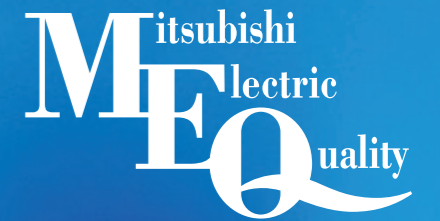




SPLIT-TYPE AIR CONDITIONERS

Changes for the Better



SPLIT-TYPE AIR CONDITIONERS Full Product Line Catalogue 2022

MITSUBISHI ELECTRIC CORPORATION

⚠ NOTICE

- Do not install indoor units in areas (e.g. mobile phone base stations) where the emission of VOCs such as phthalate compounds and formaldehyde is known to be high as this may result in a chemical reaction.
- Our air-conditioning equipments and heat pumps contain a fluorinated greenhouse gas, R410A (GWP: 2088) or R32 (GWP: 675). *These GWP values are based on Regulation (EU) No.517/2014 from IPCC 4th edition. In case of Regulation (EU) No.626/2011 from IPCC 3rd edition, these are as follows. R410A (GWP: 1975), R32 (GWP: 550)
- When installing or relocating or servicing our air-conditioning equipment, use only the specified refrigerant (R410A or R32) to charge the refrigerant lines.
Do not mix it with any other refrigerant and do not allow air to remain in the lines.
If air is mixed with the refrigerant, then it can be the cause of abnormal high pressure in the refrigerant lines, and may result in an explosion and other hazards.
The use of any refrigerant other than that specified for the system will cause mechanical failure, system malfunction or unit breakdown. In the worst case, this could lead to a serious impediment to securing product safety.

MITSUBISHI ELECTRIC CORPORATION

HEAD OFFICE: TOKYO BUILDING, 2-7-3 MARUNOUCHI, CHIYODA-KU, TOKYO 100-8310, JAPAN
<http://Global.MitsubishiElectric.com/>

Wrap Yourself in Comfort and Quiet
Eco-conscious Technologies from Japan

Full Product Line Catalogue
2022



Environmental Sustainability Vision 2050

Environmental Declaration

Protect the air, land, and water with our hearts and technologies to sustain a better future for all.



Environmental Sustainability Vision 2050

To solve various factors that lead to environment issues, the Mitsubishi Electric Group shall unite the wishes of each and every person, and strive to create new value for a sustainable future.

Three Environmental Action Guidelines

1

Apply diverse technologies in wide-ranging business areas to solve environmental issues

2

Challenge to develop business innovations for future generations

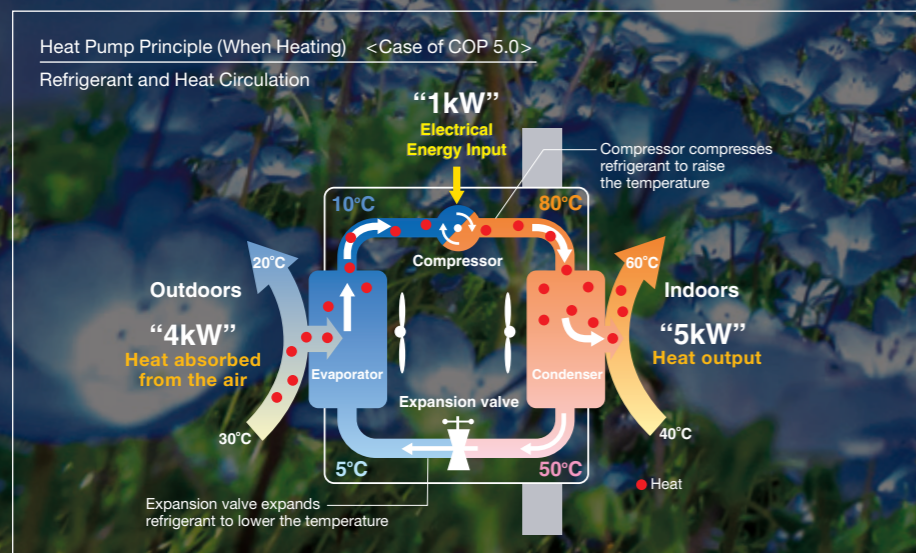
3

Publicize and share new values and lifestyles

Key Initiatives

- Climate Change Measures
- Resource Circulation
- Live in Harmony with Nature
- Long-term Activities
- Innovation
- Nurturing Human Resources
- Understanding Needs
- Co-create and Disseminate New Values
- Live in Harmony with the Region

Heat pump technology inspires Mitsubishi Electric to design air conditioners that harmonize comfort and ecology.

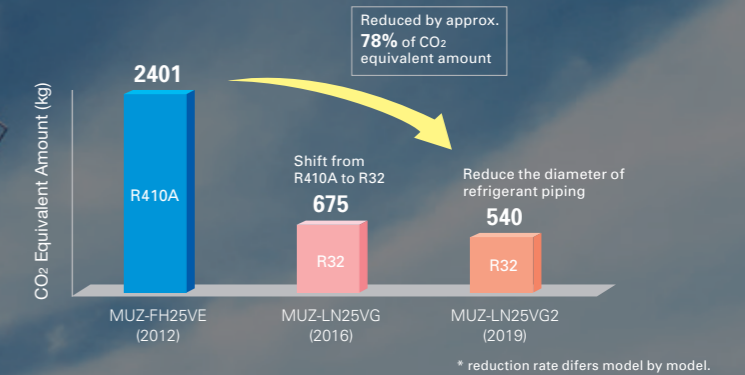


Mitsubishi Electric takes on the challenge of creating new value and contribute to a sustainable future in order to solve various environmental problems.

Preventing Global Warming

Mitsubishi Electric is actively introducing R32 refrigerant which has a global warming potential approximately 1/3 that of R410A refrigerant. Not only by shifting from R410A to R32 but by decreasing the diameter of refrigerant piping, we are also striving to reduce the amount of refrigerant usage. Through these activities, we have achieved significant reduction in CO₂ equivalent amount compared to conventional models and realised minimizing the negative impact to the environment more than ever.

Reducing the amount of refrigerant usage



Effective use of materials (Reduce & Recycle)

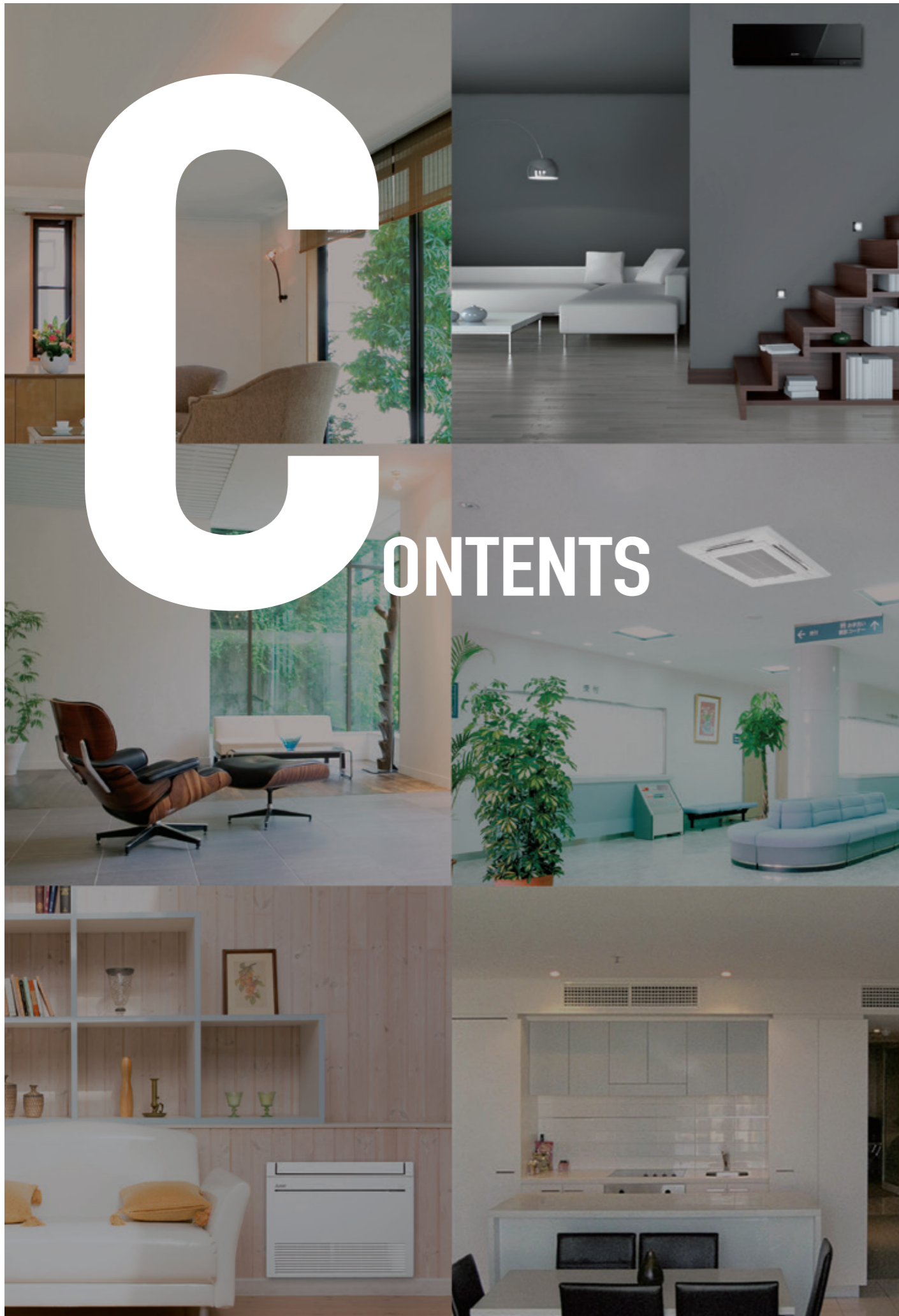
1. Accelerating the downsizing technology to reduce material use while balancing energy saving performance.
2. Designing products that are easy to separate and recycle.
3. All models are designed for WEEE and RoHS (II) compliance.*

*WEEE and RoHS directive: The Waste Electrical and Electronic Equipment (WEEE) Directive is a recycling directive for this type for equipment, while the Restrictions of Hazardous Substances (RoHS) Directive is an EU directive restricting the use of ten specified substances in electronic and electrical devices. In the EU, it is no longer possible (from July 2019) to sell products containing any of the ten substances.

Balancing comfort and ecology

Mitsubishi Electric develops technologies to balance comfort and ecology, achieving greater efficiency in heat pump operation.

	Comfort	Ecology
1. Inverter	Faster start-up and more stable indoor temperature than non-inverter units.	Fewer On/Off operations than with non-inverter, saving energy.
2. 3D i-see Sensor	Since the positions of people can be detected, airflow can be set to personal taste, such as in airflow path or protected from the wind. The ability to adjust to individual preferences realizes more comfortable air conditioning.	Since the number of people in a room can be detected, energy-saving operation is adjusted or the power is turned off automatically. Efficient air conditioning with less waste is realized.
3. Flash Injection	Achieves high heating capacity even at low temperatures, plus faster start-up compared to conventional inverters.	Expands heat pump heating system to the cold regions to replace combustion heaters.
4. Dual Barrier Coating Dual Barrier Material	Prevents the indoor unit from getting dirty, delivering you clean air.	Keeping the inside of air conditioner clean leads to efficient operation and energy saving.



C

ONTENTS

Air Conditioners

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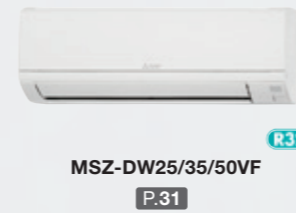
RW Series

Hyper Heating
Flagship Model

Available Now

New releases in 2022

M SERIES



S SERIES



P SERIES



MULTI SPLIT SERIES



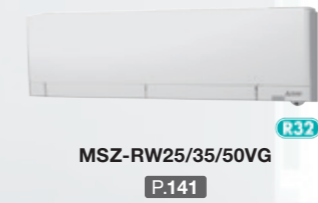
POWERFUL HEATING SERIES



ATW SERIES



LOSSNAY SERIES



LINE-UP

M SERIES INVERTER Models

Model Name	1.5kW	1.8kW	2.0kW	2.2kW	2.5kW	3.5kW	4.2kW	5.0kW	6.0kW	7.1kW	Page
	1-phase	1-phase	1-phase	1-phase	1-phase	1-phase	1-phase	1-phase	1-phase	1-phase	
MSZ-L Series R32 R410A *2		WVRB Multi connection only			WVRB SINGLE	WVRB SINGLE		WVRB SINGLE	WVRB SINGLE		13
MSZ-A Series R32 R410A *1	SINGLE		SINGLE								19
MSZ-AP15/20VG MSZ-AP25/35/42/50VG MSZ-AP60/71VG					SINGLE	SINGLE	SINGLE	SINGLE	SINGLE	SINGLE	19
MSZ-E Series R32 R410A *1		WSB Multi connection only		WSB Multi connection only	WSB SINGLE	WSB SINGLE	WSB SINGLE	WSB SINGLE	WSB SINGLE		25
MSZ-BT Series R32			SINGLE		SINGLE	SINGLE		SINGLE			27
MSZ-HR Series R32 MSZ-HR25/35/42/50VF(K) MSZ-HR60/71VF(K)					SINGLE	SINGLE	SINGLE	SINGLE	SINGLE	SINGLE	29
MSZ-DW Series R32					SINGLE	SINGLE		SINGLE			31
MSY-TP Series R32						SINGLE		SINGLE			33
MSZ-S Series R410A MSZ-SF15/20VA MSZ-SF25/35/42/50VE3	Multi connection only		Multi connection only								35
MSZ-G Series R410A									SINGLE	SINGLE	35
MSZ-D Series R410A					SINGLE	SINGLE					39
MSZ-H Series R410A MSZ-HJ25/35/50 MSZ-HJ60/71					SINGLE	SINGLE		SINGLE	SINGLE	SINGLE	41
MFZ Series R32					SINGLE	SINGLE		SINGLE	SINGLE		43
MLZ Series R32					SINGLE	SINGLE		SINGLE			45

*1: R410A is for MXZ and PUMY connection.
*2: R410A is for PUMY connection.

H : Outdoor unit with freeze-prevention heater is available.
WV-B-B: Indoor units are available in four colors: White, White Red, Ruby Red, and Onyx Black.

Indoor Combinations
SINGLE 1 outdoor unit & 1 indoor unit
TWIN 1 outdoor unit & 2 indoor units
TRIPLE 1 outdoor unit & 3 indoor units
QUADRUPLE 1 outdoor unit & 4 indoor units

S SERIES INVERTER Models

Model Name	1.5kW	2.5kW	3.5kW	5.0kW	6.0kW	7.1kW	10.0kW	12.5kW	14.0kW	Page
	1-phase	1-phase	1-phase	1-phase	1-phase	1-phase	1- & 3-phase	1- & 3-phase	1- & 3-phase	
2 x 2 cassette SLZ Series R32 R410A	Multi connection only	SINGLE	SINGLE	SINGLE	SINGLE	TWIN	TWIN TRIPLE	TWIN TRIPLE QUADRUPLE	TWIN TRIPLE QUADRUPLE	55
Compact ceiling-concealed SEZ Series R32 R410A		SINGLE*	SINGLE*	SINGLE*	SINGLE*	SINGLE TWIN	TWIN TRIPLE	TWIN TRIPLE QUADRUPLE	TWIN TRIPLE QUADRUPLE	61

* Indoor units are available in two types; with or without the wireless remote controller.

P SERIES

R32 Power Inverter Models / R32 Standard Inverter Models

Model Name	3.5kW	5.0kW	6.0kW	7.1kW	10.0kW	12.5kW	14.0kW	20.0kW	25.0kW	Page
	1-phase	1-phase	1-phase	1-phase	1- & 3-phase	1- & 3-phase	1- & 3-phase	3-phase	3-phase	
4-way cassette PLA Series R32	SINGLE	SINGLE	SINGLE	SINGLE TWIN*	SINGLE TWIN	SINGLE TWIN	SINGLE TWIN TRIPLE	TWIN TRIPLE QUADRUPLE	TWIN TRIPLE QUADRUPLE	78
Ceiling-concealed PEAD Series R32 PEA Series R32	SINGLE	SINGLE	SINGLE	SINGLE TWIN*	SINGLE TWIN	SINGLE TWIN	SINGLE TWIN TRIPLE	TWIN TRIPLE QUADRUPLE	TWIN TRIPLE QUADRUPLE	88
								SINGLE	SINGLE	93
Wall-mounted PKA Series R32	SINGLE*	SINGLE*	SINGLE*	SINGLE TWIN*	SINGLE TWIN	TWIN	TWIN TRIPLE	TWIN TRIPLE QUADRUPLE	TWIN TRIPLE QUADRUPLE	96
Ceiling-suspended PCA-KA Series R32	SINGLE	SINGLE	SINGLE	SINGLE TWIN*	SINGLE TWIN	SINGLE TWIN	SINGLE TWIN TRIPLE	TWIN TRIPLE QUADRUPLE	TWIN TRIPLE QUADRUPLE	101
for Professional Kitchen PCA-HA Series* R32				SINGLE*			TWIN*		TRIPLE*	106
Floor-standing PSA Series R32				SINGLE	SINGLE	SINGLE	SINGLE TWIN	TWIN	TWIN TRIPLE	109

R410A POWER INVERTER Models / R410A STANDARD INVERTER Models

* R32 Power Inverter Model only

Model Name	3.5kW	5.0kW	6.0kW	7.1kW	10.0kW	12.5kW	14.0kW	20.0kW	25.0kW	Page
	1-phase	1-phase	1-phase	1-phase	1- & 3-phase	1- & 3-phase	1- & 3-phase	3-phase	3-phase	
4-way cassette PLA Series R410A	SINGLE	SINGLE	SINGLE	SINGLE TWIN*	SINGLE TWIN	SINGLE TWIN	SINGLE TWIN TRIPLE	TWIN TRIPLE QUADRUPLE	TWIN TRIPLE QUADRUPLE	78
Ceiling-concealed PEAD Series R410A PEA Series R410A	SINGLE	SINGLE	SINGLE	SINGLE TWIN*	SINGLE TWIN	SINGLE TWIN	SINGLE TWIN TRIPLE	TWIN TRIPLE QUADRUPLE	TWIN TRIPLE QUADRUPLE	88
								SINGLE	SINGLE	93
Wall-mounted PKA Series R410A	SINGLE*	SINGLE*	SINGLE*	SINGLE TWIN*	SINGLE TWIN	TWIN	TWIN TRIPLE	TWIN TRIPLE QUADRUPLE	TWIN TRIPLE QUADRUPLE	96
Ceiling-suspended PCA-KA Series R410A	SINGLE	SINGLE	SINGLE	SINGLE TWIN*	SINGLE TWIN	SINGLE TWIN	SINGLE TWIN TRIPLE	TWIN TRIPLE QUADRUPLE	TWIN TRIPLE QUADRUPLE	101
for Professional Kitchen PCA-HA Series* R410A				SINGLE*			TWIN*		TRIPLE*	106
Floor-standing PSA Series R410A				SINGLE*	SINGLE	SINGLE	SINGLE TWIN	TWIN	TWIN TRIPLE	109

* Power Inverter Models only

LINE-UP

Indoor Combinations
SINGLE 1 outdoor unit & 1 indoor unit
TWIN 1 outdoor unit & 2 indoor units
TRIPLE 1 outdoor unit & 3 indoor units
QUADRUPLE 1 outdoor unit & 4 indoor units

MXZ SERIES INVERTER Models

Model Name	Capacity Class	Page
up to 2 indoor units MXZ-2F33VF3 R32	3.3kW <1-phase>	117
up to 2 indoor units MXZ-2F42VF3 R32	4.2kW <1-phase>	117
up to 2 indoor units MXZ-2F53VF(H)3 R32	5.3kW <1-phase>	117
up to 3 indoor units MXZ-3F54VF3 R32	5.4kW <1-phase>	117
up to 3 indoor units MXZ-3F68VF3 R32	6.8kW <1-phase>	117
up to 4 indoor units MXZ-4F72VF3 R32	7.2kW <1-phase>	117
up to 4 indoor units MXZ-4F80VF3 R32	8.0kW <1-phase>	117
up to 4 indoor units MXZ-4F83VF R32	8.3kW <1-phase>	117
up to 5 indoor units MXZ-5F102VF R32	10.2kW <1-phase>	117
up to 6 indoor units MXZ-6F122VF R32	12.2kW <1-phase>	117
up to 2 indoor units MXZ-2HA40VF R32	4.0kW <1-phase>	121
up to 2 indoor units MXZ-2HA50VF R32	5.0kW <1-phase>	121
up to 3 indoor units MXZ-3HA50VF R32	5.0kW <1-phase>	121

Model Name	Capacity Class	Page
up to 2 indoor units MXZ-2D33VA R410A	3.3kW <1-phase>	119
up to 2 indoor units MXZ-2D42VA2 R410A	4.2kW <1-phase>	119
up to 2 indoor units MXZ-2D53VA (H)2 R410A	5.3kW <1-phase>	119
up to 3 indoor units MXZ-3E54VA R410A	5.4kW <1-phase>	119
up to 3 indoor units MXZ-3E68VA R410A	6.8kW <1-phase>	119
up to 4 indoor units MXZ-4E72VA R410A	7.2kW <1-phase>	119
up to 4 indoor units MXZ-4E83VA R410A	8.3kW <1-phase>	119
up to 5 indoor units MXZ-5E102VA R410A	10.2kW <1-phase>	119
up to 6 indoor units MXZ-6D122VA2 R410A	12.2kW <1-phase>	119
up to 2 indoor units MXZ-2DM40VA R410A	4.0kW <1-phase>	123
up to 3 indoor units MXZ-3DM50VA R410A	5.0kW <1-phase>	123

PUMY SERIES INVERTER Models

Model Name	12.5kW	14.0kW	15.5kW	22.4kW	28.0kW	33.5kW	Page
	1 & 3-phase	1 & 3-phase	1 & 3-phase	3-phase	3-phase	3-phase	
PUMY-SP R410A	✓	✓	✓				125
PUMY-P R410A	✓	✓	✓	✓	✓	✓	127



POWERFUL HEATING SERIES INVERTER Models

Model Name	2.5kW	3.5kW	5.0kW	5.3kW	6.0kW	8.3kW	10.0kW	12.5kW	Page
	1-phase	1-phase	1-phase	1-phase	1-phase	1-phase	1 & 3-phase	3-phase	
Wall-mounted	MSZ-RWVGHZ Series R32 R410A	SINGLE H	SINGLE H	SINGLE H					137
	MSZ-LN VGHZ Series R32 R410A	SINGLE H	SINGLE H	SINGLE H					141
	MSZ-FT VGHZ Series R32	SINGLE H	SINGLE H	SINGLE H					143
Compact floor	MFZ-KW Series R32	SINGLE H	SINGLE H	SINGLE H		SINGLE H			145
ZUBADAN	4-way cassette PLA Series R32 R410A						SINGLE TWIN	SINGLE TWIN	148
	Ceiling-concealed PEAD Series R32 R410A						SINGLE TWIN		150
	Wall-mounted PKA Series R32 R410A						SINGLE TWIN		151
Multi split	MXZ-F VFHZ Series MXZ-EVAHZ Series R32				2PORT H	4PORT H			154

* R410A is for PUMY connection.

H: Freeze-prevention heater is included as standard equipment.

LOSSNAY SERIES














Centralized Ventilation					Decentralized Ventilation		
Ceiling Concealed Type					Vertical Type	Wall Mounted Type	
							

M SERIES



SELECTION

Choose the model that best matches room conditions.

SELECT SERIES		
A multiple series line-up to choose from, each with various outstanding features. In addition to inverter-equipped models, constant-speed, floor-standing and cassette models can be selected. Choose the best series to match usage needs.		
Wall-mounted Units		
MSZ-L SERIES R32 R410A *2  <small>25/35 SEER A+++ SCOP A+++ MXZ connection</small>	MSZ-A SERIES R32 R410A *1 MSZ-AP60/71VG  MSZ-AP15/20VG <small>20/25/35 SEER A+++ SCOP A+++ MXZ connection</small>	MSZ-E SERIES R32 R410A *1  <small>25/35 SEER A+++ SCOP A+++ MXZ connection</small>
MSZ-BT SERIES R32  <small>25/35 SEER A++ SCOP A++ MXZ connection</small>	MSZ-HR SERIES R32 MSZ-HR60/71VF(K)  MSZ-HR25-50VF(K) <small>20/25/35 SEER A++ SCOP A+ MXZ connection</small>	MSZ-DW SERIES R32  <small>25/35 SEER A++ SCOP A+ MXZ connection</small>
MSY-TP SERIES R32  <small>35 SEER A+++</small>	MSZ-S SERIES R410A MSZ-SF25-50VE  MSZ-SF15/20VA <small>35 SEER A++ SCOP A+ MXZ connection</small>	MSZ-G SERIES R410A  <small>35 SEER A++ SCOP A+ MXZ connection</small>
MSZ-D SERIES R410A  <small>35 SEER A+ SCOP A+ MXZ connection</small>	MSZ-H SERIES R410A MSZ-HJ60/71  MSZ-HJ25/35/50 <small>50/60/71 SEER A SCOP A MXZ connection</small>	Floor-standing MFZ SERIES R32  <small>35 SEER A++ SCOP A+ MXZ connection</small>
Cassette Units		
MLZ SERIES R32  <small>MXZ connection</small>		

SEER A SCOP A Energy Rank

R32 R32 Refrigerant

*1 R410A is for MXZ and PUMY connection.
*2 R410A is for PUMY connection.

MXZ connection Compatible for connection to MXZ Series system

R410A R410A Refrigerant

SELECT OUTDOOR UNIT

Some outdoor units in the line-up have heaters for use in cold regions. Units with an "H" in the model name are equipped with heaters.

Heater Installed
 MUZ-AP25/35/42/50VGH
 MUZ-EF25/35VGH
 MUZ-SF25/35/42/50VEH

Hyper Heating
 MUZ-LN25/35/50VGHZ
 MUZ-FH25/35/50VEHZ
 MUFZ-KW25/35/50/60VGHZ

Selecting a Heater-equipped Model

In regions with the following conditions, there is a possibility that water resulting from condensation on the outdoor unit when operating in the heating mode will freeze and not drain from the base.

- 1) Cold outdoor temperatures (temperature does not rise above 0°C all day)
- 2) Areas where dew forms easily (in the mountains, valleys (surrounded by mountains), near a forest, near unfrozen lakes, ponds, rivers or hot springs), or areas with snowfall.

To prevent water from freezing in the base, it is recommended that a unit with a built-in heater be purchased. Please ask your dealer representative about the best model for you.



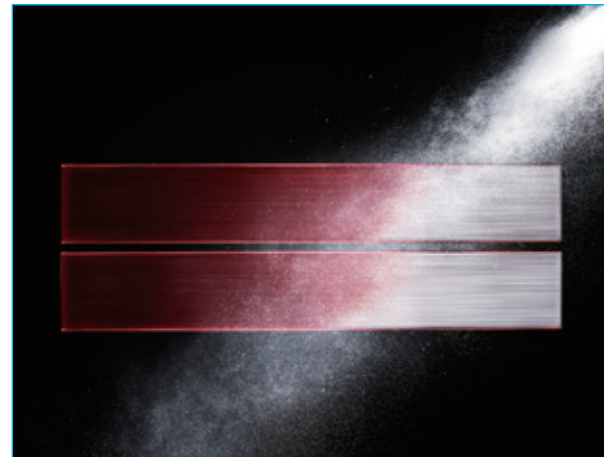
MSZ-L SERIES

Developed to complement modern interior room décor, the LN Series is available in four colours specially chosen to blend in naturally wherever installed. Not only the sophisticated design, but also the optimum energy efficiency and operational comfort add even more value to this series.



Luminous and Luxurious Design

Natural White, Pearl White, Ruby Red, and Onyx Black. LN Series indoor units are available in four colours to match various lifestyles. The appearance of the indoor unit differs depending on the lighting in the room, attracting the attention of everyone that enters the room.



Master craftsmanship painting technology has resulted in a refined design, giving the finish deep colour and a premium quality feel.



Pearl White blends in with any interior.



Ruby Red gives an accent to the room, affording timeless elegance to sophisticated interiors.



Onyx Black matches darker interiors, creating a comfortable environment.

LED Backlight Remote Controller

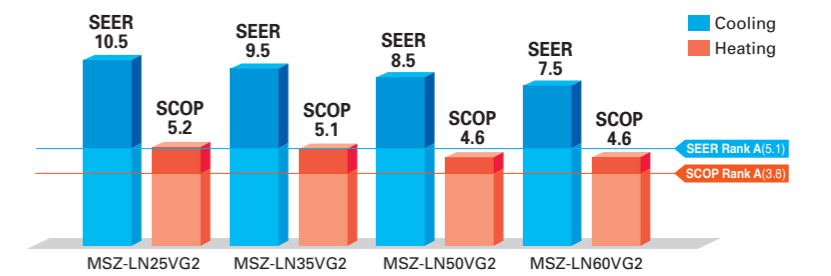
Not only the indoor units, but the wireless remote controllers come in four colours as well. Each remote controller matches the indoor unit. Even the textures are the same.

The setting can be easily checked in the dark thanks to LED backlight.



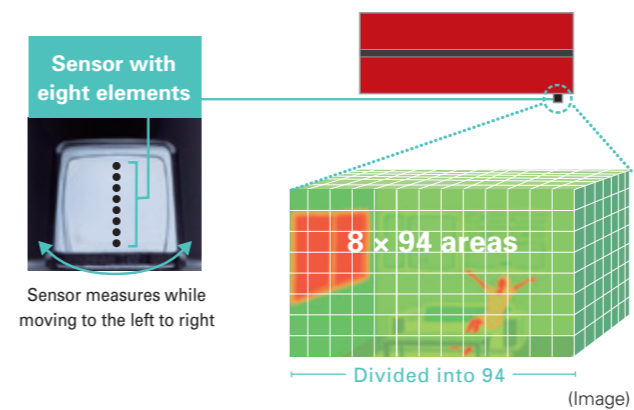
High Energy Efficiency

Optimum cooling/heating performance is another feature for the LN series. Models from capacities 25 to 50 have achieved the "Rank A+++" for SEER, and models for capacities 25 and 35 have achieved the "Rank A+++" for SCOP as well.



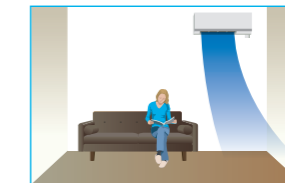
3D i-see Sensor

The LN Series is equipped with 3D i-see Sensor, an infrared-ray sensor that measures the temperature at distant positions. While moving to the left and right, eight vertically arranged sensor elements analyze the room temperature in three dimensions. This detailed analysis makes it possible to judge where people are in the room, thus allowing creation of features such as "Indirect airflow," to avoid airflow hitting people directly, and "direct airflow" to deliver airflow to where people are.



Indirect Airflow

The indirect airflow setting can be used when the flow of air feels too strong or direct. For example, it can be used during cooling to avert airflow and prevent body temperature from becoming excessively cooled.



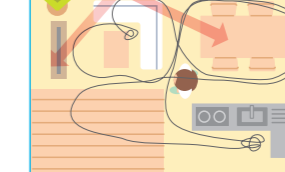
Direct Airflow

This setting can be used to directly target airflow at people such as for immediate comfort when coming indoors on a hot (cold) day.

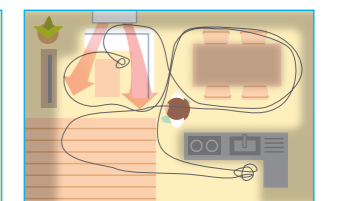


Even Airflow

*LN Series only
Normal swing mode



Even airflow mode

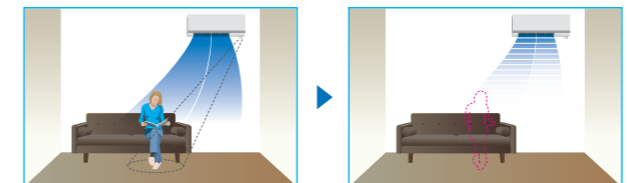


The airflow is distributed equally throughout the room, even to spaces where there is no human movement.

The 3D i-see sensor memorizes human movement and furniture positions, and efficiently distributes airflow.

No occupancy energy-saving mode

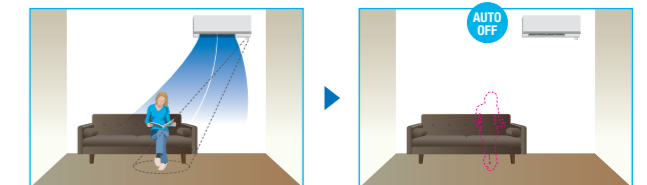
The sensors detect whether there are people in the room. When no-one is in the room, the unit automatically switches to energy-saving mode.



The "3D i-see Sensor" detects people's absence and the power consumption is automatically reduced approximately 10% after 10 minutes and 20% after 60 minutes.

No occupancy Auto-OFF mode

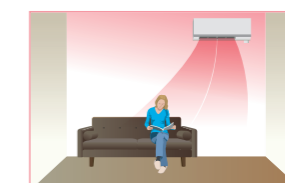
*LN Series only
The sensors detect whether or not there are people in the room. When there is no one in the room, the unit turns off automatically.



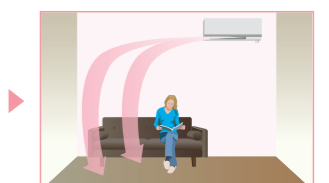
Circulator Operation

In case the indoor temperature reaches the setting temperature, the outdoor unit stops and the indoor unit starts FAN operation to circulate the indoor air.

The outdoor unit starts operation automatically when the indoor temperature drops below the setting temperature.



If the heating operation is continued, the warm air is formed around ceiling.

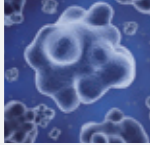
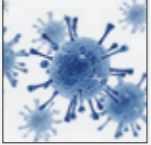
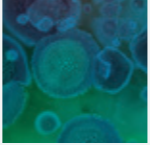
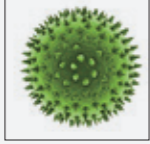




This operating can help to circulate and rene warm air.

(MSZ-LN18/25/35/50/60VG-SC Scandinavian model)

Plasma Quad Plus

Plasma Quad Plus is a plasma-based filter system that effectively removes six kinds of air pollutants. Plasma Quad Plus captures mold and allergens more effectively than Plasma Quad. It can also capture PM2.5 and particles smaller than 2.5µm, creating healthy living spaces for all.

<p>Bacteria</p>  <p>Test results have confirmed that Plasma Quad Plus neutralizes 99% of bacteria in 162 minutes in a 25m³ test space.</p> <p><Test No.> KRCEs-Bio. Test Report No. 2016-0118</p>	<p>Viruses</p>  <p>Test results have confirmed that Plasma Quad Plus neutralizes 99% of virus particles in 72 minutes in a 25m³ test space.</p> <p><Test No.> vrc.center, SMC No. 28-002</p>	<p>Molds</p>  <p>Test results have confirmed that Plasma Quad Plus neutralizes 99% of mold in 135 minutes in a 25m³ test space.</p> <p><Test No.> Japan Food Research Laboratories Test Report No. 16069353001-0201</p>
<p>Allergens</p>  <p>In a test, air containing cat fur and pollen was passed through the air cleaning device at the low airflow setting. Before and after measurements confirm that Plasma Quad Plus neutralizes 98% of cat fur and pollen.</p> <p><Test No.> ITEA Report No. T1606028</p>	<p>PM2.5</p>  <p>Test results have confirmed that Plasma Quad Plus removes 99% of PM2.5 in 145 minutes in a 28m³ test space.</p> <p><In-company investigation></p>	<p>Dust</p>  <p>Test results have confirmed that Plasma Quad Plus removes 99.7% of dust and mites.</p> <p><Test No.> ITEA Report No. T1606028</p>

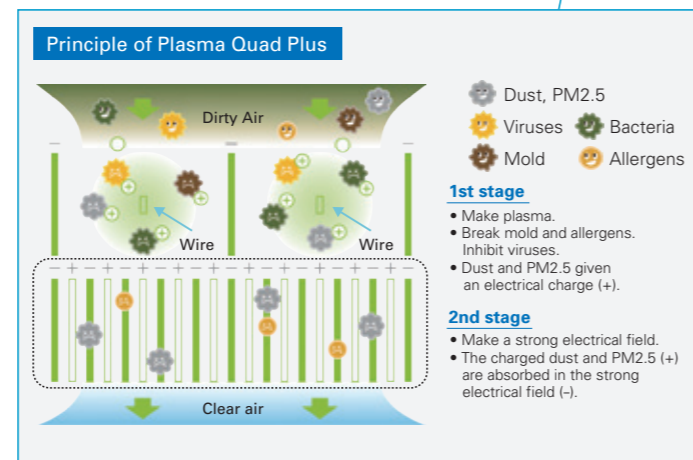
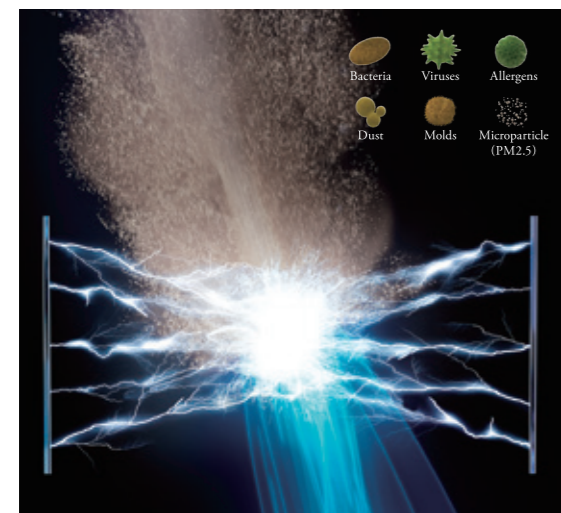
Model	Name	Method	Bacteria	Viruses	Molds	Allergens	Dust	PM2.5*
FH Series	Plasma Quad	One-Stage Plasma	A	A	B	B	C	
LN Series	Plasma Quad Plus	Two-Stage Plasma	A	A	A	A	A	A

A: Highly effective
B: Effective
C: Partially effective

*PM2.5: Particles smaller than 2.5µm

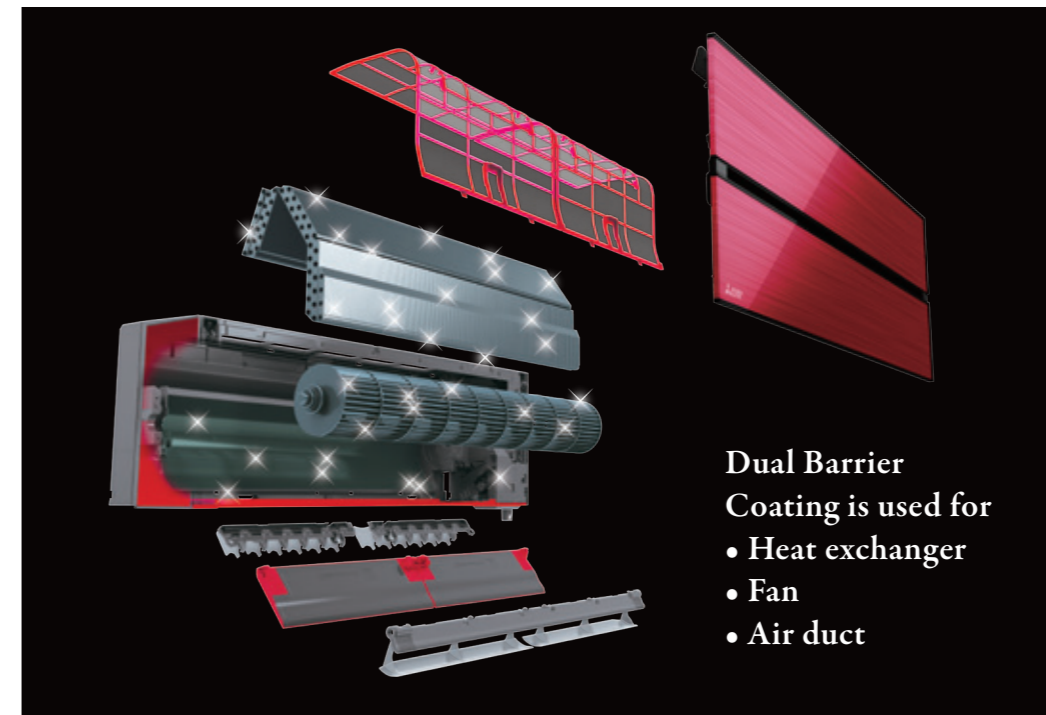


Image of Plasma Quad Plus



Dual Barrier Coating

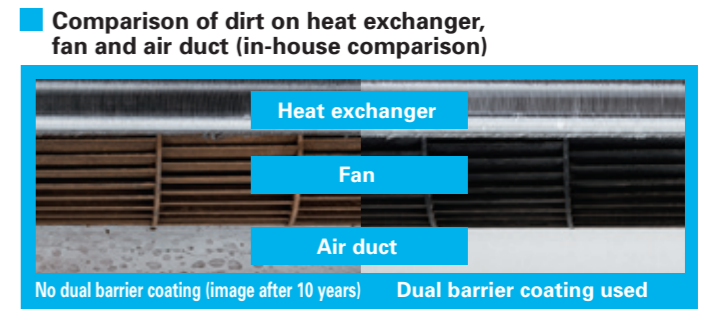
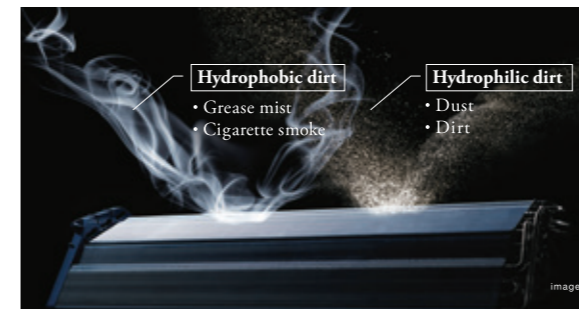
A two-barrier coating prevents dust and greasy dirt from getting into the air conditioner.



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

State-of-the-art coating technology

Dirt is generally classified into two groups: hydrophilic dirt such as fiber dust and sand dust, and hydrophobic dirt such as oil and cigarette smoke. Mitsubishi Electric's dual barrier coating works as a two-barrier coating with blended "fluorine particles" that prevent hydrophilic dirt penetration and "hydrophobic particles" that prevent hydrophobic dirt from getting into the air conditioner. This dual coating on the inner surface keeps the air conditioner clean year-round.



The inside of the indoor unit gets dirty after many years of usage.

Heat exchanger		Fan	
New	10 years later (image)	New	10 years later (image)

Consequences when the inside of the indoor unit is left dirty.

- Deterioration in energy efficiency.
- Musty smell from the unit.

*1 Verified by SIAA test method (JIS Z 2911) with No. JP0501014A00020 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/en_siaa.html

Double Flap

The vanes create various airflows to make each person in the room comfortable. Not only the horizontal vanes, but also the vertical vanes move independently, eliminating hot spots or cold spots throughout the room.

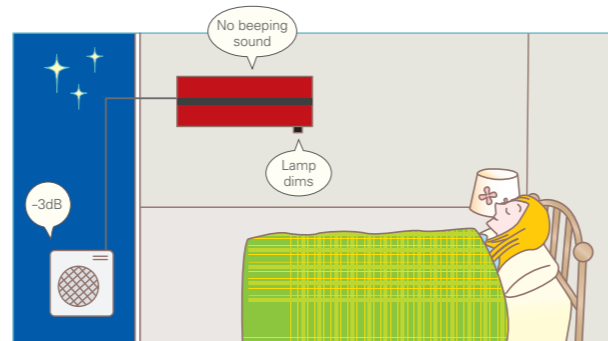


Night Mode

When Night Mode is activated using the wireless remote controller, air conditioner operation will switch to the following settings.

- The brightness of the operation indicator lamp will become dimmer.
- The beeping sound will be disabled.
- The outdoor operating noise will drop to 3dB lower than the rated operating noise specification.

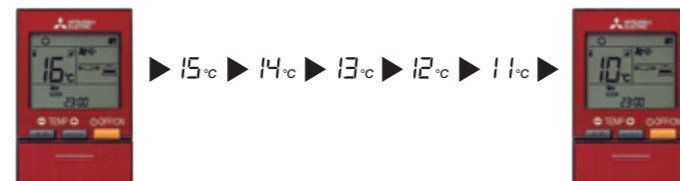
*The cooling/heating capacity may drop.



10°C Heating

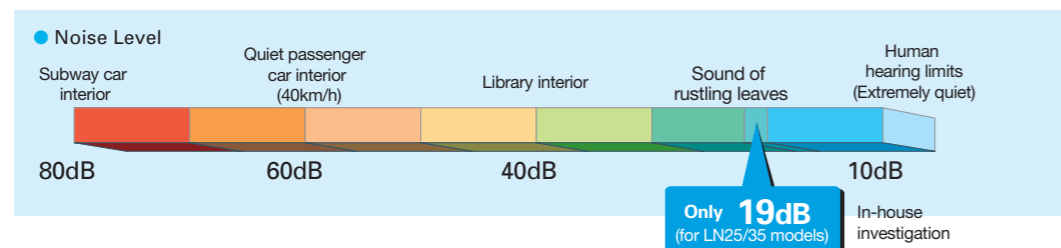
During heating operation, the temperature can be set in 1°C increments down to 10°C.

This function can also be used with the Weekly Timer setting.



Quiet Operation

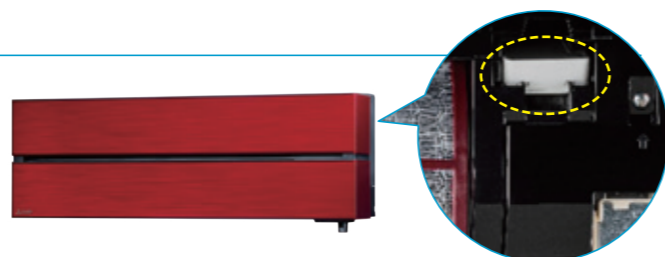
The indoor unit noise level is as low as 19dB for LN25/35 models, offering a peaceful inside environment.



Built-in Wi-Fi Interface

The indoor unit is equipped with a Wi-Fi Interface inside an exclusive pocket in the unit.

This eliminates the need to install a Wi-Fi interface, and also contributes to the beautiful appearance since the interface is hidden.



MSZ-L SERIES



Indoor Unit / Remote Controller



Outdoor Unit

<Pearl White>



MSZ-LN18/25/35/50/60VG2V

<Ruby Red>



MSZ-LN18/25/35/50/60VG2R

<Natural White>



MSZ-LN18/25/35/50/60VG2W

<Onyx Black>



MSZ-LN18/25/35/50/60VG2B



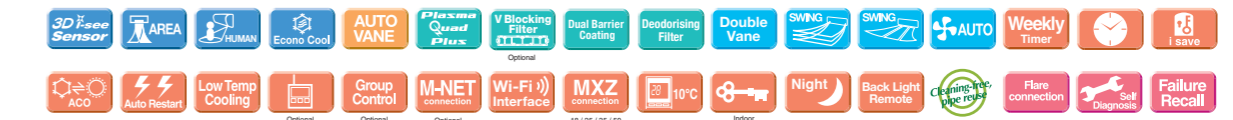
MUZ-LN25/35VG2



MUZ-LN50VG2



MUZ-LN60VG



Type	Inverter Heat Pump							
Indoor Unit	MSZ-LN18VG2	MSZ-LN25VG2	MSZ-LN35VG2	MSZ-LN50VG2	MSZ-LN60VG2			
Outdoor Unit	for MXZ connection		MUZ-LN25VG2	MUZ-LN35VG2	MUZ-LN50VG2			
Refrigerant	Single: R32 ⁽¹⁾ / Multi: R410A or R32 ⁽¹⁾							
Power Source	Outdoor Power Supply							
Supply	230 / Single / 50							
Cooling	Design load	kW	2.5	3.5	5.0	6.1		
	Annual electricity consumption ⁽²⁾	kWh/a	83	129	205	285		
	SEER ⁽³⁾		10.5	9.5	8.5	7.5		
	Energy efficiency class			A+++	A+++	A+++	A++	
	Capacity	Rated	kW	2.5	3.5	5.0	6.1	
Heating	Design load	kW	3.0 (-10°C)	3.6 (-10°C)	4.5 (-10°C)	6.0 (-10°C)		
	Declared Capacity	at reference design temperature	kW	3.0 (-10°C)	3.6 (-10°C)	4.5 (-10°C)	6.0 (-10°C)	
	at bivalent temperature	kW	3.0 (-10°C)	3.6 (-10°C)	4.5 (-10°C)	6.0 (-10°C)		
	at operation limit temperature	kW	2.5 (-15°C)	3.2 (-15°C)	4.2 (-15°C)	6.0 (-15°C)		
	Back up heating capacity	kW	0.0 (-10°C)	0.0 (-10°C)	0.0 (-10°C)	0.0 (-10°C)		
Average Season ⁽⁴⁾	Annual electricity consumption ⁽²⁾	kWh/a	807	987	1369	1826		
	SEER ⁽³⁾		5.2	5.1	4.6	4.6		
	Energy efficiency class			A+++	A+++	A++	A++	
	Capacity	Rated	kW	3.2	4.0	6.0	6.8	
	Total Input	Rated	kW	0.7 - 5.4	0.9 - 6.3	1.0 - 8.2	1.8 - 9.3	
Operating Current (Max)	Input	Rated	A	7.1	9.9	13.9	15.2	
	Operating Current (Max)	A	0.027	0.027	0.027	0.034	0.040	
	Dimensions	H*W*D	mm	307-890-233	307-890-233	307-890-233	307-890-233	
	Weight	kg	14.5 (W)	15.5 (V, R, B)	14.5 (W)	15.5 (V, R, B)	15 (W)	16 (V, R, B)
	Indoor Unit	Air Volume (SLo-Lo-Mid-Hi-SHi ⁽⁵⁾)	Cooling	m ³ /min	4.7 - 5.9 - 7.1 - 9.2 - 12.4	4.7 - 5.9 - 7.1 - 9.2 - 12.4	4.7 - 5.9 - 7.1 - 9.2 - 13.0	5.7 - 7.6 - 8.8 - 10.6 - 13.9
Heating		m ³ /min	4.5 - 6.6 - 7.5 - 11.0 - 13.9	4.5 - 6.6 - 7.5 - 11.0 - 13.9	4.5 - 6.6 - 7.5 - 11.0 - 13.9	5.4 - 6.4 - 8.5 - 10.7 - 15.7	6.6 - 9.5 - 11.5 - 13.6 - 15.7	
Sound Level (SPL)		Cooling	dB(A)	19 - 23 - 29 - 36 - 42	19 - 23 - 29 - 36 - 42	19 - 24 - 29 - 36 - 43	27 - 31 - 35 - 39 - 46	29 - 37 - 41 - 45 - 49
Heating		dB(A)	19 - 24 - 29 - 38 - 45	19 - 24 - 29 - 38 - 45	19 - 24 - 29 - 38 - 45	25 - 29 - 34 - 39 - 47	29 - 37 - 41 - 45 - 49	
Sound Level (PWL)		Cooling	dB(A)	58	58	59	60	65
Outdoor Unit	Dimensions	H*W*D	mm	550-800-285	550-800-285	714-800-285	880-840-330	
	Weight	kg	33	34	40	55		
	Air Volume	Cooling	m ³ /min	34.3	34.3	40.0	50.1	
	Heating	m ³ /min	32.7	32.7	40.5	51.3		
	Sound Level (SPL)	Cooling	dB(A)	46	49	51	55	
Ext. Piping	Sound Level (PWL)	Cooling	dB(A)	49	50	54	55	
	Operating Current (Max)	A	6.8	9.6	13.5	14.8		
	Breaker Size	A	10	16	16	16		
	Diameter	Liquid/Gas	mm	6.35/9.52	6.35/9.52	6.35/9.52	6.35/12.7	
	Max.Length	Out-In	m	20	30	30	30	
Guaranteed Operating Range (Outdoor)	Cooling	°C	-10 - +46	-10 - +46	-10 - +46	-10 - +46		
	Heating	°C	-15 - +24	-15 - +24	-15 - +24	-15 - +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 CO₂, 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) The GWP of R32 is 675 in the IPCC 4th Assessment Report.
 (3) Energy consumption based on standard test results. Actual energy consumption will depend on how the appliance is used and where it is located.
 (4) SH: Super High.
 (5) 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".
 (6) Please see page 53-55 for heating (warmer season) specifications.

