



**AW**  
**Fan heaters for hot water**

# AW

## Fan heaters for hot water

AW fan heaters are used for permanent heating of warehouses, industrial plants, workshops, shops and similar premises.

Beautiful design with simple clean lines mean that the AW range can also be installed in public areas. The AW series is available in four different sizes and two different models. All fans are for 230 VAC 1-ph., which makes their installation very easy.

The fans are available in both AC and EC execution.

- Four sizes and two models
- Available with integrated control equipment for sensor control or for external 0...10 V control signal
- Low noise level—suitable for most environments
- Three fan speeds as standard
- Easy 230 VAC 1-ph. installation
- Air deflectors control the vertical air flow

### Design

The casing is made of galvanised, white-painted steel plate.

The coil has copper pipes and aluminium fins.

Ball bearing-mounted fan with thermal protection ensures low noise and safe operation.

Supplied with a wall bracket.

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

### Dimensioning

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

If necessary, contact our sales staff for help.

### Installation

AW fan heaters are mounted on walls using the AWW wall bracket or on the ceiling using the AWT ceiling bracket.

### Dimensional Drawing

See page 6.



### 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 three 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

Type		AW13	AW23	AW43	AW63
Voltage/Frequency		230 VAC 1-ph. 50/60 Hz	230 VAC 1-ph. 50/60 Hz	230 VAC 1-ph. 50/60 Hz	230 VAC 1-ph. 50 Hz
Power consumption 50/60 Hz	A	0.4 / 0.45	0.6 / 0.75	0.9 / 1.25	2.2
Air volume (low/medium/high speed)	m <sup>3</sup> /h	600 / 900 / 1250	900 / 1250 / 2200	1900 / 2500 / 3700	2200 / 3400 / 5200
Sound pressure level <sup>1)</sup> (low/medium/high speed)	dB(A)	39 / 44 / 51	41 / 45 / 58	43 / 53 / 61	45 / 54 / 68
Horizontal range <sup>2)</sup> (high speed)	m	4.5	7.0	9.0	14.0
Horizontal range with AWLA <sup>2)</sup> (high speed)	m	6.5	10.0	12.5	19.0
Connector pipe	∅ mm	22	22	28	28
Max. operating temp. water, AW-a	°C	100	100	100	100
Max. operating temp. water AW-s	°C	150	150	150	150
Max. operating pressure (of water)	bar	10	10	10	10
Max. ambient temperature	°C	30	30	30	30
Can be ordered for execution -a		X	X	X	X
Can be ordered for execution -s		X	X	X	X
Weight	kg	17	23	32	46
Degree of protection		IP44	IP44	IP44	IP44

<sup>1)</sup> Measured at 5 metres in front of AW unit.

<sup>2)</sup> Horizontal range shown applies for inlet air temperature of +40 °C and room temperature of +18 °C. The horizontal range is defined as the distance from the fan air heater to the point where air velocity is 0.2 m/s.

Type		AW13-EC	AW23-EC	AW43-EC	AW63-EC
Voltage/Frequency		230 VAC 1-ph. 50/60 Hz	230 VAC 1-ph. 50/60 Hz	230 VAC 1-ph. 50/60 Hz	230 VAC 1-ph. 50/60 Hz
Power consumption 50/60 Hz	A	0.8	0.85	1.3	1.9
Air volume (low/medium/high speed) <sup>3)</sup>	m <sup>3</sup> /h	500 / 900 / 1500	1100 / 1700 / 2300	1500 / 2400 / 3900	2200 / 3500 / 5200
Sound pressure level <sup>1)</sup> (low/medium/high speed)	dB(A)	34 / 41 / 51	37 / 47 / 55	38 / 48 / 55	46 / 56 / 65
Horizontal range <sup>2)</sup> (high speed)	m	4.5	7.0	9.0	14.0
Horizontal range with AWLA <sup>2)</sup> (high speed)	m	6.5	10.0	12.5	19.0
Connector pipe	∅ mm	22	22	28	28
Max. operating temp. water, AW-a	°C	100	100	100	100
Max. operating temp. water AW-s	°C	150	150	150	150
Max. operating pressure (of water)	bar	10	10	10	10
Max. ambient temperature	°C	30	30	30	30
Can be ordered for execution -a		X	X	X	X
Can be ordered for execution -s		X	X	X	X
Weight	kg	17	23	32	46
Degree of protection		IP54	IP54	IP54	IP44

<sup>1)</sup> Measured at 5 metres in front of AW unit.

