MITSUBISHI ELECTRIC

High Performance
Heat Pumps

HYPERCORE | www.HYPERCORE.co.nz

MITSUBISHI ELECTRIC

THE HYPERCORE GUARANTEE

A Mitsubishi Electric HYPERCORE Heat Pump will deliver the same amount of heat whether operating at 7°C or –15°C.

This is HYPERCORE Country!

HYPERCORE | Keeps on pumping when the others give up!

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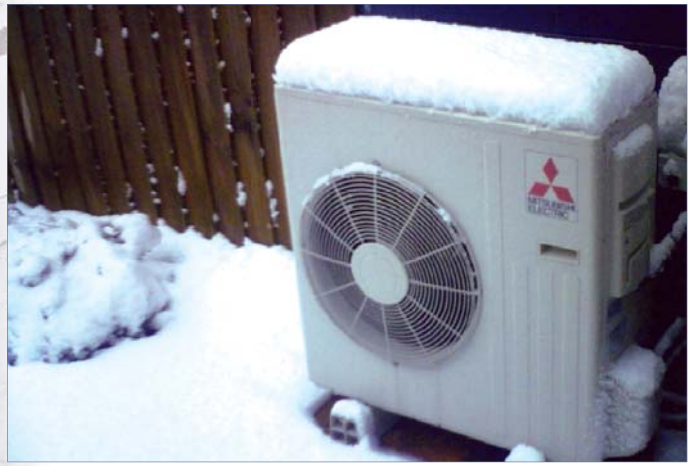
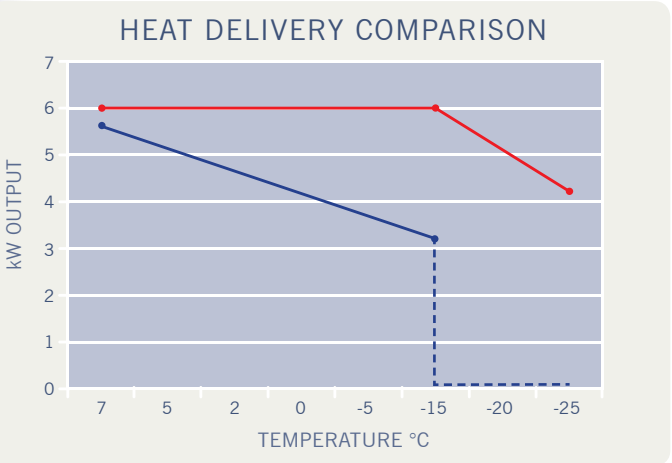
WELCOME TO A NEW STANDARD OF HEATING PERFORMANCE

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 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.

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!





THE SECRET OF THE HYPERCORE COMPRESSOR

The Mitsubishi Electric HYPERCORE Heat Pump Range is fitted with an advanced compressor that allows superior heating performance, even in sub zero temperatures. The key to its superior performance is Mitsubishi Electric's "Heat Caulking" compressor technology that allows larger amounts of refrigerant to be moved around the system using less energy.

NOT ALL HEAT PUMPS ARE CREATED EQUAL

The Mitsubishi Electric MSZ-FB50VAH HYPERCORE Heat Pump will continue to deliver 6kW of heat at 7°C, 2°C, 0°C and even -15°C. As the graph shows, the kW capacity of a standard 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.

High Performance Heat Pumps

MSZ-FB~VAH HYPERCORE INVERTER WALL MOUNTED HEAT PUMP

Mitsubishi Electric's New Unique HYPERCORE Compressor
Advanced Energy Saving "i-see Temperature Sensor"
Plasma Duo Filter System. With Ozone Shower

Rated Capacity -15°C

Unlike conventional Heat Pump Systems, the new unique Mitsubishi Electric MSZ-FB~VAH Series HYPERCORE Heat Pump is guaranteed to deliver its full rated heating capacity of heat output right down to -15°C.

The HYPERCORE High Performance Heat Pump Range also features the unique Energy Saving "i-see Sensor". This advanced sensing technology reduces energy consumption by maintaining air temperature and controlling air movement to prevent excessive heating and cooling as well as unnecessary operation.

This range is also specifically designed to combat and reduce common household allergens and unpleasant odours, providing the optimal air quality that is vital for asthma and allergy sufferers.

MSZ-FB35VAH HYPERCORE Heat Pump

(MSZ-FB35VA + MUZ-FB35VAH)
Cooling Capacity: 3.5 (0.8~4.1) kW
Heating Capacity: 4.0 (1.3~6.5) kW

ENERGY STAR 6.0 6.0

The HYPERCORE Guarantee ensures this Heat Pump will deliver its full rated heating capacity of 4.0kW right down to –15°C.