MSZ-A SERIES

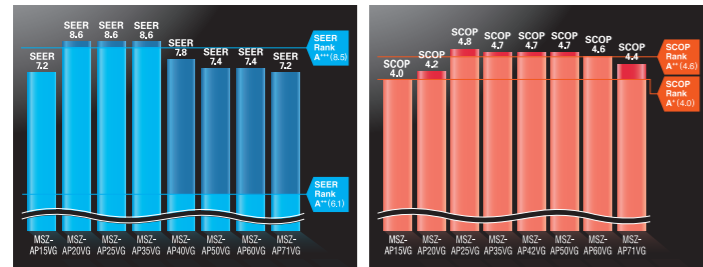
Introducing a compact and stylish indoor unit with various capacity, designed to match number of rooms. High performance indoor and outdoor units enabled to achieve "Rank A+++" for SEER. *MSZ-AP20/25/35VG



High energy saving

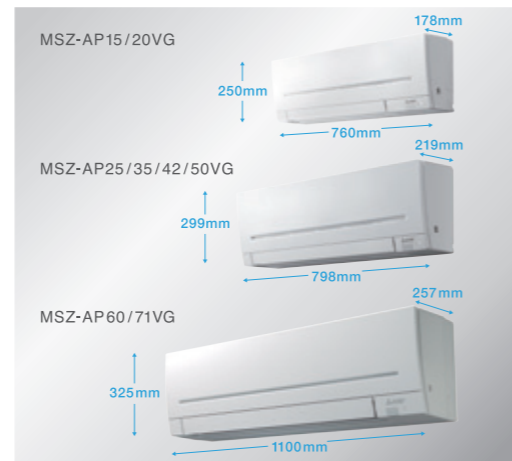


The classes from the low-capacity 25 to the high-capacity 60, have achieved either the "Rank A+++" or "Rank A++" for SEER and SCOP as energy-savings rating. Our air conditioners are contributing to reduce energy consumption in a wide range.



Compact and stylish

All the classes are introduced as single-split and multi-systems. From small rooms to living rooms, it is possible to coordinate residences with a unified design.



Evolved comfortable convenience function

Horizontal Airflow

Auto Vane Control

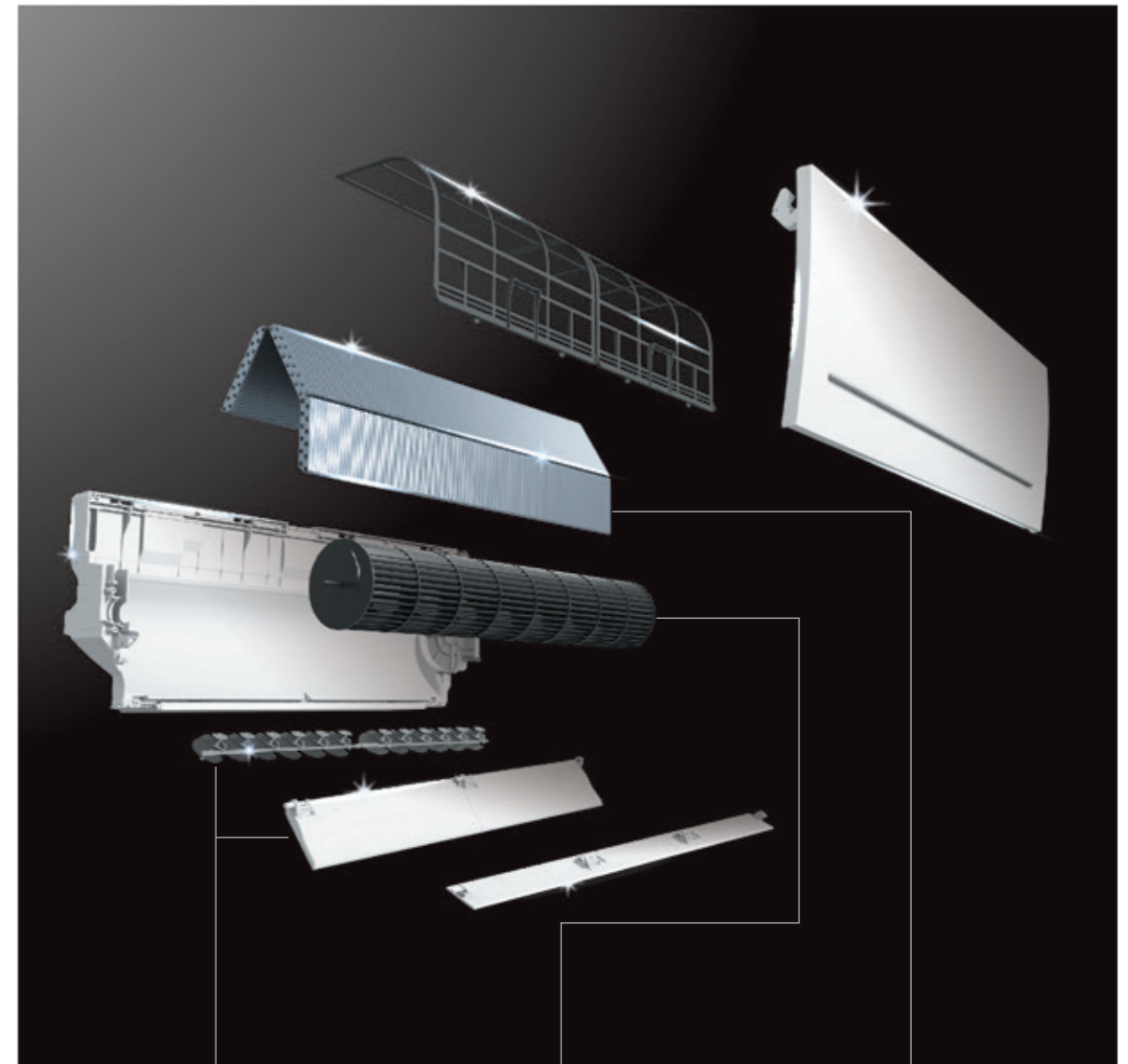
The Function

- Econo Cool
- AUTO VANE
- Air Purifying Filter
- V Blocking Filter
- SWING
- SWING
- AUTO
- Weekly Timer
- i save
- ACO
- Auto Restart
- Low Temp Cooling
- Group Control
- M-NET connection
- Wi-Fi Interface
- MXZ connection
- 10°C
- Night
- Cleaning the pipe
- Flare connection
- Self Diagnosis
- Failure Recall

The new airflow control which spreads across the ceiling eliminates the uncomfortable drafty feeling.

Auto vanes can be moved left and right, and up and down using the remote controller.

High performance and compact size are realised by refining all parts



Vertical and Horizontal Vane

Comfort

New vertical and horizontal vanes are double the size of the previous model, improving airflow control elaborately.

Line Flow Fan

High Performance

New line flow Fan is 122% larger and 108% wider than the previous model, leading to higher aerodynamic performance. Also, same sound level as the previous model.

Heat Exchanger

High Performance

New ø5 Heat exchanger enables to realise 32% thinner depth than the previous model. It realises low pressure loss leading to high performance.

“Weekly Timer”



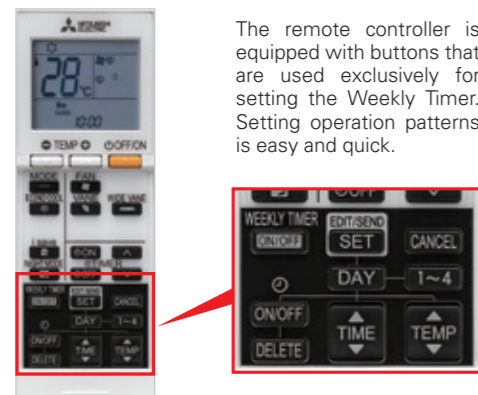
Easily set desired temperatures and operation start/stop times to match lifestyle patterns. Reduce wasted energy consumption by using the timer to prevent forgetting to turn off the unit and eliminate temperature setting adjustments.

Example Operation Pattern (Winter/Heating mode)

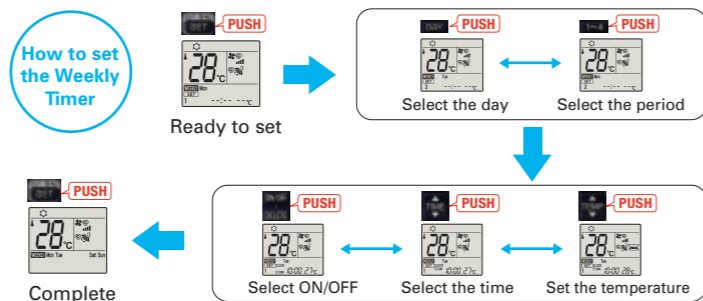
	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.	Sun.
6:00	ON 20°C	ON 20°C	ON 20°C	ON 20°C	ON 20°C	ON 20°C	ON 20°C
8:00	Automatically changes to high-power operation at wake-up time						
10:00	OFF	OFF	OFF	OFF	OFF	ON 18°C	ON 18°C
12:00	Automatically turned off during work hours					Midday is warmer, so the temperature is set lower	
14:00							
16:00							
18:00	ON 20°C	ON 20°C	ON 20°C	ON 20°C	ON 20°C	ON 20°C	ON 20°C
20:00	Automatically turns on, synchronized with arrival at home					Automatically raises temperature setting to match time when outside-air temperature is low	
22:00							
(during sleeping hours)	ON 18°C	ON 18°C	ON 18°C	ON 18°C	ON 18°C	ON 18°C	ON 18°C
	Automatically lowers temperature at bedtime for energy-saving operation at night						

Settings **Pattern Settings:** Input up to four settings for each day
Settings: •Start/Stop operation •Temperature setting *The operation mode cannot be set.

Easy set-up using dedicated buttons



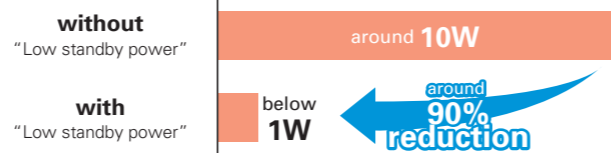
The remote controller is equipped with buttons that are used exclusively for setting the Weekly Timer. Setting operation patterns is easy and quick.



- Start by pushing the “SET” button and follow the instructions to set the desired patterns. Once all of the desired patterns are input, point the top end of the remote controller at the indoor unit and push the “SET” button one more time. (Push the “SET” button only after inputting all of the desired patterns into the remote controller memory. Pushing the “CANCEL” button will end the set-up process without sending the operation patterns to the indoor unit).
- It takes a few seconds to transmit the Weekly Timer operation patterns to the indoor unit. Please continue to point the remote controller at the indoor unit until all data has been sent.
- When “Weekly Timer” is set, temperature can not be set 10°C. (only for 15/20 models)

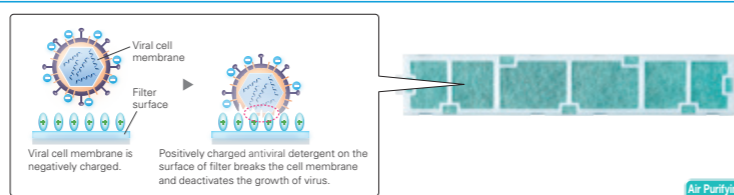
Low Standby Power

Electrical devices consume standby power even when they are not in actual use. While we obviously strive to reduce power consumption during actual use, reducing this wasted power that cannot be seen is also very important.



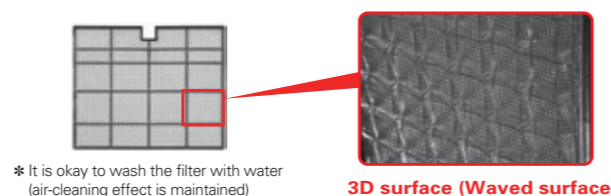
V Blocking Filter

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.



Air Purifying Filter

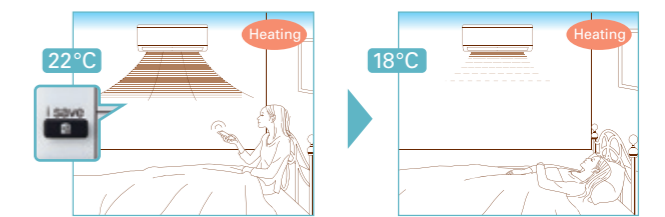
This filter generates stable antibacterial and deodorising effects. The size of the three-dimensional surface has been increased as well, enlarging the filter capture area. These features give the Air Purifying Filter better dust collection performance than conventional filters. The superior air-cleaning effectiveness raises room comfort yet another level.



“i save” Mode



“i save” is a simplified setting function that recalls the preferred (preset) temperature by pressing a single button on the remote controller. Press the same button twice in repetition to immediately return to the previous temperature setting. Using this function contributes to comfortable, waste-free operation, realising the most suitable air conditioning settings and saving on power consumption when, for example, leaving the room or going to bed.



* Temperature can be preset to 10°C when heating in the “i-save” mode.

Outdoor Units for Cold Region

(MSZ-AP25/35/42/50)

Single split-type outdoor units are available in both standard and heater-equipped units. An electric heater is installed in each unit to prevent freezing in cold outdoor environments.



Night Mode

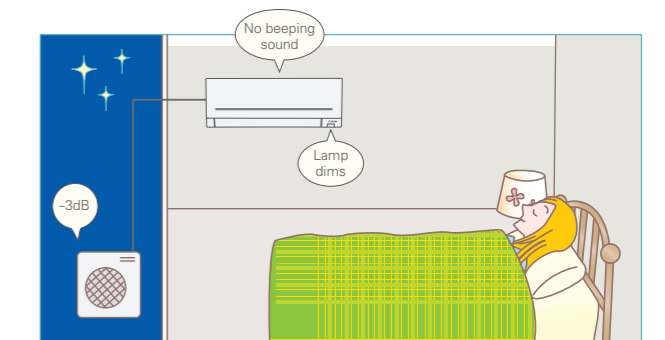
(MSZ-AP20/25/35/42/50/60/71)



When Night Mode is activated using the wireless remote controller, air conditioner operation will switch to the following settings.

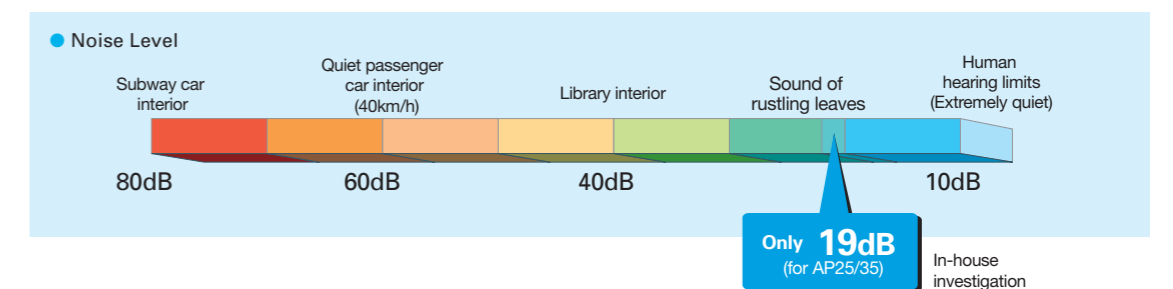
- The brightness of the operation indicator lamp will become dimmer.
- The beeping sound will be disabled.
- The outdoor operating noise will drop to 3dB lower than the rated operating noise specification.

*The cooling/heating capacity may drop.



Quiet Operation

The indoor unit noise level is as low as 19dB for AP Series, offering a peaceful inside environment.



Built-in Wi-Fi Interface

(MSZ-AP15/20/25/35/42/50/60/71VGK)



The indoor unit is equipped with a Wi-Fi Interface inside an exclusive pocket in the unit. This eliminates the need to install a Wi-Fi interface, and also contributes to the beautiful appearance since the interface is hidden.

LED Backlight Remote Controller



Backlight function incorporated, making screen easy to read in the dark. Even in dimly lit rooms, the screen can be seen clearly for trouble-free remote controller operation.

MSZ-A SERIES

Indoor Unit **R32 R410A**



MSZ-AP15/20VG(K)



Outdoor Unit **R32**



MUZ-AP15VG



MUZ-AP20VG

Remote Controller



MSZ-A SERIES



Indoor Unit **R32 R410A**

*VGK model Wi-Fi Interface built-in.



MSZ-AP25/35/42/50VG(K)



Outdoor Unit **R32**

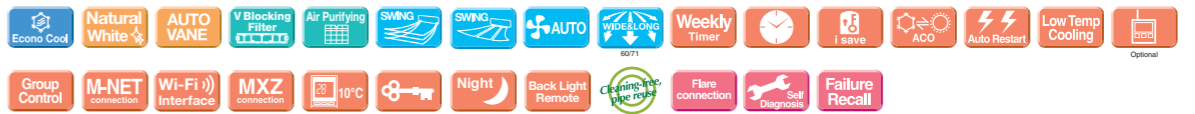


MUZ-AP25/35/42VG(H)



MUZ-AP50VG(H)/60VG

Remote Controller



Type	Inverter Heat Pump						
Indoor Unit	MSZ-AP15VG(K)	MSZ-AP20VG(K)	MSZ-AP25VG(K)	MSZ-AP25VG(K)	MSZ-AP35VG(K)	MSZ-AP35VG(K)	
Outdoor Unit	MUZ-AP15VG	MUZ-AP20VG	MUZ-AP25VG	MUZ-AP25VG(H)	MUZ-AP35VG	MUZ-AP35VG(H)	
Refrigerant	Single: R32 ^(*) / Multi: R410A or R32 ^(*)						
Power Supply	Outdoor Power supply 230 / Single / 50						
Cooling	Design load	kW					
	Annual electricity consumption ⁽²⁾	kWh/a					
	SEER ⁽⁴⁾						
	Energy efficiency class	A++					
	Capacity	kW					
Heating (Average Season) ⁽⁵⁾	Design load	kW					
	Declared Capacity	kW					
	Back up heating capacity	kW					
	Annual electricity consumption ⁽²⁾	kWh/a					
	SCOP ⁽⁴⁾						
Operating Current (Max)	Input	A					
	Operating Current (Max)	A					
	Dimensions	H*W*D					
	Weight	kg					
	Indoor Unit	Air Volume	m ³ /min				
Sound Level (SPL)		dB(A)					
Sound Level (PWL)		dB(A)					
Dimensions		H*W*D					
Weight		kg					
Outdoor Unit	Air Volume	m ³ /min					
	Sound Level (SPL)	dB(A)					
	Sound Level (PWL)	dB(A)					
	Operating Current (Max)	A					
	Breaker Size	A					
Ext. Piping	Diameter	mm					
	Max.Length	m					
	Max.Height	m					
Guaranteed Operating Range (Outdoor)	Cooling	°C					
	Heating	°C					

(*) 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 CO₂ 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) SH: 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.

Type	Inverter Heat Pump					
Indoor Unit	MSZ-AP42VG(K)	MSZ-AP42VG(K)	MSZ-AP50VG(K)	MSZ-AP50VG(K)	MSZ-AP60VG(K)	MSZ-AP71VG(K)
Outdoor Unit	MUZ-AP42VG	MUZ-AP42VG(H)	MUZ-AP50VG	MUZ-AP50VG(H)	MUZ-AP60VG	MUZ-AP71VG
Refrigerant	Single: R32 ^(*) / Multi: R410A or R32 ^(*)					
Power Supply	Outdoor Power supply 230 / Single / 50					
Cooling	Design load	kW				
	Annual electricity consumption ⁽²⁾	kWh/a				
	SEER ⁽⁴⁾					
	Energy efficiency class	A++				
	Capacity	kW				
Heating (Average Season) ⁽⁵⁾	Design load	kW				
	Declared Capacity	kW				
	Back up heating capacity	kW				
	Annual electricity consumption ⁽²⁾	kWh/a				
	SCOP ⁽⁴⁾					
Operating Current (Max)	Input	A				
	Operating Current (Max)	A				
	Dimensions	H*W*D				
	Weight	kg				
	Indoor Unit	Air Volume	m ³ /min			
Sound Level (SPL)		dB(A)				
Sound Level (PWL)		dB(A)				
Dimensions		H*W*D				
Weight		kg				
Outdoor Unit	Air Volume	m ³ /min				
	Sound Level (SPL)	dB(A)				
	Sound Level (PWL)	dB(A)				
	Operating Current (Max)	A				
	Breaker Size	A				
Ext. Piping	Diameter	mm				
	Max.Length	m				
	Max.Height	m				
Guaranteed Operating Range (Outdoor)	Cooling	°C				
	Heating	°C				

(*) 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 CO₂ 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) SH: 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.

MSZ-E SERIES

Developed to complement modern interior room décor, Kirigamine ZEN air conditioners are available in three colours specially chosen to blend in naturally wherever installed.

MSZ-EF18-50VGB



Stylish Line-up Matches Any Room Décor

The streamlined wall-mounted indoor units have eloquent silver-bevelled edges, expressing sophistication and quality. Combining impressively low power consumption and quiet yet powerful performance, these units provide a best-match scenario for diverse interior designs while simultaneously ensuring maximum room and energy savings.

Energy-efficient Operation

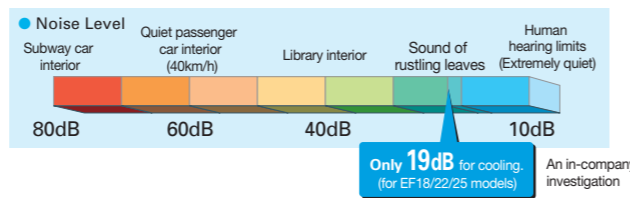
All models in the series have achieved high energy-savings rating, and are contributing to reduced energy consumption in homes, offices and a range of other settings. Offered in a variety of output capacities and installation patterns, the vast applicability promises an ideal match for any user.

Indoor	Outdoor	Rank A for single connection MUZ-EF25/35V(G)H MUZ-EF42/50V(G)	Compatibility MXZ					
			2F33VF	2F42VF	2F53VF	3F54VF	3F68VF	4F72VF
MSZ-EF18VG		-	✓	✓	✓	✓	✓	✓
MSZ-EF22VG		-	✓	✓	✓	✓	✓	✓
MSZ-EF25VG		A+++ / A++ (A***)	✓	✓	✓	✓	✓	✓
MSZ-EF35VG		A+++ / A++ (A***)	✓	✓	✓	✓	✓	✓
MSZ-EF42VG		A+ / A+	✓	✓	✓	✓	✓	✓
MSZ-EF50VG		A+ / A+	✓	✓	✓	✓	✓	✓

*VEH

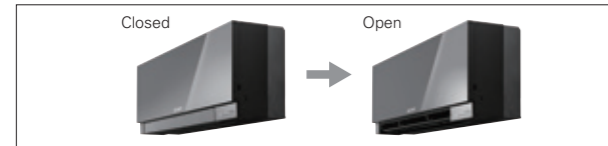
Quiet Comfort All Day Long

Mitsubishi Electric's advanced "Silent Mode" fan speed setting provides super-quiet operation as low as 19dB for EF18/22/25 models for cooling. This unique feature makes the Kirigamine ZEN series ideal for use in any situation.



Superior Exterior and Operating Design Concept

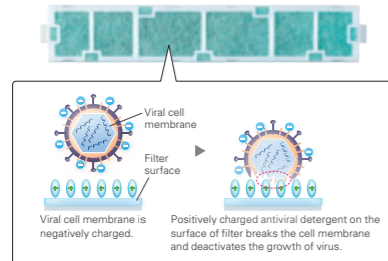
The indoor unit of the Kirigamine ZEN keeps its amazingly thin form even during operation. The only physical change notable is the movement of the variable vent. As a result, a slim attractive look is maintained.



V Blocking Filter

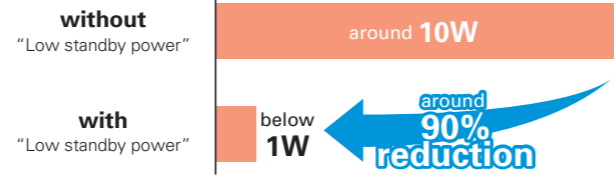
V Blocking Filter with antiviral effect inhibits 99% of adhered virus, and other harmful substances, such as bacteria, mold and allergen.

Two-layered filter with non-woven fabric and electrostatic filter can effectively capture and remove small particles from the air in your room.



Low Standby Power

Electrical devices consume standby power even when they are not in actual use. While we obviously strive to reduce power consumption during actual use, reducing this wasted power that cannot be seen is also very important.



Outdoor Units for Cold Region (25/35)

Single split-type outdoor units are available in both standard and heater-equipped units. An electric heater is installed in each unit to prevent freezing in cold outdoor environments.



MSZ-E SERIES



Indoor Unit / Remote Controller



* Soft-dry Cloth is enclosed with Black models.
* V(G) model Wi-Fi interface built-in

Outdoor Unit



Type	Inverter Heat Pump								
Indoor Unit	MSZ-EF18V(G)K	MSZ-EF22V(G)K	MSZ-EF25V(G)K	MSZ-EF35V(G)K	MSZ-EF35V(G)K	MSZ-EF42V(G)K	MSZ-EF50V(G)K		
Outdoor Unit	for MXZ connection		MUZ-EF25V(G)	MUZ-EF25V(GH)	MUZ-EF35V(G)	MUZ-EF35V(GH)	MUZ-EF42V(G)	MUZ-EF50V(G)	
Refrigerant	R32 ⁽¹⁾								
Power Supply	Outdoor Power supply 230/Single/50								
Source	Outdoor (V / Phase / Hz)								
Cooling	Design load	-		2.5	2.5	3.5	3.5	4.2	5.0
	Annual electricity consumption ⁽²⁾	-		96	96	139	139	186	233
	SEER ⁽³⁾	-		9.1	9.1	8.8	8.8	7.9	7.5
	Energy efficiency class	-		A+++	A+++	A+++	A+++	A++	A+
	Capacity	Rated	-		2.5	2.5	3.5	3.5	4.2
Heating	Design load	-		2.4 (-10°C)	2.4 (-10°C)	2.9 (-10°C)	2.9 (-10°C)	3.8 (-10°C)	4.2 (-10°C)
	Declared Capacity	-		2.4 (-10°C)	2.4 (-10°C)	2.9 (-10°C)	2.9 (-10°C)	3.8 (-10°C)	4.2 (-10°C)
	Back up heating capacity	-		2.0 (-15°C)	1.6 (-20°C)	2.4 (-15°C)	1.7 (-20°C)	3.4 (-15°C)	3.5 (-15°C)
	Annual electricity consumption ⁽²⁾	-		713	727	882	900	1151	1304
	SCOP ⁽⁴⁾	-		4.7	4.6	4.6	4.5	4.6	4.5
Operating Current (Max)	Input	-		7.1	7.1	7.1	7.1	10.0	14
	Operating Current (Max)	-		0.026	0.026	0.030	0.030	0.033	0.043
	Dimensions	-		299-885-195	299-885-195	299-885-195	299-885-195	299-885-195	299-885-195
	Weight	-		11.5	11.5	11.5	11.5	11.5	11.5
	Indoor Unit	Air Volume (SLo-Mid-Hi-SH) ⁽⁵⁾	Cooling	4.0-4.6-6.3-8.3-10.5	4.0-4.6-6.3-8.3-10.5	4.0-4.6-6.3-8.3-10.5	4.0-4.6-6.3-8.3-10.5	4.0-4.6-6.3-8.3-10.5	5.8-6.6-7.7-8.9-11.2
Sound Level (SPL) (SLo-Mid-Hi-SH) ⁽⁵⁾		Cooling	19-23-29-36-42	19-23-29-36-42	19-23-29-36-42	19-23-29-36-42	21-24-30-36-42	28-31-35-39-43	30-33-36-40-43
Sound Level (PWL)		Cooling	60	60	60	60	60	60	60
Dimensions		-		550-800-285	550-800-285	550-800-285	550-800-285	550-800-285	714-800-285
Weight		-		31	31	31	31	35	40
Outdoor Unit	Air Volume	Cooling	-	-	27.8	27.8	34.3	34.3	40.2
	Sound Level (SPL)	Cooling	-	-	47	47	49	49	52
	Sound Level (PWL)	Cooling	-	-	48	48	50	50	52
	Operating Current (Max)	-		6.8	6.8	6.8	6.8	9.6	13.6
	Breaker Size	-		10	10	10	10	12	16
Ext. Piping	Diameter	-		6.35 / 9.52	6.35 / 9.52	6.35 / 9.52	6.35 / 9.52	6.35 / 9.52	6.35 / 9.52
	Max.Length	-		20	20	20	20	30	
	Max.Height	-		12	12	12	12	15	
Guaranteed Operating Range (Outdoor)	Cooling	-		-10 ~ +46	-10 ~ +46	-10 ~ +46	-10 ~ +46	-10 ~ +46	-10 ~ +46
	Heating	-		-15 ~ +24	-20 ~ +24	-15 ~ +24	-20 ~ +24	-15 ~ +24	-15 ~ +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 CO₂ 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) SH: 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.

MSZ-BT SERIES

The BT series featured with its high performance, energy efficiency, and simplicity of use brings greater comfort to your room.

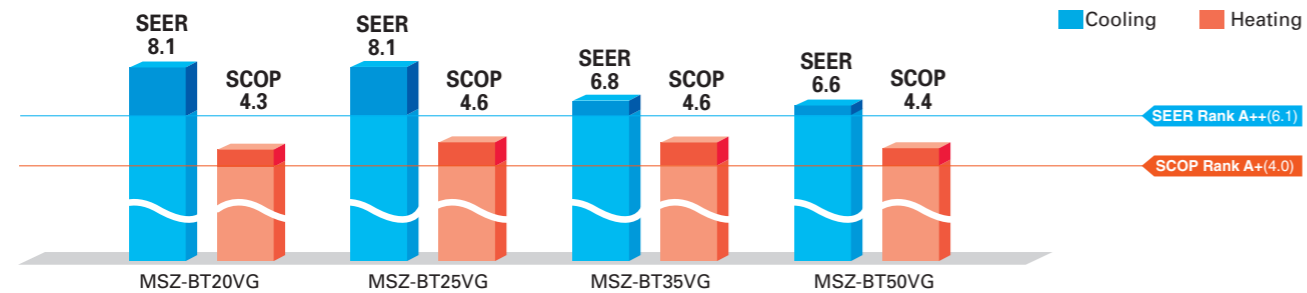
MSZ-BT20/25/35/50VG(K)

R32
Single / Multi



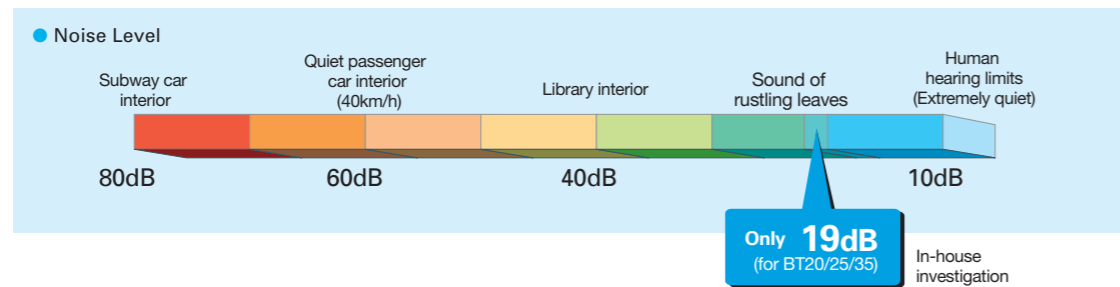
High Energy Efficiency for Entire Range of Series

All models in the series, from the low-capacity 20 to the high-capacity 50, have achieved the "Rank A++" for SEER and size 25 and 35 have achieved the "Rank A++" for SCOP as energy-savings rating. For home use, such as in bedrooms and living rooms, to light commercial use, such as in offices, our air conditioners are contributing to reduced energy consumption in a wide range.



Quiet Operation

The indoor unit noise level is as low as 19dB for AP Series, offering a peaceful inside environment.



New Remote Controller

New stylish and compact remote controller features easy-read big display and simple button position with fundamental functions.



Built-in Wi-Fi Interface

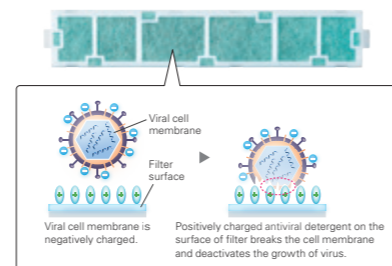
(MSZ-BT20/25/35/50VGK)



The indoor unit is equipped with a Wi-Fi Interface inside an exclusive pocket in the unit. This eliminates the need to install a Wi-Fi interface, and also contributes to the beautiful appearance since the interface is hidden.

V Blocking Filter

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.



MSZ-BT SERIES



Indoor Unit

R32



MSZ-BT20/25/35/50VG(K)

Outdoor Unit



MUZ-BT20VG

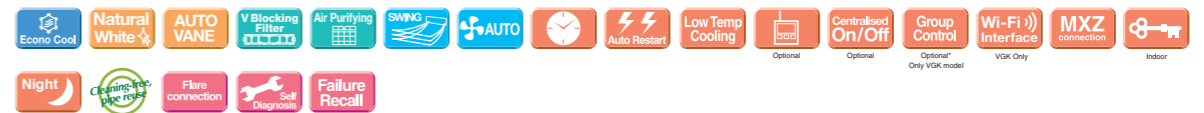


MUZ-BT25/35VG



MUZ-BT50VG

Remote Controller



Type	Inverter Heat Pump						
Indoor Unit	MSZ-BT20VG(K)	MSZ-BT25VG(K)	MSZ-BT35VG(K)	MSZ-BT50VG(K)			
Outdoor Unit	MUZ-BT20VG	MUZ-BT25VG	MUZ-BT35VG	MUZ-BT50VG			
Refrigerant	R32 ⁽¹⁾						
Power Supply	Outdoor Power supply 230V/Single/50Hz						
Cooling	Design load	kW	2.0	2.5	3.5	5.0	
	Annual electricity consumption ⁽²⁾	kWh/a	86	108	180	265	
	SEER ⁽³⁾		8.1	8.1	6.8	6.6	
	Energy efficiency class		A++	A++	A++	A++	
	Capacity	Rated	kW	2.0	2.5	3.5	5.0
Heating	Design load	kW	1.5 (-10°C)	1.9 (-10°C)	2.4 (-10°C)	3.8 (-10°C)	
	Declared Capacity	at reference design temperature	kW	1.5 (-10°C)	1.9 (-10°C)	2.4 (-10°C)	3.8 (-10°C)
	at bivalent temperature	kW	1.5 (-10°C)	1.9 (-10°C)	2.4 (-10°C)	3.8 (-10°C)	
	at operation limit temperature	kW	1.3 (-15°C)	1.7 (-15°C)	2.1 (-15°C)	3.4 (-15°C)	
	Back up heating capacity	kW	0.0 (-10°C)	0.0 (-10°C)	0.0 (-10°C)	0.0 (-10°C)	
Average Season ⁽⁴⁾	Annual electricity consumption ⁽²⁾	kWh/a	487	577	727	1209	
	SCOP ⁽⁴⁾		4.3	4.6	4.6	4.4	
	Energy efficiency class		A+	A++	A++	A+	
	Capacity	Rated	kW	2.5	3.15	3.6	5.4
	Min-Max	kW	0.7-3.2	0.7-3.5	0.9-4.1	1.4-6.5	
Operating Current (Max)	Total Input	kW	0.550	0.750	0.930	1.550	
	Input	A	5.6	7.0	7.0	10.0	
	Rated	kW	0.024	0.024	0.031	0.037	
	Operating Current(Max)	A	0.25	0.25	0.31	0.35	
	Dimensions	H*W*D	mm	280-838-235	280-838-235	280-838-235	280-838-235
Indoor Unit	Weight	kg	9	9	9	9	
	Air Volume	Cooling	m ³ /min	4.2 - 5.2 - 6.8 - 8.7 - 10.9	4.2 - 5.2 - 6.8 - 8.7 - 10.9	4.2 - 5.2 - 6.8 - 8.7 - 13.2	6.3 - 7.6 - 9.0 - 11.0 - 13.2
	Heating	m ³ /min	4.2 - 5.0 - 6.8 - 9.0 - 11.9	4.2 - 5.0 - 6.8 - 9.0 - 11.9	4.2 - 5.0 - 6.8 - 9.0 - 11.9	6.0 - 7.8 - 9.9 - 11.9 - 14.1	
	Sound Level (SPL)	Cooling	dB(A)	19 - 22 - 30 - 37 - 43	19 - 22 - 30 - 37 - 43	19 - 22 - 31 - 38 - 46	29 - 33 - 36 - 40 - 46
	Heating	dB(A)	20 - 23 - 30 - 37 - 43	20 - 23 - 30 - 37 - 43	20 - 23 - 30 - 37 - 44	29 - 33 - 38 - 43 - 48	
Outdoor Unit	Sound Level (PWL)	Cooling	dB(A)	57	57	60	60
	Dimensions	H*W*D	mm	538-699-249	538-699-249	538-699-249	550-800-285
	Weight	kg	23	24	24	35	
	Air Volume	Cooling	m ³ /min	30.3	32.2	32.2	30.4
	Heating	m ³ /min	30.3	32.2	34.6	32.7	
Ext. Piping	Sound Level (SPL)	Cooling	dB(A)	50	50	52	50
	Heating	dB(A)	50	50	52	51	
	Sound Level (PWL)	Cooling	dB(A)	63	63	64	64
	Operating Current (Max)	A	5.3	6.7	6.7	9.6	
	Breaker Size	A	10	10	10	12	
Guaranteed Operating Range (Outdoor)	Diameter	Liquid/Gas	mm	6.35 / 9.52	6.35 / 9.52	6.35 / 9.52	6.35 / 12.7
	Max.Length	Out-In	m	20	20	20	20
	Max.Height	Out-In	m	12	12	12	12
Guaranteed Operating Range (Outdoor)	Cooling	°C	-10 ~ +46	-10 ~ +46	-10 ~ +46	-10 ~ +46	
	Heating	°C	-15 ~ +24	-15 ~ +24	-15 ~ +24	-15 ~ +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 CO₂, 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) SH: 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.

MSZ-HR SERIES

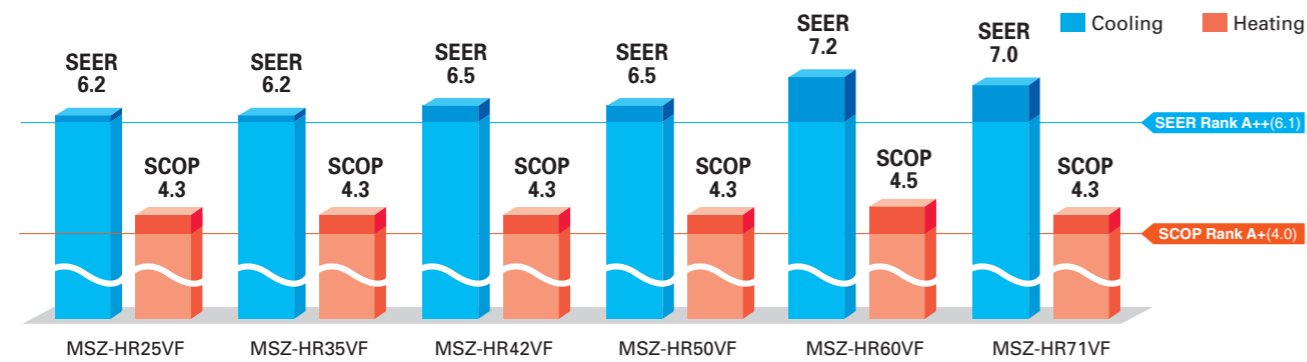
Compact, high-performance indoor and outdoor units with R32 that is low global warming potential compared with the current refrigerant R410A contribute to room comfort and to prevent global warming.



"Rank A++/A+" Energy Savings Achieved for Entire Range of Series

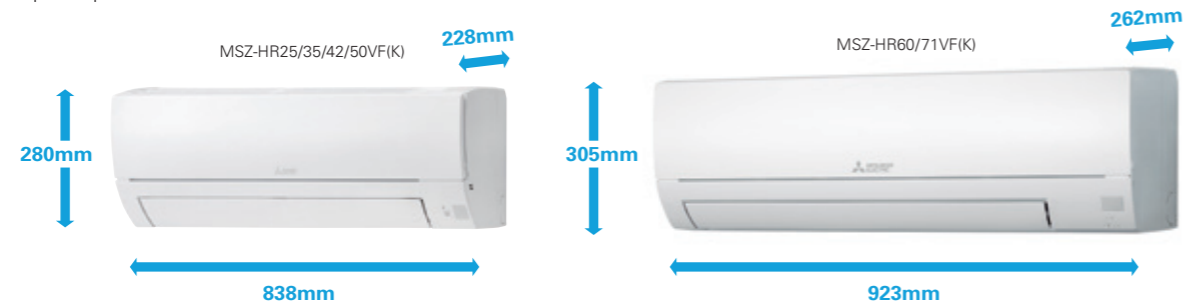


All models in the series, from capacity 25 to 71, have achieved the "Rank A++" for SEER and "Rank A+" for SCOP as energy-savings rating, thanks to Mitsubishi Electric's inverter technologies which are adopted to provide automatic adjustment of operation load according to need.



Simple and Friendly Design

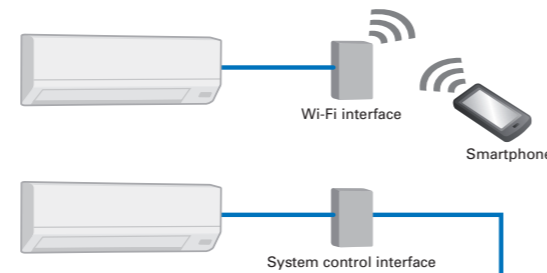
The round front surface provides a simple and friendly impression. And the width of indoor unit is compact, making installation in smaller, tighter spaces possible.



Wi-Fi and System Control

Wi-Fi Interface (Built-in) *Only V GK model

Built-in interface enabling users to control air conditioners and check operating status via devices such as personal computers, tablets and smartphones.



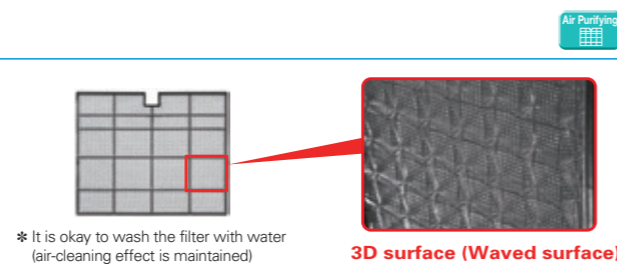
System Control Interface (Optional)

- Remote on/off operation is possible by input to the connector.
- Depending on the interface used, connecting a wired remote-control such as the PAR-41MAA is possible.
- Centralised control is possible when connected to M-NET.

*Wi-Fi Interface and System Control Interface cannot be used simultaneously.

Air Purifying Filter

This filter generates stable antibacterial and deodorising effects. The size of the three-dimensional surface has been increased as well, enlarging the filter capture area. These features give the Air Purifying Filter better dust collection performance than conventional filters. The superior air-cleaning effectiveness raises room comfort yet another level.



MSZ-HR SERIES



Indoor Unit



MSZ-HR25/35/42/50VF(K)



MSZ-HR60/71VF(K)

Outdoor Unit



MUZ-HR25VF



MUZ-HR35VF

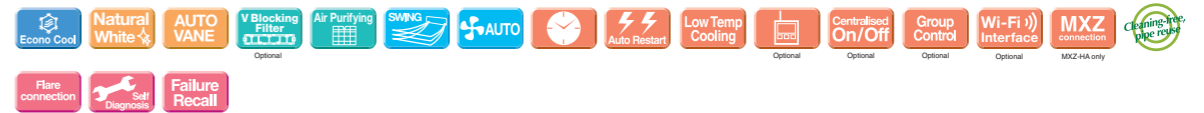


MUZ-HR42/50VF



MUZ-HR60/71VF

Remote Controller



Type	Inverter Heat Pump								
Indoor Unit	MSZ-HR25VF(K)	MSZ-HR35VF(K)	MSZ-HR42VF(K)	MSZ-HR50VF(K)	MSZ-HR60VF(K)	MSZ-HR71VF(K)			
Outdoor Unit	MUZ-HR25VF	MUZ-HR35VF	MUZ-HR42VF	MUZ-HR50VF	MUZ-HR60VF	MUZ-HR71VF			
Refrigerant	R32 ⁽¹⁾								
Power Supply	Outdoor Power supply 230V/Single/50Hz								
Cooling	Design load	kW	2.5	3.4	4.2	5.0	6.1	7.1	
	Annual electricity consumption ⁽²⁾	kWh/a	141	191	226	269	296	355	
	SEER ⁽³⁾		6.2	6.2	6.5	6.5	7.2	7.0	
	Energy efficiency class		A++	A++	A++	A++	A++	A++	
	Capacity	Rated	kW	2.5	3.4	4.2	5.0	6.1	7.1
Heating	Design load	kW	1.9 (-10°C)	2.4 (-10°C)	2.9 (-10°C)	3.8 (-10°C)	4.6 (-10°C)	5.4 (-10°C)	
	Declared Capacity	at reference design temperature	kW	1.9 (-10°C)	2.4 (-10°C)	2.9 (-10°C)	3.8 (-10°C)	4.6 (-10°C)	
	at bivalent temperature	kW	1.9 (-10°C)	2.4 (-10°C)	2.9 (-10°C)	3.8 (-10°C)	4.6 (-10°C)		
	at operation limit temperature	kW	1.9 (-10°C)	2.4 (-10°C)	2.9 (-10°C)	3.8 (-10°C)	4.6 (-10°C)		
	Back up heating capacity	kW	0.0 (-10°C)	0.0 (-10°C)	0.0 (-10°C)	0.0 (-10°C)	0.0 (-10°C)		
Average Season ⁽⁴⁾	Annual electricity consumption ⁽²⁾	kWh/a	614	781	928	1224	1430	1755	
	SEER ⁽³⁾		4.3	4.3	4.3	4.3	4.5	4.3	
	Energy efficiency class		A+	A+	A+	A+	A+	A+	
	Capacity	Rated	kW	3.15	3.6	4.7	5.4	6.8	8.1
	Total Input	Rated	kW	0.7-3.5	0.9-3.7	0.9-3.4	1.4-6.5	1.5-8.5	1.5-9.0
Operating Current (Max)	Input	Rated	A	5.0	6.7	8.5	10.0	14.1	
	Operating Current(Max)	A	0.20	0.28	0.32	0.36	0.55	0.55	
	Dimensions	H*W*D	mm	280-838-228	280-838-228	280-838-228	280-838-228	305-923-262	
	Weight	kg	8.5	8.5	9	9	12.5	12.5	
	Indoor Unit	Air Volume	Cooling	m ³ /min	3.6 - 5.4 - 7.2 - 9.7	3.6 - 5.6 - 7.8 - 11.7	6.0 - 8.7 - 10.8 - 13.1	6.4 - 9.2 - 11.2 - 13.1	10.4 - 12.6 - 15.4 - 19.6
Heating		m ³ /min	3.3 - 5.4 - 7.4 - 10.1	3.3 - 5.4 - 7.4 - 10.5	5.6 - 7.9 - 10.8 - 13.4	6.1 - 8.3 - 11.2 - 14.5	10.7 - 13.1 - 16.7 - 19.6		
Sound Level (SPL) (Lo-Mid-Hi-SH) ⁽⁵⁾		Cooling	dB(A)	21 - 30 - 37 - 43	22 - 31 - 38 - 46	24 - 34 - 39 - 45	28 - 36 - 40 - 45	33 - 38 - 44 - 50	
Heating		dB(A)	21 - 30 - 37 - 43	21 - 30 - 37 - 44	24 - 32 - 40 - 46	27 - 34 - 41 - 47	33 - 38 - 44 - 50		
Sound Level (PWL)		Cooling	dB(A)	57	60	60	60	65	
Outdoor Unit	Dimensions	H*W*D	mm	538-699-249	538-699-249	550-800-285	550-800-285	714-800-285	
	Weight	kg	23	24	34	35	40	40	
	Air Volume	Cooling	m ³ /min	30.3	32.2	30.4	30.4	42.8	
	Heating	m ³ /min	30.3	32.2	32.7	32.7	48.3		
	Sound Level (SPL)	Cooling	dB(A)	50	51	50	50	53	
Ext. Piping	Sound Level (PWL)	Heating	dB(A)	63	64	64	64	66	
	Operating Current (Max)	A	4.8	6.4	8.2	9.6	13.6		
	Breaker Size	A	10	10	10	12	16		
	Diameter	Liquid/Gas	mm	6.35 / 9.52	6.35 / 9.52	6.35 / 9.52	6.35 / 9.52	6.35 / 12.7	
	Max.Length	Out-In	m	20	20	20	20	30	
Guaranteed Operating Range (Outdoor)	Cooling	°C	-10 ~ +46	-10 ~ +46	-10 ~ +46	-10 ~ +46	-10 ~ +46		
	Heating	°C	-10 ~ +24	-10 ~ +24	-10 ~ +24	-10 ~ +24	-10 ~ +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 were to be leaked to the atmosphere, the impact on global warming would be 550 times higher than 1 kg of CO₂ 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) SH: 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.

MSZ-DW SERIES

R32

MSZ-DW25/35/50VF

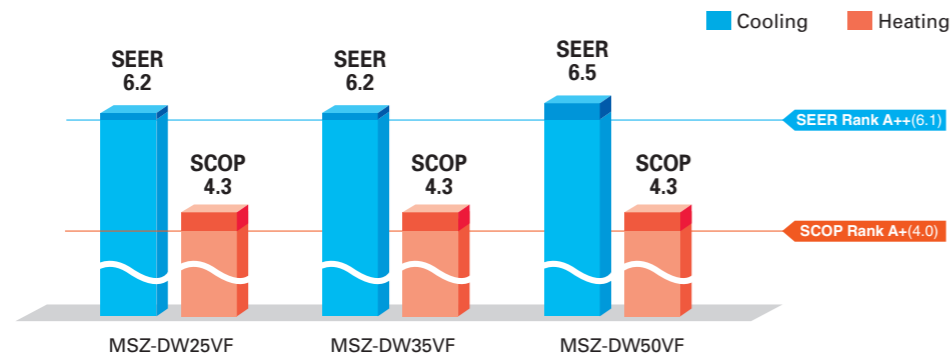


Introducing an indoor unit that is compact yet packed with a variety of features. High energy saving performance and Air Purifying Filter bring you a comfortable indoor environment.

