



Fan heater SWL

Fan heater with low sound level, for water connection



Application

SWL is a fan heater with low sound level intended for water heating. SWL is suitable for industrial premises where fan heaters are traditionally used, but also in environments such as shops and assembly halls. The fan heater can be mounted on the wall or the ceiling.

Comfort

Fan heater SWL provides a comfortable heating without compromising on the sound level. A low sound level is also an important part of the comfort in many facilities.

Operation and economy

The fan heater gives high output and provides fast and efficient heat at low cost. Easy installation and maintenance minimizes cost. Dust can be easily cleaned from the coil.

Design

SWL has a compact design and fits well into most environments. The housing is made of white steel panels, but the fan heater can also be ordered uncoated or in other colours than white.

Product specifications

- Low sound level.
- Two or five fan speeds depending on the chosen control option.
- Wide range of controls and accessories.
- Supplied with air director with individually adjustable louvres that direct the air flow on one plane.
- Mounted on the wall or ceiling. Mounting brackets are extra.
- Intended for water temperatures up to +150 °C and 10 bar in standard design.
- Corrosion proof housing made of hot zinc-plate and powder coated steel panels. Colour: RAL 9016, (white). Housing without lacquer or in other colours available on request. Aluminium louvres.

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Technical specifications

Fan heater SWL (IP44)

Item number	Type	Heat output* ¹ [kW]	Airflow [m ³ /h]	Airflow [m ³ /s]	Sound power* ² [dB(A)]	Sound pressure* ³ [dB(A)]	Δt * ^{1,4} [°C]	Water volume* ⁵ [l]	Voltage [V]	Amperage [A]	Weight [kg]
39611	SWL02	12	650/1120	0,18/0,31	59	30/43	36/30	1,3	230V~	0,4	16
39612	SWL12	19	1450/2450	0,40/0,68	70	41/54	27/22	1,5	230V~	0,8	20
39613	SWL22	31	2200/3950	0,61/1,10	75	46/59	29/23	2,7	230V~	1,2	30
466552	SWL32	47	3500/5820	1,18/1,79	73	46/57	24/18	3,8	230V~	1,65	50
466553	SWL33	60	3060/5340	1,02/1,63	74	45/58	37/33	5,2	230V~	1,68	53

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

*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.

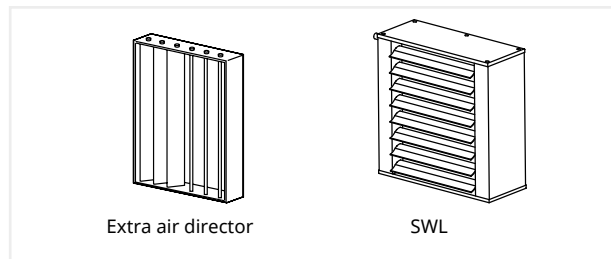
*⁴) Δt = temperature rise of passing air at maximum heat output and lowest/highest airflow.

*⁵) Water volume inside water coil.

