



5 models

💧 Water heat

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 enameled steel panels. Colour: RAL 9016, NCS S 0500-N (white). Housing without lacquer or in other colours available on request. Aluminium louvres.

Technical specifications

Fan heater SWL (IP44)

Type	Heat output*1 [kW]	Airflow [m³/h]	Airflow [m³/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]
SWL02	12	650/1120	0,18/0,31	59	30/43	36/30	1,3	230V~	0,4	16
SWL12	19	1450/2450	0,40/0,68	70	41/54	27/22	1,5	230V~	0,8	20
SWL22	31	2200/3950	0,61/1,10	75	46/59	29/23	2,7	230V~	1,2	30
SWL32	50	4230/6450	1,18/1,79	72	46/56	27/23	3,8	230V~	2,3	50
SWL33	64	3700/5850	1,02/1,63	68	47/53	37/32	5,2	230V~	2,3	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.

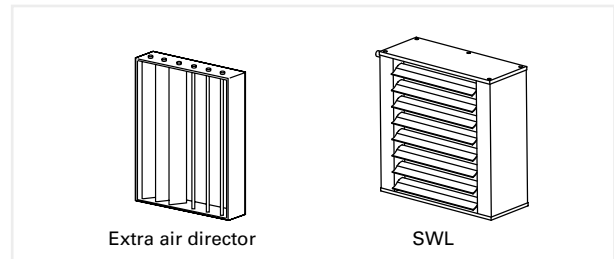
*4) Δt = temperature rise of passing air at maximum heat output and lowest/highest airflow.

*5) Water volume inside water coil.

