

AH AHD AHDS

Air to water heat pump

AH 290 / AHD 290 / AHDS 290



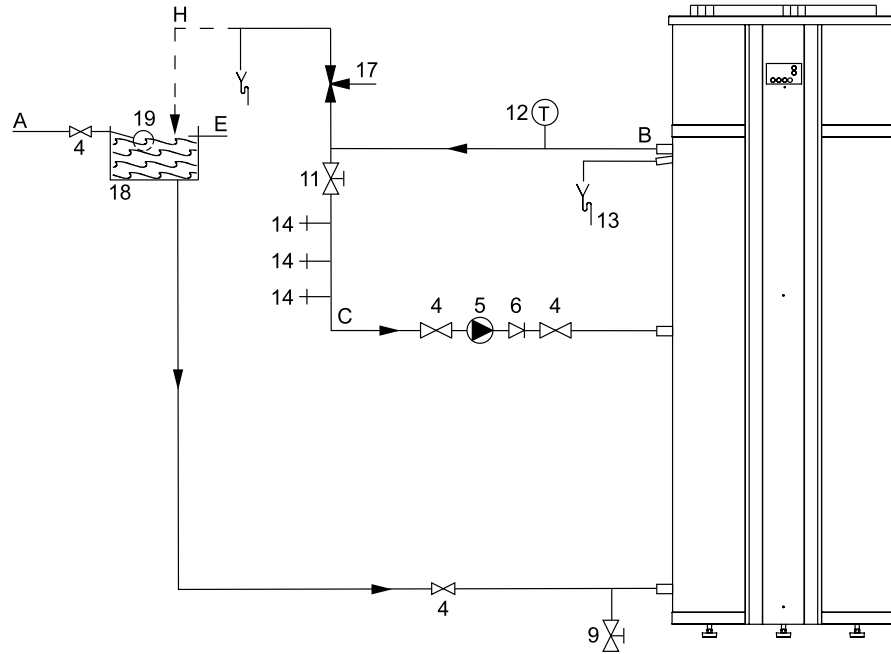
Air to water heatpump • Storage capacity 285 liter • Very high COP of 3,2 / 3,5 • Suitable for air temperatures between -5°C - 35°C (depending on the model) • Plug-and-play installation • Easy and user friendly control • Water temperature with the heat pump up to 55°C • Additional electric element of 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
Functioning parameters				
Minimum air temperature	°C	8	-5	-
Maximum air temperature	°C	35	35	-
Air flow per hour	m ³ /h	200	250	-
Electrical data				
Main electric connection	VAC/Hz	230(-15%/+10%)/50 (± 1Hz)		
Motor		AC	AC	-
Power consumption	W	628	628	-
Electric connection	A	10	10	-
COP	-	3,2	3,5	-
Power consumption electric element	kW	1,5	1,5	-
General/Cooling info				
Heat capacity	kW	1,96	1,52	-
Refrigerant		R 134 a	R 134 a	-
Refrigerant filling	kg	1,0	1,0	-
Maximum working pressure tank	kPa(bar)	1000(10)	1000(10)	-
Sound level (1 meter in front of the unit)	dB	50	50	-
Anodes	-	1	1	-
Draw-off capacity				
Storage capacity	l	285	285	-
Maximum temperature setting heat pump	°C	55	55	-
Maximum temperature setting heat pump + electric element	°C	65	65	-
T_{cold} = 10°C / T_{set} = 55°C (Heat pump function only)				
30 min ΔT = 28 °C	l	394	394	-
60 min ΔT = 28 °C	l	424	424	-
90 min ΔT = 28 °C	l	454	454	-
120 min ΔT = 28 °C	l	484	484	-
Continuous ΔT = 28 °C	l/h	60	47	-
Heating-up time ΔT= 28°C	min	284	366	-
T_{cold} = 10°C / T_{set} = 55°C (Heat pump function only)				
30 min ΔT = 45 °C	l	245	245	-
60 min ΔT = 45 °C	l	264	264	-
90 min ΔT = 45 °C	l	282	282	-
120 min ΔT = 45 °C	l	301	301	-
Continuous ΔT = 45 °C	l/h	37	29	-
Heating-up time ΔT= 45°C	min	457	589	-
T_{cold} = 10°C / T_{set} = 65°C (Heat pump + electric element)				
30 min ΔT = 55 °C	l	252	252	-
60 min ΔT = 55 °C	l	279	279	-
90 min Δ = 55°C	l	306	306	-
120 min ΔT = 55 °C	l	333	333	-
Continuous ΔT = 55°C	l/h	54	47	-
Heating-up time ΔT= 55°C	min	391	429	-
Shipping data				
Empty weight	kg	105	105	-
Weight including packaging	kg	117	117	-
Maximum weight	kg	390	390	-
Width packaging	mm	700	700	-
Height packaging	mm	1945	1945	-
Depth packaging	mm	770	770	-

