

# The 12 Best Electric Boilers of 2024: A Practical Guide

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 [linguip.com/blog/best-electric-boilers](https://linguip.com/blog/best-electric-boilers)

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Electric boilers are a type of electric boiler that uses electricity to heat hot water for your heating system. A gas boiler heats the water, but an electric boiler can be utilized in off-grid locations or when a gas supply is not desired or available.

## List of 12 Best Electric Boilers of 2024

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According to the factors that we will mention in this article, Here is the List of 12 Best Electric Boilers of 2024:

1. **Comet Combi Boiler by Electric Heating Company**
2. **Electromax by Heatrae Sadia**
3. **THERMAflow**
4. **Mattira MAC15 by Elnur**
5. **Elektra EK.C by Electric Boilers Company**
6. **Worcester Bosch Greenstar 2000**
7. **Vaillant ecoTEC plus**
8. **Viessmann Vitodens 200-W**
9. **Baxi Duo-Tec Compact**
10. **Rinnai Combi 25**
11. **Elnur Mattira MAC15 Electric Combi Boiler**
12. **Argo AT Series C Electric Boiler AT204510C**

## How We Selected the Best Electric Boilers of 2024?

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Electric boilers are an important part of any home heating system. They are energy-efficient and can be used in off-grid locations or when a gas supply is not desired or available. Selecting the best electric boiler for your home is crucial to ensure that you get the most out of your investment.

We selected the best electric boilers of 2024 by analyzing more than 10 web pages and also various reviews and specifications, consulting our experts, and considering the needs of the customers. We looked at classic, ionic, and induction-based electric boilers based on their power output, energy consumption, energy performance, and energy efficiency. We also

considered whether they were wall-mounted or floor-standing and whether they were combi or non-combi models. Our goal was to find the most efficient and reliable electric boilers that would provide customers with the best value for their money.

**Customer Feedback and Satisfaction:** We thoroughly evaluated customer reviews, feedback, and ratings across various platforms. This helped us understand the real-world performance and reliability of the boilers from the user's perspective. It also provided insights into long-term durability, ease of use, and customer service experiences associated with each model.

**Environmental Impact and Sustainability:** We considered the environmental impact of each electric boiler, focusing on models that offer eco-friendly features such as reduced energy consumption and recyclable components. This criterion aligns with growing consumer interest in sustainable and green home heating solutions, ensuring that the boilers we selected not only meet current needs but also contribute to a more sustainable future.

## Basics of Electric Boilers

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### How Does an Electric Boiler Work?

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The boiler itself is quite straightforward. It can take many different shapes and forms, but the most common is a device that has water running through it and is heated by a heating element, much like a kettle. Long, slender units with a large surface area to heat the water are sometimes seen.

### Different Types of Electric Boilers

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Electric boilers are classified as classic, ionic, or induction based on their power output, energy consumption, energy performance, energy efficiency, model type (combi or non-combi), and whether they are wall-mounted or floor-standing.

Most electric boilers are combi versions, which means they heat your home's hot water supply as well as channel hot water via your home's radiators or underfloor heating.

You may save money on your home heating expenses by installing a low-temperature electric boiler, but you must make sure your house radiators are suitable for this sort of installation.

## Advantages of Electric Boilers

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In some cases, electric boilers might be helpful. They are really basic pieces of technology that don't take up a lot of room and can be installed practically any place in a home because they don't require the flu or a gas line to operate. Electric boilers are almost 100 percent efficient because very little heat is wasted in the process of heating the water.

They're often easier to install, and they don't necessitate the services of a Gas Safe engineer. Because of the system's simplicity and ease of installation, the overall installation cost will be far lower than that of a gas boiler.

## **Disadvantages of Electric Boilers**

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Of course, if electric boilers were the greatest option, they would be ubiquitous, but they aren't. There are several drawbacks to electric boilers, and we will go through them now. At around 30% of the cost of electricity, gas is a far better option. Even if you own a very efficient system, this implies that the cost of heating water with electricity will be significantly greater.

That much is self-evident, but even when comparing electric boilers to other types of electric heating, the electric boiler does not always win. An electric boiler will be more costly to operate compared to infrared.

Electric boilers are likely to find a role in certain homes. They are a basic, easy-to-install solution, but many individuals will find that there are better methods to heat their homes. Infrared, heat pumps and even oil boilers are all likely to be less expensive to run than electric boilers if gas isn't an option.

If you're unsure about adding an electric boiler to your home, get guidance from an expert or a local shop. You are also encouraged to check out our **Boiler Providers** on Linquip for more information to fulfill all of your needs.

