

Combined fan heater and cooler for year-round comfort

Prism is designed to maintain a comfortable temperature year-round. The fan heater efficiently heats premises during winter, while in summer, it can cool the same environment. Prism has a compact design and is ideal for applications where fan heaters are commonly used, such as industrial and commercial buildings, as well as shops and assembly halls.

Heating or cooling

Advanced room control for optimised indoor climate is available with the option of automatic change-over for heating or cooling. Room control with manual settings is available as an option.

Low energy consumption

The fan heater is equipped with an EC motor that is up to 50% more energy efficient than a traditional AC motor. The stepless fan control gives optimal settings and lower sound level.

Easy installation and comfort

Prism offers easy installation and is compatible with various accessories. It can be rotated to locate pipes on either the left or the right side. This ensures effortless placement and facilitates a straightforward and flexible installation.



Product specifications

- Mounted on wall or ceiling. For cooling, wall installation is required.
- · Water connection.
- Automatic change-over with clamp-on sensor.
- The fan heater is equipped with an EC motor that is up to 50% more energy efficient than a traditional AC motor.
- Intended for water temperatures up to +150 °C and 10 bar in standard design.
- · Wide range of controls and accessories.





Technical specifications

Voltage motor: 230V

Combined fan heater/cooler Prism (IP54) - Water coil 6

Item number	Туре	Heat output* ^{1,2} [kW]	Cooling output* ^{3,5} [kW]	Cooling output (sensible)* ^{4,5} [kW]	Airflow* ² [m ³ /h]	Sound power* ⁶ [dB(A)]	Sound pressure* ^{2,7} [dB(A)]	∆t* ^{1,2,8} [°C]	Water volume* ⁹ [l]	Amperage* ² [A]	Weight [kg]
458230	PRI02	6,5/14,3	-	-	500/1550	75	31/59	36/30	1,3	0,09/0,54	15
458231	PRI12	10,1/22,7	3,6/7,3	5,4	800/2550	71	28/55,5	27/22	1,5	0,11/1,03	20
458232	PRI22	21,2/43,2	7,5/12,4	9,2	1800/5050	80	40/64	29/23	2,7	0,2/1,35	31
458233	PRI32	28/62,7	10,1/18,9	13,8	2250/7150	84	42/68	24/18	3,8	0,3/3,23	51
458234	PRI33	35,6/83,6	12,3/24,4	18	2200/7050	84	41/68	37/33	5,2	0,3/3,28	54

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

 *2) Applicable at control voltage 2V/10V.

 *3) Applicable at control voltage 2V/7V.

 *4) Applicable at control voltage 7V.

 *5) Applicable at water temperature +7/12 °C, air temperature in +27 °C, relative humidity 50%.

 *6) Sound power (L_{W,}) measurements according to ISO 27327-2: 2014, Installation type E.

 *7) Sound pressure (L_{B,}). Conditions: Distance to the unit 5 metres. Directional factor: 2. Equivalent absorption area: 200 m².

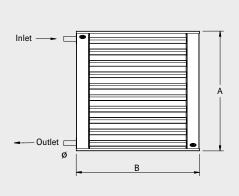
 *8) At = temperature rise of passing air.

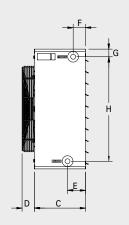
 *9) Water volume inside water coil.

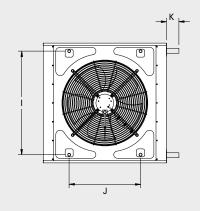
Approved for 220V/1ph/60Hz.

Manufactured in Sweden with a corrosion proof housing made of hot zinc-plate and powder coated steel panels. Colour: white, RAL 9016. Housing without lacquer or in other colours available on request. Aluminium louvres.



