POWERFUL HEATING

SERIES

SELECTION

Choose the series that best matches the building layout.

MSZ-LN VGHZ, MSZ-FH/MFZ-KJ VEHZ SERIES

The line-up includes outdoor models 25–50

Outdoor Unit

R32 R410A

MUZ-LN25/35VGHZ2
MUZ-FT25VGHZ

R32

MUZ-RW25/35VGHZ

R32

MUFZ-KW25/35VGHZ

R32

MUZ-RW50VGHZ
MUZ-LN50VGHZ2

R32 R410A

MUFZ-KW50/60VGHZ

Indoor Unit

Wall-mounted

R32 R410A

MSZ-RW25/35/50VG

R32 R410A *

MSZ-LN25/35/50VG2
(W)(V)(R)(B)

R32

MSZ-FT25/35/50VG

Floor-standing

R32

MFZ-KW25/35/50/60VG

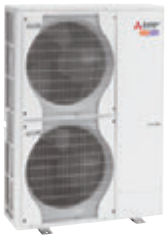
* R410A is for PUMY connection.

ZUBADAN SERIES

The line-up includes outdoor unit models 112-140 class and three types of indoor units.

Outdoor Unit

R410A



PUHZ-SHW112VHA
PUHZ-SHW112/140YHA

Indoor Unit

4-way cassette

R32 R410A

PLA Series

Ceiling-concealed

R32 R410A

PEAD Series

Wall-mounted

R32 R410A

PKA Series

MXZ-VAHZ/VFHZ SERIES

Outdoor Unit

R32

MXZ-2F53VFHZ2

R32

MXZ-4F83VFHZ2

MSZ-RW SERIES

R32 Single / MXZ, PUMY
R410A PUMY

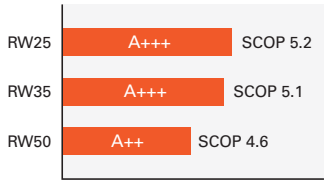
As a flagship model, RW series realises further outstanding heating performances under extremely cold outdoor temperature even with high energy efficiency. Moreover, excellent air purifying functions and many other smart features deliver a great comfort to you.

MSZ-RW25/35/50VG

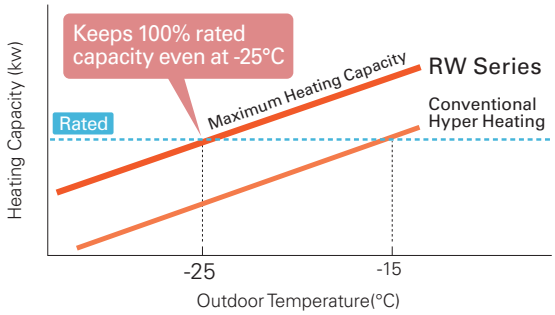
Heating Performance

Excellent heating performance of RW series delivers the prime warmth into your room. RW series' powerful compressor realises remarkable maximum heating capacity in low ambient temperature with a high energy efficiency. Also, RW series performs 100% rated capacity even at -25°C, and the operation is guaranteed down to -30°C for all classes (25/35/50).

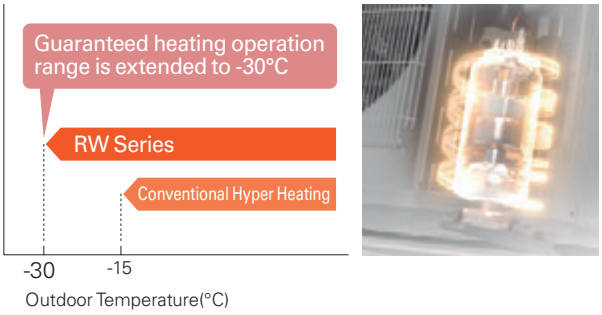
High Energy Efficiency



Improved Heating Capacity

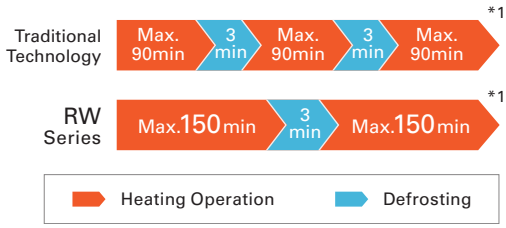


Wider Heating Operation Range



Longer Continuous Heating Operation

RW series with a high frost-detecting technology, made it possible to provide maximum continuous heating operation as long as 150 minutes with less frequent defrosting operations, maintaining a comfortable indoor environment in a long term.

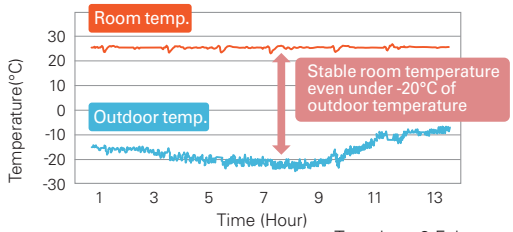


*1 The time for heating and defrosting operation depends on the environmental conditions.

Tested in Sweden and Norway

We have conducted field tests in several cold sites and received high user satisfactions with sufficient air volume and remarkable heating performance of RW series. As the test result shows, we confirmed that RW series provides stable indoor comfortability even in extremely low ambient temperature.

Test result in Norway



Test date: 9 February, 2021

3D i-see Sensor

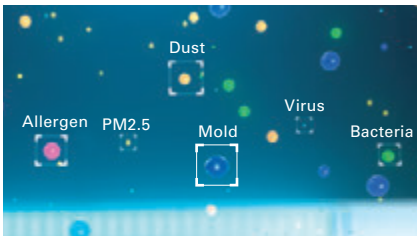
3D i-see sensor with the sophisticated hemispherical design measures the temperature of the room with an infrared sensor and detects the position of people, which allows you to choose your preferable airflow such as indirect and direct airflow.

Circulator Mode

In heating mode, after reaching the setting temperature, indoor unit automatically starts FAN mode to circulate the air and eliminate temperature unevenness in your room.

Plasma Quad Plus

Plasma Quad Plus is a plasma-based filtering system which contributes to a better air quality in your room. Plasma Quad Plus applies a voltage of approximately 6,000 volts to the electrode to generate plasma, effectively removing various kinds of airborne particles such as viruses, bacteria, mold, allergen, dust, and PM2.5.



*Images are for illustration purposes.

Virus (Airborne)

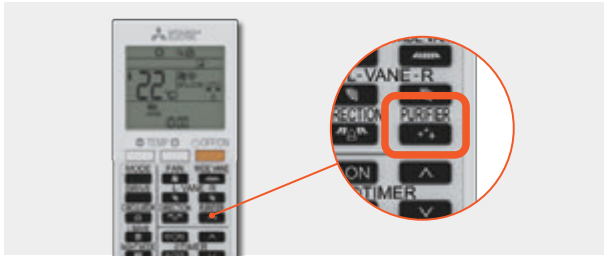
99% inhibited*1

We have confirmed Plasma Quad Plus inhibits 99.8% of adhered COVID-19. *2

*1 Tested Organization: vrc. Center, SMC Test Report No: 28-002 Test Method: JEM1467 Test result: Neutralised 99% of Influenza A virus in 72 minutes in a 25m³ test space.
*2 Tested Organization: Japan Textile Products Quality and Technology Center, Test Report No: 20KB070569, Tested Materials: SARS-CoV-2, Test Method: Original (The test was conducted on the Plasma Quad device alone, not designed to evaluate product performance.) Test Result: Inhibited 99.8% in 360 minutes. The result without the effect of natural attenuation is 96.3%.

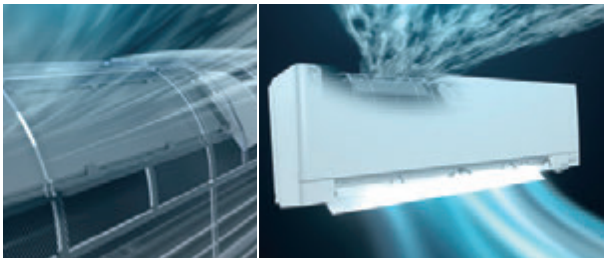
Quick Air Purifying Set

If you press "PURIFIER" button when the unit is turned off, Plasma Quad Plus starts to operate with a fan mode and purifies the air in your room.



Deodorising Filter

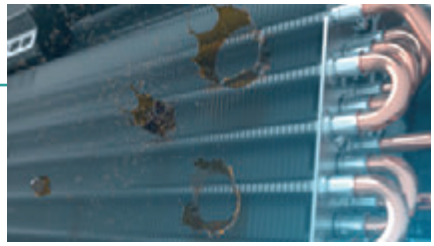
The catalyst in Deodorising Filter denatures the odorous components and destroys them from the source of the odour, quickly delivering fresh air to your room.



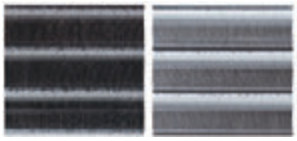
Dual Barrier Coating

SIAA Anti Fungus JP0512075X0001C (Fan, Air duct) *1

Mitsubishi Electric's Dual Barrier Coating prevents dust and greasy dirt from accumulating on the inner surface of the indoor unit; keeping your air conditioner clean. Two barrier coating prevents hydrophilic dirt penetration, and "hydrophilic particles" prevent hydrophobic dirt from getting into the air conditioner.



❶ Heat Exchanger

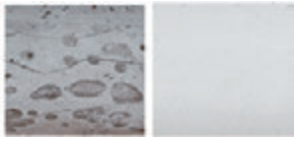


No Dual Barrier Coating used (Image after 10 years) | Dual Barrier Coating used

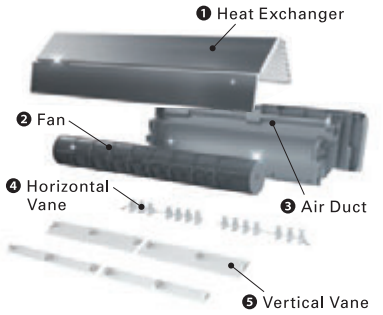
❷ Fan

No Dual Barrier Coating used (Image after 10 years) | Dual Barrier Coating used

❸ Air Duct



No Dual Barrier Coating used (Image after 10 years) | Dual Barrier Coating used

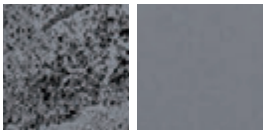


Dual Barrier Material

SIAA Anti Fungus JP0512075X0001C (Horizontal Vane, Vertical Vane) *2

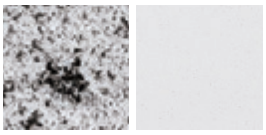
Dual Barrier Material performs the same antifouling effect as Dual Barrier Coating, and it is kneaded into horizontal vane and vertical vane material which are hard to apply coating to. Combined with Dual Barrier Coating, the whole air passage of indoor unit is kept clean all year round.

❹ Horizontal Vane



No Dual Barrier Material | Dual Barrier Material

❺ Vertical Vane



No Dual Barrier Material | Dual Barrier Material

*Comparison of stains after 10 years of use (based on internal research)

*1 *2 Verified by SIAA test method (JIS Z 2911) with No. JP0501014A0002O on SIAA antifungal agent positive list.Antifungal effect depends on the working environment. Fungicides comply with the SIAA safety criteria. What is SIAA? https://www.kohkin.net/en_index.html

Drive Mode Selector

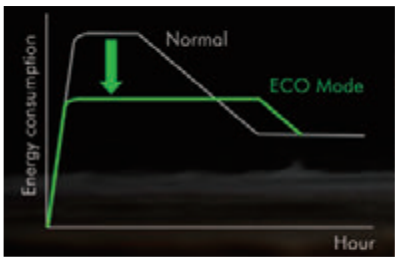
Drive Mode Selector allows you to select a preferred control setting according to your residential environment from three modes, Wide Room mode, Quiet mode, and Eco mode.

Wide Room Mode

Provides a better air distribution in your room and raises the comfort level.

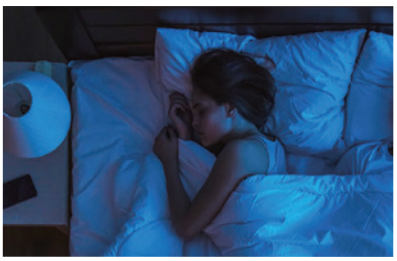
Eco Mode

Suppresses a sharp increase in energy consumption by a gradual start-up operation.



Quiet Mode

Lowers operation noise level, creating quieter and peaceful environment.

