

# Renewable home heating for new build developments



# Ecodan – the low carbon heating alternative for new build homes

Make your developments stand out with the award-winning Ecodan air source heat pumps. They are an excellent sustainable solution, providing energy-saving, renewable heating for all types of new build developments.

As the market leader in domestic renewable heating technologies, Mitsubishi Electric is perfectly positioned to help housing developers introduce new low carbon heating systems into their supply chains.



Advantages of Ecodan for new build homes:

- More energy-efficient than fossil fuel heating systems
- Reduces carbon emissions
- Requires only water and an electric connection
- Smart control and remote monitoring via the MELCloud Home App
- Helps towards A-rated homes
- Next day delivery from our UK warehouse
- Embodied carbon calculations available
- Complies with the Future Home Standard and changes to Part L of the building regulations
- Expert technical support before, during and after installation
- Service and maintenance plans available
- Dedicated account management teams for housing developers
- Online support portal for homeowners

**There's an Ecodan for every home, whatever the size of your development.**

“Our customers are looking for ‘green credentials’, and more energy-efficient heating. And therefore we had to look for solutions to deliver that and we chose Ecodan.”

*Lee Barnard, Group Managing Director, Hopkins Homes*





# ecodan<sup>®</sup>



## Made in Britain, to British standards for British homes

MITSUBISHI ELECTRIC FACTORY – SCOTLAND

**Founded in 1921, Mitsubishi Electric is a leading global supplier of energy-efficient heating equipment. We are proud of our manufacturing prowess, innovative solutions and quality products that are making a world of difference.**



“Mitsubishi Electric Quality” – is the unique, 100-year-old quality that Mitsubishi Electric is renowned for: every single compressor, component, nut, screw and wire is guaranteed to meet our stringent quality standard.

In the UK, Mitsubishi Electric has been at the forefront of sustainable home heating systems for more than 15 years and is the UK’s largest exporter of renewable technologies.

We focus on providing products that lower energy use, reduce carbon emissions and help the UK reach net zero.

Ecodan air source heat pumps are designed for UK homes to meet the latest legislation and regulations and are manufactured at our Scottish factory to the highest quality standards.

# There's an Ecodan for every home

The Ecodan range includes all the advanced features you would expect from Mitsubishi Electric:



A+++ heating efficiency for low running costs



A+ hot water efficiency for minimised energy consumption



Ultra-quiet noise levels for flexible product placement



Extra points in SAP for our Wireless Smart Thermostat Controller



Reduced carbon emissions to help tackle the climate crisis



MELCloud Home App enabled for remote control, monitoring, maintenance and technical support



WIRELESS REMOTE CONTROLLER



\*Certified for ultra-low noise levels

5kW, 6kW



ECODAN R32



5kW, 6kW

\*8.5kW, \*10kW, \*12kW



ECODAN R290



210L, 250L, 300L

150L, 170L



PRE-PLUMBED SLIMLINE



PRE-PLUMBED STANDARD

200L



For more information on the Ecodan range, scan the QR codes.



# Energy efficiency requirements for new homes

Ecodan is a risk-free solution for housing developers looking to comply with the new Future Homes Standard and changes to Part L of the building regulations.

## Future Homes Standard

The Future Homes Standard (FHS) is a government initiative aimed at improving the energy efficiency of new homes. Anticipated to be implemented in 2025, the FHS mandates that all new homes must produce 75-80% less carbon emissions than homes built under current standards.

To meet the requirements of the FHS, the government is updating Part L (conservation of fuel and power) and Part O (overheating mitigation) of the building regulations. We have a dedicated team of experts in our Specification Sales Team who can help you understand and comply with the rapidly changing building regulations landscape.

## The Standard Assessment Procedure (SAP) is changing

SAP is the government's current method for calculating the energy rating of residential properties. It is used to demonstrate the compliance of new homes with Parts L and O of the building regulations and to produce Energy Performance Certificates (EPCs) for all new homes.

SAP will be replaced with the Home Energy Model (HEM), which will calculate the energy rating of new homes and demonstrate compliance with the Future Homes Standard.