## **Best Electric Boilers of 2024 Reviews**

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### **1. Comet Combi Boiler by Electric Heating Company**

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Comet Combi Boiler by  
Electric Heating Company  
(Reference: [electric-heatingcompany.co.uk](http://electric-heatingcompany.co.uk))

## Pros & Cons

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### Pros

- Inbuilt Programmer with System Diagnostics
- Weather Compensation
- Full Power Modulation
- Energy Saving Smart Pump
- Stainless Steel Heat Exchanger

### Cons

- Relatively high cost
- Limited warranty
- Is not compatible with LPG

## Specifications

<b>Efficiency Rating</b>	100%
<b>LPG Compatible</b>	No
<b>Standard Warranty</b>	2 Years
<b>Central Heating Max. Output</b>	12kW
<b>Mounting</b>	Floor Standing

## General Descriptions

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The Comet Combi combi boiler heats water for a wet central heating system as well as for home consumption. It comes with a 140-liter Duplex stainless steel hot water cylinder to maximize hot water capacity while being compact, pre-plumbed and pre-wired for simplicity of installation.

The Comet has a wireless thermostat and a built-in programmer that allows you to control the temperature and schedule of your heating. The Comet is offered in three different power outputs: 9kW, 12kW, and 14.4kW. You can also choose to utilize only heating, only hot water, or both at the same time. The boiler is covered by a two-year warranty, while the cylinder is covered by a ten-year warranty.

## 2. Electromax by Heatrae Sadia

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Electromax by Heatrae Sadia (Reference: [heatraesadia.com](http://heatraesadia.com))

## Pros & Cons

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### Pros

- Controllable, efficient wet central heating
- Uses standard radiators and thermostatic radiator valves
- Minimal service and maintenance costs
- Smooth start and zero volts switching to avoid power surges

### Cons

- Low capacity
- Limited warranty
- Is not compatible with LPG

## Specifications

<b>Efficiency Rating</b>	99.8%
<b>LPG Compatible</b>	No
<b>Standard Warranty</b>	2 Years
<b>Central Heating Max. Output</b>	6kW
<b>Mounting</b>	Floor Standing

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### General Descriptions

Because it combines an electric flow boiler with a hot water storage cylinder and circulating pump, the Electromax boiler can offer both heating and hot water for your house (at the same time).

All the Electromax requires is access to a power source and cold water. A 180-liter capacity duplex stainless steel unvented cylinder is housed within the boiler. This allows it to provide high-pressure showers, quick-filling tubs, and a steady supply of hot water to many tap outlets. The Electromax is designed for sealed systems and will fit into a regular household airing cabinet due to its small size. The Electromax comes in two residential kW capacities: 6 and 9 kW. The boiler is covered by a two-year warranty, while the cylinder is covered by a ten-year warranty.

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### 3. THERMAflow



THERMAflow  
(Reference:  
[thermaflowheating.co.uk](http://thermaflowheating.co.uk))

## Pros & Cons

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### Pros

- 100% Efficient
- Instant heating and hot water
- Very quiet in operation
- Internal Primary Expansion
- NSF Building Regulation Approved

### Cons

- Limited warranty
- Is not compatible with LPG

### Specifications

<b>Efficiency Rating</b>	100%
<b>LPG Compatible</b>	No
<b>Standard Warranty</b>	1 Year
<b>Central Heating Max. Output</b>	10kW
<b>Mounting</b>	Floor Standing



## General Descriptions

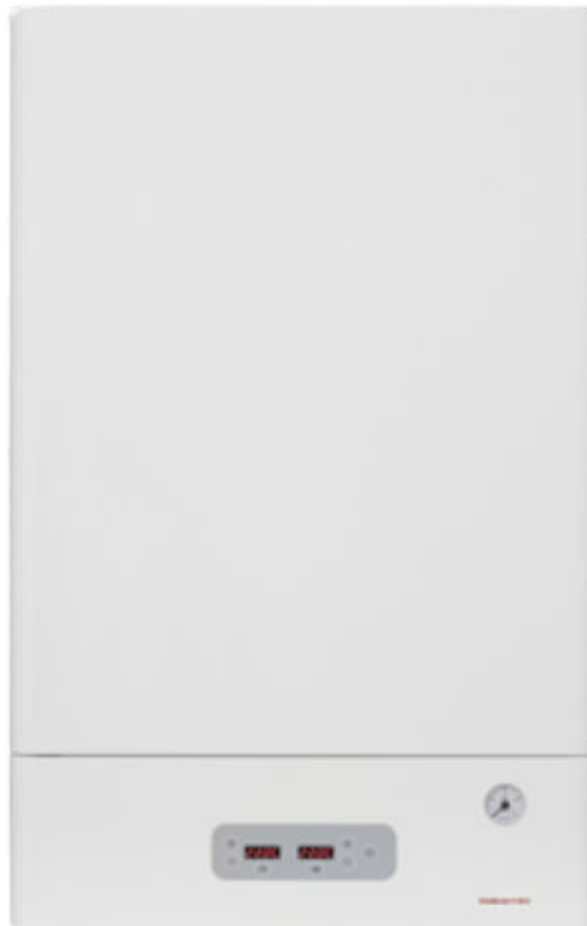
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The THERMAflow High-Efficiency Electric Combination Boiler is intended to run on lower electricity tariffs, allowing you to save money and energy while still fulfilling all of your heating and hot water needs. They believe this may save consumers up to 40% of their heating costs.

