anodised aluminium.

The extra air director is mounted to SWH by hooking it onto the existing air director.

Type	Description
SWB0	Mounting brackets SWH02
SWB1	Mounting brackets SWH12
SWB2	Mounting brackets SWH22
SWB3	Mounting brackets SWH32/SWH33
SWFTN02	Basic filter SWH02
SWFTN1	Basic filter SWH12
SWFTN2	Basic filter SWH22
SWFTN3	Basic filter SWH32/SWH33
SWF1	Filter section SWH12
SWF2	Filter section SWH22
SWF3	Filter section SWH32/SWH33
SWEF1	Extra filter cassette EU3 SWH12
SWEF2	Extra filter cassette EU3 SWH22
SWEF3	Extra filter cassette EU3 SWH32/SWH33
SWD1	Return air intake SWH12
SWD2	Return air intake SWH22
SWD3	Return air intake SWH32/SWH33
SWBS1	Mixing cabinet SWH12
SWBS2	Mixing cabinet SWH22
SWBS3	Mixing cabinet SWH32/SWH33
SWY1	Outer wall grille SWH12
SWY2	Outer wall grille SWH22
SWY3	Outer wall grille SWH32/SWH33
SWLR1	Extra air director sideways SWH12
SWLR2	Extra air director sideways SWH22
SWLR3	Extra air director sideways SWH32/SWH33

Fan heater SWH

Mounting and connection



Connection from the left



Connection from the right



Ceiling mounting

Mounting

The fan heaters can be permanently mounted on a wall for horizontal air distribution, or on the ceiling for vertical air distribution. The accessories are assembled with screws or guides and then fitted to the wall or ceiling with suitable fasteners. Mounting brackets are extra.

Connection

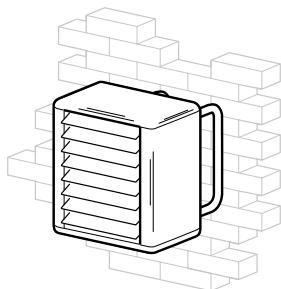
The fan motor is connected via the integrated PC board (SIRe) that is located on the unit.

Connection of heating coil

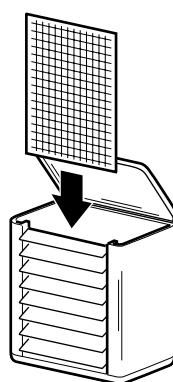
By turning the fan heater, pipe connections are possible on both sides. Heating coil with copper pipes. Smooth pipe connections for soldering or compression fittings. A vent valve should be connected at a high point in the pipe system. Vent- and draining valves are not included in the heating coil. For correct inlet and outlet connection of the heating coil, see dimension sketch.

Units that are likely to be exposed to air temperatures below zero, for example when a mixing cabinet is used, should be equipped with external frost protection to ensure that the heating coil is not damaged by frost.

Mounting and installation of accessories SWH02-33



SWH fitted on a wall with mounting brackets



SWH with basic filter

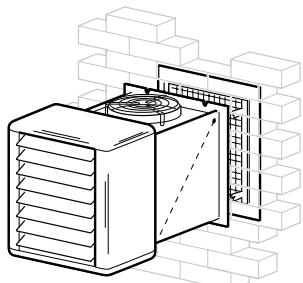
Mounting SWH

Mounting brackets SWB are to be ordered separately. A set of screws are included for fixing on the back side of SWH. The brackets are fitted on the wall or on the ceiling with suitable fasteners.

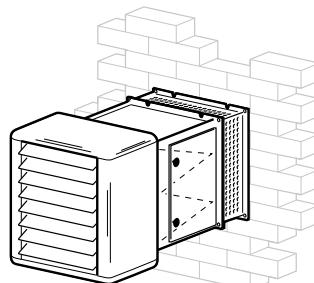
Mounting basic filter SWFTN in SWH

This basic filter is very easy to fit into SWH. The top or bottom lid is opened, and the filter is pushed down behind the coil in tracks for this purpose.

Mounting and installation of accessories SWH12-33



SWH mixing cabinet and outer wall grille



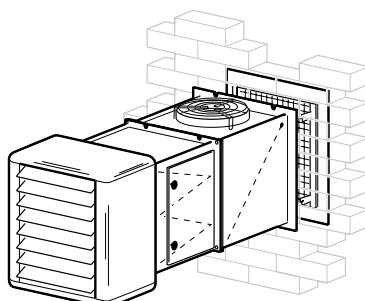
SWH with filter section and return air intake

Mounting SWH with mixing cabinet SWBS (no filter section)

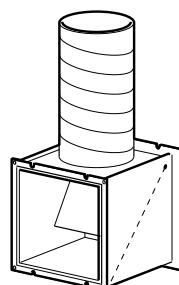
The mixing cabinet is fitted to SWH and the assembly is fitted to the wall with suitable fasteners. The construction should be well supported from the wall or ceiling. Supports not included.

Mounting SWH with filter section SWF (no mixing cabinet)

When a filter section is used without a mixing cabinet, the filter section must be attached to the return air intake (SWD) to allow for air intake.



SWH with filter section, mixing cabinet and outer wall grille



Mixing cabinet with return air duct

Mounting SWH with mixing cabinet SWBS and filter section SWF

The mixing cabinet and filter section are fitted together (see as above Fig.). The mixing cabinet is fitted to the wall with suitable fasteners. The construction should be well supported from the wall or ceiling. Supports not included.

