

ECOCORE[®] AP Series

Super Energy Efficient High Wall Heat Pumps



EcoCore AP Series



The EcoCore AP Series High Wall Heat Pumps set a new standard in super energy efficient heating. Next-generation EcoCore Technology is designed to use less power than ever before. And starting at just 18dBA*, it's NZ's quietest – ideal for living rooms and bedrooms!



New Zealand's Quietest Heat Pump!*

Starting at an incredibly quiet 18dBA on its lowest fan speed, the AP25 indoor unit is New Zealand's quietest high wall heat pump ever. It is ideal where quietness matters most, in bedrooms even on the coldest of winter nights.

Furthermore, the addition of Night Mode means the outdoor operating noise level drops by a further 3dBA – for the perfect night's sleep.

The Secret to Quietness

By making the heat exchanger 32% thinner† and designing the fan coil to be 22% larger† in comparison to previous models, pressure loss across the heat exchanger is minimised and air can now be moved across a larger fan surface. Add to this a new aerodynamically designed fan coil, and a new level of quietness has been achieved!

Dual Barrier Coating Maximises Efficient Performance

The patented and world's first Dual Barrier Coating from Mitsubishi Electric prevents dust and dirt from accumulating on the inner surface of the indoor unit; keeping your heat pump clean year-round.

Keeping key internal components like the heat exchanger, fan and internal duct clean is important for both home comfort and efficiency. Not only does dust and dirt build-up typically create unpleasant odours, it also forces a heat pump to work harder, which can result in significantly impaired energy efficiency.

Dual Barrier Coating prevents dust and oil build-up on the interior of the heat pump for the ultimate in peace of mind, ease and comfort.



Fan Coil



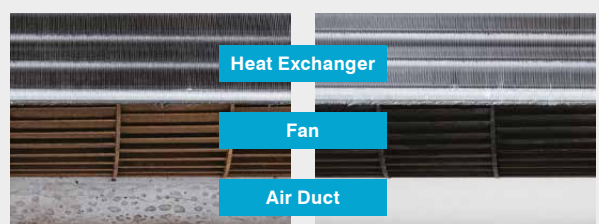
Heat Exchanger



Dual Barrier Coating

Comparison of dirt on heat exchanger, fan and air duct.

(Factory simulated in-house comparison.)



No Dual Barrier Coating (after 10 years)

With Dual Barrier Coating

* AP25 indoor sound level on lowest fan setting in Heating Mode.

† Compared to MSZ-GL Series.

Energy Efficient EcoCore Inverter Technology



Superior energy efficiency is achieved by incorporating a large, high density heat exchanger, an advanced high efficiency fan motor and a next-generation inverter compressor that uses more efficient R32 refrigerant.

More Environmentally Friendly R32 Refrigerant

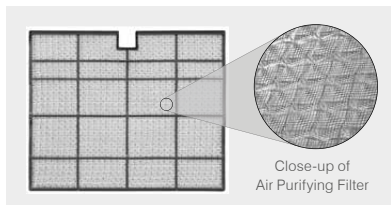


With a global warming potential that is 30% lower compared to older refrigerants such as R410A, next-generation R32 refrigerant has a much lower environmental impact. Furthermore, zero ozone depleting R32 is easier to reuse and recycle.

Washable Air Purifying Filter



The EcoCore AP Series is equipped with an Air Purifying Filter. This washable filter traps particles such as dust, pollen and other airborne contaminants, generating stable antibacterial and deodorising effects. The size of the



three-dimensional surface has been increased from previous models, enlarging the filter capture area. These features give the Air Purifying Filter better dust collection performance than conventional filters.

Horizontal Airflow



The EcoCore AP Series eliminates uncomfortable draughts with Horizontal Airflow in Cooling Mode, by first spreading airflow evenly across the ceiling.

Wide and Long Airflow*



The Wide Airflow Mode enables the airflow direction to be adjusted from left to right and is ideal for open plan environments – ensuring every corner of the room is comfortable. The Long Airflow Mode extends airflow distance.

