



CAW
Ceiling-mounted fan heaters
for hot water

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CAW ceiling-mounted fans are used to heat entrances, warehouses, industrial plants, workshops, sports halls, garages and stores. The low height implies that CAW units can also be installed in false ceilings. The fans are for 230 VAC 1-ph., which makes their installation very easy. The fans have a low noise level and ensure safe operation.

The fans in CAW 21 and CAW 41 are available in both AC and EX execution.

- Three sizes and two models
- Available with integrated control equipment for sensor control or for external 0...10 V control signal
- Hinged front panel provides easy access to coil and fan for inspection and cleaning
- To be installed in ceilings—saves wall space
- Low height—can be installed in false ceilings
- Easy 230 VAC 1-ph. installation
- Two fan speeds as standard

Design

The casing is made of galvanised, white-painted steel plate. The water battery has copper pipes and aluminium fins. Ball bearing-mounted fan with thermal protection ensures low noise and safe operation. The front panel is hinged, which makes it easy to open for cleaning and inspection of battery insert and fan.

CAW fan heaters are available in two models CAW-a and CAW-s.

Dimensioning

Dimensioning can easily be achieved with our web-based calculation program VEAB Select (www.veab.com).

If necessary, contact our sales staff for help.

Installation

To be installed directly on ceiling or in ceiling suspensions.



Control Unit

Integrated Control Equipment

-a

Fan heater with integrated control equipment for external sensor and setpoint adjustment. Can also be controlled by an external 0...10 V control signal. See pages 4 and 5.

External Control Equipment

-s

Fan heater for external control equipment. Has two fan-speeds. See pages 6 and 7.

Approvals

Our fan heaters are produced in accordance with the following directives:

LVD directive: EN 60355-1 and EN 60335-2-30

EMC directives: EN 61000-6-2 and EN 61000-6-3

EMF directive: EN 62233



Product Range Overview with Dimensional Drawing

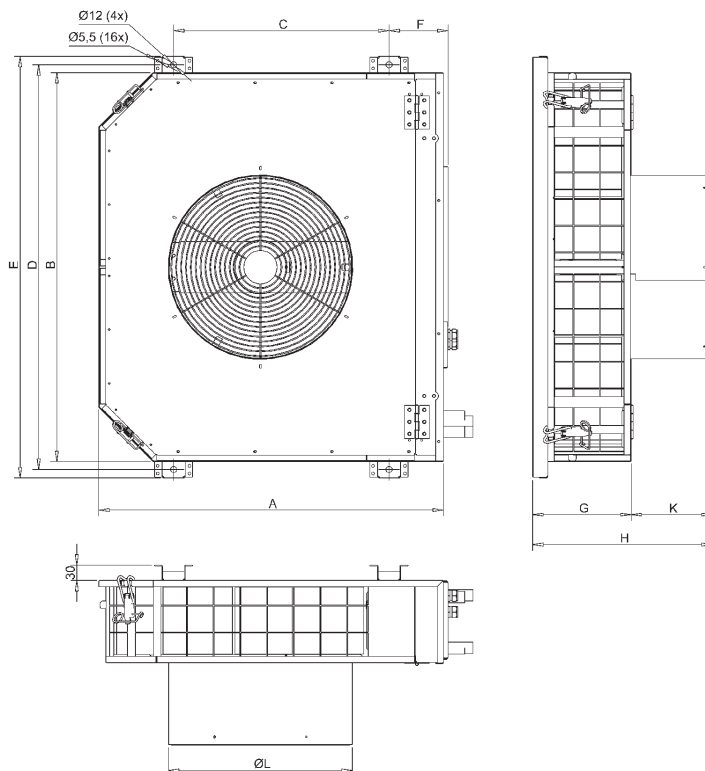
Type		CAW 11	CAW 21	CAW 41	CAW 21-EC	CAW 41-EC
Voltage/ Frequency		230 VAC 50/60Hz	230 VAC 50/60Hz	230 VAC 50/60Hz	230 VAC 50/60Hz	230 VAC 50/60Hz
Power consumption, max.	A	0.4	0.6	1.0	1.0	1.3
Air volume (low/high speed)	m ³ /h	700 / 1100	1200 / 2000	2100 / 3700	1400 / 2100	2400 / 3600
Sound pressure level ¹⁾ (low/high speed)	dB(A)	37 / 53	44 / 57	48 / 60	45 / 56	48 / 57
Vertical range ²⁾ (low/high speed)	m	2.2 / 4	2.7 / 4.5	4.5 / 7.5	2.7 / 4.5	4.5 / 7.5
Vertical range ²⁾ with CAWE (low/high speed)	m	4 / 7	5 / 8	7 / 12	5 / 8	7 / 12
Connector pipe	Ø	22	22	28	22	28
Max. operating temp. water	°C	80°C	80°C	80°C	80°C	80°C
Max. operating pressure (of water)	bar	10	10	10	10	10
Ambient temperature	°C	3-30 °C	3-30 °C	3-30 °C	3-30 °C	3-30 °C
Degree of protection		IP44	IP44	IP44	IP54	IP54
Weight	kg	19	26	41	26	41