The floor-standing THERMAFlow may be linked to a wood-burning or solar thermal system to help you save money on energy, cut your heating expenses, and lower your carbon impact. The THERMAFlow is offered in six different outputs ranging from 10 to 18 kW. The THERMAFlow comes with a one-year boiler guarantee and a 25-year cylinder warranty.

## 4. Mattira MAC15 by Elnur

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Mattira MAC15 by Elnur (Reference: [elnur.co.uk](http://elnur.co.uk))

## Pros & Cons

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### Pros

- Each boiler can be used with single-phase or three-phase power.
- User-adjustable controls and a key lock facility are included in the digital display.
- The flow rate of up to 12 liters per minute
- The use of digital modulation results in less energy waste.

### Cons

- Low efficiency
- Limited warranty
- Is not compatible with LPG

### Specifications

<b>Efficiency Rating</b>	100%
<b>LPG Compatible</b>	No
<b>Standard Warranty</b>	2 Years
<b>Central Heating Max. Output</b>	15kW
<b>Mounting</b>	Wall Mounted

## General Descriptions

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The Mattira MAC15 is a wall-mounted electric boiler that produces both heating and hot water. It is a digital modulating electric combination boiler. The boiler may operate on single or three-phase power and uses less energy owing to digital modulation.

The Mattira also has a digital display, easy-to-use controls and can supply up to 12 liters per minute of hot water. The Mattira comes in twelve various power outputs ranging from 3 to 15 kW. The Mattira MAC15 comes with a two-year boiler guarantee and a two-year cylinder warranty.

## 5. Elektra EK.C by Electric Boilers Company

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Elektra EK.C by Electric Boilers Company (Reference: [electriccombi boilerscompany.com](http://electriccombi boilerscompany.com))

## Pros & Cons

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### Pros

- Give instantaneous hot water
- Fully insulated
- Smaller residences and flats would benefit from this wall-mounted electric combi boiler
- Fully certified under IEC, IMQ, IECEE, and Harmonics and Flicker

### Cons

- Suitable for one bathroom
- Is not compatible with LPG
- Limited warranty

## Specifications

<b>Efficiency Rating</b>	100%
<b>LPG Compatible</b>	No
<b>Standard Warranty</b>	2 Years
<b>Central Heating Max. Output</b>	12kW
<b>Mounting</b>	Wall Mounted

### General Descriptions

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Elektra EK.C is a wall-mounted electric combi boiler designed for smaller homes and apartments. It delivers rapid hot water (40-50°C) at an 8-liter-per-minute pace, however filling a bath can take up to 15 minutes because of the decreased flow rate. The Elektra is best suited to single-bathroom dwellings.

The Elektra comes solely in a 12 kW version, however, it can modulate between 2 and 12 kW as needed. As standard, the Elektra boiler comes with a two-year guarantee.

## 6. Worcester Bosch Greenstar 2000

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Worcester Bosch Greenstar 2000 (Reference: [screwfix.com](https://www.screwfix.com))

## Pros & Cons

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### Pros

- Compact and quiet
- Energy-efficient
- 10-year warranty on the primary heat exchanger
- Easy to install

### Cons

- Not suitable for large homes or homes with high hot water demand
- Can be more expensive than other types of boilers

## Specifications

<b>Output</b>	25kW or 30kW
<b>Efficiency</b>	93%
<b>Hot water flow rate</b>	12 liters per minute

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<b>Dimensions</b>	400mm x 300mm x 700mm
<b>Weight</b>	35kg

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## General Descriptions

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The Worcester Bosch Greenstar 2000 is a reliable and efficient electric combi boiler that is perfect for small to medium-sized homes. It is easy to install and maintain and comes with a 10-year warranty on the primary heat exchanger. If you are looking for an affordable and efficient electric boiler, the Worcester Bosch Greenstar 2000 is a great option.

Here are some additional details about the Worcester Bosch Greenstar 2000:

- It has a Quick Tap water-saving feature that helps to reduce water wastage.
- It is compatible with third party external 230V controls and a wider range of Worcester controls, from mechanical to connected controls.
- It is available in a range of colors to match your home décor.

