

# PUHZ-(H)W50/85/140VHA/YHA Ecodan® Air Source Heat Pumps

With Flow Temperature Controller



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<sub>2</sub> 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<sub>2</sub> reductions with under floor heating systems
- Low maintenance
- Reduced VAT from 17.5% to 5% for domestic applications
- Comparable installation costs to a modern gas-fired condensing boiler
- Low noise

Technical Information >



# PUHZ-(H)W50/85/140VHA/YHA

## Ecodan® Air Source Heat Pumps

**ecodan**<sup>®</sup>  
Advanced Heating Technology

With Flow Temperature Controller

Specifications

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 <sup>3</sup> /min)		50	55	100	100
Nominal sound level (dBA)		45 <sup>^</sup>	48 <sup>^</sup>	53 <sup>^</sup>	53 <sup>^</sup>
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 <sup>^</sup> At distance of 1m from outdoor unit					
Nominal operating condition			Nominal operating condition		
Heating (A2/W35)	Outside air temperature (dry)	+2°C	Heating (A7/W35)	Outside air temperature (dry)	+7°C
	Outside air temperature (humid)	+1°C		Outside air temperature (humid)	+6°C
	Water temperature (inlet/outlet)	+30/+35°C		Water temperature (inlet/outlet)	+30/+35°C

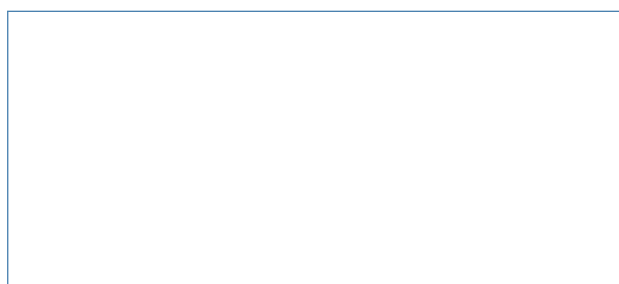
## Flow Temperature Controller

To allow the home owner to continue to operate both their central heating and hot water time clocking using a commonly available two-channel controller, we have introduced the Flow Temperature Controller (FTC) interface.

The FTC will accept signals from a standard "S-Plan" piping configuration and operate the Ecodan in either a Space or Water heating mode, as required.

In a Space Heating mode the FTC will ensure that Ecodan operates at optimum efficiency, varying the flow temperature to either the radiator or under floor heating system to meet a homes heating requirements.

In a Water Heating mode the FTC will allow the Ecodan to work with leading brands of water storage tanks. It is, however, important to consider that the overall performance of the system in Water Heating mode will be very dependant on the thermal performance of the storage tank's heat exchanger. With the packaged systems we offer, the heat exchangers have been designed to offer an optimised performance across the whole Ecodan water flow temperature range and these performances have been tested and verified. We therefore strongly recommend that similar consideration is given to the specification of any hot water storage tank before being consideration for operation with the Ecodan.



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ELECTRIC**

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