<sup>2)</sup> Horizontal range shown applies for inlet air temperature of +40 °C and room temperature of +18 °C. The horizontal range is defined as the distance from the fan air heater to the point where air velocity is 0.2 m/s.

<sup>3)</sup> The air flow at low, medium and high speed for EC applies to model -a. Model -s only has high speed.

# AW-a

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

AW-a fans heaters with integrated control equipment provides for a simple installation among others due to less cabling.

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

AW-a fan heaters can be controlled by an sensor or external 0...10 V control signal.

The fans are available in both AC and EC execution.

### Model -a

AW-a fan heaters are supplied with integrated automation for fan and water adjustment, complete with valve and actuator.

For the KVS value of the valve, see table on right.

AW-a fan heaters include automatic control of fan speed in three stages depending on the heat requirement. When there is no need for heating, the fan stops and the valve shuts off the water flow, which reduces heat losses and saves both energy and money.

This also leads to a low noise level and reduces fouling of the water battery and fan.

Valve Size	KVS
AW 13a	7.3
AW 23a	7.3
AW 43a	11.8
AW 63a	11.8

### Feedback Control

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

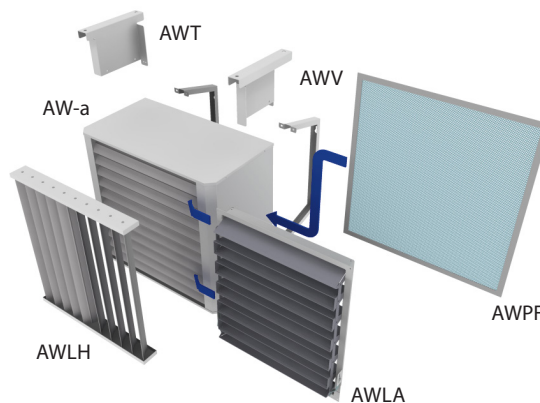
An AW-a fan heater with a connected sensor can control an unlimited number of AW-a units as slaves as well as our type CAW-a ceiling-mounted fan heaters. The units controlled as slaves then do not need any sensor as they receive their control signal from the AW-a unit with sensor.

See next page for sensors.

### Installation

AW-a fan heaters can be mounted on ceilings with bracket AWT and on walls with bracket AWW.

Supplied with a wall bracket.










## Project Design/Orders

### Description – AW-a

Hot water fan heater, VEAB type AW-a, with white lacquered galvanised sheet steel casing. Coil with copper pipes and aluminium fins. Integrated control equipment that controls the fan with three speeds according to the heating requirement and also opens/closes the flow of water. Setpoint is adjusted externally with a sensor or a 0...10 V control signal. Accessories, such as sensors, setpoint adjusters, filters, air deflector AWLH and ceiling bracket 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

	Product	
	Filter AWPF A flat filter to be fitted in the AW between fan and water coil.	Max. hot water temperature at the installed filter is 100 °C
	Air deflector AWLH Aluminium deflector blades. Direct air flow sideways. Cannot be used together with AWLA.	
	Air accelerator AWLA Extends the horizontal range by 40% on average. Cannot be used together with AWLH.	
	Ceiling bracket AWT	Distance between ceiling and AW is 150 mm.



# AW-s

## Fan heater for hot water for external control equipment

AW-s fans heaters for external control equipment are the right choice for those who want a simple fan heater without giving up on quality. The fans are available in both AC and EC execution.

### Model -s

AW-s fan heaters are supplied without control equipment. AW-s fan heaters have three fan speeds as standard. The speed can be controlled using selector AWC or selected when carrying out the electrical installation. The EC models are supplied with just one fan speed (high speed).