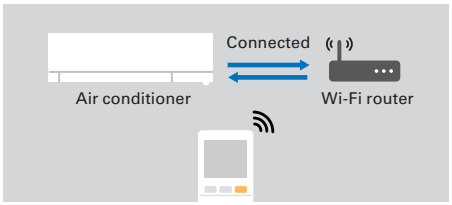


Built-in Wi-Fi & App Control

Indoor unit is equipped with Wi-Fi interface which allows you to access MELCloud app, providing you with a flexible control of air conditioner on your smartphone, tablets, and PC.

Easy Wi-Fi Set Up

You can easily connect Wi-Fi adaptor in the indoor unit and your local router with just a simple operation of remote controller.



Remote Controller with Backlight

The remote controller screen is equipped with LED backlight. The luminous screen allows you to check the setting easily even in the dark.

Back Plate with a Hole

With a hole as default in the center of the back plate, the piping can be easily taken out from the back. The edge of the hole is reinforced to ensure the strength.

The edge of the hole is reinforced to ensure the strength.

Spacer

A part of the packing material can be used as a spacer to lift indoor unit during the left-side piping work, which makes stable installation work possible.

Bottom Removable Structure

The corner box and the bottom panel are individually removable, and it makes easy to insert tools even in the case of left-side piping.

Easy Plugging/Unplugging of Drain Hose

One-touch structure with screw- free claw fixing. Easy to plug and unplug the drain hose when changing on the left and right.

MSZ-RW SERIES

R32 | DC Inverter | Joint Lap | DC Fan Motor | PAM | Grooved Piping | 25 / 35 SEER A+++ | 25 / 35 SCOP A+++

Indoor Unit / Remote Controller

<White>

MSZ-RW25/35/50VG

Outdoor Unit

MUZ-RW25/35VGHZ

MUZ-RW50VGHZ

3D i-see Sensor | Circulator (-SC Only) | Econo Cool | Plasma Quad Plus | Dual Barrier Coating | Dual Barrier Material | V Blocking Filter (Optional) | Deodorising Filter | Double Vane | SWING | SWING | AUTO | Drive Mode Selector | Night | Back Light Remote | Weekly Timer

i save | ACO | Auto Restart | Low Temp Cooling | (Optional) | Group Control (Optional) | M-NET connection (Optional) | Wi-Fi Interface | MXZ connection (25/35) | 10°C | (Indoor) | Cleaning-free pipe route | Flare connection | Self Diagnosis | Failure Recall

Type				Inverter Heat Pump		
Indoor Unit				MSZ-RW25VG	MSZ-RW35VG	MSZ-RW50VG
Outdoor Unit				MUZ-RW25VGHZ	MUZ-RW35VGHZ	MUZ-RW50VGHZ
Refrigerant				R32 (*1)		
Power Supply	Source			Outdoor Power supply		
	Outdoor (V/Phase/Hz)			230/Single/50		
Cooling	Design Load		kW	2.5	3.5	5.0
	Annual Electricity Consumption (*2)		kWh/a	78	130	230
	SEER (*4)			11.2	9.4	7.6
		Energy Efficiency Class		A+++	A+++	A++
	Capacity	Rated	kW	2.5	3.5	5.0
		Min - Max	kW	0.9 - 3.5	1.0 - 4.0	1.4 - 5.8
	Total Input	Rated	kW	0.435	0.770	1.380
Heating (Average Season)(*5)	Design Load		kW	3.2	4.0	6.0
	Declared Capacity	at reference design temperature	kW	3.2 (–10°C)	4.0 (–10°C)	6.0 (–10°C)
		at bivalent temperature	kW	3.2 (–10°C)	4.0 (–10°C)	6.0 (–10°C)
		at operation limit temperature	kW	2.6 (–25°C)	2.6 (–25°C)	4.0 (–25°C)
	Back Up Heating Capacity		kW	0.0	0.0	0.0
	Annual Electricity Consumption (*2)		kWh/a	856	1097	1800
	SCOP (*4)			5.2	5.1	4.6
		Energy Efficiency Class		A+++	A+++	A++
	Capacity	Rated	kW	3.2	4.0	6.0
		Min - Max	kW	0.8 - 6.3	1.1 - 7.0	1.8 - 8.7
	Total Input	Rated	kW	0.580	0.810	1.450
Operating Current (max)			A	9.8	11.2	15.2
Indoor Unit	Input	Rated	kW	0.021	0.022	0.041
	Operating Current (max)		A	0.21	0.22	0.37
	Dimensions	H × W × D	mm	305 - 998 - 247	305 - 998 - 247	305 - 998 - 247
	Weight		kg	14.5	14.5	14.5
	Air Volume (SLo-Lo-Mid-Hi-SHi (*3))	Cooling	m^3/min	5.1 - 6.5 - 9.0 - 11.5 - 13.7	5.1 - 6.9 - 9.0 - 11.5 - 14.1	7.8 - 9.5 - 11.1 - 13.1 - 16.2
		Heating	m^3/min	5.1 - 7.8 - 9.5 - 11.7 - 14.1	5.1 - 7.8 - 9.5 - 11.7 - 14.5	7.8 - 10.7 - 12.5 - 14.7 - 18.2
	Sound Level (SPL) (SLo-Lo-Mid-Hi-SHi (*3))	Cooling	dB(A)	19 - 23 - 29 - 36 - 42	19 - 24 - 29 - 36 - 43	26 - 30 - 34 - 39 - 45
		Heating	dB(A)	19 - 25 - 30 - 36 - 41	19 - 25 - 30 - 36 - 42	25 - 32 - 37 - 41 - 46
	Sound Level (PWL)		dB(A)	58	59	59
Outdoor Unit	Dimensions	H × W × D	mm	714 - 800 - 285	714 - 800 - 285	880 - 840 - 330
	Weight		kg	39.5	40	54
	Air Volume	Cooling	m^3/min	35.1	37.8	49.3
		Heating	m^3/min	37.8	37.8	55.6
	Sound Level (SPL)	Cooling	dB(A)	46	49	51
		Heating	dB(A)	49	50	54
	Sound Level (PWL)	Cooling	dB(A)	60	61	64
	Operating Current (max)		A	9.6	11.0	14.8
	Breaker Size		A	10	12	16
Ext. Piping	Diameter	Liquid / Gas	mm	6.35/9.52	6.35/9.52	6.35/9.52
	Max. Length	Out-In	m	20	20	30
	Max. Height	Out-In	m	12	12	15
Guaranteed Operating Range [Outdoor]		Cooling	℃	–10 ~ +46	–10 ~ +46	–10 ~ +46
		Heating	℃	–30 ~ +24	–30 ~ +24	–30 ~ +24

(*1) Refrigerant leakage contributes to climate change. Refrigerant with lower global warming potential (GWP) would contribute less to global warming than a refrigerant with higher GWP, if leaked to the atmosphere. This appliance contains a refrigerant fluid with a GWP equal to 675. This means that if 1 kg of this refrigerant fluid would be leaked to the atmosphere, the impact on global warming would be 1975 times higher than 1 kg of CO_2, over a period of 100 years. Never try to interfere with the refrigerant circuit yourself or disassemble the product yourself and always ask a professional.
(*2) Energy consumption based on standard test results.Actual energy consumption will depend on how the appliance is used and where it is located.
(*3) SHi: Super High
(*4) SEER, SCOP and other related description are based on COMMISSION DELEGATED REGULATION (EU) No.626/2011. The temperature conditions for calculating SCOP are based on "Average Season".
(*5) Please see page 53-55 for heating (warmer season) specifications.

LN VGHZ SERIES

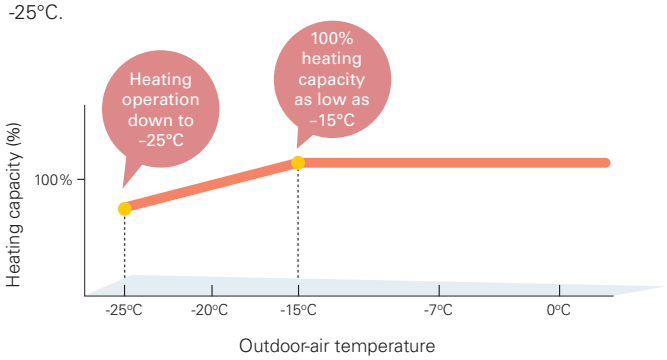
R32 Single / MXZ, PUMY
R410A PUMY

Unlike conventional air conditioning systems, the LN Series don't lose heating capacity when it's cold outside. Original technologies ensure excellent heating performance under extremely low outdoor temperatures and an impressive guaranteed operating range.

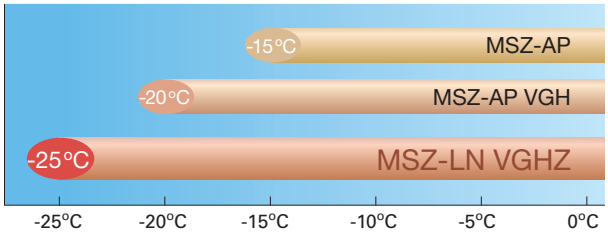
MSZ-LN25/35/50VG2(W)(V)(R)(B)

Unparalleled Heating Performance

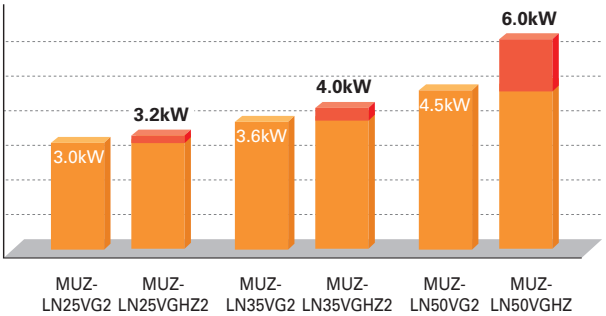
LN Series outdoor units are equipped with a high-output compressor that provides enhanced heating performance under low outdoor temperatures. The heating operation range is extended down to -25°C.



Operating Range



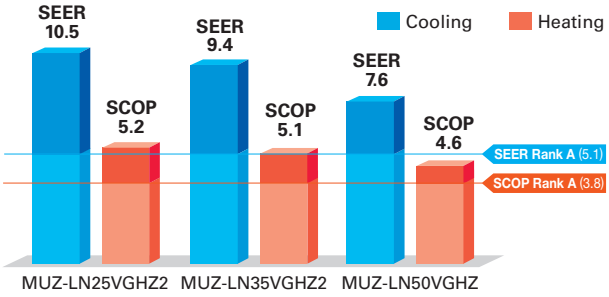
Declared Capacity (at reference design temperature)



High Energy Efficiency – Energy Rank of A+ or higher for All Models

DC Inverter

With indoor units that combine functionality, design and capacity and outdoor units equipped with a high-efficiency compressor, the MUZ-LN VGHZ simultaneously achieves high heating capacity and energy-saving performance.



Freeze-prevention Heater Equipped as Standard

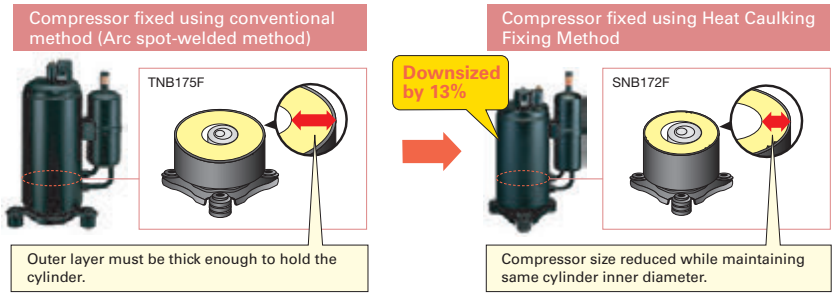
The Freeze-prevention heater restricts lowered capacity and operation shutdowns caused by the drain water freezing. This supports stable operation in low-temperature environments.

Operation Guaranteed at Outside Temperature of –25°C

Without Freeze-prevention heater | With Freeze-prevention heater

Compact, Powerful Compressor

A special manufacturing technology, "Heat Caulking Fixing Method," has been introduced to reduce compressor size while maintaining a high compressor output. This technology enables the installation of a powerful compressor in compact MUZ outdoor units. As a result, excellent heating performance is achieved when operating in cold outdoor environments.



