

M - Series Product Catalogue











Mr. SLIM™



Variable Compressor Speed Ductless Split Systems

Featuring:

-  Ozone Friendly R-410A Refrigerant
-  Variable Compressor Speed Technology
-  IAQ Catechin Plus Air Purifying System
-  13 to 17 SEER with Up To 30% Energy Savings
-  No Starting Inrush Current
-  Super Silent Operation
-  Longer Pipe Runs
-  Low Ambient Temperature Cooling Operation



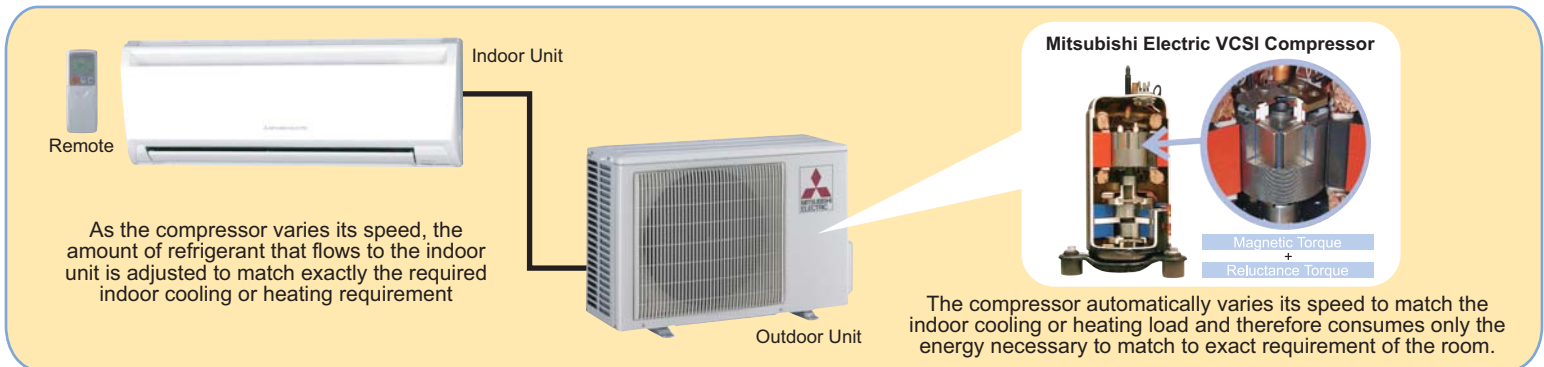
The Next Generation of Air Conditioner is here today.

— Mitsubishi Electric's Variable Compressor Speed Systems



Introducing Mitsubishi Electric's Variable Compressor Speed (Inverter) Technology

Variable Compressor Speed Inverter (VCSI) Technology is the key to more comfort throughout the year, whichever the season. Our VCSI technology adjusts the air-conditioning capacity in response to conditions such as the difference between the outside and inside air temperatures, allowing our products to run more efficiently and reduce energy cost. By controlling compressor rotation speed more precisely, VCSI technology provides high-speed cooling and heating with extra energy savings compared to conventional models.



Remote Indoor Unit Outdoor Unit

As the compressor varies its speed, the amount of refrigerant that flows to the indoor unit is adjusted to match exactly the required indoor cooling or heating requirement

Mitsubishi Electric VCSI Compressor

Magnetic Torque + Reluctance Torque

The compressor automatically varies its speed to match the indoor cooling or heating load and therefore consumes only the energy necessary to match to exact requirement of the room.

The use of VCSI technology saves energy in two main ways:

1. The compressor varies its speed to match the cooling or heating load and therefore consumes only the power necessary to match the exact requirement of the room. Furthermore, no inrush current is generated due to the VCSI soft start control. Inrush current increases energy usage and can also adversely affect other appliances. We have all noticed how the lights dim when our conventional air conditioners start up due to compressor inrush current.
2. When a VCSI driven air conditioner is operating at partial load, the energy efficiency of the system is significantly higher than at full load. In a typical application, partial load conditions prevail for more than 90% of operational time. A fixed speed system can only operate at 100% capacity and cannot match the annual efficiencies of a VCSI system.