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

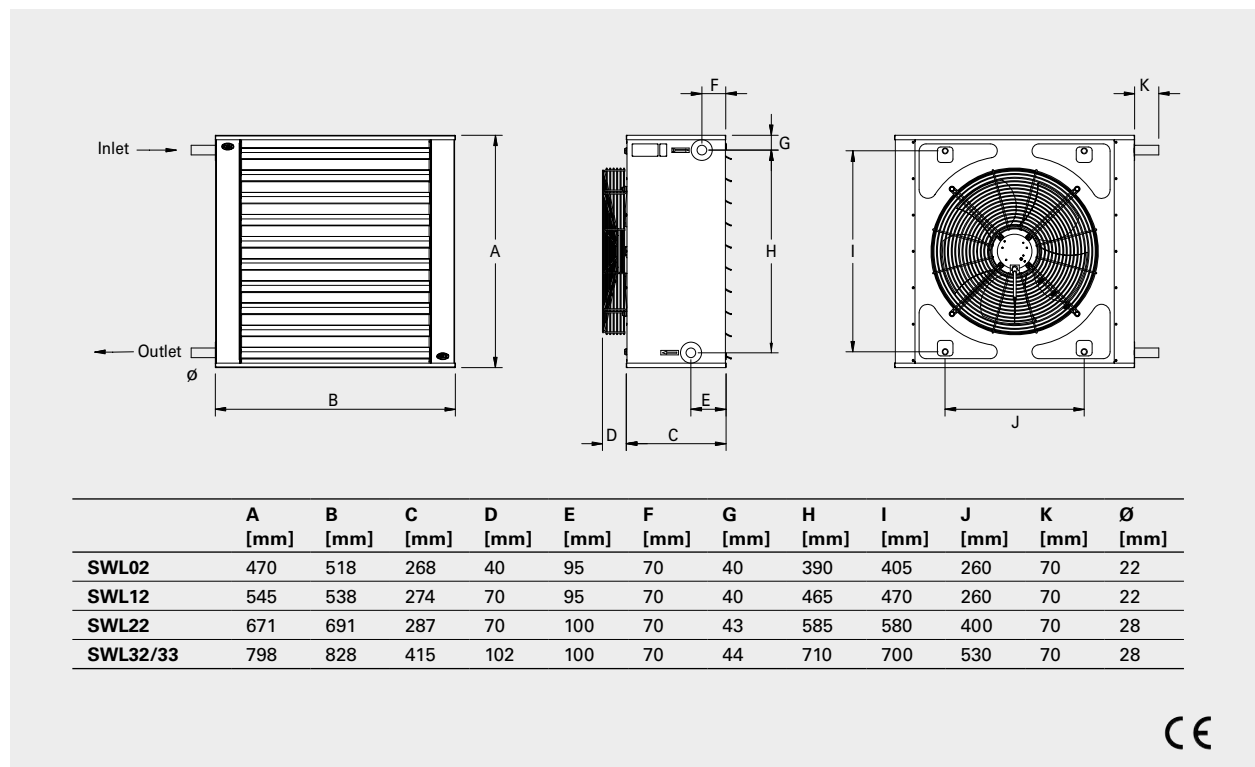
Air throw

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



Fan heater SWL

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.

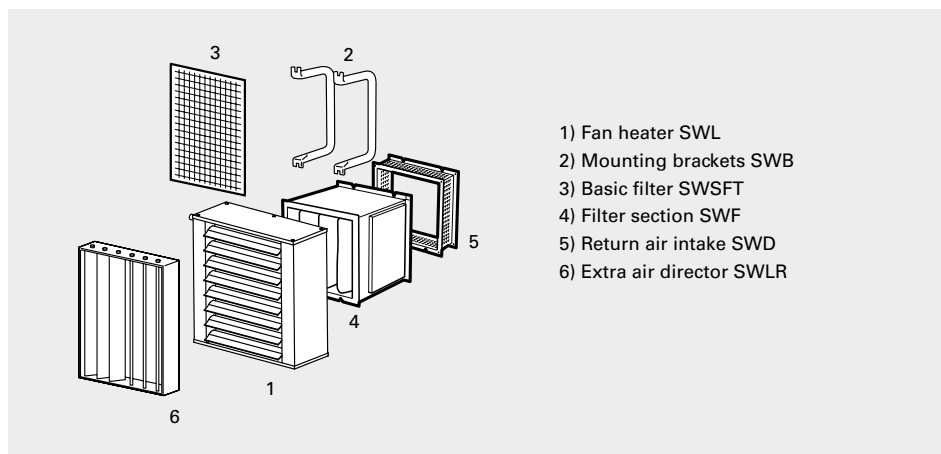
Connection of heating coil

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.

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.

Accessories



Type	Description				
		SWL02	SWL12	SWL22	SWL32/33
SWB0	Mounting brackets	•			
SWB1	Mounting brackets		•		
SWB2	Mounting brackets			•	
SWB3	Mounting brackets				•
SWF1	Filter section		•		
SWF2	Filter section			•	
SWF3	Filter section				•
SWD1	Return air intake		•		
SWD2	Return air intake			•	
SWD3	Return air intake				•
SWEF1	Extra filter cassette		•		
SWEF2	Extra filter cassette			•	
SWEF3	Extra filter cassette				•
SWSFT02	Basic filter	•			
SWSFT1	Basic filter		•		
SWSFT2	Basic filter			•	
SWSFT3	Basic filter				•
SWLR1	Extra air director		•		
SWLR2	Extra air director			•	
SWLR3	Extra air director				•

For information about the accessories, see fan heater SWH.

Control options

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.



Fan heater SWL

Control



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: 230 V. 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.

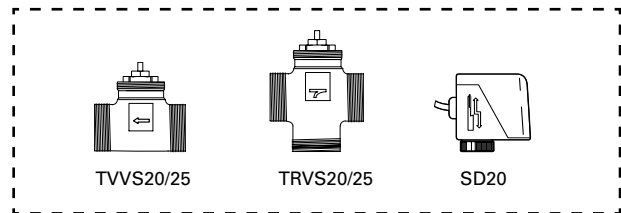
Type	Description	HxWxD [mm]
TKS16	Electronic thermostat, knob, 1-pole switch, IP30	80x80x39
KRT1900	Capillary tube thermostat, IP55	165x57x60
KRTV19	Capillary tube thermostat with knob, IP44	165x57x60
CB20	Control box, 2 fan steps, IP44	155x87x43
RE1,5	5-step control 1,5 A IP54	200x105x105
RE3	5-step control 3 A IP54	200x105x105
RE7	5-step control 7 A IP54	257x147x145