Installation diagrams

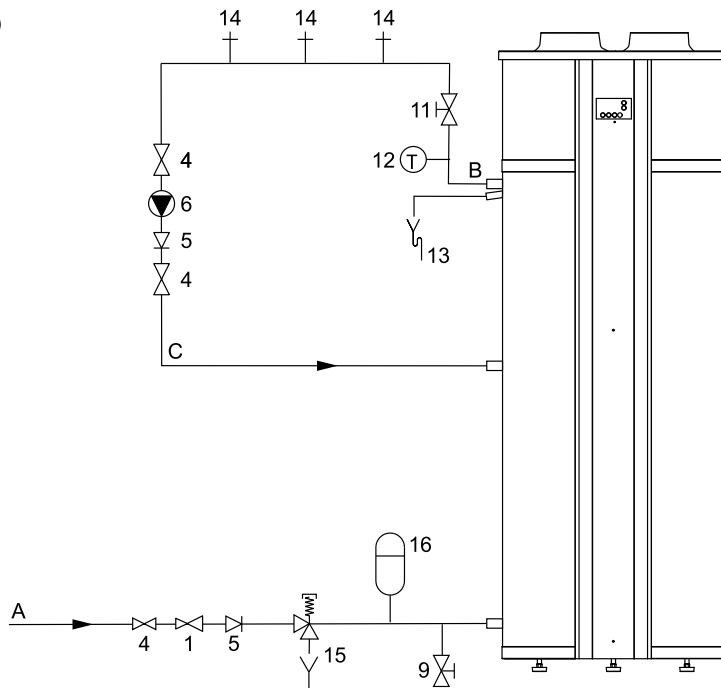
Vented (AH)



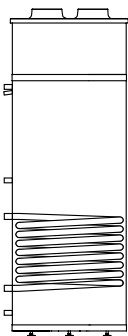
- A Cold water
- B Hot water
- C Return circulation

- 1 Pressure reducing valve
- 4 Stop valve
- 5 Non return valve
- 6 Circulation pump
- 9 Drain valve
- 11 Service valve
- 12 Temperature meter
- 13 Condensate drain
- 14 Hot water tap
- 15 Expansion valve
- 16 Expansion vessel
- 17 Three-way valve
- 18 Water cistern
- 19 Float valve

Unvented (AHD)



Vented (AHDS)

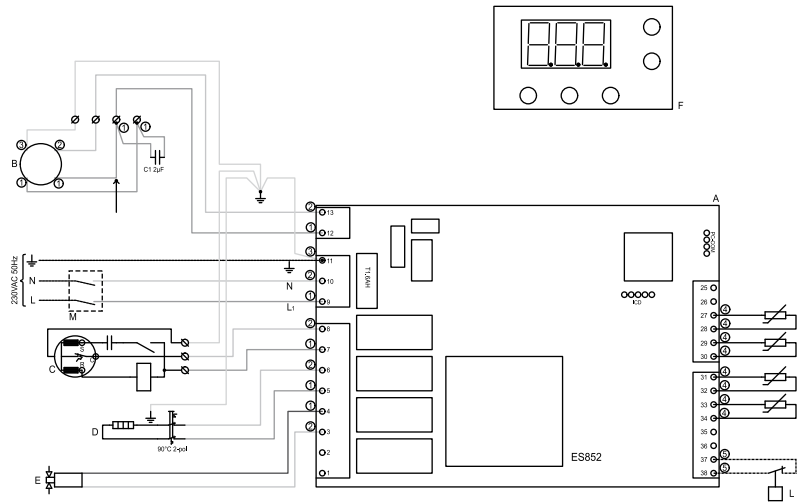


At this moment the AHDS for solar applications is being fine-tuned by our Engineering Department. For more information, please contact our Technical Support Group.