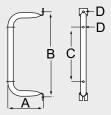






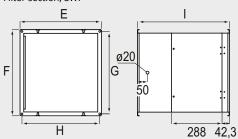
	Α	В	С	D	E	F	G	Н	I	J	K	Ø
	[mm]											
PRI02	470	518	324	40	95	70	40	390	405	260	70	22
PRI12	545	538	354	70	95	70	40	465	470	260	70	22
PRI22	671	691	346	70	100	70	43	585	580	400	75	28
PRI32/33	798	828	497	155	100	70	44	710	700	530	75	28

Mounting brackets, SWB



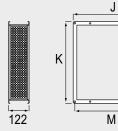
	Α	В	С	D
	[mm]	[mm]	[mm]	[mm]
SWB0	195	405	235	10
SWB1	195	470	300	10
SWB2	250	580	410	10
SWB3	335	700	530	10

Filter section, SWF



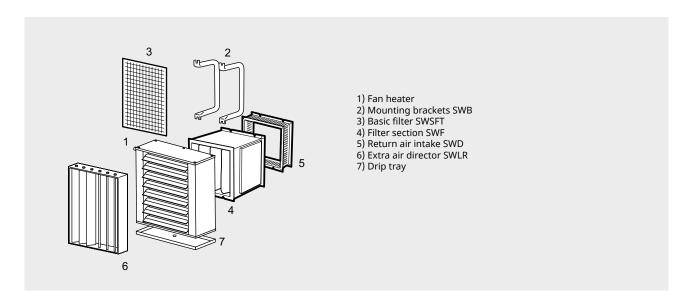
	E	F	G	Н	I
	[mm]	[mm]	[mm]	[mm]	[mm]
SWF1	466	492	470	444	524
SWF2	616	602	580	594	524
SWF3	746	722	700	724	524

Return air intake, SWD



	J	K	L	М
	[mm]	[mm]	[mm]	[mm]
SWD1	464	490	470	444
SWD2	614	600	580	594
SWD3	676	720	700	656

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Item number	Туре	Description				
		-	PRI02	PRI12	PRI22	PRI32/33
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				•
465921	PRIDT1	Drip tray		•		
465922	PRIDT2	Drip tray			•	
465923	PRIDT3	Drip tray				•
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				•

Accessories



Accessories Prism 02-33



SWB, mounting brackets

Brackets for installing the fan heater on the wall or the ceiling. Consist of two brackets and a set of screws for fixing them on the fan heater. The brackets are made of grey powder coated steel tubes.



SWSFT, basic filter

The basic filter provides basic protection for the fan heater's heating coil. The filter is easily accessible from both the top and bottom of the unit for installation and cleaning. The filter can be reused after cleaning.

Accessories Prism 12-33



SWF, filter section

The section filters the return air from particles that might reduce the performance and reliability of the fan heater. It is equipped with a filter cassette of disposable deep-pleated bagfilters of synthetic material. Filterclass G85 (EU3). Extra filter cassettes SWEF are available as accessories. The section is made of hot zinc-plate and white powder coated steel panels.

When the filter section is used, it must be equipped with the return air intake SWD for air inlet when mounted directly against a wall or ceiling.



SWD, return air intake

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The return air intake ensures air inlet when the filter section SWF is used, mounted directly against a wall or ceiling. The return air intake is mounted together with the filter section with screws or guides. The intake is made of hot zinc-plate and white powder coated steel panels.

SWEF, extra filtercassette

Replacement filter for filter section SWF.



SWLR, extra air director

The extra air director complements the air director already present on the fan heater, which directs the air vertically. The extra air director makes it possible to direct the air sideways. It is mounted to the unit by hooking it onto the existing air director. The frame is made of hot zinc-plate and white powder coated steel panels, with individually adjustable louvres in anodised aluminium.



PRIDT, drip tray

Used to collect condensation when the unit is used for cooling.

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Mounting and connection

Mounting

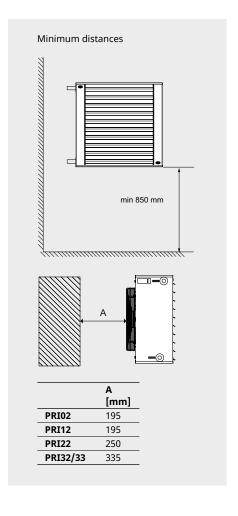
The fan heater can be permanently mounted on a wall for horizontal air distribution, or on the ceiling for vertical air distribution. For cooling operation only wall mounting is possible. The accessories are assembled with screws or guides and then fitted to the wall or ceiling with suitable fasteners. Mounting brackets are extra.

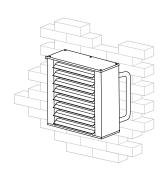
Connection

The fan motor is connected to a detached terminal box (not included), 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.