Find out more about the  
Future Homes Standard.



Find out more about the  
new Home Energy Model.



# Find a Mitsubishi Electric Partner

We recommend you select a Mitsubishi Electric Heating Accredited Installer or Heating Business Solutions Partner from our nationwide network Partner Programme. We train all of our Partners so they understand our technology. They will work with you to design the optimum Ecodan heating solution for your new build development, carry out the installation and commission the systems so that they run at the highest efficiency.

## Mitsubishi Electric partners must:

- Be financially solvent
- Adhere to Mitsubishi Electric's corporate social responsibility and health and safety policies
- Share Mitsubishi Electric's philosophy, integrity and high standards

## By using a Mitsubishi Electric partners, be assured of:

- A high level of technical expertise
- High standards of after-sales service and support
- Up to a seven-year warranty (option to purchase an extended warranty)

**We have over**  
**1000**  
**accredited installers**  
**ready to help with**  
**your development**  
**project.**



Find your  
nearest Mitsubishi  
Electric Partner.

**PARTNER**  
Programme







# Upskill your preferred contractors to Ecodan

At Mitsubishi Electric, we recognise that some housing developers have an existing preferred contractor base. As the market leader in renewable heating technologies, we can work with you and your trusted supplier network to provide Ecodan air source heat pump training to heating engineers, plumbers and electricians.

## Our courses

- Online Ecodan Part 1 - Design and Application
- Online Ecodan Part 2 - Installation and Commissioning
- Online Ecodan Part 3 - Service and Fault Finding
- In-house Ecodan Hands-on Training

*“Great content, lots of drawing and examples, practice questions were good. Instructor on video was very informative and friendly.”*

*Installer who attended Ecodan online training*



Find out more  
about our  
Ecodan courses.



# Supporting Your Project Every Step of the Way



Find out  
how we  
can support  
your project.

At Mitsubishi Electric, we understand that the building regulations landscape is changing rapidly, requiring housing developers to carefully navigate the adjustments needed to minimise technical, financial, and operational impacts on new build projects. Our UK-designed and built Ecodan range of air source heat pumps is tailored for UK conditions, providing an ideal solution for builders aiming to meet the stringent Future Homes Standard and changes in Part L of the building regulations.

To further support your project, every customer benefits from a dedicated Account Manager who offers personalised, cradle-to-grave guidance throughout the process. Backed by our expert technical teams, this hands-on approach ensures seamless and reliable service from start to finish.







**1** | Legislation and education



**2** | Preparation and product support



**3** | Planning and education



**4** | Heat loss calculations



**5** | Final design and specification



**6** | Installation and commissioning



**7** | Handover and user-support



**8** | Ongoing support

### 1. Legislation and education

The future homes standard and upcoming changes in Part L of the building regulations are changing the way we are going to heat our homes. Air source heat pumps can facilitate meeting these new stringent regulations while helping the UK achieve its net zero aspirations.

[More information](#)

### 2. Preparation and product support

We can assist you with the initial design of air source heat pumps required from the project brief. Our experienced Pre-Sales Technical Team can assist with design, feasibility and purchase costs.

[More information](#)

### 3. Planning and education

Engaging with us at the concept stage will help you understand the planning and installation requirements of air source heat pumps. Early discussions and engagement will enable us to explore all the options available for your development.

[More information](#)

### 4. Heat loss calculations

Our Ecodan selection tool enables us to calculate the sound produced by our air source heat pumps. This will give our Pre-Sales Team the information to recommend the best position for the outdoor unit using current planning sound calculation software.

[More information](#)

### 5. Final design and specification

Our design service ensures complete peace of mind by using our product specific Ecodan selection tool with the latest planning legislation and guidance. Also partnering with REDD and NC Designs, to provide fully insured heat loss calculations compliant with MCS guidelines, ensuring the selected air source heat pump is perfect for your development.

[More information](#)

### 6. Installation and commissioning

We recognise many developers may have a preferred contractor base. We can offer Ecodan air source heat pump installation training and on-site assisted commissioning.

