



HEAT PUMPS
AIR CONDITIONING

New Zealand's Quietest Floor Consoles



You want to feel the warmth, not hear it.[®]

Inverter MFZ-KA/FB Series

COMPACT FLOOR CONSOLE

Thermostatically Controlled Upper and Lower Air Outlets Whisper Quiet Operation

This range is specifically designed to discreetly sit at floor level, making them ideal replacements for traditional floor mounted heating appliances such as night-store heaters.

The slim-line range features independently controllable upper and lower air outlets ensuring optimum air distribution to guarantee warm feet! A comprehensive deodorising and air purifying filter system will ensure healthier and cleaner air. All this is packed in to a compact floor design with the whisper quiet performance that you have come to expect from Mitsubishi Electric.



Dimensions (W x D x H): 700 x 200 x 600mm

MFZ-KA/FB Model Range

MFZ-KA25VA (MFZ-KA25VA + SUZ-KA25VA)

Cooling Capacity: 2.5 (0.9~3.4) kW
Heating Capacity: 3.4 (0.9~5.1) kW

MFZ-KA35VA (MFZ-KA35VA + SUZ-KA35VA)

Cooling Capacity: 3.5 (0.9~3.9) kW
Heating Capacity: 4.0 (0.9~6.2) kW

MFZ-KA50VA (MFZ-KA50VA + SUZ-KA50VA)

Cooling Capacity: 4.8 (0.9~5.4) kW
Heating Capacity: 6.0 (0.9~7.9) kW

HYPERCORE® High Performance Heat Pump

MFZ-FB50VA (MFZ-FB50VA + MUFZ-FB50VAH)

Cooling Capacity: 4.8 (0.9~5.4) kW
Heating Capacity: 5.4 (0.9~7.9) kW

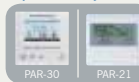
The HyperCore® Guarantee ensures this Heat Pump will deliver its full rated heating capacity of 5.4kW right down to -15°C.

Features

HEAT PUMP



Optional 7 Day Timers



Rated Capacity -15°C FB50	Only 22dB KA25	i save	Econo Cool	Cooling at 46°C/40°C	Heating at -15°C	ACO	Catechin As Standard Filter	Anti-Allergy Enzyme As Standard Filter	AUTO VANE Horizontal
VERTICAL AIR FLOW	SWING Horizontal	AUTO	Glossy White	Compact	DC Inverter	PAM Control	Auto Restart	24 Hour Timer	Weekly Wall Timer Optional
Centralised On/Off Optional	M-NET connection Optional	Self Diagnosis	Failure Recall	12m 20m KA25/35	30m 30m KA50/FB50	MXZ connection	Flare connection	Easy Installation With Levelling Plate	Infra Red Remote Controller

For further information on these features please visit our website: www.mitsubishi-electric.co.nz

Outdoor Units



SUZ-KA25/35VA
Dimensions (WxDxH)
800 x 285 x 550mm

SUZ-KA50VA & MUFZ-FB50VAH
Dimensions (WxDxH)
840 x 330 x 850mm



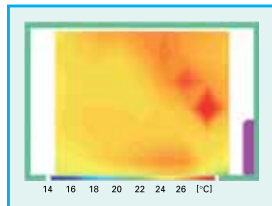
From **22dB**

Guaranteed
**Heating at
-15°C**

Air Purification

Maximum Heat Output, Optimum Air Distribution

Perfect room temperatures at any time are achieved through dual top and bottom air flow with thermostatically controlled vanes to eliminate cool draughts whilst heating.



Mitsubishi Electric Inverter Control allows optimum comfort conditions to be achieved in the shortest period of time. This is vital when outdoor temperatures drop below freezing point or when the unit is first turned on.



