
introducing Ambion

Low carbon heat
panels for smaller
homes and multi-
occupancy buildings

ambion



A warm welcome to a low carbon future

The UK continues to take steps towards a low carbon future. From ambitious net zero targets to the rise of renewable heating innovations, all businesses are playing their part on this journey.

Today, sustainability ambitions are set against a backdrop of sharply rising energy bills. Selecting a heating solution that is not only low carbon but cost-effective has never been more critical.

Decision-makers also have a pivotal role in ensuring fuel poverty risks are minimised. People deserve warm, happy and healthy homes to live in, which are comfortable, environmentally friendly and affordable.



Ultimately, to reach net zero carbon emissions by 2050, the UK needs to change the way it heats its homes.

To meet this need, Ambion's low carbon heat panels offer the most cost-effective way to meet decarbonisation objectives for smaller homes and multi-occupancy buildings, while ensuring households stay out of fuel poverty. This can be achieved through unique heat panel technology, which combines constant dynamic pulsing and infrared to keep homes warm and energy costs low.

"My cottage is 100% warmer, and Ambion is very easy to control. You can shut off one room, and if you decide you want it back on again, the room is warm again within five minutes. It's a really good system, and I wouldn't hesitate to recommend it to anyone thinking of renewing their heating system."

- Charlotte Wood, resident at the Whiteley Home Trust



Perfect partner for smaller homes and multi-occupancy buildings



Social housing

With a target of upgrading properties to a minimum of EPC Band C, housing associations and local authorities require a low carbon and cost-effective heating solution that will keep energy bills low for tenants.

Low carbon heat panels are ideally suited to smaller homes - perfect for social housing properties, which are often terraced homes or a mid-floor flat in a multi-tenement high-rise block. Within budget and easy to install, low carbon heat panels can be fitted with minimal disruption to tenants.

As a social housing provider, you're no doubt under increasing pressure to meet net zero carbon emissions. With our low carbon heat panels, you can easily and cost-effectively decarbonise your properties, cutting emissions by 60% when compared with conventional heating systems.

You also have a duty of care to make sure your tenants can enjoy a warm and comfortable living environment. With growing concerns around damp and mould in social housing, you need a solution that eliminates air quality risks, while protecting tenants from fuel poverty. Create happy, healthy homes with low carbon heat panels, which keep properties warm, reduce damp and circulating dust, and offer running costs 60% cheaper than conventional electric heating systems, helping protect residents from fuel poverty.

Low carbon heat panels are also aligned with a fabric first approach to heating homes. Built for the future, they can be used with other low-carbon technologies, such as solar and battery.

For social housing providers, Ambion's low carbon heat panels are the perfect partner.





Private landlords

As a private landlord, you want a heating system that's easy for tenants to use, performs efficiently and keeps energy-conscious consumers happy. But this has to be balanced with a cost-effective solution that makes smart commercial sense for you.

Rental properties are typically smaller environments. Fortunately, low carbon heat panels have been designed to meet the requirements of studio flats, one or two-bedroom apartments, and terraced homes. Simply wired to the mains, low carbon heat panels are cheaper and easier to install than many other low-carbon heating options.

Featuring no moving parts, low carbon heat panels are extremely low maintenance. The technology does not depend on a water-based delivery system, and therefore requires no pipework or plumbing, so there's no risk of water damage.

Our low carbon heat panels also provide enhanced thermal performance, working with other measures to help meet EPC targets. Affordable to install and run – and therefore keeping your tenants out of fuel poverty – the system can cut emissions by 60% when compared with conventional heating systems.

Delivering a low and flat electrical load, our solutions are the perfect partner for other low-carbon technologies, such as solar and battery. They're also ideal for time-of-use tariffs, saving 25% on the unit cost of electricity. By choosing heat panels, you're choosing to futureproof your rental property.

Finally, low carbon heat panels help make your home easier to let. Give your tenants a proven heating system that's simple to use, with all its controls in one place. This ensures they can keep track of energy usage, cost, and target and current room temperatures with ease.

Delivering a comfortable and warm living environment for tenants, while being an incredibly cost-effective investment for landlords, Ambion's low carbon heat panels are the perfect partner for rental properties.

The perfect partner for developers



Housebuilders

As a housebuilder, you want a heating solution that's straightforward to install and cost effective which shows you're committed to championing sustainable heating solutions for properties, and - ultimately - helps sell homes.