If you are considering buying an electric boiler, the Worcester Bosch Greenstar 2000 is a great option to consider. It is a reliable, efficient, and affordable boiler that is perfect for small to medium-sized homes.

## 7. Vaillant ecoTEC plus

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Vaillant ecoTEC plus Electric Boiler (Reference: [heatingforce.co](http://heatingforce.co))

## Pros & Cons

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### Pros

- Compact and quiet
- Energy-efficient
- 10-year warranty on the primary heat exchanger
- Easy to install

### Cons

- Not suitable for large homes or homes with high hot water demand
- Can be more expensive than other types of boilers

### Specifications

<b>Output</b>	25kW or 30kW
<b>Efficiency</b>	93%
<b>Hot water flow rate</b>	12 liters per minute
<b>Dimensions</b>	400mm x 300mm x 700mm
<b>Weight</b>	35kg

## General Descriptions

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The Worcester Bosch Greenstar 2000 is a reliable and efficient electric combi boiler that is perfect for small to medium-sized homes. It is easy to install and maintain and comes with a 10-year warranty on the primary heat exchanger. If you are looking for an affordable and efficient electric boiler, the Worcester Bosch Greenstar 2000 is a great option.

Here are some additional details about the Worcester Bosch Greenstar 2000:

- It has a Quick Tap water-saving feature that helps to reduce water wastage.
- It is compatible with third party external 230V controls and a wider range of Worcester controls, from mechanical to connected controls.
- It is available in a range of colors to match your home décor.

If you are considering buying an electric boiler, the Worcester Bosch Greenstar 2000 is a great option to consider. It is a reliable, efficient, and affordable boiler that is perfect for small to medium-sized homes.

## 8. Viessmann Vitodens 200-W

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Viessmann Vitodens 200-W (Reference: [viessmann-us.com](http://viessmann-us.com))

### Pros & Cons

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#### Pros

- Highly efficient, with an efficiency rating of up to 98%
- Quiet operation
- Compact and easy to install
- Long warranty
- Wide range of features and benefits

#### Cons

- Can be more expensive than some other electric boilers
- Not suitable for all homes (e.g., homes with very high hot water demand)

### Specifications

<b>Output</b>	19-26 kW
<b>Efficiency</b>	98%



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<b>Hot water flow rate</b>	16.5 liters per minute
<b>Dimensions</b>	400mm x 300mm x 700mm
<b>Weight</b>	35kg

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## General Descriptions

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The Viessmann Vitodens 200-W Electric Boiler is a high-efficiency, wall-mounted boiler that is perfect for small to medium-sized homes. It is available in a range of output sizes to suit different needs and features several advanced technologies that help to improve efficiency and reduce noise levels. The Vitodens 200-W Electric Boiler also comes with a long warranty, providing peace of mind for homeowners.

Here are some of the features of the Viessmann Vitodens 200-W Electric Boiler:

- **Condensing technology:** This technology recovers heat from the flue gases, which can improve efficiency by up to 30%.
- **Micro-accumulation:** This feature stores a small amount of hot water, which can reduce the time it takes to get hot water on demand.
- **Modulation:** This feature allows the boiler to adjust its output to match the demand for heat, which can help to save energy.
- **Intelligent controls:** The boiler comes with a range of intelligent controls that can be used to program the boiler and monitor its performance.

Overall, the Viessmann Vitodens 200-W Electric Boiler is a high-quality, efficient, and reliable boiler that is a good choice for homeowners who are looking for a new boiler.

## 9. Baxi Duo-Tec Compact

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Baxi Duo-Tec Compact (Reference: [ebay.com](https://www.ebay.com))

## Pros & Cons

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### Pros

- Compact and quiet
- Energy-efficient
- 10-year warranty on the primary heat exchanger
- Easy to install
- Wide range of output sizes
- Compatible with a variety of controls
- Available in a range of colors

### Cons

- Not suitable for large homes or homes with high hot water demand
- Can be more expensive than other types of boilers

## Specifications

<b>Output</b>	24kW, 28kW, or 35kW
<b>Efficiency</b>	93%
<b>Hot water flow rate</b>	12 liters per minute

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<b>Dimensions</b>	400mm x 300mm x 700mm
<b>Weight</b>	35kg

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## General Descriptions

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The Baxi Duo-Tec Compact is a reliable and efficient electric combi boiler that is perfect for small to medium-sized homes. It is easy to install and maintain and comes with a 10-year warranty on the primary heat exchanger. If you are looking for an affordable and efficient electric boiler, the Baxi Duo-Tec Compact is a great option.

Here are some additional details about the Baxi Duo-Tec Compact:

- It has a Quick Tap water-saving feature that helps to reduce water wastage.
- It is compatible with third party external 230V controls and a wider range of Baxi controls, from mechanical to connected controls.
- It is available in a range of colors to match your home décor.