Mounting return air duct with mixing cabinet

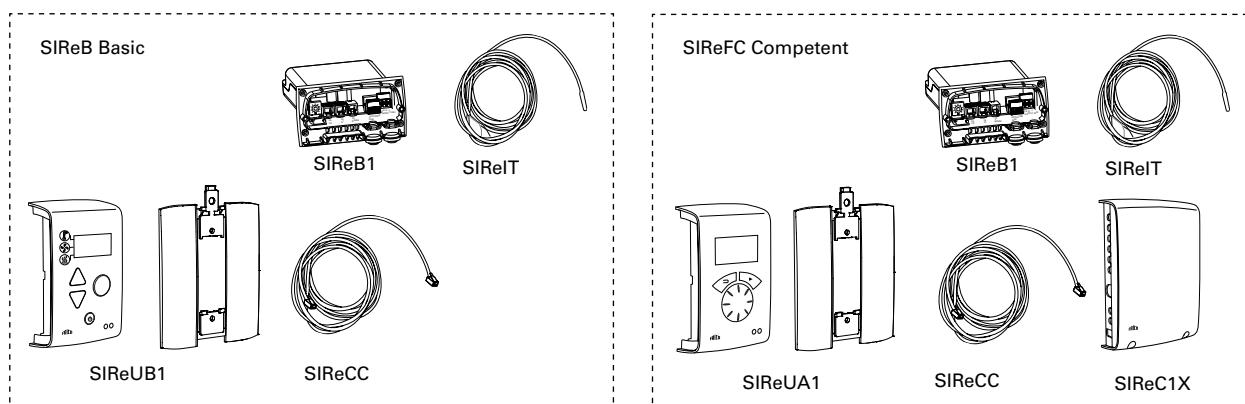
When a return air duct is used with the mixing cabinet, a suitable circular duct is fitted to the mixing cabinet after removing the circular protection grille.

Control SWH - control system SIRe

SWH is supplied with an intelligent and well designed low voltage control system SIRe which can be customised for each unique application and environment. The control system is pre-installed in SWH with an integrated PC board. SIRe is supplied pre-programmed with quick fit plug connections and is very easy to use and install.

SIRe learns the requirements and can provide fully automated room heating with calendar function and selectable switch off at set temperatures for up to nine units. Using SIRe no more energy is consumed than necessary. Because the fan speed is adapted, the sound level is optimised 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. SIRe Advanced can also be used for simple and safe ventilation solutions using mixing cabinets, control is fully automatic and also has built-in frost protection. There are three different levels with different functionality to choose from, Basic, Competent or Advanced. The SIRe control system can be supplemented with a valve kit for a complete solution.



Basic - SIReB - Simple and low cost

Manual or automatic control of fan speed and temperature with an integrated thermostat. Possibility of selecting whether the fan should be switched off or not at set room temperature, depending whether sound comfort or circulation of room air is prioritised. Alarm via control unit.

Included in SIReB Basic:

- SIReB1, integrated PC board Base
- SIReIT, internal temperature sensor
- SIReUB1, control unit. Wall unit cover included.
- SIReCC, modular cable, RJ12(6/6), 5 m

Options:

- SIReRTX, external room temperature sensor
- VOS, valve kit on/off
or
VOSP, pressure independent valve kit on/off
- VAT, adjustment tool for valve kit

Competent - SIReFC - Extended functionality

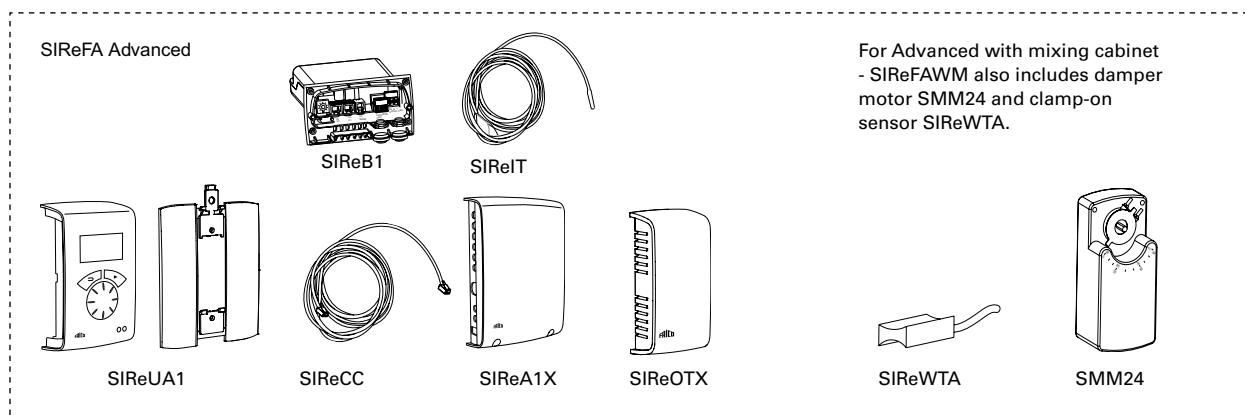
Manual or automatic control of fan speed and temperature with an integrated thermostat. Possibility of selecting whether the fan should be switched off or not at set room temperature, depending whether sound comfort or circulation of room air is prioritised. Calendar function with weekly program and night mode. Filter sensor that indicates when it is time to change or clean the filter. With SIReUR the control unit can be recessed in a wall, protruding only 11 mm. Alarm via control unit or BMS.

Included in SIReFC Competent:

- SIReB1, integrated PC board Base
- SIReIT, internal temperature sensor
- SIReUA1, control unit. Wall unit cover included.
- SIReC1X, PC board HUB Competent
- SIReCC, modular cables, RJ12(6/6), 3 m resp. 5 m

Options:

- SIReRTX, external room temperature sensor
- SIReUR, kit for recessed installation
- VOS, valve kit on/off
or
VOSP, pressure independent valve kit on/off
- VAT, adjustment tool for valve kit



Advanced - SIReFA - fully automatic with extended functionality

Manual or automatic control of fan speed and temperature with an integrated thermostat. Possibility of selecting whether the fan should be switched off or not at set room temperature, depending whether sound comfort or circulation of room air is prioritised. Calendar function with weekly program and night mode. Filter sensor that indicates when it is time to change or clean the filter. With SIReUR the control unit can be recessed in a wall, protruding only 11 mm. Alarm via control unit or BMS. Possible to control and monitor using BMS system. Choose between Eco and Comfort mode dependent on whether energy savings or optimal comfort has been prioritised. Valve kit VMO or VMOP is required to use SIRe Advanced.