Benefits of VCSI systems over conventional systems:

VCSI Systems	Conventional Systems
VCSI compressor speeds up and slows down to maintain the conditioned space temperature.	Conventional compressor turns on and off to maintain the temperature. A compressor draws more amps at start up than any other time.
Energy consumed by a VCSI compressor is directly related to the required amount of cooling or heating. (Capacity changes as needed.)	Conventional compressor consumes maximum amount of energy to produce maximum amount of cooling or heating at all times. (Capacity does not change.)
VCSI compressor helps system reach it's set point quicker by running at a higher RPM for a shorter period of time, then ramps down to maintain temperature.	Conventional compressor runs at same RPM for longer period of time, then switches on and off to maintain temperature.
Indoor temperature swing is minimized with the VCSI system because the indoor coil activates longer. As temperature changes slightly, compressor speed also adjusts slightly to compensate.	Conventional system kicks back on at full speed to compensate for small changes in temperature.

All the benefits of using a VCSI system boils down to one very important fact: You only consume as much energy as needed at any given time. If you do not need the full capacity of the system, you do not need to pay for the full capacity of the system.

Features

- | | | | |
|-------------------------------------|----------------------------------|--------------------------|---------------------------------|
| Powerful Cool | Econo Cool | Catechin Plus Pre-filter | Anti-allergy Blue Enzyme Filter |
| New LEV Control | Super Quiet Technology | VCSI Technology | PAM Control |
| Computerized "Dry" Dehumidification | 5-step Vane Control & Swing Mode | Fuzzy Logic "I Feel" | LCD Wireless Remote Control |
| Easy Clean Design | Auto Restart | Auto Mode | Wide & Long Air-flow |
| Auto Change Over | Anti-rust | Self-diagnostic Function | 24-Hour ON/OFF Timer |
| | | Cooling at 14°F | |

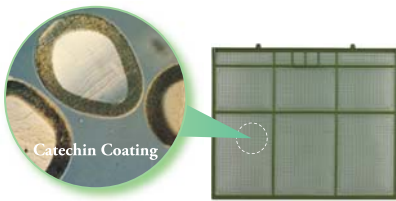
*High standards of comfort and efficiency,
our air-conditioners are quiet and easy to use.*



Catechin Plus Air Purifying Systems consist of Catechin Pre-filters and Anti-allergy Blue Enzyme Filters, which deodorize, inactivate allergen, eliminate bacteria and achieve antiviral effects.

Catechin Plus Pre-filter

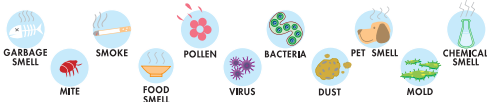
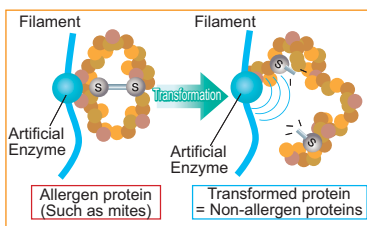
Catechin is a bioflavonoid that is found in green tea, which is well known for its deodorizing, anti-bacterial and anti-virus properties. With Mitsubishi Electric's innovative technology, Catechin has been infused deeply into every molecule of the pre-filter. They are washable and have a long lasting effectiveness for the lifetime of your system.



Molecules of Hybrid Catechin Pre-filter

Anti-allergy Blue Enzyme Filter

The Anti-Allergy Enzyme Filter traps dust, pollens, mites, and other particles which can cause allergic reactions. The artificial enzyme catalyst helps breaking down the S-S bonds in these allergen proteins which transforms them into non-allergen proteins.

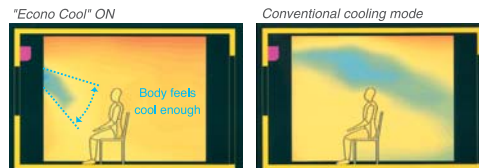


Econo Cool

This intelligent temperature control feature adjusts airflow direction depending on air outlet temperature. It allows set temperature to be raised by 2 degrees without any loss in comfort for a 20% gain in energy efficiency.

