

# EES

## Electrical residential / light commercial water heater

**EES - 30/40/52/66/80/120**



Vertical electric water heater for residential / light commercial applications • Two replaceable Incoloy-sheathed elements • Each element is provided with an independent control thermostat (adjustable: 43 - 77 °C) • Secondary protection is provided by a high-limit thermostat with manual reset • PermaGlas Ultra Coat second-generation glass coating technology to prevent corrosion • Replaceable magnesium anode • Optional ancillaries: Unvented kits • Destratification pump kit • Powered anodes • Time controller

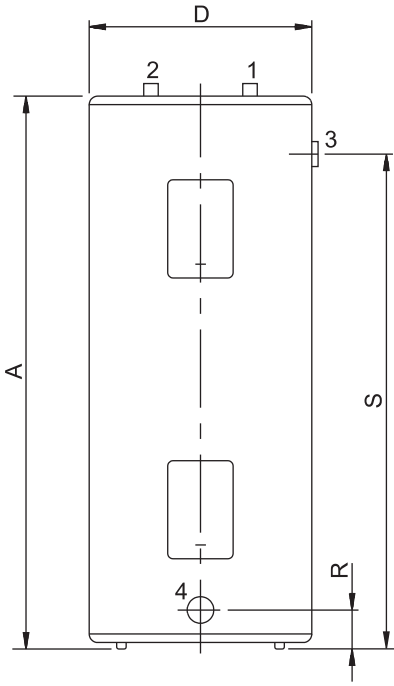
# Technical specifications

		EES 30	EES 40	EES 52	EES 66	EES 80	EES 120
<b>Electrical data</b>							
Input	kW	3.0	3.0	3.0	3.0	3.0	3.0
Current	A	11-13	11-13	11-13	11-13	11-13	11-13
Elements	-	2	2	2	2	2	2
Power supply	VAC/Hz	240 Vac (-15/+10%)/50 Hz (+/-1Hz)					
<b>General</b>							
Weight empty	kg	36	43	48	64	80	125
Maximum weight	kg	151	198	238	314	380	575
Storage capacity	l	115	155	190	250	300	450
Max. temperature setting	°C	77	77	77	77	77	77
Maximum working pressure	kPa (bar)	800 (8)					
<b>Draw-off capacity</b>							
<b>T<sub>cold</sub> = 10°C / T<sub>set</sub> = max. temp. setting</b>							
30 min. ΔT=44°C	l	147	189	227	291	344	504
60 min. ΔT=44°C	l	174	216	254	318	371	531
90 min. ΔT=44°C	l	201	243	281	345	398	558
120 min. ΔT=44°C	l	228	270	308	371	425	585
Continuous ΔT=44°C	l/h	54	54	54	54	54	54
Heating-up time ΔT=44°C	min.	128	137	212	279	334	501
30 min. ΔT=50°C	l	129	167	200	256	303	443
60 min. ΔT=50°C	l	153	190	223	280	326	467
90 min. ΔT=50°C	l	177	214	247	303	350	491
120 min. ΔT=50°C	l	200	238	271	327	374	515
Continuous ΔT=50°C	l/h	47	47	47	47	47	47
Heating-up time ΔT=50°C	min.	146	196	241	317	380	570
30 min. ΔT=55°C	l	117	152	181	233	275	403
60 min. ΔT=55°C	l	139	173	203	254	297	425
90 min. ΔT=55°C	l	161	195	224	276	318	446
120 min. ΔT=55°C	l	182	216	246	277	340	468
Continuous ΔT=55°C	l/h	43	43	43	43	43	43
Heating-up time ΔT=55°C	min.	160	216	265	348	418	627
<b>Shipping data</b>							
Weight incl. packaging	kg	42	49	55	72	90	137
Width packaging	mm	580	580	580	620	680	770
Height packaging	mm	1000	1190	1440	1600	1620	1710
Depth packaging	mm	650	650	650	680	740	840

# Ecodesign specifications

		EES 30	EES 40	EES 52	EES 66	EES 80	EES 120
<b>Energy labeling</b>							
Load Profil	-	L	L	XL	XL	XL	XL
Energy labeling	-	C	C	C	C	D	D
Efficiency	%	39	38	38	38	37	37
Annual Electricity Consumption (AEC)	kWh	2602	2679	4399	4411	4430	4485
Daily Electricity Consumption	kWh	11.907	12.364	20.320	20.039	21.500	20.830
Annual Fuel Consumption (AEC)	GJ GCV	0	0	0	0	0	0
Daily Fuel Consumption	kWh GCV	0.000	0.000	0.000	0.000	0.000	0.000
Nitrogen Dioxide Emission (NO <sub>2</sub> )	mg/kWh GCV	-	-	-	-	-	-
Mixed Water of 40°C (according V40)	ltr.	143	187	237	295	368	552
Sound Power Level	dB	15	15	15	15	15	15