¹⁾ Measured at 5 metres in front of fan exhaust.

²⁾ Information is based on the following: From the ceiling to the point where the air velocity is 0.2 m/s, room temperature 18 °C and outlet air temperature 40 °C.

³⁾ Model -a is supplied as standard with IP44-rated valve actuator.

Dimensions	A mm	W mm	C mm	D mm	E mm	F mm	G mm	H mm	K mm	ØL mm
CAW 11	535	640	280	670	705	125	195	330	135	305
CAW 21	675	760	420	790	825	115	195	355	160	355
CAW 41	710	1070	480	1100	1135	110	300	415	115	430



CAW-a

Fan heater for hot water with built-in control equipment for fan and water control

CAW-a fan heaters with integrated control equipment provide for a simple installation among others due to less cabling.

This in turn reduces both the installation cost and the risk of misconnections.

The control equipment is suitable for an external temperature sensor and setpoint adjuster, or an external 0...10 V control signal.

The fans in CAW 21 and CAW 41 are available in both AC and EX execution.

Model -a

CAW-a fan heaters come with integrated control equipment with an electronic thermostat that starts/stops the fan and opens/closes the flow of water.

The thermostat uses a three-stage automatic feedback control:
Stage 1 – Only fan on low speed, without hot water. This function makes use of the warm air stored under the ceiling, which ensures efficient use of energy and saves money.

Stage 2 – The fan is kept at a low speed and the hot water valve opens.

Stage 3 – The fan is kept at a high speed and the hot water valve opens.

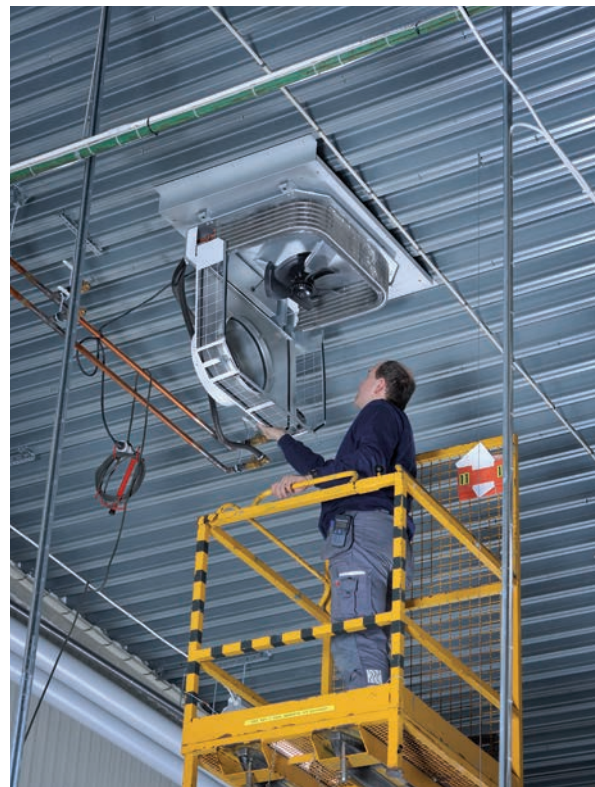
Feedback Control

CAW-a fan heaters are to be complemented with an external room sensor and setpoint adjuster, see next page for examples. CAW-a fan heaters can also be controlled by an external 0...10 V control signal.

A CAW-a fan heater with a connected sensor can control an unlimited number of CAW-a units as slaves as well as our type AW-a wall-mounted fan heaters. The units controlled as slaves then do not need any sensor as they receive their control signal from the CAW-a unit with sensor. See next page for sensors.

Accessories

See next page for sensors that are suitable for CAW-a units.



Installation







CAW-a units are to be installed directly on the ceiling or in ceiling suspensions.

