

# AH AHD AHDS

## Air to water heat pump

**AH - 290 / AHD 290 / AHDS 290**

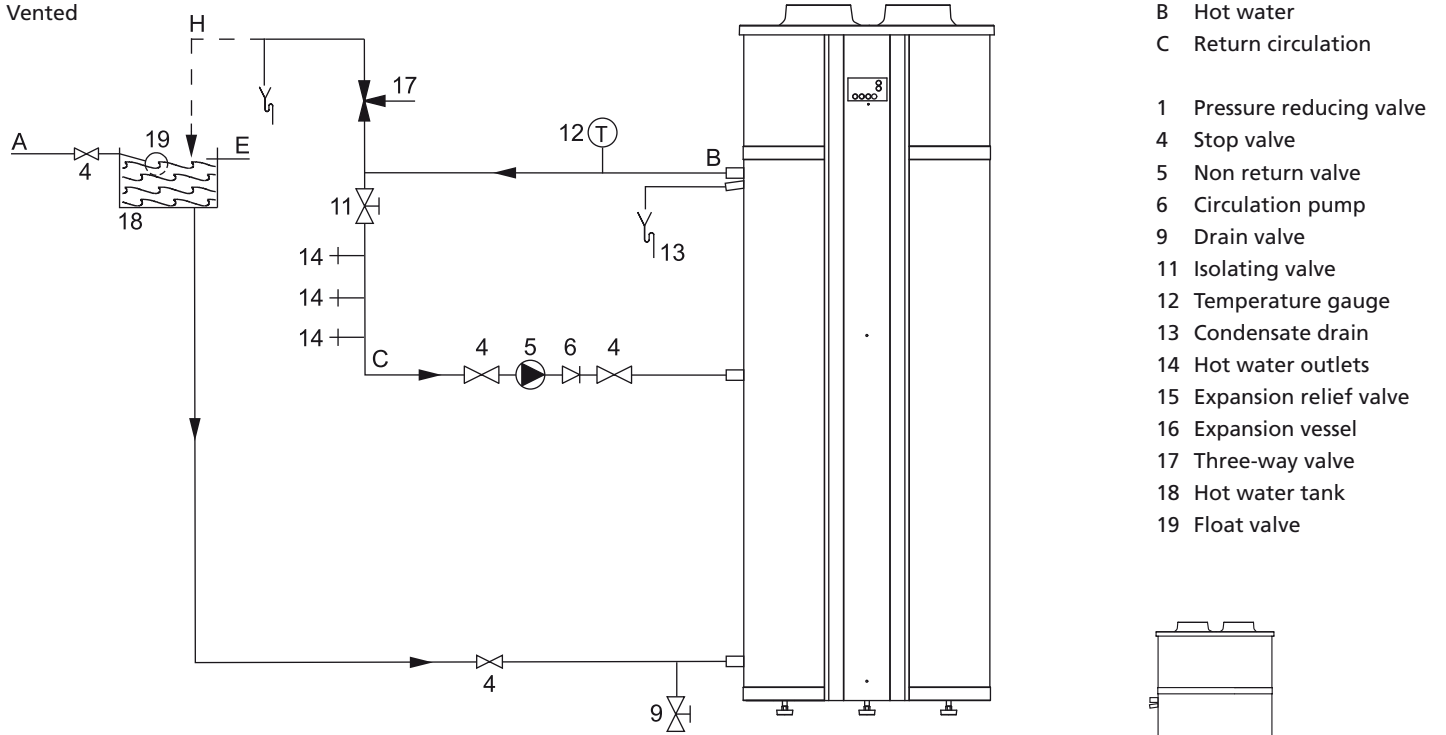


Air to water heatpump • Storage capacity 285 liter • Very high COP of 3,2 / 3,5 • Suitable for air temperatures between 0°C-35 °C (depending on the model) • Plug and play installation • Easy and user friendly control • Water temperature with the heat pump up to 55°C • Additional electric element of 1,5 kW standard • Water temperature with additional electric element up to 65 °C • Very silent operation • AH 290 basic version with air intake and air outlet indoors • AHD 290 with air intake and air outlet from outside the building and defrost function • AHDS 290 with additional integrated solar heat exchanger for thermal solar applications