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

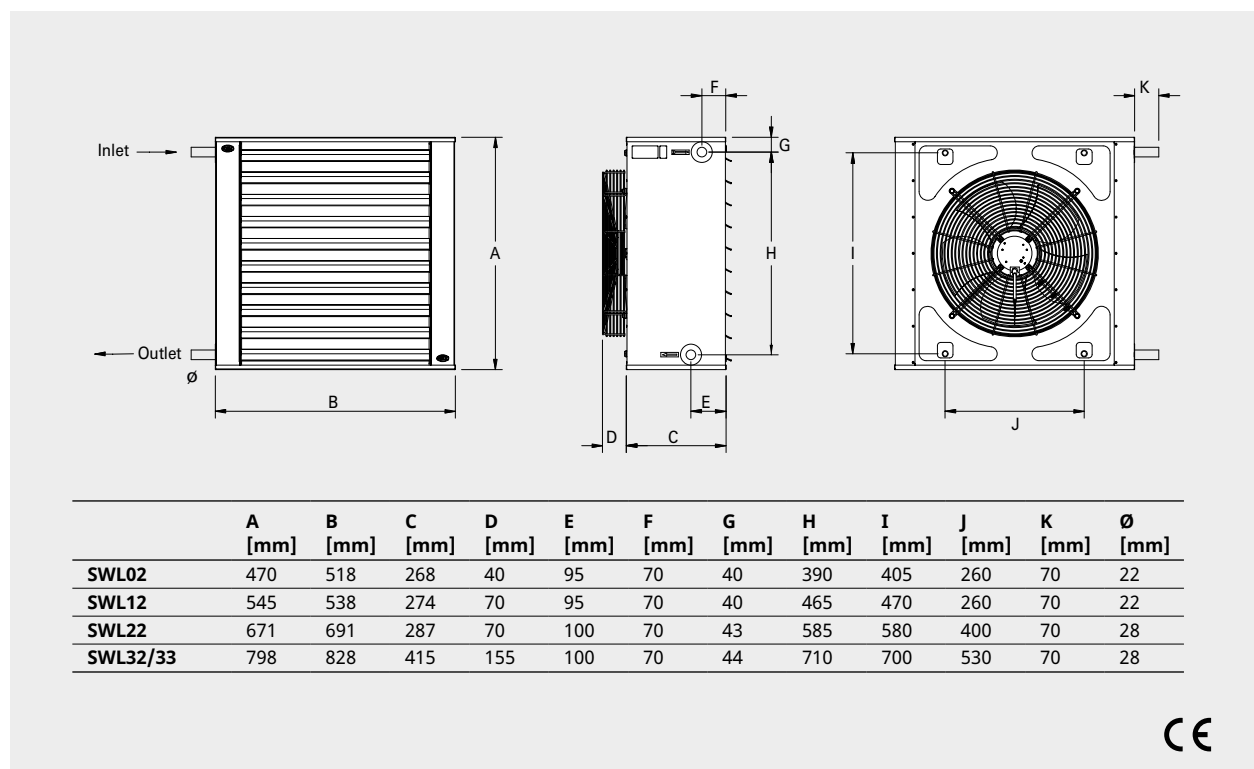
Air throw

Type	Air throw [m]	Air throw with extra air director [m]
SWL02	8	-
SWL12	12	16
SWL22	18	23
SWL32	24	31
SWL33	22	29



The air throw data above is valid at highest air flow 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.

Dimensions



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Mounting and connection

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.

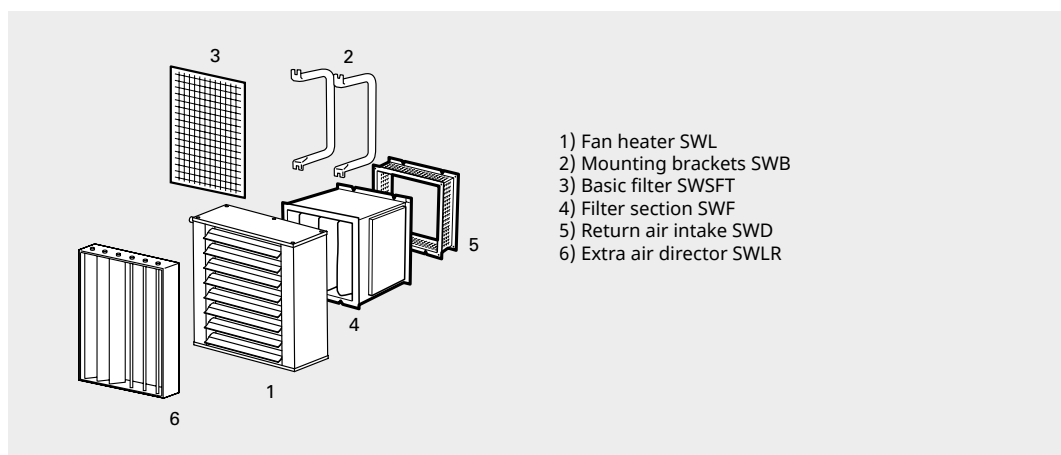
Connection

The fan motor is connected to a detached terminal box, which is mounted on a wall next to the unit. When a filter section is used, holes must be made in the casing for connection cables.

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.

Accessories



Item number	Type	Description				
			SWL02	SWL12	SWL22	SWL32/33
17577	SWB0	Mounting brackets	•			
17578	SWB1	Mounting brackets		•		
17579	SWB2	Mounting brackets			•	
17580	SWB3	Mounting brackets				•
10113	SWF1	Filter section		•		
10115	SWF2	Filter section			•	
10117	SWF3	Filter section				•
10099	SWD1	Return air intake		•		
10102	SWD2	Return air intake			•	
10103	SWD3	Return air intake				•
10108	SWEF1	Extra filter cassette		•		
10110	SWEF2	Extra filter cassette			•	
10111	SWEF3	Extra filter cassette				•
27661	SWSFT02	Basic filter	•			
27658	SWSFT1	Basic filter		•		
27659	SWSFT2	Basic filter			•	
27660	SWSFT3	Basic filter				•
10132	SWLR1	Extra air director		•		
10133	SWLR2	Extra air director			•	
10134	SWLR3	Extra air director				•

For information about the accessories, see fan heater SWH.

