

Release date: 1 December 2015

**Innovative new heat pump matches new-build hot water requirements**

Mitsubishi Electric has launched a new 4kW Ecodan air source heat pump designed specifically to tackle the needs of new-build homes, with a system that matches the hot water requirements, whilst still meeting the lower heating demand of today’s well insulated properties.

New homes built today differ from previous ones because the requirement for hot water is likely to exceed the demand for heating for the first time. A reduction in fabric U-values and thermal bridging has reduced the energy requirements for heating and also allows for smaller plant.

“What is needed is a new way of delivering energy efficient heating and hot water”, explains Jordan Jeewood, Ecodan technical expert for the company. “We have engineered the Ecodan QUHZ monobloc system to meet this need by providing exceptionally high efficiency in the production of hot water, along with renewable space heating for the home”.

The Ecodan QUHZ unit is MCS-Approved and straightforward to install, delivering water at 70ºC to a packaged 200 litre thermal store. From this thermal store, mains water is heated directly up to 65ºC via Mitsubishi Electric’s unique plate heat exchanger, meaning the homeowner receives hot water on demand.

“This model uses CO2 as a refrigerant to ensure a large delta T between the flow and return temperatures to and from the outdoor unit”, adds Jeewood. “This delivers the high levels of efficiency that enable the system to meet the high hot water, low heating requirements of today’s new-build properties”.

The fundamental design, application and control of the Ecodan QUHZ is exactly the same as the rest of the range with advanced control logic within the thermal store allowing the system to deliver the high efficiency levels that the market has come to expect from the Ecodan brand.

/more

**Innovative new heat pump matches new-build hot water requirements / Page 2**

As a nation, we have not been building enough new homes to meet demand and the UK Government is now pushing for the construction of more new homes. At the same time, legislation is forcing housing developers to use products and practices that reduce the energy required for space heating and hot water is becoming the dominant load in new dwellings.

This means that high-efficiency water heaters are required for new-build dwellings to help tackle CO2 emissions and reduce run costs, with air source heat pumps already recognised by the Government as an important part of that solution.

Mitsubishi Electric has therefore developed this pioneering new Ecodan model to deliver a viable way of meeting the new hot water and heating demands of these new homes. The Ecodan QUHZ has just been launched to the company’s heating partners and will be available from the end of January 2016.

New homes are needed in both on and off-gas grid areas but the additional cost of delivering mains infrastructure to new developments can also make the Ecodan QUHZ an attractive proposition for housebuilders within the grid.

Other alternatives to gas such as ground source heat pumps, biomass boilers, LPG, oil, direct electric and coal may incur additional higher install costs, greater maintenance regimes, or may simply not meet targets for energy efficiency and carbon reduction.

The UK Government is already committed to reducing CO2 emissions by 80 per cent of 1990 levels, by 2050 and achieving a 34 per cent reduction in greenhouse gas emissions by 2020.

Buildings account for 44 per cent of all UK CO2 emissions (more than industry or transport) and space heating and hot water account for almost 75 per cent of total energy consumed in homes.

“The construction of hundreds of thousands of new-build houses is therefore a golden opportunity to change our approach to how we heat, and provide hot water in a home”, explains Jeewood.

In addition to high efficiency levels, with a Seasonal Co-efficient of Performance (SCOP) of 3 for hot water and 2.9 for heating, the Ecodan QUHZ poses no risk of legionella because it does not store hot water. At the same time, it is still able to provide a variable hot water capacity, with water heated directly as required.

/more

**Innovative new heat pump matches new-build hot water requirements / Page 3**

The system also includes automatic in-built in energy monitoring, using the company’s MELCloud, internet-based system, which allows for full control and monitoring from anywhere in the world.

“As more homes are built and more heat pumps are installed, the operating noise will become an increasingly important factor, so we have deliberately designed the Ecodan QUHZ to address this”, adds Jeewood.

The QUHZ model also offers exceptional noise levels with a whisper-quiet 41.2 dB(A) at 1.5 metres from neighbouring properties, making it ideal for almost any new-build scenario.

The Ecodan range has led the way in the UK air source heat pump market with the first MCS (Micro Certification Scheme) certification for an inverter-driven unit, the first to receive the Noise Abatement Society’s ‘Quiet Mark’, the first to offer intelligent room sensing as standard and the first to include remote energy monitoring straight from the factory.

This new addition to the range means that there is an Ecodan model suitable for both new-build and retro-fit homes in almost any situation”, explains Jeewood.

“We have introduced this new way of delivering hot water to the new-build sector because we see a real potential for modern homes to receive reliable hot water and heating in a low carbon, energy efficient way that will help the country reduce overall emissions”.

Ends

**Note to editor:**

All issued press release and photography can be found at the dedicated Mitsubishi Electric news site: <http://news.cision.com/mitsubishi-electric-living-environmental-systems>.

Founded in 1921, Mitsubishi Electric is a global, market leading, environmental technologies manufacturer, producing an advanced range of heating, air conditioning and ventilation equipment. The company realises that ensuring the right solutions are selected for each individual building, requires collaboration by all involved. Mitsubishi Electric has therefore changed the way it does business to ensure engagement with all involved in delivering sustainable buildings so that together, we can make a world of difference.

**For further editorial information please contact:**

Russell Jones: Email: [russell.jones@meuk.mee.com](mailto:russell.jones@meuk.mee.com)   
PR & Communications Manager: Telephone: 01707 278772

**PLEASE NOTE:** Colour separation or production charge requests will only be processed by email. **Please send ALL requests to** [**coloursep@meuk.mee.com**](mailto:coloursep@meuk.mee.com)**.**

MEUK/171/15