Energy Saving



Mitsubishi Electric's inverter technologies are adopted to provide automatic adjustment of operation load according to need. This reduces excessive consumption of electricity, and thereby realises Energy Rank "A++" for SEER (cooling) and "A+" for SCOP (heating).



Simple and Compact Design

The stylish design makes it a natural match for any room. The width of indoor units is compact, making installation in smaller, tighter spaces possible.



Simple Control

The simple remote controller and functions provide the easy control solution and comforts of life.



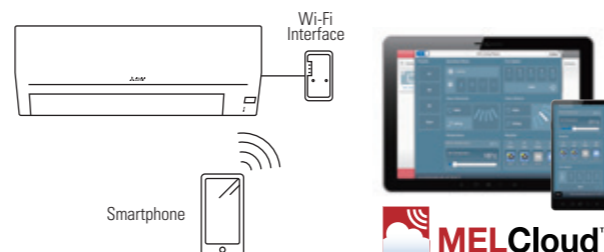
Wi-Fi and System Control

Wi-Fi Interface (Optional)

Optional interface and a Cloud-based solution "MELCloud" enable users to control air conditioners and check operating status via devices such as laptops, tablets and smartphones.

System Control Interface (Optional)

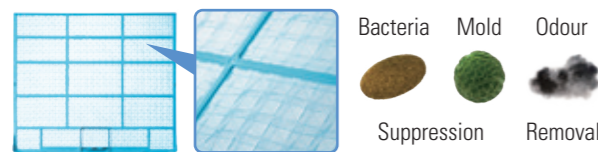
- Remote on/off operation is possible by input to the connector.
- Depending on the interface used, connecting a wired remote control such as the PAR-41MAA is possible.
- Centralised control is possible when connected to M-NET.



Air Purifying Filter



Air Purifying Filter generates stable antibacterial, antifungal, and deodorant effects. The three-dimensional surface expands the filter's capture area and contributes to the better dust collection performance than conventional filters.



MSZ-DW SERIES

Indoor Unit

R32

MSZ-DW25/35/50VF

Outdoor Unit

MUZ-DW25VF
MUZ-DW35VF
MUZ-DW50VF

Remote Controller

Type	Inverter Heat Pump		
Indoor Unit	MSZ-DW25VF	MSZ-DW35VF	MSZ-DW50VF
Outdoor Unit	MUZ-DW25VF	MUZ-DW35VF	MUZ-DW50VF
Refrigerant	R32 ⁽¹⁾		
Power Source	Outdoor Power supply		
Supply	Outdoor (V / Phase / Hz)		
Cooling	Design load	kW	2.5
	Annual electricity consumption ⁽²⁾	kWh/a	135
	SEER ⁽³⁾		6.2
	Energy efficiency class		A++
	Capacity	kW	2.5
Heating (Average Season) ⁽⁴⁾	Design load	kW	1.9 (-10°C)
	Declared Capacity	kW	1.9 (-10°C)
	Back up heating capacity	kW	0.0 (-10°C)
	Annual electricity consumption ⁽²⁾	kWh/a	618
	SCOP ⁽³⁾		4.3

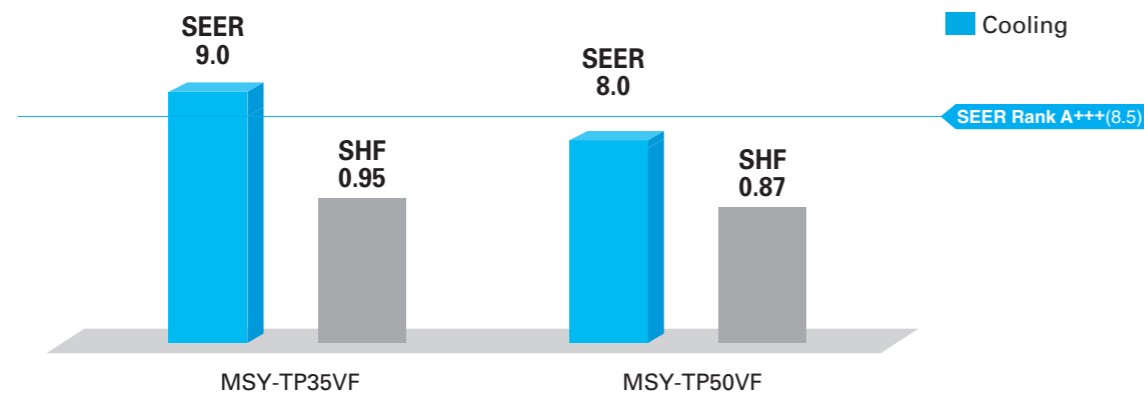
(1) Refrigerant leakage contributes to climate change. Refrigerant with lower global warming potential (GWP) would contribute less to global warming than a refrigerant with higher GWP, if leaked to the atmosphere. This appliance contains a refrigerant fluid with a GWP equal to 550. This means that if 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 CO₂, 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) The GWP of R32 is 675 in the IPCC 4th Assessment Report.
 (3) Energy consumption based on standard test results. Actual energy consumption will depend on how the appliance is used and where it is located.
 (4) SH: Super High.
 (5) 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".
 (6) Please see page 53-55 for heating (warmer season) specifications.

MSY-TP SERIES

Cooling only model with high-performance provide high SHF in various environments thanks to wide operation range.

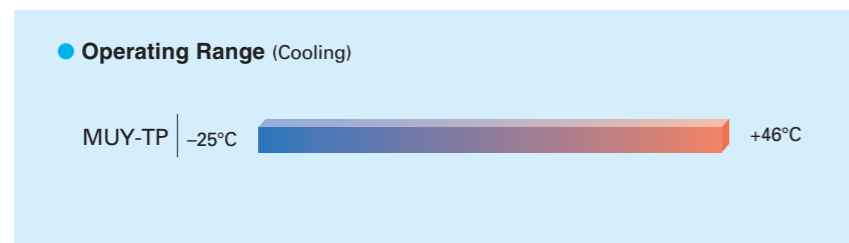


High Energy-Saving Performance with High SHF




Wide Cooling Operating Range

As a result of an extended operating range in cooling, these models accommodate a wide range of usage environments and applications.




MSY-TP SERIES

Indoor Unit R32



MSY-TP35/50VF

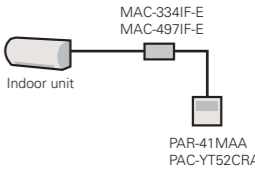
Outdoor Unit R32



MUY-TP35/TP50VF

Remote Controller

- Wired remote controller can be connected to indoor unit.



MAC-334IF-E
MAC-497IF-E
Indoor unit
PAR-41MAA
PAC-YT52CRA

Pure White
AUTO VANE
Silver-Ion
SWING
AUTO
Auto Restart
Cleaning
Flare connection
Self Diagnosis
Failure Recall

Type	Inverter Heat Pump		
Indoor Unit	MSY-TP35VF	MSY-TP50VF	
Outdoor Unit	MUY-TP35VF	MUY-TP50VF	
Refrigerant	R32 ⁽¹⁾		
Power Source	Indoor Power supply		
Supply Outdoor (V / Phase / Hz)	230V / Single / 50Hz		
Design load	kW	3.5	
Annual electricity consumption ⁽²⁾	kWh/a	136	
SEER ⁽³⁾		9.0	
Cooling	Energy efficiency class		
	Rated	A+++	
	Min-Max	A++	
Capacity	kW	3.5	
Total Input	kW	0.760	
Design load	kW	-	
Declared Capacity	at reference design temperature	kW	-
	at bivalent temperature	kW	-
	at operation limit temperature	kW	-
	Back up heating capacity	kW	-
Annual electricity consumption ⁽²⁾	kWh/a	-	
SCOP ⁽⁴⁾		-	
Heating	Energy efficiency class		
	Rated	-	
	Min-Max	-	
Capacity	kW	-	
Total Input	kW	-	
Operating Current (Max)	A	9.6	
Input	kW	0.033	
Operating Current (Max)	A	0.4	
Dimensions	H*W*D	305-923-250	
Weight	kg	12.5	
Indoor Unit	Air Volume (Lo-Mid-Hi-SH) ⁽³⁾	m ³ /min	10.1 - 11.6 - 13.7 - 16.4
	Sound Level (SPL) (Lo-Mid-Hi-SH) ⁽³⁾	dB(A)	31 - 36 - 40 - 45
	Sound Level (PWL)	dB(A)	60
	Breaker Size	A	10
	Dimensions	H*W*D	550-800-285
	Weight	kg	34
Outdoor Unit	Air Volume	m ³ /min	29.3
	Sound Level (SPL)	dB(A)	45
	Sound Level (PWL)	dB(A)	58
	Operating Current (Max)	A	9.2
	Diameter	Liquid/Gas	6.35/9.52
	Max.Length	Out-In	20
Max.Height	Out-In	12	
Guaranteed Operating Range (Outdoor)	Cooling	°C	-25 ~ +46
	Heating	°C	-

(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 CO₂, 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) SH: Super High
 (4) SEER and other related description are based on COMMISSION DELEGATED REGULATION (EU) No.626/2011.

MSZ-S SERIES

MSZ-G SERIES

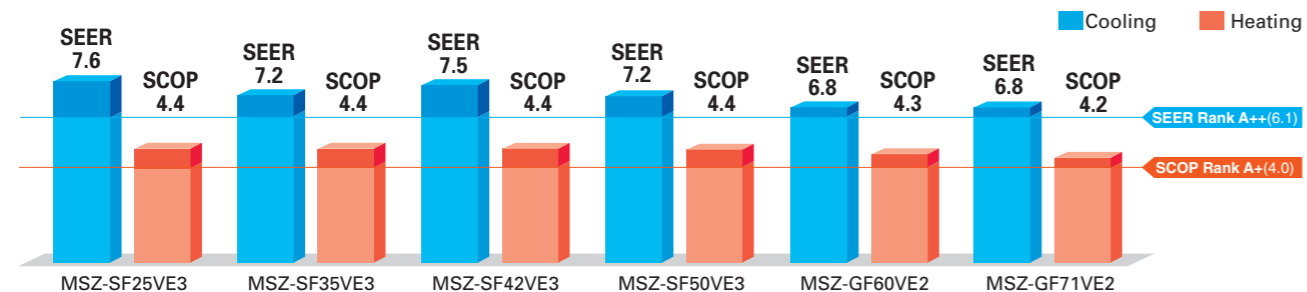
Introducing a compact and stylish indoor unit with amazingly quiet performance. Not only are neat installations in small bedrooms possible, increase energy-savings by selecting the optimal capacity required for each room.



R410A
GOOD DESIGN AWARD 2014

"Rank A++/A+" Energy Savings Achieved for Entire Range of Series

All models in the series, from the low-capacity 25 to the high-capacity 71, have achieved the "Rank A++" for SEER and "Rank A+" for SCOP as energy-savings rating. For home use, such as in bedrooms and living rooms, to light commercial use, such as in offices, our air conditioners are contributing to reduced energy consumption in a wide range.



Wide Line-up

Eight different indoor units (Model 15-71) are available to meet your diversified air conditioning needs.



Compact and Stylish

(MSZ-SF15/20VA)

The stylish, square indoor unit adds a touch of class to any room interior. The compact design is 64mm thinner than our previous indoor unit with the lowest output capacity (MSZ-GE22VA).

Comparison with our previous model GE

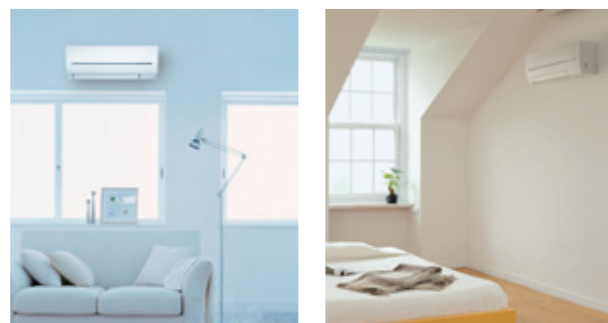


Family Design

(MSZ-SF15/20/25/35/42/50)

Models in the 25-50 class are introduced as single-split units while retaining the popular design of the SF15/20VA* as indoor units exclusively for multi-systems. From small rooms to living rooms, it is possible to coordinate residences with a unified design.

*Size may vary.



"Weekly Timer"

Weekly Timer

Easily set desired temperatures and operation start/stop times to match lifestyle patterns. Reduce wasted energy consumption by using the timer to prevent forgetting to turn off the unit and eliminate temperature setting adjustments.

Example Operation Pattern (Winter/Heating mode)

	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.	Sun.
6:00	ON 20°C	ON 20°C	ON 20°C	ON 20°C	ON 20°C	ON 20°C	ON 20°C
8:00	Automatically changes to high-power operation at wake-up time						
10:00	OFF	OFF	OFF	OFF	OFF	ON 18°C	ON 18°C
12:00	Automatically turned off during work hours					Midday is warmer, so the temperature is set lower	
14:00							
16:00							
18:00	ON 20°C	ON 20°C	ON 20°C	ON 20°C	ON 20°C	ON 20°C	ON 20°C
20:00	Automatically turns on, synchronized with arrival at home					Automatically raises temperature setting to match time when outside-air temperature is low	
22:00 (during sleeping hours)	ON 18°C	ON 18°C	ON 18°C	ON 18°C	ON 18°C	ON 18°C	ON 18°C
	Automatically lowers temperature at bedtime for energy-saving operation at night						

Settings

Pattern Settings: Input up to four settings for each day

Settings: • Start/Stop operation • Temperature setting *The operation mode cannot be set.

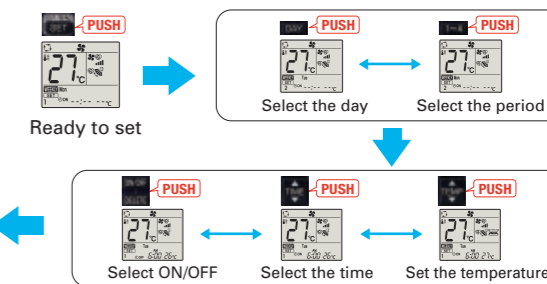
Easy set-up using dedicated buttons



The remote controller is equipped with buttons that are used exclusively for setting the Weekly Timer. Setting operation patterns is easy and quick.



How to set the Weekly Timer



- Start by pushing the "SET" button and follow the instructions to set the desired patterns. Once all of the desired patterns are input, point the top end of the remote controller at the indoor unit and push the "SET" button one more time. (Push the "SET" button only after inputting all of the desired patterns into the remote controller memory. Pushing the "CANCEL" button will end the set-up process without sending the operation patterns to the indoor unit).
- It takes a few seconds to transmit the Weekly Timer operation patterns to the indoor unit. Please continue to point the remote controller at the indoor unit until all data has been sent.
- When "Weekly Timer" is set, temperature can not be set 10°C.

Low Standby Power

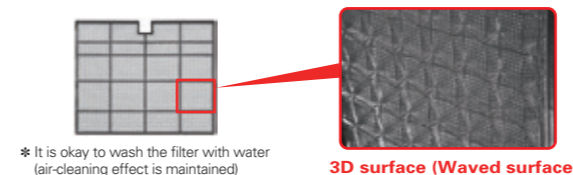
Electrical devices consume standby power even when they are not in actual use. While we obviously strive to reduce power consumption during actual use, reducing this wasted power that cannot be seen is also very important.



Air Purifying Filter

(MSZ-SF25/35/42/50, MSZ-GF60/71)

This filter generates stable antibacterial and deodorising effects. The size of the three-dimensional surface has been increased as well, enlarging the filter capture area. These features give the Air Purifying Filter better dust collection performance than conventional filters. The superior air-cleaning effectiveness raises room comfort yet another level.



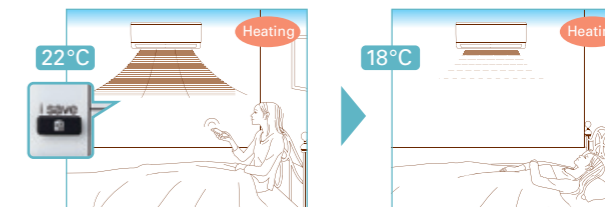
* It is okay to wash the filter with water (air-cleaning effect is maintained)

3D surface (Waved surface)

"i save" Mode

i save

"i save" is a simplified setting function that recalls the preferred (pre-set) temperature by pressing a single button on the remote controller. Press the same button twice in repetition to immediately return to the previous temperature setting. Using this function contributes to comfortable, waste-free operation, realising the most suitable air conditioning settings and saving on power consumption when, for example, leaving the room or going to bed.



* Temperature can be preset to 10°C when heating in the "i-save" mode.

Outdoor Units for Cold Region

(25/35/42/50)

Single split-type outdoor units are available in both standard and heater-equipped units. An electric heater is installed in each unit to prevent freezing in cold outdoor environments.



MUZ-SF25/35/42VE MUZ-SF50VE MUZ-SF25/35/42VEH MUZ-SF50VEH

MSZ-D SERIES

Compact, high-performance indoor and outdoor units equipped with high-performance air purifying filters contribute to greater room comfort. Wi-Fi and system controller connectivity enable enhanced expandability.

MSZ-DM25/35 VA

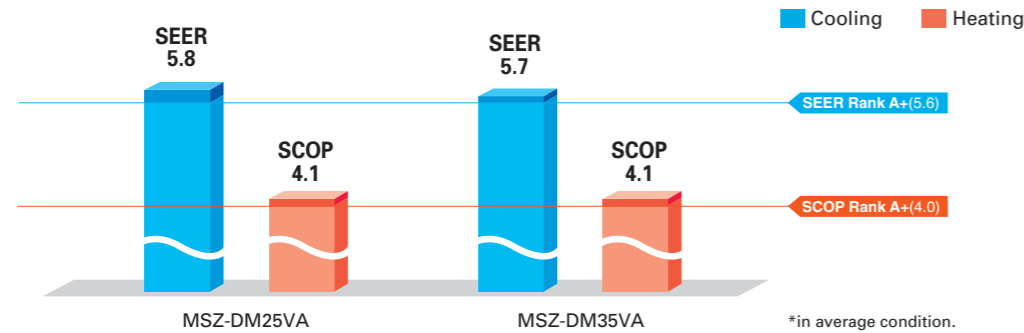
R410A



Advanced Inverter Control – Efficient Operation All the Time



Mitsubishi Electric's cutting-edge inverter technologies are adopted to provide automatic adjustment of operation load according to need. This reduces excessive consumption of electricity, and thereby realises an Energy Rank "A+".



Wider Cooling Operating Range

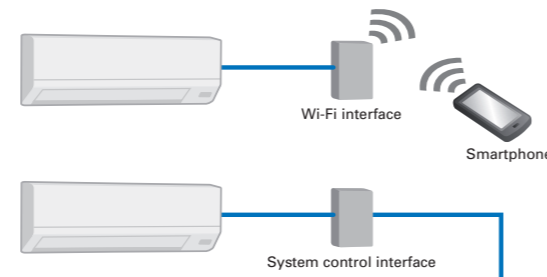
As a result of an extended operating range in cooling, these models accommodate a wider range of usage environments and applications than previous models.



Wi-Fi and System Control

Wi-Fi Interface (Optional)

Optional interface enabling users to control air conditioners and check operating status via devices such as personal computers, tablets and smartphones.



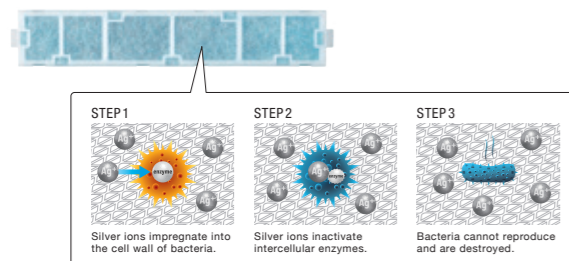
System Control Interface (Optional)

- Remote on/off operation is possible by input to the connector.
- Depending on the interface used, connecting a wired remote-control such as the PAR-41MAA is possible.
- Centralised control is possible when connected to M-NET.

*Wi-Fi Interface and System Control Interface cannot be used simultaneously.

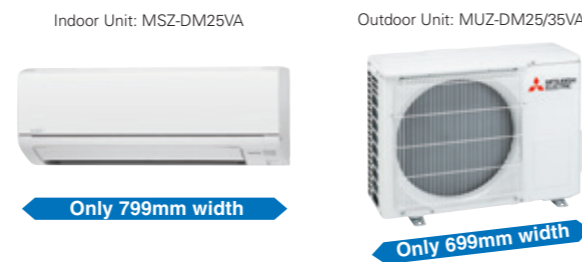
Silver-ionized Air Purifier Filter

The high performance filter is attached as standard. Captures the bacteria, pollen and other allergens in the air and neutralises them.




Compact Units

The width of both indoor and outdoor units are compact, making installation in smaller, tighter spaces possible.




MSZ-D SERIES

Indoor Unit **R410A**




MSZ-DM25/35VA

Outdoor Unit **R410A**



MUZ-DM25/35VA

Remote Controller



Econo Cool

Pure White

AUTO VANE

Silver-ion

SWING

AUTO

Auto Restart

Low Temp Cooling

MXZ connection

Flare connection

Type	Inverter Heat Pump			
Indoor Unit	MSZ-DM25VA		MSZ-DM35VA	
Outdoor Unit	MUZ-DM25VA		MUZ-DM35VA	
Refrigerant	R410A ⁽¹⁾			
Power Supply	Indoor Power supply 230V/Single/50Hz			
Cooling	Design load	kW	2.5	
	Annual electricity consumption ⁽²⁾	kWh/a	149	
	SEER ⁽³⁾		5.8	
	Energy efficiency class		A+	
	Capacity	Rated	kW	2.5
Heating (Average Season) ⁽⁴⁾	Design load	kW	1.9 (-10°C)	
	Declared Capacity	at reference design temperature	kW	1.9 (-10°C)
	at bivalent temperature	kW	1.9 (-10°C)	
	at operation limit temperature	kW	1.9 (-10°C)	
	Back up heating capacity	kW	0.0 (-10°C)	
Annual electricity consumption ⁽²⁾	kWh/a	647		
Energy efficiency class		A+		
Capacity	Rated	kW	3.15	
Operating Current (Max)	Input	Rated	kW	0.020
	Operating Current(Max)		A	0.3
	Dimensions	H*W*D	mm	290-799-232
	Weight		kg	9
	Indoor Unit	Air Volume (SLo-Lo-Mid-Hi-SHi ⁽⁵⁾)	Cooling	m ³ /min
Outdoor Unit	Air Volume	Cooling	m ³ /min	3.8 - 5.7 - 7.8 - 10.9
	Sound Level (SPL) (SLo-Lo-Mid-Hi-SHi ⁽⁵⁾)	Cooling	dB(A)	22 - 30 - 37 - 43
	Sound Level (PWL)	Cooling	dB(A)	57
	Dimensions	H*W*D	mm	538-699-249
	Weight		kg	25
Ext. Piping	Diameter	Liquid/Gas	mm	6.35/9.52
	Max.Length	Out-In	m	20
	Max.Height	Out-In	m	12
	Guaranteed Operating Range (Outdoor)	Cooling	°C	-10 ~ +46
	Heating	°C	-10 ~ +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 CO₂, 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⁾ The GWP of R410A is 2088 in the IPCC 4th Assessment Report.
⁽³⁾ Energy consumption based on standard test results. Actual energy consumption will depend on how the appliance is used and where it is located.
⁽⁴⁾ SHi: Super High
⁽⁵⁾ 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".
⁽⁶⁾ Please see page 53-55 for heating (warmer season) specifications.

MSZ-H SERIES

Compact, high-performance indoor and outdoor units and advanced inverter technologies provide superior energy savings and comfort in all rooms.

R410A

MSZ-HJ25/35/50VA

MSZ-HJ60/71VA



Stylish Design with Flat Panel Front

A stylish flat panel design is employed for the front of the indoor unit. The simple look matches room aesthetics.



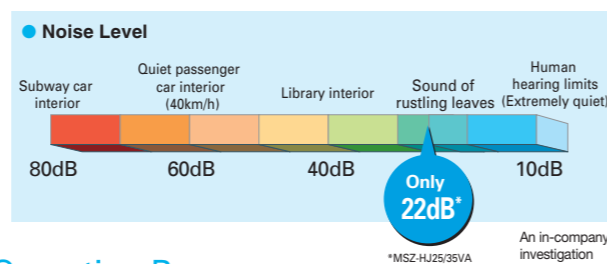
Advanced Inverter Control – Efficient Operation All the Time



Mitsubishi Electric's cutting-edge inverter technologies are adopted to provide automatic adjustment of operation load according to need. This reduces excessive consumption of electricity, and thereby realises an Energy Rank "A" rating for 25/35 classes and "A+" for 50/60/71 classes.

Silent Operation

Quiet, relaxing space is within reach. Operational noise is a low 22dB (25/35 classes). Operation is so silent you might even forget the air conditioner is on.



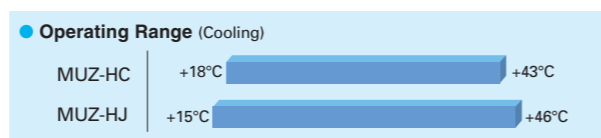
Long Piping Length

Compared to previous models, the piping length is significantly increased, further enhancing the ease and flexibility of installation.

	MSZ-HJ60/71	MSZ-HJ25/35/50	MSZ-HC
Max piping length	30m	20m	10m
Max piping height difference	15m	12m	5m

Operating Range

As a result of an extended operating range in cooling, these models accommodate a wider range of usage environments and applications than previous models.



Compact Units

The widths of both indoor and outdoor units are compact, making installation in smaller, tighter spaces possible.

Indoor Unit: MSZ-HJ25/35/50VA

Outdoor Unit: MUZ-HJ25/35VA

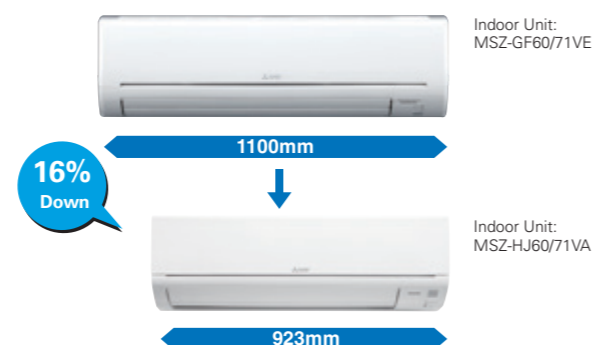


Only 799mm width



Only 699mm width

Compared to other models, width is down by 16%.



MSZ-H SERIES



Indoor Unit

R410A



MSZ-HJ25/35/50VA



MSZ-HJ60/71VA

Outdoor Unit

R410A



MUZ-HJ25/35VA



MUZ-HJ50VA



MUZ-HJ60/71VA

Remote Controller



Type		MSZ-HJ25VA	MSZ-HJ35VA	MSZ-HJ50VA	MSZ-HJ60VA	MSZ-HJ71VA		
Indoor Unit		MSZ-HJ25VA	MSZ-HJ35VA	MSZ-HJ50VA	MSZ-HJ60VA	MSZ-HJ71VA		
Outdoor Unit		MUZ-HJ25VA	MUZ-HJ35VA	MUZ-HJ50VA	MUZ-HJ60VA	MUZ-HJ71VA		
Refrigerant		R410A ⁽¹⁾						
Power Supply	Source	Indoor Power supply						
	Outdoor (V / Phase / Hz)	230V/Single/50Hz						
Cooling	Design load	kW	2.5	3.1	5.0	6.1	7.1	
	Annual electricity consumption ⁽²⁾	kWh/a	171	212	292	354	441	
	SEER ⁽³⁾		5.1	5.1	6.0	6.0	5.6	
		Energy efficiency class	A					
		Rated	kW	2.5	3.15	5.0	6.1	7.1
Capacity	Min-Max	kW	1.3 - 3.0	1.4 - 3.5	1.3 - 5.0	1.7 - 7.1	1.8 - 7.1	
	Rated	kW	0.730	1.040	2.050	1.900	2.330	
Heating	Design load	kW	1.9 (-10°C)	2.4 (-10°C)	3.8 (-10°C)	4.6 (-10°C)	5.4 (-10°C)	
	Declared Capacity	at reference design temperature	kW	1.9 (-10°C)	2.4 (-10°C)	3.8 (-10°C)	4.6 (-10°C)	5.4 (-10°C)
		at bivalent temperature	kW	1.9 (-10°C)	2.4 (-10°C)	3.8 (-10°C)	4.6 (-10°C)	5.4 (-10°C)
		at operation limit temperature	kW	1.9 (-10°C)	2.4 (-10°C)	3.8 (-10°C)	4.6 (-10°C)	5.4 (-10°C)
	Back up heating capacity	kW	0.0 (-10°C)	0.0 (-10°C)	0.0 (-10°C)	0.0 (-10°C)	0.0 (-10°C)	
Average Season ⁽⁴⁾	Annual electricity consumption ⁽²⁾	kWh/a	698	885	1267	1544	1854	
	SEER ⁽³⁾		3.8	3.8	4.2	4.1	4.0	
		Energy efficiency class	A					
		Rated	kW	3.15	3.6	5.4	6.8	8.1
	Capacity	Min-Max	kW	0.9 - 3.5	1.1 - 4.1	1.4 - 6.5	1.5 - 8.4	1.5 - 8.5
Operating Current (Max)	Rated	kW	0.870	0.995	1.480	1.970	2.440	
	Input	A	5.8	6.5	9.8	12.5	12.5	
	Operating Current (Max)	A	0.020	0.024	0.037	0.055	0.055	
	Dimensions	H*W*D	mm	290-799-232	290-799-232	290-799-232	305-923-250	305-923-250
	Weight	kg	9	9	9	13	13	
Indoor Unit	Air Volume (SLo-Lo-Mid-Hi-SHi ⁽⁵⁾)	Cooling	m ³ /min	3.8 - 5.5 - 7.3 - 9.5	3.8 - 5.7 - 7.8 - 10.9	6.3 - 9.1 - 11.1 - 12.9	9.3 - 12.2 - 15.0 - 19.9	10.0 - 12.2 - 15.0 - 19.9
		Heating	m ³ /min	3.5 - 5.5 - 7.5 - 10.0	3.5 - 5.5 - 7.5 - 10.3	6.1 - 8.3 - 11.1 - 14.3	9.4 - 12.5 - 16.0 - 19.9	10.3 - 12.7 - 16.4 - 19.9
	Sound Level (SPL) (SLo-Lo-Mid-Hi-SHi ⁽⁵⁾)	Cooling	dB(A)	22 - 30 - 37 - 43	22 - 31 - 38 - 45	28 - 36 - 40 - 45	31 - 38 - 44 - 50	33 - 38 - 44 - 50
		Heating	dB(A)	23 - 30 - 37 - 43	23 - 30 - 37 - 44	27 - 34 - 41 - 47	31 - 38 - 44 - 49	33 - 38 - 44 - 49
	Sound Level (PWL)	Cooling	dB(A)	57	60	60	65	65
Outdoor Unit	Dimensions	H*W*D	mm	538-699-249	538-699-249	550-800-285	880-840-330	880-840-330
	Weight	kg	24	25	36	55	55	
	Air Volume	Cooling	m ³ /min	31.5	31.5	36.3	47.9	49.3
		Heating	m ³ /min	31.5	31.5	34.8	47.9	47.9
	Sound Level (SPL)	Cooling	dB(A)	50	50	50	55	55
Ext. Piping		Heating	dB(A)	50	50	51	55	55
	Sound Level (PWL)	Cooling	dB(A)	63	64	64	65	66
	Operating Current (Max)	A	5.5	6.2	9.4	12.0	12.0	
	Breaker Size	A	10	10	12	16	16	
	Diameter	Liquid/Gas	mm	6.35/9.52	6.35/9.52	6.35/12.7	6.35/15.88	9.52/15.88
Guaranteed Operating Range (Outdoor)	Max.Length	m	20	20	20	30	30	
	Max.Height	m	12	12	12	15	15	
	Range	°C	+15 ~ +46	+15 ~ +46	+15 ~ +46	+15 ~ +46	+15 ~ +46	

(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 CO₂, 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) The GWP of R410A is 2088 in the IPCC 4th Assessment Report.
 (3) Energy consumption based on standard test results. Actual energy consumption will depend on how the appliance is used and where it is located.
 (4) SHi: Super High.
 (5) 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".
 (*) Please see page 53-55 for heating (warmer season) specifications.

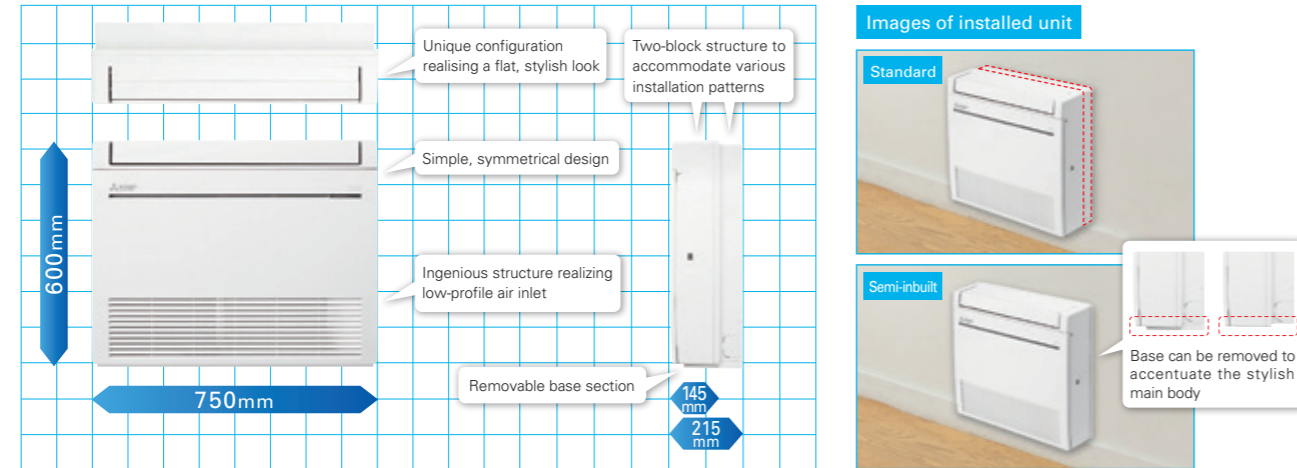
MFZ SERIES

High Capacity, Energy Savings and a Design in Harmony with Living Spaces
Raise the Value of Your Room to the Next Level.



Simple, Flat Design

Uneven surfaces have been smoothed to provide a simple design with linear beauty, harmonised with all types of interiors.



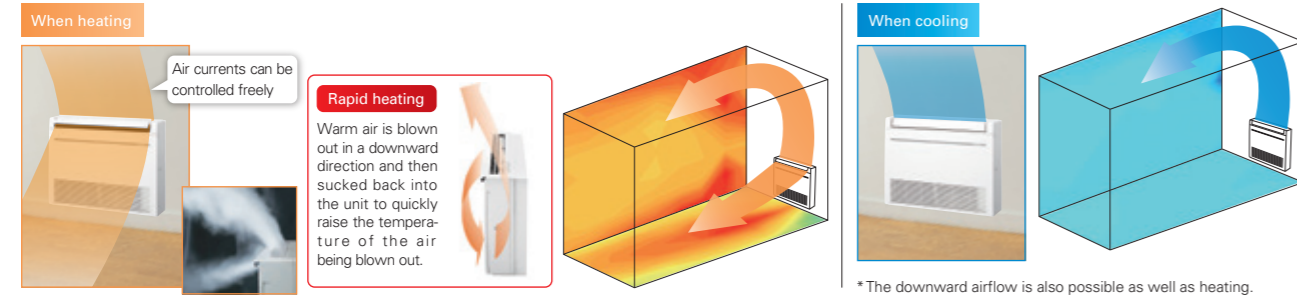
New Line-up

New models have been introduced to expand the line-up. The diverse selection enables the best solution for both customers and locations.

Capacity	2.5kW	3.5kW	5.0kW	6.0kW
MFZ-KJ	✓	✓	✓	
MFZ-KT	✓	✓	✓	✓

Multi-flow Vane

Three uniquely shaped vanes control the airflow and allow the freedom to customize comfort according to preferences.

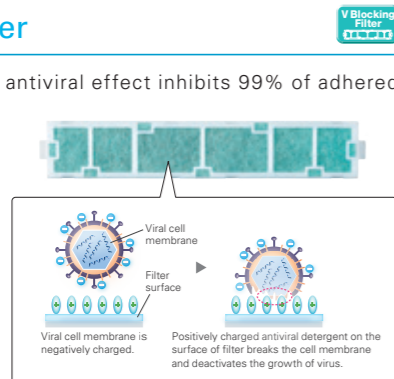


Weekly Timer (Introduced in response to market demand)

Temperature settings and On/Off control can be managed over a period of one week using the Weekly Timer. Up to eight setting patterns per calendar day are possible.

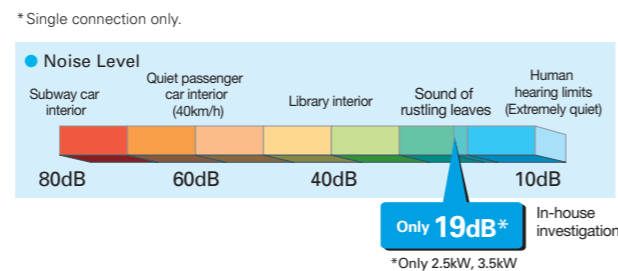
V Blocking Filter

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.



Quiet Operation

The indoor unit noise level is as low as 19dB for MFZ Series, offering a peaceful inside environment.



MFZ-KT SERIES



Indoor Unit



MFZ-KT25/35/50/60VG

Outdoor Unit



SUZ-M25/35VA



SUZ-M50VA



SUZ-M60VA

Remote Controller



Enclosed in MFZ-KT



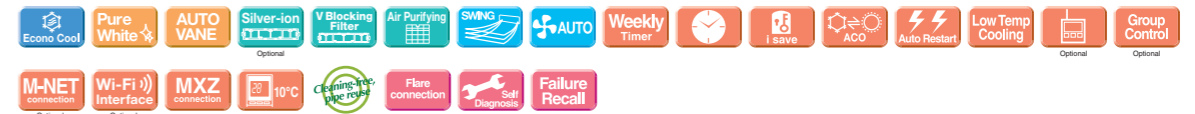
*optional



*optional



*optional



Type		Inverter Heat Pump					
Indoor Unit		MFZ-KT25VG	MFZ-KT35VG	MFZ-KT50VG	MFZ-KT60VG		
Outdoor Unit		SUZ-M25VA	SUZ-M35VA	SUZ-M50VA	SUZ-M60VA		
Refrigerant		R32 ⁽¹⁾	R32 ⁽¹⁾	R32 ⁽¹⁾	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	134	185	257	343	
	SEER ^{(4),(5)}		6.5	6.6	6.8	6.2	
	Capacity	Energy efficiency class		A++	A++	A++	A++
		Rated	kW	2.5	3.5	5.0	6.1
Heating	Design load	kW	2.2	2.6	4.3	4.6	
	Declared Capacity	at reference design temperature	kW	2.0 (-10°C)	2.3 (-10°C)	3.5 (-10°C)	4.1 (-10°C)
		at bivalent temperature	kW	2.0 (-7°C)	2.3 (-7°C)	3.9 (-7°C)	4.1 (-7°C)
		at operation limit temperature	kW	2.0 (-10°C)	2.3 (-10°C)	3.5 (-10°C)	4.1 (-10°C)
	Back up heating capacity	kW	0.2	0.3	0.8	0.5	
Season	Annual electricity consumption ⁽²⁾	kWh/a	732	825	1423	1568	
	SEER ^{(4),(5)}		4.2	4.4	4.2	4.1	
	Capacity	Energy efficiency class		A+	A+	A+	A+
		Rated	kW	3.4	4.3	6.0	7.0
	Total Input	kW	1.3 - 4.2	1.1 - 5.0	1.5 - 7.2	1.6 - 8.0	
Indoor Unit	Operating Current (Max)	A	7.0	8.7	14.0	15.4	
	Input	Rated	kW	0.020 / 0.024	0.020 / 0.024	0.037 / 0.052	0.063 / 0.059
	Operating Current(Max)	A	0.20	0.20	0.45	0.55	
	Dimensions	H*W*D	mm	600-750-215	600-750-215	600-750-215	600-750-215
	Weight	kg	14.5	14.5	14.5	15.0	
Outdoor Unit	Air Volume (SLo-Lo-Mid-Hi-SHi ⁽³⁾)	Cooling	m ³ /min	3.9 - 4.8 - 6.5 - 7.8 - 8.9	3.9 - 4.8 - 6.5 - 7.8 - 8.9	5.6 - 6.7 - 8.6 - 10.4 - 12.3	5.6 - 8.0 - 9.6 - 12.3 - 15.0
	Heating	m ³ /min	3.5 - 4.0 - 5.6 - 7.3 - 9.7	3.5 - 4.0 - 5.6 - 7.3 - 9.7	6.0 - 7.7 - 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)	19 - 24 - 31 - 37 - 41	19 - 24 - 31 - 37 - 41	28 - 32 - 37 - 42 - 48	28 - 36 - 40 - 46 - 53
	Heating	dB(A)	19 - 23 - 30 - 37 - 44	19 - 23 - 30 - 37 - 44	29 - 35 - 40 - 44 - 49	29 - 35 - 41 - 47 - 51	
	Sound Level (PWL)	Cooling	dB(A)	54	54	60	65
Ext. Piping	Dimensions	H*W*D	mm	550-800-285	550-800-285	714-800-285	880-840-300
	Weight	kg	30	35	41	54	
	Air Volume	Cooling	m ³ /min	36.3	34.3	45.8	50.1
	Heating	m ³ /min	34.6	32.7	43.7	50.1	
	Sound Level (SPL)	Cooling	dB(A)	45	48	49	49
Guaranteed Operating Range [Outdoor]	Heating	dB(A)	46	48	49	51	
	Sound Level (PWL)	Cooling	dB(A)	59	59	64	65
	Operating Current(Max)	A	7	9	14	15	
	Breaker Size	A	10	10	16	16	
	Diameter	Liquid/Gas	mm	6.35 / 9.52	6.35 / 9.52	6.35 / 12.7	6.35 / 15.88
Max.Length	Out-In	m	20	20	30	30	
	Max.Height	Out-In	m	12	12	30	30
Guaranteed Operating Range	Cooling	°C	-10 ~ +46	-10 ~ +46	-15 ~ +46	-15 ~ +46	
	Heating	°C	-10 ~ +24	-10 ~ +24	-10 ~ +24	-10 ~ +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 CO₂, 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⁾ SH: 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⁾ SEER and SCOP are based on 2009/125/EC/Energy-related Products Directive and Regulation(EU) No206/2012.

MLZ SERIES

Introducing a new type of ceiling cassette for the Multi-Split Series with streamlined interior dimensions and a sharp, sleek appearance.

R32
R410A
Multi

MLZ-KP25/35/50VF



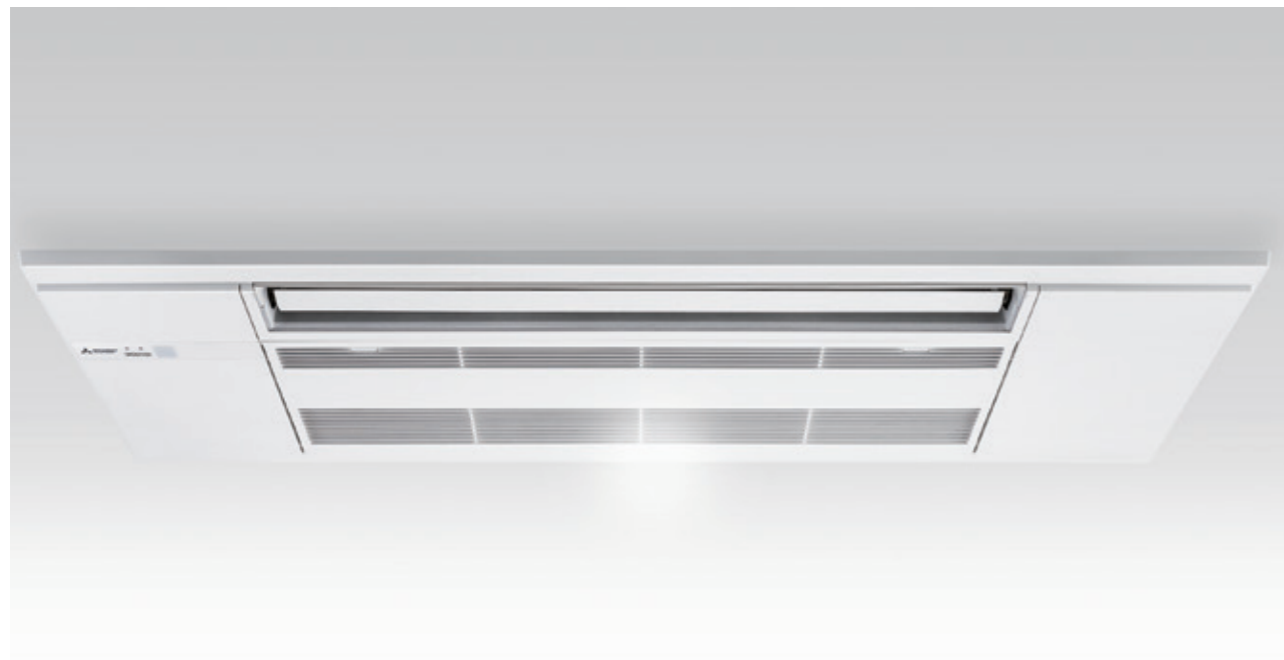
GOOD DESIGN
AWARD 2017

reddot award 2018
winner



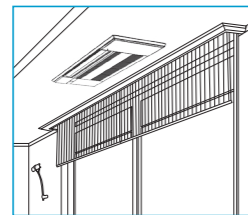
Slim Design

Industry leading slim body realized a simple design with linear beauty.



Ceiling Mounted

Installing the ceiling-mounted MLZ Series unit in a room creates a more spacious feel that enhances room comfort. This overhead format is also an excellent solution when lighting equipment is installed at the centre of the room and fixtures such as book shelves are mounted on wall surfaces.



Slim Body

The new units are designed with a slim body (only 185mm high), ensuring easy installation even when low ceiling cavities limit installation space. The need for ceiling cavity service space is also eliminated, further reducing the dimensions required for installation.



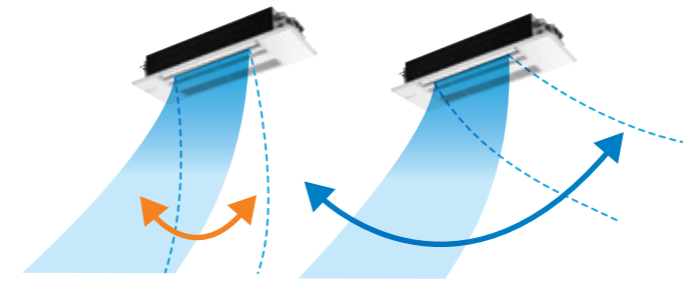
Set Airflow According to Ceiling Height

Dual-level airflow selection is engineered to accommodate specific ceiling heights. This is a key feature for adjusting airflow effectively when it is either too strong or too weak due to being mismatched with the height of the ceiling.

	25	35	50
Standard	2.4m	2.4m	2.4m
High ceiling	2.7m	2.7m	2.7m

Auto Vane Control

Outlet vanes can be moved left and right, and up and down using the remote controller. This improved airflow control feature solves the problem of drafts.



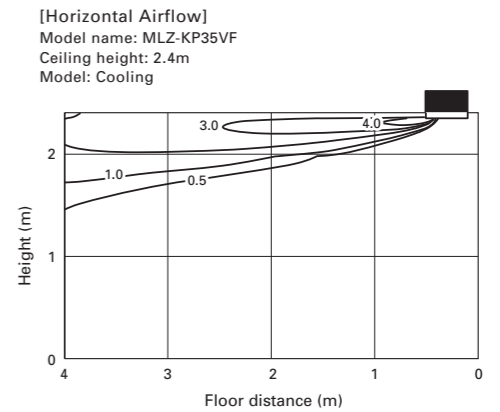
Up and Down

Left and Right

*Only available when Econo Cool is set.

Horizontal Airflow

The new airflow control completely eliminates that uncomfortable drafty-feeling with the introduction of a horizontal airflow that spreads across the ceiling. The ideal airflow for offices and restaurants.



Weekly Timer

Easily set desired temperatures and operation ON/OFF times to match lifestyle patterns. Reduce wasted energy consumption by using the timer to prevent forgetting to turn off the unit and eliminate temperature setting adjustments.

Example Operation Pattern (Winter/Heating mode)

	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.	Sun.
6:00	ON 20°C	ON 20°C	ON 20°C	ON 20°C	ON 20°C	ON 20°C	ON 20°C
8:00	Automatically changes to high-power operation at wake-up time						
10:00	OFF	OFF	OFF	OFF	OFF	ON 18°C	ON 18°C
12:00	Automatically turned off during work hours					Midday is warmer, so the temperature is set lower	
14:00							
16:00							
18:00	ON 22°C	ON 22°C	ON 22°C	ON 22°C	ON 22°C	ON 22°C	ON 22°C
20:00	Automatically turns on, synchronized with arrival at home					Automatically raises temperature setting to match time when outside-air temperature is low	
22:00							
(during sleeping hours)	ON 18°C	ON 18°C	ON 18°C	ON 18°C	ON 18°C	ON 10°C	ON 10°C
	Automatically lowers temperature at bedtime for energy-saving operation at night						

Settings

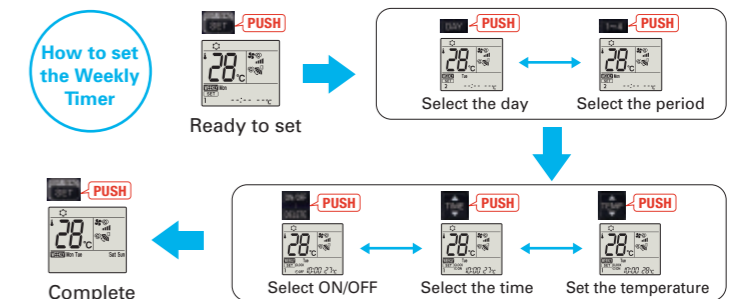
Pattern Settings: Input up to four settings for each day

Settings: •Start/Stop operation •Temperature setting *The operation mode cannot be set.

Easy set-up using dedicated buttons



The remote controller is equipped with buttons that are used exclusively for setting the Weekly Timer. Setting operation patterns is easy and quick.