[More information](#)

### 7. Handover and user-support

We will provide you with comprehensive handover assistance. Not only will we help to ensure that our Ecodan air source heat pump systems have been commissioned correctly, but we also provide an Ecodan homeowner helpline and remote fault diagnosis helpdesk.

[More information](#)

### 8. Ongoing support

We offer a comprehensive after-sales service package. Including extended system warranty, service and maintenance plans and continued support once your housing development is complete.

[More information](#)

## THE KILNS DEVELOPMENT

# Another Ecodan success story

The Kilns development on the Northumberland coast comprises 45 new homes. It is an off-gas site and developer, Northumberland Estates, wanted a sustainable heating solution. The architect had previously worked with Mitsubishi Electric and recommended Ecodan air source heat pumps.

Watch the full case study with George Clarke.



**We were really well supported by Mitsubishi Electric to bring this technology into the development.**

*Mark Roberts, Renewable Energy Manager – Northumberland Estates*



Mitsubishi Electric was involved from the initial design stage, providing room heat loss calculations and recommending heat pump and cylinder combinations for each house type to maximise efficiency and avoid costly retrofits. Due to the location, the external units were upgraded to have coastal protection.



**The homeowners that have moved in have never had a heat pump. So, obviously, they are new to it. But they have all been incredibly impressed with the product.**

*Chris Humble, Site Manager – Cussins*



The installation process was straightforward, and the Mitsubishi Electric team provided excellent online training and technical advice. This was the first time that Cussins, the house builder, had worked with air source heat pumps, but they plan to use the Ecodan system in future as gas boilers become obsolete.

New homeowner Hayley Catchpole is very happy with her energy-efficient heating system, which provides constant warmth, and the support available via the MELCloud Home App and remote fault diagnosis helpdesk. She is also delighted to have reduced her carbon footprint.



**It gives you that warm fuzzy feeling inside to know that you're not using any fossil fuels and you're not contributing to climate change. It's great.**

*Hayley Catchpole – Homeowner*



New build developments like this one really highlight the importance of expert technical support. The Ecodan team helped at every stage of the process, from system design through to homeowner handover.



## GRACE HOMES DEVELOPMENT

## Embracing ‘fabric first’

Watch the full case study.