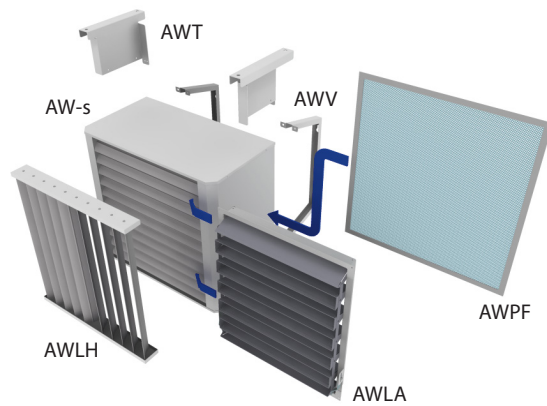
### Feedback Control

AW-s fan heaters are to be complemented with a room thermostat, valve with actuator and optional speed selector. See next page.

Valve	Kv
AWTV 12/22, IP44	7.3
AWTV 42/62, IP44	11.8

### Installation

AW-s fan heaters can be mounted on ceilings with bracket AWT and on walls with bracket AWW. Supplied with a wall bracket.



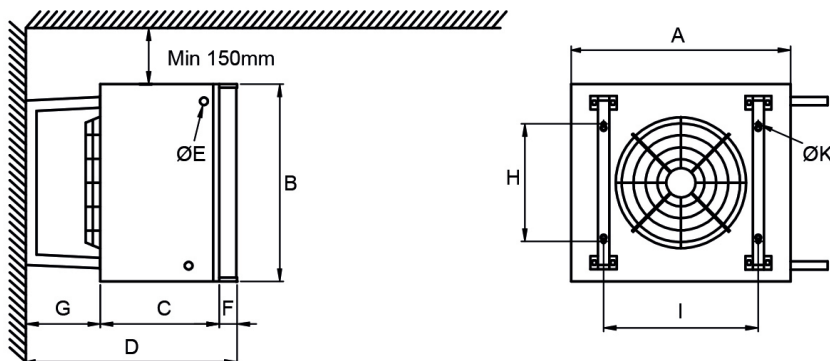
## Project Design/Orders

### Description – AW-s









Hot water fan heater, VEAB type AW-s with white lacquered galvanised sheet steel casing. Coil with copper pipes and aluminium fins. Three-speed fan motor. Accessories, such as thermostat, filter, air deflector AWLH and ceiling bracket are to be ordered separately.




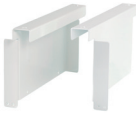
### Dimension Drawing for AW-a and AW-s

Dimensions	A mm	B mm	C mm	D mm	E Ø mm	F mm	G mm	H mm	I mm	Ø K mm
AW 13	465	430	275	520	22	46	200	260	340	10
AW 23	540	530	300	550	22	46	200	340	410	10
AW 43	690	655	350	690	28	70	270	420	505	10
AW 63	835	780	395	735	28	70	270	550	640	10



## Accessories

	Product	Range	Degree of protection
	Valve with actuator AWTV 13-63, IP44 To be used together with thermostat R31 or SR 121/1.	Max. 90°C 25 bar	IP44
	Speed selector AWC 13-63 Controls up to two AW-s units. Not for EC models. 1 = low speed, 2 = medium speed, 3 = high speed		IP42
	Speed selector SMT-D-4P-EM for -EC fans. Controls one AW -EC model – s 1 = low speed, 2 = medium speed, 3 = high speed		IP54
	Thermostat SR 121/1 Can control two AW-s units.	Range 0-40 °C	IP54
	Room thermostat R31 Can control one AW-s unit.	Range 7-30°C	IP20
	Valve ZTR20-6.0 three-way valve for AW 13s and AW 23s.		
	Valve ZTRB25-8 three-way valve for AW 43s and AW 63s.		
	Actuator RVAZ4-230 used for three-way valve. Connected to thermostat SR 121/1 or R31 equipped with alternating contact.		IP44

	Product	
	Filter AWPF A flat filter to be fitted in the AW between fan and water coil.	Max. hot water temperature at the installed filter is 100 °C
	Air deflector AWLH Aluminium deflector blades. Direct air flow side-ways. Cannot be used together with AWLA.	
	Air accelerator AWLA Extends the horizontal range by 40% on average Cannot be used together with AWLH.	
	Ceiling bracket AWT	Distance between ceiling and AW is 150 mm.



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