

# 2022 Heating and Ventilation Product Catalogue

les.mitsubishielectric.co.uk

# Contents

# Heating

# **Ecodan Residential Renewable Heating Systems**

QUHZ-W40VA R744 Monobloc Air Source Heat Pump with Thermal Store	8
PUZ-WM50VHA-BS R32 Monobloc Standalone Air Source Heat Pump	10
PUZ-WM60-112(V/Y)AA-BS R32 Monobloc Standalone Ultra Quiet Air Source Heat Pumps	12
PUZ-HWM140(V/Y)HA-BS R32 Monobloc Standalone Air Source Heat Pumps	14
EHPT20X-MHEDW R32 Packaged Cylinder for Ecodan Monobloc Units	16
EHPT15-17X-UKHLDW R32 Pre-Plumbed Slimline Cylinders for Ecodan Monobloc Units	18
EHPT15-30X-UKHDW R32 Pre-Plumbed Standard Cylinders for Ecodan Monobloc Units	20
EHPT21-30X-UKHSDW R32 Pre-Plumbed Solar Cylinders for Ecodan Monobloc Units	22
EHPT15-17X-UKHLDW1S R32 Pre-Plumbed Slimline Cylinders for Ecodan Monobloc Units	24
EHPT15-30X-UKHDW1(S/L) R32 Pre-Plumbed Standard Cylinders for Ecodan Monobloc Units	26
FTC6 / FTC2BR Flow Temperature Controllers for use with Ecodan Monobloc Units and Third Party BEMS	28
MELCloud Wi-Fi Connectivity	29
Energy Monitoring Packs	31
i-LIFE2 Slim-DLMV Fan Assisted Radiator	32
Accessories / Optional Extras	34
Ecodan Commercial Renewable Heating Systems	
EHWT17D-MHEDW R32 Water to Water Heat Pump	36
QAHV-N560YA-HPB R744 Monobloc Air Source Heat Pump	38
CAHV-P500YB-HPB R407C Monobloc Air Source Heat Pump	40

CAHV-P500YB-HPB R407C Monobloc Air Source Heat Pump CRHV-P600YA-HPB R410A Monobloc Ground / Water Source Heat Pump Accessories / Optional Extras

42

44

51

# Ventilation

# Lossnay Mechanical Ventilation with Heat Recovery Systems

VL-(250-500)CZPVU-(L/R)-E Centralised Wall Mounted MVHR	46
VL-100(E)U <sub>5</sub> -E Single Room Wall Mounted MVHR	48
Accessories / Optional Extras	50

How to contact u	IS
------------------	----





Ecodan Residential Renewable Heating Systems





# Ecodan Heat Pumps - Renewable Heating Systems

There is now no doubt that the world is in a climate crisis and that we need to act immediately to avoid catastrophic climate change. The UK Government have reacted by being the first major economy to pass net zero (Greenhouse Gas) emission laws. Renewable technologies, such as heat pumps, have become an integral part of the solution to the problem of reducing carbon emissions generated through heating.

As a market leader in both commercial and domestic heat pumps, Mitsubishi Electric is a pioneer in the development of this renewable technology. Around the world, heat pumps have been utilised for decades and Mitsubishi Electric has refined this technology to produce Ecodan - one of the most advanced, efficient heating systems available on the market today.

The award winning Ecodan heat pumps are available from 4kW up to 960kW, making them suitable for virtually any property, from small flats to large detached houses, from an office block to a school. They are the renewable, low carbon alternative to traditional high carbon heating systems.

- Renewable heating solution capable of reducing emissions and achieving climate targets
- Highly efficient, proven and refined technology that can lower energy bills
- Range of easy to design, install and maintain systems suitable for a variety of property and application types

Ecodan heat pumps are a renewable heating technology that efficiently and reliably generates sustainable space heating and hot water all year round, delivering a level of comfort that sets the technology apart from other forms of heating.



TV presenter, architect, lecturer and writer, George Clarke is a passionate advocate of design excellence and high levels of quality in the construction industry.

44 The way we design, build, heat, power and recycle our homes needs to change, and change quickly, and renewable heating is an important part of our future.

I'm therefore delighted to associate myself with Ecodan, the market-leading brand of heat pumps built here in the UK and which can help reduce energy bills and lower emissions for almost any home. **99** 

George Clarke

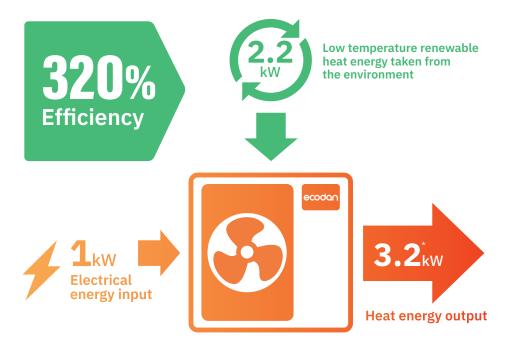
Ecodan Brand Ambassador

# **ecodo** Renewable Heating Systems

# How do Ecodan air source heat pumps work?

# Ecodan heat pumps harvest, upgrade and move heat from one location to another.

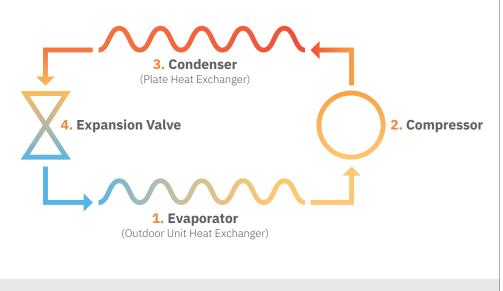
Using technology similar to that which is found in a common domestic fridge, heat pumps use the **vapour compression cycle** to generate heat. When used in reverse, this cycle provides the ability to take low temperature renewable heat from the environment and raise it to usable temperatures capable of handling the space and water heating loads required in buildings.



\*As independently tested by BSRIA based upon BSEN14511 Part 3 standard rating conditions. Due to the method of operation, the performance of heat pumps will vary based upon the temperature of the heat source and the requirements of the heat delivered. The BSEN14511 testing relates to the heat pump performance only and not the entire heating system.

### What is the vapour compression cycle?

- At the beginning of the first phase the refrigerant is a cold low pressure liquid
- **1** Refrigerant passes through the evaporator and is exposed to the heat energy of the outside air. As the air flows over the evaporator coil, this heat energy is transferred to the refrigerant, causing it to pressurise into a warm vapour.
- 2 This warm vapour then enters the compressor where its temperature increases as a result of the compression process and turns into a hot gas.
- 3 Hot refrigerant gas passes through the condenser (plate heat exchanger) and transfers its heat energy into the (cooler) water side that is connected to the primary water circuit. The heated water in this circuit is then used to heat up a hot water cylinder inside the property. Due to this energy transfer, the passing hot refrigerant gas cools and transforms back into a cool vapour.
- 4 Although the refrigerant vapour has cooled, in order to return the refrigerant back to its initial state, it is passed through an expansion valve. This lowers the pressure of the cool refrigerant vapour and transforms it back into a low pressure liquid - allowing for the vapour compression cycle to start once again.



#### This process is repeated

As the refrigerant boils at -46°C, there is still plenty of energy in the air on a cold day to make the process work.

# Ecodan Toolbox

# **Guidance and Support**

With consideration for a multitude of different customers and requirements, Mitsubishi Electric have developed a wide range of advanced Ecodan products suited to satisfy the demands of the market.

Resources that provide guidance and support to optimise the performance and clarify the different types of Ecodan systems are readily available within our online Document Library and supporting digital media sources.

Whether technical product information sheets are required for a design specification, a brochure is required for a prospective customer, or a video that explains how a heat pump is different from a common gas or oil boiler is needed, an archive of useful resources is available at the click of a button.

### Please visit the website: library.mitsubishielectric.co.uk/pdf/directory/heating

# **Ecodan Selection Tool**

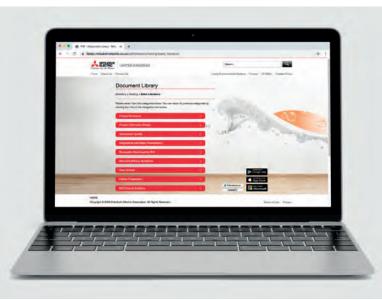
The Ecodan Heat Pump Selection Tool enables different customer types with varying levels of technical knowledge to obtain an insight into how a property can benefit from the renewable heating that this technology can deliver.

Developed with two selection options to choose from, whether the project is a single domestic dwelling or a large commercial project, the tool will guide the user towards the solution most suited to the needs of the property. Upon completion of the selection process, the tool will generate a bespoke and professional equipment selection report based upon the criteria entered; providing the different user types with the relevant information and resources required to progress to the next stage of design.

Whether the user is a homeowner that wishes to understand the basic estimated costs of operating a renewable heating system or an installer that requires an MCS [MIS3005] standard compliant design, the Ecodan Selection Tool is capable of delivering an informed choice.

 $\label{eq:please} \ensuremath{\mathsf{Please}}\xspace \ensuremath{\mathsf{visit}}\xspace \ensuremath{\mathsf{the}}\xspace \ensuremath{\mathsf{visit}}\xspace \ensuremath{\mathsf{the}}\xspace \ensuremath{\mathsf{visit}}\xspace \ensuremath{\mathsf{the}}\xspace \ensuremath{\mathsf{visit}}\xspace \ensuremath{\mathsf{the}}\xspace \ensuremath{\mathsf{visit}}\xspace \ensuremath{\mathsf{the}}\xspace \ensuremath{\mathsf{visit}}\xspace \ensu$ 





ecodan	Renewal	ble Heating Syste	ms	0								•
Range Overv	view			QUHZ-W40VA	PUZ-WM50VHA	PUZ-WM60VAA	PUZ-WM85VAA PUZ-WM85YAA	PUZ-WM112VAA PUZ-WM112YAA	PUZ-HWM140VHA PUZ-HWM140YHA	QAHV-N560YA-HPE	3 CAHV-P500YB-HPB	CRHV-P600YA-HPB
System Type			Litres	4kW	5kW	6kW	8.5kW	11.2kW	14kW	40kW	43kW	60kW
Standalone	-				•	•	•	•	•	•	•	•
Thermal Store	* (+	EHPT20Q-VM2EA	200	•								
Packaged Cylinder	*  +	EHPT20X-MHEDW	200		•	•	•	•	•			
Pre-Plumbed Slimline	5	EHPT15X-UKHLDW	150		•	•	•					
Cylinder		EHPT17X-UKHLDW	170		•	•	•					
		EHPT15X-UKHDW	150			•	•					
Pre-Plumbed	1 Bair	EHPT17X-UKHDW	170		•		•					
Standard	1000	EHPT21X-UKHDW/CW	210		•		•		•			
Cylinder		EHPT25X-UKHDW/CW	250									
	THE R. LEWIS CO.	EHPT30X-UKHDW/CW	300				•		•			
	and a second	EHPT21X-UKHSDW	210		•	•	•	•	•			
Pre-Plumbed	-	EHPT25X-UKHSDW	250				•	•	•			
Solar Cylinder			300									
		EHPT30X-UKHSDW	300				-	-	-			
Pre-Plumbed Slimline	4-3	EHPT15X-UKHLDW1S	150		•	•	•					
Cylinder		EHPT17X-UKHLDW1S	170		•	•	•					
		EHPT15X-UKHDW1S	150									
Pre-Plumbed	14	EHPT17X-UKHDW1S	170									
Standard	in the second	EHPT21X-UKHDW1S	210									
Cylinder		EHPT21X-UKHDW1L	210			<u> </u>	ĕ	•				
	10.000	EHPT25X-UKHDW1L	250				ĕ	i i i	ĕ			
	AL-	EHPT30X-UKHDW1L	300				ĕ	ĕ	ĕ			
Ecodan Hydrodan (Water Loop Technology)	A ()	EHWT17D-MHEDW	170								•	•
Approvals		Manufactured in the United Kingdom			•	•	•	•				
pp. o roto	2	Red Dot Award				•	•	•				
	Mos	Microgeneration Certification Scheme		•	•	•	•	•	•		•	•
	È	Keymark		-				•	•			
	-	roduct for the Boiler Llograde Scheme (BLIS)			-	-	-	-	-			

Notes: Microgeneration certification qualifies the approved product for the Boiler Upgrade Scheme (BUS).

# **QUHZ-W40VA**

# Monobloc Air Source Heat Pump With Thermal Store







CERTIFIED Certificate Number: MCS HP0002/40 Product Type: Heat Pumps Product Reference: QUHZ-W40VA The Ecodan QUHZ system combines a 4kW outdoor unit with a 200 litre Thermal Store and is the ideal plug and play heating and hot water solution for properties with a low space heating requirement.

With very low market leading noise levels for its class and highly efficient hot water generation due to its unique  $CO_2$  (R744) system design, this compact space saving product is capable of providing instantaneous hot water and removes the risk of legionella.

## **Key Features**

- Self contained system, only requires water connections and can be powered via the Thermal Store
- No need for gas supply, flues or ventilation
- Low maintenance and very quiet operation
- Operates with outside temperatures as low as -15°C
- Optimised low ambient defrost control and operation
- Capable of being used in domestic hot water generation mode only
- Energy monitoring as standard

OUTDOOR UNIT		QUHZ-W40VA	THERMAL STORE		EHPT20Q-VM2EA
HEAT PUMP COMBINATION	ErP Rating	A+	NOMINAL THERMAL STORE WATE	R VOLUME (LITRES)	200
HEATER - 55°C	η	117%	WATER TEMPERATURE RANGE	DHW Mode (°C)	40-70
	SCOP	2.90		Space Heating Mode (°C)	25-60
HEAT PUMP COMBINATION	ErP Rating	A	MECHANICAL ZONES		
HEATER - Large Profile <sup>*1</sup>	η <sub>wh</sub>	129%	OPERATING AMBIENT TEMPERAT		(2 Zone capability with 3rd party 2-port valves) 0 ~ +35°C (RH<80%)
	COP	3.00		- ( )	0 ~ +35°C (RH<80%) 30
HEATING*2	Capacity (kW)	4.32	SOUND PRESSURE LEVEL AT 1M	(dBA)	40
(A-3/W55)	Power Input (kW)	2.18	SOUND POWER LEVEL (dBA)*4	<b>D</b> :	40 Grundfos Solar PML 25-145 180
( ··· ··)	COP	1.98	WATER DATA	Primary Pump	
OPERATING AMBIENT TEMPERAT		-15 ~ +35		Sanitary Hot Water Pump	Grundfos Solar PML 25-145 180
	. ,			Connection Size (mm) Heating / DHW	22 / 22
SOUND PRESSURE LEVEL AT 1M (dBA)*3		43		Primary Expansion Vessel (Litres)	25
SOUND POWER LEVEL (dBA)*4		53		Charge Pressure (MPa (Bar))	0.1 (1)
WATER DATA	Pipework Size (mm)	15	WATER SAFETY DEVICES	Pressure Relief Valve (MPa (Bar))	0.3 (3) - 2 No. devices
	Flow Rate (I/min)	3 to 8		Flow Sensor (supplied)	Min. flow 1.3 L/min
DISTANCE BETWEEN OUTDOOR	Height Difference	5		Manual Reset Thermostat (°C)	90
UNIT AND THERMAL STORE	Theight Difference	J	DIMENSIONS (mm)	Width	595
(m)	Piping Length	15		Depth	680
DIMENSIONS (mm)	Width	809+70*5		Height	1600
DIMENSIONS (mm)		300+20 <sup>*5</sup>	WEIGHT EMPTY / FULL (kg)		77 / 283
	Depth		ELECTRICAL DATA	Electrical Supply	220-240v, 50Hz
Height		715		Phase	Single
WEIGHT (kg)		57		Maximum Running Current (A)	12.8
ELECTRICAL DATA		Powered from indoor unit		Fuse Rating - MCB Sizes (A)*6	20
REFRIGERANT CHARGE (kg) / CO <sub>2</sub> EQUIVALENT (t)	R744 (GWP 1)	1.15 / 0.0015	OPTIONAL SIMPLIFIED WIRELESS ROOM THERMOSTAT AND WIRELESS RECEIVER		PAR-WT50-E Controller and PAR-WR51-E Receiver

\*1 Combination with EHPT20Q-VM2EA Thermal Store.

