

DRE

Electric commercial water heater

DRE - 52/80

- Three phase electric water heater, primarily for commercial applications
Three to nine incoloy heating elements with a maximum rating of 50,4 kW
- Each element is independently controlled via its own control thermostat (adjustable: 49 - 82°C) and a manually resettable high-limit thermostat
- Cascade control of the elements for more efficient and faster heating-up times
- All elements and thermostats are fuse-protected
- PermaGlas Ultra Coat second-generation glass coating technology helps to prevent corrosion
- Replaceable magnesium anode
- Safety float switch
- Optional ancillaries: Unvented kits, destratification pump kit, powered anodes



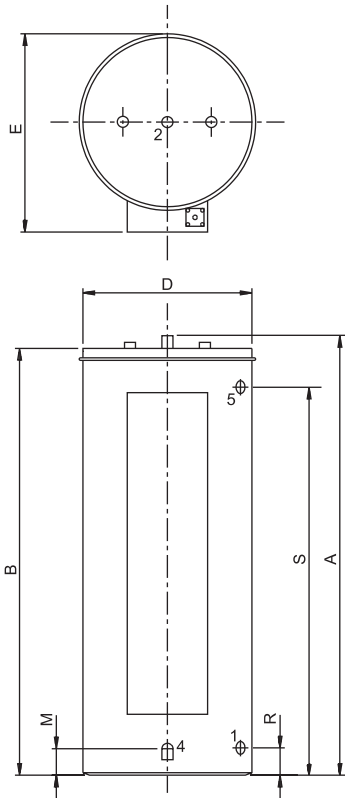
Technical specifications

		DRE 52-9	DRE 52-18	DRE 52-36	DRE 80-9	DRE 80-18	DRE 80-36	DRE 80-54
Electrical data								
Input	kW	8,4	16,8	33,6	8,4	16,8	33,6	50,4
Current	A	11-13	23-25	46-50	11-13	23-25	46-50	69-75
Elements	-	3	3	6	3	3	6	9
Power supply	VAC/Hz	400(-15/+10%)/50 (± 1 Hz)						
General								
Weight empty	kg		78				110	
Maximum weight	kg		273				410	
Storage capacity	l		173				264	
Max. temperature setting	°C		82				82	
Maximum working pressure	kPa (bar)		800 (8)				800 (8)	
Draw-off capacity								
Tcold = 10°C / Tset = Tmax								
30 min. ΔT=44°C	l	310	380	530	430	500	650	800
60 min. ΔT=44°C	l	390	550	860	510	670	980	1300
90 min. ΔT=44°C	l	470	710	1200	590	830	1400	1800
120 min. ΔT=44°C	l	550	880	1600	680	1000	1700	2300
Continuous ΔT=44°C	l/h	170	330	660	170	330	660	990
Heating-up time ΔT=44°C	min.	63	32	16	96	48	24	16
30 min. ΔT=50°C	l	270	340	470	380	440	570	700
60 min. ΔT=50°C	l	340	480	760	450	590	860	1200
90 min. ΔT=50°C	l	420	630	1100	520	730	1200	1600
120 min. ΔT=50°C	l	490	770	1400	600	880	1500	2000
Continuous ΔT=50°C	l/h	150	290	580	150	290	580	870
Heating-up time ΔT=50°C	min.	72	36	18	110	55	27	18
30 min. ΔT=55°C	l	250	310	430	340	400	520	640
60 min. ΔT=55°C	l	310	440	690	410	530	780	1100
90 min. ΔT=55°C	l	380	570	950	480	670	1100	1500
120 min. ΔT=55°C	l	440	700	1300	540	800	1400	1900
Continuous ΔT=55°C	l/h	140	270	530	140	270	530	790
Heating-up time ΔT=55°C	min.	79	40	20	121	60	30	20
Shipping data								
Weight incl. packaging	kg		86				125	
Width packaging	mm		680				770	
Height packaging	mm		1570				1690	
Depth packaging	mm		810				920	