Ensures greater comfort even when the temperature setting is 2 degrees above conventional settings.

	Conventional cooling	"Econo Cool" ON
Ambient temperature	35 C	35 C
Set temperature	25 C	27 C
Body sensing temperature	30 C	29.5 C



PAM Control

Pulse Amplitude Modulation (PAM) is a method for controlling the form of the current wave so that it conforms to the supply voltage wave. With PAM control, 98% of input power supply is effectively used.

LCD Wireless Remote Control

The hand-held Mr. Slim LCD wireless remote controller is easier to use than most TV remotes. The set-temperature display is large and easy to read. The convenient remote provides easy control of the Fan Speed, as well as the Cool, Heat, and Dry modes from anywhere in the room.



Cooling at 14°F

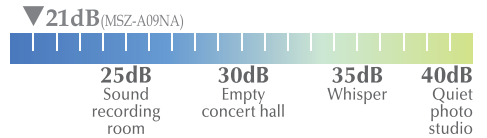
Ever needed to chill off at Christmas parties or Thanksgiving reunions with those hugs and kisses? Conventional models cannot operate in cooling mode when the outdoor temperature is below 67F. With Mr. Slim's intelligent fan speed control, the system performs well in cooling mode even when outdoor temperature is down to 14F!

Fuzzy Logic "I Feel"

Is the room too hot or cold, too dry or too humid? On auto mode selection, the fuzzy logic control system adjusts conditions to suit you. Simply tapping the "Too Cool" or "Too Warm" button on the remote controller, the optimum temperature is set and memorized for immediate recall whenever the air-conditioner is used again.

Super Quiet Technology

Quieter than whisper - Mitsubishi Electric's advanced technology has led to the creation of super-quiet air-conditioners suitable for all rooms in your home and work environment.



Powerful Cool

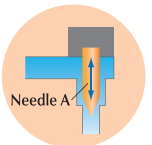
The automatic, one-touch Powerful Cool system ensures faster cooling. It produces 10% more airflow than the "high fan" speed, cooling the room in less than 15 minutes, then automatically returning to the regular setting.

Auto Change Over

With the Auto Change Over function, the system will automatically switch back and forth from cooling to heating to compensate for the drastic rising and falling temperature in a room. This feature means total hands-free comfort and efficient conditioning of your space.

New LEV Control

LEV (Linear Expansion Valve) control automatically adjusts the volume of refrigerant flow through the indoor coil according to air conditioning load. When the load is low, Needle A drops, restricting the flow path and decreasing the volume of refrigerant, and vice versa. In this simple yet effective concept, circulation of refrigerant is optimized to facilitate more economical operation.



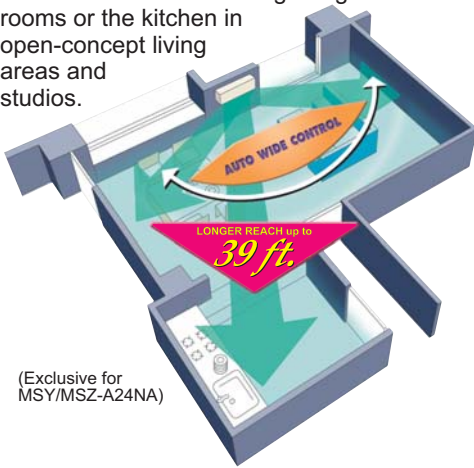
Extra Features guarantee ease of use. User Friendly, Durability and Reliability...



Wide & Long Air-flow

Just using remote controller, you can easily adjust Left and Right airflow directions. When you combine this control with 5-step Vane and Long control, you can maximize the airflow up to 42 patterns.

The airflow can be extended as far as 39 ft. to reach the far end of long living rooms or the kitchen in open-concept living areas and studios.



(Exclusive for MSY/MSZ-A24NA)



Auto Mode

Comfort can now be easily enjoyed with Auto Mode. "Auto Vane" is created to set the vane angle automatically and "Auto Fan" is created to adjust airflow speed automatically. These could let ideal temperature to be achieved in the shortest amount of time.