Included in SIReFA Advanced:

- SIReB1, integrated PC board Base
- SIReIT, internal temperature sensor
- SIReUA1, control unit. Wall unit cover included.
- SIReA1X, PC board HUB Advanced
- SIReOTX, outdoor temperature sensor
- SIReCC, modular cables, RJ12(6/6), 3 m resp. 5 m

Options:

- SIReRTX, external room temperature sensor
- SIReUR, kit for recessed installation
- SIReWTA, clamp-on sensor
- VMO, modulating valve kit
or
VMOP, pressure independent and modulating valve kit
- VAT, adjustment tool for valve kit

Advanced with mixing cabinet - SIReFAWM

Same functions as Advanced, but also has functions for fully automatic control of ventilation and heating with mixing cabinet. Cold draughts from the fan are avoided by the inflow air temperature being maintained at a certain temperature. Can also control external extraction fans to create balance in the ventilation. Integrated frost protection with clamp-on sensor and damper motor. The clamp-on sensor is used to ensure that the temperature does not exceed a certain value (frost protection), but can also be used so that the return temperature exceeds a set value, for example in a remote heating network. The damper motor is equipped with spring return and modulates 0-10V. SIRe can control an installation with a mixing cabinet. The circulation pump required in the secondary circuit is not supplied. Valve kit VMO or VMOP is required to use SIRe Advanced with a mixing cabinet.

Included in SIReFAWM Advanced with mixing cabinet:

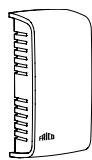
- SIReB1, integrated PC board Base
- SIReIT, internal temperature sensor
- SIReUA1, control unit. Wall unit cover included.
- SIReA1X, PC board HUB Advanced
- SIReOTX, outdoor temperature sensor
- SIReWTA, clamp-on sensor
- SMM24, damper motor
- SIReCC, modular cables, RJ12(6/6), 3 m resp. 5 m

Options:

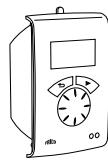
- SIReRTX, external room temperature sensor
- SIReUR, kit for recessed installation
- VMO, modulating valve kit
or
VMOP, pressure independent and modulating valve kit
- VAT, adjustment tool for valve kit

Fan heater SWH

Control system SIRe - options



SIReRTX



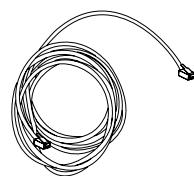
SIReUR



SIReCJ4



SIReCJ6



SIReCC

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.

SIReUR, kit for recessed installation

Kit for installing SIReUA1 in a recess in a wall. Only protrudes 11 mm from the wall.

