ADM / ADMP / ADMR

Atmospheric commercial water heater

ADM - 40/50/60/80/90/115/135
ADMP/ADMR - 40/50/60/80/90/115

An extensive range of atmospheric water heaters to suit most larger hot water systems • Efficient, automatic hot surface igniter • Removable control column for convenient servicing • Frost-protection thermostat • Stainless steel burner for natural or LP gas • Two access covers for comprehensive waterside tank maintenance • External control connection • Voltage-free contact for general fault indication • Optional ancillaries: Unvented kits • Destratification pump kit • Powered anode • Flue fan kit • **ADMP** Permanent pilot ignition • Pilot proving kit available • **ADM** Electronic ignition • Control, high limit and energy cut-off thermostats provide triple protection and ensure safe operation • **ADMR** Electronic ignition • Flue damper to minimise standing losses • ThermoControl for easy and flexible control / fault diagnosis • Programmable for legionella purge cycle

Innovation has a name.

Technical specifications ADM / ADMR / ADMP

		ADM(P) 40	ADM(P) 50	ADM(P) 60	ADM(P) 80	ADM(P) 90	ADM(P) 115	ADM 135	ADMR 40	ADMR 50	ADMR 60	ADMR 80	ADMR 90	ADMR 115
Gas data natural gas 2H (G20)														
Input*	kW	42.2	56.5	66.4	82.5	98.3	126.6	143.4	42.2	56.5	66.4	82.5	98.3	126.6
Output	kW	32.3	42.8	50.2	62.4	74.3	95.8	109.8	32.3	42.8	50.2	62.4	74.3	95.8
Inlet pressure	mbar	20	20	20	20	20	20	20	20	20	20	20	20	20
Gas consumption**	m^3/h	4.0	5.4	6.3	7.9	9.4	12.1	13.7	4.0	5.4	6.3	7.9	9.4	12.1
Flue gas discharge	kg/h	121.7	130.2	199.4	190.1	329.0	253.1	302.6	121.7	130.2	199.4	190.1	329.0	253.1
Gas data butane 3+ (G30)														
Input*	kW	41.6	55.3	68.2	80.7	96.1	123.5	138.4	41.6	55.3	68.2	80.7	96.1	123.5
Output	kW	32.6	42.8	52.8	62.6	74.5	95.8	108.5	32.6	42.8	52.8	62.6	74.5	95.8
Inlet pressure	mbar	30	30	30	30	30	30	30	30	30	30	30	30	30
Gas consumption**	kg/h	3.0	4.0	5.0	5.9	7.0	9.0	10.1	3.0	4.0	5.0	5.9	7.0	9.0
Flue gas discharge	kg/h	125.9	129.4	183.9	205.3	344.9	255.6	319.6	125.9	129.4	183.9	205.3	344.9	255.6
Gas data propane 3+ (G31)														
Input*	kW	38.4	51.1	63.3	77.7	89.6	113.0	130.1	38.4	51.1	63.3	77.7	89.6	113.0
Output	kW	30.0	39.5	48.9	60.1	69.2	87.4	101.7	30.0	39.5	48.9	60.1	69.2	87.4
Inlet pressure	mbar	37	37	37	37	37	37	37	37	37	37	37	37	37
Gas consumption**	kg/h	2.7	3.7	4.5	5.6	6.4	8.1	9.3	2.7	3.7	4.5	5.6	6.4	8.1
Flue gas discharge	kg/h	115.2	119.9	177.5	187.4	187.4	239.4	297.1	115.2	119.9	177.5	187.4	187.4	239.4
General														
Efficiency (gross)	%	77	76	76	76	76	76	77	77	76	76	76	76	76
Weight empty	kg	195	221	209	238	244	270	329	195	221	209	238	244	270
Maximum weight	kg	504	578	507	573	522	523	581	504	578	507	573	522	523
Storage capacity	l	309	357	298	335	278	253	252	309	357	298	335	278	253
Max. temperature setting	°C	73	73	73	73	73	73	73	80	80	80	80	80	80
Maximum working pressure	kPa (bar)	800 (8)							800 (8)					
Draw-off capacity														
T_{cold} = 10°C/T_{set} = T_{max}														
0 min. ΔT=44°C	l	638	785	783	933	972	1132	1254	677	830	821	975	1008	1164
60 min. ΔT=44°C	l	954	1203	1274	1543	1699	2068	2327	993	1248	1312	1585	1734	2100
90 min. ΔT=44°C	l	1269	1621	1765	2153	2425	3004	3399	1309	1666	1803	2195	2461	3036
120 min. ΔT=44°C	l	1585	2039	2256	2763	3152	3940	4472	1624	2084	2294	2805	3187	3972
Continuous ΔT=44°C	l/h	631	836	982	1220	1453	1872	2145	631	836	982	1220	1453	1872
Heating-up time ΔT=44°C	min.	29	26	18	16	11	8	7	29	26	18	16	11	8
30 min. ΔT=50°C	l	561	691	689	821	856	996	1104	596	731	723	858	887	1025
60 min. ΔT=50°C	l	839	1058	1121	1358	1495	1820	2047	874	1098	1155	1395	1526	1848
90 min. ΔT=50°C	l	1117	1426	1553	1894	2134	2643	2991	1152	1466	1587	1932	2165	2672
120 min. ΔT=50°C	l	1395	1794	1985	2431	2774	3467	3935	1429	1834	2019	2469	2805	3495
Continuous ΔT=50°C	l/h	556	735	864	1073	1279	1647	1888	556	735	864	1073	1279	1647
Heating-up time ΔT=50°C	min.	33	29	21	19	13	9	8	33	29	21	19	13	9
30 min. ΔT=55°C	l	510	628	627	746	778	906	1003	542	664	657	780	806	931
60 min. ΔT=55°C	l	763	962	1019	1234	1359	1654	1861	794	999	1050	1268	1387	1680
90 min. ΔT=55°C	l	1015	1297	1412	1722	1940	2403	2719	1047	1333	1442	1756	1969	2429
120 min. ΔT=55°C	l	1268	1631	1805	2210	2521	3152	3577	1299	1667	1835	2244	2550	3177
Continuous ΔT=55°C	l/h	505	669	785	976	1162	1497	1716	505	669	785	976	1162	1497
Heating-up time ΔT=55°C	min.	37	32	23	21	14	10	9	37	32	23	21	14	10
Electrical data														
Power consumption	W	30	30	30	30	30	30	60	50	50	50	50	50	50
Power supply	VAC/Hz	230 (-15+10%)/50 (+/-1Hz)							230 (-15+10%)/50 (+/-1Hz)					
Shipping data														
Weight incl. packaging	kg	214	242	230	259	265	291	350	214	242	230	259	265	291
Width packaging	mm	780	780	780	780	780	780	910	780	780	780	780	780	780
Height packaging	mm	1930	2140	1930	2140	1975	2045	2050	1930	2140	1930	2140	1975	2045
Depth packaging	mm	870	870	870	870	870	870	910	870	870	870	870	870	870