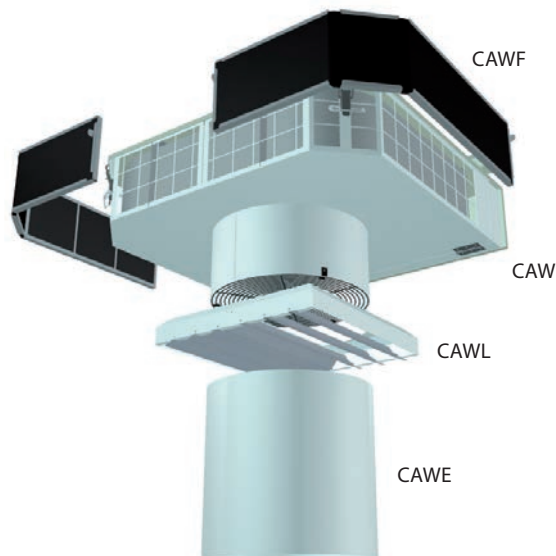
Project Design/Orders

Description – CAW-a

Ceiling-mounted hot water fan heater, VEAB type CAW-a, with white lacquered galvanised sheet steel casing. Water batteries with copper pipes and aluminium fins. Hinged front panel provides easy access to battery insert and fan for inspection and cleaning. Integrated control equipment for fan and water adjustment. Setpoint adjustment is performed externally. Accessories, such as room sensor, setpoint adjuster, filter and extension pipe are to be ordered separately.

Accessories

	Product	Range	Degree of protection
	Room sensor TG-R430 With setpoint adjustment.	Range 0-30 °C	IP30
	Room sensor TG-R530 To be complemented with TG-R430 for setpoint adjustment.	Range 0-30 °C	IP30
	Room sensor TG-R630. To be complemented with TG-R430 for setpoint adjustment.	Range 0-30 °C	IP54
	Extension pipe CAWE The extension is used for taller ceiling heights to increase the range of the blown air. Length: 350 mm.		
	Filter CAWF Filter to be mounted in CAW.		
	Air deflector CAWL Aluminium deflector blades. Direct air flow sideways.		



CAW-s

Fan heater for hot water for external control equipment

CAW-s fan heaters for external control equipment are the right choice for those who want a simple fan heater without giving up on quality.

The fans in CAW 21 and CAW 41 are available in both AC and EX execution.

Model -s

CAW-s for external control device has two fan speeds. The speed is selected at electrical installation or via an external CAWC selector.

CAW-s fan heaters with EC motor has a single fan speed and requires an SMT-D-4P-EM external speed selector if you want to adjust the fan speed.

Feedback Control

CAW-s are complemented with an external room thermostat, speed selector, as well as an actuator and valve. See next page for examples.

Accessories

See next page for accessories that are suitable for CAW-s units.

Installation

CAW-s units are to be installed directly on the ceiling or in ceiling suspensions.



Project Design/Orders

Description – CAW-s

Ceiling-mounted hot water fan heater, VEAB type CAW-s, with white lacquered galvanised sheet steel casing. Water batteries with copper pipes and aluminium fins. Fan motor with two speeds. Hinged front panel provides easy access to battery insert and fan for inspection and cleaning. Accessories, such as thermostat, speed selector, actuator and valve, as well as extension pipe, are to be ordered separately.

Accessories

	Product	Range	Degree of protection
	Actuator and valve AWTV, IP44 Used together with thermostat R31 or SR 121/1.	90 °C, 25 bar max. CAW 11-21: 7.3 Kv CAW 41: 11.8 Kv	IP44
	Speed selector CAWC 11-41 Can control up to four CAW-s units. 0 = off 1 = low speed 2 = high speed Not for EC models		IP42
	Speed selector SMT-D-4P-EM for -EC fans. Controls one CAW -EC model – s 1 = low speed, 2 = medium speed, 3 = high speed		IP54
	Thermostat SR121/1 Can control four CAW-s units.	Range 0-40 °C	IP54
	Room thermostat R31. Can control one CAW-s unit. Max; load 16 A (2.5 A) 250 VAC 1-ph.	Range 7-30°C	IP20
	Extension pipe CAWE The extension is used for taller ceiling heights to increase the range of the blown air. Length: 350 mm.		
	Filter CAWF Filter to be mounted in CAW.		
	Air deflector CAWL Aluminium deflector blades. Direct air flow sideways.		



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