SIReCJ4/SIReCJ6, joint piece

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

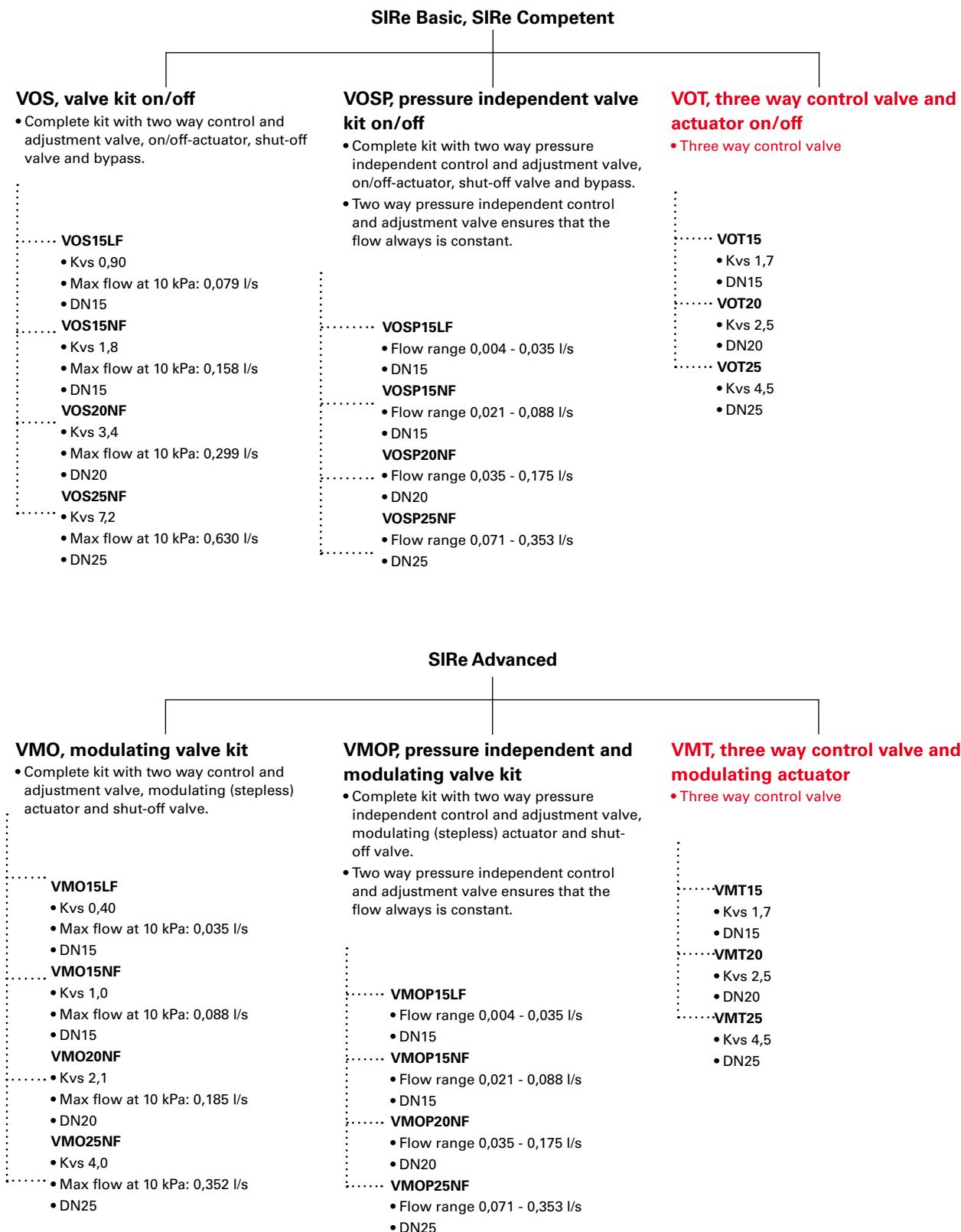
SIReCC, modular cables

Modular cables RJ11(4/4) respectively RJ12(6/6). Available in lengths 3, 5, 10 and 15 m.

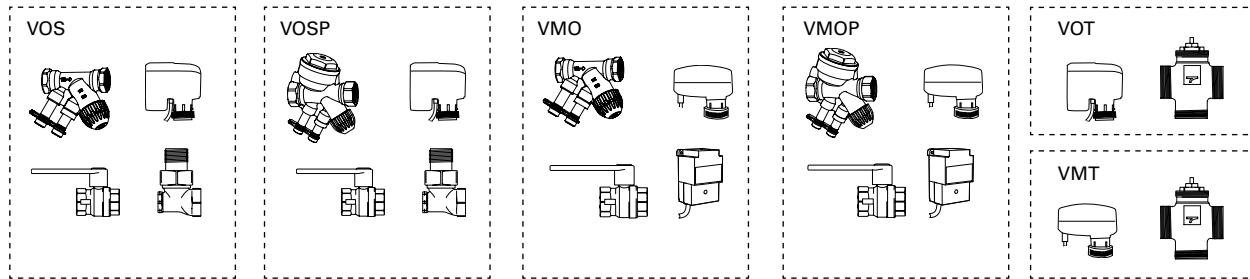
Type	Description
SIReB	Control system SIRe Basic
SIReFC	Control system SIRe Competent
SIReFA	Control system SIRe Advanced
SIReFAWM	Control system SIRe Advanced with mixing cabinet
SIReRTX	External room temperature sensor, 10 m
SIReUR	Kit for recessed installation
SIReCJ4	Used to join two RJ11(4/4)
SIReCJ6	Used to join two RJ12 (6/6)
SIReCC603	Modular cable RJ12 3 m
SIReCC605	Modular cable RJ12 5 m
SIReCC610	Modular cable RJ12 10 m
SIReCC615	Modular cable RJ12 15 m
SIReCC403	Modular cable RJ11 3 m
SIReCC405	Modular cable RJ11 5 m
SIReCC410	Modular cable RJ11 10 m
SIReCC415	Modular cable RJ11 15 m

Water control - Choose valve kit

Water heated units that are controlled by SIRe are supplemented with valve kits. It's easy to choose the right valve kit. Look at the guide for the level of SIRe chosen - Basic, Competent or Advanced and select the valve kit which suits the system requirements and characteristics.



Water control



VOS, valve kit on/off

Two way combined control and adjustment valve with on/off actuator, shut-off valve and bypass. DN15/20/25. 230V. Used with SIRE Basic and Competent.

VOSP, pressure independent valve kit on/off

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

VOT, three way control valve and actuator on/off

DN15/20/25. 230V. Used with SIRE Basic and Competent.

VMO, modulating valve kit

Two way combined control and adjustment valve with modulating actuator and shut-off valve. DN15/20/25. 24V. Used with SIRE Advanced.

VMOP, pressure independent and modulating valve kit

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

VMT, three way control valve and modulating actuator

DN15/20/25. 24V. Used with SIRE Advanced.

VAT, adjustment tool for valve kit VOS, VOSP, VMO, VMOP

With the adjustment tool the water flow can be accurately and easily set.

For further information and options regarding our water controls, see section on thermostats and controls or contact Frico.

Type	Description	Flow	Voltage [V]	Connection
VOS15LF	Valve kit on/off	Low flow	230 V	DN15
VOS15NF	Valve kit on/off	Normal flow	230 V	DN15
VOS20	Valve kit on/off	Normal flow	230 V	DN20
VOS25	Valve kit on/off	Normal flow	230 V	DN25
VOSP15LF	Pressure independent valve kit	Low flow	230 V	DN15
VOSP15NF	Pressure independent valve kit	Normal flow	230 V	DN15
VOSP20	Pressure independent valve kit	Normal flow	230 V	DN20
VOSP25	Pressure independent valve kit	Normal flow	230 V	DN25
VMO15LF	Modulating valve kit	Low flow	24 V	DN15
VMO15NF	Modulating valve kit	Normal flow	24 V	DN15
VMO20	Modulating valve kit	Normal flow	24 V	DN20
VMO25	Modulating valve kit	Normal flow	24 V	DN25
VMOP15LF	Pressure independent and modulating valve kit	Low flow	24 V	DN15
VMOP15NF	Pressure independent and modulating valve kit	Normal flow	24 V	DN15
VMOP20	Pressure independent and modulating valve kit	Normal flow	24 V	DN20
VMOP25	Pressure independent and modulating valve kit	Normal flow	24 V	DN25
VOT15	Three way valve and actuator on/off	Normal flow	230 V	DN15
VOT20	Three way valve and actuator on/off	Normal flow	230 V	DN20
VOT25	Three way valve and actuator on/off	Normal flow	230 V	DN25
VMT15	Three way valve and modulating actuator	Normal flow	24 V	DN15
VMT20	Three way valve and modulating actuator	Normal flow	24 V	DN20
VMT25	Three way valve and modulating actuator	Normal flow	24 V	DN25
VAT	Adjustment tool for valve kit VOS, VOSP, VMO, VMOP			