Water control

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
TVVS20	2-way valve DN20
TVVS25	2-way valve DN25
TRVS20	3-way valve DN20
TRVS25	3-way valve DN25
SD20	Actuator on/off 230V

Output charts water

Incoming / outgoing water temperature 90/70 °C														
Type	Fan position	Airflow [m ³ /h]	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]
SWL02	max	1120	20,6	40	0,25	17,3	14,0	46	0,21	12,6	14,0	52	0,17	8,6
	min	650	14,0	49	0,17	8,6	11,8	54	0,15	6,3	9,6	58	0,12	4,3
SWL12	max	2450	32,9	25	0,40	15,6	27,7	34	0,34	11,2	22,5	42	0,28	7,5
	min	1450	23,8	34	0,29	8,3	20,0	41	0,25	6,0	16,2	48	0,20	4,0
SWL22	max	3950	55,6	27	0,68	19,5	46,8	35	0,57	14,0	37,9	43	0,47	9,3
	min	2200	38,5	37	0,47	9,6	32,4	44	0,40	6,9	26,2	50	0,32	4,6
SWL32	max	6450	83,5	28	1,02	26,5	70,2	36	0,86	19,3	56,9	44	0,70	13,2
	min	4230	68,1	33	0,84	18,3	57,3	40	0,70	13,3	46,4	47	0,57	9,1
SWL33	max	5850	112,0	42	1,37	46,3	94,2	48	1,16	33,7	76,8	53	0,94	23,2
	min	3700	81,3	50	1,00	25,8	68,4	55	0,84	18,8	55,5	59	0,68	12,9

Incoming / outgoing water temperature 80/60 °C														
Type	Fan position	Airflow [m ³ /h]	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]
SWL02	max	1120	18,2	33	0,22	18,7	14,9	39	0,18	12,2	11,6	45	0,14	6,5
	min	650	12,4	42	0,15	6,2	10,2	46	0,12	4,0	7,9	51	0,10	2,4
SWL12	max	2450	29,1	20	0,36	13,0	23,9	29	0,29	8,4	18,6	37	0,23	4,9
	min	1450	21,0	28	0,26	2,6	17,2	35	0,21	1,7	13,4	42	0,16	1,0
SWL22	max	3950	49,2	22	0,60	16,9	40,3	30	0,49	11,0	31,4	38	0,38	6,5
	min	2200	34,0	31	0,42	2,9	27,9	40	0,34	1,9	21,7	44	0,27	1,1
SWL32	max	6450	77,9	21	0,95	26,8	64,1	30	0,78	17,4	49,6	38	0,61	10,2
	min	4230	60,2	27	0,74	4,9	49,3	35	0,60	3,1	38,4	42	0,47	1,8
SWL33	max	5850	99,7	35	1,22	48,4	81,8	41	1,00	31,3	63,7	47	0,78	18,4
	min	3700	72,0	43	0,88	7,7	59,1	47	0,72	4,9	46,1	52	0,56	2,9

Fan heater SWL

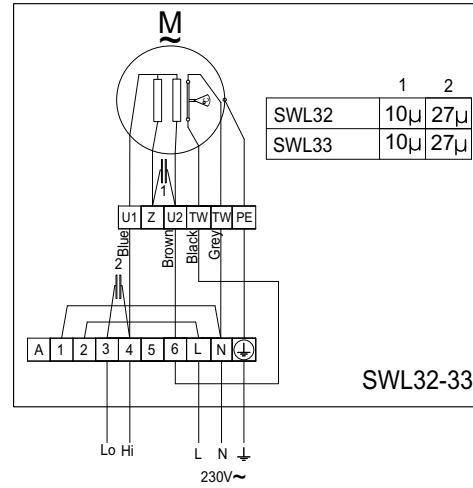
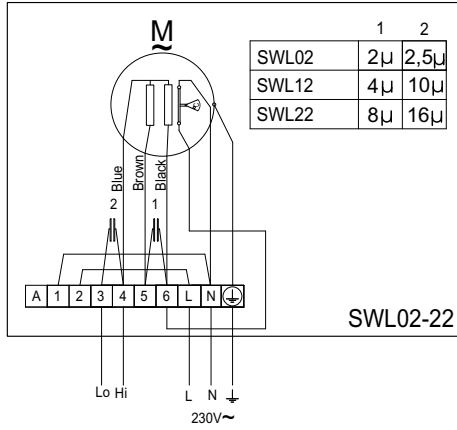
Output charts water