MSZ-FB50VAH HYPERCORE Heat Pump

(MSZ-FB50VA + MUZ-FB50VAH)
Cooling Capacity: 5.0 (0.8~5.8) kW
Heating Capacity: 6.0 (0.9~8.2) kW

ENERGY STAR 5.0 5.5

The HYPERCORE Guarantee ensures this Heat Pump will deliver its full rated heating capacity of 6.0kW right down to –15°C.

FEATURES

HEAT PUMP · R410A · F-INVERTER · DC Inverter · Cleaning-free, pipe reuse

Rated Capacity -15°C · Heating at -25°C · Cooling at 46°C-10°C · Cooling at -10°C · Cooling 20dB (FB35) · Heating 21dB (FB35) · AREA (Area setting) · AUTO VANE · SWING (VERTICAL) · SWING (HORIZONTAL)

Ozone Shower · Flat Panel · Pure White · Compact · 24-hour Timer · ACO · Auto Restart · DC Inverter · PAM Control · Weekly Timer (Optional)

Centralised On/Off (Optional) · M-NET connection (Optional) · Quick Clean · Self Diagnosis · Failure Recall · 12m 20m (FB35) · 15m 30m (FB50) · Flare connection · Econo Cool · Anti-Mold

Optional*: PAR-21MAA 7 Day Timer (*Requires MAC-397IF-E)

Infra Red Remote Controller

For further information on these features please visit our website: www.HYPERCORE.co.nz

OUTDOOR UNITS

MUZ-FB25/35VAH
Dimensions (WxDxH)
800 x 285 x 550mm

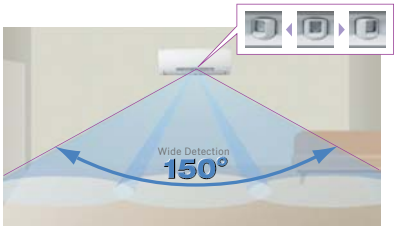
MUZ-FB50VAH
Dimensions (WxDxH)
840 x 330 x 850mm

Advanced Energy Saving i-see Sensor — KEEPING THE WHOLE ROOM AT AN EVEN TEMPERATURE

Conventional heat pumps can't measure factors such as radiant heat or cold drafts that can affect room temperature. Some areas may therefore be warmer or cooler than others.

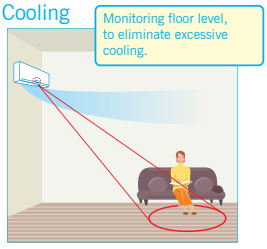
The advanced "i-see Sensor" measures room temperature at floor level as well at the unit itself, resulting in greater temperature control. Unlike standard systems, the "i-see Sensor" automatically moves from side to side, searching out temperature disparities and directing airflow to specific areas where it is really needed.

Wide airflow of 150° from left to right (90° in cooling mode) ensures all corners of the room are kept at the optimal selected temperature. The "i-see Sensor" controls air temperature and air movement to prevent excessive heating or cooling and unnecessary operation. With "i-see Sensor" you are ensured total comfort while reducing energy wastage.



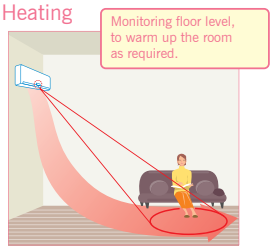
"Area Setting" - for waste-free, energy-saving heating and cooling. In AREA mode, efficient heating or cooling is directed where it is really needed - the right side, left side or the room as a whole. The sensor can also operate only on the selected side.

At Cooling



Cold air tends to drop to floor level, which is often the cause of over cooling. The i-see Sensor detects this foot-level temperature and adjusts the air outlet temperature to prevent over cooling.

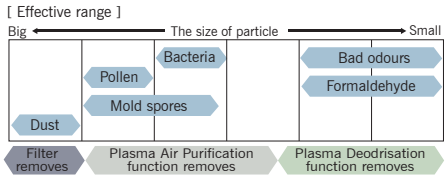
At Heating



Warm air tends to rise up from the floor level, which often prevents that zone from warming up. The i-see Sensor detects this foot-level temperature and adjusts the air outlet flow to provide optimal temperatures.

