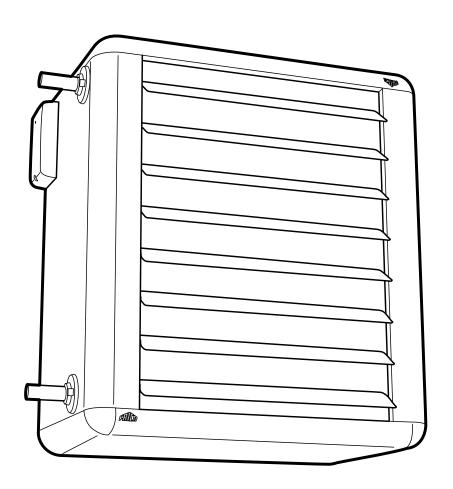


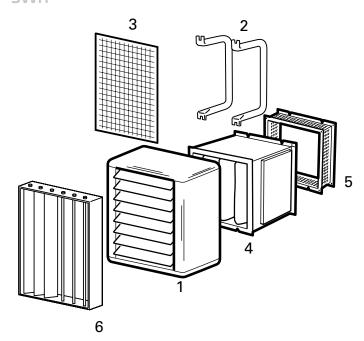
# **SWH**



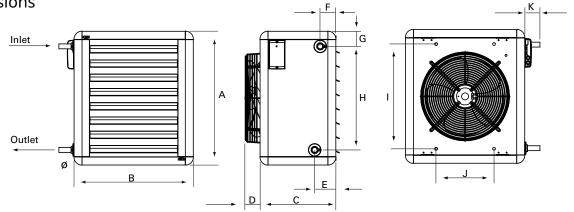
SE	Introduktionssidorna består huvudsakligen av bilder. För översättning av de engelska texter som används, se respektive språksidor.
GB	The introduction pages consist mainly of pictures. For translation of the English texts used, see the respective language pages.
NO	Introduksjonssidene består hovedsakelig av bilder. For oversettelse av de engelske tekstene, se de respektive språksidene
FR	Les pages de présentation contiennent principalement des images. Consulter la page correspondant à la langue souhaitée.
DE	Die Einleitungsseiten bestehen hauptsächlich aus Bildern. Für die Übersetzung der verwendeten Texte in englischer Sprache, siehe die entsprechenden Sprachseiten.
ES	Las páginas introductorias contienen básicamente imágenes. Consulte la traducción de los textos en inglés que las acompañan en las páginas del idioma correspondiente.
NL	De inleidende pagina's bevatten hoofdzakelijk afbeeldingen. Voor een vertaling van de gebruikte Engelse teksten, zie de pagina's van de resp. taal.
IT	Le pagine introduttive contengono prevalentemente immagini. Per le traduzioni dei testi scritti in inglese, vedere le pagine nelle diverse lingue.
PL	Początkowe strony zawierają głównie rysunki. Tłumaczenie wykorzystanych tekstów angielskich znajduje się na odpowiednich stronach językowych.
RU	Страницы в начале Инструкции состоят в основном из рисунков, схем и таблиц. Перевод встречающегося там текста приведен в разделе RU.
FI	Esittelysivut koostuvat lähinnä kuvista. Suvuilla olevien enlanninkielisten sanojen käännökset löytyvät ko. kielisivuilta.
DK	Introduktionssiderne består hovedsageligt af billeder. For oversættelse af de engelske tekster, se siderne for de respektive sprog.