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Control options

Communication via Modbus

The room regulator controls the heat supply on/off. Communication via Modbus, BACnet or EXOline . The air flow is regulated in 2 steps.

- FCR230AC, 3-step room regulator
- VPTK_NC, pressure independent valve system on/off

Control by thermostat only

The thermostat starts/stops the fan and also controls the heat supply on/off. The airflow is set during installation (low/high). Complete regulation kit:

- KRT1900, KRTV19 or TKS16, room thermostat
- TVVS20/25, 2-way valve or TRVS20/25 3-way valve + SD20, actuator

Thermostat and 2-step control

The thermostat controls the heat supply on/off and can also start/stop the fan. The air flow is manually regulated in 2 steps.

Complete regulation kit:

- CB20, control panel
- KRT1900, KRTV19 or TKS16, room thermostat
- TVVS20/25, 2-way valve or TRVS20/25 3-way valve + SD20, actuator

Thermostat and 5-step control

The thermostat controls the heat supply on/off and can also start/stop the fan. The air flow is manually regulated in 5 steps.

Complete regulation kit:

- RE1,5, 5-step regulator max 1,5A, or RE3, 5-step regulator max 3A, or RE7, 5-step regulator max 7A
- KRT1900, KRTV19 or TKS16, room thermostat
- TVVS20/25, 2-way valve + SD20, actuator

For further information and options, see the "Controls" section.



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Control



FCR230AC, 3-step room regulator

FCR230AC is a room regulator for control of heating and/or cooling in a room. It is intended to control 230V thermic actuators and has fan control that regulates the fan speed in three steps via relays. Communication via Modbus, BACnet or EXOline. The regulator has an integrated sensor, alternatively an external room sensor (ECG1) can be connected.

TKS16, thermostat

Processor controlled thermostat with visible dials and 1-pole main switch. Setting range +5 – +30 °C. Alternating contact for heating or cooling. Connection voltage: 230V. Max. breaking current: 16 A. IP30.

KRT1900/KRTV19, capillary tube thermostats

Capillary tube thermostat with concealed (KRT1900) or visible knob (KRTV19). Setting range 0 – +40 °C. Max. breaking current: 16/10 A (230/400V). IP55 (KRT1900) or IP44 (KRTV19).

CB20, control box

Controls the airflow in 2 steps. Can control several units. Max input 12 A. IP44.

RE1,5/RE3/RE7, 5-step change-over switch for air flow

Controls the air flow in 5 steps. **RE1,5** controls maximum 1,5 A. **RE3** controls maximum 3 A. **RE7** controls maximum 7 A. To control the heat, a suitable thermostat and a valve + actuator are needed. IP54.

Item number	Type	Description	HxWxD [mm]
398206	FCR230AC	Room regulator 3 steps	120x102x29
11929	ECG1	External room temperature sensor	86x86x30
11651	TKS16	Electronic thermostat, knob, 1-pole switch, IP30	80x80x39
5999	KRT1900	Capillary tube thermostat, IP55	165x57x60
10214	KRTV19	Capillary tube thermostat with knob, IP44	165x57x60
10737	CB20	Control box, 2 fan steps, IP44	155x87x43
5000	RE1,5	5-step control 1,5 A IP54	200x105x105
5001	RE3	5-step control 3 A IP54	200x105x105
5003	RE7	5-step control 7 A IP54	257x147x145

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Water control

VPTK_NC, pressure independent valve system on/off

Two way pressure independent control and adjustment valve with on/off actuator and shut-off valve DN15/20/25/32. 230V. Used with controller FCR230AC.

TVVS20/25, valves + SD20, actuator

TVVS20/25, 2-way regulation valve and SD20, actuator on/off provides a basic form of water regulation, without the possibility of adjusting or shutting the water flow off, e.g. when making maintenance. A suitable thermostat is chosen to regulate TVVS20/25 and SD20. DN20/25.

TRVS20/25, 3-way control valve

If a 3-way valve is preferred, TRVS20/25 can be used instead of TVVS20/25.

*) For further information and options regarding our water controls, see the "Controls" section.

Type	Description
VPTK15NFNC	DN15
VPTK15LFNC	DN15 Low flow
VPTK20NC	DN20
VPTK25NC	DN25
VPTK32NC	DN32
TVVS20	DN20
TVVS25	DN25
TRVS20	DN20
TRVS25	DN25
SD20	230V