Unique Energy Saving Features

“i-save” Mode

With this function, settings including temperature, fan speed, and airflow direction for both cooling and heating operation can be saved simultaneously. This function can be used to quickly return to your preferred settings. The “i-save” mode can be used as an energy saving function. If the stored “i-save” settings are 2-3°C cooler than the normal temperature setting when activated, the room will be set to the cooler temperature. When the room is reoccupied the button can be pressed to return to the original settings.

Econo Cool

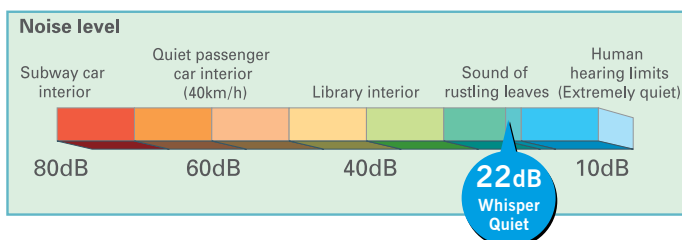
This energy saving function can be selected in cooling mode. The temperature is automatically set to 2°C higher, while the airflow is switched to a swing flow. This airflow pattern feels cooler than constant airflow, allowing reduced energy consumption.



Whisper Quiet Operation

Mitsubishi Electric have a long standing reputation for offering some of the quietest models in the industry. The MFZ-KA range is no exception. At only 22 dB(A) on its lowest fan speed, the MFZ-KA25 is super quiet. You want to feel the warmth, not hear it!

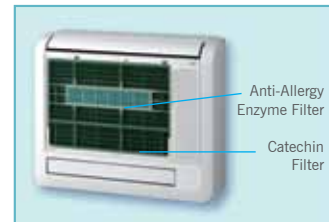
Only **22dB**
MFZ-KA25



Cleaner and Healthier Air

The combination of Catechin + Anti-Allergy Enzyme Filters ensure effective deodorisation, active filtering and the dramatic reduction of common allergens and bacteria. This is the key to cleaner and healthier air.

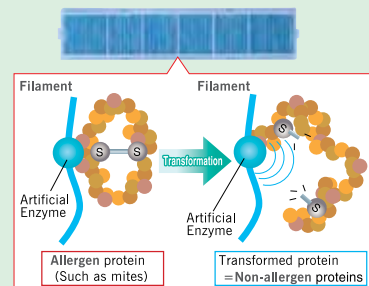
In addition to the “Catechin Filter” with deodorising effect, the “Anti-Allergy Enzyme Filter” traps dust mites and their droppings, pollen and other allergens on the filter filament, then decomposes them with artificial enzymes.*2 What’s more, a sterilising agent combats bacterial and viral effects, all in all supporting a cleaner and healthier air supply.



*2 : Confirmed by the Japan Spinners Inspecting Foundation. Test numbers 007715-1, 007715-2. / Confirmed by Shinshu University.

“Anti-Allergy Enzyme Filter” mechanism

1. Artificial enzyme catalyst on the filament traps the allergens.
2. The artificial enzyme catalyst helps the chemical reaction with Oxygen and severs the S-S bonds.*3
3. Proteins with severed S-S bonds are no longer allergen proteins.



*3 : Mites and other allergen protein consist of sulphur atoms (S) that have bonded together.

Auto Change Over Function

When the desired temperature is reached, the system automatically switches between cooling and heating modes. The selected room temperature can be maintained without user intervention.

For example, when it's frosty in the early morning the unit will operate on heating to maintain a set point of 22°C in heating mode. When the sun rises the unit can switch to cooling to maintain the 22°C set temperature.

Guaranteed Heating Performance to -15°C

Not all heat pumps perform when they are needed most. Our range is guaranteed to effectively provide heating on those cold nights or mornings when you really need it.

Trouble-Free Installation and Maintenance

To install the indoor unit, position with our original installation plate then set the unit in place. Easy levelling work prevents any harm to wall surfaces. Generous pipe length, up to 30 metres*4, eliminates worries about outdoor unit distance. Loaded with automatic diagnosis function, fault recall mode and other sophisticated aids, troubleshooting is immediate though problems are rare.