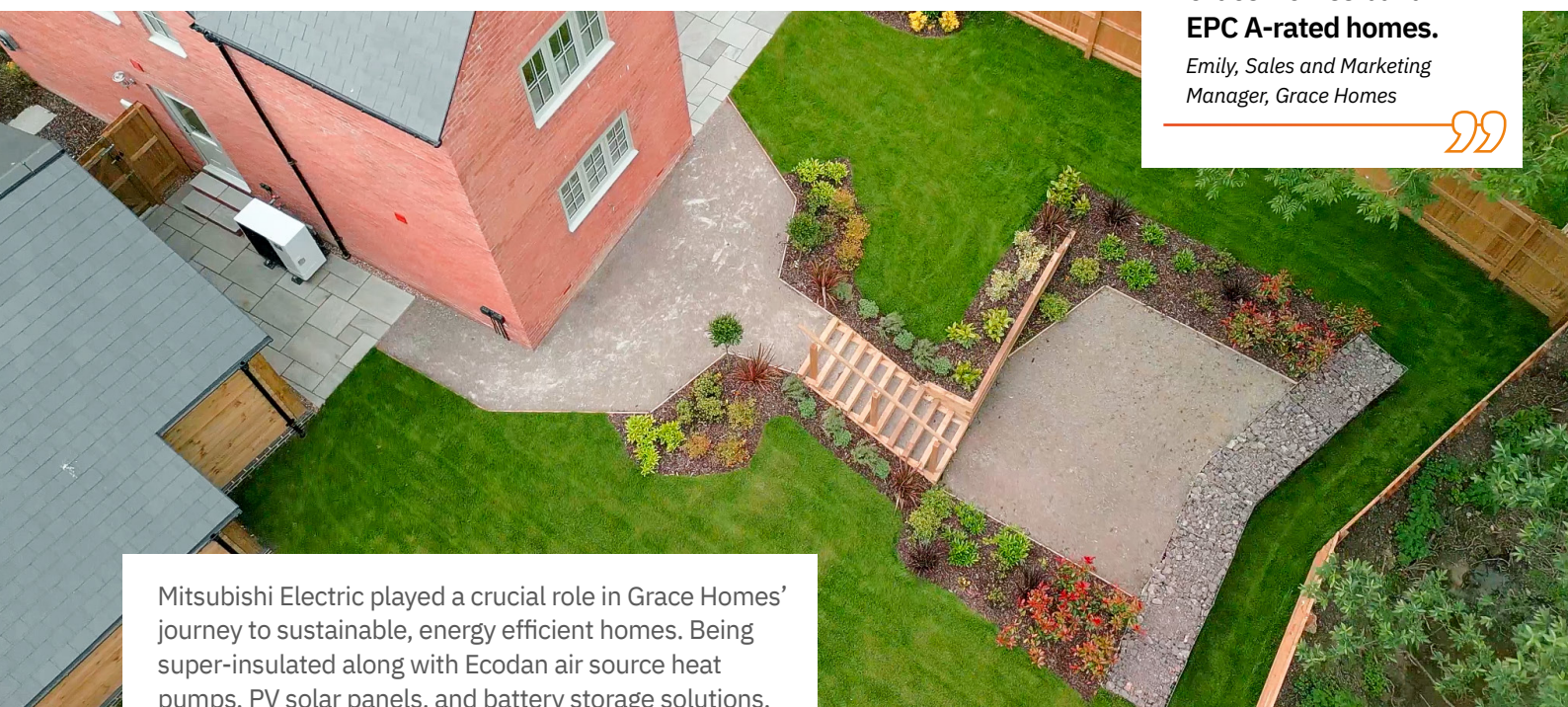


Grace Homes, a developer with a 25-year commitment to quality, sought to differentiate themselves through sustainability, leading them to adopt Mitsubishi Electric, Ecodan air source heat pumps across all their developments. This shift meant completely abandoning gas boilers and embracing a “fabric first” philosophy.



We even have people that come and visit us from miles away that come specifically because they’ve seen Grace Homes build EPC A-rated homes.

*Emily, Sales and Marketing Manager, Grace Homes*



Mitsubishi Electric played a crucial role in Grace Homes’ journey to sustainable, energy efficient homes. Being super-insulated along with Ecodan air source heat pumps, PV solar panels, and battery storage solutions, meant they could achieve their EPC A-rating. With Mitsubishi Electric being a market leader with robust on-going support throughout the build was the driving factor in their decision to adopt renewable heating technology across all their future developments.



It’s brilliant. They’re always at the end of the phone, and if you need to call them and have a video call with them, that’s always there as an option.

*Matt Smith, Project Heating Director, Nigel Smith Plumbing & Mechanical Services Ltd*



Grace Homes’ commitment to “fabric first” principles combined with reliable, efficient, renewable heating technology resulted in EPC A-rated homes that attracted buyers from far distances seeking energy-efficient living.

This development highlights the support Mitsubishi Electric, Ecodan provided at each stage of the construction process. Working collaboratively is crucial for the industry to make sustainable heating the standard for all new build homes.



We spent a lot of time researching the best sort of hardware that would work for us. And we felt that the Mitsubishi product being a market leader was really the way to go.

*Peter Hutorka, Construction Director, Grace Homes*



Involving both new builds and the renovation of a Grade II listed building, this development required Ecodan’s flexible solution to facilitate a “bank system” of five units, installed remotely away from the lodge. Throughout the install, Mitsubishi Electric’s expertise and support was readily available, and as an Accredited Installer, can offer extended warranties to homeowners for peace of mind.

# Care your customers can trust



**MELCloud  
HOME**

**Effortless control and support from anywhere!**

Our MELCloud Home App gives homeowners full control of their heating and hot water from a smartphone, tablet or computer, and access to remote diagnostic support.

Installers and other site contractors can use the MELCloud Home App to monitor and control multiple buildings and Ecodan systems from anywhere, and resolve installation queries in just a few clicks.



