

Heating

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Renewable Heating Technology



Product Update Meeting (PUM) Residential Heating FY22 Q2

Product Update Meeting

Presented by

Product Marketing Department



Audio

Attendees will be in listen only mode to ensure the best experience for all



Questions

We welcome these & ask that your questions be submitted for the Q&A session



Recording

We are recording this session to enable access at your convenience

Your presenters today



Robert Taylor
Product Manager,
Residential Heating & Ventilation Systems



Laurent Widloecher
Product Manager,
Residential Heating & Ventilation Systems

Product Update Meeting

Agenda

- Introduction & Context
- Product Range
- Product Sales Support & Tools
- Product In The Marketplace
- Product Collateral
- Q&A



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Introduction & Context

Presented by

Robert Taylor & Laurent Widloecher

Introduction & Context

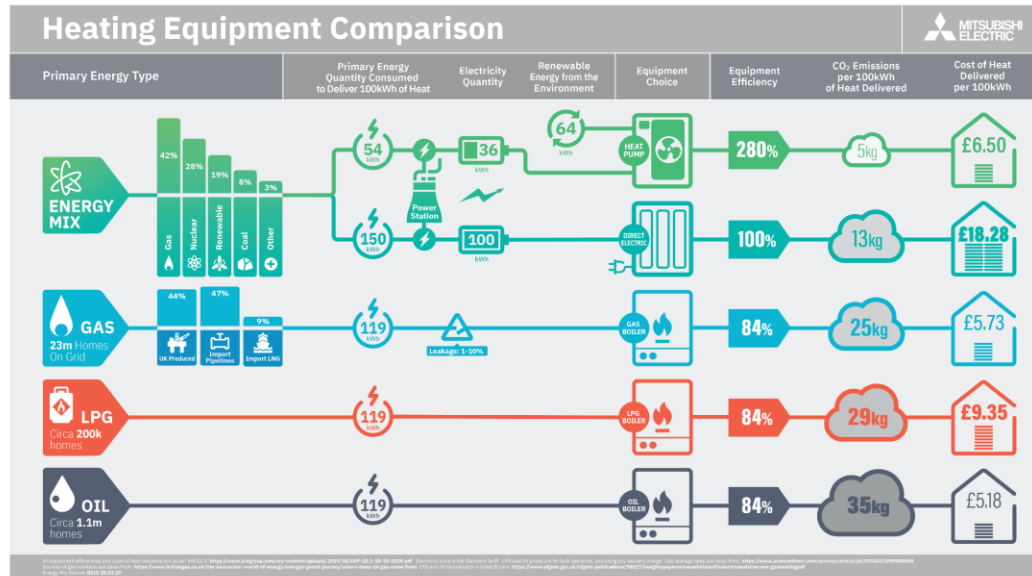
Decarbonisation Roadmap: Why heat pumps are the future of heating

- Electrification is key to decarbonisation & heat pumps to be the dominant low carbon heat technology
- Heat pump to be default low carbon heat technology within Building Regs 2025
- Target to install 600,000 heat pumps every year by 2028
- Target to install 1,000,000 heat pumps every year by 2030
- Scotland Net Zero Carbon 2045 and England & Wales Net Zero Carbon 2050



Introduction & Context

Decarbonisation Roadmap: Why heat pumps are the future of heating



Introduction & Context

Why Mitsubishi Electric

- 100th Anniversary of the Mitsubishi Electric Group (Feb'21)
- Our corporate statement, "Changes for the Better," signifies the goal and stance of the Mitsubishi Electric Group to continually innovate for the better



Introduction & Context

Why Mitsubishi Electric

- UK R&D (Livingston, Scotland)
- UK Manufacturing (Livingston, Scotland)
- UK Green Recovery



Ranil Jayawardena MP @ranil · Jul 20

Mitsubishi is one of the largest exporters of clean technology in the United Kingdom!

Brilliant to discuss the transition to net zero – and future investment that'll help to support 1,500+ jobs in Livingston.