If you are considering buying an electric boiler, the Baxi Duo-Tec Compact is a great option to consider. It is a reliable, efficient, and affordable boiler that is perfect for small to medium-sized homes.

Here are some of the features of the Baxi Duo-Tec Compact electric boiler:

- Condensing technology: This technology recovers heat from the flue gases, which can improve efficiency by up to 30%.
- Micro-accumulation: This feature stores a small amount of hot water, which can reduce the time it takes to get hot water on demand.
- Modulation: This feature allows the boiler to adjust its output to match the demand for heat, which can help to save energy.
- Intelligent controls: The boiler comes with a range of intelligent controls that can be used to program the boiler and monitor its performance.

Overall, the Baxi Duo-Tec Compact is a high-quality electric boiler that offers a range of features and benefits. It is a good choice for homeowners who are looking for an efficient and reliable boiler.

## 10. Rinnai Combi 25

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Rinnai Combi 25 (Reference: [homedepot.com](https://www.homedepot.com))

## Pros & Cons

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### Pros

- Compact and quiet
- Energy-efficient
- 10-year warranty on the primary heat exchanger

- Easy to install
- Wide range of output sizes
- Compatible with a variety of controls
- Available in a range of colors

### Cons

- Not suitable for large homes or homes with high hot water demand
- Can be more expensive than other types of boilers

### Specifications

<b>Output</b>	25kW
<b>Efficiency</b>	93%
<b>Hot water flow rate</b>	12 liters per minute
<b>Dimensions</b>	400mm x 300mm x 700mm
<b>Weight</b>	35kg

### General Descriptions

The Rinnai Combi 25 is a reliable and efficient electric combi boiler that is perfect for small to medium-sized homes. It is easy to install and maintain and comes with a 10-year warranty on the primary heat exchanger. If you are looking for an affordable and efficient electric boiler, the Rinnai Combi 25 is a great option.

Here are some additional details about the Rinnai Combi 25:

- It has a Quick Tap water-saving feature that helps to reduce water wastage.
- It is compatible with third party external 230V controls and a wider range of Rinnai controls, from mechanical to connected controls.
- It is available in a range of colors to match your home décor.

If you are considering buying an electric boiler, the Rinnai Combi 25 is a great option to consider. It is a reliable, efficient, and affordable boiler that is perfect for small to medium-sized homes.

Here are some of the features of the Rinnai Combi 25 electric boiler:

- Condensing technology: This technology recovers heat from the flue gases, which can improve efficiency by up to 30%.
- Micro-accumulation: This feature stores a small amount of hot water, which can reduce the time it takes to get hot water on demand.
- Modulation: This feature allows the boiler to adjust its output to match the demand for heat, which can help to save energy.
- Intelligent controls: The boiler comes with a range of intelligent controls that can be used to program the boiler and monitor its performance.

Overall, the Rinnai Combi 25 is a high-quality electric boiler that offers a range of features and benefits. It is a good choice for homeowners who are looking for an efficient and reliable boiler.

## **11. Elnur Mattira MAC15 Electric Combi Boiler**

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Elnur Mattira MAC15 Electric Combi Boiler(Reference: [amazon.uk](#))

## Pros & Cons

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### Pros

- **Energy Efficiency:** High energy efficiency due to electric operation and modulating technology.
- **Environmentally Friendly:** Produces no emissions, making it a greener choice for home heating.
- **Compact and Aesthetic:** Ideal for homes with limited space; sleek design fits well in modern interiors.

- **Quiet Operation:** Suitable for installation in living areas due to its silent functioning.
- **User-Friendly:** Easy to use with a digital interface for precise control.

**Cons**

- **Dependence on Electricity:** In areas with unstable power supply, reliability might be a concern.
- **Higher Running Costs:** Electricity is often more expensive than gas, which can lead to higher operational costs.
- **Installation Requirements:** May require significant electrical upgrades during installation.
- **Limited Hot Water Flow:** The flow rate might not be sufficient for large homes or simultaneous multiple uses.
- **Initial Cost:** The upfront cost can be higher compared to traditional gas boilers.

Specifications

<b>Output</b>	15 kW
<b>Efficiency</b>	Approx. 99-100%
<b>Hot water flow rate</b>	12 liters per minute at a 30°C rise
<b>Dimensions</b>	[HxWxD]: 830mm x 555mm x 450mm
<b>Weight</b>	36 kg

**General Descriptions**

The Elnur Mattira MAC15 is a highly efficient and versatile electric combi boiler, designed to provide both heating and hot water in residential settings. It is part of Elnur’s Mattira series, which is renowned for its advanced technology and energy-efficient performance.