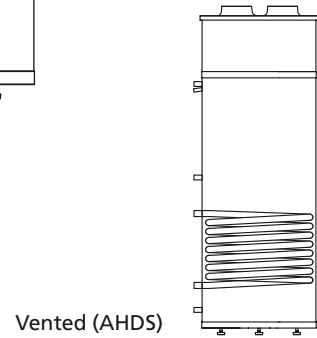
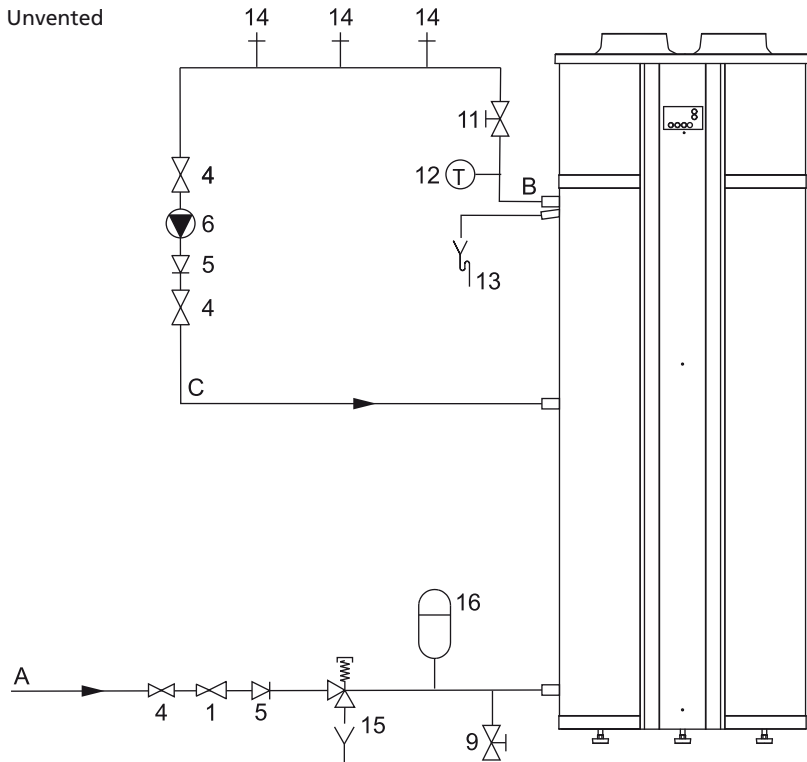
# Technical specifications

		AH 290	AHD 290	AHDS 290
<b>Functioning parameters</b>				
Minimum air temperature	°C	8	0	-
Maximum air temperature	°C	35	35	-
Air flow per hour	m <sup>3</sup>	280	280	-
Max hot water temperature heatpump	°C	55	55	-
Max hot water temperature heatpump + electric element	°C	65	65	-
<b>Electrical data</b>				
Main electric connection			230(-15%/+10%)/50(+/- 1Hz)	
Motor		AC	AC	-
Power consumption	W	560	560	-
Electric connection	A	13	13	-
COP	-	3,2	3,5	-
Power consumption electric element	kW	1,5	1,5	-
Fan speed	r.p.m.	2500	2500	-
<b>General/Cooling info</b>				
Heat capacity	kW	1,96	1,96	-
Refrigerant		R 134 a	R 134 a	-
Refrigerant filling	Kg	0,9	0,9	-
Maximum working pressure tank	bar	8	8	-
Sound level (1 meter in front of the unit)	dB	56	56	-
Anodes	-	1	1	-
<b>Draw-off capacity</b>				
Storage capacity	l	285	285	-
Maximum temperature setting heatpump	°C	55	55	-
Maximum temperature setting heatpump + electric element	°C	65	65	-
<b>T<sub>cold</sub> = 10°C / T<sub>set</sub> = 55°C (Heatpump function only)</b>				
30 min ΔT = 28 °C	l	400	400	-
60 min ΔT = 28 °C	l	430	430	-
90 min ΔT = 28 °C	l	460	460	-
120 min ΔT = 28 °C	l	490	490	-
Continuous ΔT = 28 °C	l/h	60	60	-
Heating-up time ΔT= 28°C	min	289	289	-
<b>T<sub>cold</sub> = 10°C / T<sub>set</sub> = 55°C (Heatpump function only)</b>				
30 min ΔT = 45 °C	l	249	249	-
60 min ΔT = 45 °C	l	268	268	-
90 min ΔT = 45 °C	l	286	286	-
120 min ΔT = 45 °C	l	305	305	-
Continuous ΔT = 45 °C	l/h	37	37	-
Heating-up time ΔT= 45°C	min	465	465	-
<b>T<sub>cold</sub> = 10°C / T<sub>set</sub> = 65°C (Heatpump + electric element)</b>				
30 min ΔT = 55 °C	l	256	256	-
60 min ΔT = 55 °C	l	283	283	-
90 min Δ = 55°C	l	310	310	-
120 min ΔT = 55 °C	l	337	337	-
Continuous ΔT = 55°C	l/h	54	54	-
Heating-up time ΔT= 55°C	min	398	398	-
<b>Shipping data</b>				
Empty weight	kg	105	105	-
Weight including packaging	kg	115	115	-
Maximum weight	kg	390	390	-
Width packaging	mm	765	765	-
Height packaging	mm	1945	1945	-
Depth packaging	mm	765	765	-