*4 : MFZ-KA50VA

THE MITSUBISHI ELECTRIC ADVANTAGE

Your Guarantee...



New Zealand's
Quietest
HEAT PUMPS
...Ever!



UNIQUE
Energy Saving
FEATURES



New Zealand's
Best
LOW TEMPERATURE
PERFORMANCE
...Guaranteed!

New Zealand's
Quietest
HEAT PUMPS
...Ever!

Sound is measured using a logarithmic measurement known as decibels or dB(A). The normal range of human hearing begins at approximately 0 decibels – however a sound usually needs to reach 10 - 15 dB(A) before it is detected (this is the sound level of someone breathing normally).

The loudness of sound increases by 52% for every additional 6 dB(A) or doubles for every 10 dB(A). So a Heat Pump that produces 25 dB(A) of sound will be one and half times louder than a Heat Pump that produces 19 dB(A). An increase of just 1 dB(A) equates to an increase in sound intensity of 26%!

Mitsubishi Electric has a long-standing reputation for manufacturing the Quietest Heat Pumps / Air Conditioners available. As even a small dB(A) increase will impact the sound level you experience, Mitsubishi Electric strives to continuously improve the sound levels of their Heat Pumps. In the Floor Console range the MFZ-KA25VA is super quiet at 22 dB(A).

The Mitsubishi Electric MSZ-GE25VA and MSZ-GE33VA Inverter High Wall indoor units are New Zealand's Quietest Heat Pumps at an amazingly low 19 dB(A) on their lowest fan speed (Quiet Mode). Mitsubishi Electric's "Quiet Mode" is designed to ensure you receive the comfort levels you desire while experiencing the quietest sound levels available. We understand that you want to feel the warmth not hear it!

UNIQUE
Energy Saving
FEATURES

Mitsubishi Electric aims to provide the most energy efficient Heat Pump Systems by combining high energy efficiency with unique energy saving features.

To read about the Mitsubishi Electric Unique Energy Saving Features please view:

i-save Mode and **Econo Cool** on page 3.

Inverter Technology for even more savings! Mitsubishi Electric Inverter technology offers even more energy savings by matching compressor speed output to your indoor heating or cooling load conditions. Energy savings of up to 30% are possible when compared to fixed speed. Mitsubishi Electric Inverter models also have the capability to run above rated capacity for quicker achievement of design controlled environment conditions under adverse outdoor conditions.

New Zealand's
Best
LOW TEMPERATURE
PERFORMANCE
...Guaranteed!

Engineered for superior heating, Mitsubishi Electric Heat Pumps are designed to keep you warm in even the coldest conditions. In fact, we guarantee our low temperature performance. All Mitsubishi Electric Heat Pumps have guaranteed heating performance right down to -15°C to ensure adequate heating on even the coldest nights or mornings when you really need it.

All Mitsubishi Electric Heat Pumps are fitted with intelligent defrost strategies to ensure minimal time spent defrosting when the temperature drops. When the outside temperature drops below zero all heat pumps must perform a "defrost cycle" to remove ice build up on their outdoor coils. Mitsubishi Electric has developed an advanced defrost strategy to enable more efficient operation in extreme conditions. Mitsubishi Electric Heat Pumps utilise a Fuzzy Logic software program, a form of Artificial Intelligence, that typically lasts between 3 to 5 minutes. This program measures and records temperatures and running times then uses this data to initiate the defrost cycle only when required.

HYPERCORE® High Performance Heat Pumps

It is now possible to upgrade the standard MFZ-KA50 with the new MFZ-FB50VAH HyperCore Floor Console Heat Pump.