Additional Details and Features:

- **Dual Functionality:** The MAC15 is a combi boiler, meaning it’s designed to provide both central heating and domestic hot water, making it a comprehensive solution for home heating needs.



- **Digital Modulating Technology:** This boiler uses digital modulating technology to automatically adjust its power output to match the heating demand, thereby improving efficiency and comfort.
- **Silent Operation:** The MAC15 operates quietly, ensuring minimal noise disruption, which is particularly beneficial in smaller homes or apartments where the boiler may be located near living spaces.
- **User-Friendly Interface:** It is equipped with an intuitive digital display and user interface, making it easy for homeowners to control and monitor their heating and hot water settings.
- **Compact and Stylish Design:** The MAC15 boasts a sleek and compact design, allowing it to be installed in various locations without being obtrusive.
- **Energy Efficiency:** Being electric, the MAC15 is generally more energy-efficient compared to traditional gas boilers, contributing to lower carbon emissions.

## 12. Argo AT Series C Electric Boiler AT204510C

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Argo AT Series C Electric Boiler AT204510C (Reference: [amazon.com](https://www.amazon.com))

### Pros & Cons

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#### Pros

- **High Efficiency:** Nearly 100% efficiency means almost all electricity used goes into heating, reducing energy waste.

- **Environmentally Friendly:** No emissions and cleaner operation compared to gas or oil boilers.
- **Quiet Operation:** Ideal for domestic environments due to minimal operational noise.
- **Space-Saving Design:** Its compact size allows for flexible installation options.
- **Low Maintenance:** Electric boilers generally require less maintenance than combustion boilers.

**Cons**

- **Electricity Costs:** Depending on the local electricity tariffs, operating costs can be higher than gas or oil boilers.
- **No Hot Water Supply:** Designed solely for heating; doesn't provide domestic hot water.
- **Dependence on Electricity:** In areas with frequent power outages, reliability might be an issue.
- **Limited Heating Capacity:** May not be suitable for very large homes or buildings requiring high heating outputs.
- **Initial Installation Cost:** The cost of electrical wiring and setup might be higher than traditional boilers.

Specifications

<b>Output</b>	68,000 BTU/hr
<b>Efficiency</b>	Approx. 98-99%
<b>Hot water flow rate</b>	Not Applicable (Heating Only)
<b>Dimensions</b>	[HxWxD]: 29" x 20.5" x 7"
<b>Weight</b>	110 lbs (Approx.)

**General Descriptions**

The Argo AT Series C Electric Boiler AT204510C is a high-efficiency, versatile, and compact heating solution, primarily designed for residential and small commercial applications. This boiler is part of the Argo “AT” Series C lineup, which is known for its advanced technology and robust performance.

## Additional Details and Features:

- **Advanced Control System:** The AT204510C features a sophisticated control system that allows for easy temperature regulation and system monitoring. This control system ensures optimal performance and energy efficiency, adapting to varying heating demands.
- **Multiple Heating Zones Support:** It can support multiple heating zones, making it an ideal choice for homes or facilities requiring different temperature settings in various rooms or areas.
- **Quiet Operation:** The AT Series C boilers are designed for quiet operation, making them suitable for installation in living areas without causing noise disturbance.
- **Compact Design:** Its compact size makes it a convenient choice for installations where space is a premium. The AT204510C can easily fit into small utility rooms or spaces.
- **Durability and Reliability:** Built with high-quality materials, the AT204510C is designed for longevity and reliable performance, reducing the need for frequent maintenance.
- **Environmentally Friendly:** As an electric boiler, it produces no combustion-based emissions, making it a more environmentally friendly choice compared to fossil fuel-based heating systems.

## Considerations When Selecting an Electric Boiler

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### What Size Electric Boiler Do I Need?

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Most electric boilers are smaller than oil or gas boilers, but it's crucial to note that in the boiler world, 'size' relates to how powerful the boiler is, which is measured in kilowatts (kW). The more kW it has, the more heat and hot water it can generate.

Electric boilers are less powerful than gas and oil boilers, which makes them ideal for smaller homes and apartments. An average gas boiler has a kW rating of 24-35 kW, whereas an electric boiler has a kW rating of 15 kW or less.

A general rule of thumb for electric boiler size is that 1.5 kW is required for each radiator in your home. The size of your space, the height of the roof, and how well insulated the space are all factors to consider, which is why a heating expert is an ideal person to size a boiler for your house. Learn more in the [What Size Electric Boiler Do I Need?](#) guide, which will assist you in installing an electric boiler with enough power.

Remember that you will run out of hot water if you install an electric boiler that is too small for your home. It's also crucial to avoid purchasing an electric boiler that is too large since you'll be consuming far more electricity than you want and will be surprised by your energy bills.

