Ecodan® Air Source Heat Pumps
for domestic space heating and hot water

ecodan® Advanced Heating Technology

With **Kingspan FTC2** Heat Pump Cylinder

Specifications

Ecodan Specifications		PUHZ-W50VHA	PUHZ-W85VHA2	PUHZ-HW140VHA2	PUHZ-HW140YHA2
Dimensions (mm)	Width	950	950	1020	1020
	Depth	330+30*	330+30*	330+30*	330+30*
	Height	740	943	1350	1350
Weight (kg)		64	77	134	148
Airflow (m^3/min)		50	55	100	100
Nominal sound level (dBA)		45▲	48▲	53▲	53▲
Low noise mode (dBA) @ 7°C		40	42	46	46
Guaranteed operating range	(Outdoor)	-15~+35°C	-20~+35°C	-25~+35°C	-25~+35°C
Electrical Supply		220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	380-415v, 50Hz
Phase		Single	Single	Single	3
Running current (A) [Max]		5.4 [13]	10.3 [23]	14.9 [35]	5.1 [13]
Fuse Rating (MCB sizes BS EN 60898) (A)		16	25	40	16
Heating A2/W35	Capacity (kW)	5.0 (1.5-5.0)	8.5 (2.6-8.5)	14.0 (4.2-14.0)	14.0 (4.2-14.0)
	COP	3.13	3.17	3.11	3.11
	Power Input (kW)	1.60	2.68	4.52	4.52
	Nominal flow rate (L/min)	14.3	25.8	40.1	40.1
Heating A7/W35	Capacity (kW)	5.0 (1.5-5.0)	9.0 (2.7-9.0)	14.0 (4.2-14.0)	14.0 (4.2-14.0)
	COP	4.10	4.18	4.25	4.25
	Power Input (kW)	1.22	2.15	3.31	3.31
	Nominal flow rate (L/min)	14.3	25.8	40.1	40.1

*Grille ▲At distance of 1m from outdoor unit

Nominal operating condition
Heating (A2/W35) Outside air temperature (dry) +2°C
Outside air temperature (humid) +1°C
Water temperature (inlet/outlet) +30/+35°C

Nominal operating condition
Heating (A7/W35) Outside air temperature (dry) +7°C
Outside air temperature (humid) +6°C
Water temperature (inlet/outlet) +30/+35°C

Technical Specification of Kingspan FTC2 Heat Pump Cylinder

Model		HU150CPR2	HU180CPR2	HU210CPR2	HU250CPR2	HU300CPR2
Nominal domestic hot water storage volume (litres)		150	180	210	250	300
Overall cylinder dimensions	Height x Width x Depth (mm)	1410x550x700	1410x550x700	1495x550x720	1700x550x720	2050x550x720
Weight (Kg)	(Empty / Full)	80/230	85/265	95/305	105/355	120/420
Unvented store expansion vessel	Nominal Volume (litres)	12	19	19	19	24
	Charge Pressure (bar)	2.1	2.1	2.1	2.1	2.1
Control / relief valve pressure settings	Mains Inlet Pressure Regulator	2.1 bar	2.1 bar	2.1 bar	2.1 bar	2.1 bar
	Expansion Relief Valve (CW)	3.0 bar	3.0 bar	3.0 bar	3.0 bar	3.0 bar
	P & T Valve	4.0 bar & 95°C	4.0 bar & 95°C	4.0 bar & 95°C	4.0 bar & 95°C	4.0 bar & 95°C
Backup immersion heater rating		3kW	3kW	3kW	3kW	3kW
Insulation thickness (mm)		50	50	50	50	50
Heat pump circuit circulating pump		UPSO 25-40	GRUNDFOS UPSO 25-55			
System circulating pump (DHW and zone 1 CH)		UPSO 25-40	GRUNDFOS UPSO 25-55			
DHW circuit zone valve - type HP22 (mm)		22	22	22	22	22
CH circuit zone valve - type HP22 (mm)		22	22	22	22	22
Control & overheat safety thermostat temperature settings	High limit stat	80°C	80°C	80°C	80°C	80°C
	Voltage	230 - 240v	230 - 240v	230 - 240v	230 - 240v	230 - 240v
	Electronic immersion time switch	Direct control from FTC2				
Room thermostat & receiver (1no)		DANFOSS Type - TP5000Si FR & RX1				
7 day programmer, 24 hour 2 channel timer		DANFOSS Type - FP715Si				
Applicable Ecodan Units						
Ecodan PUHZ-W50VHA		✓	✓			
Ecodan PUHZ-W85VHA2		✓	✓	✓		
Ecodan PUHZ-HW140VHA2/YHA2				✓	✓	✓