Installation of the water coil

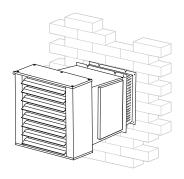
By turning the fan heater, pipe connections are possible on both sides. Water coil with copper pipes. Smooth pipe connections for soldering or compression fittings. A vent valve should be connected at a high point in the pipe system. Vent- and draining valves are not included. For correct inlet and outlet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





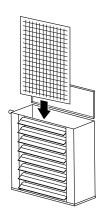
Mounting with brackets

The fan heater is mounted on the wall or the ceiling with mounting brackets SWB. The brackets are ordered separately.



Mounting with the filter section SWF

When the filter section is used, it must be equipped with the return air intake SWD for air inlet when mounted directly against a wall or ceiling. The return air intake is mounted on the wall or ceiling with suitable fasteners.



Mounting of the basic filter SWFTN

The fan heater can be provided with a basic filter to protect the water coil. The filter is accessible from both the top and the bottom of the unit.

Control options



Control options

Heating/cooling

The FCR230 regulates the airflow according to the set room temperature. In "change over" mode between heating and cooling, the clamp-on sensor TG-A1/PT1000 must be used, which detects the temperature in the supply pipe. Complete regulation kit:

- · FCR230, stepless room regulator
- TG-A1/PT1000, clamp-on sensor
- VPTK, VPTK_NC or VOT_NC, valve kit

Heating or cooling

The FCRB54 regulates the airflow according to the set room temperature. Heating or cooling operation is selected during installation. Complete regulation kit:

- FCRB54, room regulator
- VPTK, VPTK_NC or VOT_NC, valve kit





FCR230



ECG1



TG-A1/PT1000



FCRB54

FCR230, room regulator

FCR230 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 steplessly with an analogue 0-10V signal. Communication via Modbus, BACnet or EXOline. The regulator has an integrated sensor, alternatively an external room sensor (ECG1) can be connected.

ECG1, external room temperature sensor

Room sensor which is used in the event of concealed installation in conjunction with room regulator FCR230.

TG-A1/PT1000, clamp-on sensor

Sensor in "change over" mode when unit is switching between heating and cooling. The sensor detects the temperature in the supply pipe.

FCRB54, room regulator

FCRB54 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 7 steps with an analogue 0-10V signal. Possibility for communication via Modbus RTU. The regulator has a pre-mounted room sensor (PT500). IP54.

Item number	Туре	Description	HxWxD [mm]
76649	FCR230	Room regulator 0-10, IP20	120x102x29
11929	ECG1	External room temperature sensor, IP30	86x86x30
7284	TG-A1/PT1000	Clamp-on sensor PT1000, IP65	
477472	FCRB54	Room regulator for control of heating or cooling	215x125x95

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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.

VPIK, Insulation kit

Insulation kit for valve kit VPTKxxNC including cover for valve body and spindle extension.

WCK, Water connection kit

Water connection kit containing all necessary couplings and hoses to connect from product to valve system. The water connection kits are intended for valve systems containing a pressure independent control and adjustment valve.

VPTK, valve kit

Valve kit with two-way valve and 230V actuator. Available in four models: DN15 Kvs 0.4 or 0.6 and DN20 Kvs 2.4 or 4.0.

VOT_NC, three-way valve kit

Valve kit with three-way valve and 230V actuator. Normally closed. DN15/20/25.

Item number	Туре	Description	Length [mm]
456586	VPTK15NFNC	Valve kit DN15	
456587	VPTK15LFNC	Valve kit DN15 Low flow	
398214	VPTK20NC	Valve kit DN20	
398215	VPTK25NC	Valve kit DN25	
454159	VPTK32NC	Valve kit DN32	
157458	VPIK15	Insulation kit	
157459	VPIK20	Insulation kit	
157460	VPIK25	Insulation kit	
457399	VPIK32	Insulation kit	
459323	WCK1FH	Water connection kit (Prism 02-12)	1000
459324	WCK2FH	Water connection kit (Prism 02-12)	350
459325	WCK3FH	Water connection kit (Prism 22-33)	800
459326	WCK4FH	Water connection kit (Prism 22-33)	350
157457	VPTK1504	Valve kit DN15 Kvs 0,4	
157458	VPTK1506	Valve kit DN15 Kvs 0,6	
157459	VPTK2025	Valve kit DN20 Kvs 2,5	
157460	VPTK2040	Valve kit DN20 Kvs 4,0	
457399	VOT15NC	Three-way valve kit DN15	
457400	VOT20NC	Three-way valve kit DN20	
457401	VOT25NC	Three-way valve kit DN25	