MSZ-LN VGHZ SERIES

R32 | DC Inverter | Joint Lap | DC Fan Motor | PAM | Grooved Piping | SEER 25 / 35 A+++ | SCOP 25 / 35 A+++

Indoor Unit / Remote Controller

GOOD DESIGN AWARD 2016 BEST 100

<Pearl White>

MSZ-LN25/35/50VG2V

<Ruby Red>

MSZ-LN25/35/50VG2R

<Natural White>

MSZ-LN25/35/50VG2W

<Onyx Black>

MSZ-LN25/35/50VG2B

Outdoor Unit

MUZ-LN25/35VGHZ2

MUZ-LN50VGHZ2

3D i see Sensor | AREA | HUMAN | Econo Cool | AUTO VANE | Plasma Quad Plus | Dual Barrier Coating | V Blocking Filter (Optional) | Double Vane | SWING | SWING | AUTO | Circulator Mode | Weekly Timer | i save

ACO | Auto Restart | Low Temp Cooling | Optional | Group Control | Optional | M-NET connection | Optional | Wi-Fi interface | MXZ connection 25/35 | 10°C | Indoor | Night | Back Light Remote | Cleaning free the rest | Flare connection | Self Diagnosis | Failure Recall

Type				Inverter Heat Pump		
Indoor Unit				MSZ-LN25VG2(W)(V)(R)(B)	MSZ-LN35VG2(W)(V)(R)(B)	MSZ-LN50VG2(W)(V)(R)(B)
Outdoor Unit				MUZ-LN25VGHZ2	MUZ-LN35VGHZ2	MUZ-LN50VGHZ2
Refrigerant				R32 (*1)		
Power Supply	Source			Outdoor Power supply		
	Outdoor (V/Phase/Hz)			230/Single/50		
Cooling	Design Load		kW	2.5	3.5	5.0
	Annual Electricity Consumption (*2)		kWh/a	83	130	230
	SEER (*4)			10.5	9.4	7.6
		Energy Efficiency Class		A+++	A+++	A++
	Capacity	Rated	kW	2.5	3.5	5.0
		Min - Max	kW	0.8 - 3.5	0.8 - 4.0	1.4 - 5.8
	Total Input	Rated	kW	0.485	0.820	1.380
Heating (Average Season)(*5)	Design Load		kW	3.2 (–10°C)	4.0 (–10°C)	6.0 (–10°C)
	Declared Capacity	at reference design temperature	kW	3.2 (–10°C)	4.0 (–10°C)	6.0 (–10°C)
		at bivalent temperature	kW	3.2 (–10°C)	4.0 (–10°C)	6.0 (–10°C)
		at operation limit temperature	kW	2.3 (–25°C)	3.1 (–25°C)	4.7 (–25°C)
	Back Up Heating Capacity		kW	0.0 (–10°C)	0.0 (–10°C)	0.0 (–10°C)
	Annual Electricity Consumption (*2)		kWh/a	861	1098	1826
	SCOP (*4)			5.2	5.1	4.6
		Energy Efficiency Class		A+++	A+++	A++
	Capacity	Rated	kW	3.2	4.0	6.0
		Min - Max	kW	0.8 - 6.3	0.9 - 6.6	1.8 - 8.7
	Total Input	Rated	kW	0.600	0.820	1.480
Operating Current (max)			A	9.9	10.5	15.2
Indoor Unit	Input	Rated	kW	0.027	0.027	0.034
	Operating Current (max)		A	0.3	0.3	0.4
	Dimensions	H × W × D	mm	307 - 890 - 233	307 - 890 - 233	307 - 890 - 233
	Weight		kg	15.5	15.5	15.5
	Air Volume (SLo-Lo-Mid-Hi-SHi (*3))	Cooling	m^3/min	4.3 - 5.8 - 7.1 - 8.8 - 11.9	4.3 - 5.8 - 7.1 - 8.8 - 12.8	5.7 - 7.6 - 8.9 - 10.6 - 13.9
		Heating	m^3/min	4.0 - 5.7 - 7.1 - 8.5 - 14.4	4.3 - 5.7 - 7.1 - 8.5 - 13.7	5.4 - 6.4 - 8.5 - 10.7 - 15.7
	Sound Level (SPL) (SLo-Lo-Mid-Hi-SHi (*3))	Cooling	dB(A)	19 - 23 - 29 - 36 - 42	19 - 24 - 29 - 36 - 43	27 - 31 - 35 - 39 - 46
		Heating	dB(A)	19 - 24 - 29 - 36 - 45	19 - 24 - 29 - 36 - 45	25 - 29 - 34 - 39 - 47
	Sound Level (PWL)		dB(A)	58	58	60
Outdoor Unit	Dimensions	H × W × D	mm	550 - 800 - 285	550 - 800 - 285	880 - 840 - 330
	Weight		kg	35	36	53
	Air Volume	Cooling	m^3/min	31.4	33.8	48.8
		Heating	m^3/min	27.4	27.4	55.0
	Sound Level (SPL)	Cooling	dB(A)	46	49	51
		Heating	dB(A)	49	50	54
	Sound Level (PWL)	Cooling	dB(A)	60	61	64
	Operating Current (max)		A	9.6	10.2	14.8
	Breaker Size		A	10	12	16
Ext. Piping	Diameter	Liquid / Gas	mm	6.35/9.52	6.35/9.52	6.35/9.52
	Max. Length	Out-In	m	20	20	30
	Max. Height	Out-In	m	12	12	15
Guaranteed Operating Range [Outdoor]		Cooling	℃	–10 ~ +46	–10 ~ +46	–10 ~ +46
		Heating	℃	–25 ~ +24	–25 ~ +24	–25 ~ +24

(*1) Refrigerant leakage contributes to climate change. Refrigerant with lower global warming potential (GWP) would contribute less to global warming than a refrigerant with higher GWP, if leaked to the atmosphere. This appliance contains a refrigerant fluid with a GWP equal to 550. This means that if 1 kg of this refrigerant fluid would be leaked to the atmosphere, the impact on global warming would be 550 times higher than 1 kg of CO_2, over a period of 100 years. Never try to interfere with the refrigerant circuit yourself or disassemble the product yourself and always ask a professional. The GWP of R32 is 675 in the IPCC 4th Assessment Report.
(*2) Energy consumption based on standard test results. Actual energy consumption will depend on how the appliance is used and where it is located.
(*3) SHi: Super High
(*4) SEER, SCOP and other related description are based on COMMISSION DELEGATED REGULATION (EU) No.626/2011. The temperature conditions for calculating SCOP are based on "Average Season".
(*5) Please see page 53-55 for heating (warmer season/colder season) specifications.

FT VGHZ SERIES

R32 Single / Multi

Unlike conventional air conditioning systems, the FT Series don't lose heating capacity when it's cold outside. Original technologies ensure excellent heating performance under extremely low outdoor temperatures and an impressive guaranteed operating range. Furthermore, the smaller and stylish indoor unit does not give you the limitation of installation location.

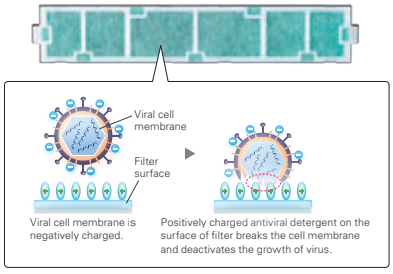
MSZ-FT25/35/50VG(K)

Compact Design

The FT series features its compact design with 280mm height and 229mm depth, which is suitable for the installation above the door.

V Blocking Filter (Optional)

V Blocking Filter with antiviral effect inhibits 99% of adhered virus, and other harmful substances, such as bacteria, mold and allergen.
Two-layered filter with non-woven fabric and electrostatic filter can effectively capture and remove small particles from the air in your room.

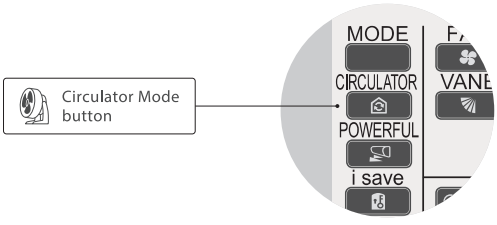


Remote Controller with Backlight

The remote controller screen is equipped with an LED backlight. The luminous screen allows you to check the setting easily even in the dark.

Circulator Mode

After reaching the target temperature, heating mode will automatically switch to Circulator mode, which makes the unit go into "fan-only" state and mixes warm air in the room.



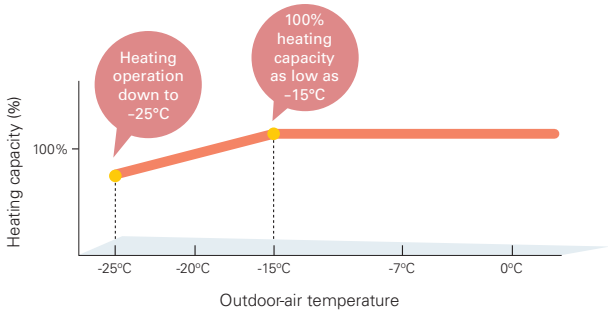
Built-in Wi-Fi

(MSZ-FT25/35/50VGK)

Mitsubishi Electric Wi-Fi Control gives you the freedom to tailor your heating and cooling needs through computers, tablets, or smartphones from anywhere.

Hyper Heating

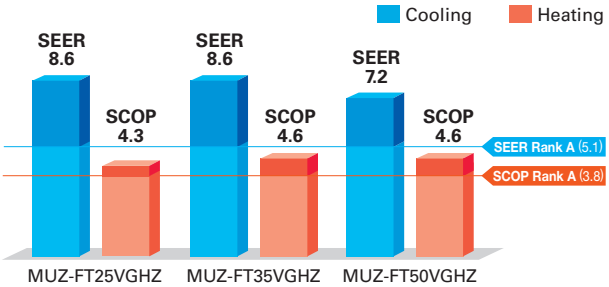
Mitsubishi Electric's powerful compressor and highly cold-resistant parts enable the heat pump to provide 100% or more heating capacity even at –15°C, and also the heating operation is guaranteed down to –25°C.



High Energy Efficiency – Energy Rank of A+ or higher for All Models

DC Inverter

With indoor units that combine functionality, design and capacity and outdoor units equipped with a high-efficiency compressor, the MUZ-FT VGHZ simultaneously achieves high heating capacity and energy-saving performance.



(MSZ-FT25/35/50VG(K)-SC Scandinavian Model)

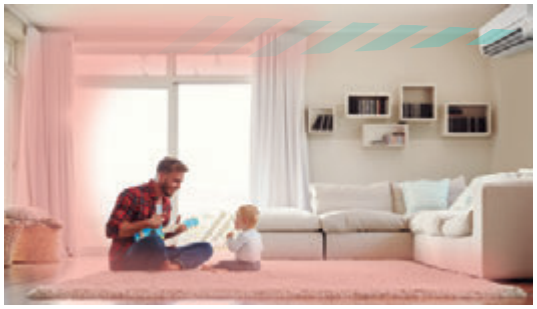


Image is for illustration purposes.