### Fan heater SWH

- 1. Fan heater SWH
- 2. Mounting brackets SWB
- 3. Basic filter SWFTN
- 4. Filter section, deep-pleated bagfilter EU3 SWF
- 5. Return air intake SWD
- 6. Extra air director, adjustable louvres SWLR
- 1. Fläktluftvärmare SWH
- 2. Monteringskonsoler SWB
- 3. Trådnätsfilter SWFTN
- Filterskåp, djupveckad filterkassett EU3 SWF
   Distansdel för filterskåp SWD
- 6. Extra luftriktare, ställbara lameller SWLR

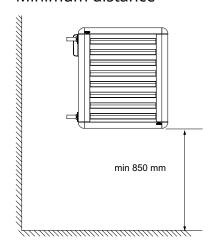


### **Dimensions**



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

#### Minimum distance



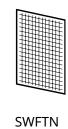
Туре	D [mm]
SWH02	40
SWH12	70
SWH22	67
SWH32/33	155

## Accessories

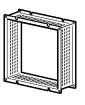
SWB0	SWH02
SWB1	SWH12
SWB2	SWH22
SWB3	SWH32/SWH33
SWFTN02	SWH02
SWFTN1	SWH12
SWFTN2	SWH22
SWFTN3	SWH32/SWH33
SWF1	SWH12
SWF2	SWH22
SWF3	SWH32/SWH33
SWEF1	SWH12
SWEF2	SWH22
SWEF3	SWH32/SWH33
SWD1	SWH12
SWD2	SWH22
SWD3	SWH32/SWH33
SWLR1	SWH12
SWLR2	SWH22
SWLR3	SWH32/SWH33



SWB

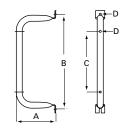






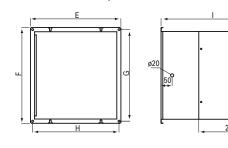
SWF SWD

## Mounting brackets SWB



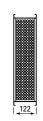
Type	Α	В	С	D
	[mm]	[mm]	[mm]	[mm]
SWB0	195	405	235	10
SWB1	195	470	300	10
SWB2	250	580	410	10
SWB3	335	700	530	10

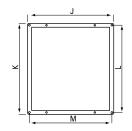
## Filter section, SWF



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

## Return air intake, SWD





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

# Control

## SIRe

SIReBN	
SIReRTX	70x33x23 mm
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 m

See separate manual.



SIReBN



SIReCJ6



SIReRTX



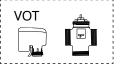
SIReCC



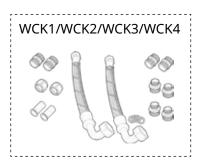
Туре	Ø
VLSP15LF	DN15
VLSP15NF	DN15
VLSP20	DN20
VLSP25	DN25
VLSP32	DN32
VOT15	DN15
VOT20	DN20
VOT25	DN25

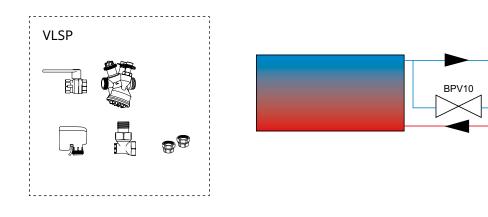
See separate manual.

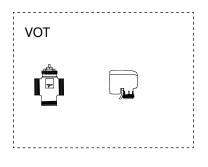


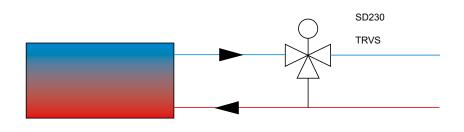


Туре	L	SWH	SWH				
	[mm]	02 12	22 32 33				
WCK1	1000	•					
WCK2	350	•					
WCK3	800		•				
WCK4	350		•				