Incoming / outgoing water temperature 60/50 °C														
Type	Fan position	Airflow [m³/h]	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]
SWL02	max	1120	15,3	26	0,37	37,5	12,0	32	0,29	24,1	8,6	38	0,21	13,3
	min	650	10,4	33	0,25	18,7	8,1	37	0,20	12,0	5,9	42	0,14	6,7
SWL12	max	2450	13,8	15	0,59	34,0	19,2	23	0,46	21,3	13,8	32	0,34	11,4
	min	1450	17,6	21	0,43	18,1	13,8	28	0,34	11,4	10,0	35	0,24	6,1
SWL22	max	3950	41,3	16	1,00	42,6	32,4	24	0,79	26,6	23,4	32	0,57	14,2
	min	2200	28,5	24	0,69	20,8	22,4	30	0,54	13,1	16,1	37	0,39	7,0
SWL32	max	6450	65,8	15	1,60	64,3	51,6	24	1,25	41,2	37,2	32	0,90	22,7
	min	4230	50,2	21	1,23	39,7	39,7	28	0,96	25,5	28,6	35	0,69	14,1
SWL33	max	5850	83,0	27	2,02	100,3	65,1	33	1,58	64,3	47,0	39	1,14	35,5
	min	3700	60,2	34	1,46	55,7	47,2	38	1,15	35,8	34,2	42	0,83	19,9

Incoming / outgoing water temperature 60/40 °C														
Type	Fan position	Airflow [m³/h]	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]
SWL02	max	1120	13,4	21	0,16	8,6	10,0	27	0,12	5,1	6,6	32	0,08	2,5
	min	650	9,1	27	0,11	4,3	6,9	31	0,08	2,6	4,5	35	0,05	1,3
SWL12	max	2450	21,4	11	0,26	7,0	16,1	20	0,20	4,1	10,7	28	0,13	1,9
	min	1450	15,5	17	0,19	3,8	11,6	24	0,14	2,2	7,7	31	0,09	1,0
SWL22	max	3950	36,2	12	0,44	8,8	27,2	20	0,33	5,1	18,0	28	0,22	2,4
	min	2200	25,0	19	0,30	4,4	18,8	25	0,23	2,6	12,4	32	0,15	1,2
SWL32	max	6450	57,4	12	0,70	14,4	43,1	20	0,52	8,6	28,3	28	0,34	4,0
	min	4230	44,2	16	0,54	9,0	33,2	23	0,40	5,4	21,9	30	0,27	2,6
SWL33	max	5850	73,3	22	0,89	22,9	55,3	28	0,67	13,8	36,9	34	0,45	6,7
	min	3700	53,4	28	0,65	12,9	40,3	32	0,49	7,8	26,9	36	0,33	3,8