\*2 Under normal heating conditions at outdoor temp: -3\*CDB / -4\*CWB, outlet water temp 55\*C, inlet water temp 47\*C.
\*3 Under normal heating conditions at outdoor temp: 7\*CDB / 6\*CWB, outlet water temp 55\*C, inlet water temp 47\*C as tested to BS EN14511.

\*4 Sound power level tested to BS EN12102.

\*5 Grille or pipe cover.

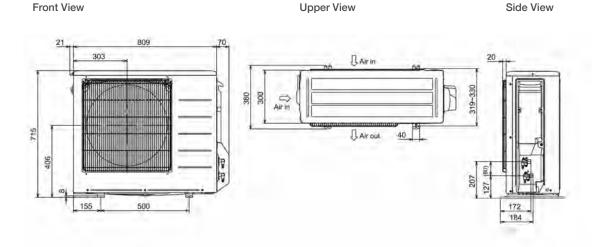
\*6 MCB Sizes BS EN60898-2 & BS EN60947-2.

 $\eta_{\rm s} {\rm is}$  the seasonal space heating energy efficiency (SSHEE)

 $\eta_{wh}$  is the water heating energy efficiency

#### Product Dimensions QUHZ-W40VA

Front View



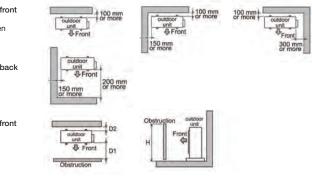
When there is no obstruction at the front (Discharge side) (Top view) The area above the unfit must be open (clearance of at least 1m or more).

Side View

When there is no obstruction at the back (Suction side) (Top view) The upward direction must be open (clearance of at least 1m or more).

When there is an obstruction at the front (Discharge side)

ens.



The required clearance (D1 and D2) varies depending on the obstruction height (H). If wind guides are mounted, see the table below. Note that the operating noise levels may increase for certain installation conditions.

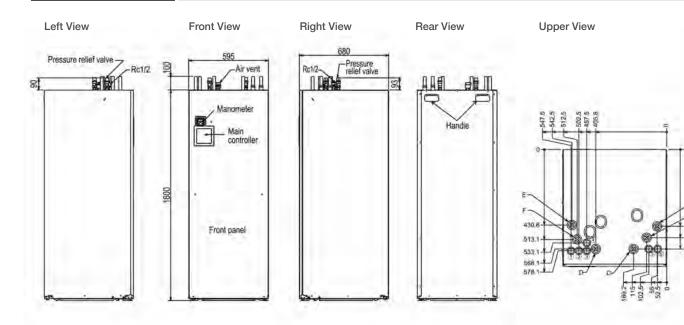
Obstruction	Required clearance (D1/D2)					
height (H)	Without wind guides	With wind guides				
1200mm or less	200mm or more / 100mm or more	185mm or more / 30mm or more				
More than 1200mm	300mm or more / 100mm or more	350mm or more / 30mm or more				

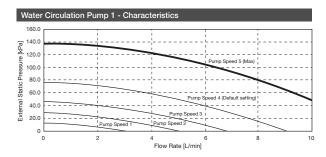
\*If discharge air is blown against a wall, the wall can become dirty. \*If the area is poorly ventilated and the discharge air becomes sucked in again, heating performance can be reduced by about 10%. Mounting of wind guides (product sold separately) can improve heating performance in certain cases.

All measurement in mm



EHPT20Q-VM2EA





The performance showing in the graph includes pressure drop of both cylinder unit and outdoor unit. Before installation, please check if the maximum performance of water circulation pump 1 can accommodate the per user drop of external heating circuit.

Letter	Pipe Description	Connection size/type
А	DHW outlet connection	22 mm/Compression
В	Cold water inlet connection	22 mm/Compression
С	Space heating return connection	22 mm/Compression
D	Space heating flow connection	22 mm/Compression
E	Flow from heat pump connection	22 mm/Compression
F	Return to heat pump connection	22 mm/Compression

# PUZ-WM50VHA

Monobloc Standalone Air Source Heat Pump





Certificate Number: 037-0032-20 Product Type: Heat Pumps Product Reference: PUZ-WM50VHA(-BS)

## Our range of Ecodan monobloc air source heat pumps includes a 5kW size.

With enhanced performance and efficiencies of the new chassis, combined with the ability to cascade up to six units of the same output, this Ecodan monobloc system can provide a capacity range from 5 through to 30kW. Designed to suit a wide number of applications, this model offers a viable solution for all types of domestic requirements that the UK housing market demands.

## **Key Features**

- Self-contained unit, only requiring water and electric connections
- No need for gas supply, flues or ventilation
- Low maintenance and quiet operation
- Operates with outside temperatures as low as -20°C
- Optimised low ambient defrost control and operation down to -7°C
- Hybrid function, for use with conventional boilers
- Energy monitoring as standard
- Multiple unit cascade function



OUTDOOR UNIT		PUZ-WM50VHA(-BS)		
HEAT PUMP SPACE	ErP Rating	A++		
HEATER - 55°C	η.	129%		
	SCOP	3.33		
HEAT PUMP SPACE	ErP Rating	A+++		
HEATER - 35°C	η.	183%		
	SCOP	4.58		
HEAT PUMP COMBINATION	ErP Rating	A+		
HEATER - Large Profile*1	η <sub>wh</sub>	135%		
HEATING <sup>*2</sup>	Capacity (kW)	5.0		
(A-7/W35)	Power Input (kW)	1.67		
	COP	3.00		
OPERATING AMBIENT TEM	PERATURE (°C DB)	-20 ~ +35		
SOUND DATA <sup>*3</sup>	Pressure Level at 1m (dBA)	47		
	Power Level (dBA) <sup>*4</sup>	61		
WATER DATA	Pipework Size (mm)	22		
	Flow Rate (I/min)	14		
	Water Pressure Drop (kPa)	12.0		
DIMENSIONS (mm)	Width	950		
	Depth	330+30 <sup>-7</sup>		
	Height	923		
WEIGHT (kg)		71		
ELECTRICAL DATA	Electrical Supply	220-240v, 50Hz		
	Phase	Single		
	Nominal Running Current [MAX] (A) <sup>-5</sup>	4.64 [13]		
	Fuse Rating - MCB Sizes (A) <sup>*6</sup>	16		
REFRIGERANT CHARGE (kg) / CO <sub>2</sub> EQUIVALENT (t)	R32 (GWP 675)	2.0 / 1.35		

\*1 Combination with E\*PT20X Cylinder

<sup>2</sup> Under normal heating conditions at outdoor temp: -7°CDB / -8°CWB, outlet water temp 35°C, inlet water temp 30°C.
\*3 Under normal heating conditions at outdoor temp: 7°CDB / 6°CWB, outlet water temp 55°C, inlet water temp 47°C as tested to BS EN14511.

\*3 Under normal heating conditions at outdoor temp: 7°CDB / 6°CWB, outlet water temp 55°C, inlet water temp 47°C as tested to BS EN14511. \*4 Sound power level tested to BS EN12102.

\*5 Under nominal heating conditions at outdoor temp: 7°C, outlet water temp: 35°C.

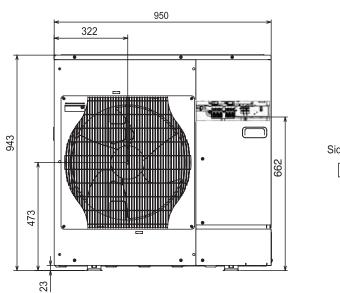
\*6 MCB Sizes BS EN60898-2 & BS EN60947-2.

\*7 Grille.

 $\eta_*$  is the seasonal space heating energy efficiency (SSHEE)  $\eta_*$  is the water heating energy efficiency

## Product Dimensions PUZ-WM50VHA(-BS)

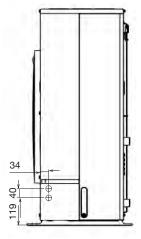
Front View



Upper View

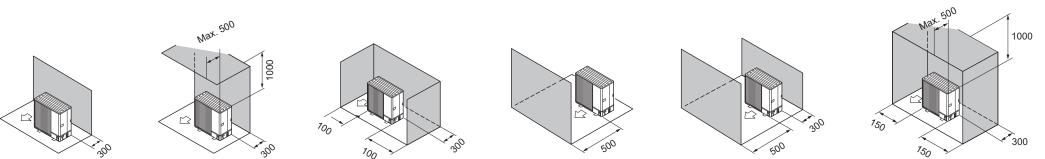
Side View

Rear Air Intake 175 600 175 6 Installation Feet Side Air Intake 330 370 417 T<del>Ø I</del> U 8 53 28 Air Discharge



Installation Location PUZ-WM50VHA(-BS)

All measurement in mm



Please refer to Databook and Installation Manual for further details.

# PUZ-WM60-112(V/Y)AA

Monobloc Standalone Ultra Quiet Air Source Heat Pumps





Certificate Number: 037-0033-20 / 037-0034-20 Product Type: Heat Pumps Product Reference: PUZ-WM60/85VAA(-BS) / PUZ-WM112VAA(-BS)

# The multiple award winning range of Ultra Quiet AA chassis Ecodan monobloc air source heat pumps are designed specifically to suit the demands of the UK market and includes 6.0, 8.5 and 11.2kW sizes.

The innovative, stylish and compact single fan outdoor unit utilises advanced technologies to deliver improved efficiencies. Designed for a wide range of applications, the market leading low noise levels virtually eliminate the need for planning permission, maximises installation options and is a viable solution for all types of domestic requirements that the UK housing market demands.

## **Key Features**

- Self-contained unit, only requiring water and electric connections
- No need for gas supply, flues or ventilation
- Low maintenance and ultra quiet operation
- Operates with outside temperatures as low as -25°C
- Optimised low ambient defrost control and operation down to -7°C
- Hybrid function, for use with conventional boilers
- Energy monitoring as standard
- Multiple unit cascade function



OUTDOOR UNIT		PUZ-WM60VAA(-BS)	PUZ-WM85VAA(-BS)	PUZ-WM85YAA(-BS)	PUZ-WM112VAA(-BS)	PUZ-WM112YAA(-BS)
HEAT PUMP SPACE	ErP Rating	A++	A++	A++	A++	A++
HEATER - 55°C	η	142%	139%	139%	134%	134%
	SCOP	3.30	3.50	3.47	3.45	3.434
HEAT PUMP SPACE	ErP Rating	A+++	A+++	A+++	A+++	A+++
HEATER - 35°C	η。	190%	193%	193%	191%	191%
	SCOP	4.62	4.57	4.79	4.58	4.78
HEAT PUMP COMBINATION	ErP Rating	A+	A+	A+	A+	A+
HEATER - Large Profile*1	η <sub>wh</sub>	145%	145%	145%	148%	148%
HEATING*2	Capacity (kW)	6.0	8.5	8.5	11.2	11.2
(A-7/W35)	Power Input (kW)	1.88	3.27	3.27	3.73	3.73
	COP	3.20	2.60	2.60	3.00	3.00
OPERATING AMBIENT TEM	PERATURE (°C DB)	-20 ~ +35	-20 ~ +35	-25 ~ +35	-25 ~ +35	-25 ~ +35
SOUND DATA*3	Pressure Level at 1m (dBA)	45	45	45	45	45
	Power Level (dBA) <sup>*4</sup>	58	58	58	60	60
WATER DATA	Pipework Size (mm)	22	28	28	28	28
	Flow Rate (I/min)	17	24	24	32	32
	Water Pressure Drop (kPa)	8.0	15.0	15.0	24.0	24.0
DIMENSIONS (mm)	Width	1050	1050	1050	1050	1050
	Depth	480	480	480	480	480
	Height	1020	1020	1020	1020	1020
WEIGHT (kg)		98	98	111	119	119
ELECTRICAL DATA	Electrical Supply	220-240v, 50Hz	220-240v, 50Hz	400v, 50Hz	220-240v, 50Hz	400v, 50Hz
	Phase	Single	Single	Three	Single	Three
	Nominal Running Current [MAX] (A)*5	5.68 [13]	9.1 [22]	2.9 [11.5]	10.9 [28]	3.6 [13]
	Fuse Rating - MCB Sizes (A)*6	16	25	16	32	16
REFRIGERANT CHARGE (kg) / CO <sub>2</sub> EQUIVALENT (t)	R32 (GWP 675)	2.2 / 1.49	2.2 / 1.49	2.2 / 1.49	3.0 / 2.03	3.0 / 2.03

\*1 Combination with E\*PT20X Cylinder

\*2 Under normal heating conditions at outdoor temp: -7°CDB / -8°CWB, outlet water temp 35°C, inlet water temp 30°C.

\*3 Under normal heating conditions at outdoor temp: 7°CDB / 6°CWB, outlet water temp 55°C, inlet water temp 47°C as tested to BS EN14511.

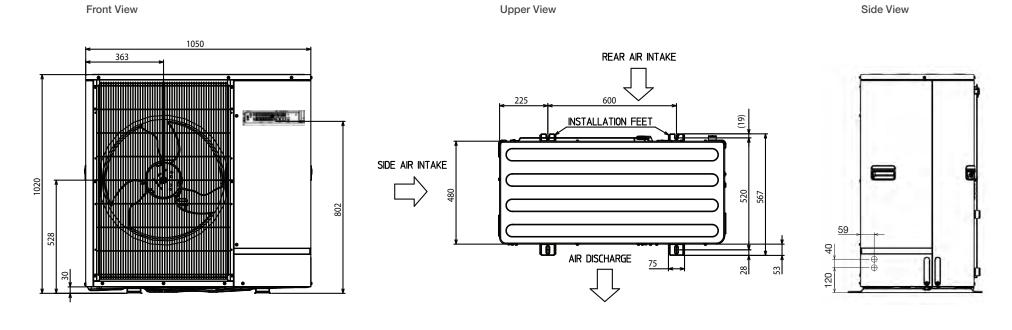
\*4 Sound power level tested to BS EN12102.

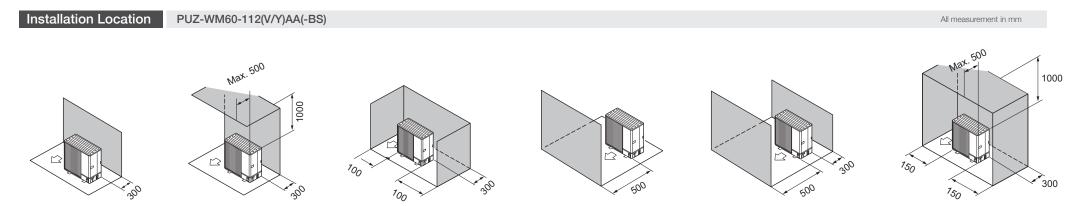
\*5 Under nominal heating conditions at outdoor temp: 7°C, outlet water temp: 35°C.

\*6 MCB Sizes BS EN60898-2 & BS EN60947-2.

 $\eta_{\rm a}$  is the seasonal space heating energy efficiency (SSHEE)  $\eta_{\rm at}$  is the water heating energy efficiency

## Product Dimensions PUZ-WM60-112(V/Y)AA(-BS)





Please refer to Databook and Installation Manual for further details.

# PUZ-HWM140(V/Y)HA

# Monobloc Standalone Air **Source Heat Pumps**





Certificate Number: 037-0035-20 Product Type: Heat Pumps Product Reference: PUZ-HWM140VHA/YHA(-BS)

## Our range of Zubadan chassis Ecodan monobloc air source heat pumps are suitable for properties with large space heating requirements and are available in single or three phase 14kW sizes.