Flats, terraced or semi-detached homes can present a number of challenges when it comes to choosing a suitable heating system. Often, there's limited or no space for options such as heat pumps. In contrast, Ambion's low carbon heat panels are designed and sized for smaller homes. **Easily wired into the mains by a qualified electrician**, the capital cost of heat panels is 50% cheaper than heat pumps, and they're cheaper than electric storage heaters too.

With the Future Homes Standard in 2025 requiring all new homes to produce 75-80% less carbon emissions, with heat panels you can be confident of a sustainable and long-lasting heating solution for your new development.

Reducing carbon emissions by 60% when compared with conventional systems, low carbon heat panels are cost-effective too. This saves you money, allowing more of your new builds to opt for this technology, and improving your profit margins - all while satisfying the UK's net zero ambitions too.

With homeowners becoming increasingly energy-conscious, energy efficiency is a particularly key selling point for new homes. With Ambion's low carbon heat panels, you can assure potential buyers that running costs are 60% less than conventional heating systems.

Furthermore, as a system it's super simple to use. All the technology's controls are in one place, so users can easily monitor energy consumption and spend, as well as desired and current room temperatures.

Finally, as we all work towards net zero, embracing new technologies such as solar and battery, our heat panels can be used with these low-carbon solutions. The low, flat electrical load of heat panels makes them the perfect match for solar measures, and they can be used for time-of-use tariffs, saving as much as 25% on the unit cost of electricity.

For housebuilders, Ambion's low carbon heat panels are the perfect partner.



Developers

As a developer, you want a heating solution that's sustainable and will make a homeowner's life easier, but whatever system you choose has to make smart commercial sense too.

By opting for Ambion's low carbon heat panels, you can control build costs and boost your bottom line.

For developers upgrading an existing building or completing a new development, homeowners want the assurance of an affordable and easy-to-use heating system, while you want the confidence of a solution that's straightforward to install and cost-effective. Our low carbon heat panels can be easily wired to the mains by a qualified electrician, are more cost-effective and easier to install than many other low-carbon heating options, and are designed to meet the demands of smaller properties.

Whatever your project, whether it's retrofitting the UK's housing stock to more energy efficient and cheaper alternatives, or undertaking a completely new development, you need to help protect the planet while protecting your profits. Delivering a low-carbon solution, our heat panels reduce emissions by 60% when compared with conventional heating systems, and come with a low upfront cost - 50% less than alternatives such as heat pumps.

Featuring intuitive technology with all controls in one place, households can easily keep track of energy usage, cost, together with target and current room temperatures. Not only are running costs 60% less than conventional electric heating systems, the decision to opt for low carbon heat panels creates an attractive property for potential homeowners, making developments easier to let or sell.

With a low and flat electrical load, our solutions are designed to work with the latest renewable technologies such as solar PV. Ideal for time-of-use tariffs - which can save 25% on the unit cost of electricity - our low carbon heat panels offer affordable heating, while making it easier for you to achieve better EPC ratings on your developments.

For developers, Ambion's low carbon heat panels are the perfect partner.



Modular housing

Modern methods of construction (MMC) are a real game-changer for the industry, and low carbon heat panels partner brilliantly with this forward-thinking approach to housebuilding.

Firstly, heat panels are perfectly matched to modular dimensions. Our system can be factory fitted and commissioned to specific modular house designs, dramatically reducing installation costs. And with no onsite plumbing or pipework needed, it provides you with an efficient solution that requires minimal onsite manual work.

Secondly, our sustainable heating solution radically reduces the impact on both the environment and build costs; they cut carbon emissions by 60% when compared with conventional heating systems, and cost 50% less than heat pumps to install.

Next, low carbon heat panels provide a solution that homeowners want. A heating system that's intuitive, easy to use and affordable is a key consideration when choosing a new property, and Ambion's technology delivers in all these respects.

Running costs are 60% less than conventional electric systems, satisfying homeowners' needs for an energy efficient technology, and the system's control panel is incredibly easy to use. Households can track energy spend and usage, while staying in control of all their room's temperatures, with the heat panels using constant dynamic pulsing to maintain this within 0.1°C of the target temperature, 24 hours a day.

Finally, MMC has always embraced forward-thinking solutions that are built for the future, which is why low carbon heat panels are so well suited to MMC, as they combine brilliantly with other renewable and innovative technologies. From solar measures to battery, the low and flat electrical load from heat panels makes them ideal to use with these systems.

For modular homes, Ambion's low carbon heat panels are the perfect partner.



Did you know?

Ambion's low carbon heat panels are supported by a **10-year warranty** - double that of a conventional boiler. This can be topped up to cover 20 years.