Trade = Jobs

#GlobalTrade #GlobalBritain #Scotland



Department for International Trade and 9 others

4

23

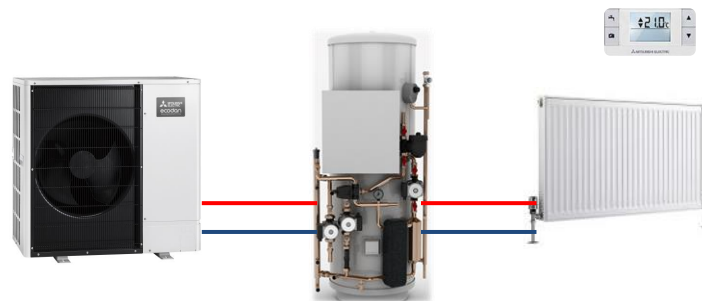
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Introduction & Context

Why Mitsubishi Electric

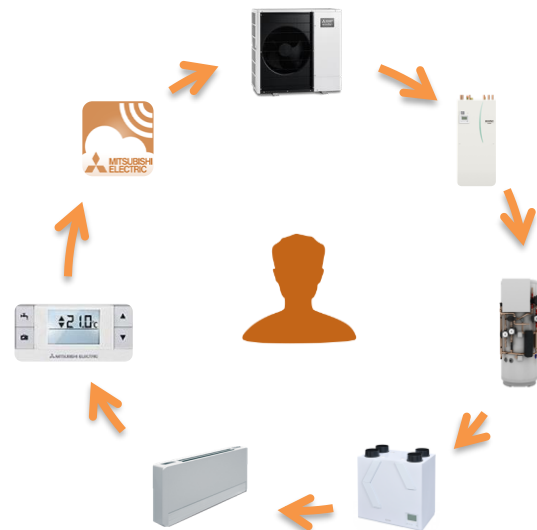
- Product Vision is 'Simplicity'
- Heat pump: Monobloc
- DHW Cylinders: Pre-plumbed & pre-wired
- Controls: Engineering & consumer