With its advanced flash injection technology, this product provides a solution to low ambient capacity issues common to standard systems and is a viable solution for all types of domestic requirements that the UK housing market demands.

## **Key Features**

- Self-contained unit, only requiring water and electric connections
- No need for gas supply, flues or ventilation
- Low maintenance and guiet operation
- Operates with outside temperatures as low as -28°C
- Optimised low ambient defrost control and operation down to -15°C
- Hybrid function, for use with conventional boilers
- Energy monitoring as standard
- Multiple unit cascade function



OUTDOOR UNIT		PUZ-HWM140VHA(-BS)	PUZ-HWM140YHA(-BS)
HEAT PUMP SPACE	ErP Rating	A++	A++
HEATER - 55°C	η,	3.35	131
	SCOP	3.34	3.35
HEAT PUMP SPACE	ErP Rating	A+++	A+++
HEATER - 35°C	η,	176	176
	SCOP	4.48	4.45
HEAT PUMP COMBINATION	ErP Rating	A+	A+
HEATER - Large Profile*1	η <sub>wh</sub>	130	130
HEATING <sup>*2</sup>	Capacity (kW)	14.0	14.0
(A-7/W35)	Power Input (kW)	5.72	5.72
(	COP	2.45	2.45
OPERATING AMBIENT TEM	PERATURE (°C DB)	-28 ~ +35	-28 ~ +35
SOUND DATA*3	Pressure Level at 1m (dBA)	53	53
	Power Level (dBA) <sup>*4</sup>	67	67
WATER DATA	Pipework Size (mm)	28	28
	Flow Rate (I/min)	40	40
	Water Pressure Drop (kPa)	20	20
DIMENSIONS (mm)	Width	1020	1020
	Depth	330+30 <sup>*7</sup>	330+30 <sup>+7</sup>
	Height	1350	1350
WEIGHT (kg)	1	132	143
ELECTRICAL DATA	Electrical Supply	220-240v, 50Hz	380-415v, 50Hz
	Phase	Single	3
	Nominal Running Current [MAX] (A) <sup>-5</sup>	xx [35]	xx [13]
	Fuse Rating - MCB Sizes (A) <sup>*6</sup>	40	16
REFRIGERANT CHARGE (kg) / CO <sub>2</sub> EQUIVALENT (t)	R32 (GWP 675)	3.3 / 2.23	3.3 / 2.23

For information marked with a "-" please consult the databook or speak to your local sales office.

\*1 Combination with E\*PT20X Cylinder \*2 Under normal heating conditions at outdoor temp: -7°CDB / -8°CWB, outlet water temp 35°C, inlet water temp 35°C, is under normal heating conditions at outdoor temp: 7°CDB / 6°CWB, outlet water temp 55°C, inlet water temp 47°C as tested to BS EN14511.

\*4 Sound power level tested to BS EN12102. \*5 Under nominal heating conditions at outdoor temp: 7°C, outlet water temp: 35°C.

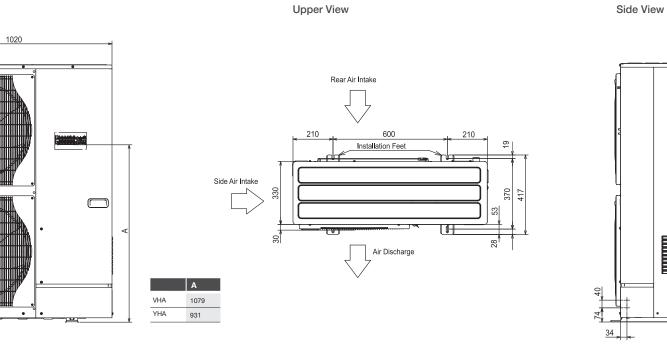
\*6 MCB Sizes BS EN60898-2 & BS EN60947-2. \*7 Grille.

 $\eta_{s}$  is the seasonal space heating energy efficiency (SSHEE)  $~~\eta_{sh}$  is the water heating energy efficiency

#### Product Dimensions PUZ-HWM140(V/Y)HA(-BS)

Front View

322



Installation Location

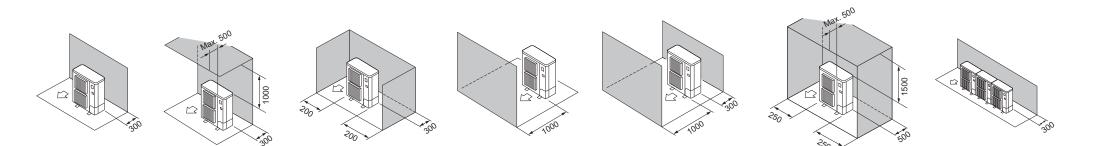
1350 635

371

53

PUZ-HWM140(V/Y)HA(-BS)

All measurement in mm



Please refer to Databook and Installation Manual for further details.

250

All measurement in mm

# **EHPT20X-MHEDW**

Packaged Cylinder for Ecodan Monobloc Units

## The Packaged Cylinder provides a highly adaptable heating solution for all property types.

Designed to optimise performance within a compact white goods footprint, the plug and play packaged cylinder fully integrates with the Ecodan monobloc air source heat pump range. Advanced plate heat exchanger technology delivers superior heat up times and our rapid SD card commissioning, MELCloud Wi-Fi connectivity and energy monitoring functions are also included as standard.

## **Key Features**

- Optional 2-zone energy efficient space heating control
- Ready-Plumbed and wired for faster installation
- Hybrid function, for use with conventional boilers
- Energy monitoring as standard
- MELCloud Wi-Fi connectivity

# **FTC6 Controller**

Mitsubishi Electric's sixth generation controller (FTC6) includes intelligent room temperature control as standard. This together with advanced weather compensation ensures the system delivers efficient, comfortable heating regardless of the season. FTC6 now also includes energy monitoring showing consumed and produced energy.



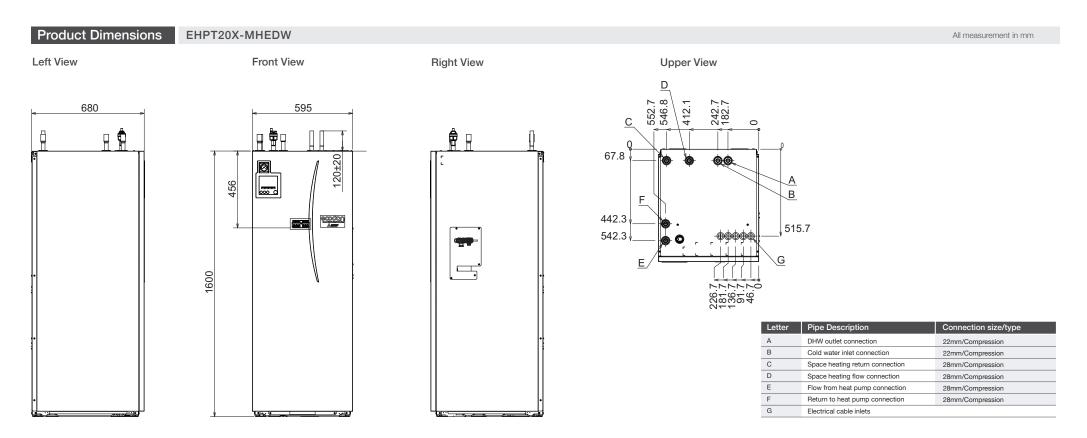


CYLINDER			EHPT20X-MHEDW
NOMINAL HOT WATER VOLUME (LITRES)			200
HEAT PUMP COMBINATION HEATER - Large Profile (Average	Climate)	ErP Rating	A+
OPERATING AMBIENT TEMPERATURE (°C DB)	0 ~ +35°C (RH<80%)		
SOUND PRESSURE LEVEL AT 1M (dBA)	28		
WATER DATA		Flow Rate (I/min) - (H)WM 50 / 60 / 85 / 112 / 140	14 / 17 / 24 / 32 / 37
		Primary Circuit Pump	Grundfos UPM3 15-75 130
		Sanitary Hot Water Pump	Grundfos UPSO 15-60 130
		Connection Size (mm) Heating / DHW	28 / 22
WATER SAFETY DEVICES	Heating Water	Control Thermistor (°C)	1 - 80
	Circuit	Flow Sensor (minimum flow 5L/min)	Supplied
	DHW Cylinder	Control Thermistor (°C)	75
		Temp and Pressure Relief Valve (°C)/ (MPa (Bar))	90 / 0.7 (7)
DIMENSIONS (mm)		Width	595
		Depth	680
		Height	1600
WEIGHT EMPTY / FULL (kg)			94 / 300
ELECTRICAL DATA	Control Board -	Electrical Supply	220-240v, 50Hz
	optionally powered	Phase	Single
	by outdoor unit	Fuse Rating - MCB Sizes (A) <sup>1</sup>	10
	Immersion Heater	Electrical Supply	220-240v, 50Hz
		Phase	Single
		Capacity (kW)	3
		Max Running Current (A)	13
		Fuse Rating - MCB Sizes (A)"	16
MECHANICAL ZONES	· · · · · · · · · · · · · · · · · · ·		DHW and 1 Heating Zone <sup>-2</sup>
OPTIONAL SIMPLIFIED WIRELESS ROOM THERMOSTAT AND WI	RELESS RECEIVER		PAR-WT50-E Controller and PAR-WR51-E Receiver

\*1 MCB Sizes BS EN60898-2 & BS EN60947-2 \*2 Optional 2 zone accessory pack available

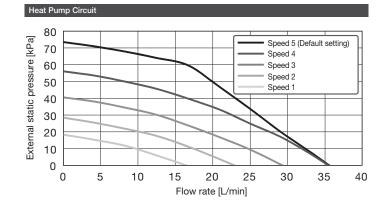
Notes: Oylinder includes: Flow Temperature Controller (FTC6) with Main Controller and Temperature Sensors, Pumps & Valves for Zone 1 and DHW use, Flow Sensor, Plate Heat Exchanger, Scale Trap, 3kW Immersion Heater.





### **Circulation Pumps**

EHPT20X-MHEDW



#### Domestic Hot Water Sanitary Circuit

Default setting: Speed 2 DHW circulation pump **MUST** be set to speed 2.

# EHPT15-17X-UKHLDW

# Pre-Plumbed Slimline Cylinders for Ecodan Monobloc Units



## The Pre-Plumbed Slimline Cylinder comes complete with integrated hydraulic components & advanced controls.

Designed to optimise performance and flexibility within a minimal footprint, the slimline cylinder fully integrates with the Ecodan monobloc air source heat pump range. Advanced plate heat exchanger technology delivers superior heat up times and our rapid SD card commissioning, MELCloud Wi-Fi connectivity and energy monitoring functions are also included as standard.

## **Key Features**

- Optional 2-zone energy efficient space heating control
- Pre-Plumbed and wired for faster installation
- Hybrid function, for use with conventional boilers
- Energy monitoring as standard
- MELCloud Wi-Fi connectivity

# **FTC6 Controller**

Mitsubishi Electric's sixth generation controller (FTC6) includes intelligent room temperature control as standard. This together with advanced weather compensation ensures the system delivers efficient, comfortable heating regardless of the season. FTC6 now also includes energy monitoring showing consumed and produced energy.





CYLINDER			EHPT15X-UKHLDW	EHPT17X-UKHLDW	
NOMINAL HOT WATE	ER VOLUME (LITRE	S)	150	170	
ErP RATING			С	С	
HEAT LOSS (kWh/24hrs)			1.40	1.59	
HEAT LOSS (W)			58 66		
WATER Flow Rate (I/min) - WM 50 / 60 / 85		Flow Rate (l/min) - WM 50 / 60 / 85	14 / 17 / 24	14 / 17 / 24	
Primary Circuit Pump			Grundfos UPI	MGEO 25-85	
		Heating Circuit Pump	Grundfos U	PM3 25-70	
		Sanitary Hot Water Pump	Grundfos UPS	O 15-60 CIL2	
		Connection Size (mm) Heating / DHW	22 / 22	22 / 22	
		Charge Pressure (MPa (Bar))	0.35 (3.5)	0.35 (3.5)	
WATER SAFETY	Water Circuit	Control Thermistor (°C)	1 - 80	1 - 80	
	DHW Cylinder	DHW Expansion Vessel (Litres)	12	18	
		Control Thermistor	75	75	
		Over Temperature Cut-Out (°C)	80 ± 5	80 ± 5	
		Temp and Pressure Relief Valve (°C) / (MPa (Bar))	90 / 1.0 (10)	90 / 1.0 (10)	
		Expansion Relief Valve (Cold) (MPa (Bar))	0.8 (8)	0.8 (8)	
DIMENSIONS (mm) Width		Width	648	648	
		Depth	645	645	
		Height	1515	1689	
WEIGHT EMPTY / FU			54 / 204	60 / 230	
CYLINDER MATERIAL	Cylinder	Cylinder Material	Stainless Steel	Stainless Steel	
	Insulation	Insulation Type	CFC / HCFC-free flame-retard	dant expanded Polyurethane	
		Insulation Thickness (mm)	50	50	
		GWP of Insulation	3.1	3.1	
		ODP of Insulation	0	0	
ELECTRICAL DATA	Control Board	Electrical Supply	220-240v, 50Hz	220-240v, 50Hz	
	optionally powered by	Phase	Single	Single	
	outdoor unit	Fuse Rating - MCB Sizes (A) <sup>1</sup>	16	16	
	Immersion	Electrical Supply	220-240v, 50Hz	220-240v, 50Hz	
	Heater	Phase	Single	Single	
		Capacity (kW)	3	3	
		Max Running Current (A)	13	13	
		Fuse Rating - MCB Sizes (A) <sup>1</sup>	16	16	
MECHANICAL ZONE	s		DHW and 1 He	eating Zone <sup>12</sup>	
OPTIONAL SIMPLIFIE	ED WIRELESS ROO	DM THERMOSTAT AND WIRELESS RECEIVER	PAR-WT50-E Controller an	d PAR-WR51-E Receiver	

For information marked with a "-" please consult the databook or speak to your local sales office.

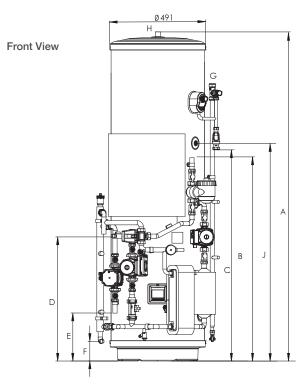
\*1 MCB Sizes BS EN60898-2 & BS EN60947-2 \*2 Optional 2 zone accessory pack available

Notes: Cylinder includes: Flow Temperature Controller (FTC6) with Main Controller and Temperature Sensors, Magnetic & Cyclonic Filter, Pumps & Valves for Zone 1 and DHW use, Flow Sensor, Plate Heat Exchanger, Scale Trap, 3kW Immersion Heater and Expansion Vessel.

## Product Dimensions EH

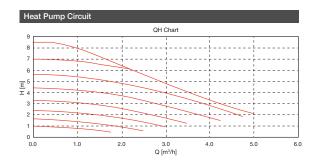
Upper View

646



### **Circulation Pumps**

EHPT15-17X-UKHLDW





0

649

Letter	Pipe Description	Connection size/type	
А	Overall height		
В	Heat pump flow	22mm O/D Copper	
С	Tundish outlet	22mm/Compression	
D	Heat pump return	22mm O/D Copper	
E	Heating circuit flow	22mm O/D Copper	
F	Heating circuit return	22mm O/D Copper	
G	Cold water inlet	22mm/Compression	
н	Hot water outlet	22mm/Compression / 3/4" BSP M	
J	THW5A sensor pocket		
К	Wi-Fi adaptor (included. installer to locate and mount)		

Capacity	150	170	
A	1515	1689	
В	1047	1043	
С	909	1083	
D	640	640	
E	246	246	
F	101	101	
J	943	1117	
К	Installer to locate and mount		

#### Domestic Hot Water Sanitary Circuit

Default setting: Speed 2 DHW circulation pump **MUST** be set to speed 2.