Top 10 reasons to choose low carbon heat panels



No space constraints

Ideally suited to smaller properties or multi-occupancy buildings



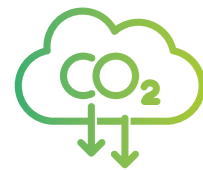
Low running costs

Typically 60% cheaper than conventional heating systems, while using less energy than other heating solutions, reducing fuel poverty risks



Ideal for time-of-use tariffs

A low and flat electrical load makes heat panels ideal for time-of-use tariffs, saving 25% on the unit cost of electricity



Low carbon emissions

Carbon emissions typically reduced by 60% when compared with conventional heating systems



No maintenance

Containing no moving parts, so there's no hidden maintenance costs



Perfect partner for solar and battery

A low and flat electrical load makes them ideal for use with solar and battery



Suitable for all property types

Whether a retrofit project, new build, or modular construction



Unique control system

Dynamic pulsing dramatically reduces energy usage and maintains room temperatures within 0.1°C of their target, 24 hours a day



Stay in control

A unique control panel collects data every hour, so users can easily view energy usage and the associated costs, and the system is not reliant on the user switching it on and off, like traditional heating systems



Low upfront costs

Lower capital cost than storage heaters, and 50% cheaper than heat pumps



How do low carbon heat panels work?

With over 1,000 installations to date, Ambion's low carbon heat panels overcome many challenges posed by conventional heating systems.

Ambion uses its unique energy pulsing technology combined with infrared panels to completely outperform conventional systems on thermostats.

Through **constant** dynamic pulsing of electricity, the low carbon heat panels can maintain a room's temperature within 0.1°C of its target, while dramatically reducing energy consumption when compared with other technologies. In fact, running costs are typically 60% cheaper than conventional systems.

Heat is generated with infrared technology. The building materials in the room absorb and store infrared, with its heat then released intermittently between pulses. The result? Rooms that stay at the desired temperature at all times.

All users need to do is simply set the chosen temperature in the system's control panel. This can vary room by room, and for individual time slots. The panels use sensors to monitor a room's temperature, which then make adjustments to maintain the selected temperature - and with minimum energy use too.

With the system at its most efficient when running 24 hours a day, users benefit from around-the-clock heating at no extra cost. And with no central boiler, external unit, or water-based delivery system required, Ambion's system can be easily and quickly installed by a qualified electrician.

Did you know?

Ambion's low carbon heat panels deliver a service life of **33 years** = more than double that of a typical boiler's lifespan, which averages 10 to 15 years.

Technical specifications



Model No.	GH-518R	GH-518P	GH-518B
Description	Large landscape	Large portrait	Small
Power rating	820W	820W	430W
Heating area	12M ²	12M ²	6M ²
Max. effective range	8M	8M	8M
Performance Ratio (~COP)	2.6	2.6	2.6
Working Voltage	230V	230V	230V
Voltage type	AC	AC	AC
Frequency	50Hz	50Hz	50Hz
Weight	19kg	19kg	10kg
Dimensions H* x W x D (mm)	645 (+20mm for Brackets) x 1105 x 60 (at base)	1145 (+20mm for Brackets) x 605 x 60 (at base)	640 (+20mm for Brackets) x 555 x 60 (at base)
Construction	White glass with a white frame		

Note: *plus 20mm wall brackets at top

Low carbon heat panels in action



"The Bellway Homes house at Energy House 2.0 will allow us to test how low carbon heating technologies – such as Ambion's Low Carbon Heat Panels – will work in combination with building fabric, efficient services, and renewable energy generation in real world scenarios. As well as reducing a home's carbon footprint, Bellway will also be looking at the most cost-efficient ways to help customers reduce their energy bills. It is our aim that the technologies tested will become common use in new homes by 2026."

Jamie Bursnell, group technical and innovations manager for the Bellway Homes



"It's fantastic to be working with innovative companies, such as Ambion and our project partners, which will help our work with key players in the private sector to drive innovation and solutions that address global and domestic energy efficiency challenges – making a world of difference to our future and our planet."

Dr Richard Fitton, Reader in Energy Performance of Buildings, School of Science, Engineering and Environment at the University of Salford



Ready to give a warm welcome to a low carbon future?

Discover how Ambion's low carbon heat panels are the perfect partner for smaller homes and multi-occupancy buildings, call us on **0333 188 0633**, email **sales@ambionheating.com** or visit **ambionheating.com**

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