Introduction & Context

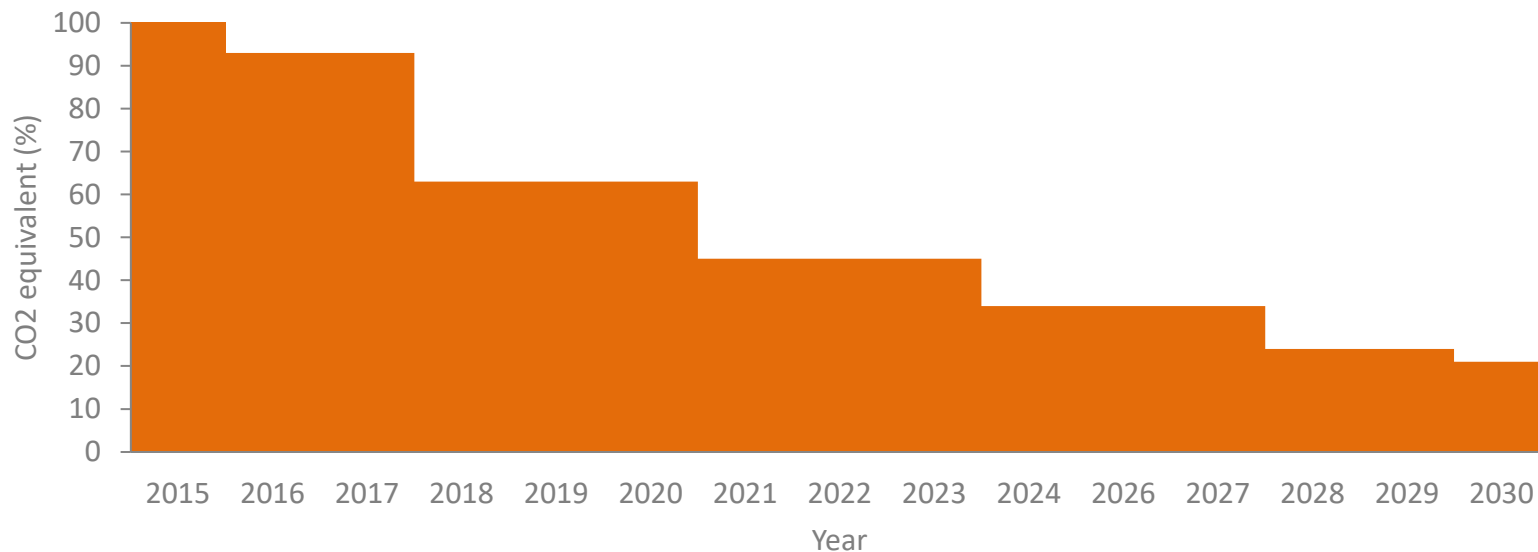
Why Mitsubishi Electric

- Simple product solutions
- Wide product ranges
- Large UK team



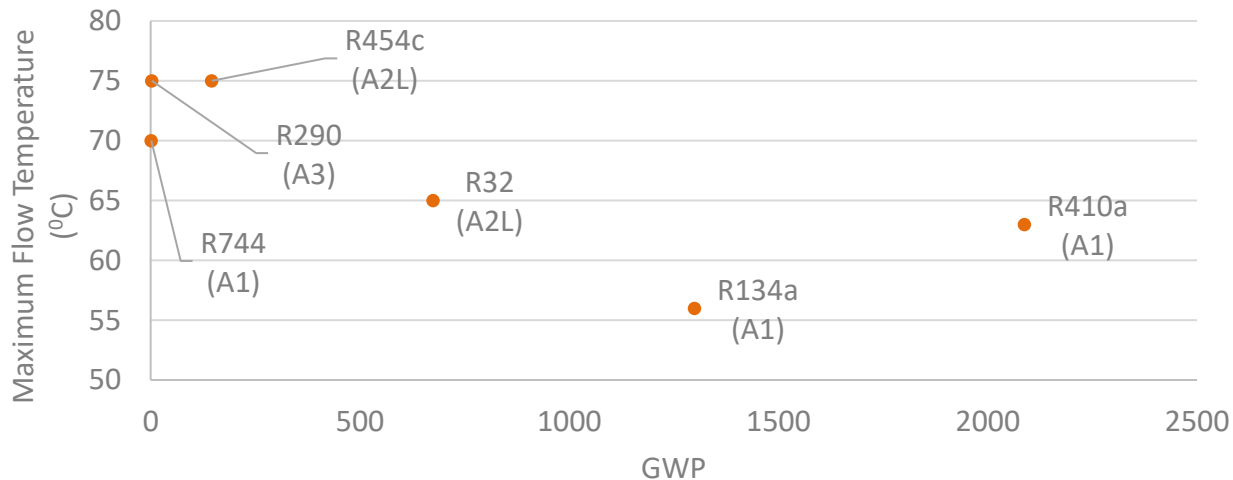
Introduction & Context

Refrigerant Type Overview



Introduction & Context

Refrigerant Type Overview



Introduction & Context

Refrigerant Type Overview

Details

R744 (CO₂), R410a & R134a are classed as A1.

R32 & R454c are classed as A2L.

R290 (propane) is classed as A3.

Safety Classification

A3	B3	Higher Flammability
A2	B2	Flammable
A2L	B2L	Lower Flammability* ¹
A1	B1	Non-Flammable
Lower Toxicity	Higher Toxicity	

R32 heat pump

*1 A2L refrigerants are commonly referred to as 'mildly flammable'.

Introduction & Context

Poll Question

- Which heat pump feature is most important for you?
- Low GWP
- High flow temperature
- High efficiency
- Monobloc
- UK R&D and manufacturing

Please add further comments in the webinar chatbox

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Product Range

Presented by

Robert Taylor & Laurent Widloecher

Product Range

Solution Overview

- Full heating & DHW range available
- Dedicated in-house support teams
- Independent design consultancy



Product Range

Product Range Overview - Monobloc Heat Pumps

4.0kW	5.0kW	6.0kW	8.5kW	11.2kW	14.0kW
					
R744 (CO2)	R32	R32	R32	R32	R32
1 Phase	1 Phase	1 Phase	1 Phase 3 Phase	1 Phase 3 Phase	1 Phase 3 Phase