ENERGY STAR | From 20dBA | Guaranteed Rated Capacity -15°C | Heating At -25°C | Advanced Energy Saving i-see Sensor

Plasma Duo Filter Systems

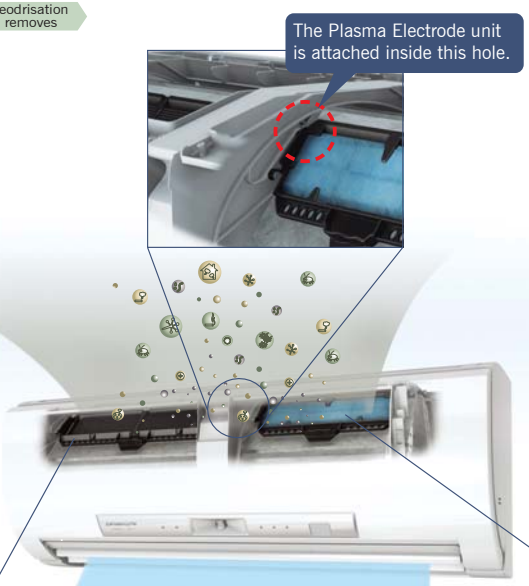


PLASMA DUO FILTER KEEPS THE AIR PURE

Ideal for asthma and allergy sufferers, the Mitsubishi Electric HYPERCORE Heat Pump has two plasma air purifying functions that work together to remove airborne dirt particles from micron to nano-size in scale.

Improved Deodorisation

The Platinum Catalyst Deodorising Filter uses tiny holes as small as 1 nanometer on a surface of approximately 3,000m² to capture small odor-laden substances in the air and break them down using ozone generated in the Plasma Electrode Unit and the Platinum Catalyst contained in the filter.



Plasma Air Purification

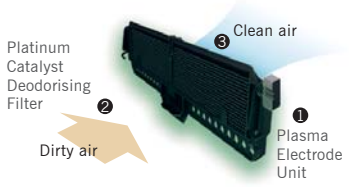
An Anti-allergen Electric Enzyme Filter utilises the combined power of static electricity charged in the filter and the plasma generated in the Plasma Electrode Unit to capture bacteria, pollen and other allergens in the air, which are then neutralised with the enzyme in the filter.

Plasma Electrode Unit

A plasma electrode unit is mounted inside the product. Electro-discharge is used to generate ozone & plasma. The combination of ozone & plasma and two special filters makes a dynamic plasma air cleaning function.

Nearly twice the deodorising speed compared to previous model.

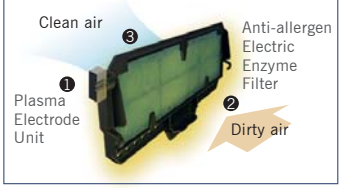
Plasma Deodorising Filter mechanism



❶ Plasma Electrode Unit produces ozone.
❷ Particles of odour releasing substances are absorbed.
❸ Particles of odour releasing substances are decomposed by ozone.

❶ Plasma Electrode Unit produces plasma.
❷ Small particles are charged to negative by plasma.
❸ Small particles charged to negative are collected to the positive side of the *ELECTRET FILTER* and neutralised by enzyme.

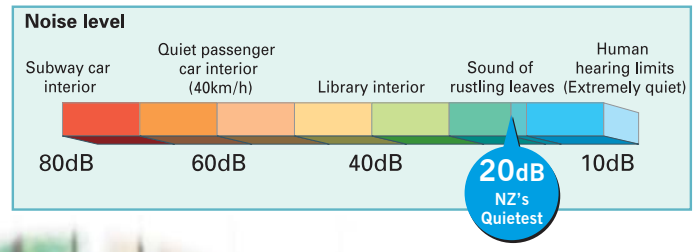
Plasma Air Purifying Filter mechanism



WHISPER QUIET OPERATION

Cooling 20dB FB35 | Heating 21dB FB35

Mitsubishi Electric have a long standing reputation for offering extremely quiet operation. At only 20dBA in cooling and 21dBA in heating the MSZ-FB35VAH HYPERCORE is one of the quietest heat pumps available in New Zealand. We believe you should feel the warmth, not hear it!



SELF CLEANING OZONE SHOWER

To ensure the coil is clean and free from impurities, the indoor coil will be automatically cleaned with Ozone after the unit has been operating in the cooling mode. Ozone (O3) is resolved gradually and naturally into Oxygen (O2). This process creates an extremely efficient cleaning process during which resolving "nascent Oxygen (O)" is produced. The nascent Oxygen strongly oxidises airborne particles to sterilise and deodorise the air.

The consistency of ozone during ozone showering remains within health regulations. Inside of indoor unit 0.1ppm. Under the upper limit of acceptable range of ozone gas consistency at working environment. (Safety limit advised by Japan Society for Occupational Health). In the room 0.01ppm or less. Under the averaged consistency of ozone at the beach or forest areas.

SPECIFICATIONS

HYPERCORE

CONTROLLERS

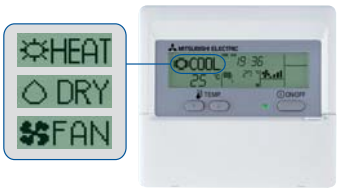
Optional: PAR-21MAA 7 Day Timer

Wake up or come home to optimal temperatures whilst conserving energy!

The controller allows your system to be programmed 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.