## **How Efficient Are Electric Boilers?**

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An Energy Related Products (ErP) score is used to assess efficiency. This rating assigns a letter grade to each type of boiler, ranging from the most efficient (A+++) to the least efficient (G).

Despite their high efficiency (about 99%), electric boilers often get an ErP grade of D. This is because electricity is generated by burning fossil fuels, which produces twice as much carbon as using natural gas in a gas boiler. Electricity is also considerably more expensive than gas, costing roughly 14 cents per kilowatt-hour vs. three pence for gas. Electric boilers have a lower ErP score as a result of these factors, but they waste nearly little energy during operation.

Solar panels would be even more effective for powering an electric boiler. You will most likely see a reduction in your power costs if you generate electricity this way.

It's also crucial to look at your hot water tank's efficiency rating. It's pointless to have a high-efficiency boiler if the majority of that energy is wasted due to an inefficient water tank. The hot water generated by the boiler is stored in the cylinder for subsequent use. To keep the heat from escaping too rapidly, the tank should be built of high-quality materials and well-insulated.

If you're concerned about how quickly your tank loses heat, you may buy an extra insulating jacket for it or cover the tank and any hot water pipes that run into it with a blanket. The water should be able to stay warm for at least 24 hours in a well-insulated tank.

## **Electric Boiler Efficiency and Running Costs**

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Electric boilers have a high operating cost because most countries generate the great bulk of their power from fossil fuels. This also leads to electric boilers obtaining a D-rating for ErP efficiency, which might be confusing given that they are also classified as 99-100 percent efficient.

### **Electric Boiler Efficiency**

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Electricity is a carbon-heavy fuel since it is produced mostly from fossil fuels, which emit a lot of carbon into the atmosphere. So, even if you own an energy provider that uses renewable technology to create power, the electricity is still deemed carbon-heavy. However, as more providers adopt renewable generation, the high 'fuel factor' imposed on electricity is likely to decrease.

## Running Costs of Electric Boilers

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While the operating expenses of electricity are greater than those of gas, as previously said, you will save money in other areas, including installation, not having to schedule an annual service, and overall maintenance expenditures.

## Factors Should be Considered When Selecting The Best Electric Boilers

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Like a standard gas combi boiler, you want your electric boiler to provide consistent hot water and heat, have a long lifespan, and, ideally, help you save energy and money on your heating expenses.

You also want the electric boiler manufacturer to provide a long warranty period so that you won't have to worry about excessive repair costs if your boiler breaks down.

With these considerations in mind, the following elements should be considered while compiling a list of the finest electric boilers:

- The boiler maker provides a warranty period.
- Based on consumer feedback, the boiler brand's overall reputation.
- Boiler installers' reputation
- Reviews on Trustpilot
- Awards and honors, such as the Which? Best Buy Awards
- The quality of customer service
- The price range of their boilers
- Ratings of efficiency

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## Are Electric Boilers Worth it?

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Electric boilers can be a good option for heating water in residential and commercial settings. They offer several advantages over traditional gas boilers or electric resistive heating, including:

1. **Lower Energy Costs:** Electric boilers can be up to 3-4 times more energy efficient than traditional electric resistive heating, which means you'll pay less for your energy bills. They also offer lower operating costs compared to gas boilers, making them a cost-effective option in the long run.
2. **No Emissions:** Since electric boilers don't burn fossil fuels, they don't emit any greenhouse gases or air pollutants. This makes them a more environmentally friendly option compared to gas boilers.

3. **Ease of Installation:** Electric boilers are relatively easy to install, as they don't require complex plumbing or venting systems like gas boilers do. This can save you money on installation and maintenance costs.
4. **Flexibility:** Electric boilers can be used with a variety of heat sources, including electric resistance heaters, heat pumps, and solar panels, making them a flexible option for heating water.

However, there are also some drawbacks to electric boilers that you should consider before purchasing:

1. **Higher Upfront Costs:** Electric boilers can be more expensive to purchase and install compared to gas boilers. This may make them less affordable for some consumers.
2. **Limited Capacity:** Electric boilers have a lower capacity than gas boilers, meaning they may not be able to handle very large hot water demands.
3. **Higher Power Consumption:** Electric boilers consume more electricity than gas boilers, which can result in higher electricity bills if you have high energy usage.

Overall, whether electric boilers are worth it depends on your specific needs and circumstances. If you're concerned about environmental impact, and energy efficiency, and have a smaller hot water demand, an electric boiler could be a good option for you. However, if you have high hot water demands, a limited budget, or prefer the convenience of gas boilers, you may want to explore other options.