Product Range

Product Range Overview - Monobloc Heat Pumps

4.0kW

5.0kW

6.0kW

8.5kW

11.2kW







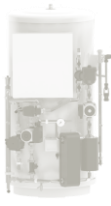
14.0kW



Dimensions (HxWxD) (mm)	715 x 809 x 300	943 x 950 x 330	1020 x 1050 x 480	1020 x 1050 x 480	1020 x 1050 x 480	1350 x 1020 x 330
Weight (kg)	57	71	98	98 / 111	119 / 132	132 / 143
Volume (m ³)	0.174	0.296	0.514	0.514	0.514	0.454
Max htg/dhw flow temp (°C)	60 / 70	60 / 60	60 / 60	60 / 60	60 / 60	60 / 60
Sound Power Level (dB)	53	61	58	58	60	67







Product Range

Product Range Overview - Packaged & Pre-Plumbed DHW Cylinders

Thermal Store	Packaged	Slimline	Standard	Solar	New Slimline	New Standard
						
1 model	1 model	2 models	5 models	3 models	2 models	6 models
R744 (only)	R32	R32	R32	R32	R32	R32

Product Range

Product Range Overview - Packaged & Pre-Plumbed DHW Cylinders

	Thermal Store	Packaged	Slimline	Standard	Solar	New Slimline	New Standard
							
Capacity (L)	200	200	150 - 170	150 - 300	210 - 300	150 - 170	150 - 300
Footprint (WxD) (mm)	595 x 680	595 x 680	649 x 646	683 x 730	683 x 730	676 x 653	730(748) x 756
Weight (Kg)	77	94	54 - 60	56 - 87	74 - 82	TBC	TBC
Plug & Play	Built-in electrical & mechanical components & flexible 2-zone space heating control						

Product Range

Product Range Overview - Controls

Programmer



Thermostat



MELCloud App



Smart Speaker Integration



Engineer interface

User interfaces

Commissioning & Servicing Tasks

Daily Operation (example functions: set room temperature, boost hot water, set holiday mode)

Wired

Wireless

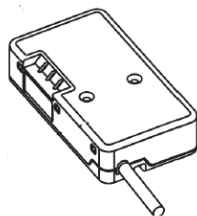
Product Range

Product Range Overview - Controls

- MELCloud App Wi-Fi Adaptor will be updated ~Jan'22

MAC-567IF-E

MAC-587IF-E



Product Range

Heating Accessories

- Ensure mechanical best practice installation
- System water maintenance
- Metering & Monitoring Service Packages (MMSP)



Product Range

Mechanical Ventilation Heat Recovery

- Create an environment of constant clean and healthy air at home
- Capacities: 250, 350, 500 m³/h
- Optional MELCloud app connection



Product Range

Poll Question

- Which of the following product ranges most meets your requirements?
- Heat pump (outdoor unit)
- DHW cylinder (indoor unit)
- Controls
- Heating Accessories

Please add further comments in the webinar chatbox

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Product Sales Support & Tools

Presented by

Robert Taylor & Laurent Widloecher

Product Sales Support & Tools

Mass Market Requirements – Efficiency

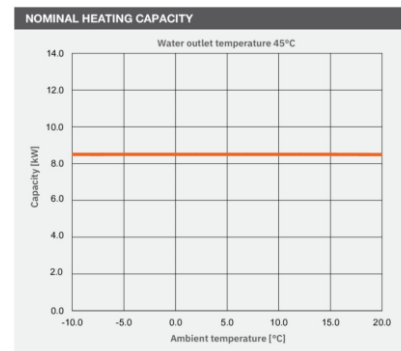
- A+++ high efficiency heat pump products
- Market-leading system specification
- Ultra-low running costs



Product Sales Support & Tools

Mass Market Requirements – Capacity

- Maintain full heating capacity at low ambient temperatures
- Market-leading system specification
- Confident and quick product selection



5.0kW	6.0kW	8.5kW	11.2kW	14.0kW
-7°C	-10°C	-10°C	-7°C	-10°C

*Water outlet temperature 45°C. Nominal compressor frequency.

