

# Electromax

Combined electric boiler  
and domestic hot water store





# Electromax

Electromax provides efficient electric wet central heating and domestic hot water with the comfort and control of gas-powered systems – making it perfect for the over two million homes in Britain with no mains gas supply.

Electromax includes a programmable room thermostat to take full advantage of off-peak electricity rates. It uses standard radiators and thermostatic radiator valves to reduce the cost of installation. There's a version to suit underfloor heating systems. And, with long-term costs in mind, there's no need for the considerable expense and inconvenience of an annual gas safety certificate.

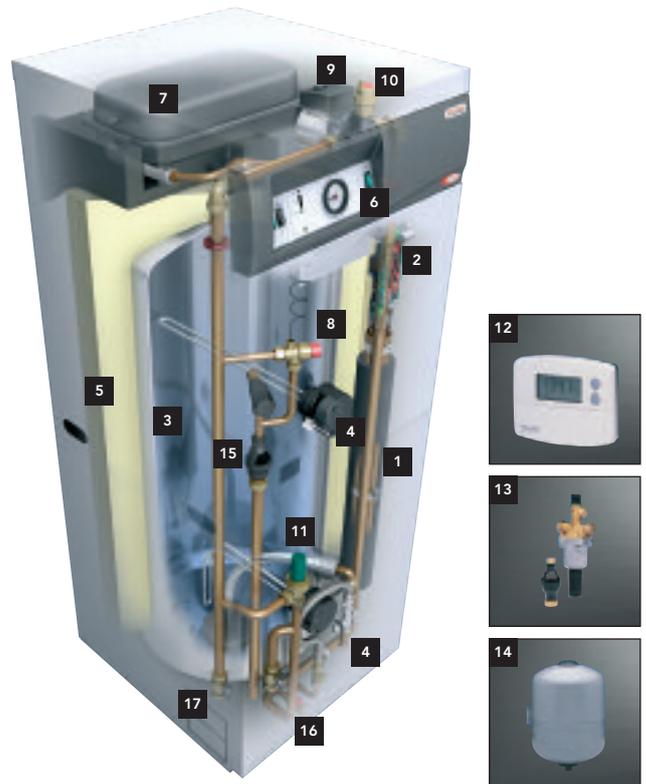
Electromax comes with a 10 year cylinder guarantee and a two year guarantee for the boiler and all other controls with on-site service support.



# Electromax

Electromax 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.
- Uses standard radiators and thermostatic radiator valves.
- Designed for sealed systems.
- Model available for underfloor heating systems.
- High-performance domestic hot water from unvented direct hot water cylinder.
- Cylinder manufactured from 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 – two years.



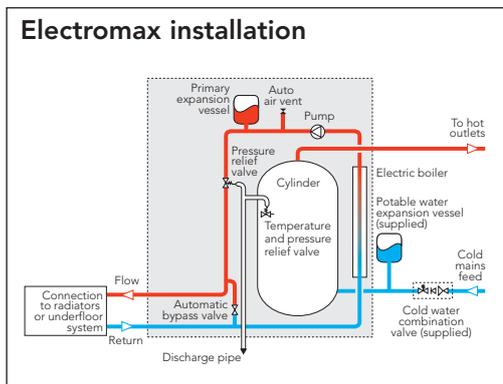
## Key components

- |   |  |
|---|--|
| 1 6 or 9kW Amptec boiler.   | 9 Circulating pump.  |
| 2 Controls (PCBs).  | 10 Auto air vent.  |
| 3 180 litre cylinder (Duplex stainless steel).  | 11 Automatic bypass valve.   |
| 4 Elements – alloy 825 sheathed, incorporating thermal controls – combined thermostat and thermal cut-out. Thermostat adjustable between 10°C and 70°C. | 12 Programmable room thermostat.   |
| 5 Insulation – CFC/HCFC Free (ODP zero) expanded polyurethane.  | 13 Combined pressure reducing / strainer / check / expansion valve.                                  |
| 6 User interface controls mounted in stylised fascia panel.   | 14 Externally mounted potable water expansion vessel (18 litre) supplied with wall mounting bracket. |
| 7 Expansion vessel.   | 15 Tundish.  |
| 8 Pressure relief valve.  | 16 Drain valve.  |
|   | 17 Primary system isolating valves.  |



## Central heating

Electromax is suitable for use with wet radiator or underfloor sealed heating systems. Typical system layout given below is for illustrative purposes only.