## Homeowner benefits

- Adjust the temperature
- Prioritise hot water
- Switch the Ecodan on/off remotely
- Set holiday mode
- Monitor energy use
- Remote diagnostics
- Technical support
- Compatible with Amazon Alexa

## Installer and site contractor benefits

- Monitor and control multiple buildings and devices
- Quickly resolve installation questions
- Access remote installer assistance
- Remote comfort level control
- Enable voice control



 amazon alexa



**Find out more  
about the MELCloud  
Home App.**

# 86%

*of issues are resolved over  
the phone without needing  
an engineer's visit.*

## Remote diagnostic support

In the unlikely event that something should go wrong with an Ecodan system, Mitsubishi Electric can log into the system, diagnose the fault, and often fix the problem remotely via the MELCloud Home App.



## Service and maintenance plans

We recommend regular servicing, not only to comply with our warranty conditions but to maximise an Ecodan's performance, retain efficiency and improve its lifespan.

Our service and maintenance plans provide complete peace of mind that the heating system will be professionally maintained and, in the unlikely event of a fault, quickly repaired by an Ecodan expert engineer.

We offer bespoke packages tailored for developers, designed to support multiple homeowners with their new Ecodan heating systems. This ensures a smooth and professional handover for your customers. For full details and a quote, please contact us at [ecodan.service@meuk.mee.com](mailto:ecodan.service@meuk.mee.com)



Heat pump

Controls

### Heat Pump Service Only **£216\***

- Yearly service of heat pump unit, including controls
- Yearly service report issued by engineer



Heat pump

Hot water cylinder

Controls

### Yearly System Service **£299\***

- Yearly system service of heat pump, hot water cylinder and controls
- Full system health check and engineer report, including recommendations to improve system performance
- Priority call-out for repairs
- Discount on parts and labour for repair works

## Expert engineer visit

If your homeowners require an expert engineer to diagnose and resolve an issue, we offer a one-off repair service at £292 per visit. This includes a 12-month guarantee on all work completed.



Find out more about  
Ecodan service and  
maintenance plans.

*"We can send them our plans; they will run the room heat loss calculations – let us know the size of the units we need. We can then incorporate that into our design at the early stage rather than having to try and retrofit and amend the designs later on, which can then become a costly exercise for the client."*

*Robert Jan, Architectural Technologist / Pod Newcastle*

*"We worked with Mitsubishi Electric before using the Ecodan system, and they'd actually come in and given us a really informative CPD just before sort of this project kicked off, so we knew from that it was the right technology to bring forward on this development."*

*Robert Jan, Architectural Technologist / Pod Newcastle*

*"From our experience, it's been essential to work with a solutions partner like Mitsubishi Electric that not only delivers trusted, reliable products but can also provide the 'crucial' support. Mitsubishi Electric's pre-sales team provided all of the room heat loss calculations to match each property with the correct size heat pump. They also advised us on the outdoor unit placement for each property, especially with the challenges we faced with our Grade II listed 'Lodge' redevelopment. They were invaluable there too."*

*Peter Hutorka, Construction Director / Grace Homes*

*"The team at Ecodan know their product, know their knowledge, and in terms of our team working with them, it's seamless in terms of planning, design and installation, so we're very pleased with what they do."*