Wiring diagrams

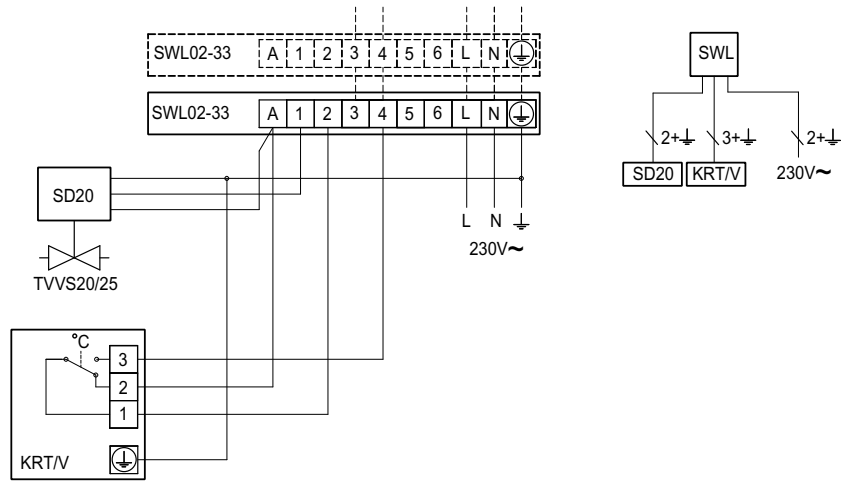
Internal wiring diagram



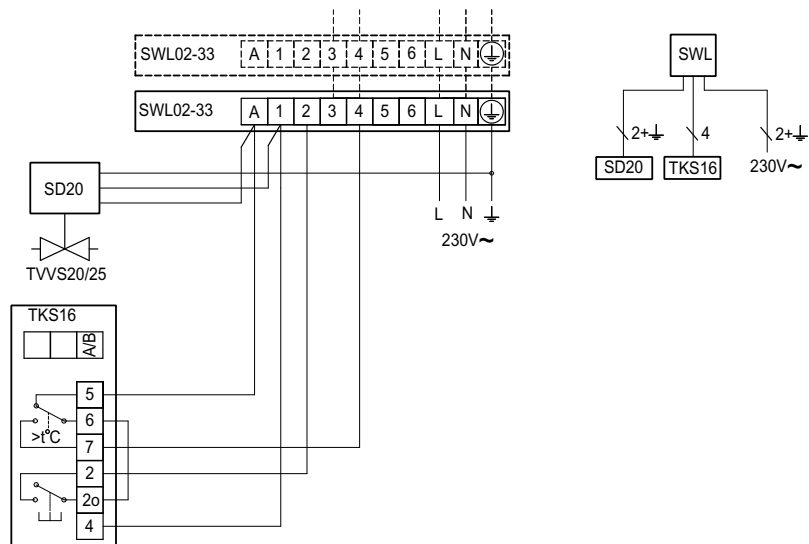
Control by thermostat only