For further information please refer to technical installation manuals

MITSUBISHI ELECTRIC
Changes for the Better

For further information please contact your local sales office. Details can be found at **www.mitsubishielectric.co.uk/heating**
email: heating@meuk.mee.com

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Product Information

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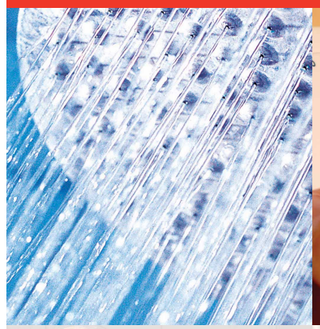
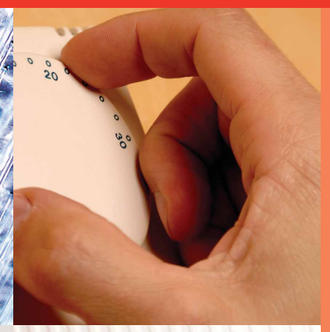



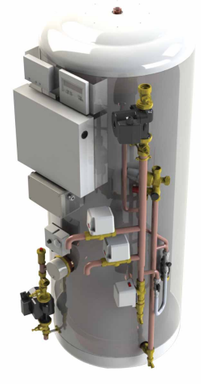
The Mitsubishi Electric Ecodan is designed to meet the demands of today's domestic hot water and heating requirements.

Simple to install, cost effective for the end-user and with outstanding energy efficiency it is ideal for designers, installers and users. Inverter-driven heat pump technology offers a low carbon alternative to traditional boilers in modern buildings, whether they are new build or refurbishments.

- 30 - 50% reduction in CO_2 emissions
- Low running costs
- Easy to install - self contained unit only requiring water and electric connections
- No gas supply, flues or ventilation required
- No need for groundwork or external pumps
- Single phase power supply with a low starting current
- Three phase option available (14kW)
- Even higher running cost savings and CO_2 reductions with under floor heating systems
- Low maintenance
- Reduced VAT to 5% for domestic applications
- Comparable installation costs to a modern gas-fired condensing boiler
- Low noise