AH(D)(DS)

Electrical diagrams



Colour code cables
 ① = brown
 ② = blue
 ③ = yellow/green
 ④ = black
 ⑤ = white

COMPONENTS

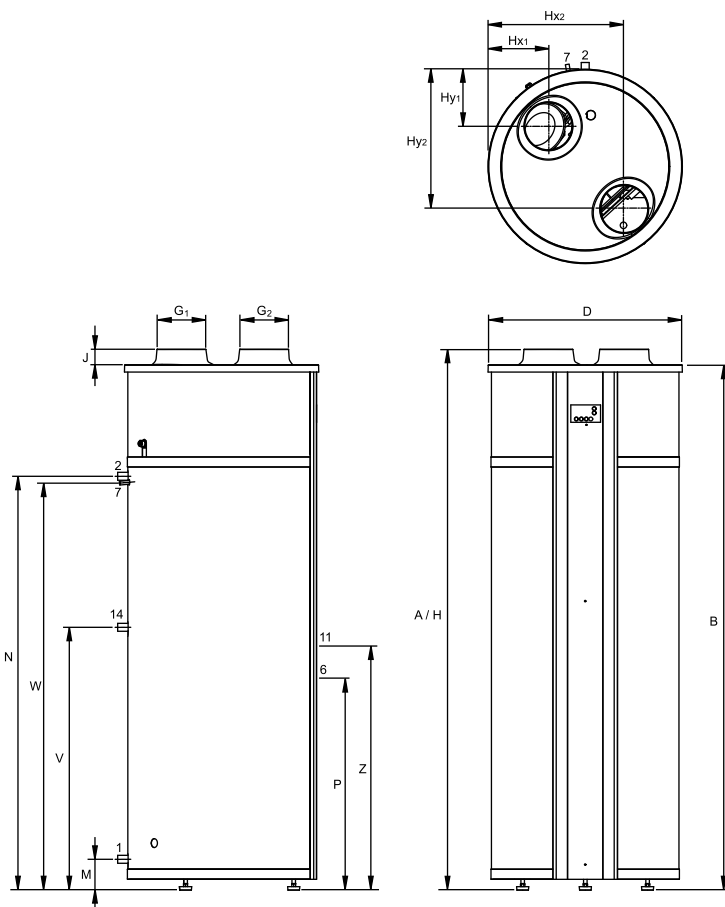
- A Controller
- B Fan
- C Compressor
- D Electric element
- E Magnet valve (short or long circuit)
- F Display (integrated in the control)
- G Temperature sensor (T5 - solar coil)
- H Temperature sensor (T6 - solar coil)
- J Temperature sensor (T7 top of the tank)
- K Temperature sensor (T8 bottom of 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 ₁	
10	N	Power supply
11	⏏	
12	L	Fan
13	N	
25	-	-
26	-	-
27	-	Temperature sensor (T5 - solar coil)
28	-	-
29	-	Temperature sensor (T6 - solar coil)
30	-	-
31	-	Temperature sensor (T7 top of the tank)
32	-	-
33	-	Temperature sensor (T8 bottom of the tank)
34	-	-
35	-	-
36	-	-
37	-	-
38	-	High pressure switch

AH(D)(DS)

Dimensions



	AH 290	AHD 290
A	1815	1840
B	1790	1800
D	660	660
G ₁	-	160
G ₂	-	160
H	1815	1840
Hx ₁	-	190
Hx ₂	-	480
Hy ₁	-	200
Hy ₂	-	470
J	60	55
M	110	110
N	1410	1410
P	650	650
V	900	900
W	1345	1345
Z	860	860
1	Cold water	R ¾"
2	Hot water	R ¾"
6	Inspection opening	Ø 110
7	Condense drain	Ø 12
11	Electric element	G 1½"
14	Return circulation	R ¾"

Dimensions in mm.

Data subject to change UK/0810/AH/02
 Terms and conditions apply, please refer to our website.