

# Ampotec

Electric flow boilers





# Amptec

Amptec electric flow boiler provides efficient electric wet central heating with the high levels of comfort and control usually only found in gas-powered systems. This makes it ideal for any of the over 2 million homes in Britain with no mains gas supply.

Amptec electric flow boiler has been designed to be compatible with standard radiators, programmers, circulating pumps, room thermostats and thermostatic radiator valves. It is suitable for sealed or open-vented systems, and works with conventional radiators or underfloor heating systems.

For one off applications such as garage and loft conversions, extensions and conservatories the Amptec system boiler is ideal where space is at a premium.

And for complete peace-of-mind, Amptec boilers come with a comprehensive two year parts and labour guarantee that's backed up with on-site service support.



# Amptec

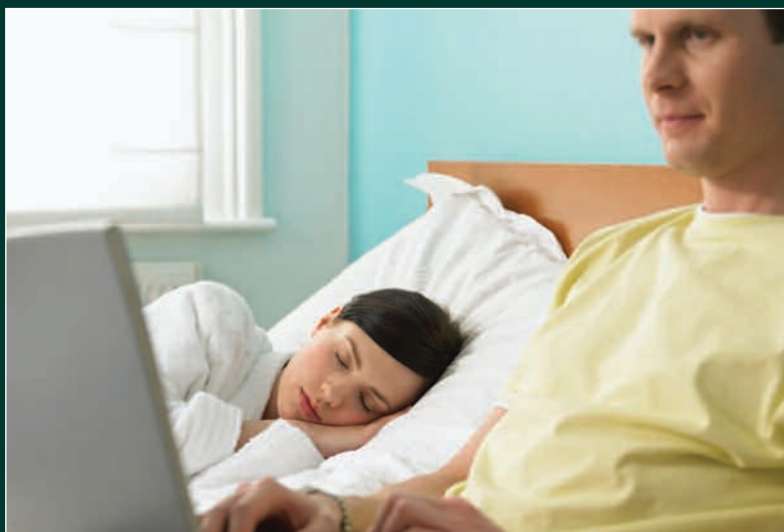
## Amptec electric flow boiler

The Amptec electric flow boiler has a host of features that are a benefit to developers and builders, installers, landlords and end users and make it a desirable option where gas is not available or fluing restrictions prevent the use of a gas boiler.

- Controllable, efficient wet central heating.
- Uses standard radiators, programmer, pump, room thermostat and thermostatic radiator valves.
- Suitable for pressurised or open vented systems.
- Models available for underfloor heating systems.
- Domestic hot water from boiler in conjunction with an indirect cylinder or separate direct cylinder.
- No flue and no fuel tanks means flexible installation location.
- With no flue, no heat is wasted up the chimney, making Amptec electric flow boilers 99.8% efficient.
- Compact and light weight for ease of installation.
- Compact dimensions – small and unobtrusive.
- Silent in operation.
- The boiler has front panel indication to show boiler state.
- Solid state technology with no moving parts 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 safety certificate.
- Two year on-site parts and labour guarantee.



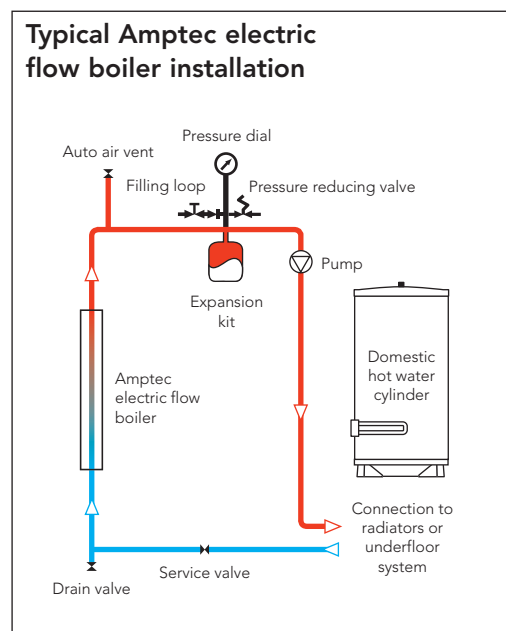
- 1 22mm copper connection (flow).
- 2 22mm copper connection (return).
- 3 Solid state electronics.
- 4 Control panel.
- 5 Long life elements.
- 6 Compact, painted steel outercase.
- 7 Entry ports for power and control.