If you live in an area with high humidity and low temperatures you may need to consider upgrading to a HyperCore® High Performance Heat Pump. HyperCore® has all of the technology hidden in the standard Mitsubishi Electric Inverter Heat Pump but additionally, is the ONLY heat pump available in New Zealand that guarantees it's fully rated capacity at all temperatures from +7°C to -15°C ~ and all temperatures in between. So no matter how cold it is in your region ~ +2°C, or -2°C or even -15°C ~ HyperCore® Heat Pumps will not lower their heating capacity regardless of the outdoor temperature.

Welcome to a New Standard of Heating Performance

No longer do you have to put up with inadequate heating when winter really bites. HyperCore[®] Heat Pumps by Mitsubishi Electric are specifically designed for New Zealand's harsh winter conditions and use advanced Japanese Hyper Heating technology to ensure you experience the comfort you expect, even if the outdoor temperature plummets well below zero. Unlike conventional heat pump systems that produce less heat as the outdoor temperature drops, Mitsubishi Electric HyperCore[®] Heat Pumps are guaranteed to deliver their full rated heating capacity at 7°C, 2°C, 0°C... in fact we'll guarantee it all the way down to -15°C!

The Heating Performance Myth

In New Zealand, heat pumps are rated against a standard known as H1, where performance is tested at a fixed outdoor ambient temperature of 7°C. Obviously temperatures do not remain at a constant 7°C during a typical kiwi winter, in fact they often go well below 0°C. As the outside temperature drops below 7°C, an ordinary heat pump will struggle to produce its full heating output and as such less heat is produced. Because less heat is produced, adequate comfort levels may not be reached. New hyper heating technology ensures Mitsubishi Electric HyperCore[®] Heat Pumps will deliver the same amount of heat whether operating at 7°C or -15°C...we guarantee it!



MFZ-FB50VAH Inverter Floor Console Heat Pump

Technology Breakthrough: The HyperCore[®] Compressor



“Defrost Logic”

When temperatures drop below zero degrees ice will build up on the outdoor unit of any heat pump. How the heat pump reacts to this determines how effective it will be in providing heat to your home.

Older style heat pumps will initiate defrost by a fixed time or coil temperature. This system is not efficient as it often causes the heat pump to defrost too often or reduces performance by not defrosting often enough. When a heat pump enters into defrost it shuts down its heating operation to concentrate on bringing its outdoor unit back up to a suitable temperature. While in defrost mode a heat pump will not be delivering heat into your home.

HyperCore[®] defrost logic has been fine tuned to extend the time between defrost periods and optimise its cold temperature performance. This allows a HyperCore[®] Heat Pump to continue delivering its full rated capacity of heat even with outside temperatures as low as -15°C

“Heat Caulking Compressor”

This is a unique technology to Mitsubishi Electric. The compressor is extremely efficient in its construction and performance. This compressor moves more vapor volume for less energy input and allows the compressor to maintain efficiency and higher revolutions.

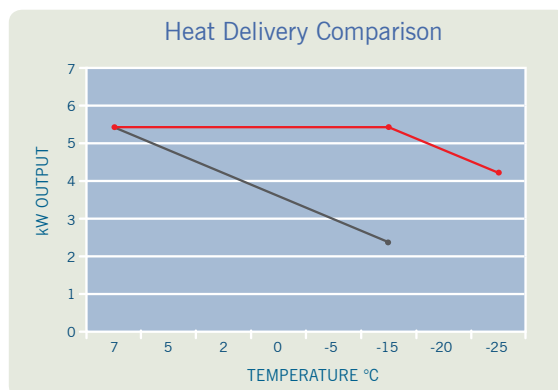
“Low Ambient Heating Range”

Mitsubishi Electric HyperCore[®] Heat Pumps have an extended heating operation range that allows heating to -25°C. To achieve this the system logic has been changed as well as the addition of a 130 watt base heater and relay card. This heating element prevents ice build up in the outdoor unit following defrost. This element will not operate under most ambient conditions above zero degrees. This ensures the continued delivery of heat to your home by increasing the time between defrost cycles.