MSZ-FT VGHZ SERIES

DC Inverter · Joint Lap · DC Fan Motor · PAM · Grooved Piping · 25-35 SEER A+++ · 25-35 SCOP A++

Indoor Unit

MSZ-FT25/35/50VG(K)

Outdoor Unit

MUZ-FT25VGHZ

MUZ-FT35/50VGHZ

Remote Controller

Econo Cool (-E / -ET Only) · V Blocking Filter · Air Purifying · SWING · SWING · AUTO · Circulator Mode · Weekly Timer · i save · ACO · Auto Restart · Low Temp Cooling · Optional · Group Control · Optional · M-NET connection · Optional

Wi-Fi Interface (VGK Only) · 10°C · Indoor · Night · Back Light Remote · Cleaning-free pipe system · Flare connection · Self Diagnosis · Failure Recall

Type				Inverter Heat Pump		
Indoor Unit				MSZ-FT25VG(K)	MSZ-FT35VG(K)	MSZ-FT50VG(K)
Outdoor Unit				MUZ-FT25VGHZ	MUZ-FT35VGHZ	MUZ-FT50VGHZ
Refrigerant				R32 (*1)		
Power Supply	Source			Outdoor power supply		
	Outdoor (V/Phase/Hz)			230 / Single / 50		
Cooling	Design Load		kW	2.5	3.5	5.0
	Annual Electricity Consumption (*2)		kWh/a	101	142	243
	SEER (*4)			8.6	8.6	7.2
		Energy Efficiency Class		A+++	A+++	A++
	Capacity	Rated	kW	2.5	3.5	5.0
		Min - Max	kW	0.8 - 3.5	0.8 - 4.0	0.8 - 5.2
	Total Input	Rated	kW	0.580	0.910	1.630
Heating (Average Season)(*5)	Design Load		kW	3.2 (–10°C)	4.0 (–10°C)	5.0 (–10°C)
	Declared Capacity	at reference design temperature	kW	3.2 (–10°C)	4.0 (–10°C)	5.0 (–10°C)
		at bivalent temperature	kW	3.2 (–10°C)	4.0 (–10°C)	5.0 (–10°C)
		at operation limit temperature	kW	3.0 (–25°C)	3.4 (–25°C)	3.6 (–25°C)
	Back Up Heating Capacity		kW	0.0 (–10°C)	0.0 (–10°C)	0.0 (–10°C)
	Annual Electricity Consumption (*2)		kWh/a	973	1216	1625
	SCOP (*4)			4.6	4.6	4.3
		Energy Efficiency Class		A++	A++	A+
	Capacity	Rated	kW	3.2	4.0	5.0
		Min - Max	kW	0.9 - 6.2	0.9 - 6.6	0.9 - 7.8
	Total Input	Rated	kW	0.760	1.020	1.300
Operating Current (max)			A	10.0	11.6	13.9
Indoor Unit	Input	Rated	kW	0.039	0.04	0.047
	Operating Current (max)		A	0.4		
	Dimensions	H × W × D	mm	280 - 838 - 229		
	Weight		kg	10		
	Air Volume (SLo-Lo-Mid-Hi-SHi (*3))	Cooling	m^3/min	3.9 - 5.9 - 8.2 - 10.4 - 12.3	3.9 - 6.1 - 8.3 - 10.7 - 13.1	5.5 - 7.6 - 9.8 - 12.0 - 13.1
		Heating	m^3/min	3.9 - 6.3 - 9.0 - 12.0 - 13.2	3.9 - 6.9 - 10.2 - 13.5 - 14.7	5.5 - 8.4 - 11.4 - 14.4 - 15.5
	Sound Level (SPL) (SLo-Lo-Mid-Hi-SHi (*3))	Cooling	dB(A)	19 - 27 - 36 - 41 - 46	19 - 27 - 36 - 42 - 47	28 - 34 - 40 - 45 - 48
		Heating	dB(A)	19 - 31 - 39 - 46 - 49	19 - 33 - 42 - 49 - 52	28 - 36 - 45 - 51 - 54
	Sound Level (PWL)		dB(A)	60		
Outdoor Unit	Dimensions	H × W × D	mm	550 - 800 - 285	714 - 800 - 285	714 - 800 - 285
	Weight		kg	34	40	40
	Air Volume	Cooling	m^3/min	30.4	40.2	40.2
		Heating	m^3/min	30.4	40.2	40.2
	Sound Level (SPL)	Cooling	dB(A)	46	49	51
		Heating	dB(A)	49	52	54
	Sound Level (PWL)	Cooling	dB(A)	60	61	64
	Operating Current (max)		A	9.6	11.2	13.5
	Breaker Size		A	12	12	16
Ext. Piping	Diameter	Liquid / Gas	mm	6.35 / 9.52	6.35 / 9.52	6.35 / 9.52
	Max. Length	Out-In	m	20	30	30
	Max. Height	Out-In	m	12	15	15
Guaranteed Operating Range [Outdoor]		Cooling	°C	–10 ~ +46	–10 ~ +46	–10 ~ +46
		Heating	°C	–25 ~ +24	–25 ~ +24	–25 ~ +24

(*1) Refrigerant leakage contributes to climate change. Refrigerant with lower global warming potential (GWP) would contribute less to global warming than a refrigerant with higher GWP, if leaked to the atmosphere. This appliance contains a refrigerant fluid with a GWP equal to 1975. This means that if 1 kg of this refrigerant fluid would be leaked to the atmosphere, the impact on global warming would be 1975 times higher than 1 kg of CO_2, over a period of 100 years. Never try to interfere with the refrigerant circuit yourself or disassemble the product yourself and always ask a professional.
The GWP of R410A is 2088 in the IPCC 4th Assessment Report.
(*2) Energy consumption based on standard test results. Actual energy consumption will depend on how the appliance is used and where it is located.
(*3) SHi: Super High
(*4) SEER, SCOP and other related description are based on COMMISSION DELEGATED REGULATION (EU) No.626/2011. The temperature conditions for calculating SCOP are based on "Average Season".
(*5) Please see page 53-55 for heating (warmer season) specifications.

MFZ-KW SERIES

Indoor Unit

R32
Single

MFZ-KW25/35/50/60VG

GOOD DESIGN AWARD 2014

Outdoor Unit

MUFZ-KW25/35VGHZ

MUFZ-KW50/60VGHZ

Remote Controller

Econo Cool · Pure White · AUTO VANE · Silver-ion (Optional) · V Blocking Filter · Air Purifying · SWING · AUTO · Weekly Timer · i save · ACO · Auto Restart · Low Temp Cooling (Optional) · Group Control (Optional)

M-NET connection (Optional) · Wi-Fi Interface (Optional) · 10°C · Cleaning-free pipe system · Flare connection · Self Diagnosis · Failure Recall

Type				Inverter Heat Pump			
Indoor Unit				MFZ-KW25VG	MFZ-KW35VG	MFZ-KW50VG	MFZ-KW60VG
Outdoor Unit				MUFZ-KW25VGHZ	MUFZ-KW35VGHZ	MUFZ-KW50VGHZ	MUFZ-KW60VGHZ
Refrigerant				R32 (*1)			
Power Supply	Source			Outdoor power supply			
	Outdoor (V/Phase/Hz)			230 / Single / 50			
Cooling	Design Load		kW	2.5	3.5	5.0	6.1
	Annual Electricity Consumption (*2)		kWh/a	103	151	255	316
	SEER (*4)			8.5	8.1	6.8	6.7
		Energy Efficiency Class		A+++	A++	A++	A++
	Capacity	Rated	kW	2.5	3.5	5.0	6.1
		Min - Max	kW	0.7 - 3.6	0.7 - 4.3	1.0 - 5.8	1.0 - 6.5
	Total Input	Rated	kW	0.57	0.90	1.36	1.73
Heating (Average Season)	Design Load		kW	3.5	3.6	4.5	4.8
	Declared Capacity	at reference design temperature	kW	3.5 (–10°C)	3.6 (–10°C)	4.5 (–10°C)	4.8 (–10°C)
		at bivalent temperature	kW	3.5 (–10°C)	3.6 (–10°C)	4.5 (–10°C)	4.8 (–10°C)
		at operation limit temperature	kW	2.6 (–25°C)	2.6 (–25°C)	4.0 (–25°C)	4.0 (–25°C)
	Back Up Heating Capacity		kW	0.0 (–10°C)	0.0 (–10°C)	0.0 (–10°C)	0.0 (–10°C)
	Annual Electricity Consumption (*2)		kWh/a	1188	1211	1500	1624
	SCOP (*4)			4.1	4.1	4.2	4.1
		Energy Efficiency Class		A+	A+	A+	A+
	Capacity	Rated	kW	3.4	4.3	6.0	6.5
		Min - Max	kW	0.2 - 5.1	0.2 - 6.0	1.2 - 8.4	1.2 - 9.0
	Total Input	Rated	kW	0.83	1.21	1.60	1.88
Operating Current (max)			A	9.9	10.3	15.3	15.4
Indoor Unit	Input (Cooling/Heating)	Rated	kW	0.019/0.025	0.019/0.025	0.026/0.052	0.063/0.059
	Operating Current (max)		A	0.22	0.22	0.47	0.55
	Dimensions	H × W × D	mm	600 - 750 - 215			
	Weight		kg	15	15	15	15
	Air Volume (SLo-Lo-Mid-Hi-SHi (*3))	Cooling	m^3/min	3.9 - 4.9 - 5.9 - 7.1 - 8.2	3.9 - 4.9 - 5.9 - 7.1 - 8.2	5.6 - 6.7 - 8.0 - 9.3 - 10.6	5.6 - 8.0 - 9.6 - 12.3 - 15.0
		Heating	m^3/min	3.5 - 5.1 - 6.2 - 7.7 - 9.7	3.5 - 5.1 - 6.2 - 7.7 - 9.7	6.0 - 7.4 - 9.4 - 11.6 - 14.0	6.0 - 7.7 - 9.7 - 12.5 - 14.6
	Sound Level (SPL) (SLo-Lo-Mid-Hi-SHi (*3))	Cooling	dB(A)	20 - 25 - 30 - 35 - 39	20 - 25 - 30 - 35 - 39	27 - 31 - 35 - 39 - 44	27 - 35 - 39 - 46 - 53
		Heating	dB(A)	18 - 25 - 30 - 35 - 41	18 - 25 - 30 - 35 - 41	29 - 35 - 40 - 45 - 50	29 - 35 - 41 - 47 - 51
	Sound Level (PWL)		dB(A)	49	50	56	65
Outdoor Unit	Dimensions	H × W × D	mm	550 - 800 - 285		880 - 840 - 330	
	Weight		kg	35	35	54	54
	Air Volume	Cooling	m^3/min	32.7	32.7	43.8	48.8
		Heating	m^3/min	27.3	27.3	46.3	51.3
	Sound Level (SPL)	Cooling	dB(A)	47	47	50	52
		Heating	dB(A)	46	47	54	56
	Sound Level (PWL)	Cooling	dB(A)	61	61	65	66
	Operating Current (max)		A	9.6	10.0	14.8	14.8
	Breaker Size		A	10	12	16	16
Ext. Piping	Diameter	Liquid / Gas	mm	6.35 / 9.52	6.35 / 9.52	6.35 / 12.7	6.35 / 12.7
	Max. Length	Out-In	m	20	20	30	30
	Max. Height	Out-In	m	12	12	15	15
Guaranteed Operating Range [Outdoor]		Cooling	℃	–10 ~ +46	–10 ~ +46	–10 ~ +46	–10 ~ +46
		Heating	℃	–25 ~ +24	–25 ~ +24	–25 ~ +24	–25 ~ +24

(*1) Refrigerant leakage contributes to climate change. Refrigerant with lower global warming potential (GWP) would contribute less to global warming than a refrigerant with higher GWP, if leaked to the atmosphere. This appliance contains a refrigerant fluid with a GWP equal to 1975. This means that if 1 kg of this refrigerant fluid would be leaked to the atmosphere, the impact on global warming would be 1975 times higher than 1 kg of CO_2, over a period of 100 years. Never try to interfere with the refrigerant circuit yourself or disassemble the product yourself and always ask a professional.
The GWP of R410A is 2088 in the IPCC 4th Assessment Report.
(*2) Energy consumption based on standard test results. Actual energy consumption will depend on how the appliance is used and where it is located.
(*3) SHi: Super High
(*4) SEER, SCOP and other related description are based on COMMISSION DELEGATED REGULATION (EU) No.626/2011. The temperature conditions for calculating SCOP are based on "Average Season".

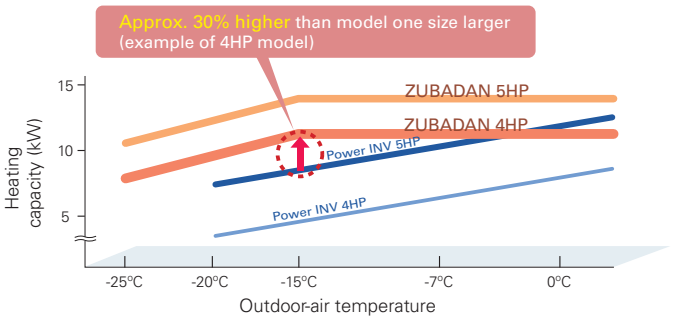
ZUBADAN SERIES

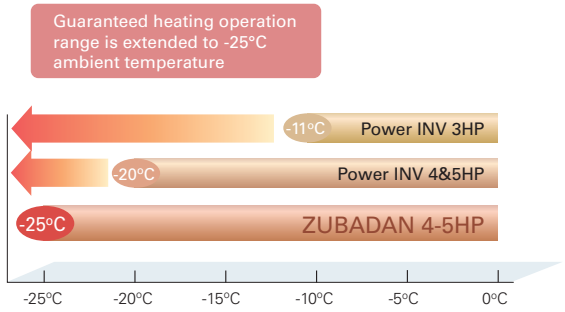
The ZUBADAN Series incorporates an original Flash Injection technology that improves the already high heating capacity of the system. This new member of the series line-up ensures comfortable heat pump-driven heating performance in cold regions.

✻Units in photo are Japanese models.
European model specifications are different.