Output charts water

Incoming / outgoing water temperature 90/70 °C														
Type	Fan position	Airflow [m³/s]	Air temp. in = -15 °C				Air temp. in = 0 °C				Air temp. in = +15 °C			
			Output [kW]	Air temp. out [°C]	Water flow [l/s]	Pressure drop [kPa]	Output [kW]	Air. temp. out [°C]	Water flow [l/s]	Pressure drop [kPa]	Output [kW]	Air. temp. out [°C]	Water flow [l/s]	Pressure drop [kPa]
SWH02	Max	0,35	23,4	34	0,29	23,0	19,0	42	0,23	15,7	14,8	49	0,18	10,0
	4	0,31	21,7	36	0,27	20,0	17,6	44	0,22	13,6	13,7	51	0,17	8,6
	3	0,27	19,9	38	0,24	17,1	16,1	46	0,20	11,6	12,5	52	0,15	7,3
	2	0,20	16,3	43	0,20	11,8	13,1	50	0,16	8,1	10,2	56	0,12	5,1
	1	0,15	12,9	49	0,16	7,8	10,4	54	0,13	5,3	8,1	59	0,10	3,3
SWH12	Max	0,75	38,7	23	0,47	18,7	31,4	32	0,38	12,7	24,4	42	0,30	8,0
	4	0,50	30,7	29	0,38	12,2	24,9	38	0,30	8,3	19,3	46	0,24	5,2
	3	0,42	27,6	33	0,34	10,0	22,3	41	0,27	6,8	17,3	48	0,21	4,2
	2	0,31	22,8	38	0,28	7,1	18,4	45	0,23	4,8	14,2	52	0,17	3,0
	1	0,23	18,6	43	0,23	4,9	15,0	49	0,18	3,3	11,6	55	0,14	2,0
SWH22	Max	1,17	63,2	50	0,77	25,0	51,4	34	0,63	17,1	40,1	43	0,49	10,8
	4	0,91	54,5	29	0,67	19,0	44,2	38	0,54	13,0	34,4	46	0,42	8,2
	3	0,77	49,2	32	0,60	15,8	39,9	40	0,49	10,7	31,0	48	0,38	6,8
	2	0,59	41,9	36	0,51	11,7	33,8	44	0,41	8,0	26,3	51	0,32	5,0
	1	0,41	32,5	43	0,40	7,4	26,2	49	0,32	5,0	20,3	55	0,25	3,1
SWH32	Max	1,84	98,1	24	1,20	35,1	79,8	33	0,98	24,0	62,3	43	0,76	15,2
	4	1,63	91,5	26	1,12	30,9	74,3	35	0,91	21,0	58,0	44	0,71	13,3
	3	1,33	81,2	29	0,99	24,7	65,8	38	0,81	16,8	51,3	46	0,63	10,6
	2	1,08	71,7	33	0,88	19,6	57,7	41	0,71	13,3	45,0	49	0,55	8,4
	1	0,80	58,6	38	0,72	13,6	47,4	46	0,58	9,2	36,7	52	0,47	5,7
SWH33	Max	1,71	126,0	39	1,54	60,4	102,0	46	1,25	41,0	79,4	53	0,97	25,9
	4	1,51	116,0	41	1,42	52,0	93,8	48	1,15	35,2	73,0	54	0,89	22,2
	3	1,25	102,0	45	1,25	41,3	82,7	51	1,01	27,9	64,3	57	0,79	17,6
	2	1,00	87,8	49	1,08	31,2	70,8	54	0,87	21,0	54,9	59	0,67	13,2
	1	0,73	69,5	54	0,85	20,3	55,9	59	0,68	13,6	43,3	63	0,53	8,5