* Gas data on gross value

** Gas consumption at 15°C and 1013.25 mbar

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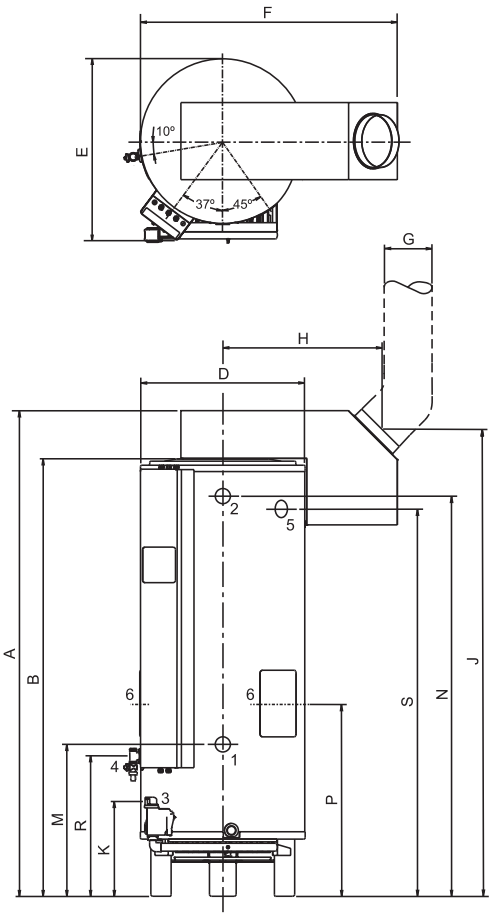
Dimensions ADM / ADMR / ADMP