Typical national ambient design temperatures are ~ -1°C to -6°C (ref. CIBSE Guide A / MIS3005 v5.0)

Product Sales Support & Tools

Mass Market Requirements – Connectivity



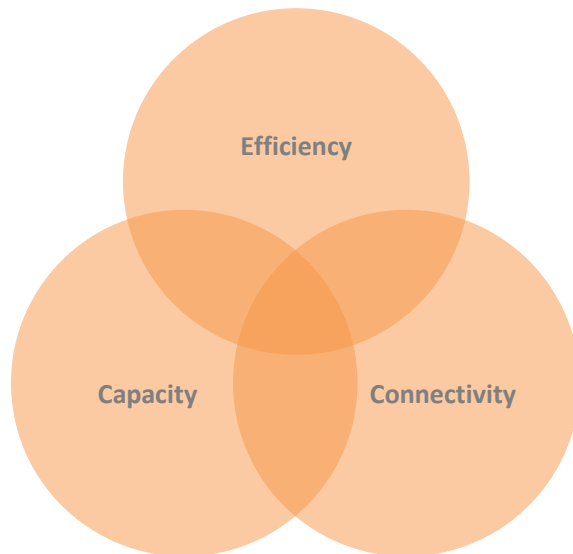
- Wi-Fi adaptor provided as standard with every Ecodan sales BOM
- End-users can remote control & monitor their Ecodan
- Guest access can be provided to an installer if help is required



https://www.youtube.com/watch?v=vgFOeH2_WQw&ab_channel=MitsubishiElectric-LivingEnvironmentalSystems%28UK%29

Product Sales Support & Tools

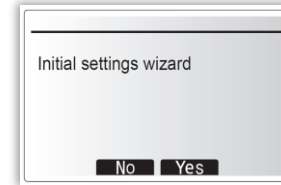
Mass Market Requirements – Performance



Product Sales Support & Tools

Mass Market Requirements – New Control Features

- Initial set up wizard to simplify system set up & commissioning
- Quiet Mode optional setting to further reduce low noise levels during critical times
- Advanced Smart Grid control to integrate third party products



Product Sales Support & Tools

Mass Market Requirements – Permitted Development Condition

- All Residential Ecodan heat pumps are <math><0.6\text{m}^3</math>
- Pass permitted development condition
- No need to apply for planning permission*



*provided all other limits and conditions are met

Product Sales Support & Tools

Mass Market Requirements - Product Database Listings & Certifications

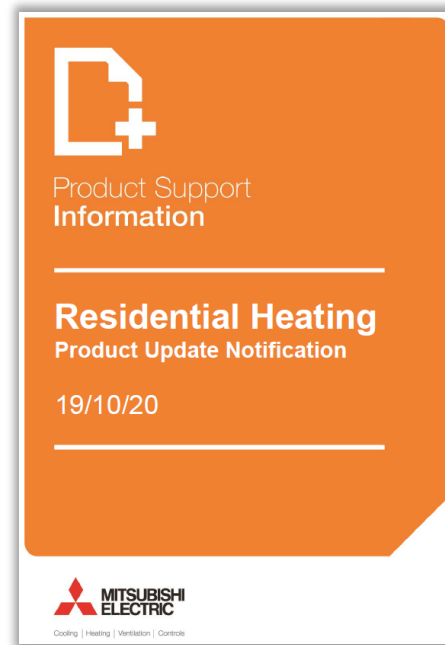
- ENA Database
- PCDB (formerly SEDBUK)
- MCS &/or Keymark Certified
- Red Dot (AA chassis)

Heat Pump Type Register Number	Make	Model	Model Reference	Phases	Voltage (V)	Connect & Notify?	Apply to Connect?
HP_0606	Mitsubishi	Ecodan	QUHZ-W40VA + EHPT20Q	1	230	Yes	No
HP_0607	Mitsubishi	Ecodan	PUZ-WM50VHA	1	230	Yes	No
HP_0609	Mitsubishi	Ecodan	PUZ-WM60VAA	1	230	Yes	No
HP_0610	Mitsubishi	Ecodan	PUZ-WM85VAA	1	230	Yes	No
HP_0611	Mitsubishi	Ecodan	PUZ-WM112VAA	1	230	Yes	No
HP_0612	Mitsubishi	Ecodan	PUZ-HWM140VHA	1	230	No	Yes
HP_0613	Mitsubishi	Ecodan	PUZ-HWM140YHA	3	400	Yes	No
HP_0614	Mitsubishi	Ecodan	PUZ-WM85YAA	3	400	Yes	No
HP_0615	Mitsubishi	Ecodan	PUZ-WM112YAA	3	400	Yes	No