- Start by pushing the "SET" button and follow the instructions to set the desired patterns.
- Once all of the desired patterns are input, point the top end of the remote controller at the indoor unit and push the "SET" button one more time. (Push the "SET" button only after inputting all of the desired patterns into the remote controller memory. Pushing the "CANCEL" button will end the set-up process without sending the operation patterns to the indoor unit.)
- It takes a few seconds to transmit the Weekly Timer operation patterns to the indoor unit. Please continue to point the remote controller at the indoor unit until all data has been sent.

Easy Installation

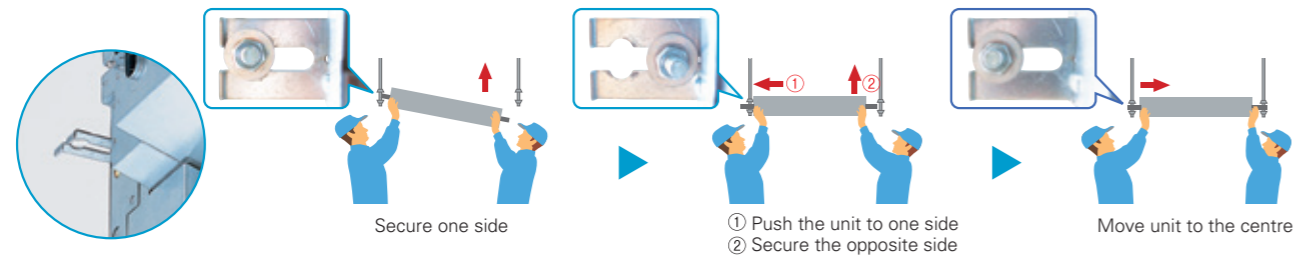
Industry leading Slim Body

Inovative size which enables to fold the refrigerant piping above the unit.

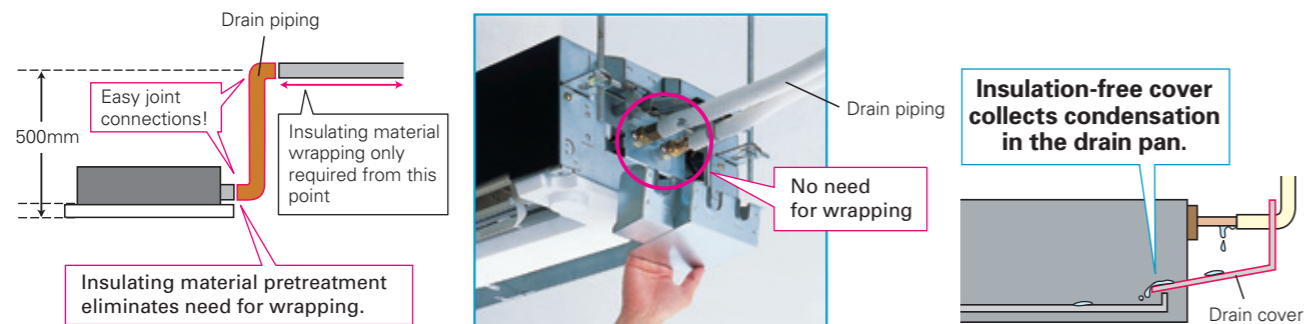


Temporary hanging hook

Work efficiency has improved during installation.

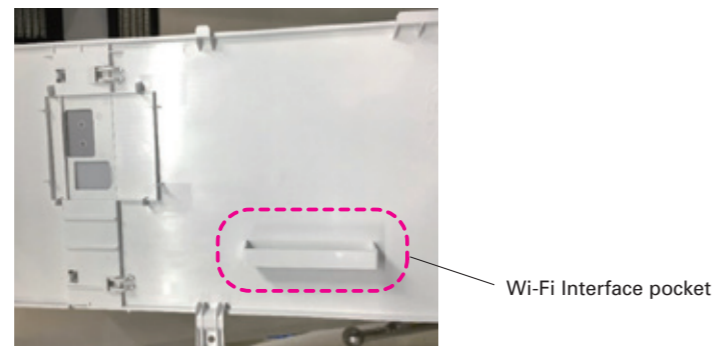


Drain Piping Supporters + Drain Cover



Wi-Fi Interface Installation (Optional)

The indoor unit panel is equipped with a Wi-Fi Interface pocket, contributing to the beautiful appearance, easy installation, and maintenance.



MLZ-KP SERIES



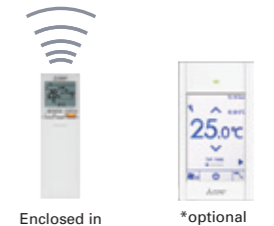
Indoor Unit R32



Outdoor Unit

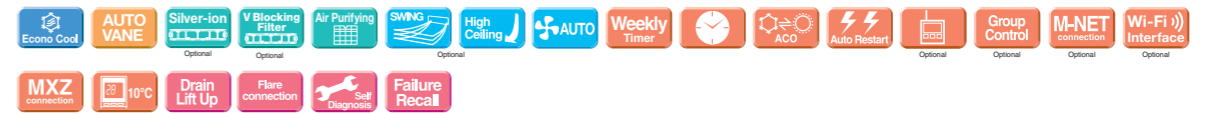


Remote Controller



Panel

MLP-444W



Type	Inverter Heat Pump		
Indoor Unit	MLZ-KP25VF	MLZ-KP35VF	MLZ-KP50VF
Outdoor Unit	SUZ-M25VA	SUZ-M35VA	SUZ-M50VA
Refrigerant	R32 ⁽¹⁾		
Power Supply	Source	Outdoor Power supply	
	Outdoor (V / Phase / Hz)	230V / Single / 50Hz	
Cooling	Design load	kW	2.5
	Annual electricity consumption ⁽²⁾	kWh/a	141
	SEER ^{(4), (5)}		6.2
	Energy efficiency class		A++
	Capacity	Rated	kW
Heating (Average Season)	Declared Capacity	at reference design temperature	2.0 (-10°C)
		at bivalent temperature	2.0 (-7°C)
		at operation limit temperature	2.0 (-10°C)
	Back up heating capacity	kW	0.2
	Annual electricity consumption ⁽²⁾	kWh/a	697
Operating Current (Max)	Input	kW	7.2
	Operating Current(Max)	A	0.40
	Dimensions	H*W*D	185-1102-360
	Weight	kg	15.5
	Indoor Unit	Air Volume	Cooling
		Heating	m ³ /min
Sound Level (SPL)		Cooling	dB(A)
		Heating	dB(A)
Sound Level (PWL)		Cooling	dB(A)
Panel	Dimensions	H*W*D	24-1200-424
	Weight	kg	3.5
	Dimensions	H*W*D	550-800-285
	Weight	kg	3.5
	Outdoor Unit	Air Volume	Cooling
		Heating	m ³ /min
Sound Level (SPL)		Cooling	dB(A)
		Heating	dB(A)
Sound Level (PWL)		Cooling	dB(A)
Ext. Piping	Operating Current (Max)	A	6.8
	Breaker Size	A	10
	Diameter	Liquid/Gas	mm
	Max.Length	Out-In	m
	Max.Height	Out-In	m
Guaranteed Operating Range (Outdoor)	Cooling	°C	-10~+46
	Heating	°C	-10~+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 CO₂, 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) SH: 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) SEER and SCOP are based on 2009/125/EC Energy-related Products Directive and Regulation (EU) No.206/2012.

Specification on Warmer/Colder Condition

Type	Inverter Heat Pump			
Indoor Unit	MSZ-RW25VG	MSZ-RW35VG	MSZ-RW50VG	
Outdoor Unit	MUZ-RW25VGHZ	MUZ-RW35VGHZ	MUZ-RW50VGHZ	
Refrigerant	R32 ^(*)			
Cooling	Design load	kW		
	Annual electricity consumption ⁽²⁾	kWh/a		
	SEER			
		Energy efficiency class		
Heating (Warmer Season)	Design load	kW		
	Declared Capacity	at reference design temperature	kW	
		at bivalent temperature	kW	
		at operation limit temperature	kW	
	Back up heating capacity	kW		
	Annual electricity consumption ⁽²⁾	kWh/a		
	SCOP			
		Energy efficiency class		
Heating (Colder Season)	Design load	kW		
	Declared Capacity	at reference design temperature	kW	
		at bivalent temperature	kW	
		at operation limit temperature	kW	
	Back up heating capacity	kW		
	Annual electricity consumption ⁽²⁾	kWh/a		
	SCOP			
		Energy efficiency class		

Type	Inverter Heat Pump							
Indoor Unit	MSZ-LN25VG2		MSZ-LN35VG2		MSZ-LN50VG2		MSZ-LN60VG2	
Outdoor Unit	MUZ-LN25VGHZ	MUZ-LN25VGHZ2	MUZ-LN35VGHZ	MUZ-LN35VGHZ2	MUZ-LN50VGHZ	MUZ-LN50VGHZ	MUZ-LN60VGHZ	MUZ-LN60VGHZ
Refrigerant	R32 ^(*)							
Cooling	Design load	kW						
	Annual electricity consumption ⁽²⁾	kWh/a						
	SEER							
		Energy efficiency class						
Heating (Warmer Season)	Design load	kW						
	Declared Capacity	at reference design temperature	kW					
		at bivalent temperature	kW					
		at operation limit temperature	kW					
	Back up heating capacity	kW						
	Annual electricity consumption ⁽²⁾	kWh/a						
	SCOP							
		Energy efficiency class						
Heating (Colder Season)	Design load	kW						
	Declared Capacity	at reference design temperature	kW					
		at bivalent temperature	kW					
		at operation limit temperature	kW					
	Back up heating capacity	kW						
	Annual electricity consumption ⁽²⁾	kWh/a						
	SCOP							
		Energy efficiency class						

Type	Inverter Heat Pump		
Indoor Unit	MSZ-FT25VG	MSZ-FT35VG	MSZ-FT50VG
Outdoor Unit	MUZ-FT25VGHZ	MUZ-FT35VGHZ	MUZ-FT50VGHZ
Refrigerant	R32 ^(*)		
Cooling	Design load	kW	
	Annual electricity consumption ⁽²⁾	kWh/a	
	SEER		
		Energy efficiency class	
Heating (Warmer Season)	Design load	kW	
	Declared Capacity	at reference design temperature	kW
		at bivalent temperature	kW
		at operation limit temperature	kW
	Back up heating capacity	kW	
	Annual electricity consumption ⁽²⁾	kWh/a	
	SCOP		
		Energy efficiency class	
Heating (Colder Season)	Design load	kW	
	Declared Capacity	at reference design temperature	kW
		at bivalent temperature	kW
		at operation limit temperature	kW
	Back up heating capacity	kW	
	Annual electricity consumption ⁽²⁾	kWh/a	
	SCOP		
		Energy efficiency class	

Type	Inverter Heat Pump											
Indoor Unit	MSZ-AP15VG	MSZ-AP20VG	MSZ-AP25VG	MSZ-AP35VG	MSZ-AP42VG	MSZ-AP50VG	MSZ-AP60VG	MSZ-AP71VG	MSZ-AP80VG	MSZ-AP90VG	MSZ-AP100VG	MSZ-AP110VG
Outdoor Unit	MUZ-AP15VGHZ	MUZ-AP20VGHZ	MUZ-AP25VGHZ	MUZ-AP35VGHZ	MUZ-AP42VGHZ	MUZ-AP50VGHZ	MUZ-AP60VGHZ	MUZ-AP71VGHZ	MUZ-AP80VGHZ	MUZ-AP90VGHZ	MUZ-AP100VGHZ	MUZ-AP110VGHZ
Refrigerant	R32 ^(*)											
Cooling	Design load	kW										
	Annual electricity consumption ⁽²⁾	kWh/a										
	SEER											
		Energy efficiency class										
Heating (Warmer Season)	Design load	kW										
	Declared Capacity	at reference design temperature	kW									
		at bivalent temperature	kW									
		at operation limit temperature	kW									
	Back up heating capacity	kW										
	Annual electricity consumption ⁽²⁾	kWh/a										
	SCOP											
		Energy efficiency class										

Type	Inverter Heat Pump					
Indoor Unit	MSZ-EF25VG		MSZ-EF35VG		MSZ-EF42VG	MSZ-EF50VG
Outdoor Unit	MUZ-EF25VGH	MUZ-EF25VGH	MUZ-EF35VGH	MUZ-EF35VGH	MUZ-EF42VGH	MUZ-EF50VGH
Refrigerant	R32 ^(*)					
Cooling	Design load	kW				
	Annual electricity consumption ⁽²⁾	kWh/a				
	SEER					
		Energy efficiency class				
Heating (Warmer Season)	Design load	kW				
	Declared Capacity	at reference design temperature	kW			
		at bivalent temperature	kW			
		at operation limit temperature	kW			
	Back up heating capacity	kW				
	Annual electricity consumption ⁽²⁾	kWh/a				
	SCOP					
		Energy efficiency class				

Type	Inverter Heat Pump			
Indoor Unit	MSZ-BT20VG	MSZ-BT25VG	MSZ-BT35VG	MSZ-BT50VG
Outdoor Unit	MUZ-BT20VG	MUZ-BT25VGHZ	MUZ-BT35VGHZ	MUZ-BT50VGHZ
Refrigerant	R32 ^(*)			
Cooling	Design load	kW		
	Annual electricity consumption ⁽²⁾	kWh/a		
	SEER			
		Energy efficiency class		
Heating (Warmer Season)	Design load	kW		
	Declared Capacity	at reference design temperature	kW	
		at bivalent temperature	kW	
		at operation limit temperature	kW	
	Back up heating capacity	kW		
	Annual electricity consumption ⁽²⁾	kWh/a		
	SCOP			
		Energy efficiency class		

Type	Inverter Heat Pump					
Indoor Unit	MSZ-HR25VF	MSZ-HR35VF	MSZ-HR42VF	MSZ-HR50VF	MSZ-HR60VF	MSZ-HR71VF
Outdoor Unit	MUZ-HR25VF	MUZ-HR35VGHZ	MUZ-HR42VGHZ	MUZ-HR50VGHZ	MUZ-HR60VGHZ	MUZ-HR71VGHZ
Refrigerant	R32 ^(*)					
Cooling	Design load	kW				
	Annual electricity consumption ⁽²⁾	kWh/a				
	SEER					
		Energy efficiency class				
Heating (Warmer Season)	Design load	kW				
	Declared Capacity	at reference design temperature	kW			
		at bivalent temperature	kW			
		at operation limit temperature	kW			
	Back up heating capacity	kW				
	Annual electricity consumption ⁽²⁾	kWh/a				
	SCOP					
		Energy efficiency class				

Type	Inverter Heat Pump		
Indoor Unit	MSZ-DW25VF	MSZ-DW35VF	MSZ-DW50VF
Outdoor Unit	MUZ-DW25VF	MUZ-DW35VGHZ	MUZ-DW50VGHZ
Refrigerant	R32 ^(*)		
Cooling	Design load	kW	
	Annual electricity consumption ⁽²⁾	kWh/a	
	SEER		
		Energy efficiency class	
Heating (Warmer Season)	Design load	kW	
	Declared Capacity	at reference design temperature	kW
		at bivalent temperature	kW
		at operation limit temperature	kW
	Back up heating capacity	kW	
	Annual electricity consumption ⁽²⁾	kWh/a	
	SCOP		
		Energy efficiency class	

Type	Inverter Heat Pump					
Indoor Unit	MSZ-FH25VE2		MSZ-FH35VE2		MSZ-FH50VE2	
Outdoor Unit	MUZ-FH25VEH	MUZ-FH25VEH	MUZ-FH35VEH	MUZ-FH35VEH	MUZ-FH50VEH	MUZ-FH50VEH
Refrigerant	R410A ^(*)					
Cooling	Design load	kW				
	Annual electricity consumption ⁽²⁾	kWh/a				
	SEER					
		Energy efficiency class				
Heating (Warmer Season)	Design load	kW				
	Declared Capacity	at reference design temperature	kW			
		at bivalent temperature	kW			
		at operation limit temperature	kW			
	Back up heating capacity	kW				
	Annual electricity consumption ⁽²⁾	kWh/a				
	SCOP					
		Energy efficiency class				

(*) 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 CO₂, 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) 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 CO₂, 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.

Specification on Warmer/Colder Condition

Type		Inverter Heat Pump								
Indoor Unit		MSZ-SF25VE3		MSZ-SF35VE3		MSZ-SF42VE3		MSZ-SF50VE3		
Outdoor Unit		MUZ-SF25VE	MUZ-SF25VEH	MUZ-SF35VE	MUZ-SF35VEH	MUZ-SF42VE	MUZ-SF42VEH	MUZ-SF50VE	MUZ-SF50VEH	
Refrigerant		R410A ⁽¹⁾								
Cooling	Design load	kW		3.5		4.2		5.0		
	Annual electricity consumption ⁽²⁾	kWh/a		171		196		246		
	SEER	7.6		7.2		7.5		7.2		
		Energy efficiency class		A++		A++		A++		
Heating (Warmer Season)	Design load	kW		1.6 (2°C)		2.1 (2°C)		2.3 (2°C)		
	Declared Capacity	at reference design temperature	kW		1.6 (2°C)		2.1 (2°C)		2.3 (2°C)	
		at bivalent temperature	kW		1.6 (2°C)		2.1 (2°C)		2.3 (2°C)	
		at operation limit temperature	kW		1.6 (-20°C)		2.1 (2°C)		2.3 (2°C)	
	Back up heating capacity	kW		0.0 (2°C)		0.0 (2°C)		0.0 (2°C)		
	Annual electricity consumption ⁽²⁾	kWh/a		337		507		563		
	SCOP	5.4		A+++		A+++		A+++		
		Energy efficiency class		A+++		A+++		A+++		

Type		Inverter Heat Pump				
Indoor Unit		MSZ-GF60VE2	MSZ-GF71VE2	MSZ-WN25VA	MSZ-WN35VA	
Outdoor Unit		MUZ-GF60VE	MUZ-GF71VE	MUZ-WN25VA	MUZ-WN35VA	
Refrigerant		R410A ⁽¹⁾				
Cooling	Design load	kW		2.5		
	Annual electricity consumption ⁽²⁾	kWh/a		173		
	SEER	6.8		6.2		
		Energy efficiency class		A++		
Heating (Warmer Season)	Design load	kW		1.1 (2°C)		
	Declared Capacity	at reference design temperature	kW		1.1 (2°C)	
		at bivalent temperature	kW		1.1 (2°C)	
		at operation limit temperature	kW		1.6 (-15°C)	
	Back up heating capacity	kW		0.0 (2°C)		
	Annual electricity consumption ⁽²⁾	kWh/a		362		
	SCOP ⁽³⁾	5.3		A++		
		Energy efficiency class		A++		

Type		Inverter Heat Pump								
Indoor Unit		MSZ-HJ25VA	MSZ-HJ35VA	MSZ-HJ50VA	MSZ-HJ60VA	MSZ-HJ71VA	MSZ-DM25VA	MSZ-DM35VA		
Outdoor Unit		MUZ-HJ25VA	MUZ-HJ35VA	MUZ-HJ50VA	MUZ-HJ60VA	MUZ-HJ71VA	MUZ-DM25VA	MUZ-DM35VA		
Refrigerant		R410A ⁽¹⁾								
Cooling	Design load	kW		5.0		6.1		7.1		
	Annual electricity consumption ⁽²⁾	kWh/a		292		354		441		
	SEER	5.1		6.0		6.0		5.8		
		Energy efficiency class		A+		A+		A+		
Heating (Warmer Season)	Design load	kW		2.1 (2°C)		2.5 (2°C)		2.9 (2°C)		
	Declared Capacity	at reference design temperature	kW		2.1 (2°C)		2.5 (2°C)		2.9 (2°C)	
		at bivalent temperature	kW		2.1 (2°C)		2.5 (2°C)		2.9 (2°C)	
		at operation limit temperature	kW		3.8 (-10°C)		4.6 (-10°C)		5.4 (-10°C)	
	Back up heating capacity	kW		0.0 (2°C)		0.0 (2°C)		0.0 (2°C)		
	Annual electricity consumption ⁽²⁾	kWh/a		539		674		813		
	SCOP	4.3		A+++		A+++		A++		
		Energy efficiency class		A+++		A+++		A++		

⁽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 CO₂, 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⁾ 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 CO₂, 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.

S

SERIES



SELECTION

Series line-up consists of two types of indoor units.
Choose the model that best matches room conditions.

SELECT INDOOR UNIT

Select the optimal unit and capacity required to match room construction and air conditioning requirements.

R32
R410A



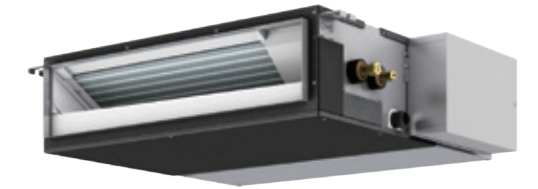
Units without Remote Controller

- SLZ-M15FA2
(Multi split series connection only)
- SLZ-M25FA2
- SLZ-M35FA2
- SLZ-M50FA2
- SLZ-M60FA2

Panel

Panel	With Signal Receiver	With 3D i-see Sensor	With Wireless Remote Controller
SLP-2FA			
SLP-2FAL	✓		
SLP-2FAE		✓	
SLP-2FALE	✓	✓	
SLP-2FALM2	✓		✓
SLP-2FALME2	✓	✓	✓

R32
R410A



Units without Remote Controller

- SEZ-M25DA2
- SEZ-M35DA2
- SEZ-M50DA2
- SEZ-M60DA2
- SEZ-M71DA2

Units with Wireless Remote Controller

- SEZ-M25DAL2
- SEZ-M35DAL2
- SEZ-M50DAL2
- SEZ-M60DAL2
- SEZ-M71DAL2

SELECT OUTDOOR UNIT

There is one outdoor unit for respective indoor units.

R32



SUZ-M25/35VA

R32



SUZ-M50VA

R32



SUZ-M60/71VA

R410A



SUZ-KA25/35VA6

R410A



SUZ-KA50/60/71VA6

* To confirm compatibility with the MXZ Series multi-type system, refer to the MXZ Series page.

SLZ SERIES

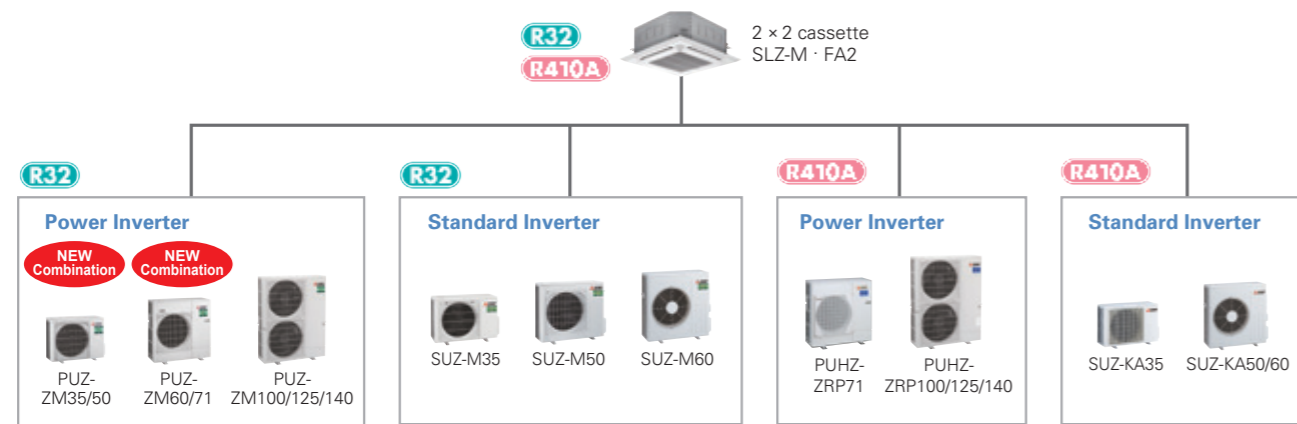
Compact, lightweight ceiling cassette units with 4-way air outlets provide maximum comfort by evenly distributing airflow throughout the entire room.

R32
R410A
SLZ-M15/25/35/50/60FA2



2x2 Cassette Line-up

The SLZ series was previously only able to be connected to standard inverters and some power inverters. However, it can now also be connected to low-capacity power inverters. The ability to connect to a high-performance power inverter allows us to offer a wider range of options to our customers.



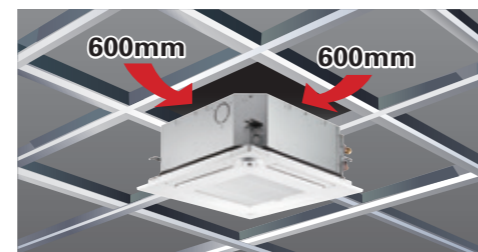
New lineup

1.5kW has been introduced for multi connection. The diverse selection enables the best solution for both customer and location.

Capacity	15	25	35	50	60
SLZ-KF		✓	✓	✓	✓
SLZ-M	✓	✓	✓	✓	✓

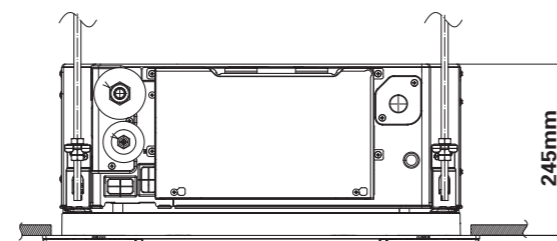
Beautiful design

The straight-line form introduced has resulted in a beautiful square design. Its high affinity ensures the ability to blend in seamlessly with any interior. The indoor unit is an ideal match for office or store use. Of course, design matched 2x2 (600mm*600mm) ceiling construction specifications.



The height above ceiling of 245mm

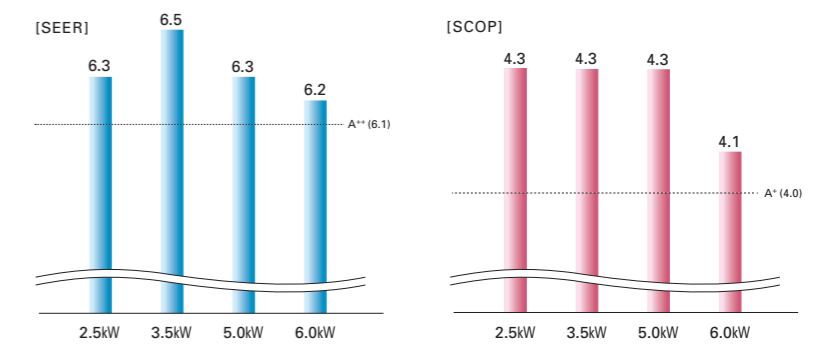
The height above ceiling of 245mm enables fitting into narrow ceiling space. Installation is simple, even when the ceiling spaces are narrow to make the ceilings higher. Of course, in addition to our products, replacing competitors' product is simplified too.



Energy-saving Performance*

The energy-saving performance achieved A++ in SEER and A+ in SCOP.

*In case of connecting with SUZ-KA-VA6



Quietness

Low sound level has been realized by introduction of 3D turbo fan. New SLZ can give users quieter and more comfortable room conditions.



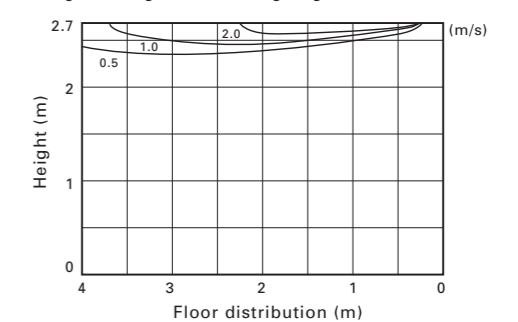
Horizontal Airflow

The new airflow control completely eliminates that uncomfortable drafty-feeling with the introduction of a horizontal airflow that spreads across the ceiling. The ideal airflow for offices and restaurants.

[Airflow distribution]*

SLZ-M60FA

Flow angle, cooling at 20°C (ceiling height 2.7m)



*Vane angle: Horizontal

Easy installation

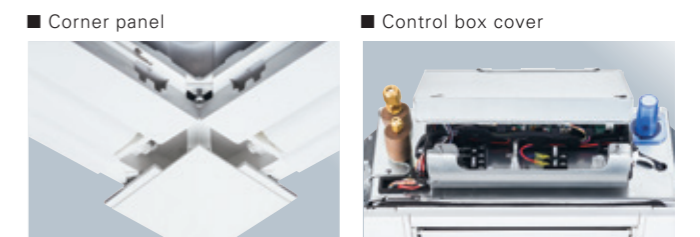
Temporary hanging hook

The structure of the panel has been revised and is now equipped with a temporary hanging hook. This has improved work efficiency during temporary panel installation.



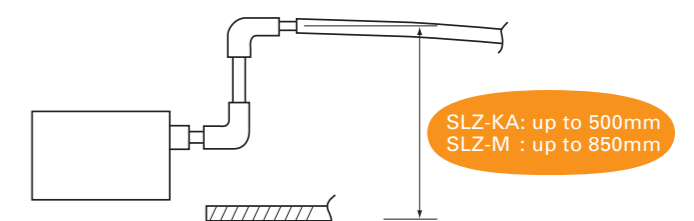
No need to remove screws

Installation is possible without removing the screws for control box simply loosen them. This eliminates the risk of losing screws.



Drain lift

As the result of using a larger drain pan, the maximum drain lifting height has been up to 850mm, greatly enhancing construction flexibility compared to the existing model.

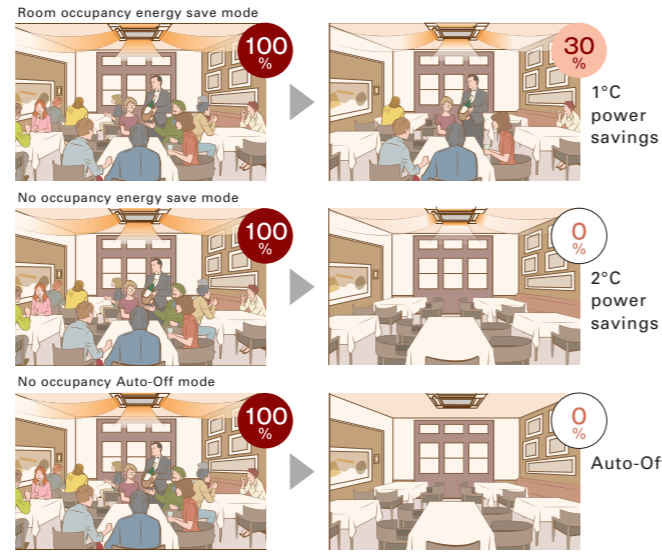


3D i-see Sensor for S & P SERIES

Detects number of people

Room occupancy energy-saving mode

The 3D i-see Sensor detects the number of people in the room. It then calculates the occupancy rate based on the maximum number of people in the room up to that point in time in order to save air-conditioning power. When the occupancy rate is approximately 30%, air-conditioning power equivalent to 1°C during both cooling and heating operation is saved. The temperature is controlled according to the number of people.



No occupancy energy-saving mode

When 3D i-see Sensor detects that no one is in the room, the system is switched to a pre-set power-saving mode. If the room remains unoccupied for more than 60min, air-conditioning power equivalent to 2°C during both cooling and heating operation is saved. This contributes to preventing waste in terms of heating and cooling.

No occupancy Auto-OFF mode*

When the room remains unoccupied for a pre-set period of time, the air conditioner turns off automatically, thereby providing even greater power savings. The time until operation is stopped can be set in intervals of 10min, ranging from 60 to 180 min.

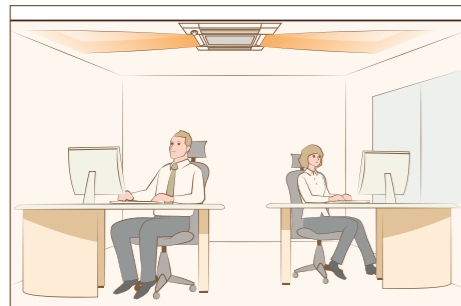
*When MA Remote Controller is used to control multiple refrigerant systems, "No occupancy Auto-OFF mode" cannot be used.

*PAR-41MAA is required for each setting

Detects people's position

Direct/Indirect settings*

Some people do not like the feel of wind, some want to be warm from head to toe. People's likes and dislikes vary. With the 3D i-see Sensor, it is possible to choose to block or not block to the wind for each vane.



*PAR-41MAA or PAR-SL101A-E is required for each setting.

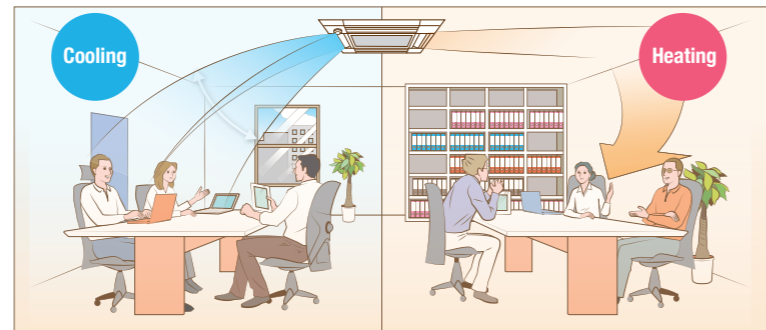
Seasonal airflow*

<When cooling>

Saves energy while keeping a comfortable effective temperature by automatically switching between ventilation and cooling. When a pre-set temperature is reached, the air conditioning unit switches to swing fan operation to maintain the effective temperature. This clever function contributes to keeping a comfortable coolness.

<When heating>

The air conditioning unit automatically switches between circulator and heating. Wasted heat that accumulates near the ceiling is reused via circulation. When a pre-set temperature is reached the air conditioner switches from heating to circulator and blows air in the horizontal direction. It pushes down the warm air that has gathered near the ceiling to people's height, thereby providing smart heating.



*PAR-41MAA is required for each setting.

SLZ-M SERIES



Indoor Unit

R32
R410A



SLZ-M15/25/35/50/60FA2

Panel

Panel	With Signal Receiver	With 3D i-see Sensor	With Wireless Remote Controller
SLP-2FA			
SLP-2FAL	✓		
SLP-2FAE		✓	
SLP-2FALE	✓	✓	
SLP-2FALM2	✓		✓
SLP-2FALME2	✓	✓	✓

Outdoor Unit

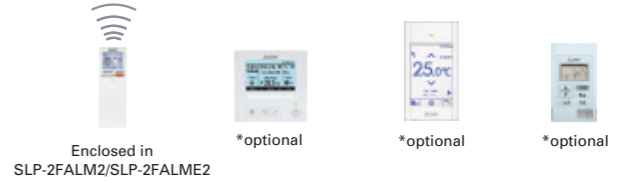
R32 For Single

R32 For Multi

(Twin/Triple/Quadruple)



Remote Controller



Indoor Unit Combination	Outdoor Unit Capacity														
	For Single						For Twin		For Triple		For Quadruple				
Power Inverter (PUZ-ZM)	35x1	50x1	60x1	71	100	125	140	71	100	125	100	125	140	125	140
Distribution Pipe	-	-	-	-	-	-	-	MSDD-50TR2-E		MSDT-111R3-E		MSDF-1111R2-E			

Type	Indoor Unit		Outdoor Unit Capacity		
Indoor Unit	SLZ-M35FA2	SLZ-M50FA2	SLZ-M60FA2	SLZ-M60FA2	
Outdoor Unit	PUZ-ZM35VKA2	PUZ-ZM50VKA2	PUZ-ZM60VKA2	PUZ-ZM60VKA2	
Refrigerant ^{*)}	R32				
Power Supply	Outdoor power supply				
Source	230/Single/50				
Outdoor(V/Phase/Hz)	230/Single/50				
Cooling	Capacity	Rated	kW	3.6	
		Min-Max	kW	1.6 - 4.5	
	Total Input	Rated	kW	0.800	
	EER			4.50	
	Design load		kW	3.6	
	Annual electricity consumption ^{**)}		kWh/a	194	
	SEER ^{**)}			6.5	
	Energy efficiency class			A+	
	Heating	Capacity	Rated	kW	4.1
			Min-Max	kW	1.6 - 5.0
Total Input		Rated	kW	1.205	
COP				3.40	
Design load			kW	2.4	
Declared Capacity		at reference design temperature	kW	2.4 (+10°C)	
		at bivalent temperature	kW	2.4 (-10°C)	
		at operation limit temperature	kW	2.2 (-11°C)	
Back up heating capacity			kW	0.0	
Annual electricity consumption ^{**)}			kWh/a	820	
SCOP ^{**)}			4.0		
Energy efficiency class			A+		
Operating Current(Max)		A	13.2		
Indoor Unit	Input (cooling / Heating)	Rated	kW	0.02 / 0.02	
			A	0.32	
	Operating Current(Max)		A	0.24	
	Dimensions	H*W*D	mm	245-570-570 <10-625-625>	
	Weight		kg	15 <3>	
	Air Volume (Lo-Mi2-Mi1-Hi)		m³/min	6.5-8.0-9.5	
	Sound Level (Lo-Mi2-Mi1-Hi) (SPL)		dB(A)	25-30-34	
	Sound Level (PWL)		dB(A)	51	
	Dimensions	H*W*D	mm	630-809-300	
	Outdoor Unit	Weight		kg	46
			kg	46	
Air Volume		Cooling	m³/min	45	
		Heating	m³/min	45	
Sound Level (SPL)		Cooling	dB(A)	44	
		Heating	dB(A)	46	
Sound Level (PWL)		Cooling	dB(A)	65	
		Heating	dB(A)	65	
Operating Current(Max)			A	13	
Breaker Size			A	16	
Ext.Piping	Diameter ^{*)}	Liquid/Gas	mm	6.35 / 12.7	
	Max.Length	Out-In	m	50	
	Max.Height	Out-In	m	30	
Guaranteed Operating Range (Outdoor)	Cooling ^{**)}	°C	-15 ~ +46		
	Heating	°C	-11 ~ +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 CO₂ 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 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 Joint pipe is required depending on installed refrigerant pipes, outdoor units and indoor units.

SLZ-M SERIES



Indoor Unit



SLZ-M15/25/35/50/60FA2



Outdoor Unit



Remote Controller



Panel

Panel	With Signal Receiver	With 3D i-see Sensor	With Wireless Remote Controller
SLP-2FA			
SLP-2FAL	✓		
SLP-2FAE		✓	
SLP-2FALE	✓	✓	
SLP-2FALM2	✓		✓
SLP-2FALME2	✓	✓	✓



Indoor Unit Combination	Outdoor Unit Capacity				
	For Single				
	25	35	50	60	71
S Seires	25x1	35x1	50x1	60x1	-
Distribution Pipe	-	-	-	-	-

SLZ-M SERIES



Indoor Unit



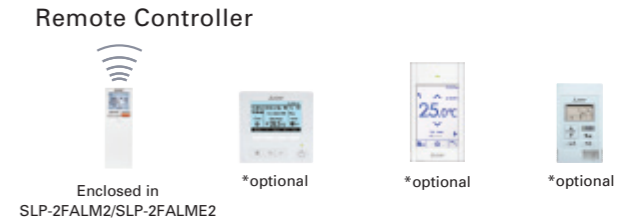
SLZ-M15/25/35/50/60FA2



Outdoor Unit



Remote Controller



Panel

Panel	With Signal Receiver	With 3D i-see Sensor	With Wireless Remote Controller
SLP-2FA			
SLP-2FAL	✓		
SLP-2FAE		✓	
SLP-2FALE	✓	✓	
SLP-2FALM2	✓		✓
SLP-2FALME2	✓	✓	✓



Indoor Unit Combination	Outdoor Unit Capacity															
	For Single						For Twin			For Triple			For Quadruple			
	25	35	50	60	71	100	125	140	71	100	125	100	125	140	125	140
Power Inverter (PUZ-ZM)	25x1	35x1	50x1	60x1	-	-	-	-	35x2	50x2	60x2	35x3	50x3	50x3	35x4	35x4
Distribution Pipe	-	-	-	-	-	-	-	-	MSDD-50TR-E			MSDT-111R-E			MSDF-1111R-E	

Type	Inverter Heat Pump						
Indoor Unit	SLZ-M25FA2	SLZ-M35FA2	SLZ-M50FA2	SLZ-M60FA2			
Outdoor Unit	SUZ-M25VA	SUZ-M35VA	SUZ-M50VA	SUZ-M60VA			
Refrigerant ⁽¹⁾	R32						
Power Supply	Outdoor power supply 230/Single/50						
Cooling	Capacity	Rated	kW	2.5	3.5	4.6	5.7
		Min-Max	kW	1.4 - 3.2	0.7 - 3.9	1.0 - 5.2	1.5 - 6.3
	Total Input	Rated	kW	0.657	1.093	1.352	1.676
	EER			3.80	3.20	3.40	3.40
	Design load		kW	2.5	3.5	4.6	5.7
Heating	Capacity	Rated	kW	3.2	4.0	5.0	6.4
		Min-Max	kW	1.3 - 4.2	1.0 - 5.0	1.3 - 5.5	1.6 - 7.3
	Total Input	Rated	kW	0.886	1.078	1.562	2.133
	COP			3.61	3.71	3.20	3.00
	Design load		kW	2.2	2.6	3.6	4.6

Type	Inverter Heat Pump						
Indoor Unit	SLZ-M25FA2	SLZ-M35FA2	SLZ-M50FA2	SLZ-M60FA2			
Outdoor Unit	SUZ-KA25VA6	SUZ-KA35VA6	SUZ-KA50VA6	SUZ-KA60VA6			
Refrigerant ⁽¹⁾	R410A						
Power Supply	Outdoor power supply 230/Single/50						
Cooling	Capacity	Rated	kW	2.6	3.5	4.6	5.6
		Min-Max	kW	1.5 - 3.2	1.4 - 3.9	2.3 - 5.2	2.3 - 6.5
	Total Input	Rated	kW	0.684	0.972	1.394	1.767
	EER			3.80	3.60	3.30	3.17
	Design load		kW	2.6	3.5	4.6	5.6
Heating	Capacity	Rated	kW	3.2	4.0	5.0	6.4
		Min-Max	kW	1.3 - 4.2	1.7 - 5.0	1.7 - 6.0	2.5 - 7.4
	Total Input	Rated	kW	0.886	1.108	1.558	2.278
	COP			3.61	3.61	3.21	2.81
	Design load		kW	2.2	2.6	3.6	4.6

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 CO₂ 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 SEER and SCOP are based on 2009/125/EC:Energy-related Products Directive and Regulation(EU) No206/2012.

⁴ Joint pipe is required depending on installed refrigerant pipes, outdoor units and indoor units.

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 CO₂ 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 SEER and SCOP are based on 2009/125/EC:Energy-related Products Directive and Regulation(EU) No206/2012.

⁴ Joint pipe is required depending on installed refrigerant pipes, outdoor units and indoor units.

SEZ SERIES

This concealed ceiling-mounted indoor unit series is compact, and fits easily into rooms with lowered ceilings. Highly reliable energy-saving performance makes it a best match choice for concealed unit installations.

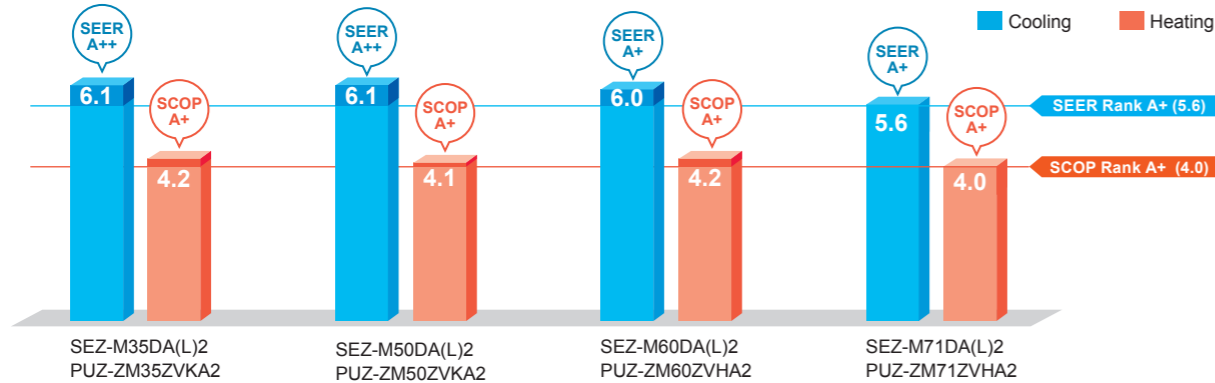


SEZ-M25-71DA(L)2

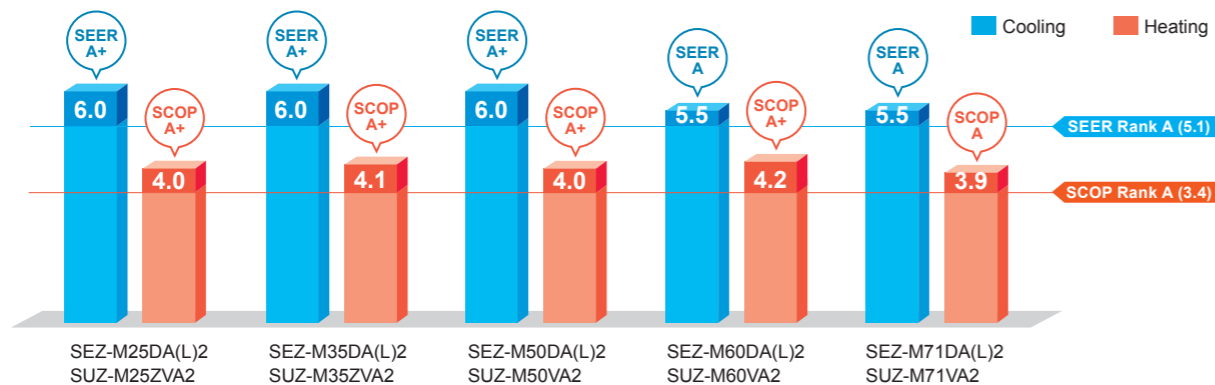
High Energy Efficiency

Highly efficient indoor units with DC inverter contribute to a reduction in electricity consumption throughout a year. The SEZ series has achieved energy-saving performance of 'A+' or higher when connected to PUZ series and 'A' or higher when connected to SUZ-M series.

Power Inverter

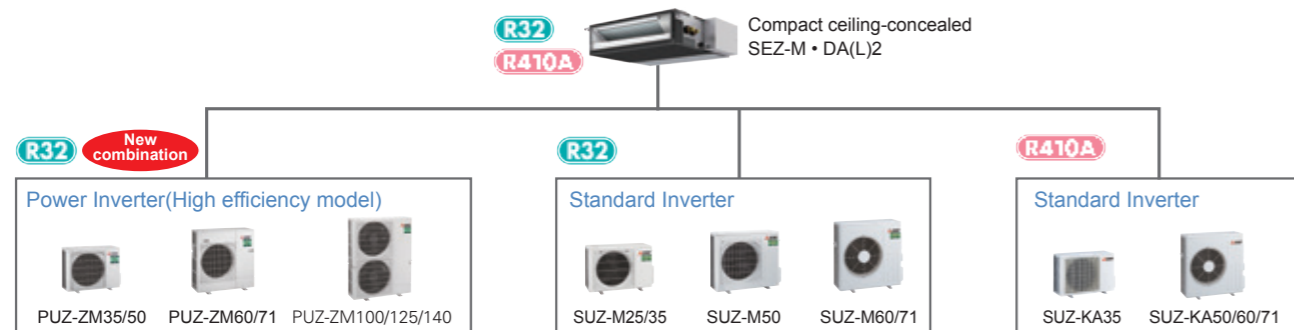


Standard Inverter (R32)



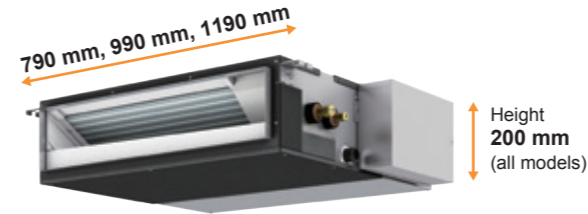
Lineup of compatible outdoor unit has been expanded by power inverter series

Although models in the SEZ series were previously only compatible with the standard inverter, they can now also be connected to small capacity power inverters. The ability to connect to a power inverter with high-performance specifications makes it possible to offer an even wider range of solutions to our customers.



Compact Design with a Height of 200 mm

The height of the units is 200 mm for all capacity ranges. Its thin body is suitable for installation in low ceilings with a small cavity space.



SEZ-M DA(L)2		M25	M35	M50	M60	M71
Height	mm	200				
Width	mm	790	990	1190		

Low Noise Operation

Low noise operation contributes to a peaceful indoor environment. The SPL of M25/35 model, which is the quietest model among the new series, is as low as 22 dB (ESP 5 Pa, low fan speed setting).

Sound pressure level	Capacity	Fan speed	M25	M35	M50	M60	M71
			High	29	30	36	37
		Mid	25	26	33	33	34
		Low	22	22	29	29	29

*When fan speed setting is low, the cooling/heating capacity is subject to reduce.
*Operation noise may increase due to the installation environment or the operation status.

Selectable Static Pressure Levels

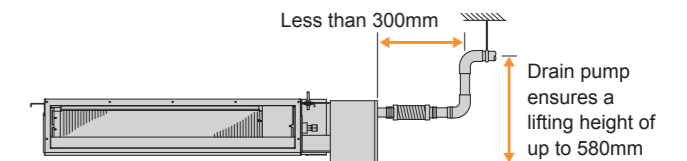
External static pressure can be selected from 5, 25, 35, and 50 Pa (set to 25 Pa at the time of factory shipment).

Four levels Available for All Models

Drain Pump (Optional)

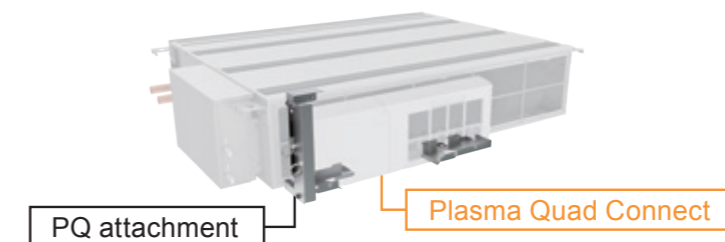
The PAC-KE07DM-E drain pump is available as an option. The drain connection can be raised as high as 580 mm, allowing more freedom in piping layout design.

*The use of drain pump may increase the operation noise.



Connectable to Plasma Quad Connect

The optional Plasma Quad Connect MAC-100FT-E can be installed on the indoor unit's air inlet side. For installation, PQ attachment PAC-HA11PAR is required.