Improved Heating Performance

Mitsubishi Electric's unique "Flash Injection" circuit achieves remarkably high heating performance. This technology has resulted in an excellent heating capacity rating in outdoor temperatures as low as -15°C, and the guaranteed heating operation range of the heating mode has been extended to -25°C. Accordingly, the heat-pump units of the ZUBADAN Series are perfect for warming homes in the coldest of regions.



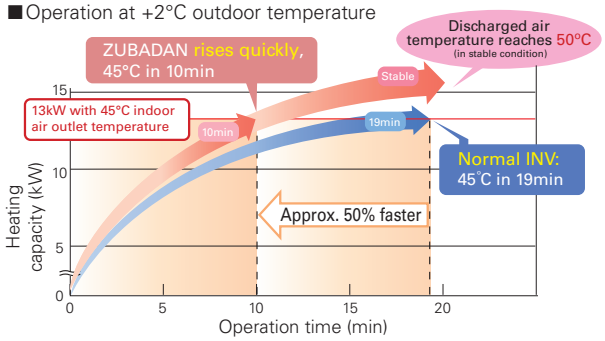


Enhanced Comfort

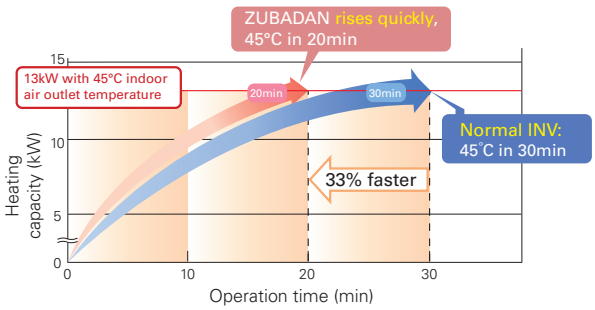
The Flash Injection circuit improves start-up and recover from the defrosting operation. A newly introduced defrost operation control also improves defrost frequency. These features enable the temperature to reach the set temperature more quickly, and contribute to maintaining it at the desired setting.

Quick Start-up

■Operation at +2°C outdoor temperature



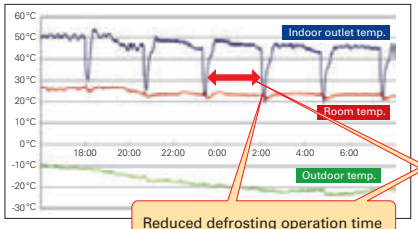
■Operation at -20°C outdoor temperature



ZUBADAN Defrost Control and Faster Recovery from Defrost Operation

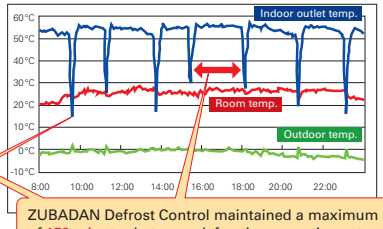
Field Test Results: Office building in Asahikawa, Hokkaido, Japan

■Operation data for 25 Jan. 2005

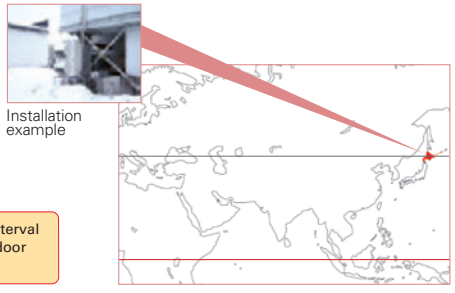


Reduced defrosting operation time from 4 to 3 minutes.

■Operation data for 2 Dec. 2004

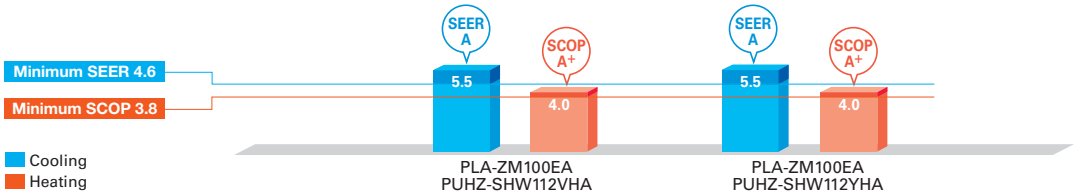


ZUBADAN Defrost Control maintained a maximum interval of 150 minutes between defrosting operations at outdoor temperatures of approximately -20°C and 0°C.



ErP Lot 10 Compliant with High Energy-efficiency Achieving SEER/SCOP Rank A and A+

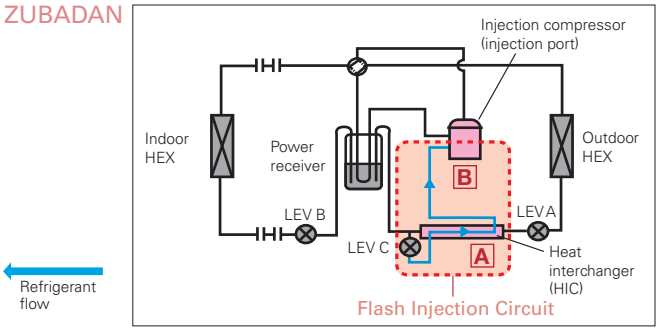
Powerful heating yet annaully high energy efficiency in both cooling and heating, achieving rank A and A+.

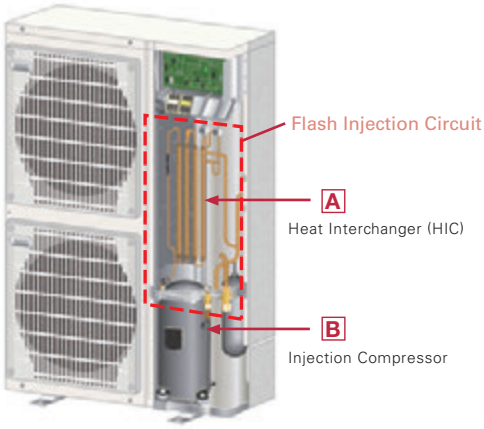


Mitsubishi Electric's Flash Injection Technology The Key to High Heating Performance at Low Outdoor Temperatures

Flash Injection Circuit

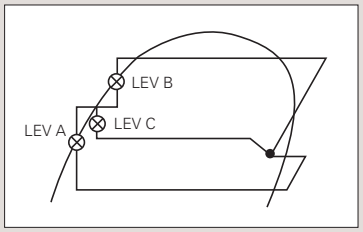
ZUBADAN





The ZUBADAN Series is equipped with Mitsubishi Electric's original Flash Injection Circuit, which is comprised of a bypass circuit and heat interchanger (HIC). The HIC transforms rerouted liquid refrigerant into a gas-liquid state to lower compression load. This process ensures excellent heating performance even when the outdoor temperature drops very low.
In traditional units, when the outdoor temperature is low, the volume of refrigerant circulating in the compressor decreases due to the drop in refrigerant pressure and the protection from overheating caused by high compression, thereby reducing heating capacity. The Flash Injection Circuit injects refrigerant to maintain the refrigerant circulation volume and compressor operation load, thereby maintaining heating capacity.

Mollier Chart Image Representing Flash Injection Circuit Operation



A Heat Interchanger (HIC)

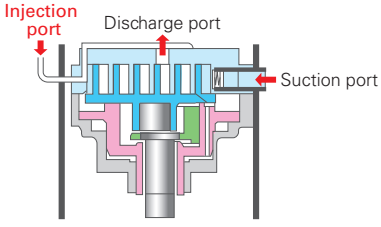
HIC cross-sectional view

Purpose: Transform liquid refrigerant into liquid-gas state

Effect: Injection circuit increases energy efficiency

The compressor is subjected to a heavy load when compressing liquid refrigerant, and the result is lower operation efficiency. The addition of HIC supports refrigerant heat exchange at two different pressure levels. The heat-exchange process transforms the injected liquid refrigerant into a gas liquid state, thereby decreasing the load on the compressor during the compression process.

B Injection Compressor



Purpose: To increase the volume of refrigerant being circulated

Effect: Improves heating capacity at low outdoor temperatures, and enables higher indoor-air outlet temperature adjustment and higher defrost operation speed

Refrigerant passes from the HIC into the compressor through the injection port. Having two refrigerant inlets makes it possible to raise the volume of refrigerant being circulated when the outdoor temperature is low and at the start of heating operation.

PLZ-SHW SERIES

Indoor Unit

R32
R410A

PLA-ZM100/125EA2

Panel

Panel	With Signal Receiver	With 3D i-see Sensor	With Wireless Remote Controller	With Auto Elevation
PLP-6EA				
PLP-6EAL	✓			
PLP-6EAE		✓		
PLP-6EALE	✓	✓		
PLP-6EAJ	✓			✓
PLP-6EAJE	✓	✓		✓
PLP-6EALM2	✓		✓	
PLP-6EALME2	✓	✓	✓	

Outdoor Unit

R410A

PUHZ-SHW112VHA(-BS)
PUHZ-SHW112/140YHA(-BS)

Remote Controller

Enclosed in
PLP-6EALM2/
PLP-6EALME2

*optional

*optional

*optional

Type				Inverter Heat Pump		
Indoor Unit				PLA-ZM100EA2		PLA-ZM125EA2
Outdoor Unit				PUHZ-SHW112VHA	PUHZ-SHW112YHA	PUHZ-SHW140YHA
Refrigerant				R410A*1		
Power Supply	Source			Outdoor power supply		
	Outdoor (V/Phase/Hz)			VHA: 230 / Single / 50, YHA: 400 / Three / 50		
Cooling	Capacity	Rated	kW	10.0	10.0	12.5
		Min - Max	kW	4.9 - 11.4	4.9 - 11.4	5.5 - 14.0
	Total Input	Rated	kW	2.857	2.857	5.000
	EER			3.50	3.50	2.50
		EEL Rank		–	–	–
	Design Load		kW	10.0	10.0	–
	Annual Electricity Consumption*2		kWh/a	633	633	–
	SEER*4			5.5	5.5	–
		Energy Efficiency Class		A	A	–
Heating (Average Season)	Capacity	Rated	kW	11.2	11.2	14.0
		Min - Max	kW	4.5 - 14.0	4.5 - 14.0	5.0 - 16.0
	Total Input	Rated	kW	2.667	2.667	4.000
	COP			4.20	4.20	3.50
		EEL Rank		–	–	–
	Design Load		kW	12.7	12.7	–
	Declared Capacity	at reference design temperature	kW	11.2 (-10°C)	11.2 (-10°C)	–
		at bivalent temperature	kW	11.2 (-7°C)	11.2 (-7°C)	–
		at operation limit temperature	kW	9.3 (-25°C)	9.3 (-25°C)	–
	Back Up Heating Capacity		kW	1.5	1.5	–
	Annual Electricity Consumption*2		kWh/a	4420	4420	–
	SCOP*4			4.0	4.0	–
		Energy Efficiency Class		A+	A+	–
Operating Current (max)			A	35.5	13.5	13.5
Indoor Unit	Input [Cooling/Heating]	Rated	kW	0.07 / 0.07	0.07 / 0.07	0.08 / 0.08
	Operating Current (max)		A	0.47	0.47	0.52
	Dimensions <Panel>	H × W × D	mm	298-840-840 <40-950-950>		
	Weight <Panel>		kg	26 <5>	26 <5>	26 <5>
	Air Volume [Lo-Mi2-Mi1-Hi]		m^3/min	19 - 22 - 25 - 28	19 - 22 - 25 - 28	21 - 24 - 26 - 29
	Sound Level (SPL) [Lo-Mi2-Mi1-Hi]		dB(A)	31 - 34 - 37 - 40	31 - 34 - 37 - 40	33 - 36 - 39 - 41
	Sound Level (PWL)		dB(A)	61	61	62
Outdoor Unit	Dimensions	H × W × D	mm	1350 - 950 - 330 (+30)		
	Weight		kg	120	134	134
	Air Volume	Cooling	m^3/min	100	100	100
		Heating	m^3/min	100	100	100
	Sound Level (SPL)	Cooling	dB(A)	51	51	51
		Heating	dB(A)	52	52	52
	Sound Level (PWL)	Cooling	dB(A)	69	69	69
	Operating Current (max)		A	35	13	13
	Breaker Size		A	40	16	16
Ext. Piping	Diameter	Liquid / Gas	mm	9.52 / 15.88	9.52 / 15.88	9.52 / 15.88
	Max. Length	Out-In	m	75	75	75
	Max. Height	Out-In	m	30	30	30
Guaranteed Operating Range [Outdoor]		Cooling*3	°C	–15 ~ +46	–15 ~ +46	–15 ~ +46
		Heating	°C	–25 ~ +21	–25 ~ +21	–25 ~ +21

*1 Refrigerant leakage contributes to climate change. Refrigerant with lower global warming potential (GWP) would contribute less to global warming than a refrigerant with higher GWP, if leaked to the atmosphere. This appliance contains a refrigerant fluid with a GWP equal to 1975. This means that if 1 kg of this refrigerant fluid would be leaked to the atmosphere, the impact on global warming would be 1975 times higher than 1 kg of CO_2, over a period of 100 years. Never try to interfere with the refrigerant circuit yourself or disassemble the product yourself and always ask a professional.
*2 Energy consumption based on standard test results. Actual energy consumption will depend on how the appliance is used and where it is located.
*3 Optional air protection guide is required where ambient temperature is lower than –5°C.
*4 SEER and SCOP are based on 2009/125/EC:Energy-related Products Directive and Regulation(EU) No206/2012.

