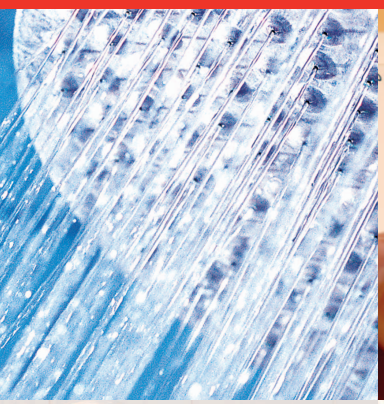
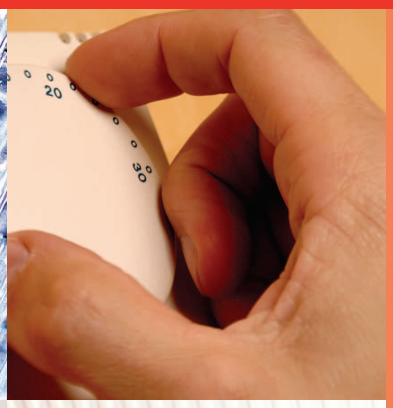
Product Information

Ecodan® Air Source Heat Pumps

for domestic space heating and hot water

With **Kingspan** Heat Pump Cylinder





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

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

ecodan® Advanced Heating Technology

With **Kingspan** Heat Pump Cylinder

Specifications

Ecodan Specifications		PUHZ-W50VHA	PUHZ-W85VHA	PUHZ-HW140VHA	PUHZ-HW140YHA
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 60947-2) (A)		16	25	40	16
Heating A2/W35	Capacity (kW)	5.0	8.5	14.0	14.0
	COP	3.13	2.95	2.69	2.69
	Power Input (kW)	1.60	2.88	5.21	5.21
	Nominal flow rate (L/min)	14.3	25.8	40.1	40.1
Heating A7/W35	Capacity (kW)	5.0	9.0	14.0	14.0
	COP	4.10	3.85	4.19	4.19
	Power Input (kW)	1.22	2.34	3.34	3.34
	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 Heat Pump Cylinder

Model		HU150CP	HU180CP	HU210CP	HU250CP	HU300CP
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	TBC	TBC
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	Control stat	65°C	65°C	65°C	65°C	65°C
	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	Type - ETU8000				
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-W85VHA	✓	✓	✓		
Ecodan PUHZ-HW140VHA/YHA			✓	✓	✓

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**

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