*Lee Barnard, Group Managing Director / Hopkins Homes*





# Mitsubishi Electric Ecodan ASHP

## SAP Product Characteristics Database (PCDB) Codes

Brand name, Model name, Model qualifier	Flow temp 35°C	Flow temp 45°C	Flow temp 55°C
Mitsubishi Electric, Ecodan 5.0 kW, PUZ-WM50VHA	4.47 kW	4.82 kW	4.39 kW
	104570 / 104574	104569 / 104573	104568 / 104572
Mitsubishi Electric, Ecodan 6.0 kW, PUZ-WM60VAA	5.39 kW	5.81 kW	5.29 kW
	104634 / 104638	104633 / 104637	104632 / 104636
Mitsubishi Electric, Ecodan 8.5 kW, PUZ-WM85VAA	7.62 kW	8.22 kW	7.49 kW
	104642 / 104646	104641 / 104645	104640 / 104644
Mitsubishi Electric, Ecodan 8.5kW 3 Phase, PUZ-WM85YAA	7.62 kW	8.22 kW	7.49 kW
	106393 / 106397	106392 / 106396	106391 / 106395
Mitsubishi Electric, Ecodan 11.2 kW, PUZ-WM112VAA	9.04 kW	9.64 kW	8.78 kW
	104650 / 104654	104649 / 104653	104648 / 104652
Mitsubishi Electric, Ecodan 11.2kW 3 Phase, PUZ-WM112YAA	9.04 kW	9.64 kW	8.78 kW
	106401 / 106405	106400 / 106404	106399 / 106403
Mitsubishi Electric, Ecodan 14.0 kW, PUZ-HWM140VHA	12.6 kW	13.58 kW	12.38 kW
	105057 / 105061	105056 / 105060	105055 / 105059
Mitsubishi Electric, Ecodan 14.0 kW 3 Phase, PUZ-HWM140YHA	12.6 kW	13.58 kW	12.38 kW
	105065 / 105069	105064 / 105068	105063 / 105067
Mitsubishi Electric, PUZ-WZ50VAA, Ecodan R290 5.0 kW	4.49 kW	4.84 kW	4.41 kW
	108253 / 108253	108252 / 108256	108251 / 108255
Mitsubishi Electric, PUZ-WZ60VAA, Ecodan R290 6.0 kW	5.39 kW	5.81 kW	5.29 kW
	108262 / 108266	108261 / 108265	108260 / 108264
Mitsubishi Electric, PUZ-WZ80VAA, Ecodan R290 8.0 kW	7.21 kW	7.78 kW	7.09 kW
	108294 / 108298	108293 / 108297	108292 / 108296
Mitsubishi Electric, PUZ-WZ50VAA and EHPT20X-MEHEW, Ecodan R290 5kW and Cylinder	4.49 kW	4.84 kW	4.41 kW
	108366 / 108370	108365 / 108369	108364 / 108368
Mitsubishi Electric, PUZ-WZ60VAA and EHPT20X-MEHEW, Ecodan R290 6kW and Cylinder	5.4 kW	5.82 kW	5.3 kW
	108374 / 108378	108373 / 108377	108372 / 108376
Mitsubishi Electric, PUZ-WZ80VAA and EHPT20X-MEHEW, Ecodan R290 8kW and Cylinder	7.21 kW	7.78 kW	7.09 kW
	108382 / 108386	108381 / 108385	108380 / 108384
Ecodan Wireless Room Controller - 200194			

### Table Key

Red Text = Maximum output (kW)

Index Number = with weather comp / without weather comp

# Let's stay connected

For all the latest news about renewable energy, legislation, regulations and more, subscribe to our award-winning Hub.



Join our community for expert advice and tips on social media. Follow us using the links below to stay connected.



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web: [ecodan.me.uk/housing-developers](http://ecodan.me.uk/housing-developers)



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[Mitsubishi Electric Heating UK](https://www.youtube.com/MitsubishiElectricHeatingUK)



[ecodan.me.uk/homeportal](http://ecodan.me.uk/homeportal)



[Mitsubishi Electric Heating UK](https://www.linkedin.com/company/MitsubishiElectricHeatingUK)



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**Note:** The fuse rating is for guidance only. Please refer to the relevant databook for detailed specification. It is the responsibility of a qualified electrician/electrical engineer to select the correct cable size and fuse rating based on current regulation and site specific conditions. Mitsubishi Electric's air conditioning equipment and heat pump systems contain a fluorinated greenhouse gas, R410A (GWP:2088), R32 (GWP:675), R407C (GWP:1774), R134a (GWP:1430), R513A (GWP:631), R454B (GWP:466), R1234ze (GWP:7) or R1234yf (GWP:4). \*These GWP values are based on Regulation (EU) No 517/2014 from IPCC 4th edition. In case of Regulation (EU) No.626/2011 from IPCC 3rd edition, these are as follows. R410A (GWP:1975), R32 (GWP:550), R407C (GWP:1650) or R134a (GWP:1300).