## Central heating and hot water systems

Amptec electric flow boilers are suitable for use with a wide range of heating and domestic hot water systems, either vented or unvented.

The system layout below is shown for illustrative purposes only.



## Amptec system boiler – underfloor

The Amptec System Boiler is a fully packaged unit and comes complete with:

- 2.5kW Amptec electric flow boiler.
- Heating Pump.
- Integral expansion vessel.
- Automatic air valve.
- 2-port manifold and flow meters.
- System pressure gauge.
- Factory fitted pressure relief valve.
- Filling and drain valve.
- Isolation valve.
- ¼ turn commissioning valve.
- Radio frequency room thermostat.
- Hose connection for ease of commissioning.



# Full specifications

## Controls

The Amptec electric flow boiler is designed to work with a standard programmer which will control the time periods that the boiler comes into operation.

The unit is also suitable for use with standard thermostatic radiator valves, circulating pump and room thermostats which bring the boiler into operation when there is a call for heat.

## Running costs

There are a number of off-peak electricity tariffs now available which provide a lower cost for electricity used for heating and hot water.

The two most common tariffs are Economy 7 and Economy 10.

### 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.

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

### 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 – 5 hours.

1.00 pm to 4.00 pm – 3 hours.

8.00 pm to 10.00 pm – 2 hours.

† Not available in all areas, and details may vary by area. Call 0800 117116 for information on latest availability and tariffs.

## Boiler sizing

The sizing of the boiler is dependent on a number of factors such as size of property, insulation properties of the building, and whether the boiler will be required to heat the domestic hot water cylinder.

Please consult with your installer / heating engineer for sizing, or contact our Specification Advice Team on tel: 01603 420220, by fax: 01603 420229, or by email: specifier@heatraesadia.com

## Specification

### Ratings

4kW @ 240V, (3.7kW @ 230V).  
6kW @ 240V, (5.5kW @ 230V).  
9kW @ 240V, (8.3kW @ 230V).  
11kW @ 240V, (10.1kW @ 230V).  
12kW @ 240V, (11kW @ 230V).  
2.5kW @ 240V, (2.3kW @ 230V) – Amptec System Boiler.

### Element

Long life, low watt density, copper elements in a copper heat exchanger.

### Outer casing

White stove enamelled corrosion resistant steel.

### Insulation

Armaflex – Closed cell insulation. Dust, fibre and CFC free (ODP ZERO).

### Water Container

Copper.  
Manifold – 2 ports with flow meter – Amptec System Boiler.

### Thermostat

Electronic dual control, user adjustable.  
C series from 65°C to 80°C. U series from 30°C to 60°C.

### Safety features

2 amp fused pump supply, dual control circuits, dual switching of the elements, self-check circuitry. Resettable cut-outs.  
Pressure relief valve – 3 bar – Amptec System Boiler.  
Pump – Grundfos 50/60 – Amptec System Boiler.

### Approvals

Nemko to BS EN 60335. CE Marked. Manufactured in the UK in a BS EN ISO 9001:2008 registered factory.

## Installation

### Fixing

Wall-mounted by two keyholes. Wall-mounted by three keyholes – Amptec System Boiler.  
Must be mounted vertically.

### Plumbing

22mm pipework connections on all models.  
Pressure relief valve: 15mm compression – Amptec System Boiler.

### Flow Rates

6 litres/minute minimum required for 4 and 6kW models.  
12 litres/minute minimum required for 9, 11 and 12kW models.  
1-3.4 litres/minute depending on length of underfloor heating – Amptec System Boiler.

### Operating Pressure

3 bar maximum.  
1-1.5 bar – Amptec System Boiler.

### Heating Systems

Sealed or open vented systems.  
Closed loop – Amptec System Boiler.

### Electrical

The unit must be permanently connected to the electrical supply through a double-pole linked switch with minimum breaking capacity suitable for loading.  
All electrical work must comply with the latest BS 7671 (IEE Wiring Regulations).

### Controls

Can be installed with standard pump, programmer, room thermostat and thermostatic radiator valves (not supplied with boiler).  
Programmable room thermostat TP5000 + RF (supplied loose), factory-fitted pump, expansion vessel, pressure relief valve, underfloor flow and return manifolds (incorporating isolating valve and flow gauges) – Amptec System Boiler.