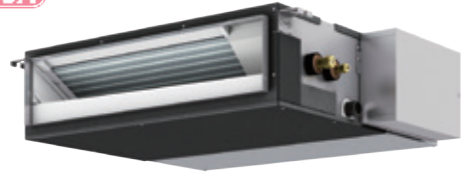


SEZ-M SERIES



Indoor Unit

R32
R410A



SEZ-M25/35/50/60/71DA2 (Requires Wired Remote Controller)
SEZ-M25/35/50/60/71DAL2 (Wireless Remote Controller is enclosed)

Outdoor Unit

R32 For Single For Multi (Twin/Triple/Quadruple)



Remote Controller



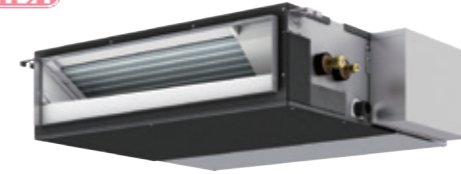
Indoor Unit Combination	Outdoor Unit Capacity														
	For Single			For Twin			For Triple			For Quadruple					
Power Inverter (PUZ-ZM)	35x1	50x1	60x1	71x1	100	125	140	71	100	125	100	125	140	125	140
Distribution Pipe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MSDD-50TR2-E						MSDD-111R3-E			MSDF-1111R2-E					

SEZ-M SERIES



Indoor Unit

R32
R410A



SEZ-M25/35/50/60/71DA2 (Requires Wired Remote Controller)
SEZ-M25/35/50/60/71DAL2 (Wireless Remote Controller is enclosed)

Outdoor Unit

R32 For Single R32



Remote Controller



Indoor Unit Combination	Outdoor Unit Capacity				
	For Single				
S Seires	25	35	50	60	71
Distribution Pipe	-	-	-	-	-

Type	Inverter Heat Pump			
Indoor Unit	SEZ-M35DA(L)2	SEZ-M50DA(L)2	SEZ-M60DA(L)2	SEZ-M71DA(L)2
Outdoor Unit	PUZ-ZM35VKA2	PUZ-ZM50VKA2	PUZ-ZM60VHA2	PUZ-ZM71VHA2
Refrigerant ⁽¹⁾	R32			
Power Supply	Outdoor power supply 230/Single/50			
Cooling	Capacity	Rated	kW	3.6
	Min-Max	kW	1.6 - 3.9	2.3 - 5.6
	Total Input	Rated	kW	0.857
	EER ⁽⁴⁾			4.20
	Design load	kW	3.6	5.0
	Annual electricity consumption ⁽²⁾	kWh/a	205	287
SEER ⁽⁴⁾⁽⁵⁾		6.1	6.1	
Heating	Energy efficiency class			
	Capacity	Rated	kW	4.1
	Min-Max	kW	1.6 - 5.0	2.5 - 7.2
	Total Input	Rated	kW	1.025
	COP ⁽⁴⁾		4.00	3.80
	Design load	kW	2.4	3.8
	Declared Capacity	at reference design temperature	kW	2.4 (-10°C)
		at bivalent temperature	kW	2.4 (-10°C)
		at operation limit temperature	kW	2.2 (-11°C)
	Back up heating capacity	kW	0.0	0.0
Annual electricity consumption ⁽²⁾	kWh/a	791	1279	
SCOP ⁽⁴⁾⁽⁵⁾		4.2	4.1	
Operating Current(Max)	Energy efficiency class			
	Input (cooling / Heating)	Rated	kW	0.047
	Operating Current(Max)	A	0.65	0.82
	Dimensions	H*W*D	mm	200-990-700
	Weight	kg	22	25.5
	Air Volume (Lo-Mid-Hi)	m³/min	7-9-11	10-12.5-15
	External Static Pressure ⁽⁶⁾	Pa	<5> - <25> - <35> - <50>	<5> - <25> - <35> - <50>
	Sound Level (Lo-Mid-Hi) (SPL)	dB(A)	23-27-31	30-34-37
	Sound Level (PWL)	dB(A)	51	57
	Outdoor Unit	Dimensions	H*W*D	mm
Weight		kg	46	67
Air Volume		Cooling	m³/min	45
		Heating	m³/min	45
Sound Level (SPL)		Cooling	dB(A)	44
		Heating	dB(A)	46
Sound Level (PWL)		Cooling	dB(A)	65
Operating Current(Max)		A	13	19
Breaker Size		A	16	25
Ext.Piping		Diameter ⁽⁶⁾	Liquid/Gas	mm
	Max.Length	Out-In	m	50
	Max.Height	Out-In	m	30
	Guaranteed Operating Range (Outdoor)	Cooling ⁽⁷⁾	°C	-15 ~ +46
	Heating	°C	-11 ~ +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 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 CO₂, 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 Optional air protection guide is required where ambient temperature is lower than -5°C.
*4 EER/COP and SEER/SCOP for M35-71 are measured at ESP 25Pa.
*5 SEER and SCOP are based on 2009/125/EC:Energy-related Products Directive and Regulation(EU) No206/2012.
*6 Joint pipe is required depending on installed refrigerant pipes, outdoor units and indoor units.
*7 The factory setting of ESP is shown without < >.
*8 SPL measured at ESP 5Pa.

Type	Inverter Heat Pump			
Indoor Unit	SEZ-M50DA(L)2	SEZ-M35DA(L)2	SEZ-M60DA(L)2	SEZ-M71DA(L)2
Outdoor Unit	SUZ-M25VA	SUZ-M35VA	SUZ-M50VA	SUZ-M60VA
Refrigerant ⁽¹⁾	R32			
Power Supply	Outdoor power supply 230/Single/50			
Cooling	Capacity	Rated	kW	2.5
	Min-Max	kW	1.4 - 3.2	0.7 - 3.9
	Total Input	Rated	kW	0.714
	EER ⁽⁴⁾		3.50	3.23
	Design load	kW	2.5	3.5
	Annual electricity consumption ⁽²⁾	kWh/a	146	202
SEER ⁽⁴⁾⁽⁵⁾		6.0	6.0	
Heating	Energy efficiency class			
	Capacity	Rated	kW	2.9
	Min-Max	kW	1.3 - 4.2	1.1 - 5.0
	Total Input	Rated	kW	0.803
	COP ⁽⁴⁾		3.61	3.90
	Design load	kW	2.2	2.6
	Declared Capacity	at reference design temperature	kW	2.0 (-10°C)
		at bivalent temperature	kW	2.0 (-7°C)
		at operation limit temperature	kW	2.0 (-10°C)
	Back up heating capacity	kW	0.2	0.3
Annual electricity consumption ⁽²⁾	kWh/a	769	878	
SCOP ⁽⁴⁾⁽⁵⁾		4.0	4.1	
Operating Current(Max)	Energy efficiency class			
	Input (cooling / Heating)	Rated	kW	0.043
	Operating Current(Max)	A	0.62	0.85
	Dimensions	H*W*D	mm	200-790-700
	Weight	kg	18	22
	Air Volume (Lo-Mid-Hi)	m³/min	5.5-7-9	7-9-11
	External Static Pressure ⁽⁶⁾	Pa	<5> - <25> - <35> - <50>	<5> - <25> - <35> - <50>
	Sound Level (Lo-Mid-Hi) (SPL)	dB(A)	23-26-30	23-27-31
	Sound Level (PWL)	dB(A)	50	51
	Outdoor Unit	Dimensions	H*W*D	mm
Weight		kg	30	41
Air Volume		Cooling	m³/min	36.3
		Heating	m³/min	34.6
Sound Level (SPL)		Cooling	dB(A)	45
		Heating	dB(A)	46
Sound Level (PWL)		Cooling	dB(A)	59
Operating Current(Max)		A	6.8	8.5
Breaker Size		A	10	13.5
Ext.Piping		Diameter ⁽⁶⁾	Liquid/Gas	mm
	Max.Length	Out-In	m	20
	Max.Height	Out-In	m	12
	Guaranteed Operating Range (Outdoor)	Cooling ⁽⁷⁾	°C	-10 ~ +46
	Heating	°C	-10 ~ +24	

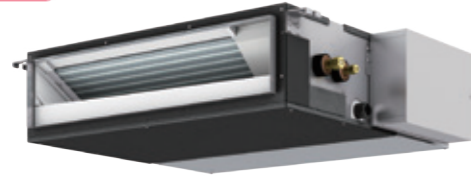
*1 Refrigerant leakage contributes to climate change. Refrigerant with lower global warming potential (GWP) would contribute less to global warming than a refrigerant with higher GWP, if leaked to the atmosphere. This appliance contains a refrigerant fluid with a GWP equal to 1975. This means that if 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 CO₂, 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 SEER/SCOP are measured at ESP 25Pa.
*4 SEER and SCOP are based on 2009/125/EC:Energy-related Products Directive and Regulation(EU) No206/2012.
*5 Joint pipe is required depending on installed refrigerant pipes, outdoor units and indoor units.
*6 The factory setting of ESP is shown without < >.
*7 SPL measured at ESP 5Pa.

SEZ-M SERIES



Indoor Unit

R32
R410A



SEZ-M25/35/50/60/71DA2 (Requires Wired Remote Controller)
SEZ-M25/35/50/60/71DAL2 (Wireless Remote Controller is enclosed)

Outdoor Unit

R410A For Single



SUZ-KA25/35VA6



SUZ-KA50/60/71VA6

Remote Controller



Enclosed in SEZ-M DAL2



*optional (for SEZ-M DA2)



*optional (for SEZ-M DA2)



*optional (for SEZ-M DA2)



Indoor Unit Combination	Outdoor Unit Capacity				
	For Single				
S series	25x1	35x1	50x1	60x1	71x1
Distribution Pipe	-	-	-	-	-

Type	Inverter Heat Pump								
Indoor Unit	SEZ-M25DA(L)2	SEZ-M35DA(L)2	SEZ-M50DA(L)2	SEZ-M60DA(L)2	SEZ-M71DA(L)2				
Outdoor Unit	SUZ-KA25VA6	SUZ-KA35VA6	SUZ-KA50VA6	SUZ-KA60VA6	SUZ-KA71VA6				
Refrigerant ⁽¹⁾	R410A								
Power Supply	Outdoor power supply 230/Single/50								
Cooling	Capacity	Rated	kW	2.5	3.5	5.1	5.6	7.1	
		Min-Max	kW	1.5 - 3.2	1.4 - 3.9	2.3 - 5.6	2.3 - 6.3	2.8 - 8.3	
	Total Input	Rated	kW	0.731	1.012	1.580	1.740	2.210	
	EER ⁽⁴⁾			3.42	3.46	3.23	3.22	3.21	
	Design load		kW	2.5	3.5	5.1	5.6	7.1	
	Annual electricity consumption ⁽²⁾		kWh/a	159	203	297	353	449	
	SEER ⁽⁴⁾⁽⁵⁾			5.5	6.0	6.0	5.5	5.5	
	Heating	Capacity	Rated	kW	2.9	4.2	6.4	7.4	8.1
			Min-Max	kW	1.3 - 4.5	1.7 - 5.0	1.7 - 7.2	2.5 - 8.0	2.6 - 10.4
		Total Input	Rated	kW	0.803	1.132	1.800	2.200	2.268
COP ⁽⁴⁾				3.61	3.71	3.56	3.36	3.50	
Design load			kW	2.2	2.8	4.6	5.5	6.0	
Declared Capacity		at reference design temperature	kW	1.9 (-10°C)	2.5 (-10°C)	4.1 (-10°C)	4.5 (-10°C)	5.3 (-10°C)	
		at bivalent temperature	kW	1.9 (-7°C)	2.5 (-7°C)	4.1 (-7°C)	4.8 (-7°C)	5.3 (-7°C)	
		at operation limit temperature	kW	1.9 (-10°C)	2.5 (-10°C)	4.1 (-10°C)	4.5 (-10°C)	5.3 (-10°C)	
Back up heating capacity			kW	0.3	0.3	0.5	1.0	0.7	
Annual electricity consumption ⁽²⁾			kWh/a	789	977	1614	1857	2147	
SCOP ⁽⁴⁾⁽⁵⁾			3.9	4.0	3.9	4.1	3.9		
Operating Unit	Operating Current(Max)		A	7.6	8.9	12.8	14.9	17.1	
	Input (cooling / Heating)	Rated	kW	0.043	0.047	0.077	0.084	0.102	
	Operating Current(Max)		A	0.62	0.65	0.82	0.88	1.00	
	Dimensions	H*W*D	mm	200 - 790 - 700	200 - 990 - 700	200 - 990 - 700	200 - 1190 - 700	200 - 1190 - 700	
	Weight		kg	18	22	22	25.5	25.5	
	Air Volume (Lo-Mid-Hi)		m³/min	5.5 - 7 - 9	7 - 9 - 11	10 - 12.5 - 15	12 - 15 - 18	12 - 16 - 20	
	External Static Pressure ⁽⁶⁾		Pa	<5> - 25 - <35> - <50>	<5> - 25 - <35> - <50>	<5> - 25 - <35> - <50>	<5> - 25 - <35> - <50>	<5> - 25 - <35> - <50>	
	Sound Level (Lo-Mid-Hi) (SPL)	Rated	dB(A)	23 - 26 - 30	23 - 27 - 31	30 - 34 - 37	30 - 34 - 37	30 - 35 - 40	
		5Pa ⁽⁷⁾	dB(A)	22 - 25 - 29	22 - 26 - 30	29 - 33 - 36	29 - 33 - 37	29 - 34 - 39	
	Outdoor Unit	Dimensions	H*W*D	mm	550-800-285	550-800-285	880-840-330	880-840-330	880-840-330
Weight			kg	30	35	54	50	53	
Air Volume		Cooling	m³/min	32.6	36.3	44.6	40.9	50.1	
		Heating	m³/min	34.7	34.8	44.6	49.2	48.2	
Sound Level (SPL)		Cooling	dB(A)	47	49	52	55	55	
		Heating	dB(A)	48	50	52	55	55	
Sound Level (PWL)		Cooling	dB(A)	58	62	65	65	69	
Operating Current(Max)			A	7	8.0	12	14	16.1	
Breaker Size			A	10	10	20	20	20	
Ext.Piping		Diameter ⁽⁸⁾	Liquid/Gas	mm	6.35 / 9.52	6.35 / 9.52	6.35 / 12.7	6.35 / 15.88	9.52 / 15.88
	Max.Length	Out-In	m	20	20	30	30	30	
	Max.Height	Out-In	m	12	12	30	30	30	
Guaranteed Operating Range (Outdoor)	Cooling ⁽⁹⁾	°C	-10 ~ +46	-10 ~ +46	-15 ~ +46	-15 ~ +46	-15 ~ +46		
	Heating	°C	-10 ~ +24	-10 ~ +24	-10 ~ +24	-10 ~ +24	-10 ~ +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 CO₂ 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 SEER/SCOP are measured at ESP 25Pa.
*4 SEER and SCOP are based on 2009/125/EC:Energy-related Products Directive and Regulation(EU) No206/2012.
*5 Joint pipe is required depending on installed refrigerant pipes, outdoor units and indoor units.
*6 The factory setting of ESP is shown without <>.
*7 SPL measured at ESP 5Pa.

CONTROL TECHNOLOGIES

User-friendly Deluxe Remote Controller with Excellent Operability and Visibility



PAR-41MAA

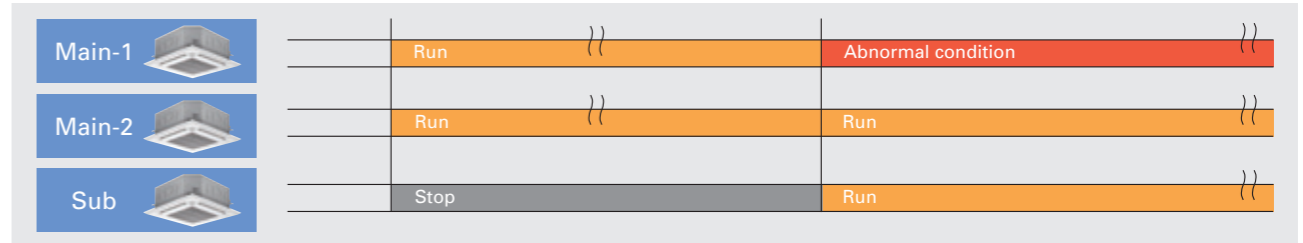
2+1 Back-up rotation*

The use of a three-refrigerant air conditioning system enables you to utilize the back-up, rotation, and cut-in functions. This allows you to implement effective risk management for added peace of mind.

*Availability of this function is depending on outdoor unit, indoor unit and remote controller.

Back-up Function

In the unlikely event that one of the units stops operation due to an abnormality, the standby unit immediately starts back-up operation. Being fully prepared for a failure guarantees that and operation is always available and gives you the confidence that your system will be reliable in any situation.



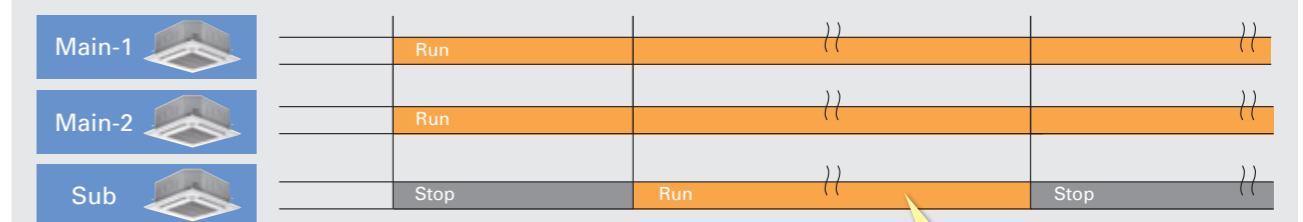
Rotation Function

A single remote controller is used to operate three-refrigerant air conditioning system in a rotation pattern. Reducing the burden on the equipment allows you to maintain a longer time between maintenance and increases product life.



Cut-in Function

If the actual room temperature greatly differs from the set temperature and two-refrigerant air conditioning system is insufficient, the standby unit starts operation to provide support.



The standby unit starts operation if the actual temperature deviates significantly from the set temperature.

P SERIES



SELECTION

Line-up includes a selection of eight indoor units and four series of outdoor units. Easily construct a system that best matches room air conditioning needs.

R32 INDOOR UNIT		R32 OUTDOOR UNIT	
		Power Inverter	Standard Inverter
4-way ceiling-cassette PLA-ZM EA PLA-M EA	Wall-mounted PKA-M LA(L) PKA-M KA(L)	PUZ-ZM35/50	SUZ-M35
Ceiling-concealed PEAD-M	Ceiling-concealed PEA-M	PUZ-ZM60/71	SUZ-M50
Ceiling-suspended PCA-M	Floor-standing PSA-M	PUZ-ZM100/125/140/ 200/250	SUZ-M60/71
Professional Kitchen PCA-M HA			PUZ-M100/125/140
			PUZ-M200/250

* Some indoor units cannot be used with this unit.

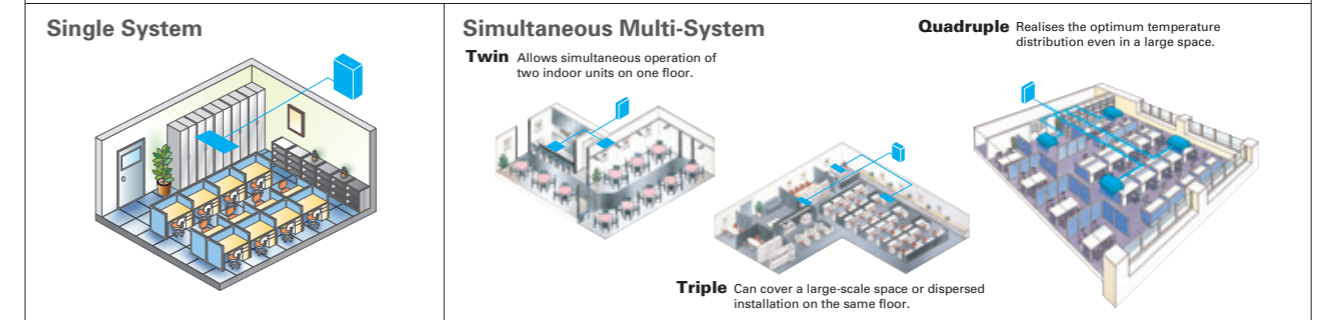
R410A INDOOR UNIT		R410A OUTDOOR UNIT	
		Power Inverter	Standard Inverter
4-way ceiling-cassette PLA-ZM EA PLA-M EA	Wall-mounted PKA-M LA(L) PKA-M KA(L)	PUHZ-ZRP35/50	SUZ-KA35
Ceiling-concealed PEAD-M	Floor-standing PSA-M	PUHZ-ZRP60/71	SUZ-KA50/60/71
Ceiling-suspended PCA-M	Ceiling-concealed PEA-M	PUHZ-ZRP100/125/140/ 200/250	PUHZ-P100/125/140
Professional Kitchen PCA-M HA			PUHZ-P200/250

* Some indoor units cannot be used with this unit.

To confirm compatibility with the MXZ Series, refer to the MXZ Series page.

SELECT COMBINATION

Choose the installation pattern for the indoor units. (In the case of a multi-system, distribution piping is necessary, so please select the necessary piping as well.)



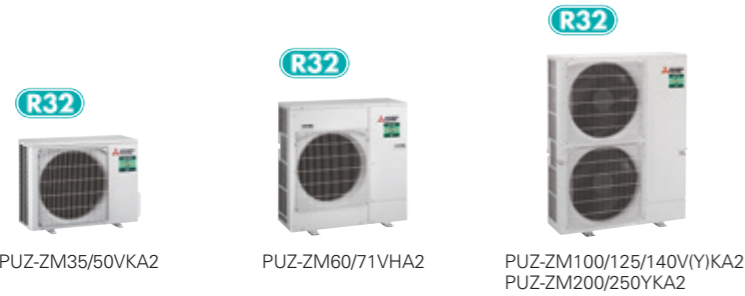
Connectable Combinations for Inverter Units

Outdoor Unit Capacity	Indoor Unit Capacity		
	Twin	Triple	Quadruple
71	50 : 50 35 × 2	33 : 33 : 33	25 : 25 : 25 : 25
100	50 × 2	—	—
125	60 × 2	—	—
140	71 × 2	50 × 3	—
200	100 × 2	60 × 3	50 × 4
250	125 × 2	71 × 3	60 × 4
Distribution Pipe	MSDD-50TR-E MSDD-50WR-E MSDD-50TR2-E2 MSDD-50WR2-E	MSDT-111R-E MSDT-111R3-E	MSDF-1111R-E MSDF-1111R2-E

Note: The distribution pipe listed is required for simultaneous multi-systems.

Power Inverter SERIES

Our Eco-conscious Power Inverter Series is designed to achieve industry-leading seasonal energy-efficiency through use of New R32 refrigerant and advanced technologies.



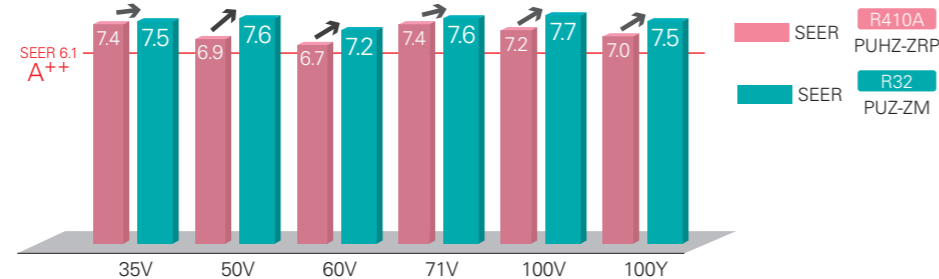
PUZ-ZM35/50VKA2

PUZ-ZM60/71VHA2

PUZ-ZM100/125/140V(Y)KA2
PUZ-ZM200/250YKA2

Industry-leading energy efficiency

Introduction of new R32 refrigerant realises improved cooling efficiency. Rating of more than 7.0 achieved for all capacity range.

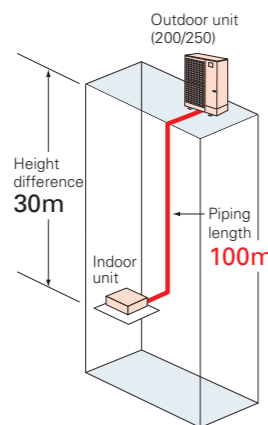


Introduction of new R32 refrigerant reduces energy consumption and realises energy savings.

Longer piping (60/71/100/125/140/200/250)

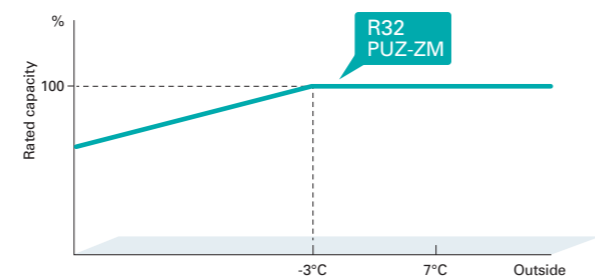
Longer piping length realised for 60, 71, 100, 125, 140, 200 and 250 classes, widely increasing installation flexibility.

	Piping Length	
	R410A PUHZ-ZRP	R32 PUZ-ZM
35/50	50m	50m
60/71	50m	55m
100/125/140	75m	100m
200/250	100m	100m



Rated heating capacity maintained down to -3°C*

Rated heating capacity maintained even when the outside temperature is down to -3°C. Stay warm even at times of cold weather.



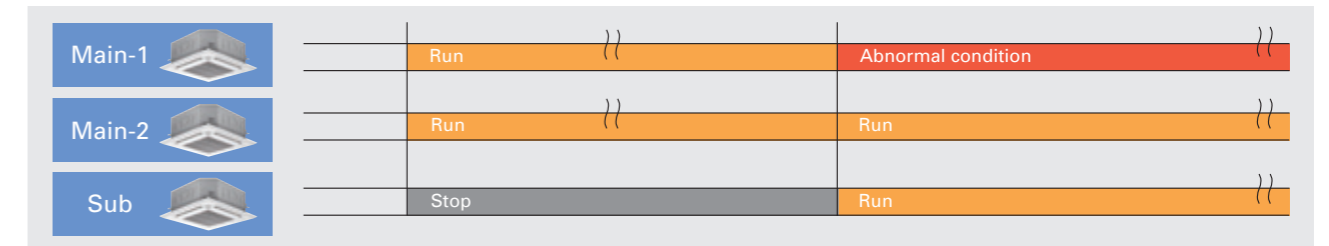
2+1 Back-up rotation*

The use of a three-refrigerant air conditioning system enables you to utilize the back-up, rotation, and cut-in functions. This allows you to implement effective risk management for added peace of mind.

*Availability of this function is depending on outdoor unit, indoor unit and remote controller.

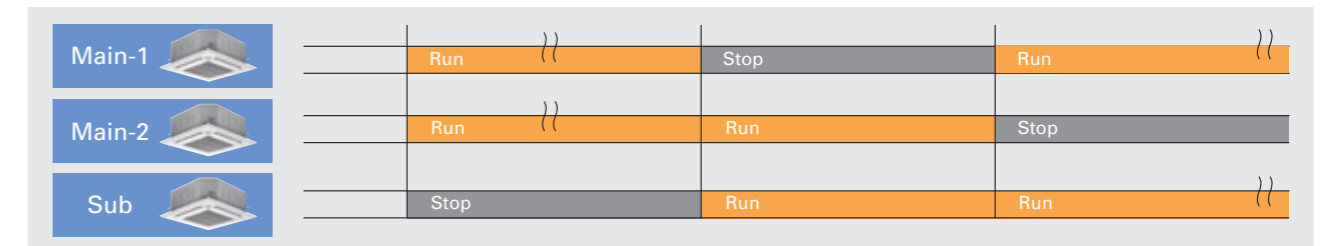
Back-up Function

In the unlikely event that one of the units stops operation due to an abnormality, the standby unit immediately starts back-up operation. Being fully prepared for a failure guarantees that an operation is always available and gives you the confidence that your system will be reliable in any situation.



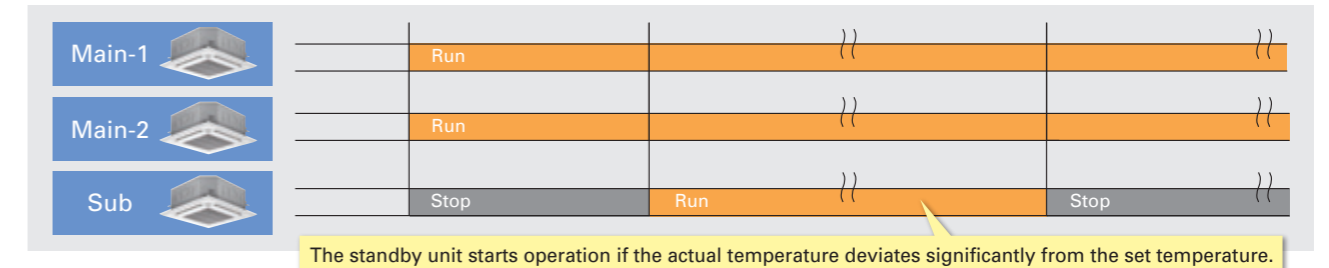
Rotation Function

A single remote controller is used to operate three-refrigerant air conditioning system in a rotation pattern. Reducing the burden on the equipment allows you to maintain a longer time between maintenance and increases product life.



Cut-in Function

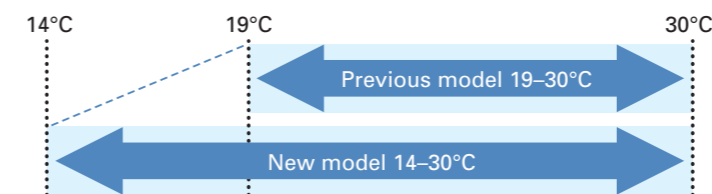
If the actual room temperature greatly differs from the set temperature and two-refrigerant air conditioning system is insufficient, the standby unit starts operation to provide support.



Extended cooling set temperature range*

In environments such as gyms where people do strenuous exercise, even if the room is cooled to an appropriate temperature, people may feel that it is hot, and they need a cooler air. To satisfy such demands, we have extended the lower limit of the cooling set temperature range from 19-30°C. to 14-30°C.

*Insulation kit (PAC-SK36HK-E) is required when indoor unit is PLA series.
*Availability of this function is depending on outdoor unit, indoor unit and remote controller.



Display of model names and serial numbers*

The model names and serial numbers of the indoor/outdoor units that are connected to the MA smart remote controller can be automatically acquired and displayed through one simple operation. This eliminates the need to directly check each unit and helps with inquiries in the case of an abnormality.

*Availability of this function is depending on outdoor unit, indoor unit and remote controller.

● Model name display (example)

```
Collect model names and S/N
OU PUZ-ZM200YKA2
IU1 PLA-ZM50EA2
IU2 PLA-ZM50EA2
IU3 PLA-ZM50EA2
IU4 PLA-ZM50EA2
Collect data: ✓
- Address + S/N
```

● Serial number display (example)

```
Collect model names and S/N
OU 1ZU0001
IU1 1ZA0001
IU2 1ZA0002
IU3 1ZA0003
IU4 1ZA0004
Collect data: ✓
- Address + Model
```

Preliminary error history*

In addition to error history, the history of preliminary abnormalities can be displayed. The feature enables the unit status check during inspection and maintenance.

*Availability of this function is depending on outdoor unit, indoor unit and remote controller.

●Error history (Sample)

Error history		1/4
Error	Unit# dd/mm/yy	
E0	0-1 21/10/20 PM12:34	
E0	0-1 20/12/20 AM 1:23	
E0	0-1 20/11/20 PM10:55	
E0	0-1 20/10/20 PM12:01	

Error history menu: Page Delete

●Preliminary error history (Sample)

Preliminary error hist.		1/8
Error	Unit# dd/mm/yy	
E0	0-1 21/10/20 PM12:34	
E0	0-1 20/12/20 AM 1:23	
E0	0-1 20/11/20 PM10:55	
E0	0-1 20/10/20 PM12:01	

Error history menu: Page Delete

Display of power consumption*

It is possible to measure, acquire, and display the amount of energy used by each air conditioning system.

*Availability of this function is depending on outdoor unit, indoor unit and remote controller.

< Data Collection Period >

Time data: Every 30 minutes over the past month

Monthly/daily data: Monthly over the past 14 months

Energy consumption values are calculated from estimated power consumption values according to the operating conditions. They may vary from the actual power consumption values. Please note that the power consumption of optional parts is not included except in the case of optional parts that have their power supplied directly by the outdoor unit.

●Every 30 minutes (example)

Energy data	
2019-1-1	1234.5kWh 1/6
0:30	123.4kWh
1:00	123.4kWh
1:30	123.4kWh
2:00	123.4kWh

Return: Date Page

●Daily (example)

Energy data	
2019-1	123456.7kWh 1/4
31	1234.5kWh
30	1234.5kWh
29	1234.5kWh
28	1234.5kWh

Return: Page

●Monthly (example)

Energy data	
▶2019-1	123456.7kWh 1/3
2018-12	123456.7kWh
2018-11	123456.7kWh
2018-10	123456.7kWh
2018-9	123456.7kWh

View daily data: Cursor

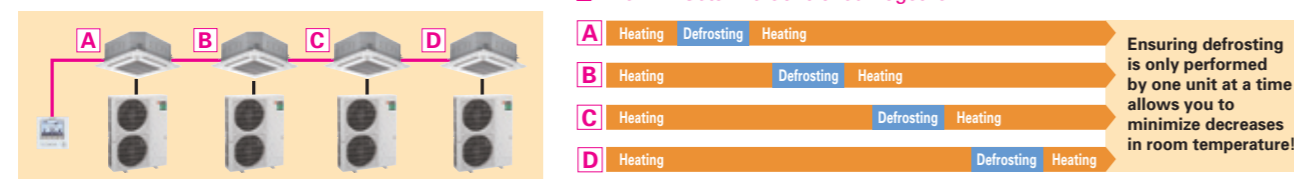
Improved defrosting performance*

*Availability of this function is depending on outdoor unit, indoor unit and remote controller.

Avoiding Simultaneous Defrosting

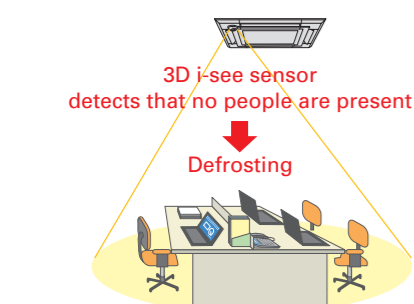
When each of multiple units is in operation for heating in the same space, these may start defrosting at the same time, resulting in a drop in the room temperature. Therefore, we have developed a new function that controls up to four-refrigerant air conditioning system to avoid simultaneous defrosting. By ensuring that defrosting is only performed by one unit at a time, it is possible to minimize any decrease in room temperature.

Example System Configuration
Four sets controlled by a single remote controller



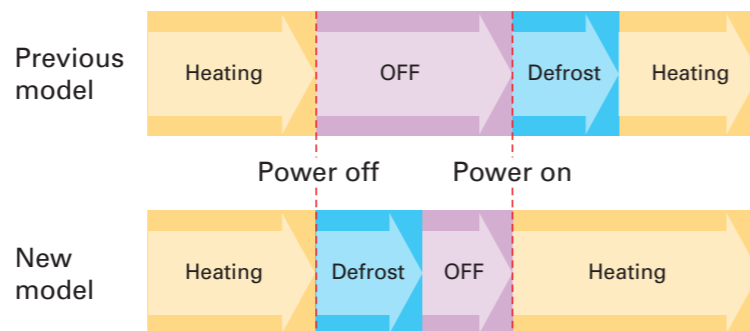
Defrosting When People Are Absent

The use of the 3D i-see sensor allows a more comfortable defrosting schedule. After a large amount of frost has built up, the system will switch to defrosting when the 3D i-see sensor detects that no people are present. By minimizing defrosting while people are in the room, there is a much lower chance of a temperature drop while the room is occupied.



Defrosting When Operation is Stopped

It takes a long time to start operation if there is an excess build-up of frost. Therefore, each unit is equipped with a control system where defrosting is performed immediately after operation is stopped when there is a large amount of frost. This allows heating to be quickly started the next day.



The power turns off after defrosting is complete and the system will start up smoothly the next time it is used.

* Only compatible with 4-way cassette and 2x2 cassette models with an attached 3D i-see sensor panel. Even though people are present in the room, the defrosting process may start if all defrosting conditions are met.

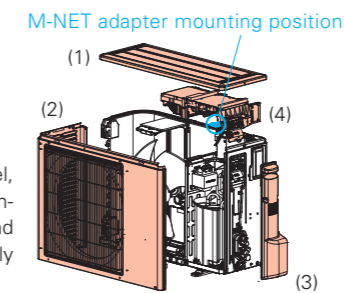
Easier M-NET Adapter Installation

The optional M-NET adapter, which allows centralized control (M-NET control), is now easier to install. The redesigned mounting position significantly reduces the time and effort for installation.

Conventional Model

PAC-SJ96MA-E
Removed parts

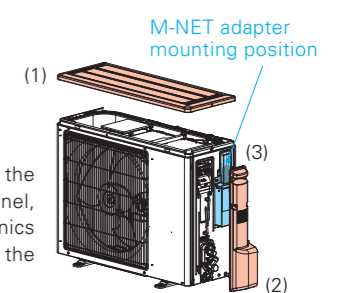
The (1) top panel, (2) front panel, (3) service panel, and (4) electronics box need to be removed, and the connector must be temporarily unplugged.



New Model

PAC-SK15MA-E
Removed parts

There is no need to remove the (1) top panel, (2) service panel, (3) service plate, electronics box, nor temporarily unplug the connector.



Improved chargeless piping length ZM100/125/140

PUZ-ZM100/125/140V(Y)KA used to have a chargeless pipe length of 30 m. However, starting with the V(Y)KA2 model, this has been extended to 40 m. This allows it to be used for a wider range of applications without the need for additional charging of refrigerant.

	Maximum piping length	Chargeless piping length		Maximum piping length	Chargeless piping length
PUZ-ZM 100V (Y)KA	100m	30m	→	PUZ-ZM 100V (Y)KA2	100m
PUZ-ZM 125V (Y)KA	100m	30m	→	PUZ-ZM 125V (Y)KA2	100m
PUZ-ZM 140V (Y)KA	100m	30m	→	PUZ-ZM 140V (Y)KA2	100m

Utilizing IoT for Improved Convenience*

*Availability of IoT functions are depending on MELCloud version.

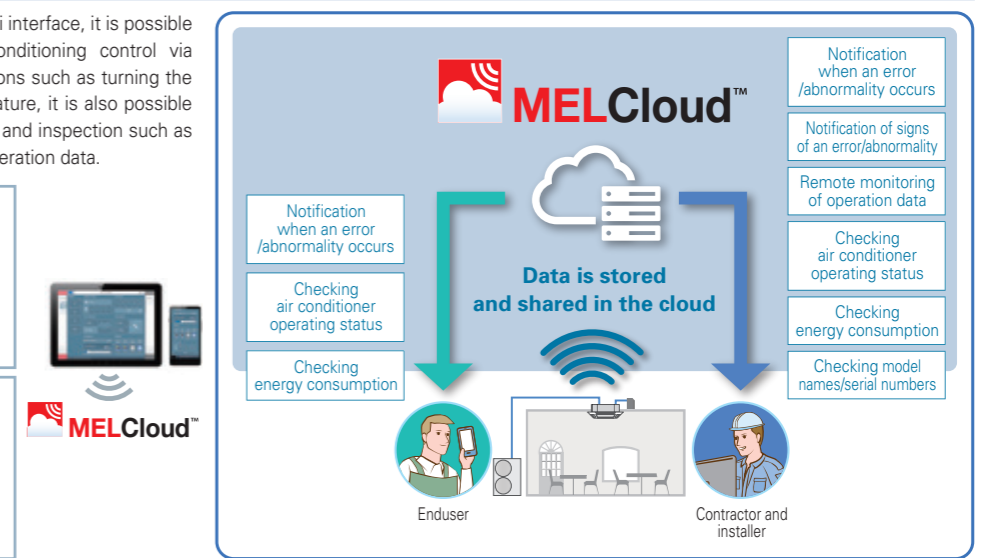
By connecting to a MAC-587IF-E Wi-Fi interface, it is possible to collect data and perform air conditioning control via MELCloud. In addition to basic functions such as turning the power on/off and setting the temperature, it is also possible to acquire data used for maintenance and inspection such as model names, serial numbers, and operation data.

[Basic Operation Functions]

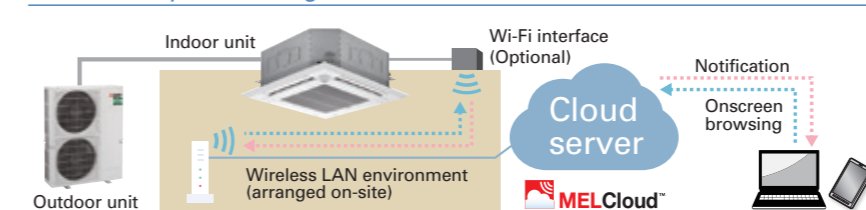
- Operation on/off
- Temperature setting
- Operation mode
- Airflow speed
- Airflow direction etc...

[Data Collection and Display]

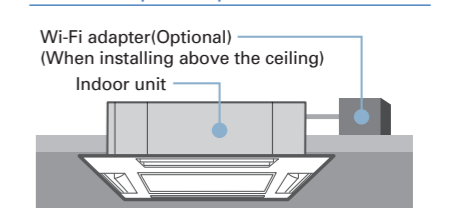
- Model name display
- Serial number display
- Collection of operation data
- Energy consumption display etc...



MELCloud System Configuration



Wi-Fi Adapter (Optional) Installation



On-Site Installation and Configuration

- 1 Wireless LAN adapter installation
Connect the wireless LAN adapter to the indoor unit PCB and install it above the ceiling.
- 2 Wireless LAN adapter and router connection settings
- 3 Wireless LAN adapter and server connection settings

Collection of operation data

All the operation data required for maintenance and inspection can be collected in a simple step. This data can then be easily checked via MELcloud. This makes it easy to check the operating status data even in cases when it is difficult to do a visual inspection. This allows you to quickly identify any system malfunctions. This function also helps to improve the quality of installation work and shortening the time required for maintenance and inspection.

Operation data that can be collected (example)

- Compressor frequency ●Compressor operating current ●Outdoor discharge temperature
- Outdoor heat exchanger temperature ●Outdoor air temperature ●Compressor shell temperature
- Sub cool ●Discharge superheat ●Indoor inlet temperature ●Indoor heat exchanger temperature
- Total compressor operating time●Compressor operation count ●Indoor filter operating time

This operation data is strange...



*1 The total compressor operating time is displayed in units of 10 hours. The compressor operation count is displayed in units of 100.
*2 Indicates the elapsed time since a filter sign reset was performed.

Demand control

It is possible to control air-conditioners to appropriately operate according to the energy supply-demand adjustment by electric power companies and each electricity rate plan of end users.

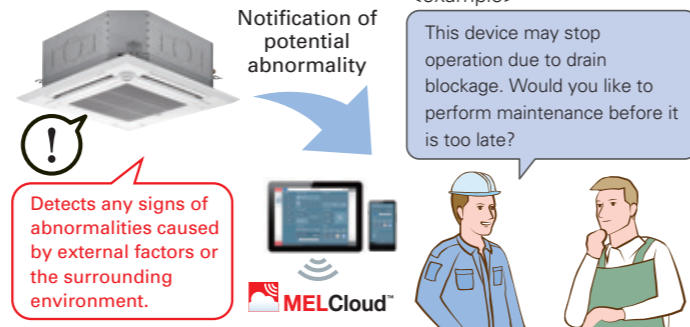
e.g. <Peak cut control> It is possible to utilize an external demand signal to reduce power consumption during peak hours. By satisfying the need for reducing peak power consumption or shifting consumption to a non-peak period, we have increased the range of options for our customers.

Notification of potential abnormality

The comprehensive analysis of operating data allows the early detection of abnormalities in small functional parts by alerting the operator of any signs of abnormal behaviour. The recognition in advance of abnormalities in each unit further improves the ease of servicing and maintenance. Since this allows a countermeasure to be implemented before the abnormality requires the unit to be completely shut down, it is an effective method for maintaining the unit in its optimum condition.

[Abnormalities That Have Their Signs Monitored]

- Filter blockage ●Drain blockage ●Refrigerant leakage
- Heat exchanger blockage etc...



Detects any signs of abnormalities caused by external factors or the surrounding environment.



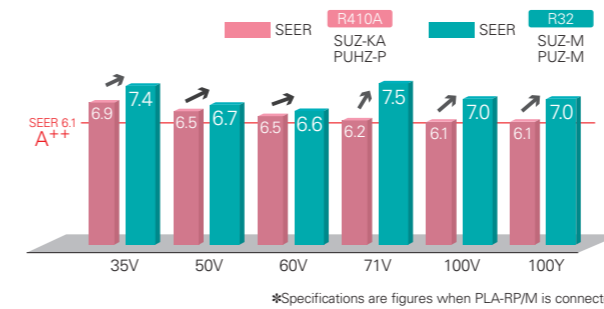
Standard Inverter SERIES

Our Standard Series become light and compact with greater energy-saving performance.



Improved energy efficiency

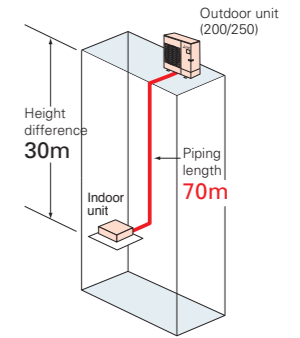
Introduction of new R32 refrigerant realises improved cooling efficiency. Rating of more than 6.6 achieved for all capacity range.



Longer piping (100/125/140/200/250)

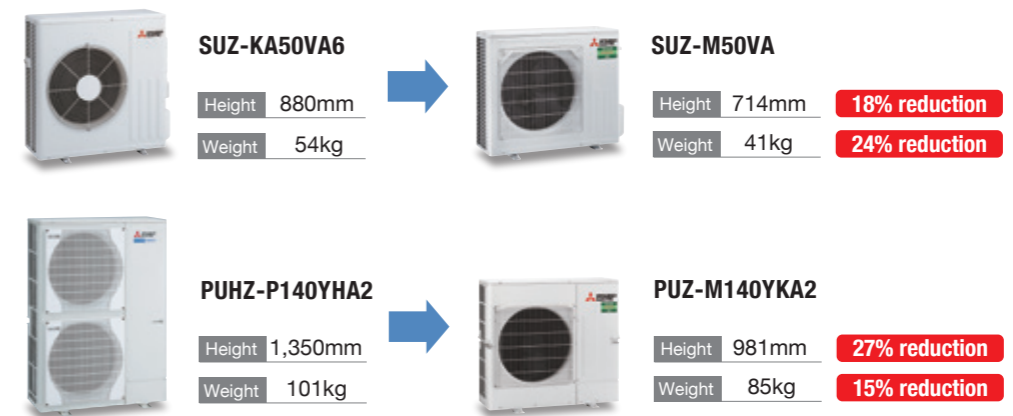
Longer piping length realised for 100, 125, 140, 200 and 250 classes, widely increasing installation flexibility.

	Max. Piping Length	
	R410A SUZ-KA PUHZ-P	R32 SUZ-M PUZ-M
25/35	20m	20m
50/60/71	30m	30m
100	50m	55m
125/140	50m	65m
200/250	70m	70m



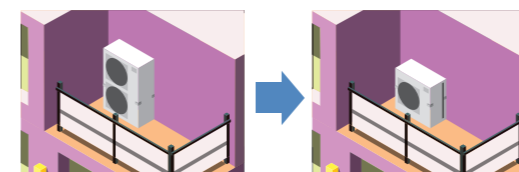
Light weight and compact size

Compact design fits into narrow outdoor unit space of condominiums and offices. Light weight design facilitates easy installation.



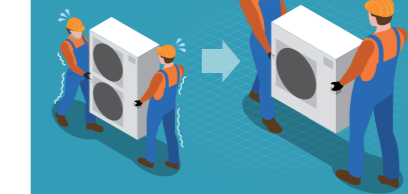
Unobstructive, compact, and easy to hide from view

Conventional outdoor units may spoil the view. Due to its compact size, the new model can be installed in locations that previous model is not suitable.



Easy transportation and installation

The reduced weight and height allow for better transportation performance. Carrying and installing become easier.



Transport efficiency improves thanks to its low height. The unit can even be transported by minivan.

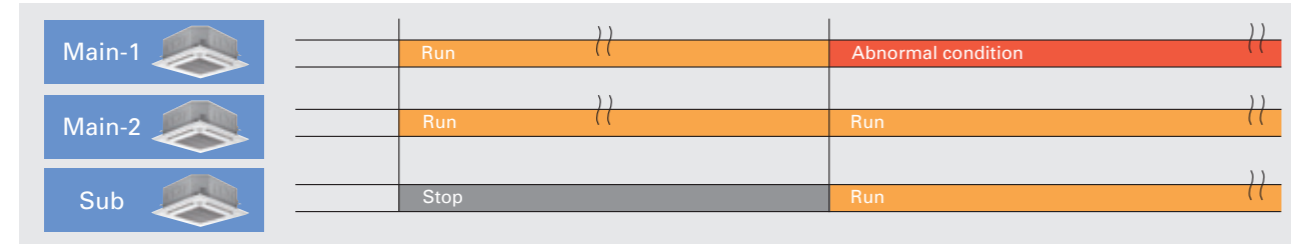
2+1 Back-up rotation*

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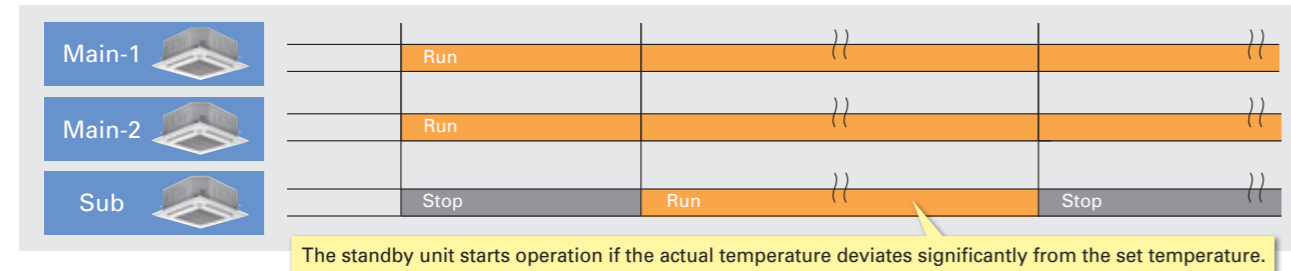
Rotation Function

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Cut-in Function

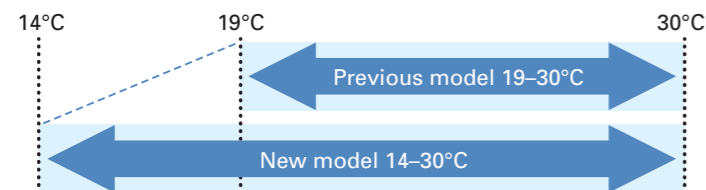
If the actual room temperature greatly differs from the set temperature and two-refrigerant air conditioning system is insufficient, the standby unit starts operation to provide support.



Extended cooling set temperature range*

In environments such as gyms where people do strenuous exercise, even if the room is cooled to an appropriate temperature, people may feel that it is hot, and they need a cooler air. To satisfy such demands, we have extended the lower limit of the cooling set temperature range from 19–30°C. to 14–30°C.

*Insulation kit (PAC-SK36HK-E) is required when indoor unit is PLA series.
*Availability of this function is depending on outdoor unit, indoor unit and remote controller.



Display of model names and serial numbers*

The model names and serial numbers of the indoor/outdoor units that are connected to the MA smart remote controller can be automatically acquired and displayed through one simple operation. This eliminates the need to directly check each unit and helps with inquiries in the case of an abnormality.

*Availability of this function is depending on outdoor unit, indoor unit and remote controller.