# EHPT15-30X-UKHDW

Pre-Plumbed Standard Cylinders for Ecodan Monobloc Units



## The Pre-Plumbed Standard Cylinder comes complete with integrated hydraulic components & advanced controls.

Designed to optimise performance and flexibility within an average footprint, the standard cylinder fully integrates with the Ecodan monobloc air source heat pump range. Advanced plate heat exchanger technology delivers superior heat up times and our rapid SD card commissioning, MELCloud Wi-Fi connectivity and energy monitoring functions are also included as standard.

## **Key Features**

- Optional 2-zone energy efficient space heating control
- Pre-Plumbed and wired for faster installation
- Hybrid function, for use with conventional boilers
- Energy monitoring as standard
- MELCloud Wi-Fi connectivity

# **FTC6 Controller**

Mitsubishi Electric's sixth generation controller (FTC6) includes intelligent room temperature control as standard. This together with advanced weather compensation ensures the system delivers efficient, comfortable heating regardless of the season. FTC6 now also includes energy monitoring showing consumed and produced energy.





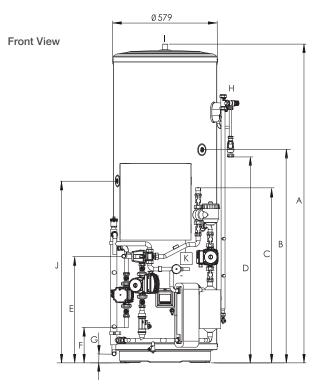
CYLINDER			EHPT15X-UKHDW	EHPT17X-UKHDW	EHPT21X-UKHDW	EHPT25X-UKHDW	EHPT30X-UKHDV
NOMINAL HOT WATER VOLUME (LITRES)		150	170	210	250	300	
ErP RATING		В	В	С	С	С	
HEAT LOSS (kWh/24	hrs)		1.15	1.23	1.53	1.80	2.09
HEAT LOSS (W)			48	51	64	75	87
WATER		Flow Rate (I/min) - (H)WM 50 / 60 / 85 / 112 / 140	14/17/24/N/A/N/A	14/17/24/N/A/N/A	14/17/24/32/40	N/A/N/A/24/32/40	N/A/N/A/24/32/40
		Primary Circuit Pump	Grundfos UPMGEO 25-85	Grundfos UPMGEO 25-85	Grundfos UPMGEO 25-85	Grundfos UPMXL GEO 25-125	Grundfos UPMXL GEO 25-
		Heating Circuit Pump			Grundfos UPM3 25-70		
		Sanitary Hot Water Pump			Grundfos UPSO 15-60 CIL	2	
		Connection Size (mm) Heating / DHW	22 / 22	22 / 22	22 / 22	22 / 22	22 / 22
		Charge Pressure (MPa (Bar))	0.35 (3.5)	0.35 (3.5)	0.35 (3.5)	0.35 (3.5)	0.35 (3.5)
WATER SAFETY	Water Circuit	Control Thermistor (°C)	1 - 80	1 - 80	1 - 80	1 - 80	1 - 80
DEVICES	DHW Cylinder	DHW Expansion Vessel (Litres)	12	18	18	24	24
		Control Thermistor	75	75	75	75	75
		Over Temperature Cut-Out (°C)	80 ± 5	80 ± 5	80 ± 5	80 ± 5	80 ± 5
		Temp and Pressure Relief Valve (°C) / (MPa (Bar))	90 / 1.0 (10)	90 / 1.0 (10)	90 / 1.0 (10)	90 / 1.0 (10)	90 / 1.0 (10)
		Expansion Relief Valve (Cold) (MPa (Bar))	0.8 (8)	0.8 (8)	0.8 (8)	0.8 (8)	0.8 (8)
DIMENSIONS (mm) Width		683	683	683	683	683	
		Depth	730	730	730	730	730
		Height	1130	1256	1508	1760	2074
WEIGHT EMPTY / FL	ILL (kg)		56 / 206	62 / 232	69 / 279	77 / 327	87 / 387
CYLINDER MATERIAL	Cylinder	Cylinder Material	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel
	Insulation	Insulation Type		CFC / HCF	C-free flame-retardant expan	ded Polyurethane	
		Insulation Thickness (mm)	60	60	60	60	60
		GWP of Insulation	3.1	3.1	3.1	3.1	3.1
		ODP of Insulation	0	0	0	0	0
ELECTRICAL DATA	Control Board	Electrical Supply	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz
	optionally powered by	Phase	Single	Single	Single	Single	Single
	outdoor unit	Fuse Rating - MCB Sizes (A)"	16	16	16	16	16
	Immersion	Electrical Supply	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz
	Heater	Phase	Single	Single	Single	Single	Single
		Capacity (kW)	3	3	3	3	3
		Max Running Current (A)	13	13	13	13	13
		Fuse Rating - MCB Sizes (A)"	16	16	16	16	16
MECHANICAL ZONE	S				DHW and 1 Heating Zone <sup>2</sup>	2	
OPTIONAL SIMPLIFI	ED WIRELESS ROO	OM THERMOSTAT AND WIRELESS RECEIVER		PAR-WT5	0-E Controller and PAR-WR5	1-E Receiver	

For information marked with a "-" please consult the databook or speak to your local sales office.

\*1 MCB Sizes BS EN60898-2 & BS EN60947-2 \*2 Optional 2 zone accessory pack available

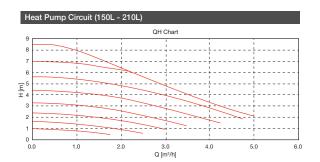
Notes: Cylinder includes: Flow Temperature Controller with Main Controller and Temperature Sensors, Magnetic & Cyclonic Filter, Pumps & Valves for Zone 1 and DHW use, Flow Sensor, Plate Heat Exchanger, Scale Trap, 3kW Immersion Heater and Expansion Vessel. R410a model codes: EHPT\*-UKHCW & R32 model code:: EHPT\*-UKHCW.

## Product Dimensions EHPT15-30X-UKHDW



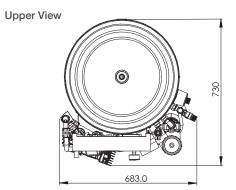
### **Circulation Pumps**

EHPT15-30X-UKHDW



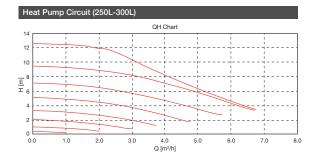
#### Domestic Hot Water Sanitary Circuit

Default setting: Speed 2 DHW circulation pump **MUST** be set to speed 2.

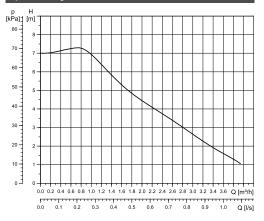


Letter	Pipe Description	Connection size/type	
A	Overall height		
В	Secondary return tapping		
С	Heat pump flow	22mm O/D Copper	
D	Tundish outlet	22mm/Compression	
E	Heat pump return	22mm O/D Copper	
F	Heating circuit flow	22mm O/D Copper	
G	Heating circuit return	22mm O/D Copper	
н	Cold water inlet	22mm/Compression	
1	Hot water outlet	22mm/Compression / 3/4" BSP M	
J	THW5A sensor pocket		
К	Wi-Fi adaptor (included. installer to locate and mount)		

Capacity	150	170	210	250	300
А	1130	1256	1505	1762	2074
В	-	-	1050	1175	1385
С	909	990	990	990	990
D	505	630	880	1136	1450
E	585	585	585	585	585
F	195	195	195	195	195
G	50	50	50	50	50
J	675	815	1005	1005	1193
К	Installer to locate and mount				



#### Space Heating Zone 1 Circuit



# EHPT21-30X-UKHSDW

Pre-Plumbed Solar Cylinders for Ecodan Monobloc Units



## The Pre-Plumbed Solar Cylinder comes complete with integrated hydraulic components & advanced controls.

Designed to optimise performance and flexibility within an average footprint, the solar cylinder includes an independent coil and fully integrates with the Ecodan monobloc air source heat pump range. Advanced plate heat exchanger technology delivers superior heat up times and our rapid SD card commissioning, MELCloud Wi-Fi connectivity & energy monitoring functions are included as standard.

## **Key Features**

- Includes independent coil for connection to solar thermal systems
- Optional 2-zone energy efficient space heating control
- Pre-Plumbed and wired for faster installation
- Hybrid function, for use with conventional boilers
- Energy monitoring as standard
- MELCloud Wi-Fi connectivity

## **FTC6 Controller**

Mitsubishi Electric's sixth generation controller (FTC6) includes intelligent room temperature control as standard. This together with advanced weather compensation ensures the system delivers efficient, comfortable heating regardless of the season. FTC6 now also includes energy monitoring showing consumed and produced energy.





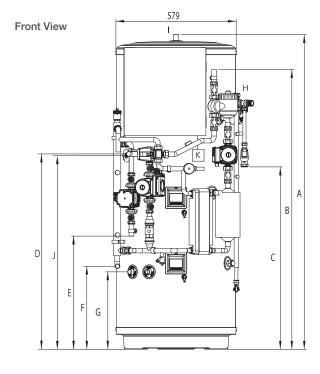
CYLINDER			EHPT21X-UKHSDW	EHPT25X-UKHSDW	EHPT30X-UKHSDW
NOMINAL HOT WATE	ER VOLUME (LITRE	ES)	210	250	300
ErP RATING			С	С	С
HEAT LOSS (kWh/24)	hrs)		1.57	1.79	1.88
HEAT LOSS (W)			65	75	78
WATER		Flow Rate (I/min) - (H)WM 50 / 60 / 85 / 112 / 140	14 / 17 / 24 / 32 / 40	- / - / 24 / 32 / 40	- / - / 24 / 32 / 40
		Primary Circuit Pump	Grundfos UPMGEO 25-85	Grundfos UPMXL GEO 25-125	Grundfos UPMXL GEO 25-12
		Heating Circuit Pump		Grundfos UPM3 25-70	
		Sanitary Hot Water Pump		Grundfos UPSO 15-60 CIL2	
		Connection Size (mm) Heating / DHW	22 / 22	22 / 22	22 / 22
		Charge Pressure (MPa (Bar))	0.35 (3.5)	0.35 (3.5)	0.35 (3.5)
WATER SAFETY	Water Circuit	Control Thermistor (°C)	1 - 80	1 - 80	1 - 80
DEVICES	DHW Cylinder	DHW Expansion Vessel (Litres)	18	24	24
	-	Control Thermistor	75	75	75
		Over Temperature Cut-Out (°C)	80 ± 5	80 ± 5	80 ± 5
		Temp and Pressure Relief Valve (°C) / (MPa (Bar))	90 / 1.0 (10)	90 / 1.0 (10)	90 / 1.0 (10)
		Expansion Relief Valve (Cold) (MPa (Bar))	0.8 (8)	0.8 (8)	0.8 (8)
DIMENSIONS (mm)		Width	683	683	683
		Depth	730	730	730
		Height	1513	1765	2081
WEIGHT EMPTY / FL	ILL (kg)		74 / 284	82 / 332	92 / 392
CYLINDER MATERIAL	Cylinder	Cylinder Material	Stainless Steel	Stainless Steel	Stainless Steel
	Insulation	Insulation Type	CFC /	HCFC-free flame-retardant expanded Pe	olyurethane
		Insulation Thickness (mm)	60	60	60
		GWP of Insulation	3.1	3.1	3.1
		ODP of Insulation	0	0	0
ELECTRICAL DATA	Control Board	Electrical Supply	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz
	optionally powered by	Phase	Single	Single	Single
	outdoor unit	Fuse Rating - MCB Sizes (A)"	16	16	16
	Immersion	Electrical Supply	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz
	Heater	Phase	Single	Single	Single
		Capacity (kW)	3	3	3
		Max Running Current (A)	13	13	13
		Fuse Rating - MCB Sizes (A)"	16	16	16
MECHANICAL ZONE	S	·		DHW and 1 Heating Zone <sup>2</sup>	
OPTIONAL SIMPLIER	D WIRELESS BO	DM THERMOSTAT AND WIRELESS RECEIVER	PAR	WT50-E Controller and PAR-WR51-E Re	ceiver

For information marked with a "-" please consult the databook or speak to your local sales office.

\*1 MCB Sizes BS EN60898-2 & BS EN60947-2 \*2 Optional 2 zone accessory pack available

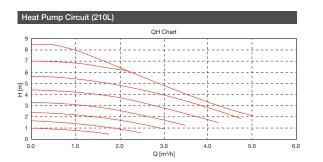
Notes: Cylinder includes: Flow Temperature Controller (FTC6) with Main Controller and Temperature Sensors, Magnetic & Cyclonic Filter, Pumps & Valves for Zone 1 and DHW use, Flow Sensor, Plate Heat Exchanger, Scale Trap, 3kW Immersion Heater and Expansion Vessel.

## Product Dimensions EHPT21-30X-UKHSDW



**Circulation Pumps** 

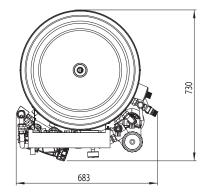
#### EHPT21-30X-UKHSDW



#### Domestic Hot Water Sanitary Circuit

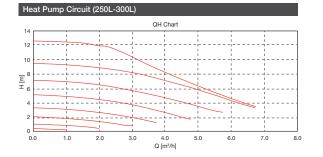
Default setting: Speed 2 DHW circulation pump **MUST** be set to speed 2.

#### Upper View



Solar		

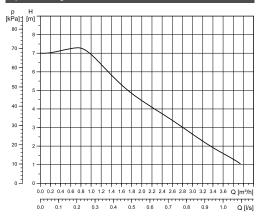
Surface area: 1.1m<sup>2</sup> Coil volume: 5.8 litres Pressure drop: 3.6 kPa (0.036 bar) Output rating: 30kW at 80°C flow temperature, 15 litres/minute flow rate Connections: 22mm compression / 3/4" BSP male Dedicated solar volume: 75 litres



Letter	Pipe Description	Connection size/type	
А	Overall height		
В	Heat pump flow	22mm O/D Copper	
С	Tundish outlet	22mm/Compression	
D	Heat pump return	22mm O/D Copper	
E	Heating circuit flow	22mm O/D Copper	
F	Heating circuit return	22mm O/D Copper	
G	Solar coil	22mm/Compression / 3/4" BSP M	
н	Cold water inlet	22mm/Compression	
1	Hot water outlet	22mm/Compression / 3/4" BSP M	
J	THW5A sensor pocket		
к	Wi-Fi adaptor (included. installer to locate and mount)		

Capacity	210	250	300
А	1513	1765	2081
В	1346	1346	1346
С	877	1129	1444
D	935	935	935
E	545	545	545
F	400	400	400
G	372	372	372
J	933	1008	1198
К	Installer to locate and mount		

#### Space Heating Zone 1 Circuit



# EHPT15-17X-UKHLDW1S

Pre-Plumbed Slimline Cylinder For Ecodan Monobloc Units



## The Pre-Plumbed Slimline Cylinder comes complete with integrated hydraulic components & advanced controls.

Designed to optimise performance and flexibility within a minimal footprint, the slimline cylinder fully integrates with the Ecodan monobloc air source heat pump range. Advanced plate heat exchanger technology delivers superior heat up times and our rapid SD card commissioning, MELCloud Wi-Fi connectivity and energy monitoring functions are also included as standard.

## **Key Features**

- Optional 2-zone energy efficient space heating control
- Pre-Plumbed and wired for faster installation
- Hybrid function, for use with conventional boilers
- Energy monitoring as standard
- MELCloud Wi-Fi connectivity

## **FTC6 Controller**

Mitsubishi Electric's sixth generation controller (FTC6) includes intelligent room temperature control as standard. This together with advanced weather compensation ensures the system delivers efficient, comfortable heating regardless of the season. FTC6 now also includes energy monitoring showing consumed and produced energy.