5-step Vane Control & Swing Mode

The intelligent air direction control can be adjusted by the touch of a button from the comfort of your chair. Using the remote controller, you can select from five airflow settings to match room layout and the location of people. Also, you can set the vane to swing automatically.



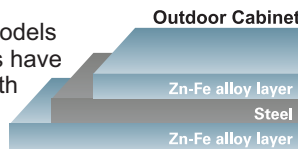
Auto Restart

This function allows automatic return to previous operation conditions after a sudden power black-out. You can now sleep peacefully all through the night without having to get up and turn your air-conditioner back on.



Anti-rust

All heat pump models outdoor cabinets have been treated with special anti-rust painting.



Self-diagnostic Function

In the unlikely event of malfunction, the LED on the indoor unit flashes to indicate the exact spot to be checked. This will speed up the time to get your unit functional again, saving time and money.



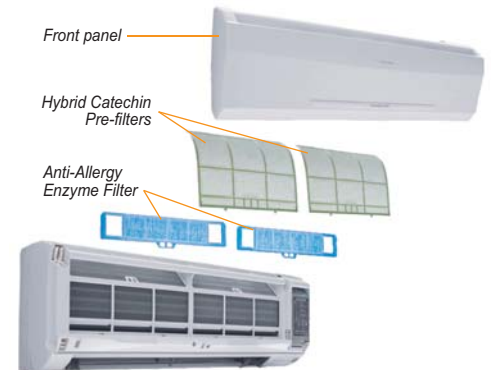
24-Hour ON/OFF Timer

Using the 24-hour timer, operation can be set to start and stop at specified times and to repeat daily.

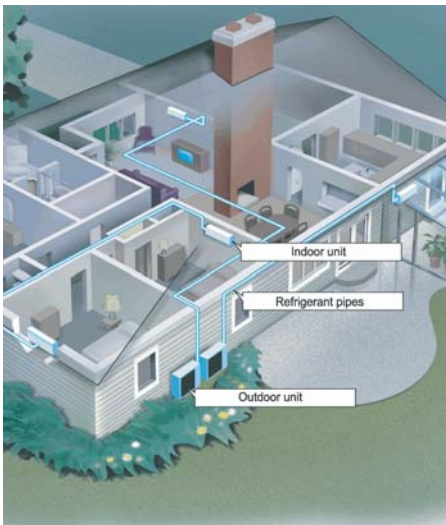


Easy Clean Design

The easily detachable front panel is simple to remove without any special tools for quick cleaning of the inside of the air-conditioner. Just simply lift up the panel and remove from it the hinge. It is recommended that the air conditioner be cleaned regularly to increase both operating efficiency and energy savings.



Your first choice of easy installation, superior quality and after sales service



Mitsubishi Electric is the pioneer of quality ductless split air-conditioners and heat pumps. For this reason, our products are often imitated but never equaled. Ductless air-conditioning units make it easy to air-condition homes that do not have central duct work. The term ductless simply means no duct work involved. Our indoor and outdoor units are easily connected by refrigerant lines running through a small 10 cm (4 in.) opening in the wall or ceiling. Installation is as simple as mounting the indoor and outdoor units, connecting the refrigerant lines, and making a few electrical connections.

This makes our ductless systems the ideal solution for cooling your home, cottage, or condo. Their whisper quiet operation and stylish compact design make them the first choice for bedrooms, studies, living rooms and kitchens. Our ductless systems are available in five sizes: 9000, 12000, 15000, 17000 and 24000 Btu/h, offering the widest selection in the industry. Our competent distributor network, strong service support and unmatched parts availability will give you the peace of mind that you deserve.

Make a Mitsubishi Electric Variable Compressor Speed ductless split system your first choice for your residential or light commercial application and enjoy the comfort and true quality that only Mitsubishi Electric can offer.