Fan heater SWH

Output charts water

Incoming / outgoing water temperature 80/60 °C														
Type	Fan position	Airflow [m³/s]	Air temp. in = -15 °C				Air temp. in = 0 °C				Air temp. in = +15 °C			
			Output [kW]	Air temp. out [°C]	Water flow [l/s]	Pressure drop [kPa]	Output [kW]	Air. temp. out [°C]	Water flow [l/s]	Pressure drop [kPa]	Output [kW]	Air. temp. out [°C]	Water flow [l/s]	Pressure drop [kPa]
SWH02	Max	0,35	20,7	28	0,25	18,7	16,3	36	0,20	12,2	12,2	43	0,15	7,2
	4	0,31	19,2	30	0,23	16,3	15,1	37	0,18	10,6	11,3	45	0,14	6,2
	3	0,27	17,6	32	0,21	13,9	13,9	39	0,17	9,0	10,3	46	0,13	5,3
	2	0,20	14,4	37	0,18	9,7	11,3	43	0,14	6,3	8,4	49	0,10	3,7
	1	0,15	11,4	41	0,14	6,4	9,0	47	0,11	4,1	6,7	52	0,08	2,4
SWH12	Max	0,75	34,0	18	0,41	15,0	26,8	28	0,33	9,7	20,0	37	0,24	5,7
	4	0,50	27,0	24	0,33	9,8	21,3	33	0,26	6,3	15,8	41	0,19	3,7
	3	0,42	24,2	27	0,30	8,1	19,1	35	0,23	5,2	14,2	42	0,17	3,0
	2	0,31	20,0	31	0,24	5,7	15,7	39	0,19	3,6	11,7	45	0,14	2,1
	1	0,23	16,4	36	0,20	3,9	12,8	42	0,16	2,5	9,5	48	0,12	1,5
SWH22	Max	1,17	55,7	20	0,68	20,2	44,0	29	0,54	13,1	32,9	38	0,40	7,7
	4	0,91	48,0	24	0,58	15,4	37,9	32	0,46	10,0	28,3	40	0,34	5,9
	3	0,77	43,4	26	0,53	12,8	34,2	34	0,42	8,3	25,5	42	0,31	4,8
	2	0,59	36,9	30	0,45	9,5	29,1	38	0,35	6,1	21,7	45	0,26	3,6
	1	0,41	28,7	36	0,35	6,0	22,5	42	0,27	3,9	16,8	48	0,20	2,2
SWH32	Max	1,84	86,4	19	1,05	28,2	68,4	29	0,83	18,4	51,2	38	0,62	10,8
	4	1,63	80,6	21	0,98	24,8	63,8	30	0,78	16,1	47,7	39	0,58	9,5
	3	1,33	71,5	24	0,87	19,9	56,5	33	0,69	12,9	42,2	41	0,51	7,6
	2	1,08	63,0	27	0,77	15,8	49,7	35	0,61	10,2	37,1	43	0,45	6,0
	1	0,80	51,7	32	0,63	11,0	40,7	39	0,50	7,1	30,3	46	0,37	4,1
SWH33	Max	1,71	111,0	32	1,35	48,9	87,7	40	1,07	31,7	65,7	46	0,80	18,6
	4	1,51	102,0	34	1,25	42,1	80,8	41	0,98	27,2	60,4	48	0,74	16,0
	3	1,25	90,5	38	1,10	33,5	71,3	44	0,87	21,6	53,3	50	0,65	12,7
	2	1,00	77,7	41	0,95	25,3	61,1	47	0,74	16,3	45,6	52	0,55	9,5
	1	0,73	61,6	46	0,75	16,5	48,3	51	0,59	10,6	36,0	55	0,44	6,2

Output charts water

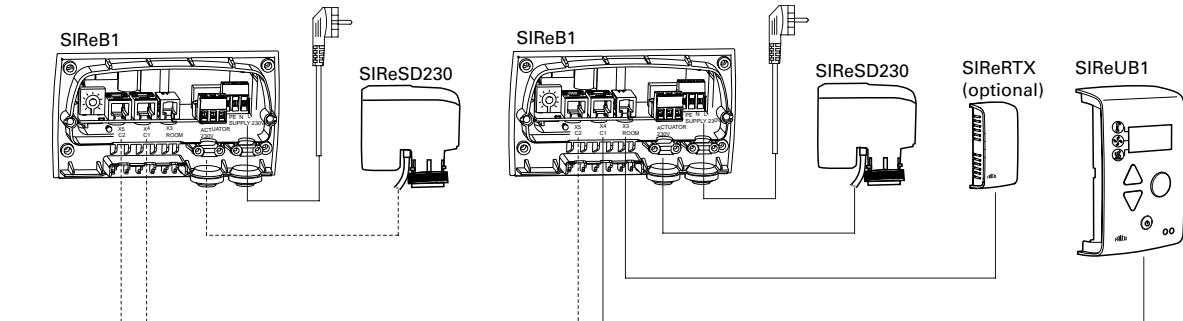
Incoming / outgoing water temperature 60/50 °C														
Type	Fan position	Airflow [m³/s]	Air temp. in = -15 °C			Air temp. in = 0 °C			Air temp. in = +15 °C			Water flow [l/s]	Pressure drop [kPa]	
			Output [kW]	Air temp. out [°C]	Water flow [l/s]	Pressure drop [kPa]	Output [kW]	Air. temp. out [°C]	Water flow [l/s]	Pressure drop [kPa]	Output [kW]	Air. temp. out [°C]		
SWH02	Max	0,35	17,3	21	0,42	49,4	13,1	29	0,32	29,6	9,1	36	0,22	15,2
	4	0,31	16,1	23	0,39	43,0	12,1	30	0,29	25,8	8,4	37	0,20	13,2
	3	0,27	14,7	24	0,36	36,7	11,1	31	0,27	21,9	7,7	38	0,19	11,2
	2	0,20	12,0	28	0,29	25,4	9,1	34	0,22	15,1	6,3	40	0,15	7,7
	1	0,15	9,6	32	0,23	16,7	7,2	37	0,17	9,9	5,0	42	0,12	5,1
SWH12	Max	0,75	28,7	13	0,69	40,5	21,7	22	0,52	24,2	15,0	31	0,36	12,2
	4	0,50	22,8	18	0,55	26,4	17,2	26	0,41	15,7	11,8	34	0,29	7,9
	3	0,42	20,5	20	0,49	21,7	15,4	28	0,37	12,8	10,6	35	0,26	6,5
	2	0,31	16,9	24	0,41	15,2	12,7	31	0,31	9,0	8,7	38	0,21	4,5
	1	0,23	13,8	28	0,33	10,5	10,3	34	0,25	6,2	7,1	40	0,17	3,1
SWH22	Max	1,17	46,9	14	1,13	54,0	35,5	23	0,86	32,4	24,6	32	0,59	16,5
	4	0,91	40,4	17	0,98	41,1	30,5	26	0,74	24,6	21,1	34	0,51	12,5
	3	0,77	36,5	20	0,88	34,1	27,5	28	0,66	20,3	19,0	35	0,46	10,3
	2	0,59	31,0	23	0,75	25,3	23,3	30	0,56	15,0	16,1	37	0,39	7,6
	1	0,41	24,1	28	0,58	15,9	18,1	34	0,44	9,4	12,5	40	0,30	4,8
SWH32	Max	1,84	72,7	14	1,76	75,9	55,1	23	1,33	45,4	38,2	32	0,92	23,1
	4	1,63	67,8	15	1,64	66,6	51,3	24	1,24	39,8	35,6	33	0,86	20,3
	3	1,33	60,1	18	1,45	53,4	45,4	26	1,10	31,8	31,5	34	0,76	16,2
	2	1,08	52,9	21	1,28	42,2	39,9	28	0,96	25,1	27,6	36	0,67	12,7
	1	0,80	43,4	25	1,05	29,2	32,6	32	0,79	17,3	22,5	38	0,54	8,8
SWH33	Max	1,71	92,9	25	2,25	130,0	70,2	32	1,70	77,3	48,7	38	1,18	39,5
	4	1,51	85,6	26	2,07	112,0	64,6	33	1,56	66,4	44,8	39	1,08	33,8
	3	1,25	75,6	29	1,83	88,8	56,9	35	1,38	52,7	39,4	41	0,95	26,8
	2	1,00	64,9	32	1,57	66,9	48,7	37	1,18	39,6	33,7	42	0,81	20,1
	1	0,73	51,4	36	1,24	43,6	38,5	41	0,93	25,6	26,6	45	0,64	13,0