SD230

TAC

# Wiring diagrams SWH

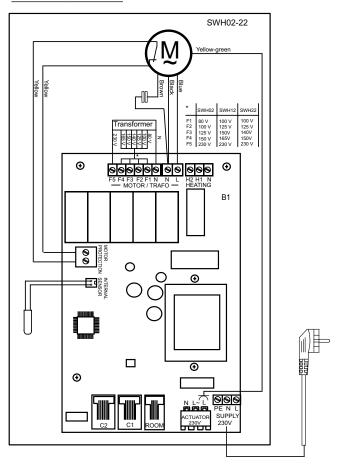
### **Internal SWH**

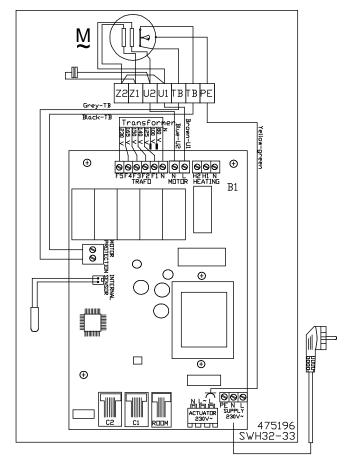
#4380	SWH02
#4381	SWH12
#4382	SWH22

SWH02-22

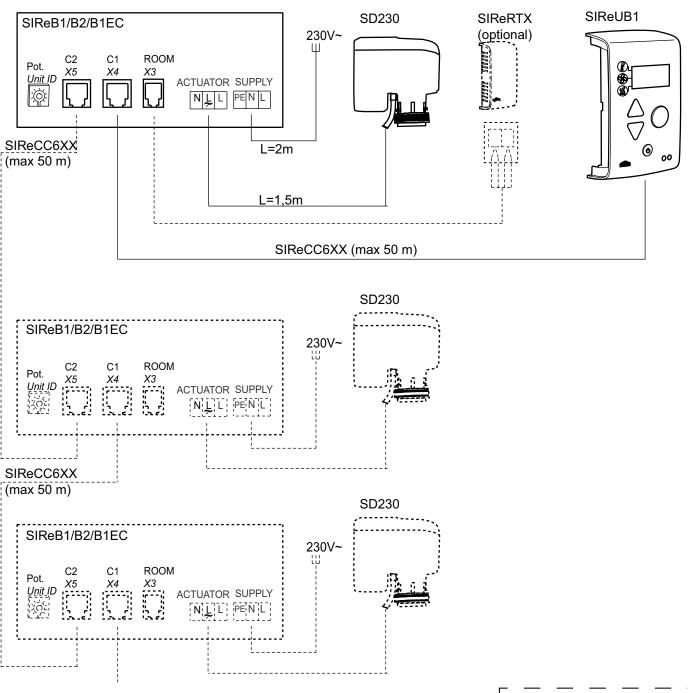


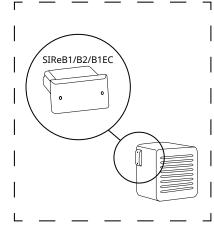
SWH32-33





### SIRe Basic





Fan heater SWH (IP44) Voltage: 2									ge: 230V~	
Item	Туре	Heat	Air	Air	Sound	Sound	$\Delta t^{\star_{1,2,5}}$	Water	Amperage	Weight
number		output* <sup>1,2</sup> [kW]	flow* <sup>2</sup> [m³/h]	flow* <sup>2</sup> [m <sup>3</sup> /s]	power* <sup>3</sup> [dB(A)]	pressure* <sup>2,4</sup> [dB(A)]	[°C]	volume* <sup>6</sup> [l]	[A]	[kg]
4380	SWH02	6,8/11	450/1000	0,13/0,28	56	19/40	38/30	1,3	0,34	20
4381	SWH12	8,7/17	760/2020	0,21/0,56	64	26/48	34/24	1,5	0,7	24
4382	SWH22	19/29	1770/3370	0,49/0,94	70	40/55	31/25	2,7	1,2	34
466550	SWH32	32/43	3250/5110	0,74/1,44	69	42/53	29/25	3,8	1,66	55
466551	SWH33	39/54	2930/4600	0,62/1,23	73	43/54	39/34	5,2	1,7	59