## Domestic hot water

Domestic hot water is provided by a 180 litre unvented direct hot water cylinder which is manufactured from 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.

Electromax 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 LEDs, 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–5.00am; 1.00pm–4.00pm; and 8.00 pm–10.00 pm.

\*"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.

# Full specifications

## Specification

### Capacities

Boiler – 1.3 litres.  
Cylinder – 180 litres.

### Ratings

Boilers – 6kW @ 240V (5.5kW @ 230V).  
– 9kW @ 240V (8.3kW @ 230V).

Immersion heaters – 2x 3kW @ 240V (2x 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 – light grey ABS.

### Thermal insulation

Boiler: Armaflex – closed cell insulation. Dust, fibre and CFC / HCFC free (ODP zero).

Cylinder – CFC / HCFC Free (ODP zero) expanded polyurethane. GWP 2.72 (Global Warming Potential).

### Thermostat

Electromax boiler – Electronic dual control, user adjustable from 65°C to 80°C.

Electromax underfloor boiler – Electronic dual control, user adjustable from 30°C to 60°C.

Electromax 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.

### 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.

### Approvals

Nemko and Kiwa approved, CE marked.  
Manufactured in the UK in a  
BS EN ISO 9001:2008 registered factory.

## 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 – Electromax from 65°C to 80°C.

Primary system – Electromax Underfloor from 30°C to 60°C. Cylinder from 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 thermostat (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

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 been installed in the UK.
- 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 two 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 been installed in the UK.
- 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.



# Dimensions and ordering

**Dimensions**

300 minimum clearance over top panel

50 min. clearance

Model	A (mm)	B (mm)	C (mm)
Electromax / Electromax Underfloor	1480	550	605

**Cylinder performance**

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

**Ordering guide**

Model	Rating @ 240V		Capacity (litres)		Weight (kg)		Product code
	Boiler	Cylinder	Boiler	Cylinder	Empty	Full	
Electromax	6kW	2x 3kW	1.3	180	74	256	95:022:204
Electromax	9kW	2x 3kW	1.3	180	74	256	95:022:203
Electromax Underfloor	6kW	2x 3kW	1.3	180	74	256	95:022:304
Electromax Underfloor	9kW	2x 3kW	1.3	180	74	256	95:022:303

# Contact

## Specification Advice Hotline

T: 01603 420220 F: 01603 420229

E: [specifier@heatraesadia.com](mailto:specifier@heatraesadia.com)

## After Sales Service

T: 0844 871 1535 F: 0844 871 1528

E: [heatraesadiaservice@heateam.co.uk](mailto:heatraesadiaservice@heateam.co.uk)

Web [www.heatraesadia.com](http://www.heatraesadia.com)

## National service network

Heatrae Sadia products are inherently reliable and are designed to meet the demanding needs of all users.

A nationwide network of experienced engineers is available to provide fast and efficient on-site service support.

In addition, spare parts for the complete range of products are readily available through a wide variety of stockists.

Heatrae Sadia Heating Hurricane Way Norwich Norfolk NR6 6EA

Heatrae Sadia Heating may introduce modifications to their products from time to time. Consequently, the details given in this brochure are subject to alteration without notice.

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### Megaflo eco

- Megaflo eco cylinder range

### Domestic Heating and Hot Water

- Aerheat
- Electric Solar
- Electromax Solar
- Multipoint Instantaneous
- Showers
- Amptec
- Electromax
- Immersion Heaters
- Multipoint SS

### Commercial Hot Water

- B3M / C3M
- FBM
- Handy Dri / Hair Drier
- Multipoint
- UTC 99
- Express
- Handy
- Hotflo
- Streamline

### Drinking Water

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- Supreme