orbit

Orbit Earth

Your new air source heat pump

Spend less, enjoy more warmth

orbitcustomerhub.org.uk

Contents:

What is an air source heat pump?

An air source heat pump is a low-carbon way of supplying your home with heating and hot water. It extracts warmth from the air outside and uses it to heat water. This heated water then supplies your home with hot water and heating. Air source heat pumps draw on 'hidden heat' from the air outdoors, meaning they work in cold weather, even down to temperatures of about -25C. Heat pumps are more efficient than traditional heating systems because they move heat rather than generating it by burning fuel. This means they can deliver around three times more energy as heat than they use in electricity. As they run on electricity, they are also better for the environment than gas, oil or solid fuel boilers.

How do they work?

The air source heat pump will be installed outside your home so it can extract heat from the air outside. This is used to heat a 'liquid refrigerant', which is a special fluid used by heat pumps. As the refrigerant warms up, it turns into a gas, which is then compressed to increase its temperature and used to heat water. This hot water is sent from the heat pump to your home. The heat is sent to your radiators and stored in a hot water cylinder, which will be installed inside your home.

Essential Information:
An overview of your heat pump

This section will explain the features of a Daikin heat pump. We'll talk you through the different components of your heat pump, what they do, and some advice about how to use them.

The outdoor unit

Your outdoor unit will be installed outside your home. This is because it needs to extract heat from the air, then use it to increase the temperature of the water passing through the central heating and hot water cylinder. The outdoor unit pulls in air from the back of the unit and blows cooled air out of the front. This is done automatically, so you won't need to set or adjust it.

The hot water cylinder

Your hot water cylinder will be installed inside your home. It's used to store hot water and keep it warm for the next time you need it. It provides hot water for your whole home, from taps, showers and baths, to the water in your radiators that heats your home. Your hot water cylinder has been designed to work in tandem with your outdoor unit. It will be set up for you during installation, so you shouldn't need to adjust the settings.

Programmable room thermostat

You may have a room thermostat installed in your home. It will be in your hallway or in a specific room. It controls when the house is heated, and what temperature it's heated to. It's usually recommended you heat your home to between 18 and 21C.

Radiators

Most radiators are fitted with Thermostatic Radiator Valves (TRVs) which you set to heat rooms to a certain temperature. Temperatures are represented by numbers or by Roman numerals (I, II, III, IV, V, etc). The higher the number, the warmer the room temperature will be.

Essential Information: Madoka thermostat

Your heat pump is controlled by a Madoka thermostat, which will be placed on the wall of your home. This section covers what the thermostat does and how to use it.

What the thermostat does

Room temperature

Your thermostat will measure the current room temperature. It'll constantly monitor the warmth of the room to keep it at the setting you have chosen.

Hot water temperature

The thermostat will also measure the temperature of the hot water in your hot water tank. You can use the thermostat to adjust the temperature, making the water hotter or cooler as needed. It's recommended the tank is set to 45-50C, and it'll do a boost once a week to above 60C to kill off bacteria. You can also turn on the hot water boost, giving you additional hot water when you need it. This will, however, cost you more, as you're consuming additional energy to do so. You can create a heating schedule using the Onecta app or directly on the Madoka thermostat, but the most efficient way to heat your home is to leave it set to 18-21C.

How do you know if the thermostat is working?

The Madoka thermostat has a status light called the 'Daikin Eye'. You can adjust the brightness of this light in the menu settings.

A blue light means your system is switched on and working properly. A red light means that there's an error, and something may be wrong with the system. If there's something wrong with your system, please let us know at **orbitcustomerhub.org.uk/contact-us/**

How to use the controller menus

The Madoka thermostat has three buttons on the front panel: **[-] [o] [+]**

A short press on the central **[o]** button will allow you to view the room temperature, hot water temperature, and hot water boost screens. If you leave the thermostat inactive for a while, the control panel will always revert to the home screen showing your room temperature.

A long press on the central **[o]** button will let you access the menu. Use the **[+]** and **[-]** buttons to browse the menu functions. To select a particular function from the menu, you press the central button [o] again and then use the **[+]** and **[-]** buttons to adjust the settings. To exit, press the central button **[o]**.

How to adjust room temperature

If you want to make your room warmer or cooler, use the **[+]** or **[-]** buttons on the home screen to adjust the temperature.

How to adjust hot water temperature

Use the **[o]** button to cycle to the hot water screen. If you want to make your hot water warmer or cooler, use the **[+]** or **[-]** buttons to adjust the temperature.

How to turn the hot water boost on and off

Use the **[o]** button to view the hot water boost screen if you want to heat up your hot water outside of your usual schedule. Use the **[+]** or **[-]** buttons to turn the hot water boost on or off and confirm with the central button **[o]**. This will add to your energy costs, though, as you're consuming additional energy when using hot water boost.

How to use the Onecta app

You can adjust your heat pump settings using the thermostat, but you can also control it using the Onecta app on your smartphone if you want to.