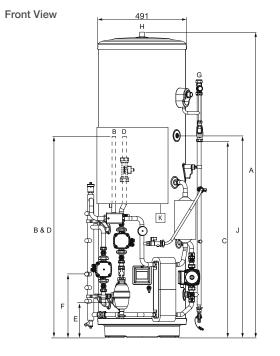
CYLINDER			EHPT15X-UKHLDW1S	EHPT17X-UKHLDW1S
NOMINAL HOT WATER VOLUME (LITRES)		ES)	150	170
ErP RATING			С	С
HEAT LOSS (kWh/24I	hrs)		1.40	1.59
HEAT LOSS (W)	,		58	66
WATER		Flow Rate (I/min) - WM 50 / 60 / 85	14 / 17 / 24	14 / 17 / 24
Primary Circuit Pump		Primary Circuit Pump	Grundfos UPM3L	25-75 130AZA
		Heating Circuit Pump	Grundfos UPM3 A	NUTO 25-70 130
		Sanitary Hot Water Pump	Grundfos UPS	D 15-60 CIL2
		Connection Size (mm) Heating / DHW	22 / 22	22 / 22
		Charge Pressure (MPa (Bar))	0.35 (3.5)	0.35 (3.5)
WATER SAFETY	Water Circuit	Control Thermistor (°C)	80	80
	DHW Cylinder	DHW Expansion Vessel (Litres)	12	18
		Control Thermistor	75	75
	Over Temperature Cut-Out (°C)	80 ± 5	80 ± 5	
	Temp and Pressure Relief Valve (°C) / (MPa (Bar))	90 / 1.0 (10)	90 / 1.0 (10)	
		Expansion Relief Valve (Cold) (MPa (Bar))	0.8 (8)	0.8 (8)
DIMENSIONS (mm) Width		Width	676	676
		Depth	654	654
		Height	1516	1690
WEIGHT EMPTY / FU	JLL (kg)		59 / 209	63 / 233
CYLINDER MATERIAL	Cylinder	Cylinder Material	Duplex Stainless Steel	Duplex Stainless Steel
	Insulation	Insulation Type	CFC / HCFC-free flame-retard	ant expanded Polyurethane
		Insulation Thickness (mm)	50	50
		GWP of Insulation	3.1	3.1
		ODP of Insulation	0	0
ELECTRICAL DATA	Control Board	Electrical Supply	220-240v, 50Hz	220-240v, 50Hz
	optionally powered by	Phase	Single	Single
	outdoor unit	Fuse Rating - MCB Sizes (A) <sup>1</sup>	16	16
	Immersion	Electrical Supply	220-240v ~, 50Hz	220-240v ~, 50Hz
	Heater	Phase	Single	Single
		Capacity (kW)	3	3
		Max Running Current (A)	13	13
		Fuse Rating - MCB Sizes (A) <sup>1</sup>	16	16
MECHANICAL ZONE	S		DHW and 1 He	ating Zone <sup>12</sup>
OPTIONAL SIMPLIFIE	ED WIRELESS ROO	DM THERMOSTAT AND WIRELESS RECEIVER	PAR-WT50-E Controller and	PAR-WR51-E Receiver

For information marked with a "-" please consult the databook or speak to your local sales office.

\*1 MCB Sizes BS EN60898-2 & BS EN60947-2 \*2 Optional 2 zone accessory pack available

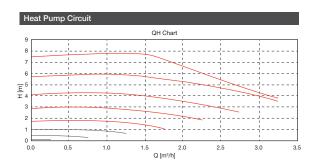
Notes: Cylinder includes: Flow Temperature Controller (FTC6) with Main Controller and Temperature Sensors, Magnetic & Cyclonic Filter, Pumps & Valves for Zone 1 and DHW use, Flow Sensor, Plate Heat Exchanger, Scale Trap, 3kW Immersion Heater and Expansion Vessel.

## Product Dimensions EHPT15-17X-UKHLDW1S

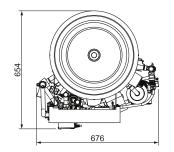


**Circulation Pumps** 

#### EHPT15-17X-UKHLDW1S





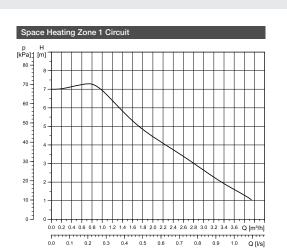


Letter	Pipe Description	Connection size/type
A	Overall Height	
В	Heat Pump Flow	22mm O/D Copper
С	Tundish Outlet	22mm Compression
D	Heat Pump Return	22mm O/D Copper
E	Heating Zone 1 Circuit Flow	22mm O/D Copper
F	Heating Zone 1 Circuit Return	22mm O/D Copper
G	Cold Water Inlet	22mm Compression
н	Hot Water Outlet	22mm Compression / 3/4" BSP M
J	THW5A Sensor Pocket	
К	Wi-Fi Adaptor	Included, Installer to locate and mount

Capacity	150	170	
A	1516	1690	
В	1127	1127	
С	909	1083	
D	1127	1127	
E	194	194	
F	350	350	
J	943	1117	
К	Installer to locate and mount		

#### Domestic Hot Water Sanitary Circuit

Default setting: Speed 2 DHW circulation pump **MUST** be set to speed 2.



# EHPT15-30X-UKHDW(S/L)

# Pre-Plumbed Standard Cylinder For Ecodan Monobloc Units



## The Pre-Plumbed Standard Cylinder comes complete with integrated hydraulic components & advanced controls.

Designed to optimise performance and flexibility within a minimal footprint, the slimline cylinder fully integrates with the Ecodan monobloc air source heat pump range. Advanced plate heat exchanger technology delivers superior heat up times and our rapid SD card commissioning, MELCloud Wi-Fi connectivity and energy monitoring functions are also included as standard.

## **Key Features**

- Optional 2-zone energy efficient space heating control
- Pre-Plumbed and wired for faster installation
- Hybrid function, for use with conventional boilers
- Energy monitoring as standard
- MELCloud Wi-Fi connectivity

# **FTC6 Controller**

Mitsubishi Electric's sixth generation controller (FTC6) includes intelligent room temperature control as standard. This together with advanced weather compensation ensures the system delivers efficient, comfortable heating regardless of the season. FTC6 now also includes energy monitoring showing consumed and produced energy.





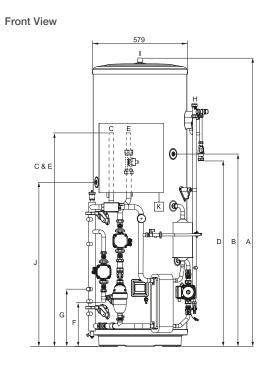
CYLINDER		EHPT15X-UKHDW1S	EHPT17X-UKHDW1S	EHPT21X-UKHDW1S	EHPT21X-UKHDW1L	EHPT25X-UKHDW1L	EHPT30X-UKHDW	
- NOMINAL HOT WAT	ER VOLUME (LITR	ES)	150	170	210	210	250	300
ErP RATING			В	В	С	С	С	С
HEAT LOSS (kWh/24	hrs)		1.15	1.23	1.53	1.53	1.80	2.09
HEAT LOSS (W)			48	51	64	65	75	78
WATER		Flow Rate (I/min) - (H)WM 50 / 60 / 85 / 112 / 140	14/17/24/-/-	14/17/24/-/-	14/17/24/-/-	-/17/24/32/40	-/17/24/32/40	-/-/24/32/40
		Primary Circuit Pump				Grundfos UPM3L 25-75 130A	ZA	
		Heating Circuit Pump			(	Grundfos UPM3 AUTO 25-70	130	
		Sanitary Hot Water Pump				Grundfos UPSO 15-60 CIL2	2	
		Connection Size (mm) Heating / DHW	22 / 22	22 / 22	22 / 22	28 / 22	28 / 22	28 / 22
		Charge Pressure (MPa (Bar))	0.35 (3.5)	0.35 (3.5)	0.35 (3.5)	0.35 (3.5)	0.35 (3.5)	0.35 (3.5)
WATER SAFETY	Water Circuit	Control Thermistor (°C)	80	80	80	80	80	80
DEVICES	DHW Cylinder	DHW Expansion Vessel (Litres)	12	18	18	18	24	24
		Control Thermistor	75	75	75	75	75	75
		Over Temperature Cut-Out (°C)	80 ± 5	80 ± 5	80 ± 5	80 ± 5	80 ± 5	80 ± 5
		Temp and Pressure Relief Valve (°C) / (MPa (Bar))	90 / 1.0 (10)	90 / 1.0 (10)	90 / 1.0 (10)	90 / 1.0 (10)	90 / 1.0 (10)	90 / 1.0 (10)
		Expansion Relief Valve (Cold) (MPa (Bar))	0.8 (8)	0.8 (8)	0.8 (8)	0.8 (8)	0.8 (8)	0.8 (8)
DIMENSIONS (mm) Width		730	730	730	748	748	748	
		Depth	756	756	756	755	755	755
		Height	1131	1257	1509	1509	1761	2075
WEIGHT EMPTY / FL	JLL (kg)	-	55 / 205	58 / 228	64 / 274	68 / 278	74 / 324	82 / 382
CYLINDER MATERIAL	Cylinder	Cylinder Material				Duplex stainless steel		
	Insulation	Insulation Type CFC / HCFC-free flame-retardant expanded Polyurethane						
		Insulation Thickness (mm)	60	60	60	60	60	60
		GWP of Insulation	3.1	3.1	3.1	3.1	3.1	3.1
		ODP of Insulation	0	0	0	0	0	0
ELECTRICAL DATA	Control Board	Electrical Supply	220-240v ~, 50Hz	220-240v ~, 50Hz	220-240v, 50Hz	220-240v ~, 50Hz	220-240v ~, 50Hz	220-240v ~, 50Hz
	optionally powered by	Phase	Single	Single	Single	Single	Single	Single
	outdoor unit	Fuse Rating - MCB Sizes (A)"	16	16	16	16	16	16
	Immersion	Electrical Supply	220-240v ~, 50Hz	220-240v ~, 50Hz	220-240v, 50Hz	220-240v ~, 50Hz	220-240v ~, 50Hz	220-240v ~, 50H
	Heater	Phase	Single	Single	Single	Single	Single	Single
		Capacity (kW)	3	3	3	3	3	3
		Max Running Current (A)	13	13	13	13	13	13
		Fuse Rating - MCB Sizes (A)"	16	16	16	16	16	16
MECHANICAL ZONE	S	•				DHW and 1 Heating Zone <sup>2</sup>		
OPTIONAL SIMPLIFI	ED WIRELESS ROO	OM THERMOSTAT AND WIRELESS RECEIVER			PAR-WT5	0-E Controller and PAR-WR51	-E Receiver	

For information marked with a "-" please consult the databook or speak to your local sales office.

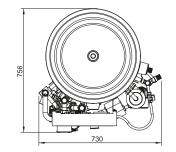
\*1 MCB Sizes BS EN60898-2 & BS EN60947-2 \*2 Optional 2 zone accessory pack available

Notes: Cylinder includes: Flow Temperature Controller with Main Controller and Temperature Sensors, Magnetic & Cyclonic Filter, Pumps & Valves for Zone 1 and DHW use, Flow Sensor, Plate Heat Exchanger, Scale Trap, 3kW Immersion Heater and Expansion Vessel. R410a model codes: EHPT\*-UKHCW & R32 model code: EHPT\*-UKHCW.

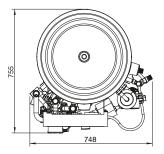
## Product Dimensions EHPT15-30X-UKHDW(S/L)



Upper View (S)

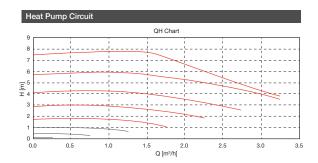


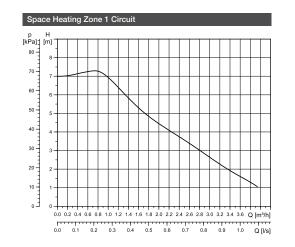
Upper View (L)



### **Circulation Pumps**

EHPT15-30X-UKHDW(S/L)





Letter	Pipe Description	Connection size/type
A	Overall Height	
В	Secondary Return Tapping	Not fitted to EHPT15X-UKHDW1S/ EHPT17X-UKHDW1S
С	Heat pump Flow	S = 22mm O/D Copper, L = 28mm O/D Copper
D	Tundish Outlet	22mm Compression
E	Heat Pump Return	S = 22mm O/D Copper, L = 28mm O/D Copper
F	Heating zone 1 Circuit Flow	22mm O/D Copper
G	Heating zone 1 Circuit Return	22mm O/D Copper
н	Cold Water Inlet	22mm Compression
I	Hot Water Outlet	22mm Compression / 3/4" BSP M
J	THW5A Sensor Pocket	
К	Wi-Fi Adaptor	Included, Installer to locate and mount

Capacity	150	170	210S	210L	250	300
А	1131	1257	1509	1509	1761	2075
В	Not Fitted	Not Fitted	1050	1050	1175	1385
С	1122	1122	1122	1370	1370	1370
D	505	630	880	880	1136	1450
E	1122	1122	1122	1370	1370	1370
F	194	194	194	270	270	270
G	350	350	350	350	350	350
J	675	815	925	925	1005	1193
К	Installer to locate and mount					

#### Domestic Hot Water Sanitary Circuit

Default setting: Speed 2 DHW circulation pump **MUST** be set to speed 2.

# **Flow Temperature Controllers**

For use with Ecodan Monobloc Units and **Third Party BEMS** 



The FTC6 Flow Temperature Controller is designed specifically by Mitsubishi Electric to integrate with the Ecodan PUZ monobloc air source heat pump range and a third party cylinder.

The FTC2BR has been developed to allow the Ecodan PUZ range to interface with third party or BEMS (Building Energy Management System) controls. A combination of volt free and voltage inputs allow the Ecodan PUZ monobloc range to be used in applications where only simple on/off and temperature control is required.

## Functions that can be controlled and monitored by third party controls:

Controlled

- On/Off heating mode On/Off heating ECO mode
- On/Off holiday mode
- On/Off hot water mode
- On/Off legionella mode Change water flow temperature
- Monitored Unit running Error
- Defrost

The ability to interface with third party controls opens up a huge number of application opportunities. Many processes simply require a heat source that provides hot water, without polished end user controls. The FTC2BR controller allows the Ecodan PUZ to be used in these applications. FTC2BR inputs and outputs can be used in conjunction with local BEMS.



FLOW TEMPERATURE CONTROLLERS		FTC6 (PAC-IF072B-E)	FTC2BR (PAC-IF033B-E)	
COMPATIBILITY	PUZ-WM50VHA(-BS)	$\checkmark$	√	
	PUZ-WM60VAA(-BS)	✓	√	
	PUZ-WM85V(Y)AA(-BS)	✓	√	
	PUZ-WM112V(Y)AA(-BS)	√	√	
	PUZ-HWM140V(Y)HA(-BS)	$\checkmark$	√	
BUILT-IN FEATURES	Initial Setting Wizard	$\checkmark$		
	Commissioning Aide	✓		
	Smart Grid Ready	✓		
	PV Connection	$\checkmark$		
	Energy Monitoring	✓		
	Dual Set-Point DHW	$\checkmark$		
	Silent-Mode	✓		
	Cascade <sup>1</sup>	$\checkmark$		
	Hybrid	✓		
MELCloud <sup>*2</sup>		$\checkmark$		
BEMS INTERFACE			√	
DIMENSIONS (MM)	Width	393	336	
	Depth	86.7	69	
	Height	422	278	
WEIGHT (kg)		4.1	3.2	
OPERATING AMBIENT TEMPERATURE (°C) / HUMIDITY		0~ +35°C (RH<80%)	0~ +35°C (RH<80%)	
ELECTRICAL DATA	Electrical Supply	Via Outdoor Unit or Independent Source (230v)	Via Outdoor Unit or Independent Source (230v)	
	Phase	Single	Single	

\*1 Requires Optional part(s) PAC-SIF051B-E. Please contact your regional sales office technical team. \*2 Requires Wi-Fi interface MAC-567IF-E.