Product Sales Support & Tools

Product Update Notification

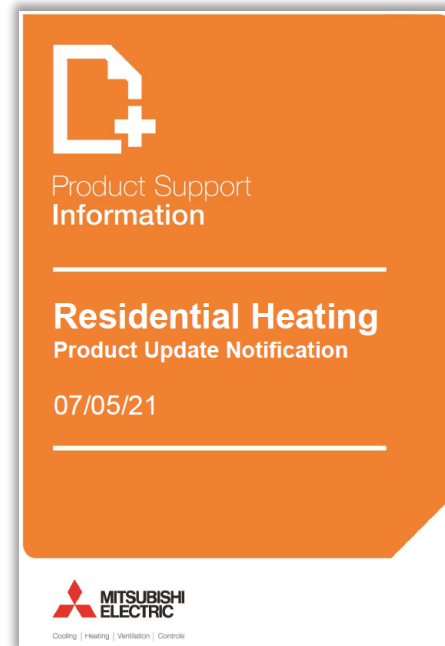
- R744 outdoor unit + R744 indoor unit
- R32 outdoor units + FTC6 indoor units
- R410a outdoor units + FTC5 indoor units
- R410a outdoor units + FTC6 indoor units



Product Sales Support & Tools

Product Update Notification

- Mitsubishi Electric 12L Primary Circuit Expansion Vessel
- Not included with EHPT20X-MHEDW sales BOMs
- Ensure suitably sized primary circuit expansion vessel is installed



Product Sales Support & Tools

Advanced Product Notification

- Mitsubishi Electric Service Diagnostic Display
- Optional Part for R32 (FTC6) Monobloc Ecodan
- Used to display outdoor unit operation & diagnostic state



Product Sales Support & Tools

End-of-Life & Ready-to-Sell Notification

- Magnetic Particle Filter
- Included within various Ecodan sales BOMs
- Successor models in place



Product Support
Information

Residential Heating
Product End-of-Life Notification

01/03/21



Cooling | Heating | Ventilation | Controls

Product Sales Support & Tools

Poll Question

- Which support service is most important for you?
- Dedicated account manager
- Cost & equipment estimation
- Full design
- Remote diagnostics
- Site services

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Product In The Marketplace

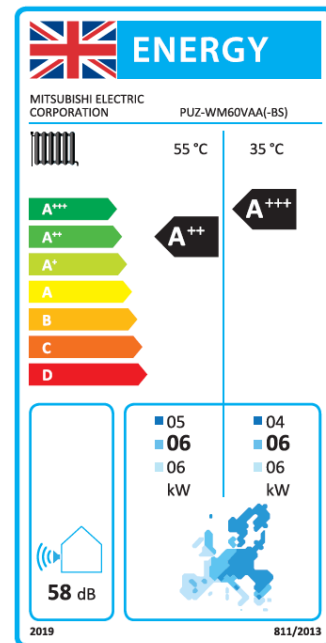
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Product in the Marketplace

Brexit - UK Energy Labels

- UK Energy Labels required for products from 1st Jan 2021
- Inclusion of a UK flag and English wording only
- Applicable products are supplied with these labels which are also available as digital PDFs



<http://uk.erp.mitsubishielectric.eu/>

Product in the Marketplace

Brexit – UKCA Mark

- 'UK Conformity Assessed' labels required for products from 1st Jan 2023
- Declares compliance with all relevant UK Regulations
- Operates in broadly the same manner as CE marking & divergence will be small in the short term



Product in the Marketplace

UK Heat Pump Manufacturing

- Continuing our recovery from the turbulence of Brexit & Covid-19
- Government policy & signalling is improving manufacturer confidence
- Optimised production efficiency for range manufactured for the UK
- Increased production capacity for range manufactured for the UK
- Growth plans in place in line with market projections



Product in the Marketplace

Poll Question

- Is your company supportive of mass market heat pump adoption?
- Yes; already providing heat pumps to the market but only when specifically requested
- Yes; already providing heat pumps to the market as the default heat source
- Yes; will provide heat pumps to the market by Dec'21
- Yes; will provide heat pumps to the market by Mar'22
- Yes; will provide heat pumps to the market by Jun'22