Fan heater SWH

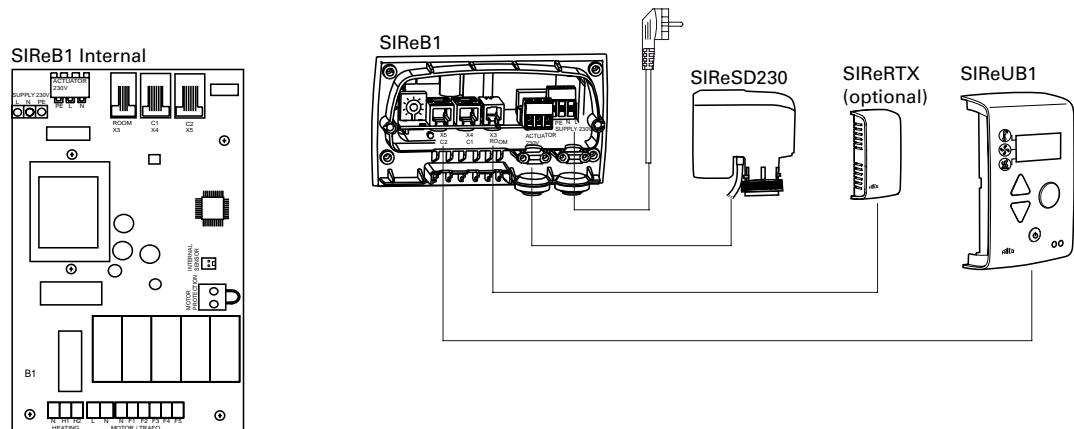
Output charts water

Incoming / outgoing water temperature 60/40 °C														
Type	Fan position	Airflow [m³/s]	Air temp. in = -15 °C			Air temp. in = 0 °C			Air temp. in = +15 °C			Water flow [l/s]	Pressure drop [kPa]	
			Output [kW]	Air temp. out [°C]	Water flow [l/s]	Pressure drop [kPa]	Output [kW]	Air. temp. out [°C]	Water flow [l/s]	Pressure drop [kPa]	Output [kW]	Air. temp. out [°C]		
SWH02	Max	0,35	15,2	17	0,18	11,2	11,0	24	0,13	6,2	7,1	31	0,09	2,8
	4	0,31	14,1	18	0,17	9,7	10,2	25	0,12	5,4	6,6	32	0,08	2,4
	3	0,27	12,9	20	0,16	8,3	9,4	27	0,11	4,6	6,0	33	0,07	2,1
	2	0,20	10,6	23	0,13	5,8	7,7	29	0,09	3,2	4,9	35	0,06	1,4
	1	0,15	8,4	27	0,10	3,8	6,1	32	0,07	2,1	3,9	37	0,05	1,0
SWH12	Max	0,75	24,6	9	0,30	8,6	17,7	18	0,21	4,7	11,1	27	0,13	2,0
	4	0,50	19,6	13	0,24	5,7	14,1	22	0,17	3,1	8,9	29	0,11	1,3
	3	0,42	17,6	15	0,21	4,7	12,7	23	0,15	2,5	8,0	30	0,10	1,1
	2	0,31	14,6	19	0,18	3,3	10,5	26	0,13	1,8	6,6	32	0,08	0,8
	1	0,23	12,0	22	0,14	2,3	8,6	28	0,10	1,3	5,4	34	0,07	0,5
SWH22	Max	1,17	40,5	10	0,49	11,8	29,4	19	0,35	6,5	18,6	28	0,22	2,8
	4	0,91	35,0	13	0,42	9,0	25,3	22	0,31	5,0	16,1	29	0,19	2,2
	3	0,77	31,7	15	0,38	7,5	22,9	23	0,28	4,1	14,5	30	0,18	1,8
	2	0,59	27,0	18	0,33	5,6	19,5	25	0,24	3,1	12,4	32	0,15	1,4
	1	0,41	21,0	22	0,25	3,6	15,2	29	0,18	2,0	9,7	34	0,12	0,9
SWH32	Max	1,84	63,1	10	0,76	16,4	45,8	19	0,55	9,1	29,1	28	0,35	4,0
	4	1,63	58,9	11	0,71	14,5	42,7	20	0,51	8,0	27,2	29	0,33	3,5
	3	1,33	52,3	14	0,63	11,6	37,9	22	0,46	6,4	24,1	30	0,29	2,8
	2	1,08	46,1	16	0,56	9,2	33,4	24	0,40	5,1	21,3	31	0,26	2,2
	1	0,80	37,9	20	0,46	6,4	27,4	26	0,33	3,6	17,5	33	0,21	1,6
SWH33	Max	1,71	81,9	20	0,99	29,0	59,5	27	0,72	16,2	38,3	33	0,46	7,2
	4	1,51	75,6	22	0,91	25,0	54,9	28	0,66	13,9	35,3	34	0,43	6,2
	3	1,25	66,8	24	0,81	20,0	48,5	30	0,58	11,1	31,2	35	0,38	5,0
	2	1,00	57,4	27	0,69	15,1	41,6	32	0,50	8,4	26,8	37	0,32	3,8
	1	0,73	45,6	31	0,55	9,9	33,0	35	0,40	5,5	21,3	39	0,26	2,5

