

HEATRAE SADIA

The quality name in water heating

Combined electric boiler and domestic hot water store

Electromax





Electromax COMBINED ELECTRIC BOILER & DOMESTIC HOT WATER STORE

Heatrae Sadia's Electromax boiler provides wet central heating and domestic hot water with the same comfort and controllability as a gas boiler.

Whether in rural areas, new housing projects, in multi-floor dwellings or in one of over two million homes in Britain with no mains gas supply, Electromax electric boilers offer the comfort and convenience of wet central heating and domestic hot water, wherever there is mains electricity.

Electromax is a fully packaged unit and comes complete with electric boiler, stainless steel hot water cylinder, and pre-plumbed factory fitted circulating pump, central heating and domestic hot water controls.

Electromax is compact in size and will fit into a standard domestic airing cupboard making it ideal for a range of properties. It is especially suited to flats and apartments where gas supply may be a problem or there are flue or condensate drain issues. An installation template is supplied to enable pipework to be pre-installed prior to fitting the boiler.

Electromax provides wet central heating and domestic hot water – a 9kW electric flow boiler supplies the central heating and a 180 litre unvented, high quality Duplex stainless steel direct hot water cylinder gives powerful mains pressure showering and fast filling baths.

Electromax is controllable and efficient – operating just like a gas boiler, Electromax provides central heating only when required and is controlled by a programmable room thermostat which can be set to take advantage of a wide range of off-peak electricity tariffs and meet end user life styles. Designed for use with sealed wet radiator central heating systems.

Domestic hot water is supplied from a direct cylinder which heats the stored water during off-peak periods. A one hour boost feature is available for day time top up.

Supported by Heatrae Sadia's national service and technical support network, Electromax features a 10-year, on-site parts and labour cylinder guarantee, and 2-year on-site parts and labour guarantee on the boiler and controls. A specification and design service is available through our Specifier Advice Team Tel: 01603 420220.



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The Electromax boiler has a host of features that benefit developers, builders, installers, landlords and end users to make it a desirable alternative where gas is not available or not the preferred option.

Controllable, efficient wet central heating

Programmable room thermostat to accommodate a wide range of off-peak tariffs

For use with standard radiators and thermostatic radiator valves

Designed for sealed systems

High-performance domestic hot water from unvented direct hot water cylinder

Cylinder manufactured from high grade Duplex stainless steel

No flue and no fuel tanks allow flexible installation location

Silent in operation

Automatic pump exercise feature – for periods when boiler is switched off

Front control panel indication to show boiler status

Proven solid-state technology for long life

Soft start and zero volt switching to avoid power surges

Min/max control adjusts the water temperature output from the boiler

Minimal service and maintenance costs

No requirement for annual gas safety certificate

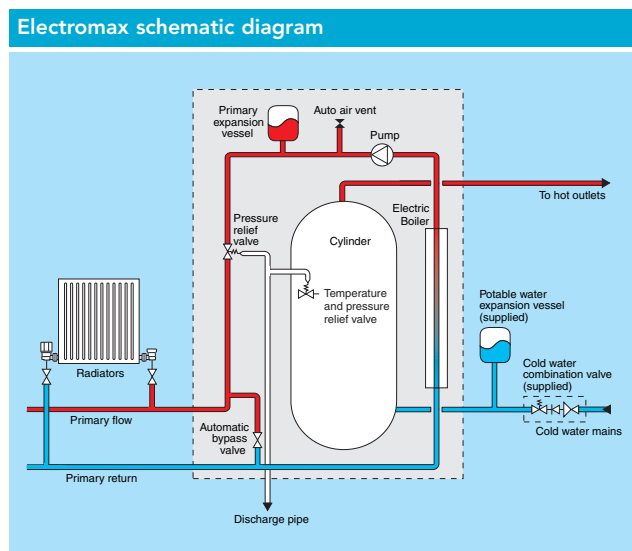
On-site parts and labour guarantee

- Cylinder - 10 years

- Boiler and other controls - 2 years

Central heating

Electromax electric flow boilers are suitable for wet radiator sealed heating systems. Typical system layout is given below for illustration purposes only.



Domestic hot water is provided by a 180 litre unvented direct hot water cylinder which is manufactured from high grade Duplex stainless steel for maximum strength and long life. Duplex stainless steel offers a superior resistance to corrosion especially in aggressive water areas, compared with copper, glass-lined steel and some lower grades of stainless steel.

Because Duplex is a low carbon, high chromium content alloy, it resists all forms of corrosion including pitting, crevice corrosion, uniform corrosion and stress corrosion cracking, without the use of a sacrificial anode. In addition, the combination of tungsten inert gas and laser welding coupled with the special post weld processes ensures the same level of corrosion resistance and mechanical strength as the parent metal. This ensures the longest possible working life for every cylinder.