Ecodesign specifications

		DRE 52-9	DRE 52-18	DRE 52-36	DRE 80-9	DRE 80-18	DRE 80-36	DRE 80-54
Load Profil	-	XL	XL	XL	XL	XL	XL	XL
Energy labeling	-	C	C	C	C	C	C	C
Efficiency	%	38,4	38,7	38,9	38,7	39,1	39,3	39,0
Annual Electricity Consumption (AEC)	kWh	4363	4334	4304	4334	4287	4265	4299
Daily Electricity Consumption	kWh	20.104	19.931	19.758	19.934	19.656	19.530	19.729
Annual Fuel Consumption (AEC)	GJ GCV	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Daily Fuel Consumption	kWh GCV	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Nitrogen Dioxide Emission (NO2)	mg/kWh GCV	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mixed Water of 40°C (according V40)	ltr.	255	255	255	400	400	400	400
Sound Power Level	dB	15	15	15	15	15	15	15

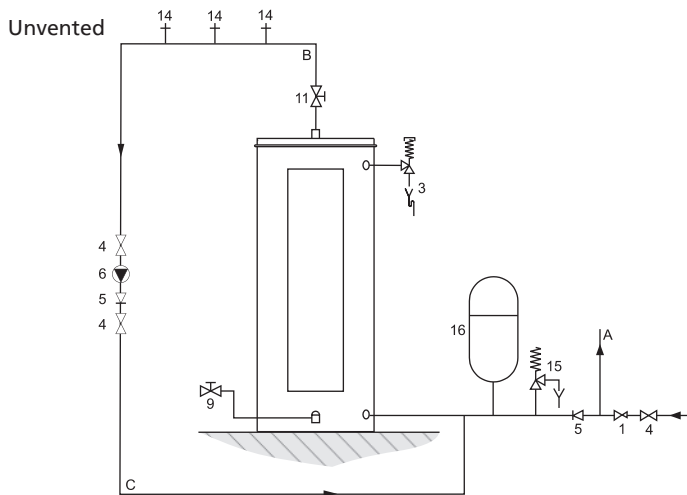
Dimensions



	DRE 52	DRE 80
A	1460	1580
B	1420	1540
D	560	640
E	690	790
M	125	125
R	125	125
S	1230	1335
1	1.25 - 14 NPT	
2	1.25 - 14 NPT	
4	0.75 - 14 NPT	
5	0.75 - 14 NPT	
6	RP 0.75	

Dimensions in mm.

Installation diagrams



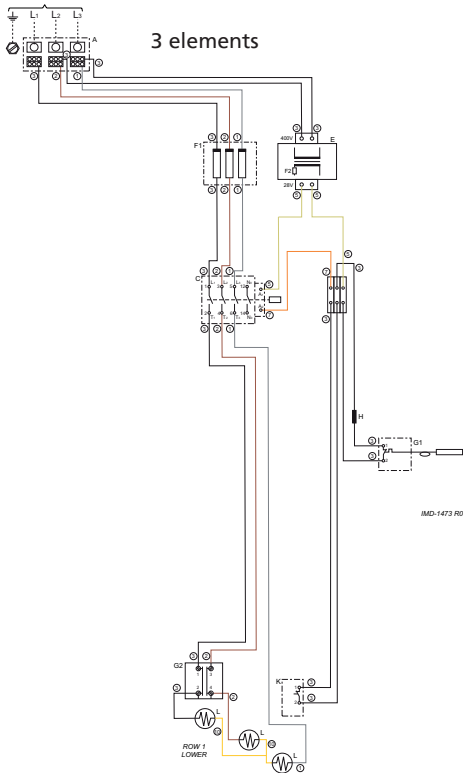
- 1 Pressure reducing valve
- 3 T&P valve
- 4 Stop valve
- 5 Non-return valve
- 6 Circulation pump
- 9 Drain valve
- 11 Service valve
- 14 Hot water tap
- 15 Expansion valve
- 16 Expansion vessel
- 17 Three way valve
- 18 Water cistern
- 19 Float valve

- A Cold water supply
- B Hot water outlet
- C Circulation pipe
- E Overflow pipe
- H Expansion 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



COMPONANTS

- A Terminal block
- B Fuse
- C Relais
- D Fuse
- E Transformator
- F Safety relais
- G Float switch
- H Maximum thermostat
- K Control thermostat
- L Electrical element
- X¹ Terminal block

Color code cables

- ① Black
- ② Red
- ③ Blue
- ④ Brown
- ⑤ White

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.aosmithinternational.com.