●Model name display (example)

```
Collect model names and S/N
0 OU PUZ-ZM200YKA2
IU1 PLA-ZM50EA2
IU2 PLA-ZM50EA2
IU3 PLA-ZM50EA2
IU4 PLA-ZM50EA2
Collect data: ✓
-Address + S/N
```

●Serial number display (example)

```
Collect model names and S/N
0 OU 1ZU0001
IU1 1ZA0001
IU2 1ZA0002
IU3 1ZA0003
IU4 1ZA0004
Collect data: ✓
-Address + Model
```

Preliminary error history*

In addition to error history, the history of preliminary abnormalities can be displayed. The feature enables the unit status check during inspection and maintenance.

*Availability of this function is depending on outdoor unit, indoor unit and remote controller.

●Error history (Sample)

Error	Unit#	dd/mm/yy
E0	0-1	21/10/20 PM12:34
E0	0-1	20/12/20 AM 1:23
E0	0-1	20/11/20 PM10:55
E0	0-1	20/10/20 PM12:01

●Preliminary error history (Sample)

Error	Unit#	dd/mm/yy
E0	0-1	21/10/20 PM12:34
E0	0-1	20/12/20 AM 1:23
E0	0-1	20/11/20 PM10:55
E0	0-1	20/10/20 PM12:01

Display of power consumption*

It is possible to measure, acquire, and display the amount of energy used by each air conditioning system.

*Availability of this function is depending on outdoor unit, indoor unit and remote controller.

< Data Collection Period >

Time data: Every 30 minutes over the past month

Monthly/daily data: Monthly over the past 14 months

Energy consumption values are calculated from estimated power consumption values according to the operating conditions. They may vary from the actual power consumption values. Please note that the power consumption of optional parts is not included except in the case of optional parts that have their power supplied directly by the outdoor unit.

●Every 30 minutes (example)

Time	Energy
2019-1-1 0:30	123.4kWh
1:00	123.4kWh
1:30	123.4kWh
2:00	123.4kWh
2:30	123.4kWh
3:00	123.4kWh
3:30	123.4kWh
4:00	123.4kWh

●Daily (example)

Date	Energy
2019-1-31	123456.7kWh
30	1234.5kWh
29	1234.5kWh
28	1234.5kWh

●Monthly (example)

Year	Month	Energy
2019	1	123456.7kWh
2018	12	123456.7kWh
2018	11	123456.7kWh
2018	10	123456.7kWh
2018	9	123456.7kWh

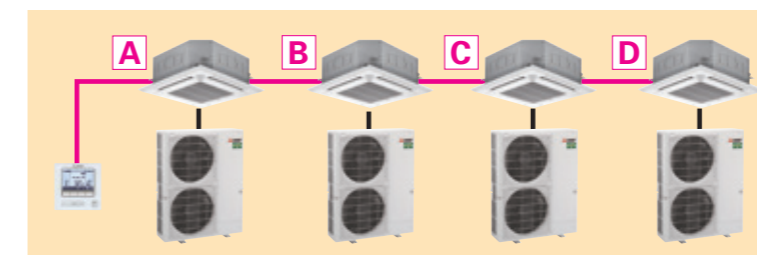
Improved defrosting performance*

*Availability of this function is depending on outdoor unit, indoor unit and remote controller.

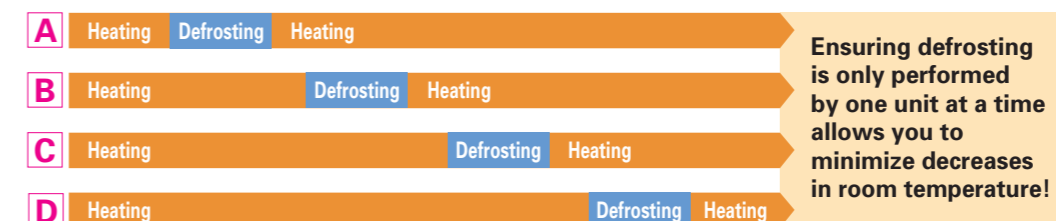
Avoiding Simultaneous Defrosting

When each of multiple units is in operation for heating in the same space, these may start defrosting at the same time, resulting in a drop in the room temperature. Therefore, we have developed a new function that controls up to four-refrigerant air conditioning system to avoid simultaneous defrosting. By ensuring that defrosting is only performed by one unit at a time, it is possible to minimize any decrease in room temperature.

Example System Configuration Four sets controlled by a single remote controller



When All Sets Are Controlled Together



Ensuring defrosting is only performed by one unit at a time allows you to minimize decreases in room temperature!

Utilizing IoT for Improved Convenience*

*Availability of IoT functions are depending on MELCloud version.

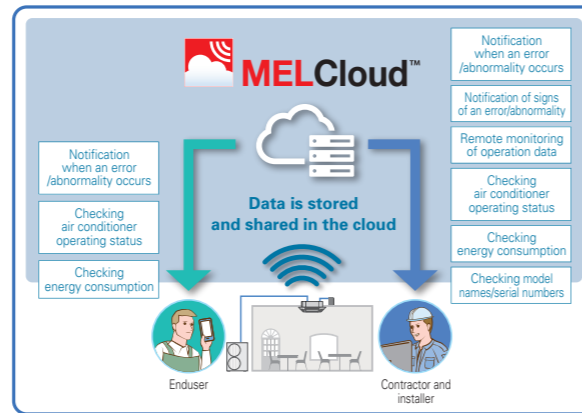
By connecting to a MAC-5871F-E Wi-Fi interface, it is possible to collect data and perform air conditioning control via MELCloud. In addition to basic functions such as turning the power on/off and setting the temperature, it is also possible to acquire data used for maintenance and inspection such as model names, serial numbers, and operation data.

[Basic Operation Functions]

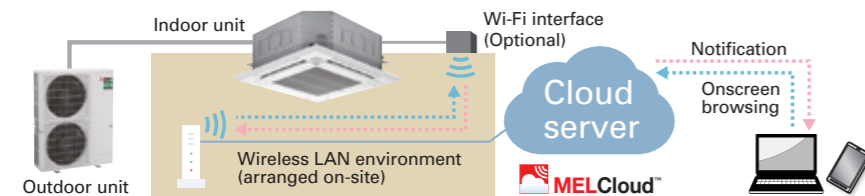
- Operation on/off ● Temperature setting
- Operation mode ● Airflow speed
- Airflow direction etc...

[Data Collection and Display]

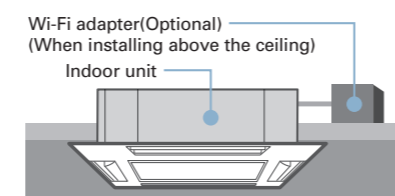
- Model name display ● Serial number display
- Collection of operation data
- Energy consumption display etc...



MELCloud System Configuration



Wi-Fi Adapter (Optional) Installation



On-Site Installation and Configuration

① Wireless LAN adapter installation

Connect the wireless LAN adapter to the indoor unit PCB and install it above the ceiling.

② Wireless LAN adapter and router connection settings

③ Wireless LAN adapter and server connection settings

Collection of operation data

All the operation data required for maintenance and inspection can be collected in a simple step. This data can then be easily checked via MELcloud. This makes it easy to check the operating status data even in cases when it is difficult to do a visual inspection. This allows you to quickly identify any system malfunctions. This function also helps to improve the quality of installation work and shortening the time required for maintenance and inspection.

Operation data that can be collected (example)

- Compressor frequency ● Compressor operating current ● Outdoor discharge temperature
- Outdoor heat exchanger temperature ● Outdoor air temperature ● Compressor shell temperature
- Sub cool ● Discharge superheat ● Indoor inlet temperature ● Indoor heat exchanger temperature
- Total compressor operating time ● Compressor operation count ● Indoor filter operating time



*1 The total compressor operating time is displayed in units of 10 hours. The compressor operation count is displayed in units of 100.
*2 Indicates the elapsed time since a filter sign reset was performed.

Demand control

It is possible to control air-conditioners to appropriately operate according to the energy supply-demand adjustment by electric power companies and each electricity rate plan of end users.

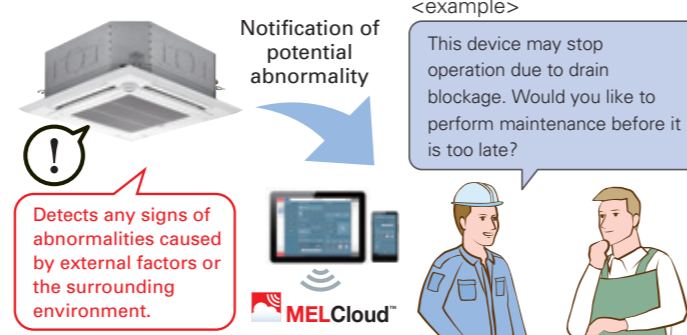
e.g. <Peak cut control> It is possible to utilize an external demand signal to reduce power consumption during peak hours. By satisfying the need for reducing peak power consumption or shifting consumption to a non-peak period, we have increased the range of options for our customers.

Notification of potential abnormality

The comprehensive analysis of operating data allows the early detection of abnormalities in small functional parts by alerting the operator of any signs of abnormal behaviour. The recognition in advance of abnormalities in each unit further improves the ease of servicing and maintenance. Since this allows a countermeasure to be implemented before the abnormality requires the unit to be completely shut down, it is an effective method for maintaining the unit in its optimum condition.

[Abnormalities That Have Their Signs Monitored]

- Filter blockage ● Drain blockage ● Refrigerant leakage
- Heat exchanger blockage etc...



PLA SERIES

PLA-ZM35/50/60/71/100/125/140EA2

PLA-M35/50/60/71/100/125/140EA2

A complete line-up including deluxe units that offer added energy savings. The incorporation of "3D total flow" and the "3D i-see Sensor" enhances airflow distribution control, achieving an enhanced level of comfort throughout the room. The synergy of higher energy efficiency and more comfortable room environment results in the utmost user satisfaction.

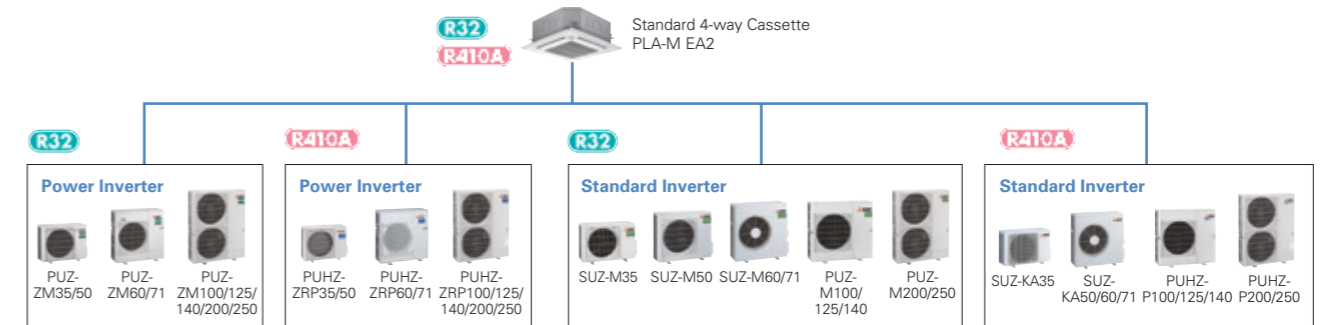
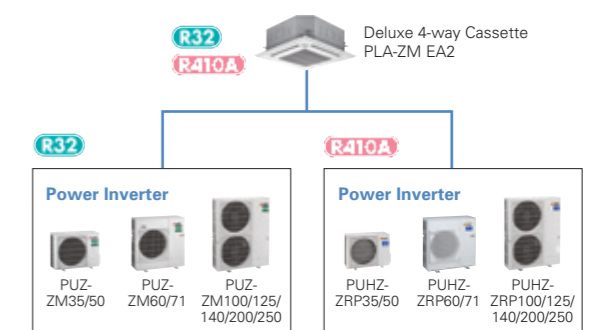
Deluxe 4-way Cassette Line-up

For users seeking even further energy savings, Mitsubishi Electric now offers deluxe units (PLA-ZM) to complete the line-up of models in this series, from 35-140. Compared to the standard models (PLA-M), deluxe models provide additional energy savings, contributing to a significant reduction in electricity costs.

Line-up

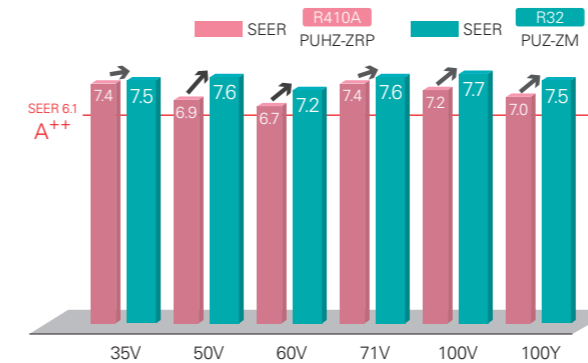
Series	Model	35	50	60	71	100	125	140
R32 R410A	Deluxe 4-way Cassette (PLA-ZM)	●	●	●	●	●	●	●
R32 R410A	Standard 4-way Cassette (PLA-M)	●	●	●	●	●	●	●

Indoor/Outdoor Unit Combinations



Industry-leading energy efficiency

Introduction of new R32 refrigerant realises improved cooling efficiency. Rating of more than 7.0 achieved for all capacity range. Introduction of new R32 refrigerant reduces energy consumption and realises energy savings.

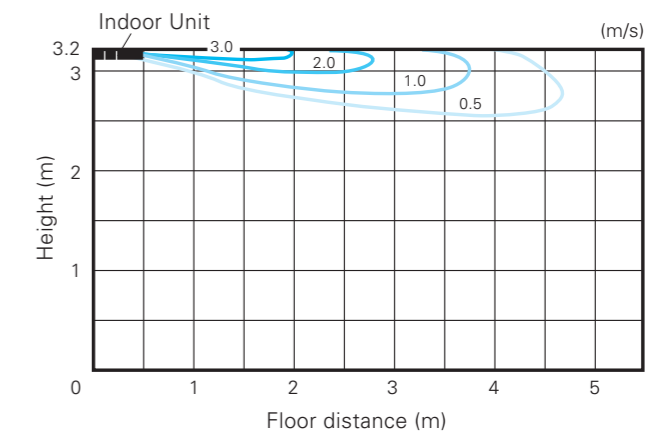


Horizontal Airflow

The new airflow control removes that uncomfortable drafty feeling with the introduction of a horizontal airflow that spreads across the ceiling. The ideal airflow for offices and restaurants.



[Horizontal airflow]
Model name: PLA-ZM140EA2
Ceiling height: 3.2m
Mode: Cooling



Automatic Grille Lowering Function (PLP-6EAJ, PLP-6EAJE)*

An automatic grille lowering function is available for easy filter maintenance. Special wired and wireless remote controllers can be used to lower the intake grille for maintenance.

*Auto elevation panel(PLP-6EAJ,PLP-6EAJE) cannot be used with Plasma Quad Connect(PAC-SK51FT-E) and Insulation kit (PAC-SK36HK-E).



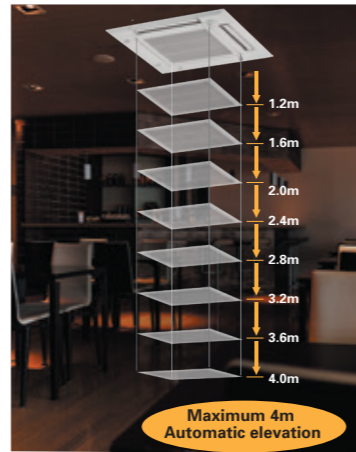
Grille Elevation Remote Controller (comes with the automatic elevation panel)



Wired Remote Controller



Wireless Remote Controller



Easy Installation

Electrical box wiring

After reviewing the power supply terminal position in the electrical box, the structure was redesigned to improve connectivity. This has made previously complex wiring work easier.

■ Previous model (B Series)



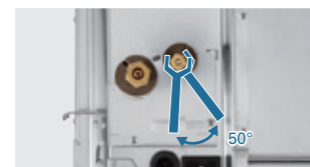
■ New model (E Series)



Increased space for plumbing work

The top and bottom positions of the liquid and gas pipes have been reversed to allow the gas pipe work, which requires more effort, to be completed first. Further, through structural innovations related to the space around the pipes, the area where the spanner can be moved has been increased, thus improving liquid pipe work and enabling it to be completed smoothly.

■ Previous model (B Series)



■ New model (E Series)



Temporary hanging hook

The structure of the panel has been revised and is now equipped with a temporary hanging hook. This has improved work efficiency during panel installation.



No need to remove screws

Installation is possible without removing the screws for the corner panel and the control box, simply loosen them. This lowers the risk of losing screws.

■ Corner panel



■ Control box cover



Lightweight decorative panel

After reviewing the structure and materials, weight has been reduced approximately 20% compared to the previous model, reducing the burden of installation.



3D i-see Sensor for S & P SERIES

Detects number of people

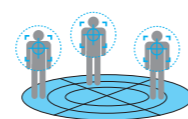
3D i-see Sensor detects the number of people in the room and sets the air-conditioning power accordingly. This makes automatic power-saving operation possible in places where the number of people entering and exiting is large. Additionally, when the area is continuously unoccupied, the system switches to a more enhanced power-saving mode. Depending on the setting, it will save additional capacity or stop operation altogether.

Detects people's position

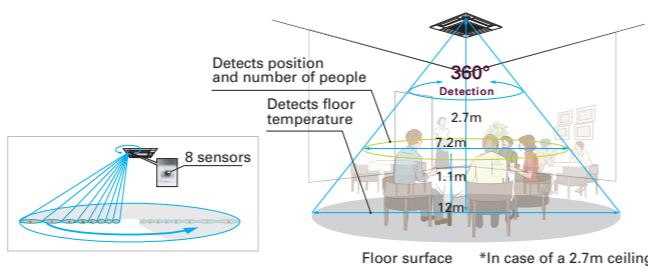
Once the position of a person is detected, the duct angle of the vane is automatically adjusted in that direction. Each vane can be independently set to "block wind" or "not block wind" according to taste.



Detects number of people



Detects people's position



Floor surface *In case of a 2.7m ceiling

Detects number of people (3D i-see Sensor)

Room occupancy energy-saving mode

The 3D i-see Sensor detects the number of people in the room. It then calculates the occupancy rate based on the maximum number of people in the room up to that point in time in order to save air-conditioning power. When the occupancy rate is approximately 30%, air-conditioning power equivalent to 1°C during both cooling and heating operation is saved. The temperature is controlled according to the number of people.

Room occupancy energy save mode



No occupancy energy-saving mode

When 3D i-see Sensor detects that no one is in the room, the system is switched to a pre-set power-saving mode. If the room remains unoccupied for more than 60min, air-conditioning power equivalent to 2°C during both cooling and heating operation is saved. This contributes to preventing waste in terms of heating and cooling.

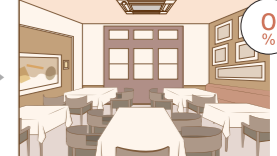
No occupancy energy save mode



No occupancy Auto-OFF mode*

When the room remains unoccupied for a pre-set period of time, the air conditioner turns off automatically, thereby providing even greater power savings. The time until operation is stopped can be set in intervals of 10min, ranging from 60 to 180 min.

No occupancy Auto-Off mode

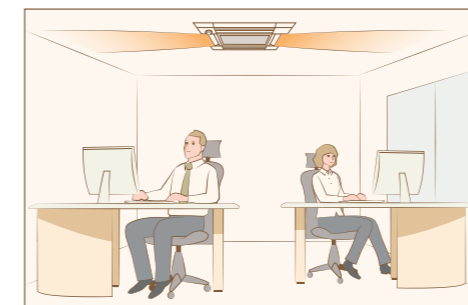


*PAR-41MAA is required for each setting

Detects people's position (3D i-see Sensor)

Direct/Indirect settings*

Some people do not like the feel of wind, some want to be warm from head to toe. People's likes and dislikes vary. With the 3D i-see Sensor, it is possible to choose to block or not block to the wind for each vane.



*PAR-41MAA or PAR-SL101A-E is required for each setting.

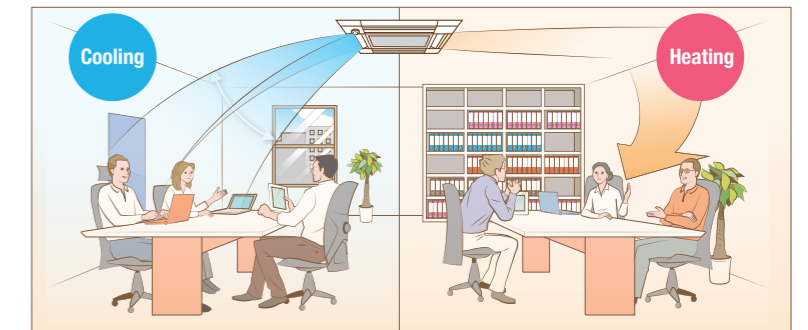
Seasonal airflow*

<When cooling>

Saves energy while keeping a comfortable effective temperature by automatically switching between ventilation and cooling. When a pre-set temperature is reached, the air conditioning unit switches to swing fan operation to maintain the effective temperature. This clever function contributes to keeping a comfortable coolness.

<When heating>

The air conditioning unit automatically switches between circulator and heating. Wasted heat that accumulates near the ceiling is reused via circulation. When a pre-set temperature is reached the air conditioner switches from heating to circulator and blows air in the horizontal direction. It pushes down the warm air that has gathered near the ceiling to people's height, thereby providing smart heating.

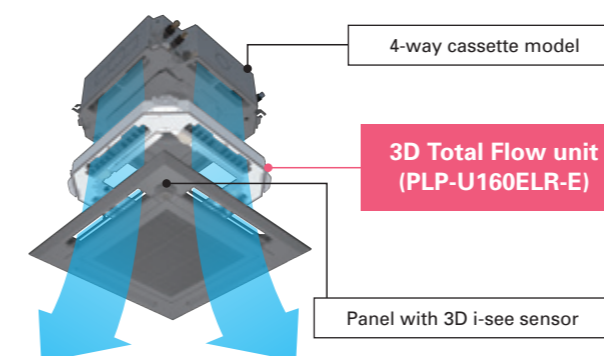


*PAR-41MAA is required for each setting.

3D Total Flow*

3D Total Flow is an innovative function. Our original 3D i-see sensor detects the temperature of the floor, and then the newly installed 3D Total Flow unit automatically controls the airflow in the left/right directions in a smart manner.

*3D Total Flow unit(PLP-U160ELR-E) cannot be used with Plasma Quad Connect(PAC-SK51FT-E), Insulation kit(PAC-SK36HK-E), Shutter Plate(PAC-SJ37SP-E), Multi functional casement(PAC-SJ41TM-E) and High-efficiency filter element(PAC-SH59KF-E)



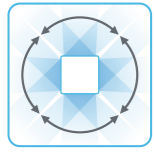
Horizontal louver (3D Total Flow)

In addition to the ability of conventional models to control airflow in the vertical direction, the adoption of a horizontal louver unit allows each outlet to blow air over a horizontal angle of 90 degrees. The combination of four outlets delivers 360° airflow control around the entire circumference. This now makes it possible to blow air in diagonal directions which eliminates temperature irregularities.



louvers can provide horizontal airflow control.

Fine-tuned sensing & airflow direction control (3D Total Flow)

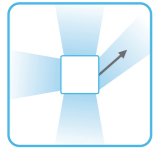
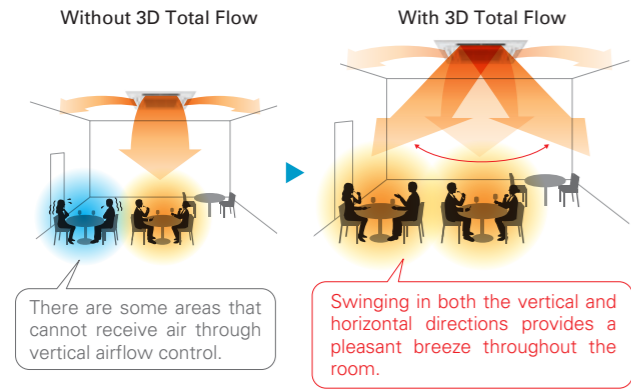


Swinging

Since airflow can be controlled in the horizontal and vertical directions, you can efficiently make the entire room comfortable.

Horizontal, vertical, and diagonal airflow delivered to every corner

The combination of the vertical vanes with the horizontal louver unit makes it possible to direct airflow in any direction. This quickly makes the entire room comfortable, even when diagonal airflow is necessary.

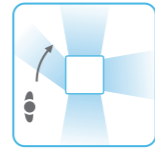
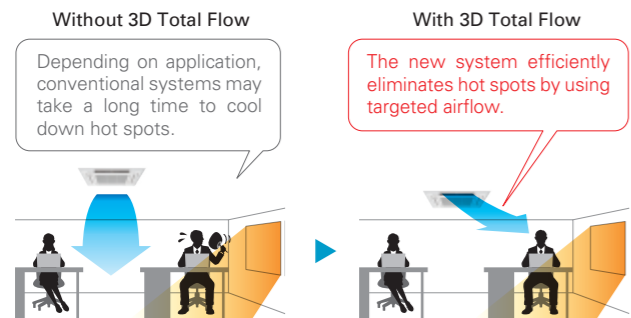


Targeting

The system can detect spaces with uneven temperatures and target them by sending air even if they are in a diagonal direction.

Detects and targets areas with uneven temperatures

3D i-see sensor detects areas with uneven temperatures, even if they are caused by the installation orientation of the air conditioner or the influence of strong sunlight. Efficient air conditioning is possible thanks to the ability to send focused airflow to such areas, even those in a diagonal position.

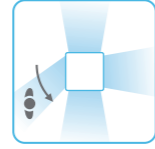
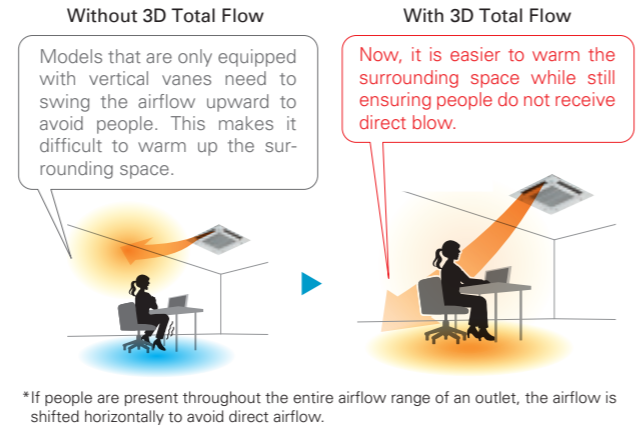


Indirect mode

When set to "Indirect" mode, the system detects the position of a person and maintains comfort while diverting airflow away from them.

Prevents direct airflow and keeps you comfortable

This function prevents people from being directly exposed to airflow while still ensuring comfort. The "Indirect" mode of 3D Total Flow keeps the downward airflow while avoiding direct blow to people, delivering a pleasant warmth.

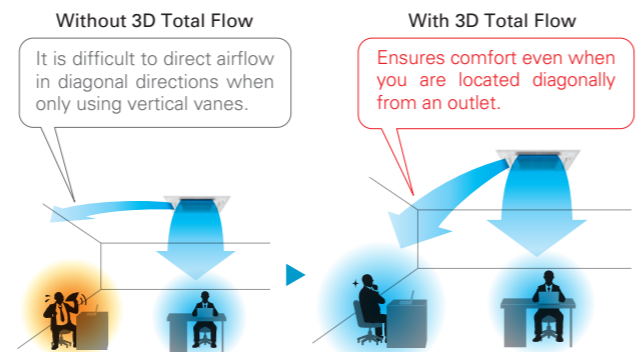


Direct mode

When set to "Direct" mode, the system detects the position and diverts airflow towards wherever they are located.

Delivers airflow even in diagonal directions

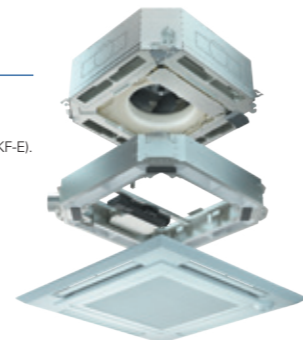
You can freely turn on "Direct" mode depending on personal preference. This allows for air conditioning in diagonal directions which was difficult for models that could only swing the airflow up and down. This feature is perfect for when you come back home on a hot day.



Connectable to Plasma Quad Connect*

The optional Plasma Quad Connect PAC-SK51FT-E can be installed on the indoor units.

*Plasma Quad Connect(PAC-SK51FT-E) cannot be used with PLP-U160ELR-E(3D Total Flow unit), Insulation kit (PAC-SK36HK-E), Auto elevation panel(PLP-6EAJ, PLP-6EAJE), Multi functional casement(PAC-SJ41TM-E) and High-efficiency filter element(PAC-SH59KF-E).



SERIES SELECTION

Power Inverter Series

Indoor Unit

R32
R410A



Panel PLA-ZM35/50/60/71/100/125/140EA2

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

*Auto elevation panel(PLP-6EAJ, PLP-6EAJE) cannot be used with Plasma Quad Connect(PAC-SK51FT-E) and Insulation kit (PAC-SK36HK-E).

3D Total Flow Unit

PLP-U160ELR-E (optional)

Remote Controller



Outdoor Unit

R32

For Single



PUZ-ZM35/50 PUZ-ZM60/71 PUZ-ZM100/125/140

R32

For Multi (Twin/Triple/Quadruple)



PUZ-ZM71 PUZ-ZM100/125/140/200/250

PLA-ZM EA2 Indoor Unit Combinations

Indoor unit combinations shown below are possible.

Indoor Unit Combination	Outdoor Unit Capacity																			
	For Single								For Twin				For Triple		For Quadruple					
	35	50	60	71	100	125	140	200	250	71	100	125	140	200	250	140	200	250	200	250
Power Inverter (PUZ-ZM)	35x1	50x1	60x1	71x1	100x1	125x1	140x1	-	-	35x2	50x2	60x2	71x2	100x2	125x2	50x3	60x3	71x3	50x4	60x4
Distribution Pipe	-	-	-	-	-	-	-	-	-	MSDD-50TR2-E				MSDD-50WR2-E		MSDT-111R3-E		MSDF-111R2-E		

SERIES SELECTION

Standard Inverter Series

Indoor Unit

R32
R410A



Panel PLA-M35/50/60/71/100/125/140EA2

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

*Auto elevation panel(PLP-6EAJ, PLP-6EAJE) cannot be used with Plasma Quad Connect(PAC-SK51FT-E) and Insulation kit (PAC-SK36HK-E).

3D Total Flow Unit

PLP-U160ELR-E* (optional)
*SUZ combination is not available.

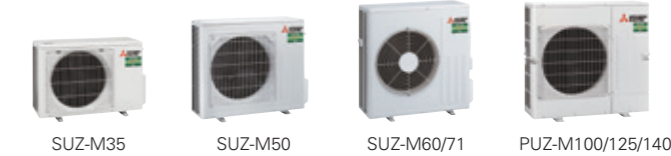
Remote Controller



Outdoor Unit

R32

For Single



SUZ-M35 SUZ-M50 SUZ-M60/71 PUZ-M100/125/140

R32

For Multi (Twin/Triple/Quadruple)



PUZ-M100/125/140 PUZ-M200/250

PLA-M EA2 Indoor Unit Combinations

Indoor unit combinations shown below are possible.

Indoor Unit Combination	Outdoor Unit Capacity																		
	For Single								For Twin				For Triple		For Quadruple				
	35	50	60	71	100	125	140	200	250	71	100	125	140	200	250	140	200	250	200
Standard Inverter (SUZ & PUZ-M)	35x1	50x1	60x1	71x1	100x1	125x1	140x1	-	-	50x2	60x2	71x2	100x2	125x2	50x3	60x3	71x3	50x4	60x4
Distribution Pipe	-	-	-	-	-	-	-	-	-	MSDD-50TR2-E				MSDD-50WR2-E		MSDT-111R3-E		MSDF-111R2-E	

SERIES SELECTION

Power Inverter Series

Indoor Unit

PLA-ZM35/50/60/71/100/125/140EA2

Panel

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

Outdoor Unit

R410A

For Single

PUHZ-ZRP35/50 PUHZ-ZRP60/71 PUHZ-ZRP100/125/140

R410A

For Multi (Twin/Triple/Quadruple)

PUHZ-ZRP71 PUHZ-ZRP100/125/140/200/250

Remote Controller

Optional Optional Optional *

* Enclosed in PLP-6EALM2/PLP-6EALME2

PLA-ZM EA2 Indoor Unit Combinations Indoor unit combinations shown below are possible.

Indoor Unit Combination	Outdoor Unit Capacity																							
	For Single								For Twin								For Triple				For Quadruple			
	35	50	60	71	100	125	140	200	250	71	100	125	140	200	250	140	200	250	200	250				
Power Inverter (PUHZ-ZRP)	35x1	50x1	60x1	71x1	100x1	125x1	140x1	-	-	35x2	50x2	60x2	71x2	100x2	125x2	50x3	60x3	71x3	50x4	60x4				
Distribution Pipe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	MSDD-50TR-E	MSDD-50WR-E	MSDT-111R-E	MSDF-1111R-E	MSDF-1111R-E				

SERIES SELECTION

Standard Inverter Series

Indoor Unit

PLA-M35/50/60/71/100/125/140EA2

Panel

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

Outdoor Unit

R410A

For Single

SUZ-KA35 SUZ-KA50/60/71 PUHZ-P100/125/140

R410A

For Multi (Twin/Triple/Quadruple)

PUHZ-P100/125/140 PUHZ-P200/250

Remote Controller

Optional Optional Optional *

* Enclosed in PLP-6EALM2/PLP-6EALME2

PLA-M EA2 Indoor Unit Combinations Indoor unit combinations shown below are possible.

Indoor Unit Combination	Outdoor Unit Capacity																							
	For Single								For Twin								For Triple				For Quadruple			
	35	50	60	71	100	125	140	200	250	71	100	125	140	200	250	140	200	250	200	250				
Standard Inverter (SUZ & PUHZ-P)	35x1	50x1	60x1	71x1	100x1	125x1	140x1	-	-	50x2	60x2	71x2	100x2	125x2	50x3	60x3	71x3	50x4	60x4					
Distribution Pipe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	MSDD-50TR-E	MSDD-50WR-E	MSDT-111R-E	MSDF-1111R-E	MSDF-1111R-E				

PLA-ZM SERIES POWER INVERTER

Type	Inverter Heat Pump													
Indoor Unit	PLA-ZM35EA2	PLA-ZM50EA2	PLA-ZM60EA2	PLA-ZM71EA2	PLA-ZM100EA2	PLA-ZM125EA2	PLA-ZM140EA2	PLA-ZM100EA2	PLA-ZM125EA2	PLA-ZM140EA2	PLA-ZM100EA2	PLA-ZM125EA2		
Outdoor Unit	PUHZ-ZRP35KA2	PUHZ-ZRP60KA2	PUHZ-ZRP100KA2	PUHZ-ZRP71KA2	PUHZ-ZRP125KA2	PUHZ-ZRP140KA2	PUHZ-ZRP100KA2	PUHZ-ZRP125KA2	PUHZ-ZRP140KA2	PUHZ-ZRP100KA2	PUHZ-ZRP125KA2			
Refrigerant ⁽¹⁾	R410A													
Power Supply	Outdoor power supply VKA-VHA-230/Single/50, YKA-400/Three/50													
Cooling	Capacity	Rated	kW											
		Min-Max	kW											
	Total Input	kW												
	EER	Rated												
	Design load	kW												
	Annual electricity consumption ⁽²⁾	kWh/a												
Heating	Capacity	Rated	kW											
		Min-Max	kW											
	Total Input	kW												
	COP	Rated												
	Design load	kW												
	Annual electricity consumption ⁽²⁾	kWh/a												
Operating Current(Max)		Rated	A											
Input [cooling / Heating]		Rated	kW											
Operating Current(Max)			A											
Dimensions		H*W*D	mm											
Weight			kg											
Air Volume (Lo-Mi2-Mi1-Hi)			m ³ /min											
Sound Level (Lo-Mi2-Mi1-Hi) (SPL)			dB(A)											
Sound Level (PWL)			dB(A)											
Dimensions		H*W*D	mm											
Weight			kg											
Air Volume		Cooling	m ³ /min											
		Heating	m ³ /min											
Sound Level (SPL)		Cooling	dB(A)											
		Heating	dB(A)											
Sound Level (PWL)		Cooling	dB(A)											
Operating Current(Max)			A											
Breaker Size			A											
Diameter ⁽³⁾		Liquid/Gas	mm											
Max.Length		Out-In	m											
Max.Height		Out-In	m											
Guaranteed Operating Range (Outdoor)		Cooling ⁽³⁾	°C											
		Heating	°C											

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 CO₂ 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 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 Joint pipe is required depending on installed refrigerant pipes, outdoor units and indoor units.

PLA-M SERIES STANDARD INVERTER

Type	Inverter Heat Pump													
Indoor Unit	PLA-M35EA2	PLA-M50EA2	PLA-M60EA2	PLA-M71EA2	PLA-M100EA2	PLA-M125EA2	PLA-M140EA2	PLA-M100EA2	PLA-M125EA2	PLA-M140EA2	PLA-M100EA2	PLA-M125EA2		
Outdoor Unit	SUZ-KA35VA6	SUZ-KA50VA6	SUZ-KA60VA6	SUZ-KA71VA6	PUHZ-P100KA	PUHZ-P125KA	PUHZ-P140KA	PUHZ-P100KA	PUHZ-P125KA	PUHZ-P140KA	PUHZ-P100KA	PUHZ-P125KA		
Refrigerant ⁽¹⁾	R410A													
Power Supply	Outdoor power supply VA-VKA-230/Single/50, YKA-400/Three/50													
Cooling	Capacity	Rated	kW											
		Min-Max	kW											
	Total Input	kW												
	EER	Rated												
	Design load	kW												
	Annual electricity consumption ⁽²⁾	kWh/a												
Heating	Capacity	Rated	kW											
		Min-Max	kW											
	Total Input	kW												
	COP	Rated												
	Design load	kW												
	Annual electricity consumption ⁽²⁾	kWh/a												
Operating Current(Max)		Rated	A											
Input [cooling / Heating]		Rated	kW											
Operating Current(Max)			A											
Dimensions		H*W*D	mm											
Weight			kg											
Air Volume (Lo-Mi2-Mi1-Hi)			m ³ /min											
Sound Level (Lo-Mi2-Mi1-Hi) (SPL)			dB(A)											
Sound Level (PWL)			dB(A)											
Dimensions		H*W*D	mm											
Weight			kg											
Air Volume		Cooling	m ³ /min											
		Heating	m ³ /min											
Sound Level (SPL)		Cooling	dB(A)											
		Heating	dB(A)											
Sound Level (PWL)		Cooling	dB(A)											
Operating Current(Max)			A											
Breaker Size			A											
Diameter ⁽³⁾		Liquid/Gas	mm											
Max.Length		Out-In	m											
Max.Height		Out-In	m											
Guaranteed Operating Range (Outdoor)		Cooling ⁽³⁾	°C											
		Heating	°C											

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 CO₂ 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 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 Joint pipe is required depending on installed refrigerant pipes, outdoor units and indoor units.

PEA SERIES

The PEA Series is a large capacity ceiling-concealed type indoor units which are visually discreet blending into various environments. The new R32 refrigerant lineup realizes improved energy efficiency with a patented fan called a Turbo In Sirocco fan. A wider option of external static pressure up to 200Pa allows authentic ducted air-conditioning with an elegant interior layout.

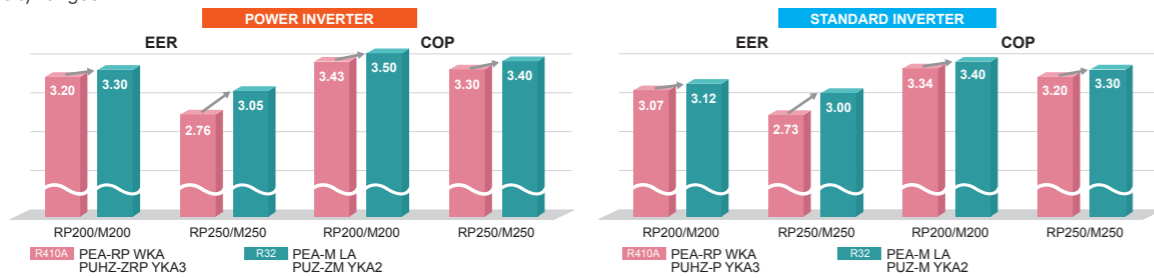


PEA-M200/250LA



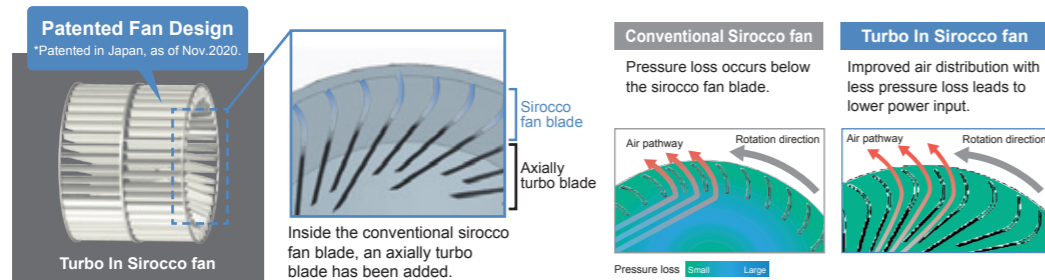
Improved Energy Efficiency

Introduction of new R32 refrigerant with newly designed fan reduces energy consumption and have resulted in higher energy savings for all capacity ranges.



Low input with New Fan Design

The new PEA series applies a newly designed fan; a Turbo In Sirocco fan which realizes high efficiency with a lower power input. The new design is Mitsubishi Electric's patented technology with a combination of turbo fan inside the sirocco fan.



Wide range of external static pressure allows flexible duct design

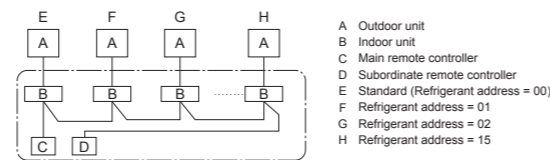
200Pa setting is newly added enabling total of five static pressure level. The ability to select additional static pressure enables long duct and more freedom in design.

PEA-M200/250LA <60>/75/<100>/<150>/<200> Pa

The factory setting of external static pressure is shown without brackets (< >). Refer to "Fan characteristics curves" according to the external static pressure, in the DATA BOOK for the usable range of airflow rate.

PAR-41MAA Group Control

The PAR-41MAA remote controller can control up to 16 systems as a group, and is ideal for supporting the integrated management of building air conditioners.



LINE-UP

Indoor Unit PEA-M200/250LA	Outdoor Unit Power Inverter Series R410A PUHZ-ZRP200/250	Standard Inverter Series R410A PUHZ-P200/250
	Power Inverter Series R32 PUZ-ZM200/250	Standard Inverter Series R32 PUZ-M200/250

Remote Controller
 Optional: PAR-41MAA, PAR-41MAA, PAR-41MAA

PEA-M SERIES POWER INVERTER



Type	Inverter Heat Pump				
Indoor Unit	PEA-M200LA	PEA-M250LA			
Outdoor Unit	PUZ-ZM200YKA2	PUZ-ZM250YKA2			
Refrigerant ⁽¹⁾	R32				
Power Supply	Separate power supply				
Cooling	Capacity	Rated	kW	19.0	22.0
	Min-Max	kW	9.2 - 22.4	9.9 - 27.0	
	Total Input	Rated	kW	6.757	7.213
	EER			3.30	3.05
Heating	Capacity	Rated	kW	22.4	27.0
	Min-Max	kW	7.1 - 25	7.3 - 31	
	Total Input	Rated	kW	6.400	7.941
	COP			3.50	3.40
Operating Current(Max)		A	25.7	25.9	
Indoor Unit	Input [cooling / Heating]	Rated	kW	0.35/0.35	0.53/0.53
	Operating Current(Max)	A	3.1	3.4	
	Dimensions	H*W*D	mm	470 - 1370 - 1120	
	Weight	kg		87	
	Air Volume (Lo-Mi2-Mi1-Hi)	m³/min	42-51-60(60Pa-150Pa) 42-51-55(200Pa)	50-61-72(60Pa-100Pa) 45-55-65(150Pa) 45-50-55(200Pa)	
	External Static Pressure	Pa		(60)/75/(100)/(150)/(200)	
	Sound Level (Lo-Mi2-Mi1-Hi) (SPL)	dB(A)	35-40-43	38-43-47	
	Sound Level (PWL)	dB(A)	63-64-64	67-67-68	
Outdoor Unit	Dimensions	H*W*D	mm	1338-1050-330(+40)	
	Weight	kg		138	
	Air Volume	Cooling	m³/min	140	
	Heating	m³/min	140		
Sound Level (SPL)	Cooling	dB(A)	59		
	Heating	dB(A)	62		
Sound Level (PWL)	Cooling	dB(A)	77		
	Heating	dB(A)	77		
	Operating Current(Max)	A	22.5		
	Breaker Size	A	32		
Ext.Piping	Diameter ⁽²⁾	Liquid/Gas	mm	9.52 / 25.4	
	Max.Length	Out-In	m	100	
	Max.Height	Out-In	m	30	
Guaranteed Operating Range (Outdoor)	Cooling ⁽³⁾	°C	-15~+46		
	Heating	°C	-20~+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 CO₂, 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 Optional air protection guide is required where ambient temperature is lower than -5°C.
 *3 Joint pipe is required depending on installed refrigerant pipes, outdoor units and indoor units.

PEA-M SERIES STANDARD INVERTER



Type	Inverter Heat Pump				
Indoor Unit	PEA-M200LA	PEA-M250LA			
Outdoor Unit	PUZ-M200YKA2	PUZ-M250YKA2			
Refrigerant ⁽¹⁾	R32				
Power Supply	Separate power supply				
Cooling	Capacity	Rated	kW	19.0	22.0
	Min-Max	kW	9.2 - 22.4	9.9 - 27.0	
	Total Input	Rated	kW	6.089	7.333
	EER			3.12	3.00
Heating	Capacity	Rated	kW	22.4	27.0
	Min-Max	kW	6.8 - 25	7.3 - 31	
	Total Input	Rated	kW	6.588	8.181
	COP			3.40	3.30
Operating Current(Max)		A	25.7	25.9	
Indoor Unit	Input [cooling / Heating]	Rated	kW	0.35/0.35	0.53/0.53
	Operating Current(Max)	A	3.1	3.4	
	Dimensions	H*W*D	mm	470 - 1370 - 1120	
	Weight	kg		87	
	Air Volume (Lo-Mi2-Mi1-Hi)	m³/min	42-51-60(60Pa-150Pa) 42-51-55(200Pa)	50-61-72(60Pa-100Pa) 45-55-65(150Pa) 45-50-55(200Pa)	
	External Static Pressure	Pa		(60)/75/(100)/(150)/(200)	
	Sound Level (Lo-Mi2-Mi1-Hi) (SPL)	dB(A)	35-40-43	38-43-47	
	Sound Level (PWL)	dB(A)	63-64-64	67-67-68	
Outdoor Unit	Dimensions	H*W*D	mm	1338-1050-330(+40)	
	Weight	kg		129	
	Air Volume	Cooling	m³/min	140	
	Heating	m³/min	140		
Sound Level (SPL)	Cooling	dB(A)	58		
	Heating	dB(A)	60		
Sound Level (PWL)	Cooling	dB(A)	78		
	Heating	dB(A)	77		
	Operating Current(Max)	A	22.5		
	Breaker Size	A	32		
Ext.Piping	Diameter ⁽²⁾	Liquid/Gas	mm	9.52 / 25.4	
	Max.Length	Out-In	m	70	
	Max.Height	Out-In	m	30	
Guaranteed Operating Range (Outdoor)	Cooling ⁽³⁾	°C	-15~+46		
	Heating	°C	-20~+21		

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 *2 Optional air protection guide is required where ambient temperature is lower than -5°C.
 *3 Joint pipe is required depending on installed refrigerant pipes, outdoor units and indoor units.

PEA-M SERIES

POWER INVERTER



Type		Inverter Heat Pump				
Indoor Unit		PEA-M200LA		PEA-M250LA		
Outdoor Unit		PUHZ-ZRP200YKA3		PUHZ-ZRP250YKA3		
Refrigerant ^{*1)}		R410A ^{*1)}				
Power Supply		Separate power supply				
Outdoor (V/Phase/Hz)		400 / Three / 50				
Cooling	Capacity	Rated	kW	19.0	22.0	
	Min - Max		kW	9.0 - 22.4	11.2 - 27.0	
	Total Input	Rated	kW	5.937	7.971	
	EER			3.20	2.76	
Heating (Average Season)	Capacity	Rated	kW	-	-	
	Min - Max		kW	22.4	27.0	
	Total Input	Rated	kW	9.5 - 25	12.5 - 31	
	COP			6.530	8.181	
Operating Current (max)				3.43	3.30	
Indoor Unit	Input (Cooling / Heating)	Rated	kW	22.2	24.4	
	Operating Current (max)		A	0.35 / 0.35	0.53 / 0.53	
	Dimensions	H x W x D	mm	3.1	470-1370-1120	
	Weight		kg		87	
	Air Volume (Lo-Mid-Hi)		m ³ /min	42-51-60(60Pa-150Pa)	42-51-55(200Pa)	
	External Static Pressure		Pa		(60)/75/(100)/(150)/(200)	
	Sound Level (SPL) (Lo-Mid-Hi)		dB(A)		35-40-43	
	Sound Level (PWL)		dB(A)		63-64-64	
	Outdoor Unit	Dimensions	H x W x D	mm	1338-1050-330(+40)	1338-1050-330(+40)
		Weight		kg	135	135
Air Volume		Cooling	m ³ /min		140	140
		Heating	m ³ /min		140	140
Sound Level (SPL)		Cooling	dB(A)		59	59
		Heating	dB(A)		62	62
Sound Level (PWL)		Cooling	dB(A)		77	77
		Operating Current (max)		A	19	21
Breaker Size			A		32	
Ext. Piping		Diameter ^{*3)}	Liquid / Gas	mm	9.52/25.4	12.7/25.4
	Max. Length	Out-In	m	100	100	
	Max. Height	Out-In	m	30	30	
Guaranteed Operating Range (Outdoor)	Cooling ^{*2)}	°C		-15 ~ +46	-15 ~ +46	
	Heating	°C		-20 ~ +21	-20 ~ +21	

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 *2 Optional air protection guide is required where ambient temperature is lower than -5°C.
 *3 Joint pipe is required depending on installed refrigerant pipes, outdoor units and indoor units.