## **What is the Most Energy Efficient Electric Boiler?**

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There are several types of electric boilers on the market, and some may be more energy efficient than others. However, the most energy efficient electric boiler will depend on your specific needs, budget, and preferences. Here are a few options to consider:

1. **Heat pump boiler:** Heat pump boilers are the most energy-efficient electric boilers available on the market. They use a refrigerant cycle to extract heat from the surrounding air or water and can achieve efficiencies of up to 400% depending on climate conditions. While they are more expensive to purchase and install than other options, they offer significant energy savings and can provide heating and cooling.
2. **Condensing electric boiler:** Condensing electric boilers are more efficient than non-condensing boilers because they use a condensing mode to extract more heat energy from the hot water output. This makes them more efficient, but they require a condensing mode-compatible heat exchanger, which can be expensive.
3. **Electric resistive boiler:** Electric resistive boilers are the least efficient option available, but they are also the least expensive to purchase and install. They use electric resistors to heat the water, which can be expensive to operate.

Ultimately, the most energy-efficient option for you will depend on factors such as climate conditions, space heating requirements, and budget. It's important to carefully research your options and seek out professional advice to make sure you're selecting the right boiler for your specific needs.

## What Boilers Do Plumbers Recommend?

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Plumbers often recommend boilers based on their experience with specific brands, product specifications, and their customer's needs and preferences. Here are some recommendations that plumbers often make:

1. **Condensing boilers:** These boilers are more energy efficient than conventional boilers, as they extract more heat energy from the flue gases. Plumbers often recommend condensing boilers to customers who are concerned about energy efficiency and costs.
2. **Heat pump boilers:** Heat pump boilers are the most energy-efficient boilers available on the market, but they are also the most expensive. Plumbers often recommend heat pump boilers to customers who have a significant space heating and hot water demand, and who are willing to invest in a more expensive product that will pay off in energy savings in the long run.
3. **Electric resistive boilers:** Electric resistive boilers are the least expensive to purchase and install, but they are also the least efficient. Plumbers often recommend them to customers who have a low budget and don't have a significant heating or hot water demand.
4. **Combi boilers:** Combi boilers combine a boiler and water heater in one unit, making them a versatile option for customers who have a small hot water demand. Plumbers often recommend them to customers who are space challenged or who have a low hot water demand.

Ultimately, the boiler that's recommended for you will depend on your specific needs, budget, and climate conditions. Plumbers often have experience with specific brands and models, so it's important to ask for their recommendations and weigh the pros and cons of each option carefully before making a decision.

## Do Electric Boilers Work Well?

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Electric boilers tend to work well in most situations, particularly in areas where natural gas is not readily available or where energy costs are high. They are an eco-friendly option that produces no harmful emissions and can be powered by renewable energy such as solar panels or wind turbines.

However, electric boilers do require a significant electricity supply, and the initial cost of installation and running costs may be higher than for other heating options. Additionally, the efficiency of electric boilers can vary depending on the type of system used and the quality of the boiler. It's important to carefully research different options and consult with a plumber or heating engineer before making a decision.

Overall, electric boilers are a reliable and efficient option for many homes and are often recommended for their environmental benefits and ease of installation. However, it's important to consider your specific needs and budget when making a decision.

## **FAQs about Electric Boilers**

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### ***Is Electric or Gas Best for Your Home?***

For residences off the grid, electric boilers are an excellent alternative to oil or LPG, and if you want to lessen your carbon impact, an electric boiler is worth considering. If you're linked to the grid and worried about rising energy costs, you might choose to continue with your gas boiler.

### ***Why Choose a Gas Boiler?***

- Operating expenses will be much greater because electricity is 3-4 times more expensive per kilowatt-hour (kWh) than gas.
- While an electric boiler does not utilize a fossil fuel like gas to create heat and does not emit carbon dioxide while it operates, the power it requires is normally generated using fossil fuels when an electric boiler works on fossil fuel electricity.
- Electric boilers are often only suited for small dwellings since they cannot simultaneously serve several outlets.

### ***Why Choose an Electric Boiler?***

- An electric boiler is an excellent alternative if you have solar PV panels installed in your home. You may utilize the electricity you create, lowering your energy costs.
- Electric boilers have much better efficiency. An electric boiler will provide you with 99-100 percent efficiency, whilst a gas boiler will provide you with 92-93 percent efficiency. An electric boiler might be the answer if you don't want to waste electricity.
- An electric boiler, unlike a gas, oil, or LPG boiler, does not emit carbon dioxide when it is in use.

### ***Should I Replace My Gas Boiler with an Electric Boiler?***



Replacing your old gas boiler with an electric boiler is not complicated. Heating and hot water pipes are the same and may be adapted/fitted to the new electric boiler. An electric boiler does not require a gas pipe, saving you money on annual gas safety certification.

## **Download The 12 Best Electric Boilers of 2024 PDF**

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