# Installation diagrams



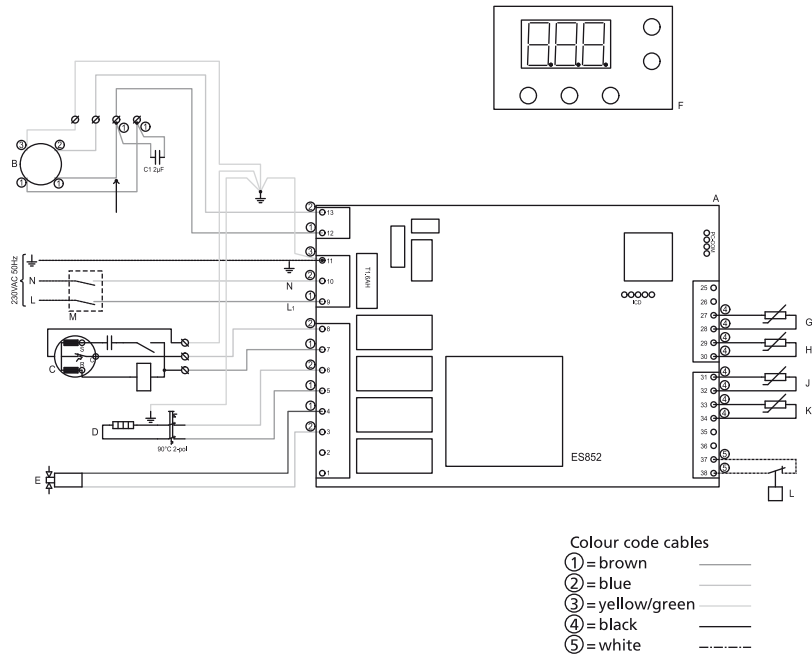
- A Cold water
- B Hot water
- C Return circulation
- 1 Pressure reducing valve
- 4 Stop valve
- 5 Non return valve
- 6 Circulation pump
- 9 Drain valve
- 11 Isolating valve
- 12 Temperature gauge
- 13 Condensate drain
- 14 Hot water outlets
- 15 Expansion relief valve
- 16 Expansion vessel
- 17 Three-way valve
- 18 Hot water tank
- 19 Float valve



*At this moment the AHDS for solar applications is being fine-tuned by our Engineering Department. For more information, please contact our Technical Support Group.*