Your installer should connect your Daikin heat pump to your home Wi-Fi and, if you need, they can help you download and set up the Onecta app. The app only works if both the Daikin system and the app (and your smartphone) have a reliable internet connection. It can be downloaded via the Apple store or Google Play.

What does the Onecta app do?

Control your heating

It can turn the heating on and off and check the current room temperature and outside room temperature. It can change the room temperature or hot water temperature, and can turn on hot water boost for hot water outside your usual schedule.

Schedule when the system operates

It can set up a program defining when the system should operate. You can create up to six actions per day. You can set up a schedule for turning your heating on and off, a schedule for room temperature and for hot water, and enable holiday mode to save costs.

Monitor how the system is performing

You can see an overview of how the system is performing and how much energy it uses via the app. It can check the status of your heating system and show you energy consumption graphics for a day, week or month.

Voice control

The Onecta app also offers hands-free voice control, if you want it. Voice control can pair with any smart device, including Google Assistant and Amazon Alexa. For example, you can just say ‘Alexa, set the room temperature to 20 degrees’.

Your questions, answered

How long will it take you to install my new heat pump?

Our partner contractors Daikin will need to carry out a survey before the installation takes place. Once the survey's been carried out and they've shared their findings with us, the installation itself will take place. It usually takes about three days but can be less depending on the scope of the work involved.

Will an air source heat pump make a lot of noise?

Your air source heat pump shouldn't make much noise. They typically produce a low hum, which is around 40-50 decibels of sound, less noise than a fridge produces.

Why can I see water dripping/ steam coming out of the heat pump?

If you see any water dripping from the outdoor unit, this is completely normal. Meanwhile, if the weather's cold, your heat pump will automatically run a cycle to clear any built-up ice, which will produce steam. This is a sign your heat pump is working as it should be.

Is there anything I need to do to look after the system?

Your air source heat pump doesn't need much maintenance. Once it's set up, it should be left running all the time, like a fridge. You shouldn't switch it off. Check the outdoor unit regularly and make sure it's kept clear of leaves and debris. You can clean it with a soft brush if needed. Don't lean anything against the outdoor unit, cover it, or place plants, trees, outdoor furniture or BBQs near it. It needs clear space around it to work efficiently.

Check the system once a week to make sure it's running and no warning lights are showing. Anything more technical will be done by us during annual servicing.

Why are some rooms warmer than others?

Heat may be distributed differently between rooms depending on insulation or radiator size. You can control the heat in each room using the thermostatic radiator valves (TRVs) — turn them up in cooler rooms or down in warmer ones.

Your questions, answered

Can I save money by turning down the thermostat?

Yes – turning your room thermostat down by just 1°C can reduce your heating energy use by around 10%. We recommend setting it between 18°C and 21°C.

How much will my heating cost with a heat pump?

This depends on how warm you keep your home, how well insulated it is, and what electricity tariff you're on. To help reduce your bills, use your heating schedule, keep doors closed to retain heat and avoid using hot water boost too often.

In winter, should I leave my heat pump on most of the time?

Yes – heat pumps work best when they run consistently rather than being turned on and off like a traditional boiler. It's more efficient to set your desired temperature and let the system gently maintain it. Use a schedule to reduce heating at night or when you're out.

What type of electricity tariff should I have with an air source heat pump?

Heat pumps use more electricity in winter when they're working hardest, so it's important to regularly check your electricity tariff using comparison sites to make sure you're getting the lowest unit rate. You may also benefit from a time-of-use tariff like Economy 7 or a specialist heat pump tariff, especially if you can heat your home during the advertised off-peak times. These specialist tariffs are often not listed on comparison sites, so it's also worth contacting your energy supplier directly to ask what they offer.

Who should I contact about issues with the heat pump?

Contact us if you have any issues with your air source heat pump. You can get in touch with us at **orbitcustomerhub.org.uk/contact-us/**

Finding out more

We hope this guide provides you with everything you need to know about your air source heat pump, but you can find additional information here:

https://www.daikin.co.uk/

https://www.youtube.com/playlist?list=PLPUQ3q6SNhQL0tlA8pgN634xkSJaFjveh

https://energysavingtrust.org.uk/advice/air-source-heat-pumps/

https://www.edfenergy.com/heating/heat-pumps/air-source-heat-pump-guide

https://www.britishgas.co.uk/the-source/greener-living/heat-pumps.html

You can also visit the energy pages of the Customer Hub to access energy saving advice and handy tips. Or use your smartphone – just open the camera app, scan the QR code and it will take you directly there.

Scan this QR code to visit page.

Get in touch:

You can visit our website:
orbitcustomerhub.org.uk

For more information,
please contact us at:
orbitcustomerhub.org.uk/contact-us

Or to talk to us, please call:
0800 678 1221

Textphone:
18001 0800 678 1221

Take a look on social media:
f @orbithousing

Our postal address:

Orbit,
PO Box 6406,
Coventry,
CV3 9NB

If you need information in a different format please contact us on **0800 678 1221**