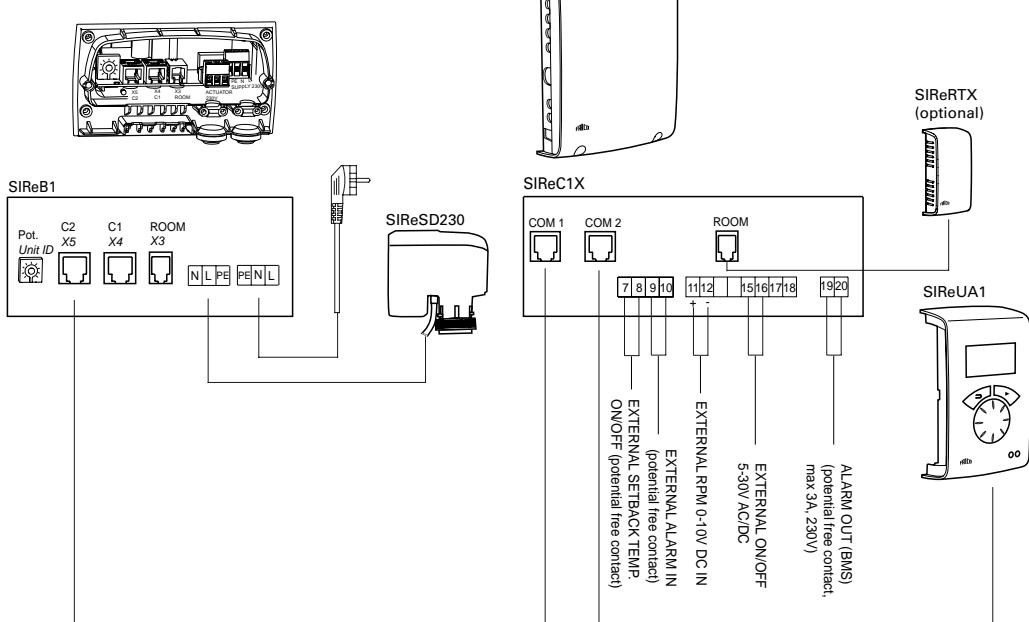
Parallel connection



SIReB Basic

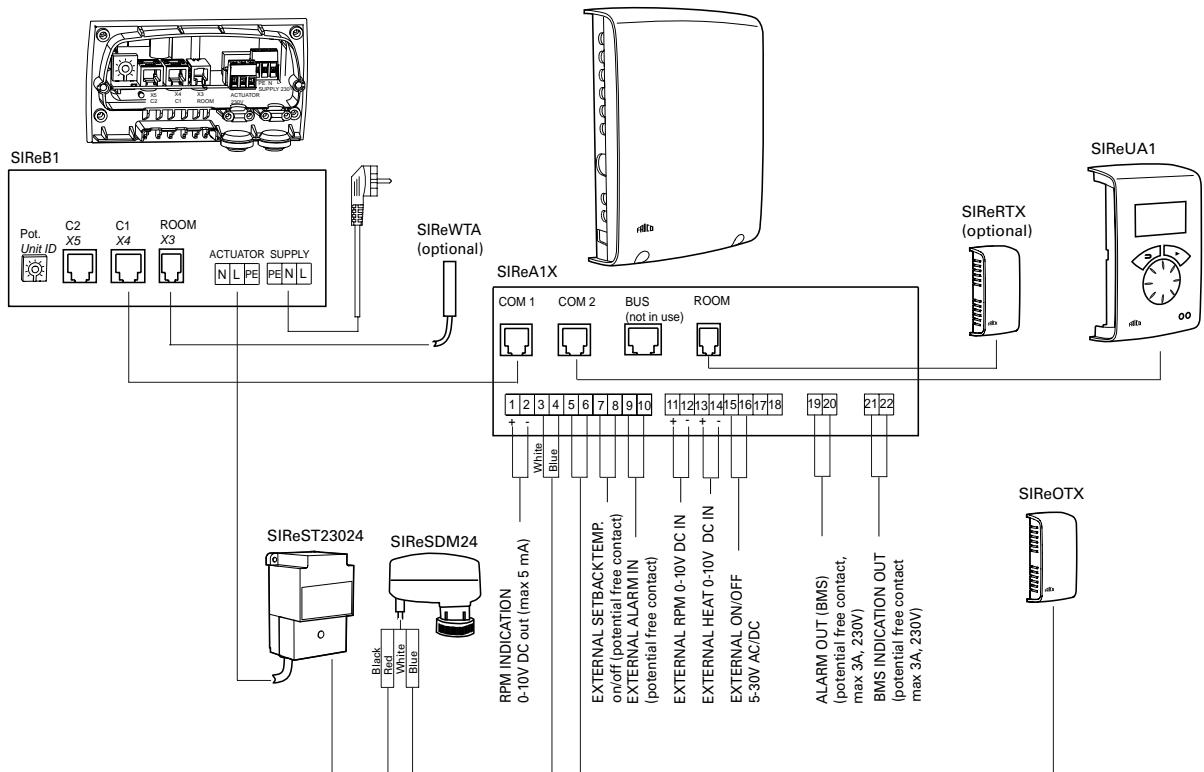


SIReFC Competent



Fan heater SWH

SIReFA Advanced



SIReFAWM Advanced with mixing cabinet