### Accessories

Relay accessories are available for multiple boiler applications, and/or load sharing – for example when installed in conjunction with an electric shower, to prevent overload.  
RL1 – Where an electric shower and an Amptec electric boiler are installed in the same dwelling, the RL1 relay prevents circuits from overloading by shutting down the Amptec electric boiler when the shower is operating.  
RL2 and RL3 – Required where more than one Amptec electric boiler is installed to meet heating loads.

## Guarantee

Two year product guarantee with on site service support from date of purchase provided that:

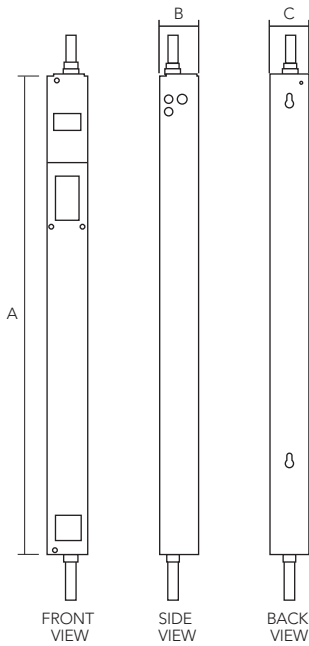
- It has been correctly installed as per the instructions contained in the instruction manual and all relevant Codes of Practice and Regulations in force at the time of installation.
- It has been installed in the UK.
- It has not been modified in any way, other than by Heatrae Sadia Heating.
- It has 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 – Amptec Electric Flow Boiler



Model	A (mm)	B (mm)	C (mm)
Amptec – all models	1050	90	90

## Product range – Amptec Electric Flow Boiler

Model	Rating @ 240V  (kW)	Description	B. Gas Council number	Temperature range  (°C)	Weight  (kg)
C400	4	Standard	EB 205 06	65-80	7.5
C600	6	Standard	EB 205 02	65-80	7.5
C900	9	Standard	EB 205 03	65-80	8.5
C1100	11	Standard	EB 205 01	65-80	8.5
C1200	12	Standard	EB 205 04	65-80	8.5
U401	4	Underfloor	EB 205 08	30-60	7.5
U601	6	Underfloor	EB 205 09	30-60	7.5
U901	9	Underfloor	EB 205 10	30-60	8.5
U1101	11	Underfloor	EB 205 11	30-60	8.5
U1201	12	Underfloor	EB 205 12	30-60	8.5

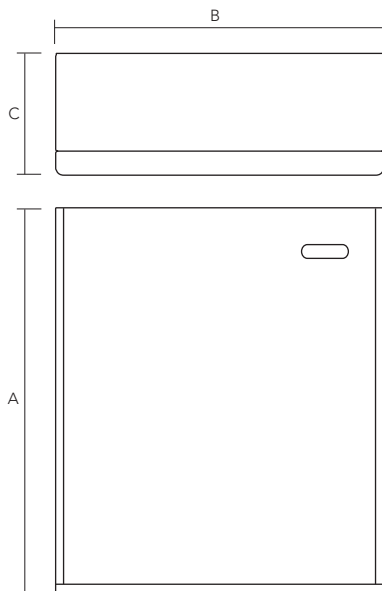
## Product range – Amptec System Boiler

Model	Rating @ 240V  (kW)	Description	Temperature range  (°C)	Weight  (kg)
Amptec System	2.5	System Boiler Underfloor	30-60	21

## Power supply – Amptec Electric Flow Boiler

Standard model	Underfloor model	Boiler output		Power supply to boiler	Recommended MCB
		(kW)	(Btu/h)	(amps)	(amps)
C400	U401	4	13600	17	20
C600	U601	6	20500	25	32
C900	U901	9	30700	38	50
C1100	U1101	11	38000	45	63
C1200	U1201	12	41000	50	63

## Dimensions – Amptec System Boiler



Model	A (mm)	B (mm)	C (mm)
Amptec System 2.5kW	561	450	170

## Ordering guide – Amptec Electric Flow Boiler

Model	Product code
C400	95:022:001
C600	95:022:002
C900	95:022:003
C1100	95:022:004
C1200	95:022:005
Relay RL1	95:970:134
Relay RL2	95:970:135
Relay RL3	95:970:136
U401	95:022:101
U601	95:022:102
U901	95:022:103
U1101	95:022:104
U1201	95:022:105

## Ordering guide – Amptec System Boiler

Model	Product code
Amptec System 2.5kW	95:022:439

# Contact

## Specification

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)

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## 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.

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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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