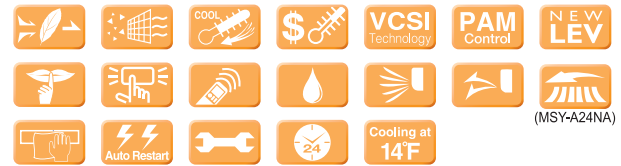
Product Line-up & Specification

Single Ductless Split Systems - Cooling Only



Model	MS-A09WA	MS-A12WA	MSY-A15NA	MSY-A17NA	MSY-A24NA	
Capacity - Cooling	Btu/h	9500	12000	15000	16200	22000
SEER		13.0	13.0	16.0	16.0	16.0
EER		10.9	11.2	8.9	7.8	7.6
Capacity Control		Fixed Compressor		Variable Compressor Speed		
Refrigerant		R-410A				
Power Supply	V, Phase, Hz	115, 1, 60		208-230, 1, 60		
Air Flow (Hi)	CFM	335	406	381	381	568
Max. Fuse	Indoor A	15	15	15	15	15
	Outdoor A	15	20	15	15	20
Sound (Low/Hi)	dB (A)	26/40	33/45	34/45	34/46	34/49
Dimension	Indoor in.	11-3/4 x 30-11/16 x 8-1/4			12-13/16 x 43-5/16 x 10-1/4	
	Outdoor in.	21-5/8 x 31-1/2 x 11-1/4	23-7/8 x 33-1/2 x 11-1/2	21-5/8 x 31-1/2 x 11-1/4	33-7/16 x 33-1/16 x 13	
Weight	Indoor lbs.	23	23	23	23	37
	Outdoor lbs.	78	96	88	88	128
Pipe Size	Liq. x Gas in.	1/4 x 3/8		1/4 x 1/2		
Max. Pipe Length	Ft.	65	65	65	65	100
Max. Height Diff.	Ft.	35	35	40	40	50

- Catechin Plus Air Purifying System
- Variable Compressor Speed Inverter Technology
- Ozone Friendly R-410A Refrigerant
- Significant Energy Savings (up to 30%)
- Fuzzy Logic "I Feel" Mode for Comfort Cooling
- Super Quiet Technology - Only 21dB
- Wide & Long Airflow - Up To 100° (MSY-A24NA)
- Long Pipe Runs - Up To 100Ft. (MSY-A24NA)
- Refrigerant Pre-charged
- Easy Installation - No Ductwork Needed
- 1 Year Parts Warranty
- 6-Year Compressor Warranty

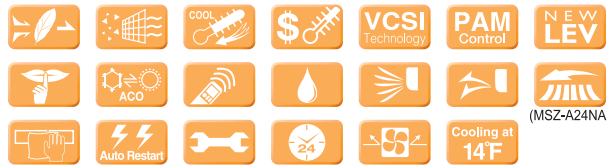


- Catechin Plus Air Purifying System
- Variable Compressor Speed Inverter Technology
- Ozone Friendly R-410A Refrigerant
- Significant Energy Savings (up to 30%)
- Auto Change Over between Cooling & Heating
- Super Quiet Technology - Only 21dB
- High-speed Cooling and Heating
- Wide & Long Airflow - Up To 150° (MSZ-A24NA)
- Long Pipe Runs - Up To 100Ft. (MSZ-A24NA)
- Refrigerant Pre-charged
- Easy Installation - No Ductwork Needed
- 1 Year Parts Warranty
- 6-Year Compressor Warranty

Single Ductless Split Systems - Heat Pump



Model	MSZ-A09NA	MSZ-A12NA	MSZ-A15NA	MSZ-A17NA	MSZ-A24NA	
Capacity - Cooling	Btu/h	9000	12000	15000	16200	22000
Capacity - Heating	Btu/h	10900	13600	18000	20100	23200
SEER		17.0	17.0	16.0	16.0	16.0
EER		13.0	10.3	8.9	7.8	7.6
Capacity Control		Variable Compressor Speed				
Refrigerant		R-410A				
Power Supply	V, Phase, Hz	208-230, 1, 60				
Air Flow (Hi)	CFM	307	353	381	381	568
Max. Fuse	Indoor A	15	15	15	15	15
	Outdoor A	15	15	15	15	20
Sound (Low/Hi)	dB (A)	22/38	22/42	34/45	34/46	34/49
Dimension	Indoor in.	11-3/4 x 30-11/16 x 8-1/4			12-13/16 x 43-5/16 x 10-1/4	
	Outdoor in.	21-5/8 x 31-1/2 x 11-1/4			33-4/16 x 33-1/16 x 13	
Weight	Indoor lbs.	23	23	23	23	37
	Outdoor lbs.	82	82	88	88	128
Pipe Size	Liq. x Gas in.	1/4 x 3/8		1/4 x 1/2		
Max. Pipe Length	Ft.	65	65	65	65	100
Max. Height Diff.	Ft.	40	40	40	40	50