Turning a system on and off typically uses the most energy because the system has to heat a room starting from a very low temperature. By maintaining a minimum holding temperature Mitsubishi Electric inverter technology saves you energy as the temperature only needs to be raised by a couple of degrees.

Most air conditioning systems come with a 24 hour remote controller. This means that you can only set the system up to automatically turn on and then off within a 24 hour period. This needs to be manually reactivated each time. The new Mitsubishi Electric 7 day timer allows you to program up to 8 separate Start/Stop patterns per day over a 7 day period.



The new clear and precise display is easy to understand for any user.

For example:

- Between 6am and 9am set temperature to 21°C
- Between 9am and 5.30pm set temperature to 18°C
- Between 5.30pm and 10pm set temperature to 21°C

Operation Control Function

The PAR-21MAA 7 Day timer also allows the temperature range to be limited to conserve energy by preventing excessive cooling and heating. The controller panel can also be locked off to prevent random modification.

Optional: G-50 Controller (With Web Server Functions)

Mitsubishi Electric can also offer you a control system to control your Air Conditioning from your local PC. The G-50 gives you simple Computer control from your local Internet Explorer.

G-50

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).

MAC-821SC-E

Note:

The PAR-21MAA and MAC-821SC-E both require the MAC-397IF-E adaptor per indoor unit.

MAC-397IFE

SPECIFICATIONS

MSZ-FB~VAH HYPERCORE High Performance Heat Pump Model (R410A)

TYPE				HYPERCORE Wall Mounted	
				Inverter	
				Heat Pump	
MODEL	MODEL NAME			MSZ-FB35VAH	MSZ-FB50VAH
	INDOOR UNIT			MSZ-FB35VA	MSZ-FB50VA
	OUTDOOR UNIT			MUZ-FB35VAH	MUZ-FB50VAH
COOL	Capacity		[kW]	3.5	5.0
		Min-Max	[kW]	0.8 - 4.1	0.8 - 5.8
	Input		[kW]	0.89	1.60
		Min-Max	[kW]	0.16 - 1.12	0.26 - 2.45
	EER (COP)			3.93	3.13
		Star Rating		6.0	5.0
	Sound Level	In (Lo-SH*)	[dB(A)]	20 / 29 / 36 / 43	29 / 39 / 45 / 52
		Out	[dB(A)]	47	54
	Rated Current	(In / Out)	[kW]	4.1	7.1
		Max Current	[kW]	10	16
	Air Volume In (SH*)		[L/s]	187	247
HEAT	Capacity		[kW]	4.0	6.0
		Min-Max	[kW]	1.3 - 6.5	0.9 - 8.2
		@ -15 °C	[kW]	4.0	6.0
	Input		[kW]	0.90	1.64
		Min-Max	[kW]	0.40 - 2.5	0.48 - 3.14
	COP			4.44	3.66
		Star Rating		6.0	5.5
	Sound Level	In (Lo-SH*)	[dB(A)]	21 / 29 / 36 / 44	27 / 37 / 43 / 50
		Out	[dB(A)]	50	56
	Rated Current	(In / Out)	[kW]	4.1	7.3
		Max Current	[kW]	10	16
	Air Volume In (SH*)		[L/s]	208	247
Controller				Infa Red Remote *(Optional: PAR - 21MAA)*	
Power Supply	(Powered from outdoor unit)			230 / Single Phase / 50 Hz	
INDOOR	Dimensions (WxDxH)		[mm]	798 x 257 x 295	
	Weight		[kg]	12	
OUTDOOR	Dimensions (WxDxH)		[mm]	800 x 285 x 550	840 x 330 x 850
	Weight		[kg]	36	55
	Sound Level		[dB(A)]	47 - 50	54 - 56
EXT. PIPE	Diameter (Liquid/Gas)		[mm]	6.35 / 9.52	6.35 / 12.7
	Max. Length/Height†		[m]	20 / 12	30 / 15
	Chargeless		[m]	7	7
OPERATION RANGE Outdoor	Cooling		[°C]	-10 / +46	-10 / +46
	Heating		[°C]	-25 / +24	-25 / +24

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.

QUICK CLEAN

The easily detachable front panel is simple to wash, and the airflow vents can be opened without any special tools for quick cleaning inside.

ENERGY RATINGS & SOUND LEVELS

ENERGY STAR

ENERGY RATING	6.0 / 6.0	5.0 / 5.5
MODEL	MSZ-FB 35VAH	MSZ-FB 50VAH
COOL	3.5kW 3.93 EER 20 dB(A)	5.0kW 3.13 EER 29 dB(A)
HEAT	4.0kW 4.44 COP 21 dB(A)	6.0kW 3.66 COP 27 dB(A)

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: Low / Medium / High / Super High. (SH = 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.

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New publication effective **February 2009**. 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.