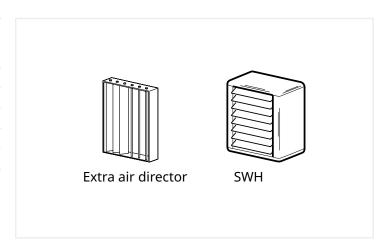
- \*1) Applicable at water temperature 80/60 °C, air temperature, in +15 °C.
- \*2) Applies to fan position 1 / 4.
- $^{*3}$ ) Sound power ( $L_{wA}$ ) measurements according to ISO 27327-2: 2014, Installation type E.
- \*4) Sound pressure ( $L_{pA}$ ). Conditions: Distance to the unit 5 metres. Directional factor: 2. Equivalent absorption area: 200 m<sup>2</sup>.
- \*5)  $\Delta t$  = temperature rise of passing air.
- \*6) Water volume inside water coil.

SWH is delivered pre-programmed in Automatic control, fan position 4. For optimum performance of heat output and sound level, fan speeds up to step 4 are recommended. Fan position 5 is available in Manual control.

Approved for 220V/1ph/60Hz. Product performance for 220V/1ph/60Hz will differ from stated data.

#### Air throw

Туре	Air throw	Air throw with extra air director
	[m]	[m]
SWH02	7	-
SWH12	11	17
SWH22	19	25
SWH32	25	33
SWH33	23	29



The air throw data above is valid at fan position 4 and room temperature +18 °C. The air throw is defined as the distance in a straight angle from the fan heater to the point where the average air speed has dropped to 0,5 m/s.



### Installation and operating instructions

#### **General Instructions**

Read these instructions carefully prior to 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 should the product be used in the manner intended and in accordance with the instructions.

### **Application**

SWH is a quiet running fan heater which, together with the SIRe control system, provides fully automatic room heating, adaptable to every unique application.

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.

Protection class: IP44.

The unit consists of the following: Corrosion-proof, hot rolled galvanized and powder coated casing. Colour code: RAL9016, NCS 0500. Top/bottom lids are easy to open and are fitted with hinges for easy and simple installation and maintenance.

Fully enclosed single-phase 230V, 50Hz, intergrated motor with an axial fan. Protection class IP44. Maximum surrounding temperature: +40 °C.

The motor is equipped with an automatically returning thermocontact which is connected to the terminal blocks.

Heating coil with aluminium fins (fin distance 2 mm) and copper tubes. Smooth pipe connections for soldering or clamping ring coupling. In standard designs, SWH is intended for hot water up +150 °C and 10 bar.

All models are delivered with individually adjustable louvres for controlling the air current in one direction. Louvres of anodized aluminium.

#### Mounting

The unit is delivered with casing, fan, heating coil and air director as standard. Mounting

brackets are orded separately.

Can be mounted on the wall for horisontal air distribution or on the ceiling for vertical air distribution. By turning the fan heater, pipe connections are possible on both sides.

#### Mounting without accessories

Measure and mark the drilling holes on the wall or on the celing. Use a suitable screwing device to fit the brackets. Use the included set of screws to fit the brackets on to the unit.

#### Mounting with filter section SWF

When the filter section is used with the unit and mounted on to the wall, use the return air intake SWD. The return air intake is mounted together with the SWH unit with screws or guides. The return air intake is mounted on to the wall with a suitable screwing device.

Check the connections between the units, in case of air leakage use a suitable strip seal. All casings of the accessories are laquered on delivery.

Mounting of the basic filter SWFTN

The unit can be provided with a basic filter to protect the heating coil (not included on delivery). The top/bottom lid is opened, and the filter is slid down behind the coil in tracks for this purpose. The filter can be reached for installation and cleaning/maintenance from both top or bottom of the unit.

SWH with the extra air director SWLR

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

#### Ceiling mounting

The unit and the filter section are mounted onto each other on the floor and lifted up as one unit to be mounted on the ceiling. The units should be mounted together with screws or guides.