# MELCloud Wi-Fi Connectivity



### Featuring the award-winning



MELCloud is a cloud based solution for controlling your Mitsubishi Electric Ecodan heating system either locally or remotely by PC, Mac, Tablet or Smartphone via the internet.

The set up and remote operation of your Ecodan heating system via MELCloud is simple and straight forward. All you need is a wireless connection where the Ecodan is located and an internet connection on your mobile or fixed device.

To set up the system, the router and the Ecodan Wi-Fi interface need pairing and this is done simply and quickly via the WPS button found on all mainstream routers, or using access point pairing via a mobile phone.

## **Key Features**

- Access to remote maintenance and technical support
- View and control your heating and hot water from anywhere in the world
- Reports on energy use, temperature history and more
- Live weather feed at location of Ecodan
- Share / restrict access and control of the Ecodan system
- Compatible with Alexa and Google Home
- Available for any FTC6 based system, new or retrofit using a Wi-Fi interface







# MELConsole DEcodan Helpdesk

Once connected, you can also enjoy the benefits of **MELConsole** which provides **remote maintenance & technical support** reducing the need of a visit from an engineer.



24/7 Technical Support





Tank Temperature
Sol 5° c

Tank Temperature
Auto

Heat Now
Heat Now

Zone 1

Idle
Doc

Room Temperature

18° c

Set Temperature

23° c

Doc







For a demonstration of Mitsubishi Electric's MELCloud visit our website: melcloud.com and click 'Login'



Available for PC, Mac, Tablet or Smartphone

### Supported Ecodan Models

All **Ecodan FTC6** systems have energy monitoring functionality as standard and the ability to connect to MELCloud. A MAC-587IF-E Wi-Fi Interface is required to use MELCloud.

Wi-Fi Interface		MAC-567IF-E	MAC-587IF-E
DESCRIPTION		Wi-Fi Interface	Wi-Fi Interface
CONNECT TO		Indoor Unit	Indoor Unit
MAX NUMBER OF U	JNITS	1	1
COMPATIBILITY		Ecodan FTC6	Ecodan FTC6
POWER SUPPLY		From indoor unit	From indoor unit
DIMENSIONS (WxD	xH) mm	79 x 18.5 x 44	73.5 x 41.5 x 18.5
CONTROL On/	Off	✓	✓
Mod	de	✓	✓
Hea	ting Setpoint	✓	✓
Hot	Water Boost	✓	✓
2-Z0	one Control	√	✓
Holi	day Mode	√	√
Tim	er	√	✓
Fros	st Protection	√	√
MONITOR On/	Off	√	✓
Mod	de	√	✓
Hea	ting Setpoint	√	✓
Tanl	< Temperature	√	√
Tanl	< Target Temperature	√	✓
Out	side Temperature	✓	✓
Fau	It Codes	√	✓
Cor	sumed Electrical Energy	✓	√
Pro	duced Heat Energy	$\checkmark$	$\checkmark$

### Supported Hardware / Software

Mobile App: Apple / Android / Microsoft Web App: Any device with internet browser Web browser: Chrome, Edge, Firefox, Safari, Internet Explorer

#### Please Note:

This is not definitive list of all compatible devices, other similar devices which use supported Operating Systems or Internet Browsers should also work either via dedicated Apps or via Web Browser / Web Client options. Please note that user experience may vary slightly depending on hardware and software combination.

# **Energy Monitoring** Packs

All Ecodan Flow Temperature Control (FTC6 / FTC5) systems come with free energy monitoring as standard. System users are able to measure both consumed electrical energy and produced heat energy to the nearest kWh.

In addition to the basic system functionality features, i.e. hot water and heating status, the system's energy performance can also now be viewed. Historic energy consumption, heat production and run cost reports are available via the main controller. SD card or MELCloud.





QUHZ-W40VA



PUZ-WM50VHA





PUZ-WM112VAA PUZ-HWM140VHA PUZ-WM112YAA PUZ-HWM140YHA

PACK	4kW	5kW	6kW	8.5kW	11.2kW	14kW	DE
EMP1	$\checkmark$	~	$\checkmark$	~	$\checkmark$	$\checkmark$	Ene
EMP2	~	~	✓	√	✓	~	Ele
EMP3-M-1Ph		~	V	✓ *VAA	🗸 "VAA	🗸 *VHA	MN ene hea clo
EMP3-Q-1Ph	¥						MN ene hea clo
EMPH-M-1Ph		✓	~	~	✓	~	Ele and for

PUZ-WM60VAA

PUZ-WM85VAA

PUZ-WM85YAA



DESCRIPTION	ELECTRIC METER	HEAT METER	DATA STORAGE	OPTIONAL WI-FI
Energy input & output estimation included as standard				-
Electrical energy measurement consumption pack	2			-
MMSP compliant electrical energy consumption and heat generation pack with cloud data storage	2	1	✓	Optional*
MMSP compliant electrical energy consumption and heat generation pack with cloud data storage	2	1	V	Optional*
Electrical energy consumption and heat generation pack for hybrid systems	2	1		-

\* Wi-Fi Interface is required by OIGEM for MMSP. Note that the interface is included as standard within Ecodan system packages. Please contact your local sales office for guidance.

# i-LIFE2 Slim Fan Assisted Radiator

The i-Life2 Slim Fan Assisted Radiator designed to work seamlessly with existing heating or renewable technologies.

### **Key Features**

- Stylish At only 13cm deep, the sleek and elegant satin-white, wall mounted cabinet is designed to blend seamlessly into any setting
- Flexible Packed with advanced controls and functions, the i-Life2 Slim will work with traditional heating or renewable systems such as heat pumps
- Easy to Use Airflow is managed by deflectors at the top of the unit, which open and close automatically ensuring fast even heat distribution



MODEL CAPACITY (W) <sup>12 16 18</sup>		i-LIFE2 SLIM DLMV 80	i-LIFE2 SLIM DLMV 170 1060 / 1660 / 2130	
		500 / 780 / 880		
ELECTRICAL DATA	Electrical Supply	230v, 50Hz	230v, 50Hz	
	Phase	Single	Single	
	Fan Power Input (W) - (Lo-Mi-Hi) <sup>-1 *8</sup>	0.7 / 4.6 / 10.7	1.62 / 10.1 / 19.0	
WATER DATA	Water Flow Rate (I/min) - (Lo-Mi-Hi)"2	1.2 / 2.4 / 2.4	3 / 4.8 / 6	
	Water Pressure Drop (kPa) - (Lo-Mi-Hi) <sup>*2*8</sup>	3/6/8	2/5/8	
AIR DATA	Air Flow Rate (m3/h) - (Lo-Mi-Hi) <sup>*1</sup>	51 / 93 / 125	122 / 221 / 277	
SOUND DATA	Sound Pressure (dB(A)) - (Lo-Mi-Hi) <sup>3</sup>	24 / 35 / 41	26 / 36 / 42	
	Sound Power (dB(A)) - (Lo-Mi-Hi) <sup>*4 *7 *8</sup>	33 / 44 / 50	35 / 45 / 51	
DIMENSIONS (mm) <sup>*5</sup>	Width	737	937	
	Depth	131	131	
	Height	579	579	
WEIGHT (kg) <sup>·5</sup>		17	20	

i-Life2 Slim units are managed by a variable speed fan motor that continuously modulates the fan speed

1. Room temperature 27°C d.b./19°C w.b.; Chilled water (in/out) 7/12°C.

2. Room temperature 20°C d.b.; Hot water (in/out) 45/40 °C.

- 3. Sound pressure level in free field on a reflective surface, 1m from fan front and 1m from the ground. Non-binding value obtained from sound power level.
- 4. Sound power on the basis of measurements made in compliance with ISO 374 and Eurovent 8/2.

5. Unit in standard configuration/execution, without optional accessories.

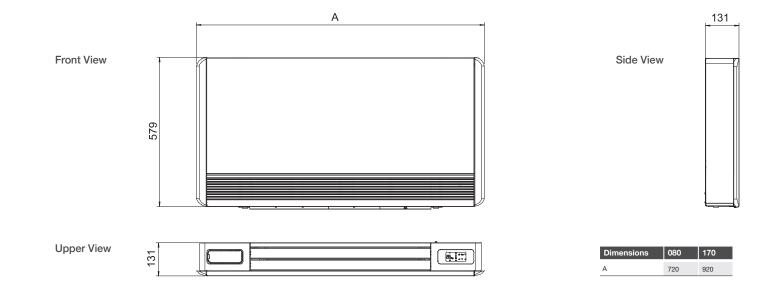
Values in compliance with EN14511-3:2013.

7. Values in compliance with [REGULATION (UE) N.2016/2281].

8. Certified data in EUROVENT.

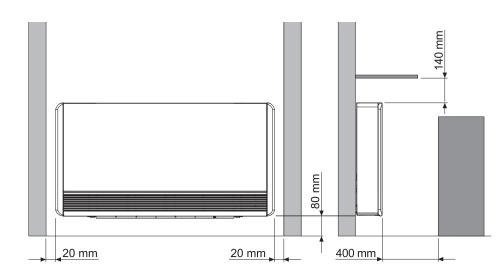


## Product Dimensions i-LIFE2 SLIM DLMV 80 & i-LIFE2 SLIM DLMV 170



### Installation Location i-LIFE2 SLIM DLMV 80 & i-LIFE2 SLIM DLMV 170

All measurement in mm



# Accessories / Optional Extras

DESCRIPTION	MODEL REF.
QUHZ / PUZ	
Wireless Controller Transmitter	PAR-WT50R-E
Wireless Controller Receiver	PAR-WR51R-E
Modbus CN105 Interface	ACC-BEMS-A1M
ODU Isolator 20A IP65	ACC-ISO-020
ODU Isolator 32A IP65	ACC-ISO-032
ODU Isolator 40A IP65	ACC-ISO-040
FTC6 High Temperature Sensor 5m Cable	PAC-TH012HT-E
FTC6 High Temperature Sensor 30m Cable	PAC-TH012HTL-E
FTC Flow and Return Temperature Sensors 5m Cable	PAC-TH011-E
FTC6 Cylinder DHW Temp Sensor 5m Cable	PAC-TH011TK2-E
FTC6 Cylinder DHW Temp Sensor 30m Cable	PAC-TH011TKL2-E
FTC Service Diagnostic Tool	PAC-SK52ST
Ecodan Anti-Vibration Fix-It-Foot 600mm Kit	ACC-AVM-001
Ecodan Reinforced Lightweight Slab +Anti-Vibration Fix-It-Foot Kit	ACC-AVS-001
VHA & VAA Compatible Drain Socket Kit	PAC-SH71DS-E
10L Anti Freeze	ACC-AFZ-010
25L Anti Freeze	ACC-AFZ-025
Insulated Through Wall Sleeve Kit (85mm)	ACC-FCP-TW1
External Pipework Trunking Length (1m x 140mm Black x2)	ACC-TRU-LE1
External Pipework Trunking Length (2m x 140mm Black x1)	ACC-TRU-LE2
External Pipework Trunking Length Connector (140mm Black)	ACC-TRU-JO1
External Pipework Trunking Wall Cover (140mm Black)	ACC-TRU-CO1
External Pipework Trunking Elbow (140mm Black)	ACC-TRU-EL1
External Pipework Trunking External Corner (140mm Black)	ACC-TRU-EC1
External Pipework Trunking Internal Corner (140mm Black)	ACC-TRU-IC1
Pack for 2 Zone Systems with Equal Temperatures	ACC-2ZP-K01
Pack for 2 Zone Systems with Different Temperatures	ACC-2ZP-K02
ALL Flow Balancing Valve	ACC-FBV-40L
Insulated Flexible Connection Pipes (OUHZ: 750mm x 15mm) Standard Pair	ACC-FCP-QUHZ
Insulated Flexible Connection Pipes (22mm x 500mm) Standard Pair	ACC-FCP-S22
Insulated Flexible Connection Pipes (28mm x 500mm) Standard Pair	ACC-FCP-S28
Insulated Flexible Connection Pipes (28mm x 300mm) Elbow Pair	ACC-FCP-E28





Ecodan Commercial Renewable Heating Systems



# EHWT17D-MHEDW

R32 Water to Water Heat Pump



The Ecodan Hydrodan is a water to water heat pump, designed to produce heating and hot water in residential apartments. It connects to a 5th generation ambient temperature heat network deployed throughout the building.

The use of these networks produces negligible distribution losses and helps to reduce overheating in apartments. These networks also enable the ability to recover heat from cooling plant on the network to reduce primary energy consumption. The local heat network can be maintained at ambient temperature by a Mitsubishi Electric commercial heat pump, environmental source or connected to a district heat network.

## **Key Features**

- Highly efficient heating and hot water production
- Low quantity R32 refrigerant
- PIC valve network control
- Ultra-low noise output
- Removable heat pump module

# FTC6 Controller

Mitsubishi Electric's sixth generation controller (FTC6) includes intelligent room temperature control as standard. This together with advanced weather compensation ensures the system delivers efficient, comfortable heating regardless of the season. FTC6 now also includes energy monitoring showing consumed and produced energy.



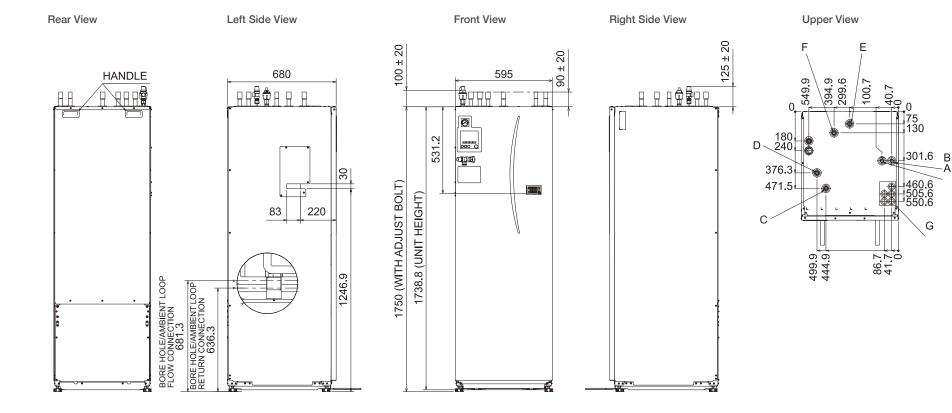


MODEL				EHWT17D-MHEDW
CAPACITY INFORMATION	L20 / W35	Heating Capacity (min-max)	kW	1.2 - 8.0
		Power Input (min-max)	kW	0.3 - 1.0
		COP (Nom.)	-	9.2
	L20 / W45	Heating Capacity (min-max)	kW	1.1 - 7.5
		Power Input (min-max)	kW	0.5 - 1.3
		COP (Nom.)	-	6.3
	L20 / W55 (DHW)	Heating Capacity (DHW)	kW	6.3
		Power Input (DHW)	kW	1.3
		COP (DHW)	-	5.0
	L25 / W35	Heating Capacity (min-max)	kW	1.5 - 9.3
		Power Input (min-max)	kW	0.2 - 1.0
		COP (Nom.)	-	11.3
	L25 / W45	Heating Capacity (min-max)	kW	1.3 - 8.5
		Power Input (min-max)	kW	0.4 - 1.3
		COP (Nom.)	-	7.8
	L25 / W55 (DHW)	Heating Capacity (DHW)	kW	6.8
		Power Input (DHW)	kW	1.5
		COP (DHW)	-	5.4
	Heating Circuit Flow Rate (min - max)		l/min	7.1 - 27.7
LOOP INFORMATION	(	Control Type	-	PICV + Actuator
		Inlet Temperature Range (min - max)	°C	10 - 30
		Flow Rate (min - max)	I/min	7.2 - 24
		Maximum Loop Pressure Rating	bar	10
		Pipe Connection Size	mm	28
ELECTRICAL INFORMATION		Voltage/Phase/Frequency	v/ph/Hz	230v/1ph/50Hz
		Fuse Rating - Heat Pump/Immersion Heater	A	16/20
		Number of Connections	-	2
		Immersion Rating (Tank)	kW	3
		Start up Current	A	3.1
GENERAL INFORMATION		Unit Dimensions (WxDxH)	mm	595 x 680 x 1750
		Compressor Type	-	Rotary compressor
		Domestic Hot Water Tank Volume (net)		170
		Weight (empty)	kg	166
		Weight (full)	kg	345
		Refrigerant	-	R32
		Volume of Refrigerant		0.9
		Heating Temperature Range	kg °C	20 - 60
		Hot Water Temperature Range	°C	40 - 60
		Internal Water Volume Loop Side / Heating Side	+ <u>,</u>	3.16 / 5.47
		Sound Power Level	dBA	38
		Sound Power Level @1m	dBA	27

#### Product Dimensions EHWT17D-MHEDW

A

G



Letter	Pipe Description	Connection size/type
A	DHW Outlet	22mm Compression
В	Cold Water Inlet	22mm Compression
С	Space Heating Return	28mm Compression
D	Space Heating Flow	22mm Compression
E	Ambient Loop Return	28mm Compression
F	Ambient Loop Flow	28mm Compression
G	Electrical Cable Inlets	For inlets 1 and 2, run low-voltage wires including external input wires and thermistor wires. For inlets 3, 4 and 5, run high-voltage wires including power cable and external output wires. "For a wireless receiver (option) cable and Ecodan Wi-Fi interface (option) cable, use inlet 1.