KRT1900/KRTV19, capillary tube thermostat



TKS16, electronic thermostat

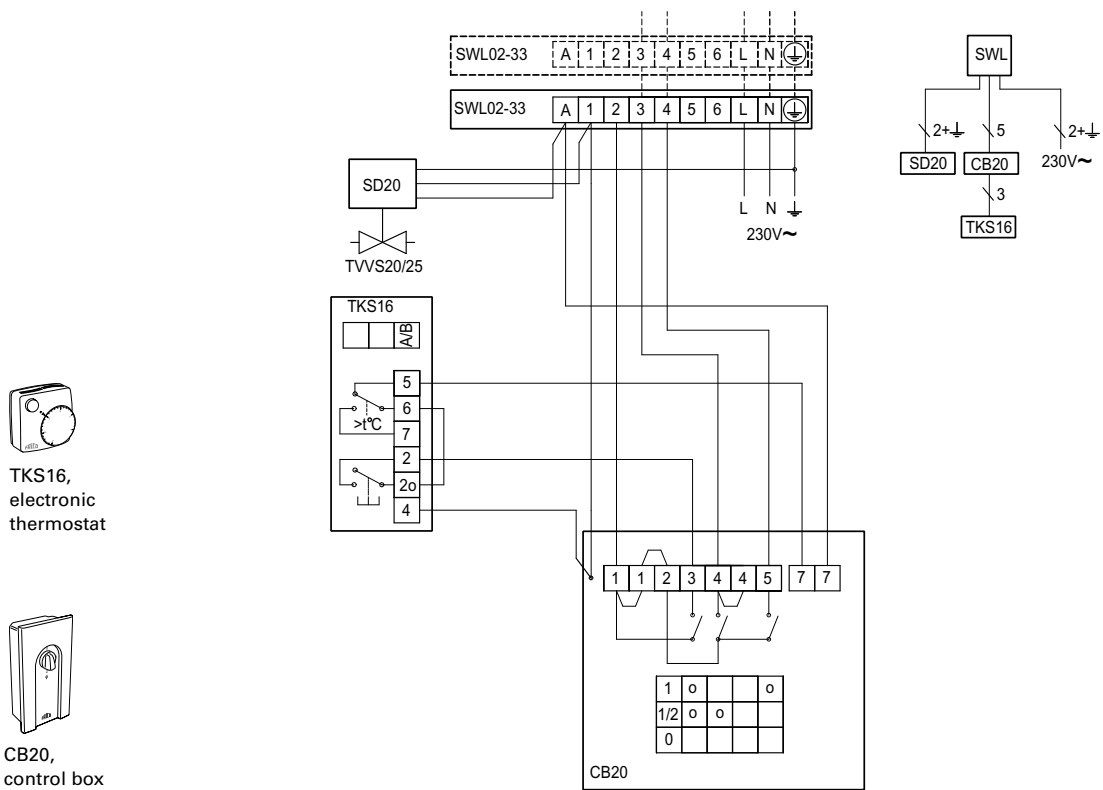
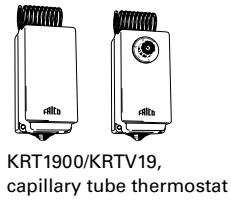
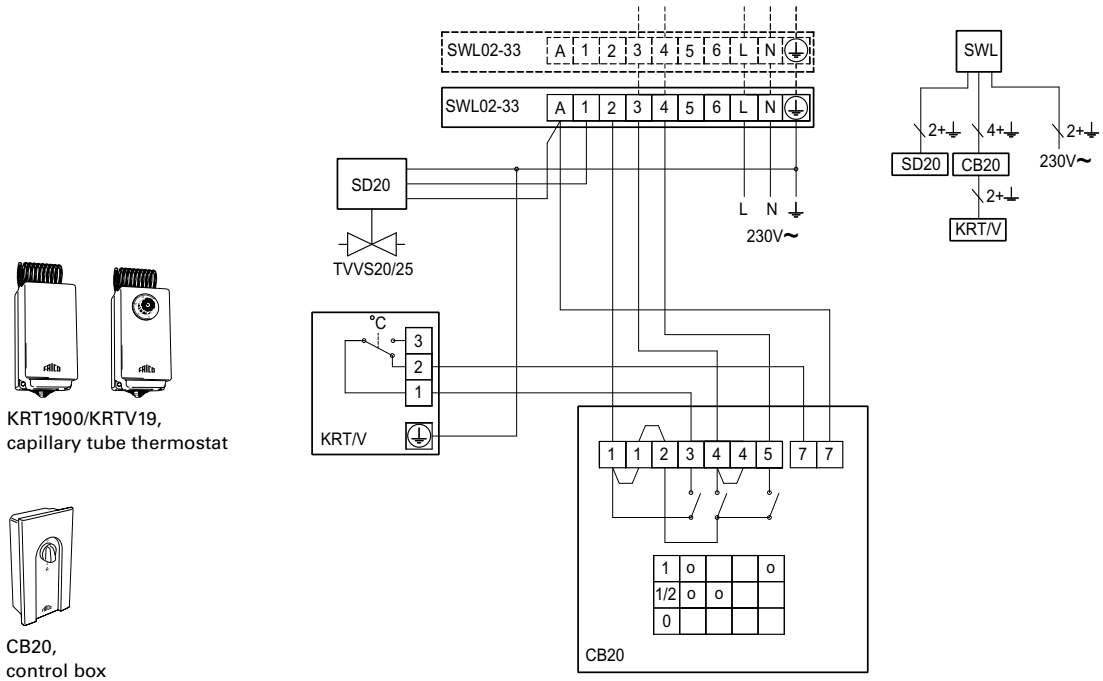