#### Connection of heating coil

The installation should be carried out by a certified installer. 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. For correct inlet and outlet connection of the heating coil, see dimension sketch. Note! Be careful while connecting the pipes to



prevent pipe damage and water leakage. The heating coil must not be connected to a mains pressure water system or an open water system.

Prior to use, the pipe system should be ventilated. The air valve should be connected on a high point in the pipe system. Air and draining valves are not included in the heating coil.

#### Electrical installation

The electrical installation should be carried out by a qualified electrician in conformity with prevailing regulations. The appliance should be preceded by an triple-pole switch with at least 3 mm breaking gap.

The fan motor is connected via the integrated control card that is located on the unit.

The control system is preinstalledin the fan heater with an integrated control card. SIRe is supplied pre-programmed with quick-release connections. See manual for SIRe.

The motor has a built-in thermal safety cutout to protect against overheating. Alarm goes off and resets with SIRe. See manual for SIRe.

After the electrical installation of the motor, check the rotation of the fan. Seen from the inlet side, the impellers should be rotating anticlockwise.

#### Maintenance

To ensure performance and reliabilty of the unit, inspection and cleaning should be carried out reguarly. Inspection should be carried out at least twice a year. Clean the unit when needed. During inspection the power supply must always be disconnected.

#### Cleaning the fan

Cleaning intervals of the fan is due to filter (if any) and air quality. When a filter section with a deep-pleated bag filter is used and the indoor air is of normal quality, the unit is generally cleaned once a year. If the impellers are not cleanded properly, vibrations/noise can occur and severly damage the bearings. If the vibrations/noise remain after cleaning, please contact a certified technician.

The unit, the filter section and the heating coil can be vaccumed from dust.

When there are no accessories on the inlet

side, inspection of the fan can be made from the outside of the unit. When the filter section is used, inspection can be carried out by the inspection door on the side of the filter section.

#### Filter

If used, the basic filter should be cleaned when necessary and checked at least 4 times a year. To clean the filter, open top or bottom lid by loosening a pair of screws underneath the lid and vaccum.

The filter in the filter section is a deep-pleated bag filter, type EU3 (G85). It should be replaced when the recommended pressure drop is increasing 75 Pa. Check the pressure drop at least 4 times a year.

Pressure drop for deep-pleated bagfilter replacement: 75 Pa.

Replacement filter of 20 mm frame width:

	WxHxD [mm]	Number of bags
SWEF1	420x446x350	4
SWEF2	552x558x400	4
SWEF3	630x680x450	5

### Heating coil

Inspect the coil for water leakage and corrosion. Dust on the surface of the heating coil can be vaccumed.

#### Motor

The motor is normaly maintenanance-free. If noise or vibrations should occur, inspect the bearing and replace it if necessary. Replacement should be carried out by a certified technician.



#### Packaging

Packaging materials are chosen with consideration to the environment and are therefore recyclable.

# Handling of product at end of working life

This product may contain substances necessary for the functionality of the product but potentially dangerous for the environment. The product should not be disposed of mixed with general household waste but delivered to a designated collection point for environmental recycling. Please contact the local authority for further details of your nearest designated collection point.

#### Safety

- Keep the areas around the air intake and exhaust grilles free from possible obstructions!
- Lifting aids should be used to lift the appliance.
- When adjusting the louvers, please note that the water heating coil may have sharp edges.
- 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.
- Children of less than 3 years should be kept away unless continuously supervised.
- Children aged from 3 years and less than 8 years shall only switch on/off the appliance provided that it has been placed or installed in its intended normal operating position and they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved.
- Children aged from 3 years and less than 8 years shall not plug in, regulate and clean the appliance or perform user maintenance.

CAUTION — Some parts of this product can become very hot and cause burns. Particular attention has to be given where children and vulnerable people are present.



Main office Frico AB Industrivägen 41

SE-433 61 Sävedalen mailbox@frico.se Sweden www.frico.net

For latest updated information and information about your local contact: www.frico.net

Tel: +46 31 336 86 00