	ADM(R)(P) 40	ADM(R)(P) 50	ADM(R)(P) 60	ADM(R)(P) 80	ADM(R)(P) 90	ADM(R)(P) 115	ADM 135
A	1900	2100	1900	2100	2000	2085	2085
B	1760	1960	1760	1960	1795	1870	1870
D	710	710	710	710	710	710	710
E	800	800	800	800	800	800	800
F	1100	1100	1100	1100	1105	1105	1105
G	150	150	180	180	225	225	225
H	660	660	660	660	675	675	675
J	1840	2040	1840	2040	1935	2010	2010
K	400	400	400	400	400	400	205
M	565	565	565	565	575	650	650
N	1605	1810	1605	1810	1640	1715	1715
P	730	730	730	730	740	825	855
R	500	515	500	515	525	600	595
S	1550	1760	1550	1760	1595	1660	1660

1	Cold water (external)	R1 1/2
2	Hot water (internal)	Rp1 1/2
3	Gas control (internal)	Rp 3/4 (ADM(R) 135 = Rp1)
4	Tank drain valve (internal)	Rp1 1/2
5	T&P valve (internal)	1-11.5 NPT (40-80) Rp1 1/2 (90-135)
6	Cleaning and inspection opening	Ø100

Dimensions in mm.

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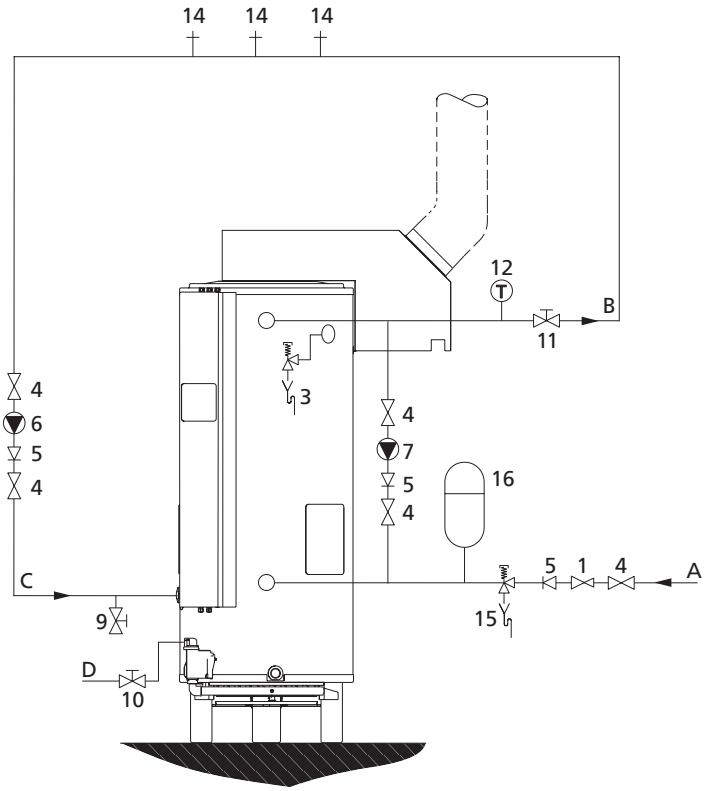
Energy labeling