# Electrical diagrams



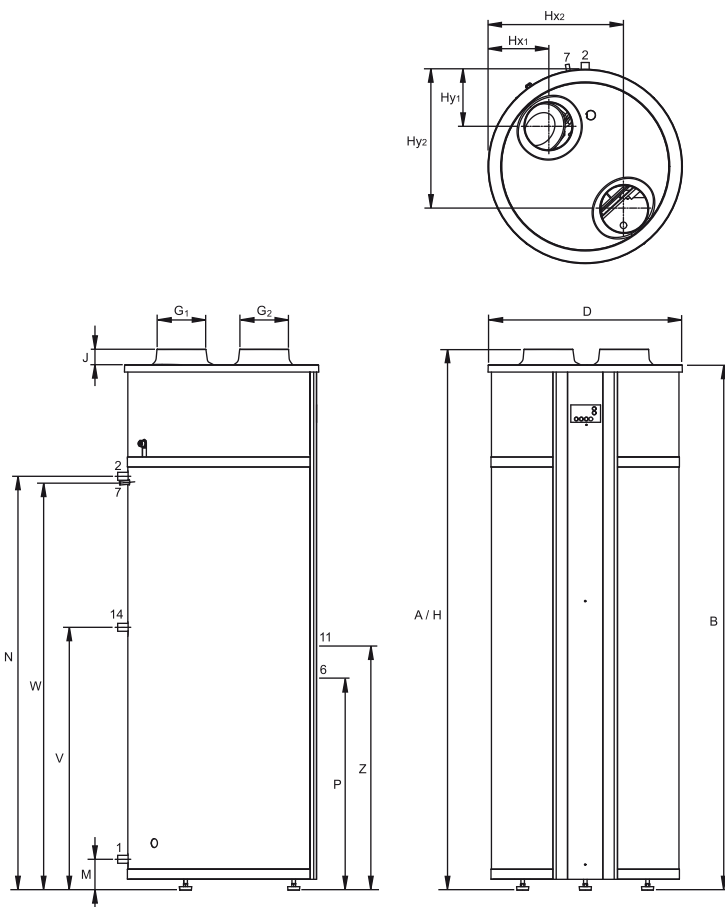
**COMPONENTS**

- A Controller
- B Fan
- C Compressor
- D Electric element
- E Magnet valve (short or long circuit)
- F Display
- G Temperature sensor (T5 - solar coil)
- H Temperature sensor (T6 - solar coil)
- J Temperature sensor (T7 top of the tank)
- K Temperature sensor (T8 bottom of the tank)
- L High pressure switch
- M Double pole mains switch

**CONNECTIONS SOLAR CONTROLLER**

1	-	-
2	-	-
3	N	Magnet valve
4	L	(short or long circuit)
5	L	Electric element
6	N	
7	L	Compressor
8	N	
9	L <sub>1</sub>	
10	N	Power supply
11	⏏	
12	L	Fan
13	N	
25	-	-
26	-	-
27	-	Temperature sensor (T5 - solar coil)
28	-	Temperature sensor (T6 - solar coil)
29	-	Temperature sensor (T7 top of the tank)
30	-	Temperature sensor (T8 bottom of the tank)
31	-	Temperature sensor (T5 - solar coil)
32	-	Temperature sensor (T6 - solar coil)
33	-	Temperature sensor (T7 top of the tank)
34	-	Temperature sensor (T8 bottom of the tank)
35	-	-
36	-	-
37	-	-
38	-	High pressure switch

# Dimensions



	AH 290	AHD 290	
A	Total height	1815	1840
B	Unit height	1790	1790
D	Diameter unit	660	660
G <sub>1</sub>	Diameter air-intake	-	160
G <sub>2</sub>	Diameter air outlet	-	160
H	Height-air intake / air outlet	1815	1840
Hx <sub>1</sub>	x-position air intake	-	190
Hx <sub>2</sub>	x-position air outlet	-	480
Hy <sub>1</sub>	y-position air intake	-	200
Hy <sub>2</sub>	y-position air outlet	-	470
J	Height air intake / air outlet	-	55
M	Height cold water inlet	110	110
N	Height hot water outlet	1410	1410
P	Height cleanout	45	650
T	Height heat exchanger inlet	-	-
U	Height heat exchanger outlet	-	-
V	Height circulation connection	820	820
W	Height condensate outlet	1345	1345
Z	Height electric element	925	925
1	Cold water connection (male)	R 1"	R 1"
2	Hot water connection (male)	R 1"	R 1"
6	Clean out opening	Ø 110	Ø 110
7	Condensate outlet (male)	Ø 12	Ø 12
11	Electric element	-	-
14	Circulation connection (female)	R 1"	R 1"

On all AH(D)(DS) heatpumps a warranty of 5 years on the tank will apply and 1 year on all parts.

Data subject to change INT/0808/AH/02  
Terms and conditions apply, please refer to our website.