Fan heater SWL

Wiring diagrams

Thermostat and 2-step control

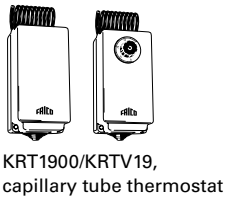
The thermostat controls only heat



Wiring diagrams

Thermostat and 2-step control

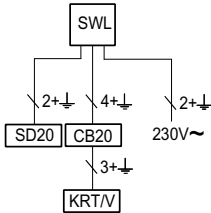
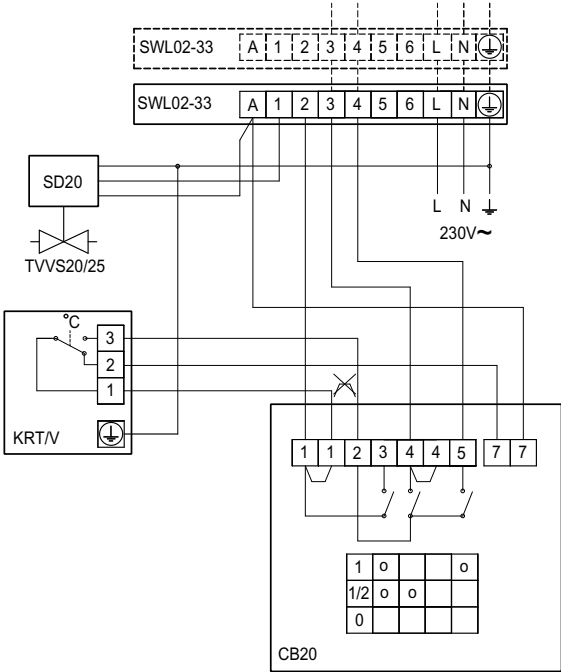
The thermostat controls heat and fan



KRT1900/KRTV19, capillary tube thermostat



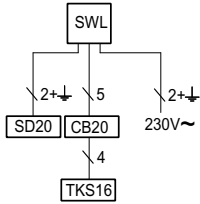
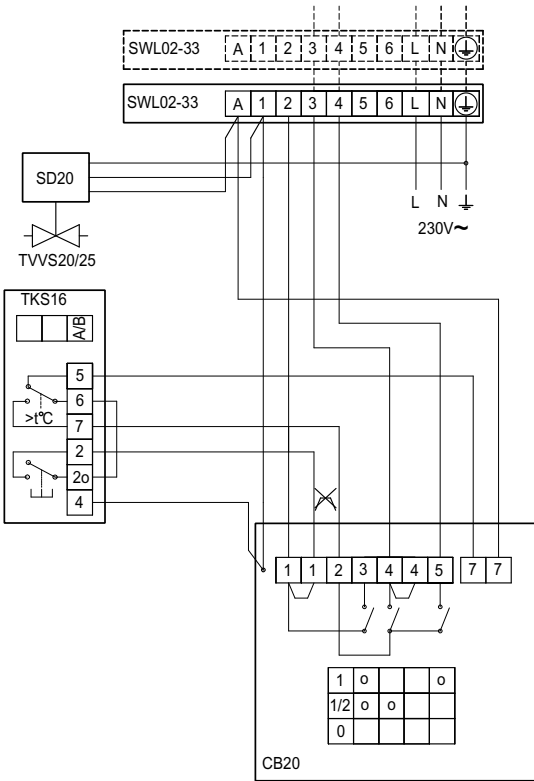
CB20, control box