The water is heated by long-life Superloy 825 alloy sheathed elements incorporated into an easily removable heater plate should replacement be necessary.

The Electromax boiler is supplied with a programmable room thermostat which controls the time periods that the boiler comes into operation and the room temperature. Offering up to three 'On' and three 'Off' periods per day and Weekday and Weekend programmes, the user is able to take advantage of the most appropriate off peak tariff best suited to their needs.

The control panel on the unit includes a system pressure gauge, boiler indicator LED's, boiler on/off switch, domestic hot water on/off and boost switches.

Running costs

There are a number of off-peak electricity tariffs now available which provide a range of lower cost options for electricity used for heating and hot water. The two most common tariffs are Economy 7 and Economy 10.

Types of meter and tariffs will vary by property and region. The following information is for general guidance only.

Economy 7

Two rate meter installed in property.
Units used at night (during off-peak time*) charged at lower rate than those used during the day.

Economy 10†

Only one meter installed in each property.
All electricity used at off-peak times charged at the lower rate (such as washing machines, dishwashers etc).

Off-peak times generally set for
Midnight to 5.00 am (GMT) - 5 hours
1.00 pm to 4.00 pm (GMT) - 3 hours
8.00 pm to 10.00 pm (GMT) - 2 hours

*'Night' means the 7 hours that the local distribution company in your area chooses between 10 pm and 10 am. 'Day' means at all other times.

†Not available in all areas, and details may vary by area. Call 029 2024 9556 for information on latest Economy 10 availability and tariffs.

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Key components

- 1 9 kW Ampotec boiler
- 2 Controls (PCB's)
- 3 180 litre cylinder (Duplex Stainless Steel)
- 4 Elements – Alloy 825 sheathed, incorporating thermal controls – combined thermostat and thermal cut-out. Thermostat adjustable between 10°C and 70°C
- 5 Insulation - CFC/HCFC Free (ODP zero) expanded polyurethane

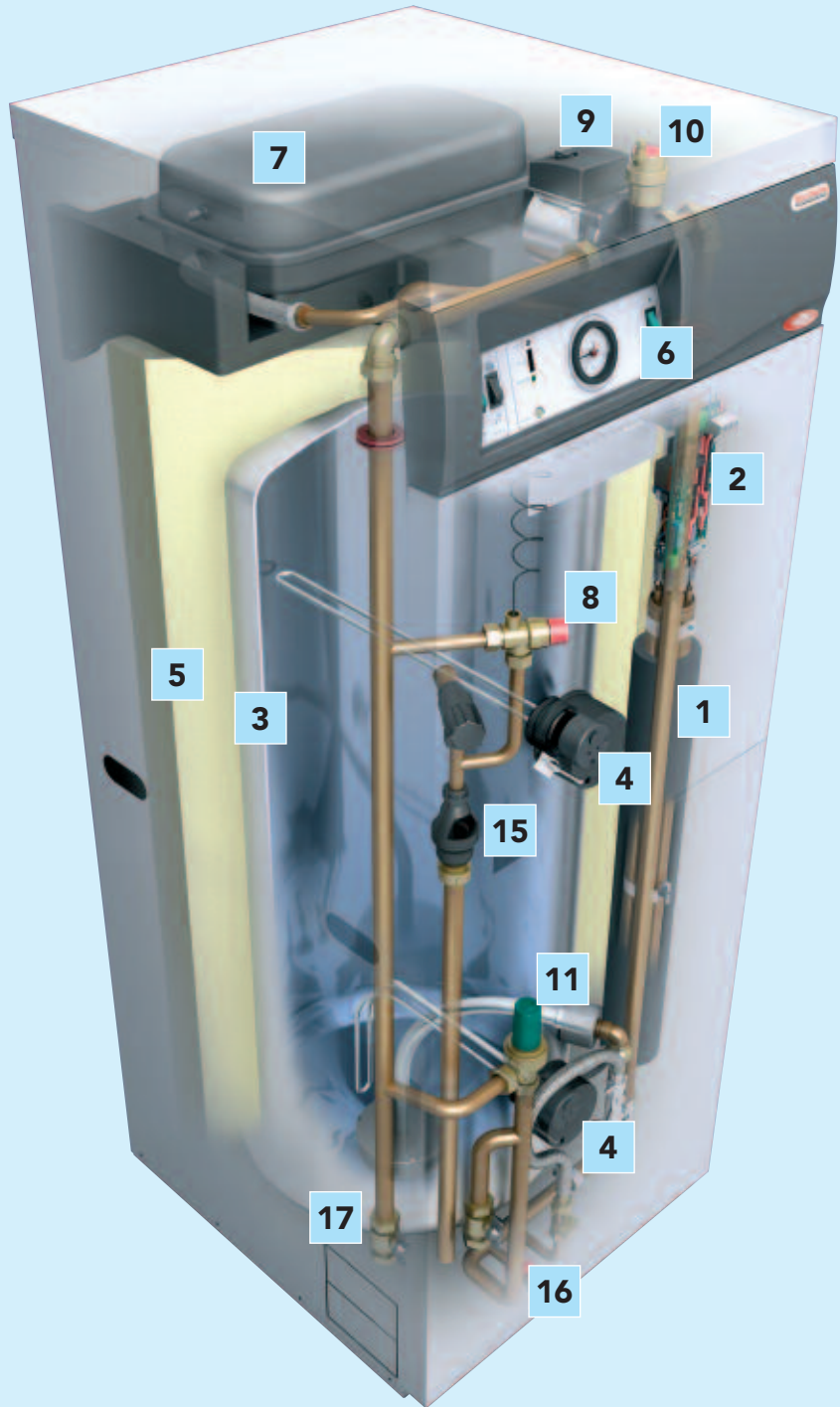
Controls (Water)