Not All Heat Pumps Are Created Equal

The Mitsubishi Electric MFZ-FB50VAH HyperCore[®] Heat Pump will continue to deliver 5.4kW of heat when the outside temperature is at 7°C, 2°C, 0°C and even -15°C.

As the graph shows, the kW capacity of the MFZ-KA50VA Heat Pump will drop as the outdoor ambient conditions drop. The HyperCore[®] technology combined with unique new software and control systems has produced a huge leap forward in heat pump cold temperature performance and energy efficiency.



— MFZ-FB50VAH HyperCore[®]

— Standard Inverter Heat Pump

Controllers

Optional: PAR-30MAA with Backlit Screen & PAR-21MAA Wired 7-Day Timers. These controllers allow you to program up to 8 separate Start/Stop patterns per day over a 7 day period to maintain optimal temperature levels during the times when you are likely to be in the room. In the periods where you are unlikely to be there (such as during work hours or sleep time), the temperature can be set back to a minimum holding temperature instead of turning the system completely off.



PAR-30MAA



PAR-21MAA



MAC-821SC-E

Optional: MAC-821SC-E (Centralised ON/OFF Controller). An optional Centralised ON/OFF Controller (MAC-821SC-E*) can also be incorporated to regulate all connected units in your home (and enabling ON/OFF selection and operation status confirmation from one single controller).

Note: The PAR-21MAA, PAR-30MAA and MAC-821SC-E all require the MAC-3971F-E adaptor per indoor unit.

Optional: AG-150 Central Controller (With Touch Screen / Web Server Functions). The advanced colour touch screen allows user friendly control of the entire air conditioning system.

The system can also be accessed from a computer using a web browser. Other advanced controllers available, visit www.mitsubishi-electric.co.nz



AG-150

5 Year Warranty

Mitsubishi Electric Air Conditioners / Heat Pumps come with a full 5 year parts, labour and compressor warranty. Warranty conditions apply. Please be aware of these conditions prior to purchasing this product.

Energy Ratings & Sound Levels

ENERGY RATING	3.0		2.0		1.5		1.5	
	PREVIOUS	6.0	6.0	4.5	5.0	4.5	4.0	4.5
MODEL	MFZ-KA25		MFZ-KA35		MFZ-KA50		MFZ-FB50	
COOL	2.5kW 3.96 AEER 22 dB(A)*		3.5kW 3.37 AEER 23 dB(A)*		4.8kW 3.21 AEER 32 dB(A)*		4.8kW 3.02 AEER 32 dB(A)*	
	HEAT	3.4kW 3.83 ACOP 22 dB(A)*		4.0kW 3.70 ACOP 25 dB(A)*		6.0kW 3.28 ACOP 32 dB(A)*		5.4kW 3.45 ACOP 32 dB(A)*

*Sound Levels rated at lowest fan speed.

Specifications

MFZ-KA VA Inverter Compact Floor Console / MFZ-FB VAH HyperCore® Inverter Compact Floor Console (R410A)