Technical Information >



MITSUBISHI ELECTRIC HEATING SYSTEMS

Kingspan®

ecodan® Advanced Heating Technology

The Kingspan FTC2 Heat Pump Cylinder

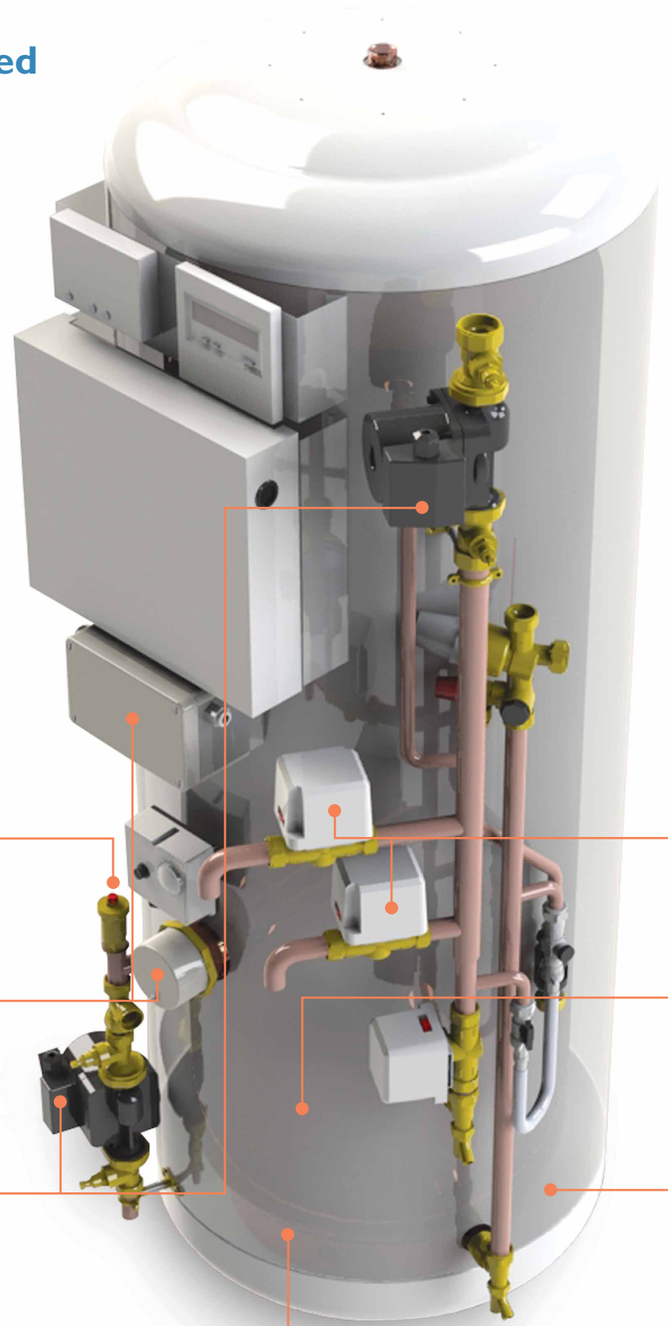
ecodan®
Advanced Heating Technology

The Ecodan air source heat pump range now benefits from a range of pre-plumbed packaged cylinders made by Kingspan.

The AEROCYL.me pre-plumbed unvented cylinder enables quick and easy installation of the Ecodan heat pump into most homes. All the components have been carefully selected to ensure good system efficiency an ease of installation. The packaged cylinder offers a flexible, quick and easy solution to both retrofit and new build installations.

Features & Benefits:

- **Factory assembled for reliability - reduces call-backs and delays**
- **Simplified on site installation - up to 70% quicker to install than third party non pre-assembled systems**
- **Consistent electrical and plumbing layout, with a neat and tidy finish providing greater customer satisfaction**
- **Plug in connections for all controls**
- **No tanks required in roof space**
- **ISO 9001:2008 quality assured**
- **Three year warranty**
- **SAP Appendix Q eligible**



Built-in automatic air bleed valve:

Installed on the cylinder to assist in removing air pockets within the system automatically.

Immersion heater and control box:

A 3kW immersion heater is installed and controlled by the FTC2 control box as standard. The automatic control settings are selectable upon commissioning.

Pumps:

Two Grundfos low energy, low noise pumps are mounted in series. These are maintenance free and have 3 speeds.

Cylinder body:

Built to BS EN 1653 and designed specifically to operate at a working pressure of 2.1 bar. Manufacturing ISO 9001:2008 quality assured.

2 channel electronic 7 day programmer:

- Large back light LCD display
- Easy to programme and operate

Wireless room thermostat:

This saves having to wire between the room thermostat and the receiver, saving installation time.

- Large LCD display
- Easy to programme and operate

Cylinder expansion vessel:

The cylinder expansion vessel, bracket and hose are supplied as standard.

Flow setter valve:

The flow setter valve assists with commissioning the system to the recommended flow rate, ensuring good system efficiency.

Two heating zones:

On models HU180CPR2, HU210CPR2, HU250CPR2 and HU300CPR2. HU150CPR2 has one heating zone.

Heat exchanger coil:

The coil within the cylinder has been optimised to work specifically with Ecodan air source heat pumps. This enables both quick and efficient heat up times.

Insulation:

Highly efficient insulation with low standing losses (HU150CPR2 = 1.38kWhr/24hrs, HU180CPR2 = 1.63, HU210CPR2 = 1.90, HU250CPR2 = 2.21 & HU300CPR2 = 2.43). Zero ODP and a GWP rating of 1.

APPROVED PRODUCT MCS BRE GLOBAL CERTIFIED
Certificate Number: MCS HP0002
Product Reference: PUHZ-W50VHA-{BS}
PUHZ-W85VHA2-{BS}, PUHZ-HW140VHA2/YHA2-{BS}

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UK/31/001 - PUHZ-W50VHA-{BS}
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