Primary

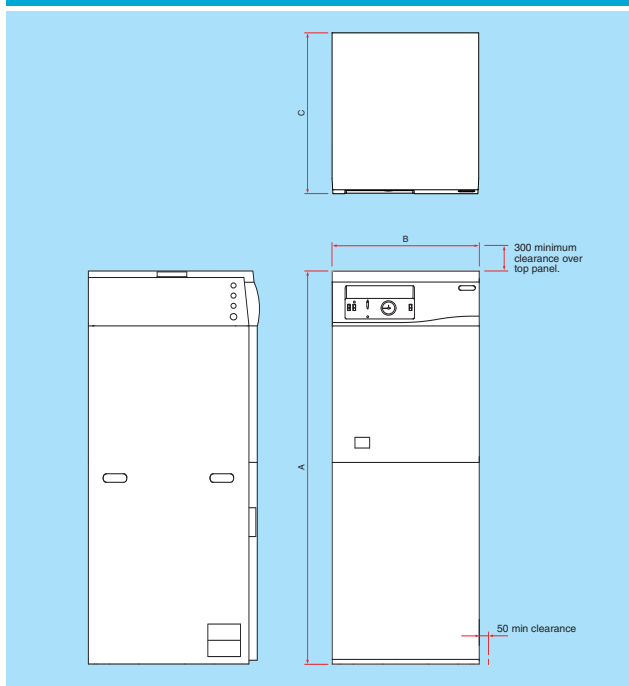
- 7 Expansion vessel
- 8 Pressure relief valve
- 9 Circulating pump
- 10 Auto air vent
- 11 Automatic bypass valve
- 12 Programmable room thermostat

Domestic hot water

- 13 Combined Pressure Reducing / Strainer / Check / Expansion Valve
- 14 Externally mounted potable water expansion vessel (18 litre) supplied with wall mounting bracket
- 15 Tundish
- 16 Drain valve
- 17 Primary system isolating valves



Electromax



Dimensions

Model	A mm	B mm	C mm
Electromax	1480	550	605

Cylinder performance

Model	Capacity (litres)	Off-peak heater 3kW Time to heat (mins) Thro' 45°C Thro' 50°C	Boost heater 3kW Quantity heated thro' 45°C in 60 mins	Heat loss kWh/24h
Electromax	180	180 200	57 litres	1.95

Specification

Capacities Boiler: Nominal Capacity – 1.3 litres.
Cylinder: Nominal Capacity – 180 litres.

Ratings Boiler: 9kW @ 240V (8.3kW @ 230V).
Immersion heaters: 2 x 3kW @ 240V (2 x 2.8kW @ 230V).

Elements Boiler: Long life, low watts density, copper elements in a copper heat exchanger.
Cylinder: Long life Superloy 825 alloy sheathed elements incorporated into an easily removable heater plate should replacement be necessary.

Outer casing White stove-enamelled corrosion-resistant steel. Control Panel fascia: ABS - light grey.

Thermal insulation Boiler: Armaflex – closed cell insulation. Dust, fibre and CFC free (ODP zero).
Cylinder: CFC/HCFC Free (ODP zero) expanded polyurethane. GWP 3.1 (Global Warming Potential).

Thermostat Boiler: Electronic dual control, user adjustable 65°C to 80°C.
Cylinder: Element thermostat adjustable from 10°C to 70°C.