Blue Fin Coating – Built to Withstand the Elements



The heat exchanger of the outdoor unit has been treated with blue fin anti-corrosion treatment, slowing the corrosion process caused by salt and sulphur in the air especially in coastal and high sulphur areas.

Wi-Fi Control Built-in! Never Return to a Cold Home Again



With built-in Wi-Fi Control you can pre-heat or cool a room no matter where you are. On the way home, running late, coming home early, or even when you're in a different country, with Wi-Fi Control you'll always arrive home to total comfort.

Wi-Fi Control is Amazon Alexa and Google Home enabled so you can take your comfort to the next level and enjoy hands-free heat pump control. See pages 8–9 for more details on Wi-Fi Control.



Dimensions (WxDxH): 798 x 219 x 299mm

MSZ-AP25VGKD

Heating Capacity: 3.2 kW | Cooling Capacity: 2.5 kW

MSZ-AP35VGKD

Heating Capacity: 3.7 kW | Cooling Capacity: 3.5 kW

MSZ-AP42VGKD

Heating Capacity: 5.4 kW | Cooling Capacity: 4.2 kW

MSZ-AP50VGKD

Heating Capacity: 6.0 kW | Cooling Capacity: 5.0 kW



Dimensions (WxDxH): 1100 x 257 x 325mm

MSZ-AP60VGKD

Heating Capacity: 6.8 kW | Cooling Capacity: 6.0 kW

MSZ-AP71VGKD

Heating Capacity: 8.0 kW | Cooling Capacity: 7.1 kW

MSZ-AP80VGKD

Heating Capacity: 9.0 kW | Cooling Capacity: 7.8 kW



* AP60/71/80 models only.