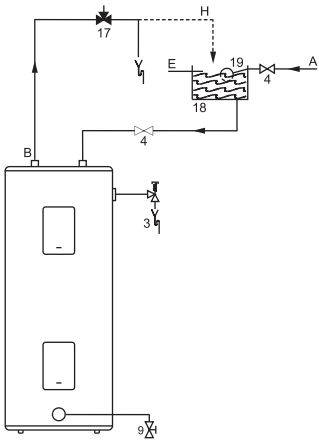
# Dimensions



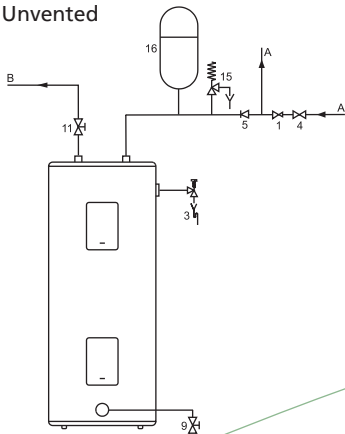
	EES 30	EES 40	EES 52	EES 66	EES 80	EES 120
A	930	1110	1370	1530	1540	1620
D	520	520	520	560	610	710
R	110	110	110	110	110	110
S	730	970	1210	1360	1330	1385
1	Cold water		3/4-14 NPT			
2	Hot water		3/4-14 NPT			
3	T&P valve		3/4-14 NPT			
4	Tank drain valve		3/4-14 NPT			
Dimensions in mm.						

# Installation diagrams

Vented



Unvented



- 1 Pressure reducing valve
- 3 T&P valve
- 4 Stop valve
- 5 Non-return valve
- 9 Drain valve
- 11 Isolating valve
- 15 Expansion relief valve
- 16 Expansion vessel
- 17 Three way valve
- 18 Water tank
- 19 Float valve

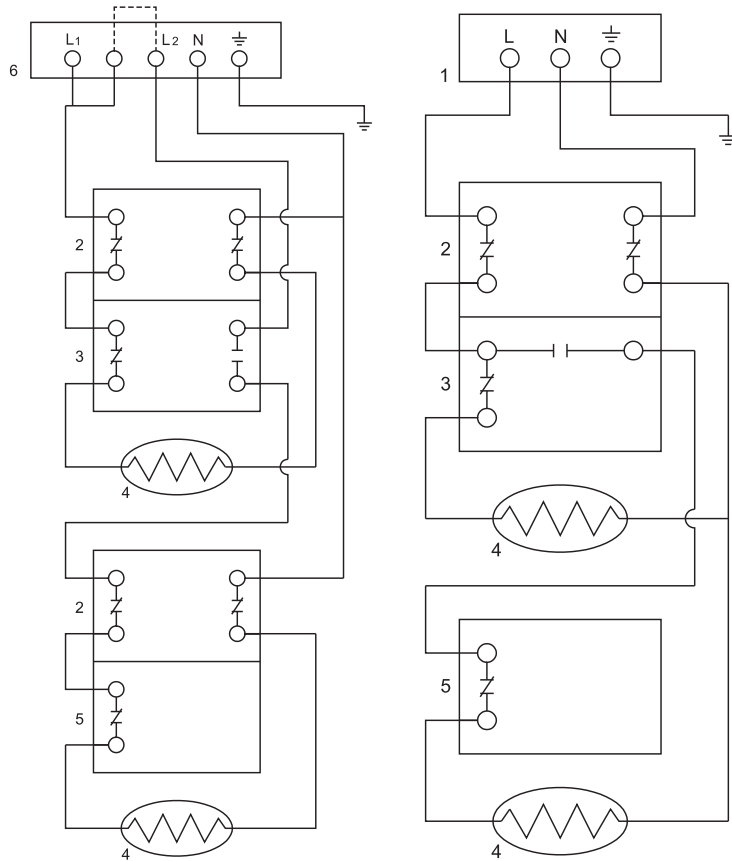
- A Cold water
- B Hot water
- E Overflow pipe
- H Expansion vent pipe

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

Further installation and connection details can be found in the Installation & Commissioning Manual.



# Electrical diagrams



- 1 Standard electrical supply
- 2 Safety thermostat
- 3 Control thermostat with selector switch
- 4 Heating elements
- 5 Control thermostat
- 6 Off peak electrical supply

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](http://www.aosmith.co.uk).