PEA-M SERIES

STANDARD INVERTER



Type		Inverter Heat Pump				
Indoor Unit		PEA-M200LA		PEA-M250LA		
Outdoor Unit		PUHZ-P200YKA3		PUHZ-P250YKA3		
Refrigerant ^{*1)}		R410A ^{*1)}				
Power Supply		Separate power supply				
Outdoor (V/Phase/Hz)		400 / Three / 50				
Cooling	Capacity	Rated	kW	19.0	22.0	
	Min - Max		kW	9.0-22.4	11.2-27.0	
	Total Input	Rated	kW	6.188	8.058	
	EER			3.07	2.73	
Heating (Average Season)	Capacity	Rated	kW	22.4	27.0	
	Min - Max		kW	9.5-25	12.5-31	
	Total Input	Rated	kW	6.706	8.437	
	COP			3.34	3.20	
Operating Current (max)				22.2	24.4	
Indoor Unit	Input (Cooling / Heating)	Rated	kW	0.35/0.35	0.53/0.53	
	Operating Current (max)		A	3.1	3.4	
	Dimensions	H x W x D	mm		470-1370-1120	
	Weight		kg		87	
	Air Volume (Lo-Mid-Hi)		m ³ /min	42-51-60(60Pa-150Pa)	42-51-55 (200Pa)	
	External Static Pressure		Pa		(60)/75/(100)/(150)/(200)	
	Sound Level (SPL) (Lo-Mid-Hi)		dB(A)		35-40-43	
	Sound Level (PWL)		dB(A)		63-64-64	
	Outdoor Unit	Dimensions	H x W x D	mm	1338-1050-330(+40)	1338-1050-330(+40)
		Weight		kg	127	135
Air Volume		Cooling	m ³ /min		140	140
		Heating	m ³ /min		140	140
Sound Level (SPL)		Cooling	dB(A)		58	59
		Heating	dB(A)		60	62
Sound Level (PWL)		Cooling	dB(A)		78	77
		Operating Current (max)		A	19	21
Breaker Size			A		32	
Ext. Piping		Diameter ^{*3)}	Liquid / Gas	mm	9.52/25.4	12.7/25.4
	Max. Length	Out-In	m	70	70	
	Max. Height	Out-In	m	30	30	
Guaranteed Operating Range (Outdoor)	Cooling ^{*2)}	°C		-15 ~ +46	-15 ~ +46	
	Heating	°C		-20 ~ +21	-20 ~ +21	

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 *2 Optional air protection guide is required where ambient temperature is lower than -5°C.
 *3 Joint pipe is required depending on installed refrigerant pipes, outdoor units and indoor units.

PKA SERIES

The compact, wall-mounted indoor units offer the convenience of simple installation, and a large product line-up (M35-M100 models) ensures a best-match solution. Designed for highly efficient energy savings, the PKA Series is the answer to your air conditioning needs.

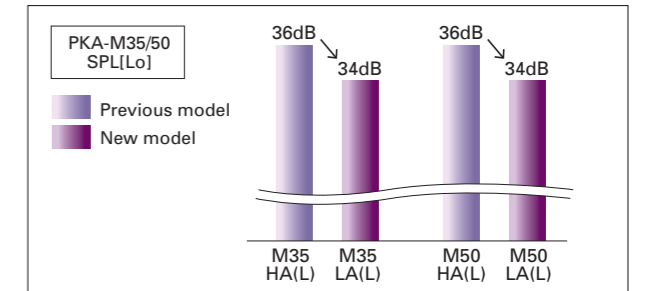
New Design (M35-50)

A sharp and simple form that combines beauty and function. The simple square design harmonizes beautifully with the straight lines created by the intersection of the walls, floor and ceiling of the space, leading to a better quality of space. Also adopted a new white body color. It will make your life and space beautiful and comfortable without disturbing the atmosphere of the room. In addition, we realized miniaturization of conventional model. It contributes to space saving of installation area and giving room to room space.



Quietness (M35-50)

The noise level has been significantly reduced compared to the conventional model by reviewing the unit structure and improving the line flow fan.



New Wireless Remote Controller Included

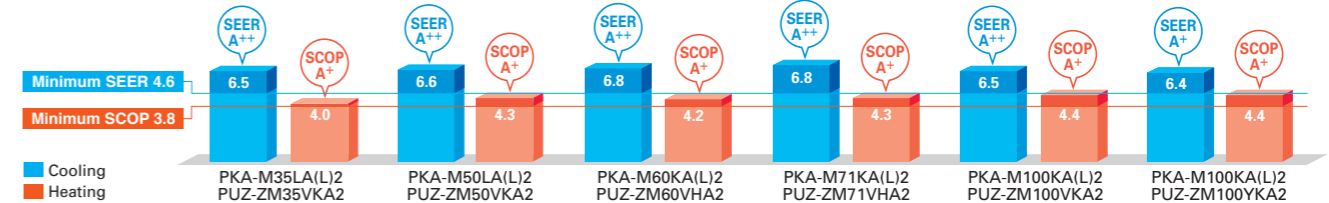
The PKA-KAL2 series wireless remote controller has been updated. It now comes with a new stylish remote controller that fits comfortably in your hand and has a wide range of useful functions.



- Main Functions of new Wireless Remote Controller**
- Weekly Timer
 - Backlight
 - Dual set point
 - Battery replacement sign etc...

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

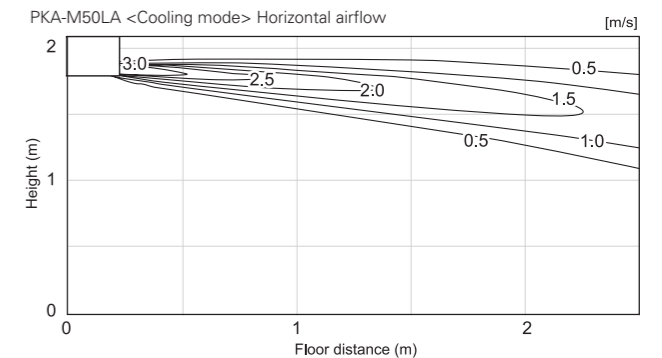
Highly efficient indoor unit heat exchangers and newly designed power inverters (PUHZ-ZM) contribute to an amazing reduction in electricity consumption throughout a year, and have resulted in models in the full-capacity range attaining the rank A, A+ and A++ energy savings rating.



Airflow Control - Horizontal Airflow - (M35-50)

Significantly improved airflow control to achieve horizontal airflow. This reduces the feeling of draft even on a wall-mounted model, and air conditioning the indoor space firmly.

Airflow distributions



PCA-KA SERIES

R32
R410A

PCA-M35/50/60/71/100/125/140KA2



A stylish new indoor unit design and airflow settings for both high- and low-ceiling interiors expand installation possibilities. Together with exceptional energy-saving performance, these units are the solution to diversified air conditioning needs.

Stylish Indoor Unit Design

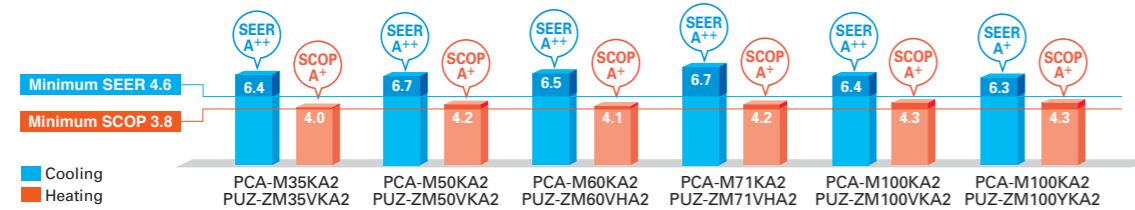
A stylish square-like design is adopted for the indoor units of all models. As a result, the units blend in better with the ceiling.



PCA-KA

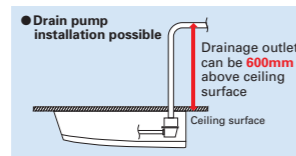
ErP Lot 10 Compliant with High Energy-efficiency Achieving SEER/SCOP Rank A, A+ and A++

A direct-current (DC) fan motor is installed in the indoor unit, increasing the seasonal energy efficiency of newly designed Power Inverter series (PUHZ-ZM) and resulting in the full capacity models comply ErP Lot 10 with energy ranking A+/A++ for cooling and A/A+ for heating. This contribute to an impressive reduction in the cost of annual electricity.



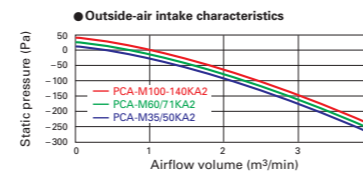
Optional Drain Pump for Full-capacity Models

The pumping height of the optional drain pump has been increased from 400mm to 600mm, expanding flexibility in choosing unit location during installation work.



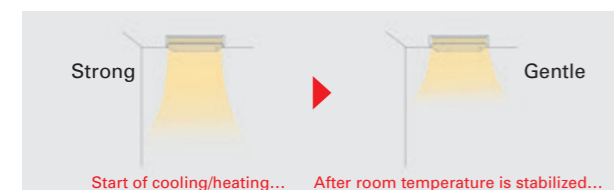
Outside-air Intake

Units are equipped with a knock-out hole that enables the induction of fresh outside-air.



Equipped with Automatic Air-speed Adjustment

In addition to the conventional 4-speed setting, units are now equipped with an automatic air-speed adjustment mode. This setting automatically adjusts the air-speed to conditions that match the room environment. At the start of heating/cooling operation, the airflow is set to high-speed to quickly heat/cool the room. When the room temperature reaches the desired setting, the airflow speed is decreased automatically for stable comfortable heating/cooling operation.



Equipped with High-/Low-ceiling Modes

Units are equipped with high- and low-ceiling operation modes that make it possible to switch the airflow volume to match room height. The ability to choose the optimum airflow volume makes it possible to optimize the breezy sensation felt throughout the room.

Capacity	High ceiling	Standard ceiling	Low ceiling
35	3.5m	2.7m	2.5m
50	3.5m	2.7m	2.5m
60	3.5m	2.7m	2.5m
71	3.5m	2.7m	2.5m
100	4.2m	3.0m	2.6m
125	4.2m	3.0m	2.6m
140	4.2m	3.0m	2.6m

SERIES SELECTION

Power Inverter Series



Indoor Unit

R32
R410A



PCA-M35/50/60/71/100/125/140KA2

Outdoor Unit

R32

For Single



R32

For Multi (Twin/Triple/Quadruple)



Remote Controller



PCA-M Indoor Unit Combinations

Indoor unit combinations shown below are possible.

Indoor Unit Combination	Outdoor Unit Capacity																			
	For Single								For Twin				For Triple		For Quadruple					
	35	50	60	71	100	125	140	200	250	71	100	125	140	200	250	140	200	250	200	250
Power Inverter (PUZ-ZM)	35x1	50x1	60x1	71x1	100x1	125x1	140x1	-	-	35x2	50x2	60x2	71x2	100x2	125x2	50x3	60x3	71x3	50x4	60x4
Distribution Pipe	-	-	-	-	-	-	-	-	-	MSDD-50TR2-E				MSDD-50WR2-E		MSDT-111R3-E		MSDF-1111R2-E		

SERIES SELECTION

Standard Inverter Series



Indoor Unit

R32
R410A

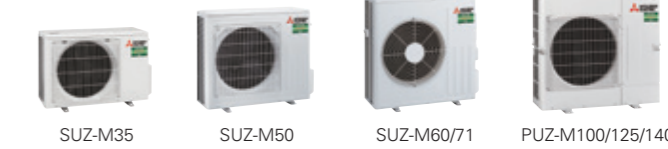


PCA-M35/50/60/71/100/125/140KA2

Outdoor Unit

R32

For Single



R32

For Multi (Twin/Triple/Quadruple)



Remote Controller



PCA-M Indoor Unit Combinations

Indoor unit combinations shown below are possible.

Indoor Unit Combination	Outdoor Unit Capacity																		
	For Single								For Twin				For Triple		For Quadruple				
	35	50	60	71	100	125	140	200	250	71	100	125	140	200	250	140	200	250	200
Standard Inverter (PUZ-M&SUZ)	35x1	50x1	60x1	71x1	100x1	125x1	140x1	-	-	50x2	60x2	71x2	100x2	125x2	50x3	60x3	71x3	50x4	60x4
Distribution Pipe	-	-	-	-	-	-	-	-	-	MSDD-50TR2-E				MSDD-50WR2-E		MSDT-111R3-E		MSDF-1111R2-E	

PCA-M KA SERIES
POWER INVERTER



Type	Inverter Heat Pump											
Indoor Unit	PCA-M35KA2	PCA-M50KA2	PCA-M60KA2	PCA-M71KA2	PCA-M100KA2	PCA-M100KA2	PCA-M125KA2	PCA-M125KA2	PCA-M140KA2	PCA-M140KA2	PCA-M140KA2	
Outdoor Unit	PUZ-ZM35VKA2	PUZ-ZM50VKA2	PUZ-ZM60VKA2	PUZ-ZM71VKA2	PUZ-ZM100VKA2	PUZ-ZM100VKA2	PUZ-ZM125VKA2	PUZ-ZM125VKA2	PUZ-ZM140VKA2	PUZ-ZM140VKA2	PUZ-ZM140VKA2	
Refrigerant ⁽¹⁾	R32											
Power Supply	Outdoor power supply											
Source	VA·VKA:230/Single/50, YKA:400/Three/50											
Supply	VKA·VHA:230/Single/50, YKA:400/Three/50											
Cooling	Capacity	Rated	kW	3.6	5.0	6.1	7.1	9.5	12.5	12.5	13.4	13.4
		Min-Max	kW	1.6 - 4.5	2.3 - 5.6	2.7 - 6.7	3.3 - 8.1	4.9 - 11.4	4.9 - 11.4	5.5 - 14.0	5.5 - 14.0	6.2 - 15.0
	Total Input	Rated	kW	0.829	1.250	1.521	1.829	2.375	2.375	3.846	3.846	3.941
	EER	Rated		4.34	4.00	4.01	3.88	4.00	4.00	3.25	3.25	3.40
	Design load		kW	3.6	5.0	6.1	7.1	9.5	9.5	12.5	12.5	13.4
Heating	Capacity	Rated	kW	4.1	5.5	7.0	8.0	11.2	11.2	14.0	14.0	16.0
		Min-Max	kW	1.6 - 5.2	2.5 - 6.6	2.8 - 8.2	3.5 - 10.2	4.5 - 14.0	4.5 - 14.0	5.0 - 16.0	5.0 - 16.0	5.7 - 18.0
	Total Input	Rated	kW	1.019	1.361	1.745	2.156	3.018	3.018	3.954	3.954	4.432
	COP	Rated		4.02	4.04	4.01	3.71	3.71	3.71	3.54	3.54	3.61
	Design load		kW	4.1	5.5	7.0	8.0	11.2	11.2	14.0	14.0	16.0

SERIES SELECTION

Power Inverter Series

Indoor Unit
R32 R410A
PCA-M35/50/60/71/100/125/140KA2

Outdoor Unit
R410A
For Single
PUHZ-ZRP35/50 PUHZ-ZRP60/71 PUHZ-ZRP100/125/140

R410A
For Multi (Twin/Triple/Quadruple)
PUHZ-ZRP100/125/140/200/250

Remote Controller
Optional

PCA-M KA Indoor Unit Combinations Indoor unit combinations shown below are possible.

Indoor Unit Combination	Outdoor Unit Capacity																							
	For Single					For Twin					For Triple					For Quadruple								
	35	50	60	71	100	125	140	200	250	71	100	125	140	200	250	140	200	250	200	250				
Power Inverter (PUHZ-ZRP)	35x1	50x1	60x1	71x1	100x1	125x1	140x1	-	-	35x2	50x2	60x2	71x2	100x2	125x2	50x3	60x3	71x3	50x4	60x4				
Distribution Pipe	-	-	-	-	-	-	-	-	-	MSDD-50TR-E					MSDD-50WR-E					MSDD-111R-E				

PCA-M KA SERIES
STANDARD INVERTER



Type	Inverter Heat Pump											
Indoor Unit	PCA-M35KA2	PCA-M50KA2	PCA-M60KA2	PCA-M71KA2	PCA-M100KA2	PCA-M100KA2	PCA-M125KA2	PCA-M125KA2	PCA-M140KA2	PCA-M140KA2	PCA-M140KA2	
Outdoor Unit	SUZ-M35VA	SUZ-M50VA	SUZ-M60VA	SUZ-M71VA	PUZ-M100VKA2	PUZ-M100VKA2	PUZ-M125VKA2	PUZ-M125VKA2	PUZ-M140VKA2	PUZ-M140VKA2	PUZ-M140VKA2	
Refrigerant ⁽¹⁾	R32											
Power Supply	Outdoor power supply											
Source	VA·VKA:230/Single/50, YKA:400/Three/50											
Supply	VA·VKA:230/Single/50, YKA:400/Three/50											
Cooling	Capacity	Rated	kW	3.6	5.0	6.1	7.1	9.5	12.1	12.1	13.4	13.4
		Min-Max	kW	0.8 - 3.9	1.5 - 5.6	1.6 - 6.3	2.2 - 8.1	4.0 - 10.6	4.0 - 10.6	5.7 - 13.0	5.7 - 13.0	5.7 - 14.1
	Total Input	Rated	kW	0.900	1.515	1.648	1.972	2.941	2.941	4.019	4.019	5.360
	EER	Rated		4.00	3.30	3.70	3.60	3.23	3.23	3.01	3.01	2.50
	Design load		kW	3.6	5.0	6.1	7.1	9.5	9.5	12.1	12.1	13.4
Heating	Capacity	Rated	kW	4.1	6.0	7.0	8.0	11.2	11.2	13.5	13.5	15.0
		Min-Max	kW	1.0 - 5.0	1.5 - 7.2	1.6 - 8.0	2.0 - 10.2	2.8 - 12.5	2.8 - 12.5	4.1 - 15.0	4.1 - 15.0	4.2 - 15.8
	Total Input	Rated	kW	1.025	1.617	1.750	2.216	3.284	3.284	3.958	3.958	4.285
	COP	Rated		4.00	3.71	4.00	3.61	3.41	3.41	3.41	3.41	3.50
	Design load		kW	4.1	6.0	7.0	8.0	11.2	11.2	13.5	13.5	15.0

SERIES SELECTION

Standard Inverter Series

Indoor Unit
R32 R410A
PCA-M35/50/60/71/100/125/140KA2

Outdoor Unit
R410A
For Single
SUZ-KA35 SUZ-KA50/60/71 PUHZ-P100/125/140

R410A
For Multi (Twin/Triple/Quadruple)
PUHZ-P100/125/140 PUHZ-P200/250

Remote Controller
Optional

PCA-M KA Indoor Unit Combinations Indoor unit combinations shown below are possible.

Indoor Unit Combination	Outdoor Unit Capacity																							
	For Single					For Twin					For Triple					For Quadruple								
	35	50	60	71	100	125	140	200	250	71	100	125	140	200	250	140	200	250	200	250				
Standard Inverter (PUHZ-P&SUZ)	35x1	50x1	60x1	71x1	100x1	125x1	140x1	-	-	50x2	60x2	71x2	100x2	125x2	50x3	60x3	71x3	50x4	60x4					
Distribution Pipe	-	-	-	-	-	-	-	-	-	MSDD-50TR-E					MSDD-50WR-E					MSDD-111R-E				


*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 CO₂ 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 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 Joint pipe is required depending on installed refrigerant pipes, outdoor units and indoor units.

SERIES SELECTION

Power Inverter Series

Indoor Unit

R32
R410A




PCA-M71HA2

Outdoor Unit

R32


For Single



PUZ-ZM71




R32

For Multi (Twin/Triple)




PUZ-ZM140/250

Remote Controller

Optional Optional Optional



Optional

PCA-M HA Indoor Unit Combinations Indoor unit combinations shown below are possible.

Indoor Unit Combination	Outdoor Unit Capacity																			
	For Single								For Twin				For Triple		For Quadruple					
	35	50	60	71	100	125	140	200	250	71	100	125	140	200	250	140	200	250	200	250
Power Inverter (PUZ-ZM)	-	-	-	71x1	-	-	-	-	-	-	-	-	71x2	-	-	-	-	71x3	-	-
Distribution Pipe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

SERIES SELECTION

Power Inverter Series

Indoor Unit

R32
R410A



PCA-M71HA2

Outdoor Unit

R410A

For Single



PUHZ-ZRP71

R410A

For Multi (Twin/Triple)



PUHZ-ZRP140/250

Remote Controller





Optional Optional Optional



Optional

PCA-M HA Indoor Unit Combinations Indoor unit combinations shown below are possible.

Indoor Unit Combination	Outdoor Unit Capacity																			
	For Single								For Twin				For Triple		For Quadruple					
	35	50	60	71	100	125	140	200	250	71	100	125	140	200	250	140	200	250	200	250
Power Inverter (PUHZ-ZRP)	-	-	-	71x1	-	-	-	-	-	-	-	-	71x2	-	-	-	-	71x3	-	-
Distribution Pipe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

PCA-RP HA SERIES POWER INVERTER

Optional: Demand Control, Fresh Air Intake, ON/Off Filter, Check!, ACO, Auto Restart, Low Temp Cooling, Silent, Ampere Limit, Rotation Back-up, Group Control, M-NET connection, COMPO, Clean Filter.

Optional: Wiring Reuse, Pump Down, Flare connection, Self Diagnosis, Failure Recall.

Type	Inverter Heat Pump	
Indoor Unit	PCA-M71HA2	
Outdoor Unit	PUZ-ZM71VHA2	
Refrigerant ⁽¹⁾	R32	
Power Supply	Outdoor power supply	
Supply	230/Single/50	
Cooling	Capacity	7.1
	Rated	kW
	Min-Max	3.3 - 8.1
	Total Input	2.028
	Rated	kW
	EER	3.50
Heating	Capacity	7.1
	Rated	kW
	Min-Max	3.5 - 10.2
	Total Input	2.171
	Rated	kW
	COP	3.50

Type	Inverter Heat Pump	
Indoor Unit	PCA-M71HA2	
Outdoor Unit	PUZ-ZM71VHA2	
Refrigerant ⁽¹⁾	R32	
Power Supply	Outdoor power supply	
Supply	230/Single/50	
Cooling	Capacity	7.1
	Rated	kW
	Min-Max	3.3 - 8.1
	Total Input	2.028
	Rated	kW
	EER	3.50
Heating	Capacity	7.1
	Rated	kW
	Min-Max	3.5 - 10.2
	Total Input	2.171
	Rated	kW
	COP	3.50

*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 CO₂, 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 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 Joint pipe is required depending on installed refrigerant pipes, outdoor units and indoor units.

PCA-RP HA SERIES POWER INVERTER

Optional: Demand Control, Fresh Air Intake, ON/Off Filter, Check!, ACO, Auto Restart, Low Temp Cooling, Silent, Ampere Limit, Rotation Back-up, Group Control, M-NET connection, COMPO, Clean Filter.

Optional: Wiring Reuse, Pump Down, Flare connection, Self Diagnosis, Failure Recall.

Type	Inverter Heat Pump	
Indoor Unit	PCA-M71HA2	
Outdoor Unit	PUHZ-ZRP71VHA2	
Refrigerant ⁽¹⁾	R410A	
Power Supply	Outdoor power supply	
Supply	230/Single/50	
Cooling	Capacity	7.1
	Rated	kW
	Min-Max	3.3 - 8.1
	Total Input	2.170
	Rated	kW
	EER	3.27
Heating	Capacity	7.1
	Rated	kW
	Min-Max	3.5 - 10.2
	Total Input	2.350
	Rated	kW
	COP	3.23

Type	Inverter Heat Pump	
Indoor Unit	PCA-M71HA2	
Outdoor Unit	PUHZ-ZRP71VHA2	
Refrigerant ⁽¹⁾	R410A	
Power Supply	Outdoor power supply	
Supply	230/Single/50	
Cooling	Capacity	7.1
	Rated	kW
	Min-Max	3.3 - 8.1
	Total Input	2.170
	Rated	kW
	EER	3.27
Heating	Capacity	7.1
	Rated	kW
	Min-Max	3.5 - 10.2
	Total Input	2.350
	Rated	kW
	COP	3.23

*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 CO₂, 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 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 Joint pipe is required depending on installed refrigerant pipes, outdoor units and indoor units.

PSA SERIES

R32
R410A

PSA-M71/100/125/140KA



Installation of this floor-standing series is easy and quick.
An excellent choice when there is a sudden need for an air conditioner to be installed.

A slim design the fits neatly into any space

With a width of only 600mm, this slim unit can fit neatly into narrow spaces.



600mm

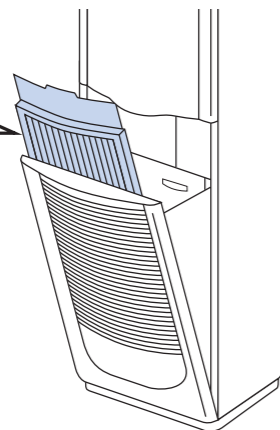
Built-in MA smart remote controller

The large and easy-to-read LCD makes it easy to perform a variety of functions.



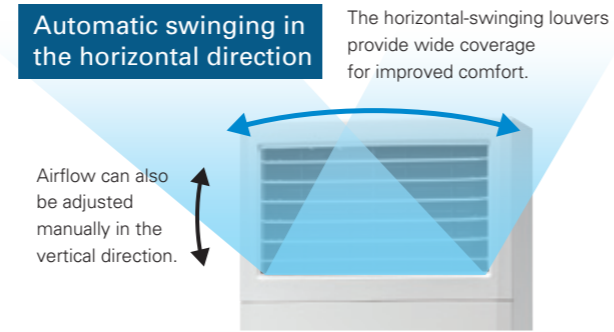
Equipped with a long-life filter as standard

The adoption of a grille that can be opened allows the filter to be easily removed.



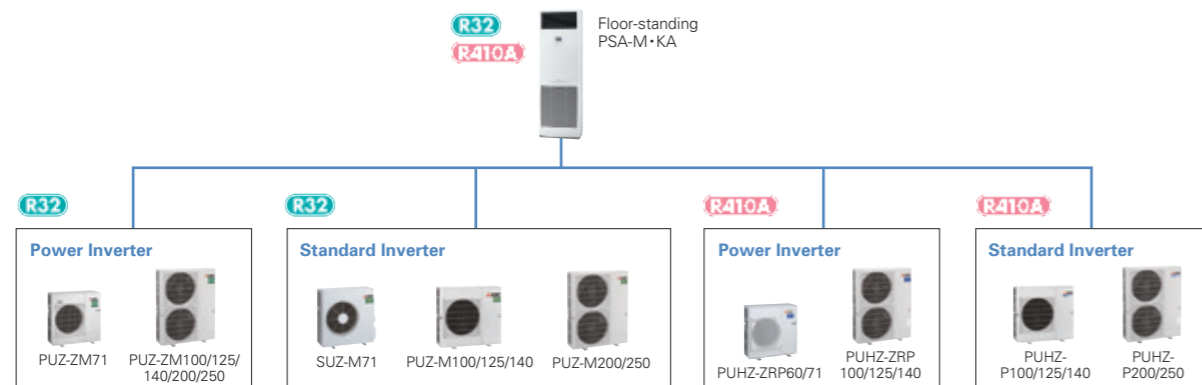
A wide airflow range with horizontal swinging

The horizontal swinging function can be turned on or off via the remote controller to deliver comfort over a wider area.



Floor-standing Line-up

The PSA series was previously only able to be connected to P series outdoor units. However, it can now also be connected to S series outdoor units. This wider lineup provides our customers with a more flexible range of options.



SERIES SELECTION

Power Inverter Series

Indoor Unit

R32
R410A

PSA-M71/100/125/140KA



Outdoor Unit

R32

For Single

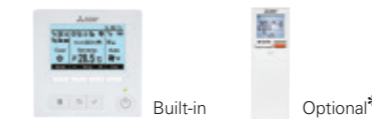


R32

For Multi (Twin/Triple)



Remote Controller



* PAC-SC9CA-E is also required.

PSA-M Indoor Unit Combinations Indoor unit combinations shown below are possible.

Indoor Unit Combination	Outdoor Unit Capacity																			
	For Single								For Twin				For Triple		For Quadruple					
	35	50	60	71	100	125	140	200	250	71	100	125	140	200	250	140	200	250	200	250
Power Inverter (PUZ-ZM)	-	-	-	71x1	100x1	125x1	140x1	-	-	-	-	-	71x2	100x2	125x2	-	-	71x3	-	-
Distribution Pipe	-	-	-	-	-	-	-	-	-	-	-	-	MSDD-50TR2-E	MSDD-50WR2-E	-	-	MSDT-111R3-E	-	-	

SERIES SELECTION

Standard Inverter Series

Indoor Unit

R32
R410A

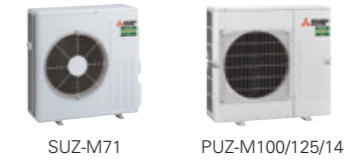
PSA-M71/100/125/140KA



Outdoor Unit

R32

For Single

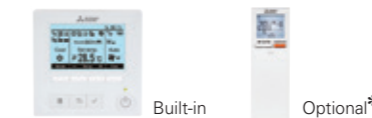


R32

For Multi (Twin/Triple)



Remote Controller

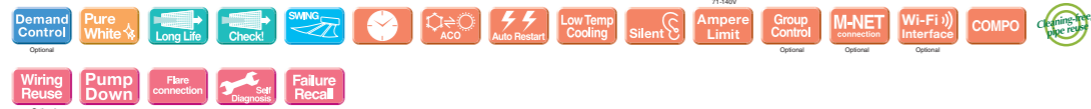


* PAC-SC9CA-E is also required.

PSA-M Indoor Unit Combinations Indoor unit combinations shown below are possible.

Indoor Unit Combination	Outdoor Unit Capacity																			
	For Single								For Twin				For Triple		For Quadruple					
	35	50	60	71	100	125	140	200	250	71	100	125	140	200	250	140	200	250	200	250
Standard Inverter (PUZ-M)	-	-	-	71x1	100x1	125x1	140x1	-	-	-	-	-	71x2	100x2	125x2	-	-	71x3	-	-
Distribution Pipe	-	-	-	-	-	-	-	-	-	-	-	-	MSDD-50TR2-E	MSDD-50WR2-E	-	-	MSDT-111R3-E	-	-	

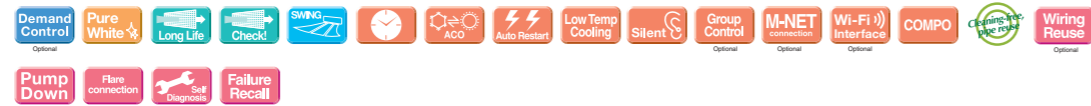
PSA-M SERIES
POWER INVERTER



Type	Inverter Heat Pump								
Indoor Unit	PSA-M71KA	PSA-M100KA	PSA-M100KA	PSA-M125KA	PSA-M125KA	PSA-M140KA	PSA-M140KA	PSA-M140KA	
Outdoor Unit	PUZ-ZM71VHA2	PUZ-ZM100VKA2	PUZ-ZM100VKA2	PUZ-ZM125VKA2	PUZ-ZM125VKA2	PUZ-ZM140VKA2	PUZ-ZM140VKA2	PUZ-ZM140VKA2	
Refrigerant ⁽¹⁾	R32								
Power Supply	Outdoor power supply								
Source	VA, VKA:230/Single/50, YKA:400/Three/50								
Outdoor(V/Phase/Hz)									
Cooling	Capacity	Rated	kW		7.1	9.5	12.5	13.4	13.4
		Min-Max	kW		3.3 - 8.1	4.9 - 11.4	4.9 - 11.4	5.5 - 14.0	5.5 - 14.0
	Total Input	Rated	kW		1.888	2.493	2.493	3.955	3.976
	EER	Rated			3.76	3.81	3.81	3.16	3.37
	Design load		kW		7.1	9.5	9.5	—	—
	Annual electricity consumption ⁽²⁾		kWh/a		388	581	592	—	—
Heating	Capacity	Rated	kW		7.6	11.2	11.2	14.0	14.0
		Min-Max	kW		3.5 - 10.2	4.5 - 14.0	4.5 - 14.0	5 - 16.0	5 - 16.0
	Total Input	Rated	kW		2.338	3.172	3.172	4.501	4.500
	COP	Rated			3.25	3.53	3.53	3.11	3.11
	Design load		kW		4.7	7.8	7.8	—	—
	Declared Capacity	at reference design temperature	kW		4.7 (-10°C)	7.8 (-10°C)	7.8 (-10°C)	—	—
Ext.Piping	Diameter ⁽³⁾	Liquid/Gas	mm		9.52 / 15.88	9.52 / 15.88	9.52 / 15.88	9.52 / 15.88	9.52 / 15.88
	Max.Length	Out-In	m		55	100	100	100	100
	Max.Height	Out-In	m		30	30	30	30	30
	Guaranteed Operating Range (Outdoor)	Cooling ⁽³⁾	°C		-15 ~ +46	-15 ~ +46	-15 ~ +46	-15 ~ +46	-15 ~ +46
		Heating	°C		-20 ~ +21	-20 ~ +21	-20 ~ +21	-20 ~ +21	-20 ~ +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 CO₂ 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 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.

PSA-M SERIES
STANDARD INVERTER



Type	Inverter Heat Pump								
Indoor Unit	PSA-M71KA	PSA-M100KA	PSA-M100KA	PSA-M125KA	PSA-M125KA	PSA-M140KA	PSA-M140KA	PSA-M140KA	
Outdoor Unit	SUZ-M71VA	PUZ-M100VKA2	PUZ-M100VKA2	PUZ-M125VKA2	PUZ-M125VKA2	PUZ-M140VKA2	PUZ-M140VKA2	PUZ-M140VKA2	
Refrigerant ⁽¹⁾	R32								
Power Supply	Outdoor power supply								
Source	VA, VKA:230/Single/50, YKA:400/Three/50								
Outdoor(V/Phase/Hz)									
Cooling	Capacity	Rated	kW		7.1	9.4	12.1	13.6	13.6
		Min-Max	kW		2.2 - 8.1	3.7 - 10.6	3.7 - 10.6	5.6 - 13.0	5.6 - 13.0
	Total Input	Rated	kW		1.972	2.686	2.686	4.481	4.481
	EER	Rated			3.60	3.50	3.50	2.70	2.70
	Design load		kW		7.1	9.4	9.4	—	—
	Annual electricity consumption ⁽²⁾		kWh/a		394	591	591	—	—
Heating	Capacity	Rated	kW		8.0	11.2	11.2	13.5	13.5
		Min-Max	kW		2.1 - 10.2	2.8 - 12.5	2.8 - 12.5	4.8 - 15.0	4.8 - 15.0
	Total Input	Rated	kW		2.492	3.246	3.246	4.355	4.355
	COP	Rated			3.21	3.45	3.45	3.10	3.10
	Design load		kW		5.8	8.0	8.0	—	—
	Declared Capacity	at reference design temperature	kW		5.2 (-10°C)	6.0 (-10°C)	6.0 (-10°C)	—	—
Ext.Piping	Diameter ⁽³⁾	Liquid/Gas	mm		9.52 / 15.88	9.52 / 15.88	9.52 / 15.88	9.52 / 15.88	9.52 / 15.88
	Max.Length	Out-In	m		30	55	55	65	65
	Max.Height	Out-In	m		30	30	30	30	30
	Guaranteed Operating Range (Outdoor)	Cooling ⁽³⁾	°C		-15 ~ +46	-15 ~ +46	-15 ~ +46	-15 ~ +46	-15 ~ +46
		Heating	°C		-10 ~ +24	-15 ~ +21	-15 ~ +21	-15 ~ +21	-15 ~ +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 CO₂ 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 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 Joint pipe is required depending on installed refrigerant pipes, outdoor units and indoor units.

SERIES SELECTION

Power Inverter Series

Indoor Unit

R32
R410A

PSA-M71/100/125/140KA

Outdoor Unit

R410A

For Single

PUHZ-ZRP71 PUHZ-ZRP100/125/140

R410A

For Multi (Twin/Triple)

PUHZ-ZRP140/200/250

Remote Controller

Built-in Optional*

* PAC-SC9CA-E is also required.

PSA-M Indoor Unit Combinations Indoor unit combinations shown below are possible.

Indoor Unit Combination	Outdoor Unit Capacity																					
	For Single				For Twin				For Triple				For Quadruple									
	35	50	60	71	100	125	140	200	250	71	100	125	140	200	250	140	200	250	200	250	200	250
Power Inverter (PUHZ-ZRP)	-	-	-	71x1	100x1	125x1	140x1	-	-	-	-	-	71x2	100x2	125x2	-	-	-	-	71x3	-	-
Distribution Pipe	-	-	-	-	-	-	-	-	-	-	-	-	MSDD-50TR-E	MSDD-50WR-E	-	-	-	-	MSDT-111R-E	-	-	

SERIES SELECTION

Standard Inverter Series

Indoor Unit

R32
R410A

PSA-M71/100/125/140KA

Outdoor Unit

R410A

For Single

PUHZ-P100/125/140

R410A

For Multi (Twin/Triple)

PUHZ-P140 PUHZ-P200/250

Remote Controller

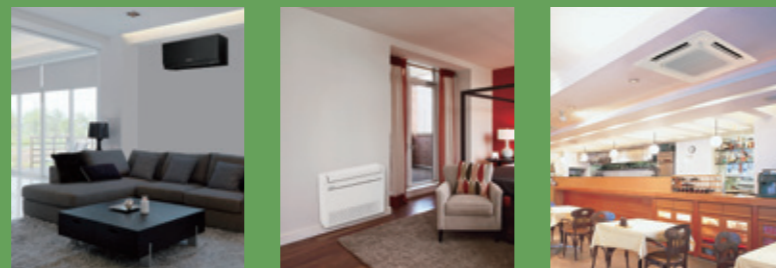
Built-in Optional*

* PAC-SC9CA-E is also required.

PSA-M Indoor Unit Combinations Indoor unit combinations shown below are possible.

Indoor Unit Combination	Outdoor Unit Capacity																					
	For Single				For Twin				For Triple				For Quadruple									
	35	50	60	71	100	125	140	200	250	71	100	125	140	200	250	140	200	250	200	250	200	250
Standard Inverter (PUHZ-P)	-	-	-	-	100x1	125x1	140x1	-	-	-	-	-	71x2	100x2	125x2	-	-	-	-	71x3	-	-
Distribution Pipe	-	-	-	-	-	-	-	-	-	-	-	-	MSDD-50TR-E	MSDD-50WR-E	-	-	-	-	MSDT-111R-E	-	-	

MULTI SPLIT SERIES



SELECTION

Choose from types of indoor units and outdoor units that can run up to six indoor units each. Create the system that best matches room shapes and number of rooms.

R32 INDOOR UNITS		R32 OUTDOOR UNITS		
Wall-mounted MSZ-LN (18-25-35-50) MSZ-EF MSZ-AP25-50 MSZ-AP15-20 MSZ-AP60VG MSZ-BT	Floor-standing MFZ-KT	2-port up to 2 indoor units MXZ-2F33VF3 MXZ-2F42VF3 MXZ-2F53VF(H)3 MXZ-2F53VFHZ	3-port up to 3 indoor units MXZ-3F54VF3 MXZ-3F68VF3	4-port up to 4 indoor units MXZ-4F72VF3 MXZ-4F80VF3 MXZ-4F83VF MXZ-4F83VFHZ
Cassette SLZ MLZ-KP	Ceiling-suspended PCA	Ceiling-concealed SEZ PEAD	5-port up to 5 indoor units MXZ-5F102VF	6-port up to 6 indoor units MXZ-6F122VF

R410A INDOOR UNITS		R410A OUTDOOR UNITS		
Wall-mounted MSZ-LN (25-35) MSZ-FH MSZ-EF MSZ-AP25-50 MSZ-AP15-20 MSZ-SF25-50 MSZ-SF15-20 MSZ-GF	Floor-standing MFZ-KJ	2-port up to 2 indoor units MXZ-2D33VA MXZ-2D42VA2 MXZ-2D53VA(H)2 MXZ-2E53VAHZ	3-port up to 3 indoor units MXZ-3E54VA MXZ-3E68VA	4-port up to 4 indoor units MXZ-4E72VA MXZ-4E83VA MXZ-4E83VAHZ
Cassette SLZ MLZ-KP PLA	Ceiling-suspended PCA	Ceiling-concealed SEZ PEAD	5-port up to 5 indoor units MXZ-5E102VA	6-port up to 6 indoor units MXZ-6D122VA2

CHECK SYSTEM COMPATIBILITY

Possible combinations depends on the outdoor unit chosen. Please check the following points.

Check Indoor Units

Refer to the "Indoor Unit Compatibility Table" to check if the indoor units selected can be used with the outdoor unit selected. (Indoor units not listed in the table cannot be used.)

Check Indoor Unit Capacity Combination

Refer to the "Combination Table" to check if the capacity combination of the indoor unit selected is connectable. (Combinations not listed cannot be connected.)

If the desired combination cannot be found, please change either the indoor or outdoor unit to match one of the combinations shown in the tables.

MXZ-HA SERIES

Multi-port outdoor units exclusively for MSZ-HR indoor units.



R32
2-port
MXZ-2HA40VF
MXZ-2HA50VF



R32
3-port
MXZ-3HA50VF

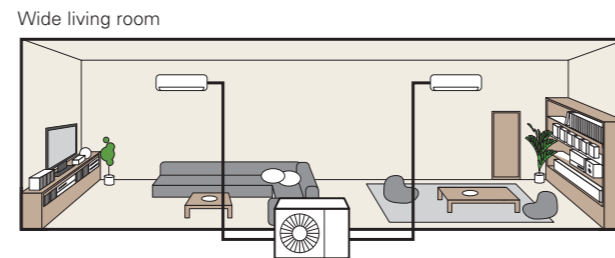
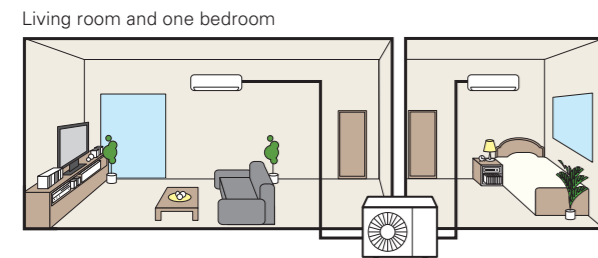
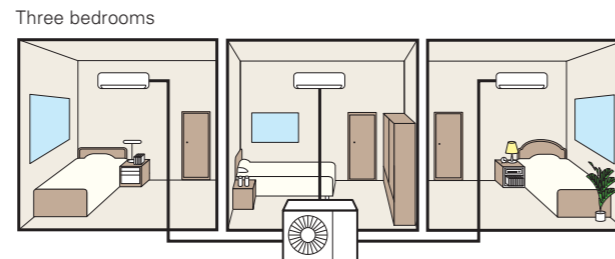
Stylish Design with Flat Panel Front

A stylish flat panel design is employed for the front of the indoor unit. The simple look matches room aesthetics.



Easy to create various combinations

Wide range of simple combinations only possible using multi-port outdoor units.



MXZ-HA SERIES INVERTER MULTI



Type (Inverter Multi - Split Heat Pump)				Up to 2 Indoor Units		Up to 3 Indoor Units		
Indoor Unit				Please refer to (*4)				
Outdoor Unit				MXZ-2HA40VF	MXZ-2HA50VF	MXZ-3HA50VF		
Refrigerant				R32*1				
Power Supply				Outdoor power supply 220-230-240 / Single / 50				
Cooling	Capacity	Rated	kW	4.0	5.0	5.0		
	Input**4	Rated	kW	1.05	1.52	1.26		
	EER**4			3.81	3.29	3.97		
				EEL Rank**4		A		
	Design Load		kW	4.0	5.0	5.0		
	Annual Electricity Consumption**2		kWh/a	172	225	241		
	SEER**4,*5			8.12	7.78	7.26		
				Energy Efficiency Class**4		A++		
	Capacity	Rated	kW	4.3	6.0	6.0		
	Input	Rated	kW	0.91	1.54	1.30		
Heating (Average Season)	COP**4			4.73	3.90	4.62		
				EEL Rank**4		A		
	Design Load		kW	3.2	3.2	4.0		
	Declared Capacity	at reference design temperature	kW	2.4	2.4	3.0		
	Capacity	at bivalent temperature	kW	2.9	2.9	3.6		
		at operation limit temperature	kW	2.1	2.1	2.6		
	Back Up Heating Capacity		kW	0.8	0.8	1.0		
	Annual Electricity Consumption**2		kWh/a	1043	1043	1394		
	SCOP**4,*5			4.30	4.30	4.02		
				Energy Efficiency Class**4		A+		
Operating Current (max)				A		12.2		
Outdoor Unit	Dimensions	H x W x D	mm	550 - 800 (+69) - 285 (+59.5)		710 - 840 (+30) - 330 (+66)		
	Weight		kg	37		57		
	Air Volume	Cooling		m ³ /min	28.4		31.0	
		Heating		m ³ /min	33.5		29.1	
	Sound Level (SPL)	Cooling		dB(A)	44		46	
		Heating		dB(A)	50		50	
	Sound Level (PWL)	Cooling		dB(A)	59		61	
		Heating		dB(A)	4.9		5.6	
	Operating Current	Cooling		A	4.6		5.8	
		Heating		A	15		25	
Ext. Piping	Port Diameter	Liquid / Gas	mm	6.35 x 2 / 9.52 x 2		6.35 x 3 / 9.52 x 3		
	Total Piping Length (max)		m	30		50		
	Each Indoor Unit Piping Length (max)		m	20		25		
	Max. Height		m	15 (10)*3		15 (10)*3		
	Chargeless Length		m	30		40		
Guaranteed Operating Range (Outdoor)	Cooling		°C	-10 ~ +46				
	Heating		°C	-15 ~ +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 CO₂ 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 If the outdoor unit is installed higher than the indoor unit, max height is reduced to 10m.

*4 EER/COP, SEER/SCOP values and energy efficiency class are measured when connected to the indoor units listed below.

MXZ-2HA40VF MSZ-HR25VF + MSZ-HR25VF
MXZ-2HA50VF MSZ-HR25VF + MSZ-HR25VF
MXZ-3HA50VF MSZ-HR25VF + MSZ-HR25VF + MSZ-HR25VF

*5 SEER and SCOP are based on 2009/125/EC: Energy-related Products Directive and Regulation(EU) No206/2012.

MXZ-DM SERIES

Multi-port outdoor units exclusively for MSZ-HJ and DM indoor units.



Stylish Design with Flat Panel Front

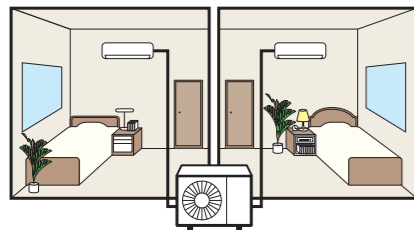
A stylish flat panel design is employed for the front of the indoor unit. The simple look matches room aesthetics.



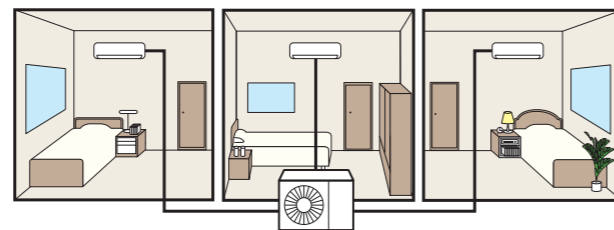
Easy to create various combinations

Wide range of simple combinations only possible using multi-port outdoor units.

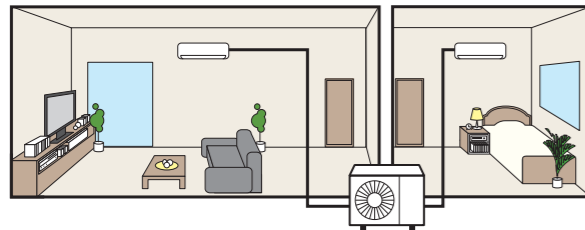
Two bedrooms



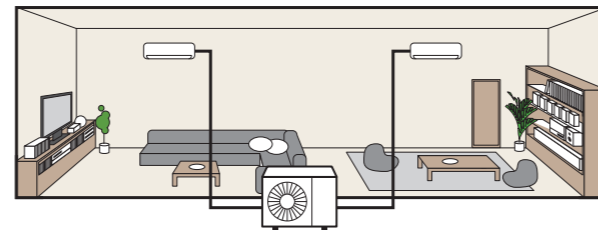
Three bedrooms



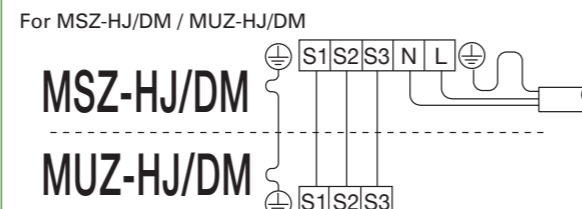
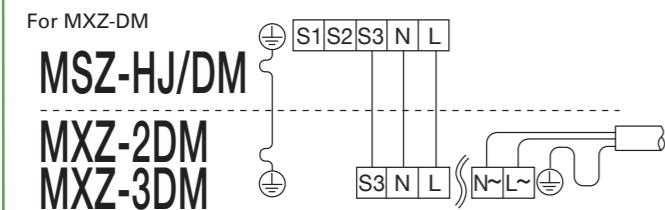
Living room and one bedroom



Wide living room



Attention MXZ-DM is exclusively for connection to MSZ-HJ and DM. Please check to make sure that wiring is done correctly.



MXZ-DM SERIES

INVERTER MULTI



Type (Inverter Multi - Split Heat Pump)				Up to 2 Indoor Units		Up to 3 Indoor Units		
Indoor Unit				MXZ-2DM40VA		Please refer to (*4)		
Outdoor Unit				MXZ-2DM40VA		MXZ-3DM50VA		
Refrigerant				R410A*1		R410A*1		
Power Supply				Outdoor power supply		Outdoor power supply		
Source				230 / Single / 50		230 / Single / 50		
Outdoor (V/Phase/Hz)								
Cooling	Capacity	Rated	kW	4.0		5.0		
	Input*4	Rated	kW	1.05		1.13		
	EER*4			3.81		4.42		
	EEL Rank*4			A		A		
	Design Load		kW	4.0		5.0		
	Annual Electricity Consumption*2		kWh/a	226		283		
SEER*4,*5			6.1		6.1			
Heating (Average Season)	Capacity	Rated	kW	4.3		6.0		
	Input	Rated	kW	1.16		1.31		
	COP*4			3.71		4.58		
	EEL Rank*4			A		A		
	Design Load		kW	3.2		4.0		
	Declared Capacity	at reference design temperature	kW	2.73		3.34		
	Capacity	at bivalent temperature	kW	3.01		3.73		
	Capacity	at operation limit temperature	kW	2.27		2.70		
	Back Up Heating Capacity		kW	0.47		0.66		
	Annual Electricity Consumption*2		kWh/a	1105		1455		
SCOP*4,*5			4.0		3.8			
Energy Efficiency Class*4			A+		A			
Operating Current (max)		A	12.2		18.0			
Outdoor Unit	Dimensions	H x W x D	mm	550 - 800 (+69) - 285 (+59.5)		710 - 840 (+30) - 330 (+66)		
	Weight		kg	32		57		
	Air Volume	Cooling	m ³ /min		29.2		37.5	
		Heating	m ³ /min		31.9		39.6	
	Sound Level (SPL)	Cooling	dB(A)		48		50	
		Heating	dB(A)		52		53	
	Sound Level (PWL)	Cooling	dB(A)		63		64	
		Heating	dB(A)		5.1		5.0	
	Operating Current	Cooling	A		5.6		5.8	
		Heating	A		15		25	
Ext. Piping	Port Diameter	Liquid / Gas	mm	6.35 x 2 / 9.52 x 2		6.35 x 3 / 9.52 x 3		
	Total Piping Length (max)		m	30		50		
	Each Indoor Unit Piping Length (max)		m	20		25		
	Max. Height		m	15 (10)*3		15 (10)*3		
	Chargeless Length		m	20		40		
Guaranteed Operating Range (Outdoor)	Cooling	°C		-10 ~ +46		-10 ~ +46		
	Heating	°C		-15 ~ +24		-15 ~ +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 CO₂ 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-2DM40VA MSZ-DM25VA + MSZ-DM25VA
MXZ-3DM50VA MSZ-DM25VA + MSZ-DM25VA + MSZ-DM25VA

*5 SEER and SCOP are based on 2009/125/EC: Energy-related Products Directive and Regulation(EU) No206/2012.