PLZ–SHW SERIES

Indoor Unit

R410A

PLA-M100/125EA2

Panel

Panel	With Signal Receiver	With 3D i-see Sensor	With Wireless Remote Controller	With Auto Elevation
PLP-6EA				
PLP-6EAL	✓			
PLP-6EAE		✓		
PLP-6EALE	✓	✓		
PLP-6EAJ	✓			✓
PLP-6EAJE	✓	✓		✓
PLP-6EALM2	✓		✓	
PLP-6EALME2	✓	✓	✓	

Outdoor Unit

R410A

PUHZ-SHW112VHA(-BS)
PUHZ-SHW112/140YHA(-BS)

Remote Controller

Enclosed in
PLP-6EALM2/
PLP-6EALME2

*optional

*optional

*optional

Type				Inverter Heat Pump		
Indoor Unit				PLA-M100EA2		PLA-M125EA2
Outdoor Unit				PUHZ-SHW112VHA	PUHZ-SHW112YHA	PUHZ-SHW140YHA
Refrigerant				R410A*1		
Power Supply	**Source**			Outdoor power supply		
	Outdoor (V/Phase/Hz)			VHA: 230 / Single / 50, YHA: 400 / Three / 50		
Cooling	**Capacity**	Rated	kW	10.0	10.0	12.5
		Min - Max	kW	4.9 - 11.4	4.9 - 11.4	5.5 - 14.0
	Total Input	Rated	kW	2.940	2.940	5.000
	EER			3.40	3.40	2.50
		EEL Rank		–	–	–
	Design Load		kW	10.0	10.0	–
	Annual Electricity Consumption*2		kWh/a	661	661	–
	SEER*4			5.3	5.3	–
		Energy Efficiency Class		A	A	–
Heating (Average Season)	**Capacity**	Rated	kW	11.2	11.2	14.0
		Min - Max	kW	4.5 - 14.0	4.5 - 14.0	5.0 - 16.0
	Total Input	Rated	kW	2.793	2.793	4.000
	COP			4.01	4.01	3.50
		EEL Rank		–	–	–
	Design Load		kW	12.7	12.7	–
	Declared Capacity	at reference design temperature	kW	11.2 (-10°C)	11.2 (-10°C)	–
		at bivalent temperature	kW	11.2 (-7°C)	11.2 (-7°C)	–
		at operation limit temperature	kW	9.3 (-25°C)	9.3 (-25°C)	–
	Back Up Heating Capacity		kW	1.5	1.5	–
	Annual Electricity Consumption*2		kWh/a	4445	4445	–
	SCOP*4			4.0	4.0	–
		Energy Efficiency Class		A+	A+	–
Operating Current (max)			A	35.5	13.5	13.7
Indoor Unit	**Input** [Cooling/Heating]	Rated	kW	0.07 / 0.07	0.07 / 0.07	0.08 / 0.08
	Operating Current (max)		A	0.47	0.47	0.52
	Dimensions <Panel>	H × W × D	mm	298-840-840 <40-950-950>		
	Weight <Panel>		kg	26 <5>	26 <5>	26 <5>
	Air Volume [Lo-Mi2-Mi1-Hi]		m^3/min	19 - 22 - 25 - 28	19 - 22 - 25 - 28	21 - 24 - 26 - 29
	Sound Level (SPL) [Lo-Mi2-Mi1-Hi]		dB(A)	31 - 34 - 37 - 40	31 - 34 - 37 - 40	33 - 36 - 39 - 41
	Sound Level (PWL)		dB(A)	61	61	62
Outdoor Unit	**Dimensions**	H × W × D	mm	1350 - 950 - 330 (+30)		
	Weight		kg	120	134	134
	Air Volume	Cooling	m^3/min	100	100	100
		Heating	m^3/min	100	100	100
	Sound Level (SPL)	Cooling	dB(A)	51	51	51
		Heating	dB(A)	52	52	52
	Sound Level (PWL)	Cooling	dB(A)	69	69	69
	Operating Current (max)		A	35	13	13
	Breaker Size		A	40	16	16
Ext. Piping	**Diameter**	Liquid / Gas	mm	9.52 / 15.88	9.52 / 15.88	9.52 / 15.88
	Max. Length	Out-In	m	75	75	75
	Max. Height	Out-In	m	30	30	30
Guaranteed Operating Range [Outdoor]		Cooling*3	°C	–15 ~ +46	–15 ~ +46	–15 ~ +46
		Heating	°C	–25 ~ +21	–25 ~ +21	–25 ~ +21

*1 Refrigerant leakage contributes to climate change. Refrigerant with lower global warming potential (GWP) would contribute less to global warming than a refrigerant with higher GWP, if leaked to the atmosphere. This appliance contains a refrigerant fluid with a GWP equal to 1975. This means that if 1 kg of this refrigerant fluid would be leaked to the atmosphere, the impact on global warming would be 1975 times higher than 1 kg of CO_2, over a period of 100 years. Never try to interfere with the refrigerant circuit yourself or disassemble the product yourself and always ask a professional.
*2 Energy consumption based on standard test results. Actual energy consumption will depend on how the appliance is used and where it is located.
*3 Optional air protection guide is required where ambient temperature is lower than –5°C.
*4 SEER and SCOP are based on 2009/125/EC:Energy-related Products Directive and Regulation(EU) No206/2012.

PEDZ-SHW JA SERIES

Indoor Unit

R32
R410A

PEAD-M100/125JA(L)2

Outdoor Unit

R410A

PUHZ-SHW112VHA(-BS)
PUHZ-SHW112/140YHA(-BS)

Remote Controller

*optional

*optional

*optional

*optional

*optional

Type				Inverter Heat Pump		
Indoor Unit				PEAD-M100JA(L)2		PEAD-M125JA(L)2
Outdoor Unit				PUHZ-SHW112VHA	PUHZ-SHW112YHA	PUHZ-SHW140YHA
Refrigerant				R410A*1		
Power Supply	Source			Outdoor power supply		
	Outdoor (V/Phase/Hz)			VHA: 230 / Single / 50, YHA: 400 / Three / 50		
Cooling	Capacity	Rated	kW	10.0	10.0	12.1
		Min - Max	kW	4.9 - 11.4	4.9 - 11.4	5.5 - 14.0
	Total Input	Rated	kW	2.904	2.904	4.172
	EER			3.44	3.44	2.90
		EEL Rank		–	–	–
	Design Load		kW	10.0	10.0	12.1
	Annual Electricity Consumption*2		kWh/a	686	686	–
	SEER*4			5.1	5.1	–
		Energy Efficiency Class		A	A	–
Heating (Average Season)	Capacity	Rated	kW	11.2	11.2	14.0
		Min - Max	kW	4.5 - 14.0	4.5 - 14.0	5.0 - 16.0
	Total Input	Rated	kW	3.103	3.103	3.879
	COP			3.61	3.61	3.61
		EEL Rank		–	–	–
	Design Load		kW	12.7	12.7	–
	Declared Capacity	at reference design temperature	kW	11.2 (-10°C)	11.2 (-10°C)	–
		at bivalent temperature	kW	11.2 (-7°C)	11.2 (-7°C)	–
		at operation limit temperature	kW	9.4 (-25°C)	9.4 (-25°C)	–
	Back Up Heating Capacity		kW	1.5	1.5	–
	Annual Electricity Consumption*2		kWh/a	4601	4601	–
	SCOP*4			3.8	3.8	–
		Energy Efficiency Class		A	A	–
Operating Current (max)			A	37.7	15.7	15.8
Indoor Unit	Input [Cooling / Heating]	Rated	kW	0.14	0.14	0.20
	Operating Current (max)		A	2.25	2.25	2.34
	Dimensions	H × W × D	mm	250 - 1400 - 732	250 - 1400 - 732	250 - 1400 - 732
	Weight		kg	36	36	37
	Air Volume [Lo-Mid-Hi]		m^3/min	23.0-28.0-32.0	23.0 - 28.0 - 32.0	28.0 - 34.0 - 37.0
	External Static Pressure*5		Pa	40 - <50> - <70> - <100> - <150>	40 - <50> - <70> - <100> - <150>	<40> - 50 - <70> - <100> - <150>
	Sound Level (SPL) [Lo-Mid-Hi]		dB(A)	31 - 36 - 39	31 - 36 - 39	35 - 39 - 41
	Sound Level (PWL)		dB(A)	62	62	66
Outdoor Unit	Dimensions	H × W × D	mm	1350 - 950 - 330 (+30)	1350 - 950 - 330 (+30)	1350 - 950 - 330 (+30)
	Weight		kg	120	134	134
	Air Volume	Cooling	m^3/min	100	100	100
		Heating	m^3/min	100	100	100
	Sound Level (SPL)	Cooling	dB(A)	51	51	51
		Heating	dB(A)	52	52	52
	Sound Level (PWL)	Cooling	dB(A)	69	69	69
	Operating Current (max)		A	35	13	13
	Breaker Size		A	40	16	16
Ext. Piping	Diameter	Liquid / Gas	mm	9.52 / 15.88	9.52 / 15.88	9.52 / 15.88
	Max. Length	Out-In	m	75	75	75
	Max. Height	Out-In	m	30	30	30
Guaranteed Operating Range [Outdoor]		Cooling*3	°C	–15 ~ +46	–15 ~ +46	–15 ~ +46
		Heating	°C	–25 ~ +21	–25 ~ +21	–25 ~ +21

*1 Refrigerant leakage contributes to climate change. Refrigerant with lower global warming potential (GWP) would contribute less to global warming than a refrigerant with higher GWP, if leaked to the atmosphere. This appliance contains a refrigerant fluid with a GWP equal to 1975. This means that if 1kg of this refrigerant fluid would be leaked to the atmosphere, the impact on global warming would be 1975 times higher than 1kg of CO_2, over a period of 100 years. Never try to interfere with the refrigerant circuit yourself or disassemble the product yourself and always ask a professional.
*2 Energy consumption based on standard test results. Actual energy consumption will depend on how the appliance is used and where it is located.
*3 Optional air protection guide is required where ambient temperature is lower than –5°C.
*4 SEER and SCOP are based on 2009/125/EC:Energy-related Products Directive and Regulation(EU) No206/2012.
*5 The factory setting of ESP is shown without < >.