Please add further comments in the webinar chatbox

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Product Collateral

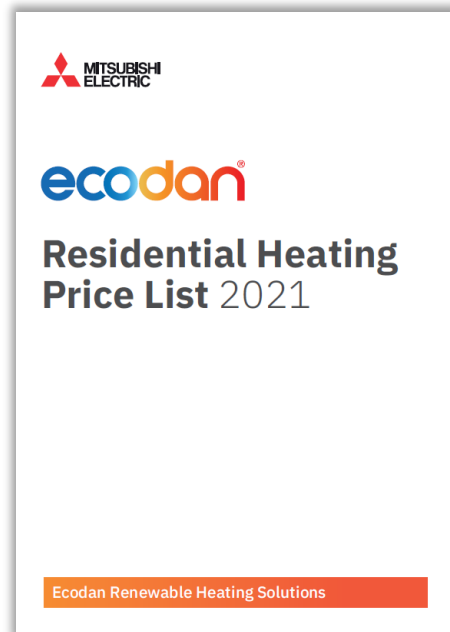
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Product Collateral

Pricelist

- Available to account holders
- Refer marketing e-shot



Provided by your sales representative

Product Collateral

Product Catalogue

- Mechanical ventilation heat recovery 500m³/h model added
- Available to account holders
- Refer marketing e-shot

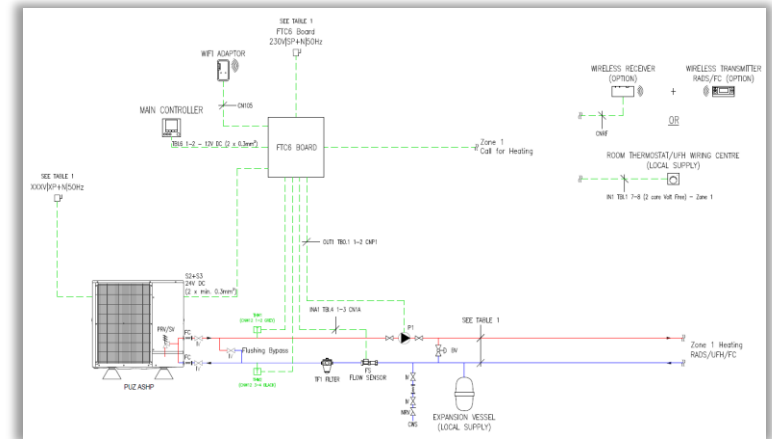


[2021 Heating and Ventilation Product Catalogue](#)

Product Collateral

M&E Schematics

- Many system configuration types
- Available to account holders
- Provided by pre-sales technical



Product Collateral

Document Library

- Ecodan Three Phase Models Product Information Sheets
- Ecodan Distribution Network & System Operator Information Product Information Sheet
- Ecodan Google & Alexa Homeowner Guides
- Ecodan Accessories Product Information Sheet



<http://library.mitsubishielectric.co.uk/pdf/directory/heating>

Product Collateral

Poll Question

- Which resource do you use most to obtain product information?
- Website (Document library / blog / partner portal)
- Social Media (LinkedIn / Facebook / Twitter / Instagram)
- Pricelist
- Telephone support

Please add further comments in the webinar chatbox

Feedback

Webinar Rating

- How informative and valuable was this webinar for you?
- Slightly; I already knew a lot of the content
- As expected; I attend the bi-annual meetings for product updates
- Very; I learnt a lot of new information
- Extremely; I can refer to and use the information provided

Please add further comments in the webinar chatbox

Future Webinar

Poll Question

- What would you like the next Product Update Meeting (PUM) to focus on?

Please add answers in the webinar chatbox

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Q&A



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Final Thoughts

Some key takeaways form our session today

- We invest significant time & resource into promoting pathways for the electrification & decarbonisation of heat
- Ecodan is ready for mass market adoption with an extended product range
- Ecodan has market leading specification, additional built-in control features and major industry approvals
- Investments have been made to recover stock levels and investment will continue to be made to facilitate long-term residential heat pump mass market uptake
- Extensive product collateral is available to promote and support Ecodan heat pumps & Lossnay MVHR

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Thank You

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