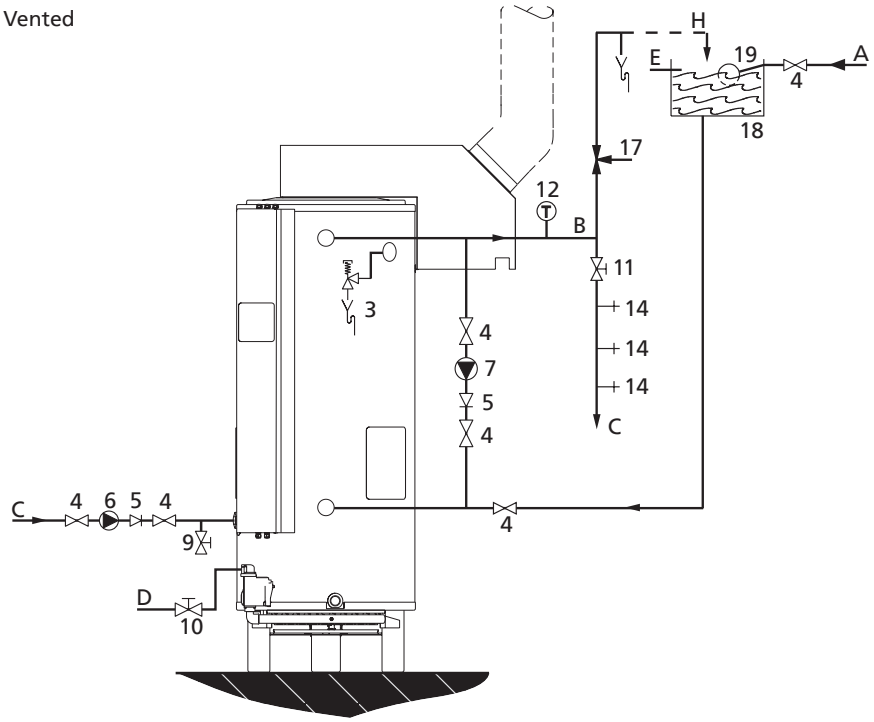
		ADM 40	ADM 50	ADM 60	ADM 80	ADM 90	ADM 115	ADM 135	ADMP 40	ADMP 50	ADMP 60	ADMP 80	ADM 90	ADM 115	ADMR 40	ADMR 50	ADMR 60	ADMR 80	ADMR 90	ADMR 115
Load Profil	-	XXL	XXL	XXL	XXL	3XL	3XL	3XL	XXL	XXL	XXL	XXL	3XL	3XL	XXL	XXL	XXL	XXL	3XL	3XL
Energy labeling	-	C	C	C	C	-	-	-	C	C	C	C	-	-	B	B	B	B	-	-
Efficiency	%	49	51	40	40	46	44	46	48	51	40	40	46	44	62	62	61	61	58	57
Annual Electricity Consumption (AEC)	kWh	12	11	11	11	12	12	16	2	1	1	0	0	0	36	36	36	36	36	302
Daily Electricity Consumption	kWh	0.055	0.052	0.051	0.049	0.054	0.053	0.072	0.008	0.005	0.004	0.002	0.002	0.002	0.165	0.165	0.165	0.165	0.165	1.376
Annual Fuel Consumption (AEC)	GJ GCV	39	37	48	48	80	83	80	40	38	48	48	81	84	31	31	32	31	36	302
Daily Fuel Consumption	kWh GCV	49.988	47.544	61.023	60.524	101.428	105.545	101.439	50.705	48.485	61.061	61.202	102.176	106.645	38.977	39.216	40.065	39.847	80.312	78.659
Nitrogen Dioxide Emission (NO2)	mg/kWh GCV	240	235	235	229	283	311	276	240	235	235	229	283	311	240	235	235	229	283	311
Mixed Water of 40°C (according V40)	ltr.	1137	∞	∞	∞	1014	∞	∞	1137	∞	∞	∞	1014	∞	1077	∞	∞	∞	1105	∞
Sound Power Level	dB	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56
Other Load Profil	-	3XL	3XL	3XL	3XL	-	-	-	3XL	3XL	3XL	3XL	-	-	3XL	3XL	3XL	3XL	-	-
Efficiency	%	59	60	51	51	-	-	-	58	59	51	51	-	-	61	66	62	62	-	-
Annual Electricity Consumption (AEC)	kWh	14	14	11	11	-	-	-	3	2	2	1	-	-	40	40	40	40	-	-
Daily Electricity Consumption	kWh	0.066	0.066	0.051	0.049	-	-	-	0.014	0.009	0.007	0.004	-	-	0.180	0.181	0.182	0.183	-	-
Annual Fuel Consumption (AEC)	GJ GCV	65	66	73	74	-	-	-	6	67	75	77	-	-	60	56	60	59	-	-
Daily Fuel Consumption	kWh GCV	78.977	77.197	90.907	91.254	-	-	-	80.064	78.992	91.154	92.047	-	-	75.723	70.450	75.379	74.980	-	-
Nitrogen Dioxide Emission (NO2)	mg/kWh GCV	240	235	235	229	-	-	-	240	235	235	229	-	-	240	235	235	229	-	-
Mixed Water of 40°C (according V40)	ltr.	530	721	651	983	-	-	-	530	721	651	971	-	-	615	759	761	923	-	-

Installation diagram ADM / ADMR / ADMP

Unvented



Vented



1 Pressure reducing valve
3 T&P valve
4 Stop valve
5 Non-return valve
6 Circulation pump
7 Destratification pump
9 Drain valve
10 Gas valve
11 Service valve
12 Temperature meter
14 Hot water tap
15 Expansion valve
16 Expansion vessel
17 Three way valve
18 Water cistern
19 Float valve

A Cold water supply
B Hot water outlet
C Circulation pipe
D Gas supply
E Overflow pipe
H Overflow protection

A.O. Smith unvented system kits utilise combination valves.

An ADM, ADMR or ADMP water heater should be installed in accordance with local standards and ventilation requirements (category B11BS).

In the instruction manual you will find all the necessary information regarding connection, installation and maintenance of the product; including information on the electrical connections.

Information regarding the recycling or disposal of the product can also be found in the manual. This manual is delivered with the appliance and can also be found on our website; www.aosmith.co.uk.

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