PKZ-SHW SERIES

DC Inverter · Vector Sine Wave · DC Scroll · Rare Earth Magnet · DC Fan Motor · Vector-Wave · PAM · Power Receiver · Grooved Piping · ZUBADAN

Indoor Unit

R32
R410A

PKA-M100KA(L)2

Outdoor Unit

R410A

PUHZ-SHW112VHA(-BS)
PUHZ-SHW112YHA(-BS)

Remote Controller

*KAL only

*optional

*optional

*optional

Demand Control (Optional) · Pure White · AUTO VANE · Check! (Optional) · SWING · AUTO · ACO · Auto Restart · Low Temp Cooling · Silent · Ampere Limit · Rotation Back-up (Optional) · (Optional) · Group Control (Optional) · M-NET connection (Optional) · Wi-Fi Interface (Optional)

COMPO · Cleaning-free pipe route · Wiring Reuse (Optional) · Drain Lift Up (Optional) · Pump Down · Flare connection · Self Diagnosis · Failure Recall

Type				Inverter Heat Pump	
Indoor Unit				PKA-M100KA(L)2	
Outdoor Unit				PUHZ-SHW112VHA	PUHZ-SHW112YHA
Refrigerant				R410A*1	
Power Supply	Source			Outdoor power supply	
	Outdoor (V/Phase/Hz)			VHA: 230 / Single / 50, YHA: 400 / Three / 50	
Cooling	Capacity	Rated	kW	10.0	10.0
		Min - Max	kW	4.9 - 11.4	4.9 - 11.4
	Total Input	Rated	kW	2.924 (2.904)	2.924 (2.904)
	Design Load		kW	3.42	3.42
	Annual Electricity Consumption*2		kWh/a	673	673
	SEER*4			5.2	5.2
		Energy Efficiency Class		A	A
Heating (Average Season)	Capacity	Rated	kW	11.2	11.2
		Min - Max	kW	4.5 - 14.0	4.5 - 14.0
	Total Input	Rated	kW	3.103	3.103
	Design Load		kW	12.7	12.7
	Declared Capacity	at reference design temperature	kW	11.2 (-10°C)	11.2 (-10°C)
		at bivalent temperature	kW	11.2 (-7°C)	11.2 (-7°C)
		at operation limit temperature	kW	9.4 (-25°C)	9.4 (-25°C)
	Back Up Heating Capacity		kW	1.5	1.5
	Annual Electricity Consumption*2		kWh/a	4664	4664
	SCOP*4			3.8	3.8
		Energy Efficiency Class		A	A
Operating Current (max)			A	35.6	13.6
Indoor Unit	Input	Rated	kW	0.08 / 0.07	0.08 / 0.07
	Operating Current (max)		A	0.57	0.57
	Dimensions <Panel>	H × W × D	mm	365 - 1170 - 295	
	Weight <Panel>		kg	21	21
	Air Volume [Lo-Mid-Hi]		m^3/min	20 - 23 - 26	20 - 23 - 26
	Sound Level (SPL) [Lo-Mid-Hi]		dB(A)	41 - 45 - 49	41 - 45 - 49
	Sound Level (PWL)		dB(A)	65	65
Outdoor Unit	Dimensions	H × W × D	mm	1350 - 950 - 330 (+30)	
	Weight		kg	120	134
	Air Volume	Cooling	m^3/min	100	100
		Heating	m^3/min	100	100
	Sound Level (SPL)	Cooling	dB(A)	51	51
		Heating	dB(A)	52	52
	Sound Level (PWL)	Cooling	dB(A)	69	69
	Operating Current (max)		A	35	13
	Breaker Size		A	40	16
Ext. Piping	Diameter	Liquid / Gas	mm	9.52 / 15.88	9.52 / 15.88
	Max. Length	Out-In	m	75	75
	Max. Height	Out-In	m	30	30
Guaranteed Operating Range [Outdoor]		Cooling*3	°C	–15 ~ +46	–15 ~ +46
		Heating	°C	–25 ~ +21	–25 ~ +21

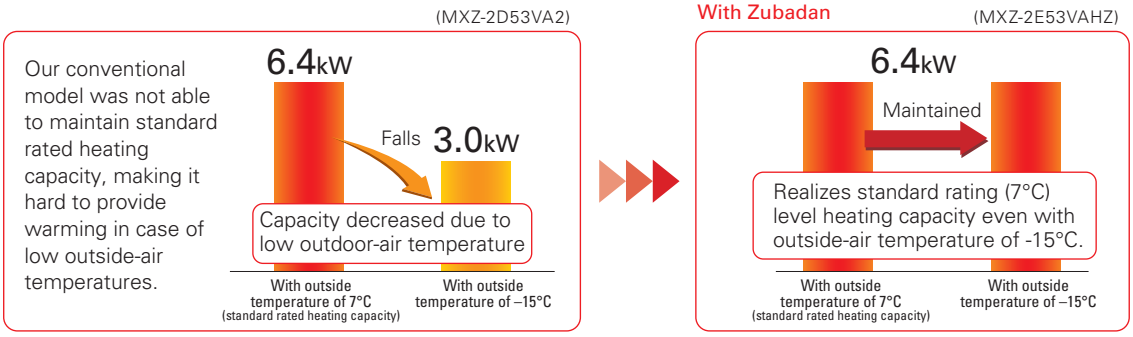
*1 Refrigerant leakage contributes to climate change. Refrigerant with lower global warming potential (GWP) would contribute less to global warming than a refrigerant with higher GWP, if leaked to the atmosphere. This appliance contains a refrigerant fluid with a GWP equal to 1975. This means that if 1kg of this refrigerant fluid would be leaked to the atmosphere, the impact on global warming would be 1975 times higher than 1kg of CO_2, over a period of 100 years. Never try to interfere with the refrigerant circuit yourself or disassemble the product yourself and always ask a professional.
*2 Energy consumption based on standard test results. Actual energy consumption will depend on how the appliance is used and where it is located.
*3 Optional air protection guide is required where ambient temperature is lower than –5°C.
*4 SEER and SCOP are based on 2009/125/EC:Energy-related Products Directive and Regulation(EU) No206/2012.

MXZ-VAHZ SERIES

New hyper-heating MXZ allows you to create an oasis of comfort throughout your home and office in the rooms you use most, any time of the year.

Standard rated heating capacity is maintained even when the outside-air temperature drops to –15°C.

Maintains high capacity output even when outside-air temperature is low.

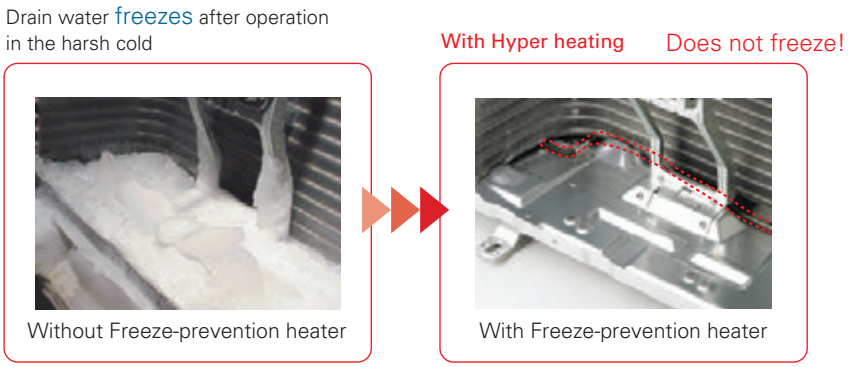


Can operate at outside-air temperature of –25°C

1. Incorporated key parts resistant to cold of up to –25°C after rigorous selection.
2. Printed circuit board-core of the air conditioner—is coated on both sides to protect it in harsh environments.

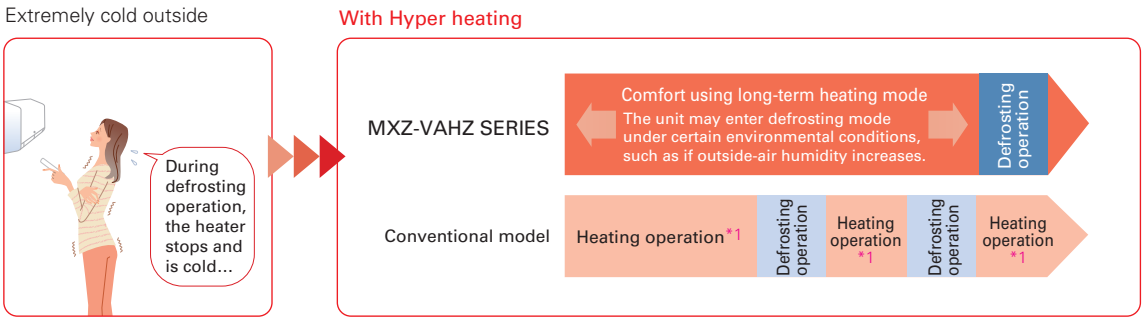
Freeze-prevention heater standard equipment

Prevents capacity loss and operation from stopping due to drain water freezing.



Continuous heating for long periods

Wasteful defrosting operation suppressed to enable more comfortable long-term continuous heating.

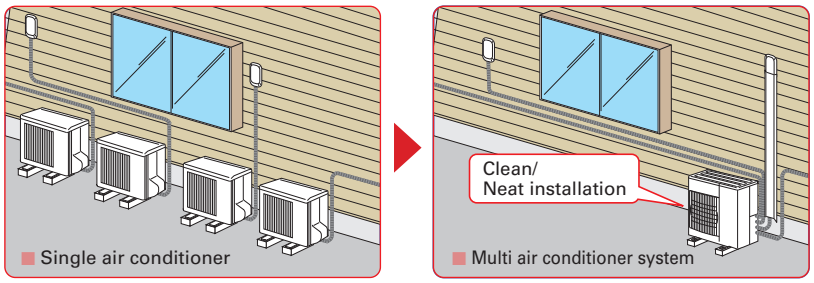


*1: Conventional model performs continuous heating approximately 30min up to a maximum of 90min.

One outdoor unit supports multiple indoor units.

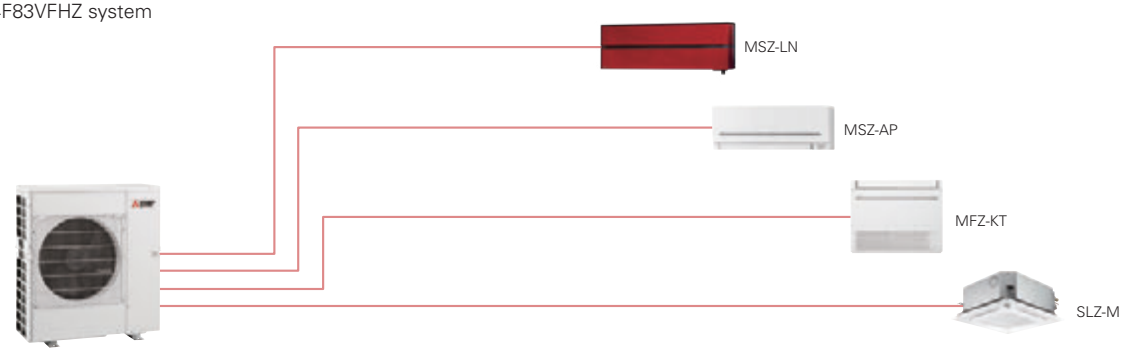
With MXZ-VAHZ, one outdoor unit can cool and heat up to six rooms. They can be installed neatly in sites with limited space such as condominium balconies.

*Please note that cooling and heating modes cannot be run simultaneously in different rooms.



EXAMPLE SYSTEM

MXZ-4F83VFHZ system



Freedom of combinations in cold region greatly enhanced

The variety of indoor unit connection options in cold regions, restricted until now, has been greatly increased.
Increased design freedom.

OUTDOOR UNITS

2-room use

R32

MXZ-2F53VFHZ2

R410A

MXZ-2E53VAHZ

4-room use

R32

MXZ-4F83VFHZ2

R410A

MXZ-4E83VAHZ

INDOOR UNITS

Wall-mounted

R32 R410A

MSZ-LN

R32 R410A

MSZ-AP

R410A

MSZ-FH

R410A

MSZ-SF

R32 R410A

MSZ-EF

R410A

MSZ-GF

R32

MSZ-FT

Floor-standing

R32

MFZ-KT

R410A

MFZ-KJ

Cassette

R32 R410A

SLZ

R32 R410A

MLZ-KP

R410A

*1

PLA

Ceiling-suspended

R410A

*1

PCA

Ceiling-concealed

R32 R410A

SEZ

R410A

*1

PEAD

*1: P series cannot be connect with MXZ-4E83VAHZ when ampere limit adjustment function is operated.