TKS16, electronic thermostat



CB20, control box



Fan heater SWL

Wiring diagrams

Thermostat and 5-step control

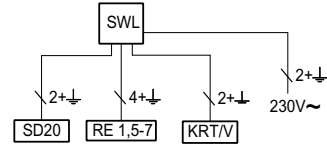
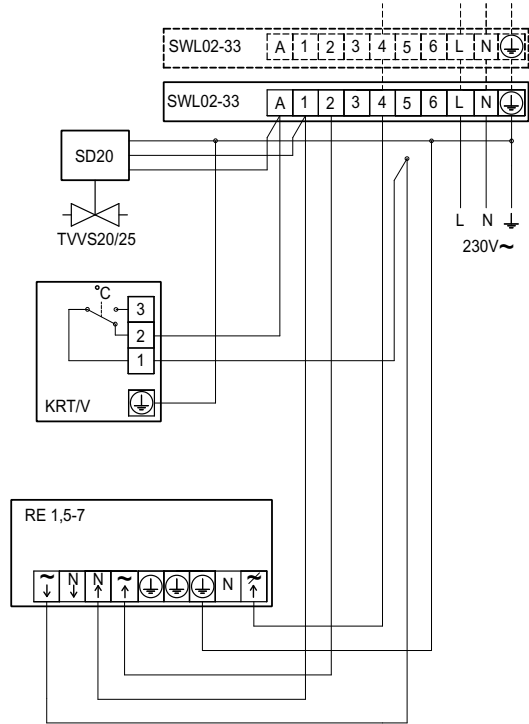
The thermostat controls only heat



KRT1900/KRTV19,
capillary tube thermostat



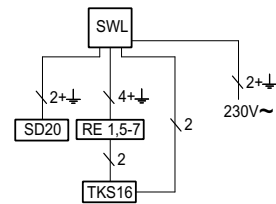
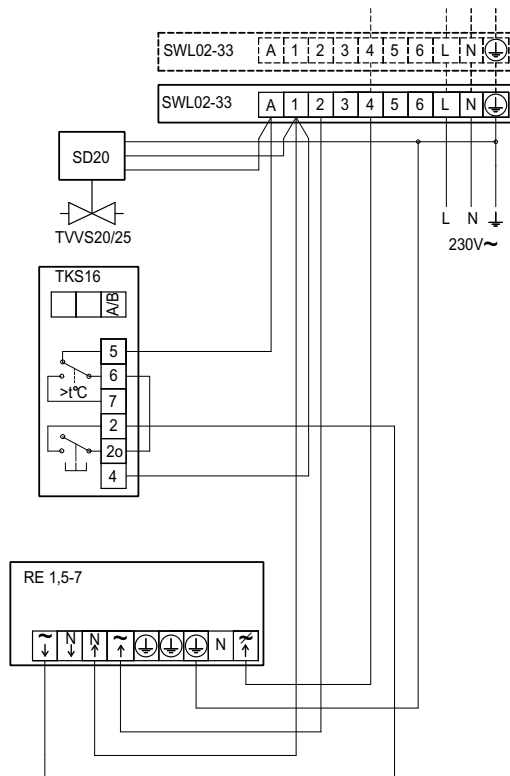
RE1,5-7,
5-step control



TKS16,
electronic thermostat



RE1,5-7,
5-step control



Wiring diagrams

Thermostat and 5-step control

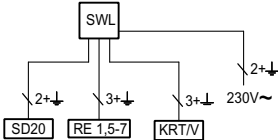
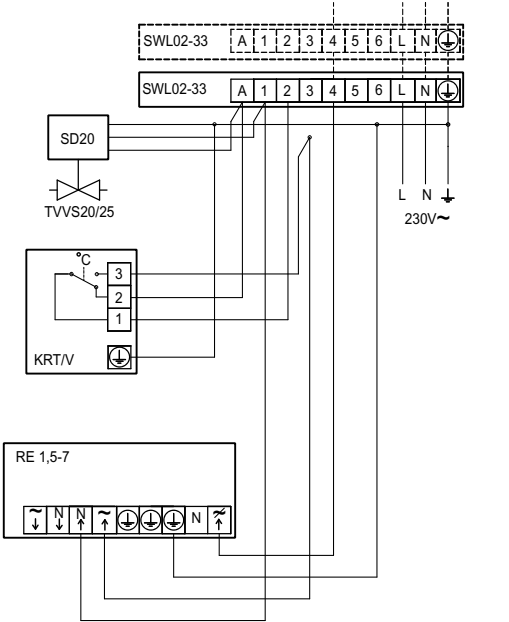
The thermostat controls heat and fan



KRT1900/KRTV19, capillary tube thermostat



RE1,5-7, 5-step control



TKS16, electronic thermostat



RE1,5-7, 5-step control