### QAHV

Monobloc Air Source Heat Pump



Specifically designed for commercial sanitary hot water application, where gas boilers, combined heat and power systems (CHP) or electric water heating have been traditionally utilised, the 40kW QAHV provides a low carbon solution for hotels, apartment blocks, leisure centres, hospitals, care homes, restaurants and education.

Utilising the natural and stable refrigerant CO<sub>2</sub> (R744), the environmentally clean solution enables compliance to strict local planning laws and boosts BREEAM points. Compounded by the increasing decarbonisation of the electrical grid, the QAHV provides a high efficiency, low carbon hot water delivery solution with leaving water temperature up to 90°C.

### **Key Features**

- High efficiency at high flow temperatures
- Utilises CO<sub>2</sub> refrigerant which has a GWP of 1
- Uses a unique twisted and spiral gas cooler to enhance energy efficiency
- Full heating capacity down to -3°C outdoor temperature and operates down to -25°C
- Super low noise levels
- Able to utilise with an indirect system

OUTDOOR UNIT		QAHV-N560YA-HPB		
WATER HEATING 65°C 1	CAPACITY (kW)	40		
	POWER INPUT (kW)	10.31		
	CURRENT INPUT (A)	16.3		
	COP	3.88		
WATER HEATING 65°C <sup>12</sup>	CAPACITY (kW)	40		
	POWER INPUT (kW)	10.97		
	CURRENT INPUT (A)	18.3		
	COP	3.65		
WATER HEATING 65°C "3	CAPACITY (kW)	40		
	POWER INPUT (kW)	11.6		
	CURRENT INPUT (A)	18.7		
	COP	3.44		
WATER HEATING ENERGY EFFICIENCY CLASS	FOR MEDIUM TEMPERATURE APPLICATION	А		
TEMPERATURE RANGE	INLET WATER TEMPERATURE (°C)	5 ~ 63		
	OUTLET WATER TEMPERATURE (°C)	55 ~ 90		
	OUTDOOR TEMPERATURE (°C)	-25~43		
ELECTRICAL	MAX CURRENT INPUT (A)	33.8		
	ELECTRICAL SUPPLY (V / Hz)	380-415v, 50Hz		
	PHASE	3		
	FUSE RATING - MCB SIZES (A) <sup>5</sup>	40		
WATER DETAIL	INLET / OUTLET (mm (in.))	19.05 (Rc 3/4"), screw pipe / 19.05 (Rc 3/4"), screw pipe		
	ALLOWABLE EXTERNAL PUMP HEAD (kPa)	77		
DIMENSIONS (mm)	WIDTH	1220		
	DEPTH	760		
	HEIGHT	1837 (1777 without legs)		
WEIGHT (kg)		400		
NOISE LEVEL	SOUND PRESSURE <sup>*4</sup> (dB(A))	56		
REFRIGERANT	TYPE	R744 (GWP 1)		
	REFRIGERANT CHARGE (kg) / CO2 EQUIVALENT (t)	6.5 / 0.0065		

\*1 Under Normal heating conditions at the outdoor temp, 16°CDB/12°CWB, the outlet water temperature 65°C, and the inlet water temperature 17°C

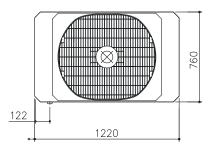
\*2 Under Normal heating conditions at the outdoor temp, 7°CDB/6°CWB, the outlet water temperature 65°C, and the inlet water temperature 9°C

\*3 Under Normal heating conditions at the outdoor temp, 7°CDB/6°CWB, the outlet water temperature 65°C, and the inlet water temperature 15°C

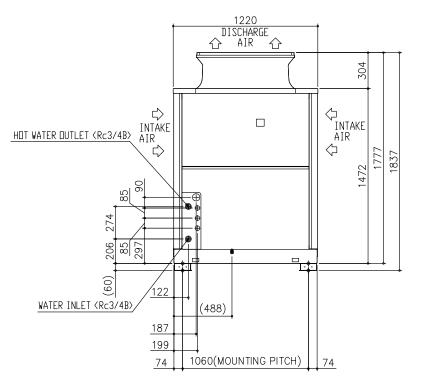
\*4 Measured 1m from the front of the unit in an anechoic room

\*5 MCB Sizes BS EN60898-2 & BS EN60947-2

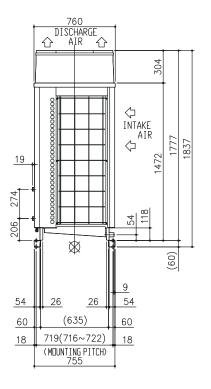
Upper View



Front View



Side View



### CAHV

Monobloc Air Source Heat Pump



Certificate Number: MCS HP0002 Product Type: Heat Pumps Product Reference: CAHV-P500YB-HPB Specifically designed for large applications, the Ecodan CAHV air source heat pump monobloc system can operate singularly, or form part of a multiple unit system. The CAHV also comes equipped with a wide range of controller features as standard.

A multiple unit system has the ability to cascade available units on and off to meet the load from a building. As an example of this modulation, a 16 unit system allows 0.5kW increments of capacity, from 18kW all the way up to 688kW. This level of modulation is unprecedented within the heating industry and with cascade and rotation built in as standard, the Ecodan CAHV system is perfectly suited to a wide range of commercial applications.

### **Key Features**

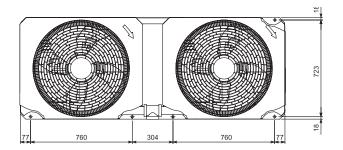
- Multiple unit cascade control of up to 688kW capacity, only water and electrical connections needed
- Ability to rotate units based on accumulated run hours
- Provides from 25°C up to 70°C water flow temperatures without boost heaters
- Low maintenance

OUTDOOR UNIT		CAHV-P500YB-HPB	
HEAT PUMP SPACE ErP Rating		A++	
HEATER - 55°C	η	125%	
	SCOP	3.19	
HEAT PUMP SPACE	ErP Rating	A+	
HEATER - 35°C	η,	139%	
	SCOP	3.54	
HEATING <sup>*1</sup>	Capacity (kW)	42.6	
(A-3/W35)	Power Input (kW)	15.2	
	COP	2.80	
OPERATING AMBIENT TEMPERATURE (°C DB)		-20~+40°C	
SOUND PRESSURE LEVEL AT 1M (dBA) <sup>*2*3</sup>		59	
LOW NOISE MODE (dBA)*2		Variable	
FLOW RATE (I/min)		126	
WATER PRESSURE DROP (kPa)		18	
DIMENSIONS (mm)	Width	1978	
	Depth	759	
	Height	1710 (1650 without legs)	
WEIGHT (kg)		526	
ELECTRICAL SUPPLY		380-415v, 50Hz	
PHASE		3	
NOMINAL RUNNING CURRENT [MAX] (A)		17.6 [52.9]	
FUSE RATING - MCB SIZES (A)*4		63	
REFRIGERANT CHARGE (kg)	R407C (GWP 1774)	11 / 19.5	
/ CO <sub>2</sub> EQUIVALENT (t)		11, 10.0	

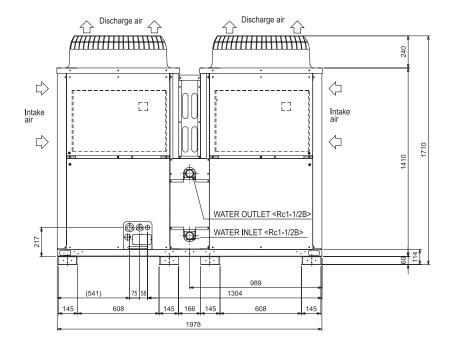
\*1 Under normal heating conditions at outdoor temp: -3°CDB / -4°CWB, outlet water temp 35°C, inlet water temp 35°C, inlet water temp 35°C inlet water temp 35°C inlet water temp 35°C inlet water temp 35°C as tested to BS EN14511 \*3 Sound power level of the CAHV-P500YB-HPB is 70.7dBA. Tested to BS EN12102 \*4 MCB Sizes BS EN60987-2 & BS EN60947-2

 $\eta_{s}$  is the seasonal space heating energy efficiency (SSHEE)  $\qquad \eta_{sh}$  is the water heating energy efficiency

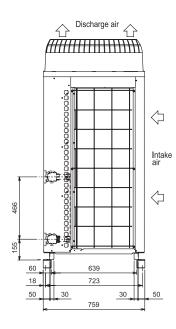




#### Front View



Side View



### CRHV

### Monobloc Ground / Water Source Heat Pump



PLEASE NOTE: Full design criteria is needed to ascertain the capacity which could change based on heat source temperature and building flow temperature.

\*1 Under normal heating conditions at brine inlet: 0°C, outlet water temp 35°C as tested to BS EN14511 (60kW)

- \*2 Under normal heating conditions at brine inlet: 0°C, outlet water temp 35°C as tested to BS EN14511 (45KW) '3 Under normal heating conditions at water inlet: 10°C, outlet water temp 35°C as tested
- \*3 Under normal neating conditions at water inlet: 10°C, outlet water temp 35°C as tested to BS EN14511 (60kW)
  \*4 Under normal heating conditions at water inlet: 10°C, outlet water temp 35°C as tested
- to BS EN14511 (45kW) \*5 Sound power level as tested to BS EN12102
- <sup>36</sup> Heat source inlet temperature above 27°C and up to 45°C option must reverse the inlet and outlet heat source connections and refer to manual for dip switch changes
- \*7 The system should be adequately protected from freezing
- \*8 MCB Sizes BS EN60898-2 & BS EN60947-2
- \* LTHW Low Temperature Hot Water
- \* Please use adequate frost protection to ensure pipework and the unit do not freeze if the system is powered down
- \* Please do not use ground water or well water directly within the unit
- \* The water circuit must be a closed circuit
- $\eta_{\rm s}$  is the seasonal space heating energy efficiency (SSHEE)

 $\eta_{\mbox{\tiny wh}}$  is the water heating energy efficiency



CERTIFIED

Certificate Number: MCS HP0002 Product Type: Heat Pumps Product Reference: CRHV-P600YA-HPB The inverter driven Ecodan CRHV monobloc ground / water source heat pump can operate singly, or be banked together to create a system that can modulate and cascade available units on and off to meet the load from a building.

This level of modulation is unprecedented within the heating industry, and with cascade and rotation built in as standard, the Ecodan CRHV system is perfectly suited to a wide range of commercial applications.

### **Key Features**

- Wide range of heat sources bore holes, slinkies, aquifers, lakes, rivers and waste heat
- Multiple unit cascade control of up to 16 units / 960kW
- Ability to rotate units based on accumulated run hours
- Provides up to 65°C water flow temperatures without booster heaters
- Low maintenance, just electrical and water connections
- Heat recovery applications can be achieved by moving heat between applications
- Passive cooling possible by exchanging ground / water source with a chilled water system

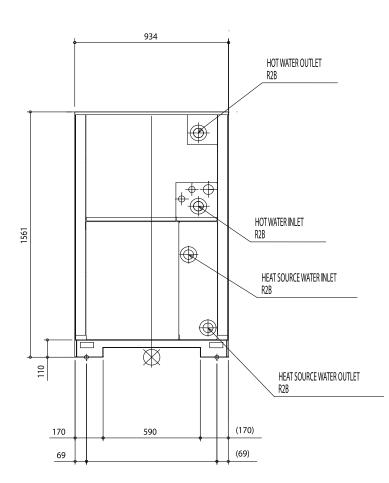
CRHV HEAT PUMP			CRHV-P600YA-HPB
HEAT PUMP SPACE HEATER - 55°C		ErP Rating	A++
		η,	127%
		SCOP	3.37
HEAT PUMP SPACE HEATER - 35°C		ErP Rating	A++
		η	153%
		SCOP	4.03
HEATING <sup>11</sup>		Capacity (kW)	60
(B0/W35)		Power Input inc. pump (kW)	14.20
(==,=)		COP	4.23
SEASONAL EFFICIENCY EN14825 (SPF)		B0/W35 (60kW)	4.33
HEATING <sup>2</sup>		Capacity (kW)	45
(B0/W35)		Power Input inc. pump (kW)	10.20
(20/1000)		COP	4.41
SEASONAL EFFICIENCY EN14825 (SPF)		B0/W35 (45kW)	4.03
HEATING <sup>3</sup>		Capacity (kW)	60
(W10/W35)		Power Input inc. pump (kW)	11.90
(***10/**33)		COP	5.08
SEASONAL EFFICIENCY EN14825 (SPF)		W10/W35 (60kW)	5.09
HEATING*4	1	Capacity (kW)	45
(W10/W35)		Power Input inc. pump (kW)	45
(10/10/1033)		COP	5.11
SEASONAL EFFICIENCY EN14825 (SPF)		W10/W35 (45kW)	4.55
		Pressure Level LpA at 1m (dBA)	50
SOUND DATA		Power Level LwA (dBA) <sup>-5</sup>	66
WATER DATA	Flow Rate Range	Heat Source (Brine) (I/s (m <sup>3</sup> /hr))	1.5 to 4.1 (5.4 to 15)
WATER DATA	Flow Rate Range	Building Side (LTHW) (I/s (m <sup>3</sup> /hr))	1.5 to 4.4 (5.4 to 15)
	Mash agia al Osuga actinga	Heat Source Outlet (Brine) (mm ("))	50.8 (R2) screw
	Mechanical Connections	Heat Source Unlet (Brine) (mm ("))	50.8 (R2) screw
		Building Side Outlet (LTHW) (mm ("))	50.8 (R2) screw
		Building Side Outlet (LTHW) (mm (*)) Building Side Inlet (LTHW) (mm (*))	50.8 (R2) screw
		Heat Source Inlet (Brine) (°C)	
	Operating Temperature Range	Heat Source Inlet (Brine) (°C) Heat Source Inlet Option (Brine) (°C)°6	-5 to +27 -5 to +45
			-5 t0 +45 +30 to +65
	Lite at Occurre Elizid Ture s <sup>47</sup>	Building Side Outlet (LTHW) (°C)	
	Heat Source Fluid Type <sup>*7</sup>	List Oning (Bring) (I-Da)	Min 30% Ethylene Glycol or equivalent
	Pressure Drop (at 1.5l/s inc 30% glycol in heat source fluid)	Heat Source (Brine) (kPa)	12
		Building Side (LTHW) (kPa)	7
	Maximum Working Pressure	Heat Source (Brine) (MPa(Bar)) Building Side (LTHW) (MPa(Bar))	1 (10)
DIMENOIONO			1 (10)
DIMENSIONS		Width (mm)	934
		Depth (mm)	780
		Height (mm)	1561
WEIGHT (kg)			395
REFRIGERANT		Type	R410A
		Charge (kg) / CO <sub>2</sub> Equivalent (t)	9 / 18.7
		Max pressure (MPa (Bar))	4.15 (41.5)
		Compressor Type	Inverter Driven
		Circuit type	Hermetically Sealed System
ELECTRICAL DATA		Electrical Supply	415v, 50Hz
		Phase	3
		Maximum Running Current (A)	44
		Fuse Rating - MCB Size (A)*8	50