EcoCore AP Series Specifications



QUICK GLANCE	TYPE		High Wall System											
	SERIES		EcoCore AP Series											
	MODEL		MSZ-AP25	MSZ-AP35	MSZ-AP42	MSZ-AP50	MSZ-AP60	MSZ-AP71	MSZ-AP80					
	REFRIGERANT		R32											
	INDOOR UNIT		MSZ-AP25VGKD	MSZ-AP35VGKD	MSZ-AP42VGKD	MSZ-AP50VGKD	MSZ-AP60VGKD	MSZ-AP71VGKD	MSZ-AP80VGKD					
	OUTDOOR UNIT		MUZ-AP25VG	MUZ-AP35VG	MUZ-AP42VG	MUZ-AP50VG	MUZ-AP60VG	MUZ-AP71VG	MUZ-AP80VG					
	COOL		2.5kW 5.00 EER 19 dBA*	3.5kW 4.02 EER 19 dBA*	4.2kW 3.53 EER 26 dBA*	5.0kW 3.79 EER 28 dBA*	6.0kW 3.77 EER 29 dBA*	7.1kW 3.53 EER 30 dBA*	7.8kW 3.31 EER 30 dBA*					
	HEAT		3.2kW 4.78 COP 18 dBA*	3.7kW 4.57 COP 19 dBA*	5.4kW 3.78 COP 26 dBA*	6.0kW 3.70 COP 28 dBA*	6.8kW 4.07 COP 29 dBA*	8.0kW 3.83 COP 30 dBA*	9.0kW 3.53 COP 30 dBA*					
ENERGY RATING		5.5	5.0	3.5	4.5	2.5	3.0	3.0	3.0	3.5	2.5	3.0	2.0	2.5
COOL	Capacity	Rated	[kW]	2.5	3.5	4.2	5.0	6.0	7.1	7.8				
		Min-Max	[kW]	1.1-3.6	1.1-4.1	0.9-4.8	1.4-6.2	1.4-7.3	2.0-8.7	2.0-9.2				
	Input	Rated	[kW]	0.50	0.87	1.19	1.32	1.59	2.01	2.36				
		EER	5.00	4.02	3.53	3.79	3.77	3.53	3.31					
	AEER	4.97	4.01	3.52	3.78	3.77	3.53	3.30						
	Star Rating	5.5	3.5	2.5	3.0	3.0	2.5	2.0						
	Indoor Sound Level	(Quiet*)	[dBA]	19	19	26	28	29	30	30				
		(Low-SHi ¹)	[dBA]	24-31-38-44	24-31-38-45	29-35-40-46	33-39-44-49	37-41-45-48	37-41-45-49	37-41-45-53				
	Running Current (Rated)	[A]	2.6	4.1	5.3	5.9	7.1	8.8	10.8					
	Air Volume In (SHi)	[L/s]	205	223	223	258	315	310	343					
HEAT	Capacity	Rated	[kW]	3.2	3.7	5.4	6.0	6.8	8.0	9.0				
		Min-Max	[kW]	1.3-5.0	1.3-5.1	1.3-6.0	1.4-8.0	2.0-8.6	2.2-9.9	2.2-11.0				
	Input	Rated	[kW]	0.67	0.81	1.43	1.62	1.67	2.09	2.55				
		COP	4.78	4.57	3.78	3.70	4.07	3.83	3.53					
	ACOP	4.75	4.55	3.77	3.70	4.06	3.82	3.53						
	Star Rating	5.0	4.5	3.0	3.0	3.5	3.0	2.5						
	Indoor Sound Level	(Quiet*)	[dBA]	18	19	26	28	29	30	30				
		(Low-SHi ¹)	[dBA]	25-31-38-42	25-31-38-45	29-35-40-46	33-38-43-48	37-41-45-48	37-41-45-51	37-41-45-51				
	Running Current (Rated)	[A]	3.3	3.8	6.3	7.1	7.4	9.1	11.3					
	Air Volume In (SHi)	[L/s]	190	215	233	268	338	320	320					
Controller	Standard		7-Day Programmable Controller											
	Optional Wired 7-Day Timer		Optional: PAR Controller (Interface Required)											
Wi-Fi			Built-In											
Power Supply	(Powered From Outdoor Unit)		230 V / Single Phase / 50 Hz											
	Maximum Current	[A]	7.0	7.1	9.9	14.0	14.0	16.4	16.5					
Indoor	Dimensions (WxDxH)	[mm]	798 x 219 x 299						1100 x 257 x 325					
	Weight	[kg]	10.5						16		17			
Outdoor	Dimensions (WxDxH)	[mm]	800 x 285 x 550				800 x 285 x 714				840 x 330 x 880			
	Weight	[kg]	35	35	36	41	41	55	55					
	Sound Level - SPL ² /PWL (Cooling-Heating)	[dBA]	46-49 / 59-59	50-50 / 64-64	51-52 / 65-65	54-56 / 69-69	55-57 / 69-69	56-55 / 69-69	56-55 / 69-69					
Piping	Diameter (Liquid/Gas)	[mm]	6.35 / 9.52	6.35 / 9.52	6.35 / 9.52	6.35 / 12.7	6.35 / 12.7	6.35 / 12.7	6.35 / 12.7					
	Max. Length/Height [†]	[m]	20 / 12	20 / 12	20 / 12	20 / 12	30 / 15	30 / 15	30 / 15					
	Chargeless Piping Length	[m]	10	10	10	15	15	15	15					
Operation Range Outdoor	Cooling	[°C]	-10 / 46	-10 / 46	-10 / 46	-10 / 46	-10 / 46	-10 / 46	-10 / 46					
	Heating	[°C]	-15 / 24	-15 / 24	-15 / 24	-15 / 24	-15 / 24	-15 / 24	-15 / 24					
Indoor Unit Colour			White											

EER = Energy Efficiency Ratio
 COP = Coefficient of Performance
 AEER = Annual Energy Efficiency Ratio
 ACOP = Annual Coefficient of Performance
 PWL = Sound Power Level

SPL = Sound Pressure Level
 SHi = Super High
¹ Low-SHi = Low-Medium-High-Super High
² SPL measured under rated operating frequency

* Sound Levels rated at lowest fan speed.
[†] Maximum length is inclusive of height differential i.e. (20/12) means the pipe can be 12m high and 8m across for a total length of 20m.
 Rating Conditions (AS / NZS 3823).
 Cooling: Indoor: 27°C DB, 19°C WB. Outdoor: 35°C DB
 Heating: Indoor: 20°C DB Outdoor: 7°C DB, 6°C WB.



Black Diamond Technologies Limited



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