MXZ-VAHZ SERIES

Outdoor Unit

R32

MXZ-2F53VFHZ2

R32

MXZ-4F83VFHZ2

R410A

MXZ-2E53VAHZ

R410A

MXZ-4E83VAHZ

Type				Inverter Heat Pump			
Indoor Unit				Please refer to*4 *5			
Outdoor Unit				MXZ-2F53VFHZ2	MXZ-4F83VFHZ2	MXZ-2E53VAHZ	MXZ-4E83VAHZ
Refrigerant				R32*6		R410A*1	
Power Supply	Source			Outdoor power supply			
	Outdoor (V/Phase/Hz)			220 - 230 - 240V / Single / 50			
Cooling	Capacity	Rated	kW	5.3	8.3	5.3	8.3
		Min - Max	kW	1.1 - 6.0	3.5 - 9.2	1.1 - 6.0	3.5 - 9.2
	Total Input	Rated	kW	1.29	1.90	1.29	2.25
	Design Load		kW	5.3	8.3	5.3	8.3
	Annual Electricity Consumption*2		kWh/a	274	398	282	447
	SEER*4,*7			6.8	7.3	6.5	6.5
		Energy Efficiency Class*4		A++	A++	A++	A++
Heating (Average Season)	Capacity	Rated (7°C)	kW	6.4	9.0	6.4	9.0
		Rated (–7°C)	kW	6.4	9.0	6.4	9.0
		Rated (–15°C)	kW	6.4	9.0	6.4	9.0
		Min - Max	kW	1.0 - 7.0	3.5 - 11.6	1.0 - 7.0	3.5 - 11.6
	Total Input	Rated	kW	1.36	1.70	1.36	1.90
	Design Load		kW	6.4	10.1	6.4	10.1
	Declared Capacity	at reference design temperature	kW	6.9	10.6	6.4	9.0
		at bivalent temperature	kW	7.4	11.5	6.4	9.0
		at operation limit temperature	kW	4.1	5.7	2.4	2.5
	Back Up Heating Capacity		kW	0.0	0.0	0.0	1.1
	Annual Electricity Consumption*2		kWh/a	2172	3286	2165	3446
	SCOP*7			4.1	4.3	4.1	4.1
		Energy Efficiency Class*4		A+	A+	A+	A+
Max. Operating Current (Indoor+Outdoor)			A	15.6	28.0	15.6	28.0
Outdoor Unit	Dimensions	H × W × D	mm	796 × 950 × 330	1048 × 950 × 330	796 × 950 × 330	1048 × 950 × 330
	Weight		kg	61	86	61	87
	Air Volume	Cooling	m^3/min	43	63	47.0	63.0
		Heating	m^3/min	41	77	47.0	77.0
	Sound Level (SPL)	Cooling	dB(A)	45	55	45	53
		Heating	dB(A)	47	57	47	57
	Sound Level (PWL)	Cooling	dB(A)	55	66	55	66
	Breaker Size		A	16	30	16	30
Ext. Piping	Diameter	Liquid / Gas	mm	6.35 × 2 / 9.52 × 2	6.35× 4 / 12.7 × 1+9.52 × 3	6.35 × 2 / 9.52 × 2	6.35× 4 / 12.7 × 1+9.52 × 3
	Total Piping Length (max)		m	30	70	30	70
	Each Indoor Unit Piping Length (max)		m	20	25	20	25
	Max. Height		m	15	15	15 (10) *3	15 (10) *3
	Chargeless Length		m	30	70	20	25
Guaranteed Operating Range [Outdoor]		Cooling	°C	–10 ~ +46	–10 ~ +46	–10 ~ +46	–10 ~ +46
		Heating	°C	–25 ~ +24	–25 ~ +24	–25 ~ +24	–25 ~ +24

*1 Refrigerant leakage contributes to climate change. Refrigerant with lower global warming potential (GWP) would contribute less to global warming than a refrigerant with higher GWP, if leaked to the atmosphere. This appliance contains a refrigerant fluid with a GWP equal to 2088. This means that if 1 kg of this refrigerant fluid would be leaked to the atmosphere, the impact on global warming would be 2088 times higher than 1 kg of CO_2 , over a period of 100 years. Never try to interfere with the refrigerant circuit yourself or disassemble the product yourself and always ask a professional.
*2 Energy consumption based on standard test results.
Actual energy consumption will depend on how the appliance is used and where it is located.
*3 If the outdoor unit is installed higher than the indoor unit, max. height is reduced to 10m.
*4 EER/COP, EEL rank, SEER/SCOP values and energy efficiency class are measured when connected to the indoor units listed below.
MXZ-2F53VFHZ2 MSZ-LN18VG2 + MSZ-LN35VG2
MXZ-4F83VFHZ2 MSZ-LN18VG2 + MSZ-LN18VG2 + MSZ-LN25VG2 + MSZ-LN25VG2
MXZ-2E53VAHZ MSZ-EF18VE + MSZ-EF35VE
MXZ-4E83VAHZ MSZ-EF18VE + MSZ-EF18VE + MSZ-EF22VE + MSZ-EF25VE
*5 Indoor unit compatibility table is shown on page 139-140.
*6 Refrigerant leakage contributes to climate change. Refrigerant with lower global warming potential (GWP) would contribute less to global warming than a refrigerant with higher GWP, if leaked to the atmosphere. This appliance contains a refrigerant fluid with a GWP equal to 550. This means that if 1 kg of this refrigerant fluid would be leaked to the atmosphere, the impact on global warming would be 550 times higher than 1 kg of CO_2, over a period of 100 years. Never try to interfere with the refrigerant circuit yourself or disassemble the product yourself and always ask a professional.
The GWP of R32 is 675 in the IPCC 4th Assessment Report.
*7 SEER and SCOP are based on 2009/125/EC:Energy-related Products Directive and Regulation(EU) No206/2012.

To ensure full capacity in cold and snowy regions...

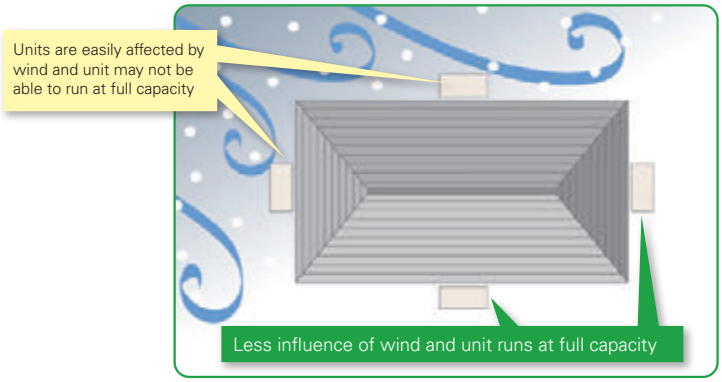
3 Important Points to Remember When Installing the Outdoor Unit

✻RAC/PAC (inc. Air to Water) /MXZ

Wind and snow can significantly reduce capacity.
Be sure to check the infomation below and install the outdoor unit correctly.

1 Installation Location

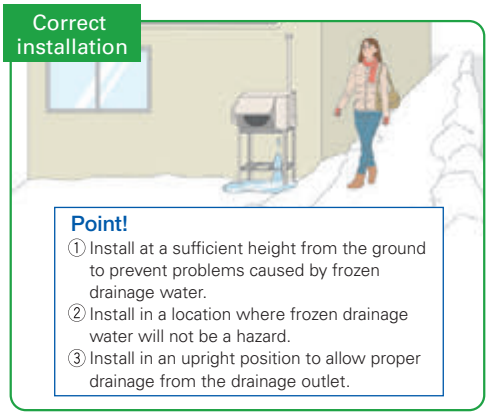
Be aware of the prevailing wind direction in winter and install the outdoor unit where it is as sheltered as possible.

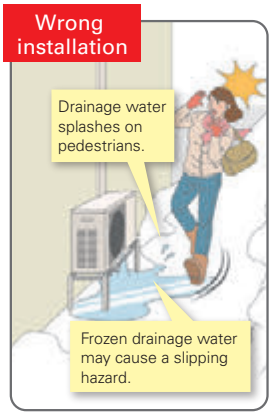


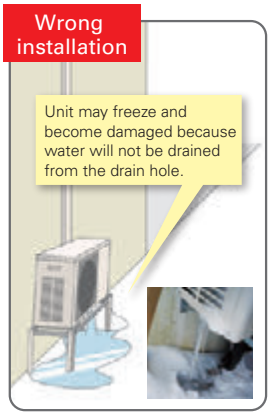
2 Measures for Drainage of Water

Case 1: Unit is installed close to passage (walkway)

Do not install the unit close to passage as drainage water from the unit may freeze and cause a slipping hazard.

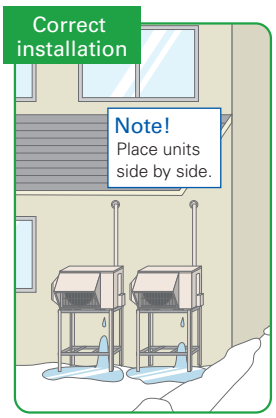


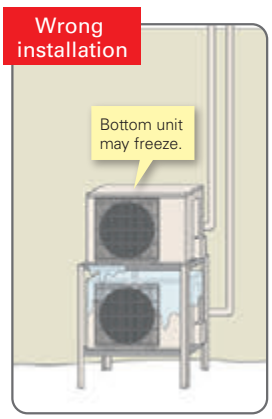




Case 2: Multiple units are installed

Do not install units on top of one another as it may cause frozen drainage water on the bottom unit.





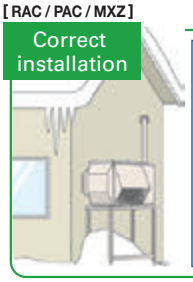
3 Measures for Snow

Unit is installed on the ground

To avoid the adverse effects of snow and frozen drainage water, install the unit on a stand to ensure a sufficient height from the ground.

[RAC / PAC / MXZ]

Correct installation

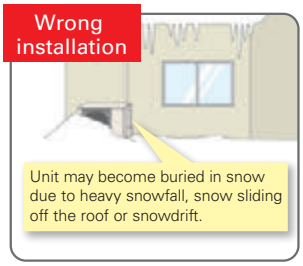


Point!

① Install at a position/height to prevent the unit being buried in snow *1 and the adverse effects of frozen drainage water.*2
② Install so as to avoid the effects of snow or snowdrift.
③ Install so as to avoid the damage from falling snow or icicles.

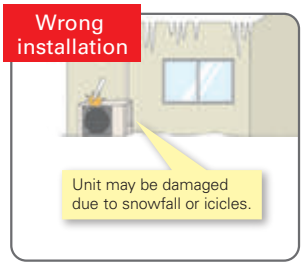
*1 Install at a height above the highest snowfall depth.
*2 Even for correct installations, dripping drainage water may form an icicle which needs to be cleared away regularly to prevent a blocked drainage outlet.

Wrong installation



Unit may become buried in snow due to heavy snowfall, snow sliding off the roof or snowdrift.

Wrong installation

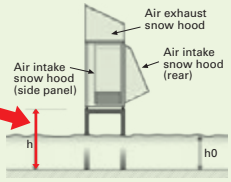


Unit may be damaged due to snowfall or icicles.

Use a stand to add sufficient height to protect the unit heat exchanger from snow and prevent icicles forming during defrost operation.

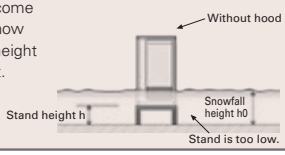
Correct installation

Minimum height (h) should be higher than the highest snowfall depth (h0) +20cm



Wrong installation

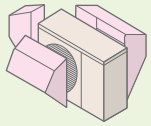
Unit may become covered in snow if the stand height is insufficient.



Install snow protection hood as necessary

[RAC / PAC / MXZ]

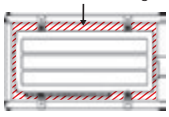
Correct installation



Point!

Install the snow protection hood or other cover in snowy regions.

Necessity of accessories (drain socket & centralised drain pan, stand, snow protection hood, base heater)

	Snowy region	Cold region	Remarks
	Countermeasures for snow	Countermeasures for freezing	
Drain socket, Centralised drain pan	Not used	Not used	Prevents freezing
Stand	Needed	Needed	[RAC / PAC / MXZ] 1. Install so as to prevent the unit being buried in snow (at a height greater than the highest snowfall depth). Be sure that the stand does not obstruct drainage. 2. Install so as to prevent damage to the unit due to frozen drainage water (icicles). <Correct> Clearance to prevent snow accumulating. 
Snow protection hood	Needed *When the installation position is subject to snowfall.	—	1. Prevents heat exchanger from being covered in snow. 2. Prevents snow accumulating inside the air duct.
Base heater	—	Needed	[RAC / PAC / MXZ] Outdoor units equipped with a heater for cold regions are those with an "H" in the model name. For the cold-climate zone, use of a unit with a heater is strongly recommended. Even for the moderate-climate zone use of a unit with a heater is recommended for regions subject to high humidity in winter.

⚠ CAUTION **About disposal of drainage water**

When the unit is installed in cold or snowy regions :

Drainage water may freeze in the drain socket/hose and prevent the fan from rotating. ▶ **Do not attach a drain socket packaged as an accessory to the unit.**

✻ In the case that fitting a drain socket is absolutely necessary, steps must be taken so that the drainage water does not freeze. For more information, please consult Mitsubishi Electric or one of its dealers/resellers.

Arrangement for snow protection hood	[RAC / PAC / MXZ] Separately sold parts are available for some models. Please consult Mitsubishi Electric or one of its dealers/resellers at the time of purchase for details.