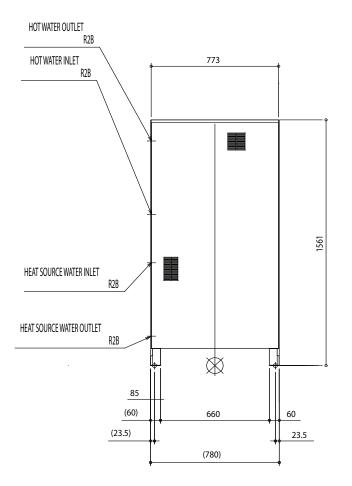


Page 42

Front View







### Accessories / Optional Extras

DESCRIPTION	MODEL REF.
QAHV	
Main Pipework Thermistor	TW-TH16
Differential Pressure Switch for Water Systems	KS10-EP100S
Wired Remote Controller	PAR-W31MAA-J
Centralised Controller	AE-200E
AE-200E Wall Mounted Box - for Wall Mounting	PAC-YG82TB
Secondary Side Control Circuit Kit	Q-1SCK
CAHV	
Main Pipework Thermistor	TW-TH16
Differential Pressure Switch for Water Systems	KS10-EP100S
Wired Remote Controller	PAR-W21MAA-J
Centralised Controller	AE-200E
AE-200E Wall Mounted Box - for Wall Mounting	PAC-YG82TB
CRHV	
Main Pipework Thermistor	TW-TH16
Differential Pressure Switch for Water Systems	KS10-EP100S
Wired Remote Controller	PAR-W21MAA-J
Centralised Controller	AE-200E
AE-200E Wall Mounted Box - for Wall Mounting	PAC-YG82TB
External Temperature Sensor and Solar Guard	TMP-O



# Ventilation

Fresh Air Ventilation Range



## Lossnay VL-CZPVU-(R/L)-E Residential Lossnay

The residential Lossnay range of Mechanical Ventilation with Heat Recovery (MVHR) units create an environment of constant clean and healthy air at home.

These systems are designed to continuously extract from bathrooms, kitchens, toilets, and utility rooms where air can become polluted. The Lossnay supplies a balanced flow of fresh air from outside to living spaces such as bedrooms and living rooms. Whilst doing this the unit minimises the energy lost by recovering the heat from the extracted air and transferring this to the supplied fresh air.

### **Key Features**

- Ultra quiet noise levels
- Optional particulate matter filter, including NOx filtration
- Full summer bypass function
- Digital controller included for ease of commissioning and use
- Automated boost via live switch or volt free contact
- Cloud control

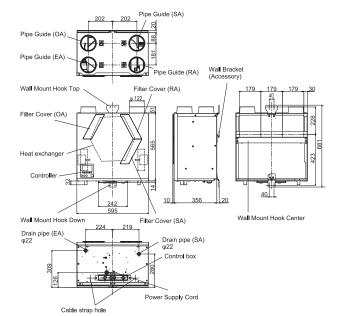


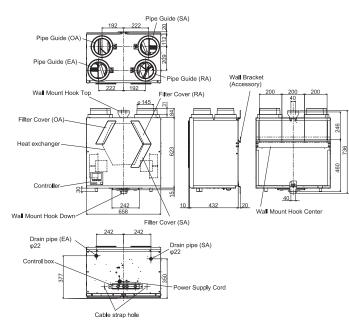
MODEL		VL-250CZPVU-R/L-E		VL-350CZPVU-R/L-E		VL-500CZPVU-R/L-E		
DIMENSIONS H X W X D (MM)			563 x 595 x 386		623 x 658 x 462		632 x 725 x 586	
WEIGHT (KG)			26		32		39	
ELECTRICAL POWER SUPPLY	(		220-240V 50Hz		220-240V 50Hz		220-240V 50Hz	
MAX RUNNING CURRENT (A)			1.0		1.32		2.3	
SUMMER BYPASS			Full Bypass		Full Bypass		Full Bypass	
SPIGOT DIAMETER (MM)			125		150		160 / 180	
STANDARD FILTER	OUTSIDE AIR	(	Coarse 55% / G3		Coarse 55% / G3		Coarse 55% / G3	
(ISO 16890:2016/EN779:2012)	RETURN AIR	(	Coarse 55% / G3		Coarse 55% / G3		Coarse 55% / G3	
OPTIONAL FILTER(S)	SUPPLY AIR		NOx 90%		NOx 90%		NOx 90%	
	OUTSIDE AIR		ePM2.5 50%		ePM2.5 50%		ePM2.5 50%	
SAP 2012 PCDB DATA			HEAT EXCHANGE EFFICIENCY (%)	SFP W/(L/S)	HEAT EXCHANGE EFFICIENCY (%)		HEAT EXCHANGE EFFICIENCY (%)	
K + 1 (21 L/S)	K + 1 (21 L/S) 0.62 90		90	0.86	90	0.80	91	
K + 2 (29 L/S)		0.67	89	0.80	90	0.72	90	
K + 3 (37 L/S)		0.79	88	0.84	89	0.74	90	
K + 4 (45 L/S)		1.00	87	0.96	89	0.82	89	
K + 5 (53 L/S)		1.19	87	1.08	88	0.91	88	
K + 6 (61 L/S)		-	-	1.28	87	1.09	88	
K + 7 (69 L/S)		-	-	-	-	1.24	88	

### Product Dimensions

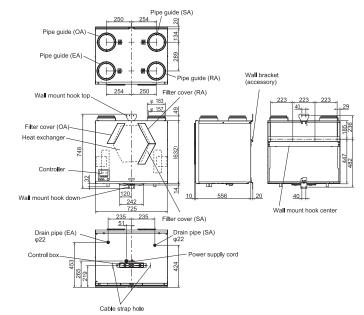
#### VL-250CZPVU-(R/L)-E, VL-350CZPVU-(R/L)-E & VL-500CZPVU-(R/L)-E

#### VL-250CZPVU-L-E\*1





VL-350CZPVU-L-E<sup>\*1</sup>

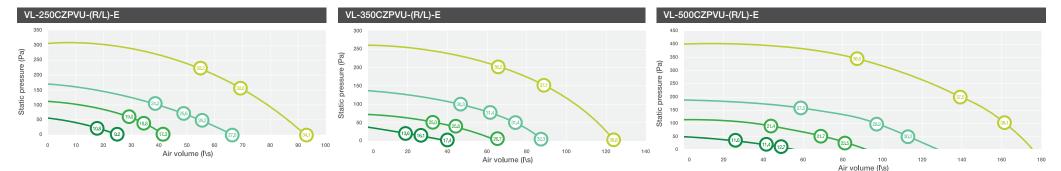


VL-500CZPVU-L-E<sup>\*1</sup>

\*1 Left Fresh Air intake models displayed. Please refer to installation manual for Right Fresh Air Intake dimensions.

#### Performance curves and breakout sound data

#### VL-250CZPVU-(R/L)-E, VL-350CZPVU-(R/L)-E & VL-500CZPVU-(R/L)-E



Note: dB(A) level measured at 3m hemispherical. Full sound power spectrum available for breakout and in-duct upon request.

# **VL-100(E)U**<sub>5</sub>-E Wall Mounted Lossnay



### The **VL-100** units supply fresh air inside a room using simultaneous supply and extract operation in an energy efficient manner.

The recovery of both latent heat and sensible heat ensures a comfortable internal environment as well as reducing heat losses, saving both energy and costs.

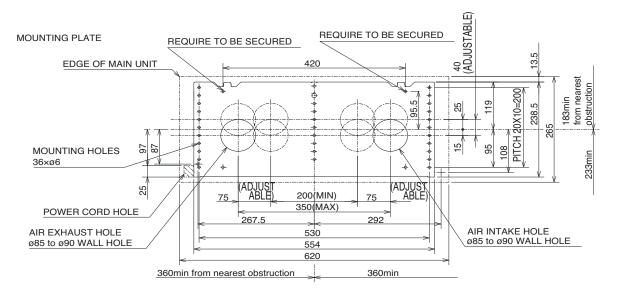
The compact unit with its simple installation makes it ideal for single room applications, such as small offices, bedrooms etc.

### **Key Features**

- Effective fresh air ventilation with improved air quality
- Reduces heating / cooling costs
- Simple installation

MODEL		VL-100U₅-E	VL-100EU₅-E
ELECTRICAL POWER SUPPLY		220-240V, 50Hz	220-240V, 50Hz
PHASE		Single	Single
POWER CONSUMPTION (W)	Low	17	17
	High	34	34
AIRFLOW (m <sup>3</sup> /h)	Low	61	61
	High	106	106
SOUND PRESSURE LEVEL (dBA)	Low	27	27
	High	38	38
TEMPERATURE EXCHANGE EFFICIENCY (%)	Low	79	79
	High	72	72
WEIGHT (kg)		7.5	7.5
DIMENSIONS (mm)	Width	620	620
	Depth	200	200
	Height	265	265
DUCT SIZE (mm)		2 x 075	2 x 075
FUSE RATING (BS88) - HRC (A)		6	6
MAINS CABLE No. Cores		3	3
CONTROL ON/OFF		Pull Cord	Field Supplied

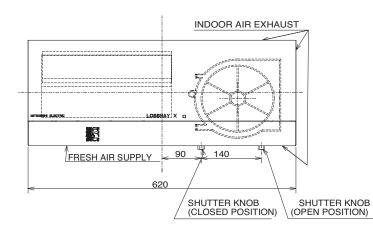
Notes: The VL-100U5-E includes a pull cord switch to control the unit. Also available as VL-100EU5-E which includes the option to fit a field supplied external wall switch

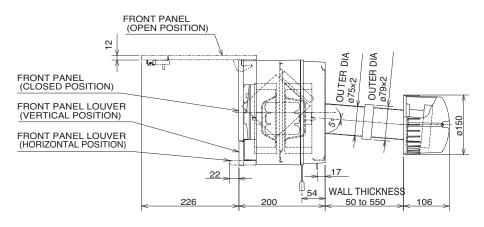


Upper View

Front View

Side View





# Lossnay

### Accessories / Optional Extras

DESCRIPTION	MODEL REF.
VL-100(E)U5-E	
High Efficency Filter	P-100HF5-E
Extension Pipe For VL-100U	P-100P-E
Extension Pipe For VL-100U	P-100PJ-E
VL-(250-500)CZPVU-(R/L)-E	
Standard filter for VL-250CZPVU Coarse 55% / G3	P-250F-E
Standard filter for VL-350CZPVU Coarse 55% / G3	P-350F-E
Standard filter for VL-500CZPVU Coarse 55% / G3	P-500F-E
Medium efficiency filter for VL-250CZPVU ePM2.5 50% / M6	P-250PF-E
Medium efficiency filter for VL-350CZPVU ePM2.5 50% / M6	P-350PF-E
Medium efficiency filter for VL-500CZPVU ePM2.5 50% / M6	P-500PF-E
NOx supply air filter for VL-250CZPVU-E	P-250NF-E
NOx supply air filter for VL-350CZPVU-E	P-350NF-E
NOx supply air filter for VL-500CZPVU-E	P-500NF-E
Acoustic top box for VL-250CZPVU-E	P-250SB-E
Acoustic top box for VL-350CZPVU-E	P-350SB-E
Acoustic top box for VL-500CZPVU-E	P-500SB-E
VL-CZPVU remote controller cover and 1m cable with noise filter	P-RCC-E
MELCloud Wi-Fi Interface	MAC-567IF-E



# How to contact us

Should you have any question regarding our products and services, please find below a summary sheet of how to contact us.

Pre-Sales			After Sales	
An Ecodan & Lossnay design service for our partners.	<ul> <li>© 01707 278 666 (Option 3)</li> <li>© ecodan.technical@meuk.mee.com</li> </ul>	1	A dedicated in-house after sales service for heating professionals.	<ul> <li>O161 866 6089</li> <li>Option 2 - Spares</li> <li>Option 3 - Warranty</li> <li>Option 4 - Heating Technical</li> </ul>
Sales Team A regional sales service that covers the whole of the	$\mathbb{G}$	707 282499 707 282489		Option 5 - Returns           Iestechhelpdesk@meuk.mee.com
UK mainland are available on the following numbers: Operations Team	North East:         017           North West:         017	707 278730 707 278566 707 278023 707 282487	Learning Center Whether you are trained on ecodan product and wish to be kept informed on our latest products or are a new installer wishing to learn about our range, we have the right training for you	<ul> <li>O161 866 6089         <ul> <li>(Option 6, Option 1)</li> </ul> </li> <li>Iestechtraining@meuk.mee.com</li> </ul>
We have dedicated resources supporting you managing your orders. Please contact the relevant team using the following details:	Direct Customers: Solution 01707 278 555 Constraint lesheating.admin@meuk.mee.com Merchant & Resellers: Solution 01707 282 855 Constraint lesmerchantadmin@meuk.mee.com		Partner Programme Should you have any interest in becoming a partner and benefiting from our unique range of services, please do not hesitate to contact us.	<ul> <li>𝔅 01707 288 757</li> <li>☑ partner@meuk.mee.com</li> </ul>















Telephone: 01707 282880

email: heating@meuk.mee.com web: ecodan.co.uk

UNITED KINGDOM Mitsubishi Electric Europe Living Environment Systems Division Travellers Lane, Hatfield, Hertfordshire, AL10 8XB, England General Enquiries Telephone: 01707 282880

IRELAND Mitsubishi Electric Europe Westgate Business Park, Ballymount, Dublin 24, Ireland Telephone: Dublin (01) 419 8800 Fax: Dublin (01) 419 8800 International code: (003531)

Country of origin: United Kingdom – Japan – Thailand – Malaysia. @Mitsubishi Hectric Europe 2022. Mitsubishi and Mitsubishi Hectric Europe 8.V. The company reserves the right to make any variation in technical specification to the equipment described, or to withdraw or replace products without prior notification or public announcement. Mitsubishi Hectric is constantly developing and improving its products. All descriptions, illustrations, drawings and specifications in this publication present only general particulars and shall not form part of any contract. All goods are supplied subject to the Company's General Conditions of Sale, a copy of which is available on request. Third-party product and brand br

Note: Refer to 'Installation Manual' and 'Instruction Book' for further 'Technical Information'. The fuse rating is for guidance only and please refer to the relevant databook for detailed specification. It is the responsibility of a qualified electriciar/electricial 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, P410A (GWP:675), R407C (GWP:1774), R134a (GWP:631), R454B (GWP:631), R454B (GWP:466), R1234ze (GWP:70 or R1234yf (GWP:40), '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 and edition, these are as follows. R410A (GWP:1975), R32 (GWP:1600) or R134a (GWP:1300).