Multi Ductless Split Systems - Heat Pump



Model	MXZ-2A20NA	MXZ-3A30NA	
Capacity - Cooling	Btu/h	20000	28400
Capacity - Heating	Btu/h	22000	28600
SEER		15.0	14.0
EER		9.3	8.7
Capacity Control		Variable Compressor Speed	
Refrigerant		R-410A	
Power Supply	V, Phase, Hz	208-230, 1, 60	
Connectable I/Us		2	3
Max. Fuse	A	20	20
Dimension	in.	27-15/16 x 33-1/16 x 13	35-7/16 x 35-7/16 x 12-5/8
Weight	Outdoor lbs.	130	158
Pipe Size	Liq. x Gas in.	1/4 x 3/8	
Max. Pipe Length	Ft.	164	230
Max. Height Diff.	Ft.	33	33

Indoor Units Combinations				
Indoor Units	MXZ-2A20NA	MXZ-3A30NA		
MSZ-A09NA (09)	09 + 09	09 + 09	12 + 12	17 + 17
MSZ-A12NA (12)	09 + 12	09 + 12	12 + 15	09 + 09 + 09
MSZ-A15NA (15)	09 + 15	09 + 15	12 + 17	09 + 09 + 12
MSZ-A17NA (17)	12 + 12	09 + 17	15 + 15	09 + 09 + 15
MSZ-A24NA (24)		09 + 24	15 + 17	09 + 09 + 17

- Catechin Plus Air Purifying System
- Variable Compressor Speed Inverter Technology
- Ozone Friendly R-410A Refrigerant
- Significant Energy Savings (up to 30%)
- Up to 15 combinations of 2:1 or 3:1 systems
- Super Quiet Technology - Only 21dB
- High-speed Cooling and Heating
- Long Pipe Runs - Up To 200Ft. (MXZ-3A30NA)
- Refrigerant Pre-charged
- Easy Installation - No Ductwork Needed
- 1 Year Parts Warranty
- 6-Year Compressor Warranty



Mitsubishi MElectric Quality

What does MEQ mean to you?

Mitsubishi Electric Quality, or MEQ for short, stands for many things. It marks 70 years of excellence in technology, design and production. It represents the highest standards of comfort, efficiency and durability. And it simply means the best air-conditioners you can buy today.

COMFORT

- Quiet Operation
- Optimal Temperature Distribution
- Clean, Filtered Air

DURABILITY

- Strict Performance Tests
- Easy-to-Clean Design
- Replacement Parts Stocked for 11 Years

EFFICIENCY

- Energy Saving
- Money Saving
- Space Saving

The best quality you can rely on.

Our quality assurance program guided by our stringent Quality Policy ensures confidence in all phases of the development process from design and manufacture, to the finished product.

Meeting high standards of comfort and durability, our highly efficient air conditioners are quiet and easy to use. Mitsubishi Electric Air Conditioners provide the advanced technology to create the air of a new generation.



Line test



Sound test



Performance test



2000 Hour

Endurance test



800 Hour

Heat stress test



500 Hour

Saltwater spray rust test

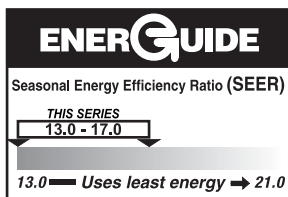


Certificate Number 79222



Certificate Number 78649

Mitsubishi Electric Consumer Products acquired ISO 9001 certification under Series 9000 of the International Standard Organization (ISO) based on a review of Quality Warranties for the production of air conditioning equipment. The plant also acquired environmental management system standard ISO 14001 certification.



MITSUBISHI ELECTRIC

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