TYPE				Compact Floor Console			HyperCore®
				Inverter			Inverter
MODEL	MODEL NAME			MFZ-KA25VA	MFZ-KA35VA	MFZ-KA50VA	MFZ-FB50VAH
	INDOOR UNIT				MFZ-KA25VA	MFZ-KA35VA	MFZ-KA50VA
OUTDOOR UNIT			SUZ-KA25VA	SUZ-KA35VA	SUZ-KA50VA	MUFZ-FB50VAH	
COOL	Capacity	Rated	[kW]	2.5	3.5	4.8	4.8
		Min-Max	[kW]	0.9 - 3.4	0.9 - 3.9	0.9 - 5.4	0.9 - 5.4
	Input	Rated	[kW]	0.58	1.09	1.55	1.55
		Min-Max	[kW]	0.19 - 0.94	0.19 - 1.25	0.19 - 1.98	0.26 - 1.98
	AEER			3.96	3.37	3.21	3.02
	Star Rating			3.0	2.0	1.5	1.5
	Sound Level	In (Low-SHi*)	[dB(A)]	22-27-32-37	23-28-33-38	32-35-39-43	32-37-43-48
		Out	[dB(A)]	46	47	53	54
	Rated Current (In / Out)		[A]	2.83	5.2	7.0	6.9
	Max. Current		[A]	6.4	9.4	16.2	16
Air Volume In (SHi*)		[L/s]	145	152	178	221.7	
HEAT	Capacity	Rated	[kW]	3.4	4.0	6.0	5.4
		Min-Max	[kW]	0.9 - 5.1	0.9 - 6.2	0.9 - 7.9	0.9 - 7.9
		@ -15 °C	[kW]	**	**	**	5.4
	Input	Rated	[kW]	0.84	1.10	1.86	1.58
		Min-Max	[kW]	0.19 - 1.91	0.19 - 2.24	0.19 - 2.81	0.19 - 2.81
	ACOP			3.83	3.70	3.28	3.45
	Star Rating			3.0	2.5	2.0	2.0
	Sound Level	In (Low-SHi*)	[dB(A)]	22-27-32-37	25-28-33-38	32-35-39-44	32-37-43-49
		Out	[dB(A)]	46	48	55	56
	Rated Current (In / Out)		[A]	4.0	5.0	8.5	7.0
Max. Current		[A]	6.4	9.4	16.2	16	
Air Volume In (SHi*)		[L/s]	152	158	197	228.3	
Controller				Infra Red Remote (Optional: PAR-21 or PAR30 Wired 7 Day Timer)			
Power Supply				(Powered from outdoor unit) 230 / Single Phase / 50 Hz			
INDOOR	Dimensions (WxDxH)		[mm]	700 x 200 x 600			
	Weight		[kg]	14			
OUTDOOR	Dimensions (WxDxH)		[mm]	800 x 285 x 550	800 x 285 x 550	840 x 330 x 850	840 x 330 x 850
	Weight		[kg]	30	33	53	55
	Sound Level		[dB(A)]	46	47 - 48	51 - 55	54 - 56
PIPING	Diameter (Liquid/Gas)		[mm]	6.35 / 9.52	6.35 / 9.52	6.35 / 12.7	6.35 / 12.7
	Max. Length/Height†		[m]	20 / 12	20 / 12	30 / 30	30 / 15
	Chargeless		[m]	7	7	7	7
OPERATION RANGE Outdoor	Cooling		[°C]	-10 / +46	-10 / +46	-10 / +43	-10 / +46
	Heating		[°C]	-15 / +24	-15 / +24	-15 / +24	-25 / +24

HYPERCORE® High Performance

If you live in an area with high humidity and low temperatures you may need to consider upgrading to a HyperCore® High Performance Heat Pump. HyperCore® has all of the technology hidden in the standard Mitsubishi Electric Inverter Heat Pump but additionally, is the ONLY heat pump available in New Zealand that guarantees it's fully rated capacity at all temperatures from +7°C to -15°C ~ and all temperatures in between. So no matter how cold it is in your region ~ +2°C, or -2°C or even -15°C ~ HyperCore® Heat Pumps will not lower their heating capacity regardless of the outdoor temperature.

Note:
1. 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.
Refrigerant piping length (one way): 5 m
2. Guaranteed operating range: see specifications table.
3. Dry function will not work when the room temperature is below 13°C

* Sound Level: Quiet / Low / Medium / High / Super High.
(SHi = Super High).

Colour: Heat pump units shown may not be colour accurate, please ensure you view an actual unit for colour matching.

† 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.

** Refer to Technical Manual.



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New publication effective May 2011. All features and specifications are subject to change and amendment at anytime. Where specifications are critical to design or pre-build we advise that you seek confirmation of accuracy from our product management team on (04) 560 9100.