Water container Boiler: Copper.
Cylinder: Duplex 2304 (Grade 1.4362 EN 10088) stainless steel with external expansion vessel.

Safety features Boiler: 2 amp fused pump supply, Dual control circuits, Dual switching of the elements, Self check circuitry and fault indication. Re-settable thermal cut-out.
Cylinder: Manually re-settable cut-out on heating element operates at 85°C (feature is an integral part of the thermostat).

Primary circuit Pressure Relief valve factory set to 3 bar. Cylinder fitted with Temperature and Pressure Relief valve, factory set to operate at 10 bar/90°C.

Approvals BEAB approved. Manufactured in the UK in a BS EN ISO 9001:2000 registered factory.



Pump Grundfos UPS15-50 (with integral automatic air vent).

Expansion vessels Primary system expansion vessel (12 litre/3 bar) factory fitted.
Potable water expansion vessel (18 litre/3.5 bar) supplied loose.

Bypass valve Automatic bypass valve (factory fitted).

Central heating controls Supplied with programmable room thermostat:
Three 'On' / three 'Off' periods per day. Weekday and weekend can be programmed separately. Battery operated. Polarity-free connection to boiler.

Installation

Must be installed by a competent installer in accordance with Local Regulations. England and Wales – Building Regulations G3. Scotland – Technical Standards P3. N.Ireland – Building Regulations P5.

Fixing Floor mounting. A template is provided to assist in positioning.

Plumbing connections 22mm pipework on connections on all models. Primary filling loop and Primary drain point valve and hose connector supplied, bottom or side entry via panel knock outs.

Primary system operating pressure 3 bar maximum.

Operating temperature Primary system 65°C to 80°C. Cylinder 10°C to 70°C.

Heating systems Sealed systems.

Pressure testing Tested to 15 bar.

Cold water control Integrated cold water control set comprising pressure reducing valve and strainer (factory set at 3.5 bar), expansion relief valve (factory set at 6 bar) and check valve. 22mm compression fittings.

Domestic hot water flow rates Up to 55 litres per minute @ 6 bar pressure.

Min water requirements Recommended minimum supply pressure – 1.5 bar/20 l/min flow rate. If there are any doubts about water supply pressure or flow rates, please contact our Specification Advice Team to discuss.

Tundish Factory fitted 15mm inlet and 22mm compression outlet.

Electrical Designed for connection to off-peak electricity supply. A range of off-peak tariffs are available nationally – it is recommended that you contact your electricity supplier to determine the tariff best suited to your needs.

Electric boiler must be permanently connected to electricity supply through a double pole linked isolating switch with a minimum breaking capacity of 45 Amps.

Immersion heaters must be permanently connected to electricity supply through a double pole linked isolating switch with a minimum breaking capacity of 13 Amps.

Central heating control is by means of a programmable room stat (supplied loose for fitting on site).

User controls The unit is supplied with a programmable room thermostat for the control of the central heating times and temperature.

Control panel includes Boiler On/Off switch. Hot water On/Off switch. Hot water one hour boost switch. System pressure gauge. Boiler temperature adjustment. Boiler LED indicators.

Guarantee

The Electromax Duplex stainless steel vessel carries a full 10-year guarantee against faulty manufacture or materials provided that:

- It has been correctly installed as per the instructions contained in the instruction manual and all relevant Codes of Practice and Regulations in force at the time of installation.
- It has not been modified in any way, other than by Heatrae Sadia Heating.
- It has not been frost damaged.
- It has only been used for the storage of potable water.
- It has not been tampered with or been subjected to misuse or neglect.
- Within 60 days of installation the user completes and returns the certificate supplied along with the proof of purchase to register the product.



The boiler, immersion heater and controls are guaranteed for a period of 2 years from the date of purchase provided that:

- It has been correctly installed as per the instructions contained in the instruction manual and all relevant Codes of Practice and Regulations in force at the time of installation.
- It has not been modified in any way, other than by Heatrae Sadia Heating.
- It has not been frost damaged.
- It has not been tampered with or been subjected to misuse or neglect.
- Within 60 days of installation the user completes and returns the certificate supplied along with the proof of purchase to register the product.



Evidence of purchase and date of supply must be submitted. These guarantees do not affect your statutory rights.

Ordering guide

Model	Rating @ 240V		Capacity		Weight		Product code
	Boiler	Cylinder	Cylinder litres	Boiler litres	Empty kg	Full kg	
Electromax	9kW	2x3kW	180	1.3	74	256	95:022:203



www.dealec.com

Product Information Pages

For further help and assistance:

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