■ PUMY-P250/300 Series

Branch Box/LEV Kit Connection Compatibility Table

Series	I/U Type	Model Name	Capacity							
			15	18	20	22	25	35	42	50
M series	Wall-Mounted	MSZ-LN*VG2					●	●		●
		MSZ-AP*VG(K)	●		●		●	●	●	
		MSZ-FH*VE2					●	●		●
		MSZ-EF*VG(K)		●		●	●	●	●	
	Floor-Standing	MFZ-KT*VG					●	●		●

CUTY MULTI Indoor Unit Compatibility Table

Series	Type	Model Name	Capacity														
			P10	P15	P20	P25	P32	P40	P50	P63	P71	P80	P100	P125	P140	P200	P250
CITY MULTI series	1-way cassette	PMFY-P*VBM-E			●	●	●	●									
	2-way cassette	PLFY-P*VLM-E			●	●	●	●	●	●			●	●			
	4-way cassette	PLFY-M*VEM-E			●	●	●	●	●	●			●	●			
		PLFY-EP*VEM-E *1								●	●						
		PLFY-P*VFM-E		●	●	●	●	●	●								
	Ceiling-concealed	PEFY-P*VMR-E-L/R			●	●	●	●	●	●							
		PEFY-P*VMS1(L)-E		●	●	●	●	●	●	●							
		PEFY-M*VMA(L)-A			●	●	●	●	●	●	●	●	●	●	●		
		PEFY-P*VMA3-E *2									●	●	●	●			
		PEFY-P*VMHS-E							●	●	●	●	●	●	●	●	●
		PEFY-P*VMHS-E-F															●
		PCFY-P*VKM-E							●	●				●	●		
	Wall-mounted	PKFY-P*VLM-E	●	●	●	●	●	●	●								
		PKFY-P*VKM-E								●				●			
	Floor-standing	PFFY-P*VKM-E2			●	●	●	●	●								
		PFFY-P*VLE-E			●	●	●	●	●								
		PFFY-P*VCM-E			●	●	●	●	●	●	●						
Lossnay *3		GUF-50/100RD(H)4															

*1 Authorized connectable indoor units are as follows:
PUMY-P250 : PLY-EP63VEM-E x 4, PUMY-P300 : PLY-EP50VEM-E x 1 + PLY-EP63VEM-E x 4
units are as follows:
*2 Authorized connectable indoor units are as follows:
PUMY-P250 : PEFY-P63VMA3-E x 4, PUMY-P300 : PEFY-P80VMA3-E x 1 + PEFY-P71VMA3-E x 3
*3 Do not connect Lossnay remote controller(s). (PZ-61DR-E, PZ-60DR-E, PZ-52SF-E, PZ-43SMF-E)

POWERFUL HEATING SERIES



SELECTION

Choose the series that best matches the building layout.

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

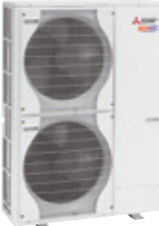



The line-up includes outdoor models 25-50

Outdoor Unit	Indoor Unit
 <p>MUZ-LN25/35VGHZ2 MUZ-FT25VGHZ</p>	<p>Wall-mounted</p>  <p>MSZ-RW25/35/50VG</p>  <p>MSZ-LN25/35/50VG2 (W)(V)(R)(B)</p>
 <p>MUFZ-KW25/35VGHZ</p>	<p>Floor-standing</p>  <p>MSZ-FT25/35/50VG</p>  <p>MFZ-KW25/35/50/60VG</p>
 <p>MUZ-LN50VGHZ2 MUFZ-KW50/60VGHZ</p>	

* 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	Indoor Unit
 <p>PUAZ-SHW112VHA PUAZ-SHW112/140YHA</p>	<p>4-way cassette</p>  <p>PLA Series</p> <p>Ceiling-concealed</p>  <p>PEAD Series</p> <p>Wall-mounted</p>  <p>PKA Series</p>

MXZ-VAHZ/VFHZ SERIES

Outdoor Unit	
 <p>MXZ-2F53VFHZ</p>	 <p>MXZ-4F83VFHZ</p>

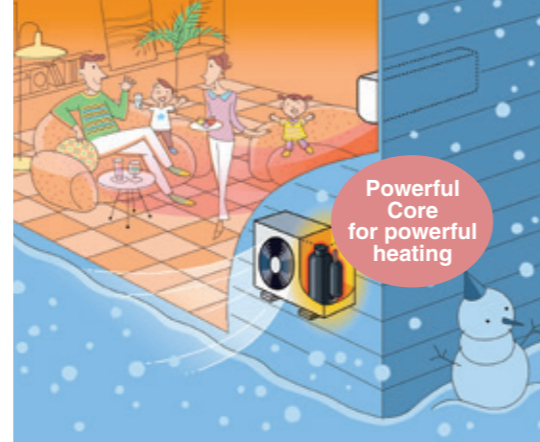
MSZ-RW SERIES

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



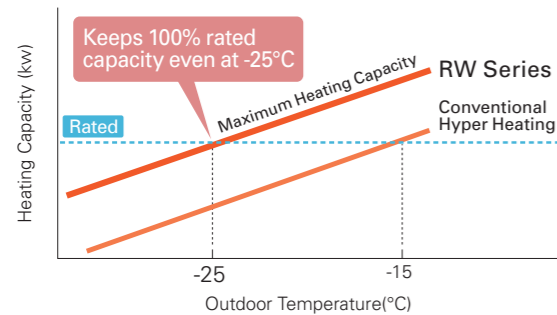
Heating Performance

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).

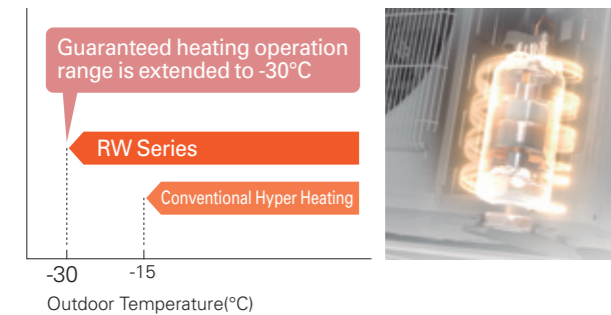
High Energy Efficiency

RW25	A+++	SCOP 5.2
RW35	A+++	SCOP 5.1
RW50	A++	SCOP 4.6

Improved Heating Capacity

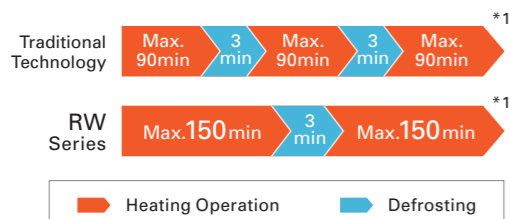


Wider Heating Operation Range



Longer Continuous Heating Operation

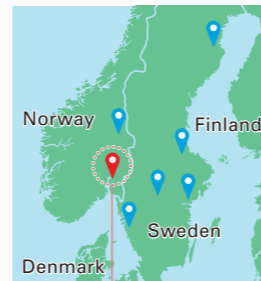
RW series with a high frost-detecting technology, made it possible to provide maximum continuous heating operation as long as 150 minutes with less frequent defrosting operations, maintaining a comfortable indoor environment in a long term.



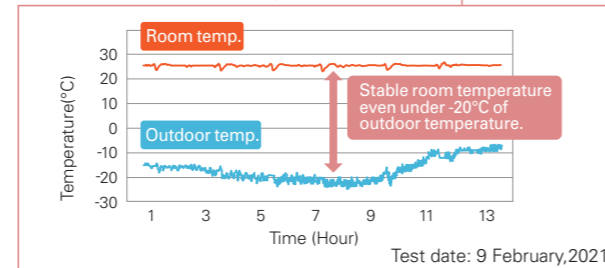
*1 The time for heating and defrosting operation depends on the environmental conditions.

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



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.



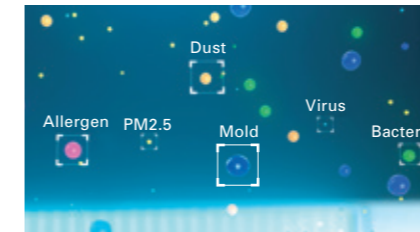
Circulator Mode

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.



Virus (Airborne)

99% inhibited*1

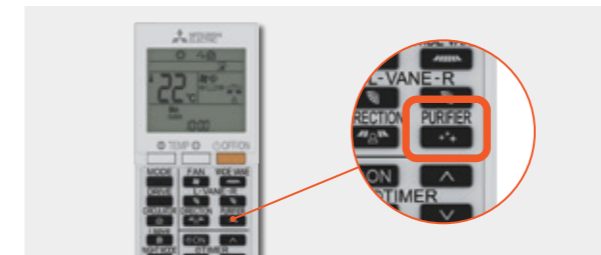
*1 Tested Organization: vrc. Center, SMC Test Report No: 28-002 Test Method: JEM1467 Test result: Neutralised 99% of Influenza A virus in 72 minutes in a 25m³ test space.

*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%.

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

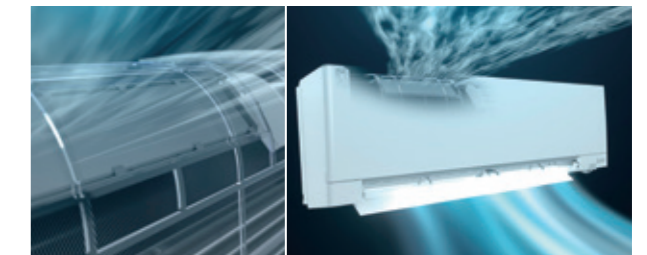
Quick Air Purifying Set

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

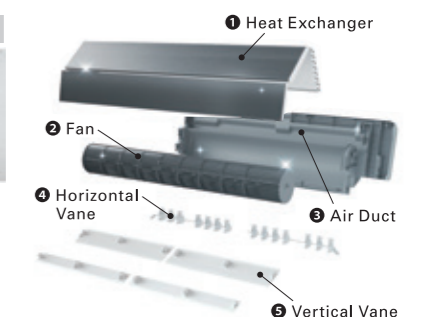
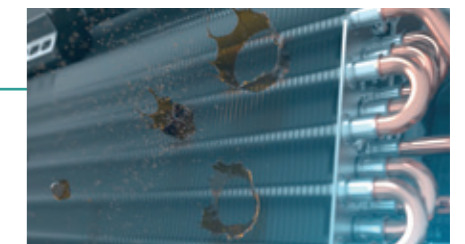
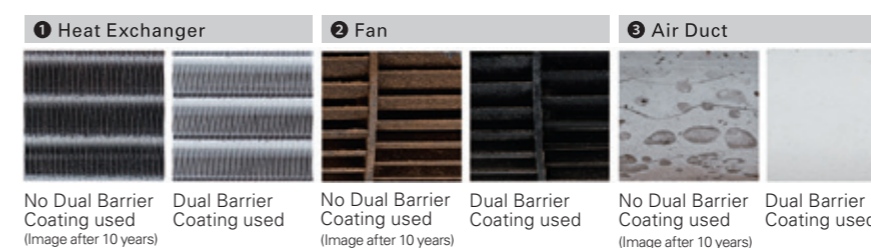
The catalyst in Deodorising Filter denatures the odorous components and destroys them from the source of the odour, quickly delivering fresh air to your room.



Dual Barrier Coating

SIAA Anti Fungus JP0512075X0001C (Fan, Air duct)

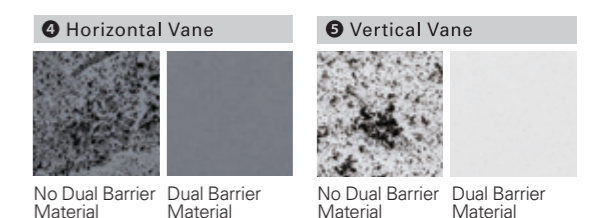
Mitsubishi Electric's Dual Barrier Coating prevents dust and greasy dirt from accumulating on the inner surface of the indoor unit; keeping your air conditioner clean. Blended "fluorine particles" prevent hydrophilic dirt penetration, and "hydrophobic particles" prevent hydrophobic dirt from getting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



Dual Barrier Material

SIAA Anti Fungus JP0512075X0001C (Horizontal Vane, Vertical Vane)

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.



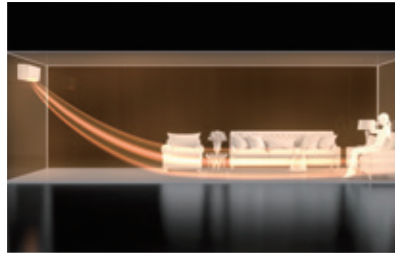
*1 *2 Verified by SIAA test method (JIS Z 2911) with No. JP0501014A0002O on SIAA antifungal agent positive list. Antifungal effect depends on the working environment. Fungicides comply with the SIAA safety criteria. What is SIAA? https://www.kohkin.net/en_index/en_siaa.html

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.

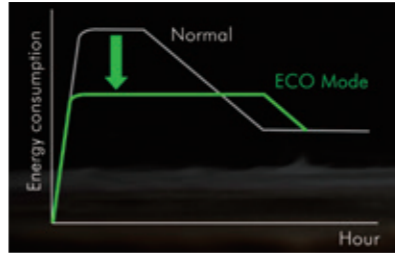
Wide Room Mode

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



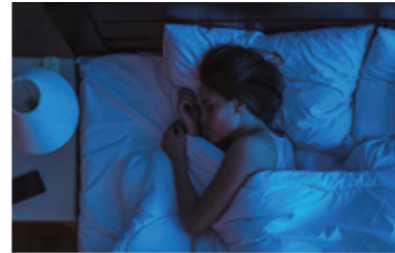
Eco Mode

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



Quiet Mode

Lowers operation noise level, creating a 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.



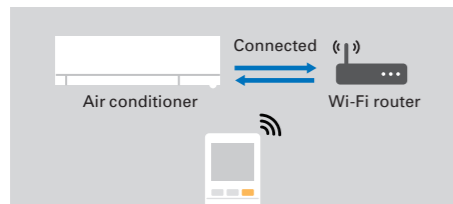
Spacer

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.



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.



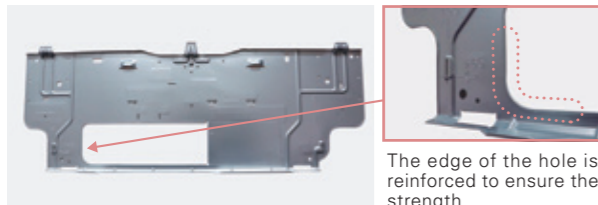
Remote Controller with Backlight

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

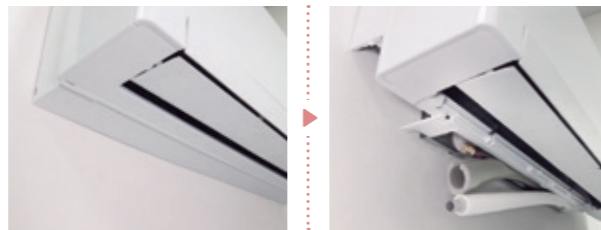
With a hole as default in the center of the back plate, the piping can be easily taken out from the back. The edge of the hole is reinforced to ensure the strength.



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

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



Indoor Unit / Remote Controller

<White>



MSZ-RW25/35/50VG

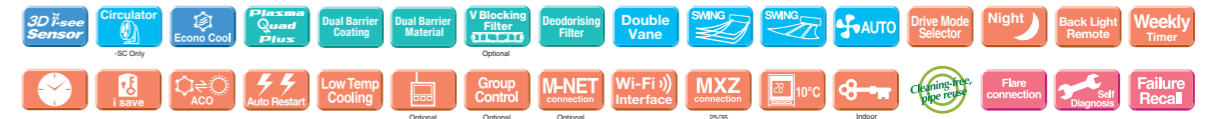
Outdoor Unit



MUZ-RW25/35VGHZ



MUZ-RW50VGHZ



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	Outdoor Power supply			
	230/Single/50			
Cooling	Design Load	kW	2.5	
	Annual Electricity Consumption ^{(*)2}	kWh/a	78	
	SEER ^{(*)4}		11.2	
	Energy Efficiency Class		A+++	
Capacity	Rated	kW	2.5	
	Min - Max	kW	0.9 - 3.5	
Total Input	Rated	kW	0.435	
Heating (Average Season) ^{(*)5}	Design Load	kW	3.2	
	Declared Capacity	at reference design temperature	kW	3.2 (-10°C)
		at bivalent temperature	kW	4.0 (-10°C)
		at operation limit temperature	kW	2.6 (-25°C)
Back Up Heating Capacity	kW	0.0		
Annual Electricity Consumption ^{(*)2}	kWh/a	866		
SCOP ^{(*)4}		5.2		
Energy Efficiency Class			A+++	
Capacity	Rated	kW	3.2	
	Min - Max	kW	0.8 - 6.3	
Total Input	Rated	kW	0.580	
Operating Current (max)	A		9.8	
Indoor Unit	Input	Rated	kW	0.021
	Operating Current (max)	A		0.21
	Dimensions	H x W x D	mm	305 - 998 - 247
	Weight	kg		14.5
	Air Volume (SLo-Lo-Mid-Hi-SHi) ^{(*)3}	Cooling	m ³ /min	5.1 - 6.5 - 9.0 - 11.5 - 13.7
		Heating	m ³ /min	5.1 - 7.8 - 9.5 - 11.7 - 14.1
	Sound Level (SPL) (SLo-Lo-Mid-Hi-SHi) ^{(*)3}	Cooling	dB(A)	19 - 23 - 29 - 36 - 42
		Heating	dB(A)	19 - 25 - 30 - 36 - 41
	Sound Level (PWL)	dB(A)		58
Outdoor Unit	Dimensions	H x W x D	mm	714 - 800 - 285
	Weight	kg		39.5
	Air Volume	Cooling	m ³ /min	35.1
		Heating	m ³ /min	37.8
	Sound Level (SPL)	Cooling	dB(A)	46
Heating		dB(A)	49	
Sound Level (PWL)	dB(A)		60	
Operating Current (max)	A		9.6	
Breaker Size	A		10	
Ext. Piping	Diameter	Liquid / Gas	mm	6.35/9.52
	Max. Length	Out-In	m	20
	Max. Height	Out-In	m	12
Guaranteed Operating Range [Outdoor]	Cooling	°C		-10 ~ +46
	Heating	°C		-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 CO₂, 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.

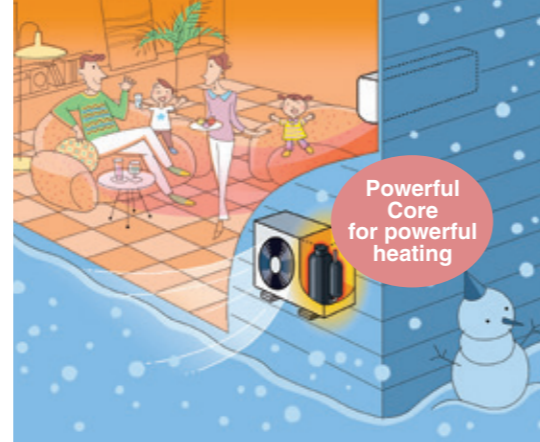
LN VGHZ SERIES

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.



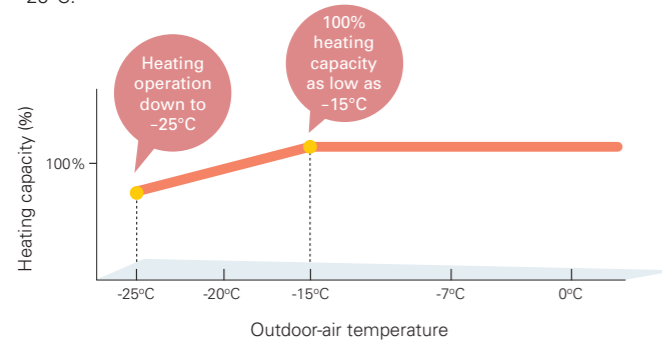
MSZ-LN25/35/50VG2(W)(V)(R)(B)



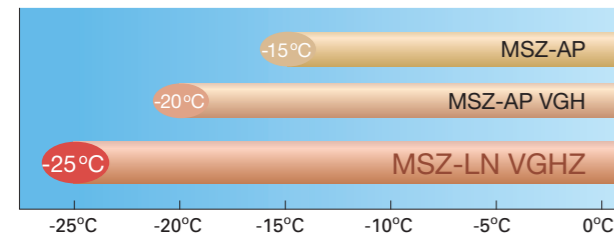
Powerful Core for powerful heating

Unparalleled Heating Performance

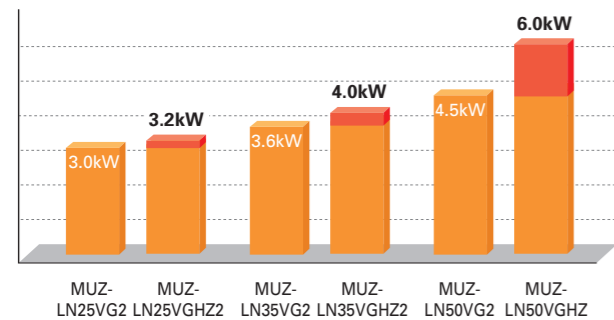
LN Series outdoor units are equipped with a high-output compressor that provides enhanced heating performance under low outdoor temperatures. The heating operation range is extended down to -25°C.



Operating Range

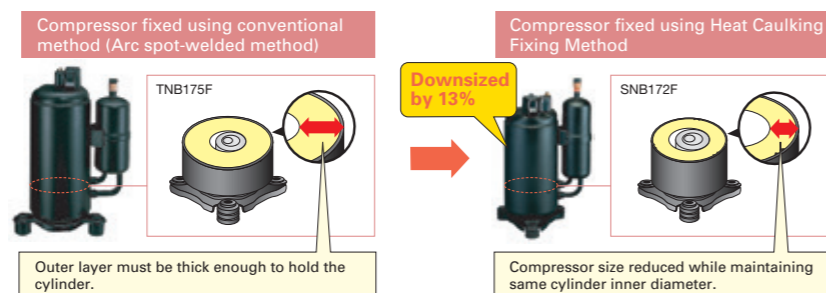


Declared Capacity (at reference design temperature)



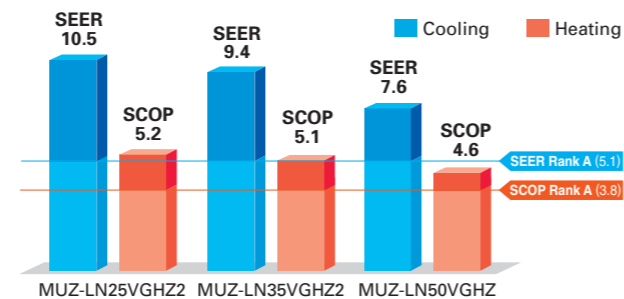
Compact, Powerful Compressor

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.



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

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.



MSZ-LN VGHZ SERIES



Indoor Unit / Remote Controller



<Pearl White>



MSZ-LN25/35/50VG2V

<Ruby Red>



MSZ-LN25/35/50VG2R

<Natural White>



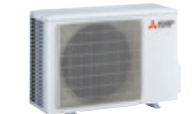
MSZ-LN25/35/50VG2W

<Onyx Black>



MSZ-LN25/35/50VG2B

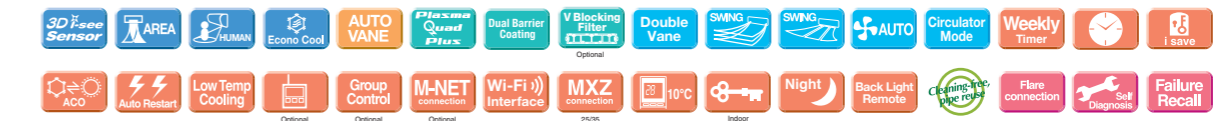
Outdoor Unit



MUZ-LN25/35VGHZ2



MUZ-LN50VGHZ



Type	Inverter Heat Pump				
Indoor Unit	MSZ-LN25VG2(W)(V)(R)(B)	MSZ-LN35VG2(W)(V)(R)(B)			
Outdoor Unit	MUZ-LN25VGHZ2	MUZ-LN50VGHZ			
Refrigerant	R32 ^{(*)1}				
Power Supply	Outdoor Power supply				
Source	230/Single/50				
Cooling	Design Load	kW	2.5		
	Annual Electricity Consumption ^{(*)2}	kWh/a	83		
	SEER ^{(*)4}		10.5		
	Capacity	Rated	kW	2.5	
		Min - Max	kW	0.8 - 3.5	
Total Input	Rated	kW	0.485		
Heating (Average Season) ^{(*)5}	Design Load	kW	3.2 (-10°C)		
	Declared Capacity	at reference design temperature	kW	4.0 (-10°C)	
		at bivalent temperature	kW	4.0 (-10°C)	
		at operation limit temperature	kW	2.3 (-25°C)	
	Back Up Heating Capacity	kW	0.0 (-10°C)		
	Annual Electricity Consumption ^{(*)2}	kWh/a	861		
	SCOP ^{(*)4}		5.2		
	Capacity	Rated	kW	3.2	
		Min - Max	kW	0.8 - 6.3	
		Total Input	Rated	kW	0.600
Operating Current (max)	A		9.9		
Indoor Unit	Input	Rated	kW	0.027	
	Operating Current (max)	A		0.3	
	Dimensions	H x W x D	mm	307 - 890 - 233	
		Weight	kg	15.5	
	Air Volume (SLo-Lo-Mid-Hi-SHi ^{(*)3})	Cooling	m ³ /min	4.3 - 5.8 - 7.1 - 8.8 - 11.9	
		Heating	m ³ /min	4.0 - 5.7 - 7.1 - 8.5 - 14.4	
	Sound Level (SPL) (SLo-Lo-Mid-Hi-SHi ^{(*)3})	Cooling	dB(A)	19 - 23 - 29 - 36 - 42	
		Heating	dB(A)	19 - 24 - 29 - 36 - 45	
	Sound Level (PWL)	Cooling	dB(A)	58	
		Heating	dB(A)	58	
Outdoor Unit	Dimensions	H x W x D	mm	550 - 800 - 285	
	Weight	kg		36	
	Air Volume	Cooling	m ³ /min		31.4
		Heating	m ³ /min		27.4
	Sound Level (SPL)	Cooling	dB(A)		46
Heating		dB(A)		49	
Sound Level (PWL)	Cooling	dB(A)		60	
	Heating	dB(A)		61	
Operating Current (max)	A			9.6	
	Breaker Size	A		10	
Ext. Piping	Diameter	Liquid / Gas	mm	6.35/9.52	
	Max. Length	Out-In	m	20	
		Out-In	m	12	
	Max. Height	Out-In	m	12	
Out-In		m	15		
Guaranteed Operating Range [Outdoor]	Cooling	°C		-10 ~ +46	
	Heating	°C		-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 CO₂, 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 ^{R32} SERIES

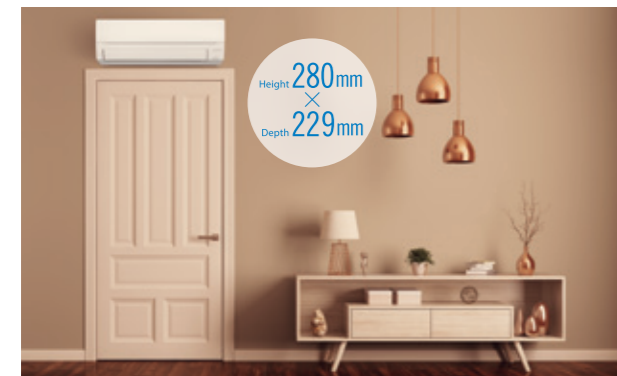
Unlike conventional air conditioning systems, the FT Series don't lose heating capacity when it's cold outside. Original technologies ensure excellent heating performance under extremely low outdoor temperatures and an impressive guaranteed operating range. Furthermore, the smaller and stylish indoor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



MSZ-FT25/35/50VG(K)

Compact Design

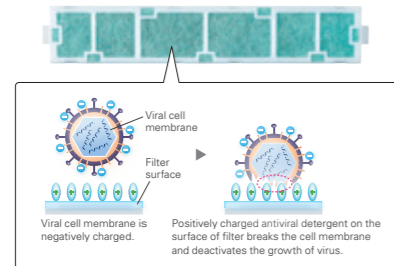
The FT series features its compact design with 280mm height and 229mm depth, which is suitable for the installation above the door.



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.



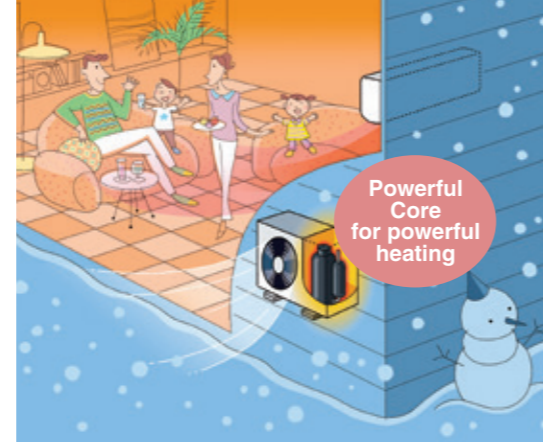
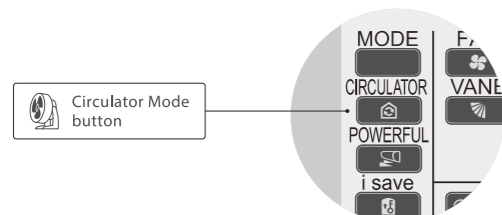
Remote Controller with Backlight

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.



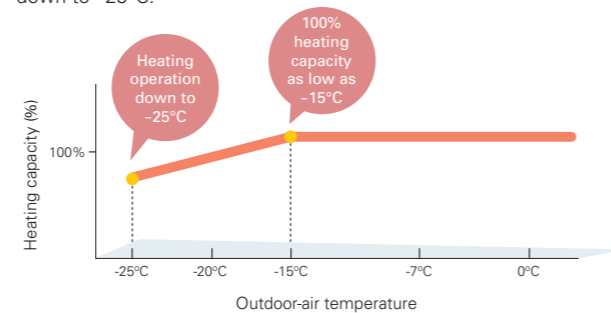
Built-in Wi-Fi

(MSZ-FT25/35/50VGK)

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

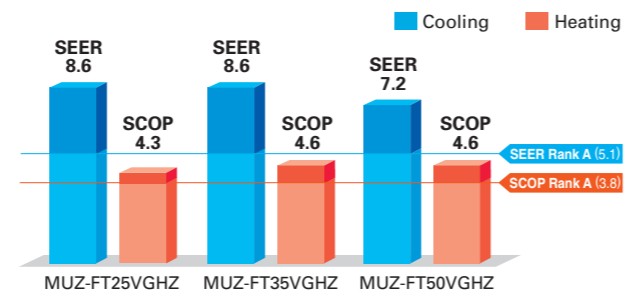
Hyper Heating

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

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)

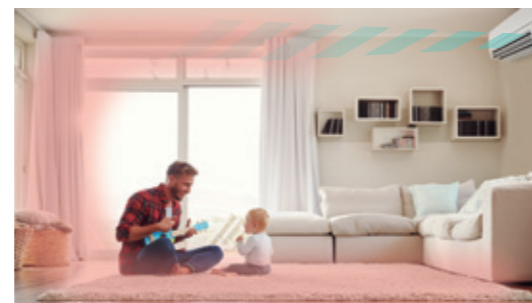


Image is for illustration purposes.

MSZ-FT SERIES



Indoor Unit



MSZ-FT25/35/50VG(K)

Outdoor Unit



MUZ-FT25VGHZ

MUZ-FT35/50VGHZ

Remote Controller



Type	Source	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	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+++			
	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++			
	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 x W x D	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 x W x D	550 - 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	
	Heating	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
		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 1kg of this refrigerant fluid would be leaked to the atmosphere, the impact on global warming would be 1975 times higher than 1kg of CO₂ 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



MFZ-KW25/35/50/60VG



Outdoor Unit

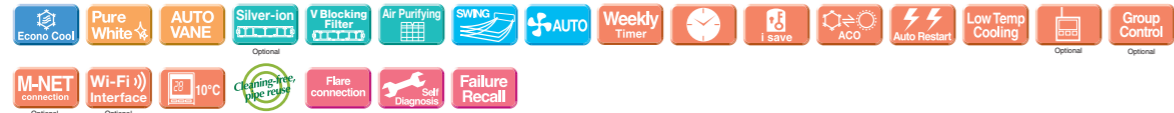


MUFZ-KW25/35VGHZ



MUFZ-KW50/60VGHZ

Remote Controller



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		Outdoor power supply 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 x W x D	mm	600 - 750 - 215			
	Weight	kg	15	15	15	15	
	Air Volume (SLo-Lo-Mid-Hi-SH) ^{(*)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)	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)	Cooling	dB(A)	49	50	56	65
		Heating	dB(A)	49	50	56	65
Outdoor Unit	Dimensions	H x W x 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	
	Heating	dB(A)	61	61	65	66	
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	°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 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 CO₂, 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 SH: 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

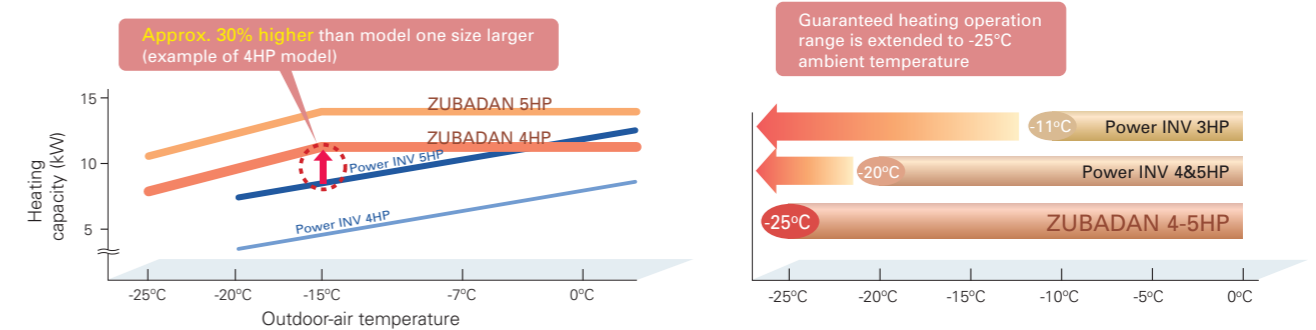
The ZUBADAN Series incorporates an original Flash Injection technology that improves the already high heating capacity of the system. This new member of the series line-up ensures comfortable heat pump-driven heating performance in cold regions.



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

Improved Heating Performance

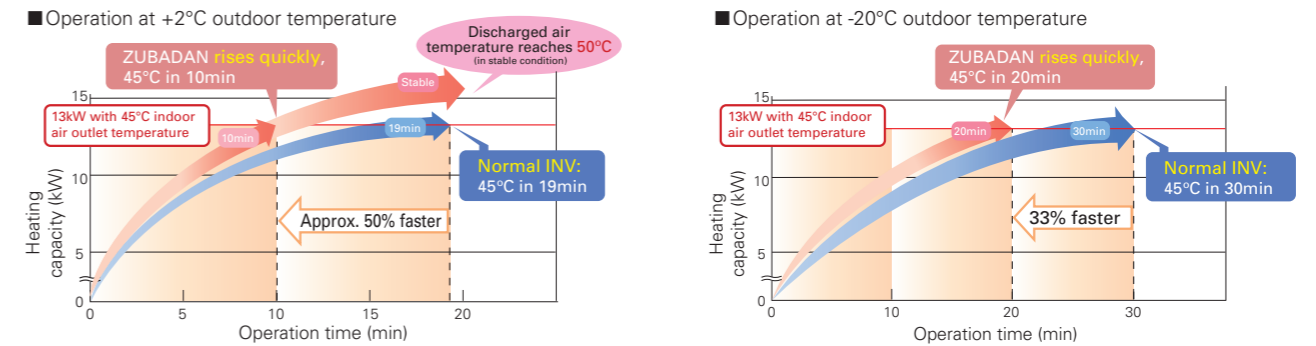
Mitsubishi Electric's unique "Flash Injection" circuit achieves remarkably high heating performance. This technology has resulted in an excellent heating capacity rating in outdoor temperatures as low as -15°C, and the guaranteed heating operation range of the heating mode has been extended to -25°C.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



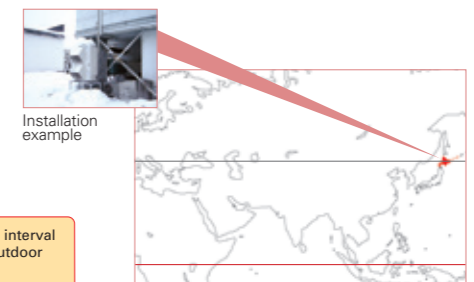
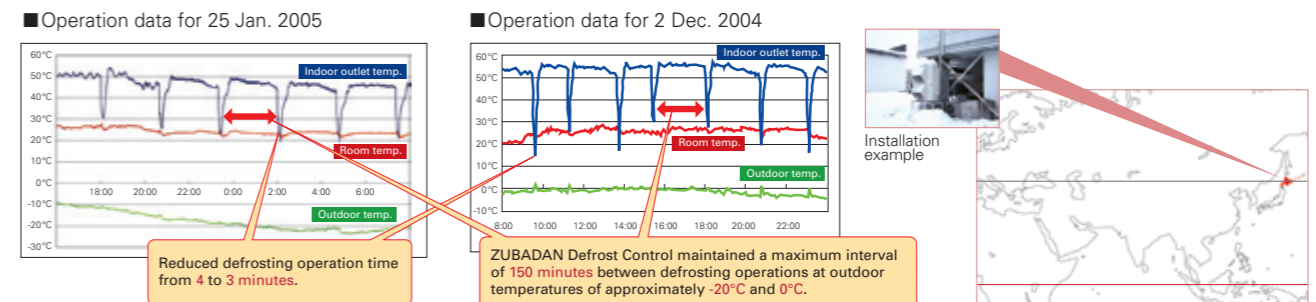
Enhanced Comfort

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



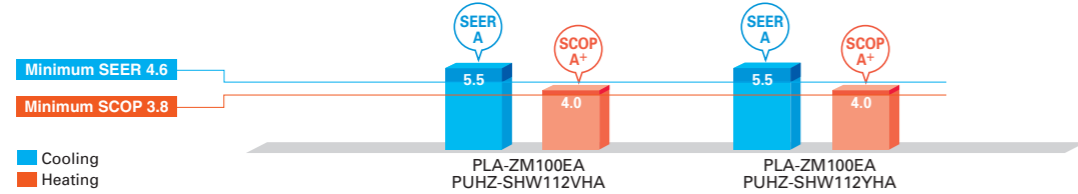
ZUBADAN Defrost Control and Faster Recovery from Defrost Operation Field Test Results: Office building in Asahikawa, Hokkaido, Japan



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



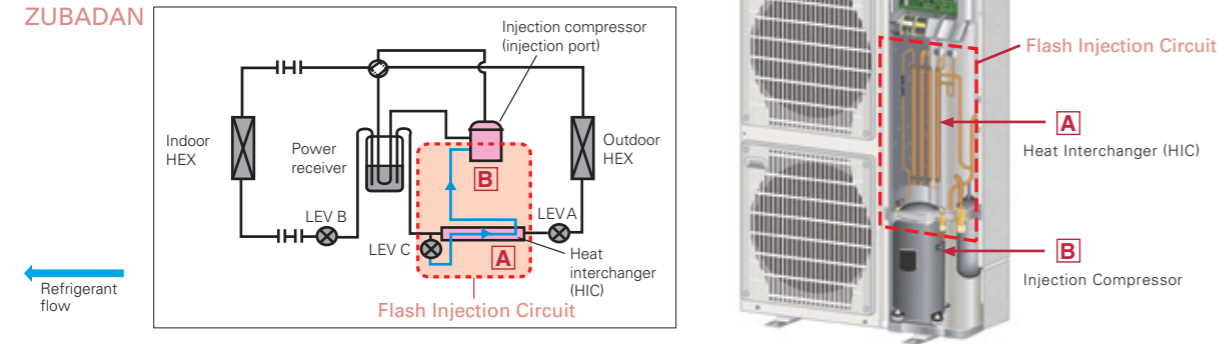
Powerful heating yet annually high energy efficiency in both cooling and heating, achieving rank A and A+.



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

Flash Injection Circuit

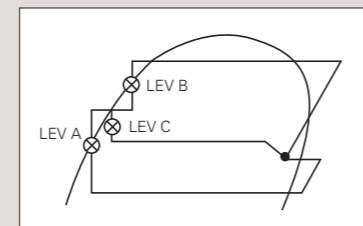
ZUBADAN



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)

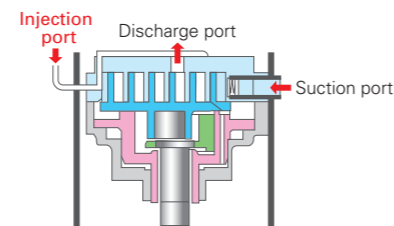
HIC cross-sectional view

Refrigerant which has passed through LEV C (refrigerant pressure lowered)
Refrigerant which hasn't passed through LEV C

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



Panel

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

Outdoor Unit



Remote Controller



Type	Inverter Heat Pump			
Indoor Unit	PLA-ZM100EA2	PLA-ZM125EA2	PLA-ZM150EA2	
Outdoor Unit	PUHZ-SHW112VHA	PUHZ-SHW112YHA	PUHZ-SHW140YHA	
Refrigerant	R410A*			
Power Supply	Outdoor power supply			
Source	VHA: 230 / Single / 50, YHA: 400 / Three / 50			
Cooling	Capacity	Rated	10.0	12.5
		Min - Max	4.9 - 11.4	5.5 - 14.0
	Total Input	Rated	2.857	5.000
	EER	Rated	3.50	2.50
	EEL Rank		-	-
	Design Load	Rated	10.0	10.0
	Annual Electricity Consumption**	Rated	633	633
	SEER**	Rated	5.5	5.5
	Energy Efficiency Class		A	A
	Heating (Average Season)	Capacity	Rated	11.2
		Min - Max	4.5 - 14.0	5.0 - 16.0
Total Input		Rated	2.667	4.000
COP		Rated	4.20	3.50
EEL Rank			-	-
Design Load		Rated	12.7	12.7
Declared Capacity		at reference design temperature	11.2 (-10°C)	11.2 (-10°C)
		at bivalent temperature	11.2 (-7°C)	11.2 (-7°C)
		at operation limit temperature	9.3 (-25°C)	9.3 (-25°C)
Back Up Heating Capacity		Rated	1.5	1.5
Annual Electricity Consumption**	Rated	4420	4420	
SCOP**	Rated	4.0	4.0	
Energy Efficiency Class		A+	A+	
Operating Current (max)	Rated	35.5	13.5	13.5
Indoor Unit	Input [Cooling/Heating]	Rated	0.07 / 0.07	0.07 / 0.07
	Operating Current (max)	Rated	0.47	0.47
	Dimensions <Panel>	H x W x D	298-840-840 <40-950-950>	
	Weight <Panel>		26 <5>	26 <5>
	Air Volume [Lo-Mi2-Mi1-Hi]	m³/min	19-22-25-28	19-22-25-28
	Sound Level (SPL) [Lo-Mi2-Mi1-Hi]	dB(A)	31-34-37-40	31-34-37-40
	Sound Level (PWL)	dB(A)	61	61
	Dimensions	H x W x D	1350-950-330 (+30)	
	Weight		120	134
	Air Volume	Cooling	100	100
	Heating	100	100	
Sound Level (SPL)	Cooling	51	51	
	Heating	52	52	
Sound Level (PWL)	Cooling	69	69	
Operating Current (max)		35	13	
Breaker Size		40	16	
Ext. Piping	Diameter	Liquid / Gas	9.52 / 15.88	9.52 / 15.88
	Max. Length	Out-In	75	75
		Out-In	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 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 CO₂ 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-6EAL	✓	✓		
PLP-6EAL	✓			✓
PLP-6EAL	✓	✓		✓
PLP-6EALM2	✓		✓	
PLP-6EALME2	✓	✓	✓	

Outdoor Unit

R410A



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

Remote Controller



Enclosed in PLP-6EALM2/
PLP-6EALME2



*optional *optional

PEDZ-SHW JA SERIES



Indoor Unit

R32
R410A



PEAD-M100/125JA(L)2

Outdoor Unit

R410A

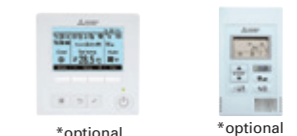


PUHZ-SHW112VHA(-BS)
PUHZ-SHW112/140YHA(-BS)

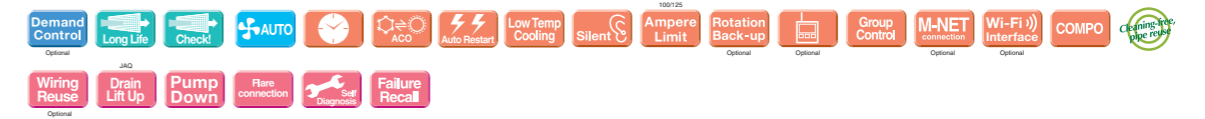
Remote Controller



*optional *optional *optional



*optional *optional



Type	Inverter Heat Pump			
Indoor Unit	PLA-M100EA2		PLA-M125EA2	
Outdoor Unit	PUHZ-SHW112VHA	PUHZ-SHW112YHA	PUHZ-SHW140YHA	
Refrigerant	R410A*1			
Power Supply	Outdoor power supply			
Source	VHA: 230 / Single / 50, YHA: 400 / Three / 50			
Outdoor (V/Phase/Hz)				
Cooling	Capacity	Rated	10.0	
		Min - Max	4.9 - 11.4	
	Total Input	Rated	2.940	
	EER		3.40	
		EEL Rank	-	
	Design Load		10.0	
	Annual Electricity Consumption*2		661	
	SEER*3		5.3	
		Energy Efficiency Class	A	
			A+	
Heating (Average Season)	Capacity	Rated	11.2	
		Min - Max	4.5 - 14.0	
	Total Input	Rated	2.793	
	COP		4.01	
		EEL Rank	-	
	Design Load		12.7	
	Declared Capacity	at reference design temperature	11.2 (-10°C)	
		at bivalent temperature	11.2 (-7°C)	
		at operation limit temperature	9.3 (-25°C)	
	Back Up Heating Capacity		1.5	
Annual Electricity Consumption*2		4445		
SCOP*4		4.0		
	Energy Efficiency Class	A+		
		A+		
Operating Current (max)		A	35.5	
			13.5	
			13.7	
	Indoor Unit	Input (Cooling/Heating)	Rated	0.07 / 0.07
		Operating Current (max)		0.47
		Dimensions <Panel>	H x W x D	298-840-840 <40-950-950>
		Weight <Panel>		26 <5>
		Air Volume [Lo-Mid-Mi-Hi]		19-22-25-28
		Sound Level (SPL) [Lo-Mi-Mi-Hi]		31-34-37-40
		Sound Level (PWL)		61
Outdoor Unit		Dimensions	H x W x D	1350-950-330 (+30)
		Weight		120
		Air Volume	Cooling	100
		Heating	100	
	Sound Level (SPL)	Cooling	51	
		Heating	52	
	Sound Level (PWL)	Cooling	69	
	Operating Current (max)		35	
	Breaker Size		40	
	Ext. Piping	Diameter	Liquid / Gas	9.52 / 15.88
Max. Length		Out-In	75	
Max. Height		Out-In	30	
Guaranteed Operating Range [Outdoor]		Cooling*3	-15 ~ +46	
	Heating	-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 CO₂ 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.

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	Outdoor power supply			
Source	VHA: 230 / Single / 50, YHA: 400 / Three / 50			
Outdoor (V/Phase/Hz)				
Cooling	Capacity	Rated	10.0	
		Min - Max	4.9 - 11.4	
	Total Input	Rated	2.904	
	EER		3.44	
		EEL Rank	-	
	Design Load		10.0	
	Annual Electricity Consumption*2		686	
	SEER*3		5.1	
		Energy Efficiency Class	A	
			A	
Heating (Average Season)	Capacity	Rated	11.2	
		Min - Max	4.5 - 14.0	
	Total Input	Rated	3.103	
	COP		3.61	
		EEL Rank	-	
	Design Load		12.7	
	Declared Capacity	at reference design temperature	11.2 (-10°C)	
		at bivalent temperature	11.2 (-7°C)	
		at operation limit temperature	9.4 (-25°C)	
	Back Up Heating Capacity		1.5	
Annual Electricity Consumption*2		4601		
SCOP*4		3.8		
	Energy Efficiency Class	A		
		A		
Operating Current (max)		A	37.7	
			15.7	
			15.8	
	Indoor Unit	Input (Cooling / Heating)	Rated	0.14
		Operating Current (max)		2.25
		Dimensions	H x W x D	250 - 1400 - 732
		Weight		36
		Air Volume [Lo-Mid-Hi]		23.0-28.0-32.0
		External Static Pressure*5		40 - <50> - <70> - <100> - <150>
		Sound Level (SPL) [Lo-Mid-Hi]		31 - 36 - 39
Sound Level (PWL)			62	
Outdoor Unit		Dimensions	H x W x D	1350 - 950 - 330 (+30)
		Weight		120
	Air Volume	Cooling	100	
		Heating	100	
	Sound Level (SPL)	Cooling	51	
		Heating	52	
	Sound Level (PWL)	Cooling	69	
	Operating Current (max)		35	
	Breaker Size		40	
	Ext. Piping	Diameter	Liquid / Gas	9.52 / 15.88
Max. Length		Out-In	75	
Max. Height		Out-In	30	
Guaranteed Operating Range [Outdoor]		Cooling*3	-15 ~ +46	
	Heating	-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 CO₂ 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



Indoor Unit

R32
R410A



PKA-M100KA(L)2

Outdoor Unit

R410A



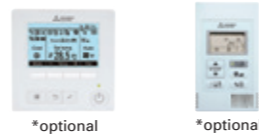
PUHZ-SHW112VHA(-BS)
PUHZ-SHW112YHA(-BS)

Remote Controller



*KAL only

*optional



*optional

*optional



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 x W x D	mm	365 - 1170 - 295		
	Weight <Panel>		kg	21	21	
	Air Volume [Lo-Mid-Hi]		m³/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 x W x D	mm	1350 - 950 - 330 (+30)	
		Weight		kg	120	134
		Air Volume	Cooling	m³/min	100	100
Heating			m³/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	
	Max. Length	Out-In	m	75		
	Max. Height	Out-In	m	30		
Guaranteed Operating Range [Outdoor]	Cooling*3	°C		-15 ~ +46		
	Heating	°C		-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 CO₂ 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.

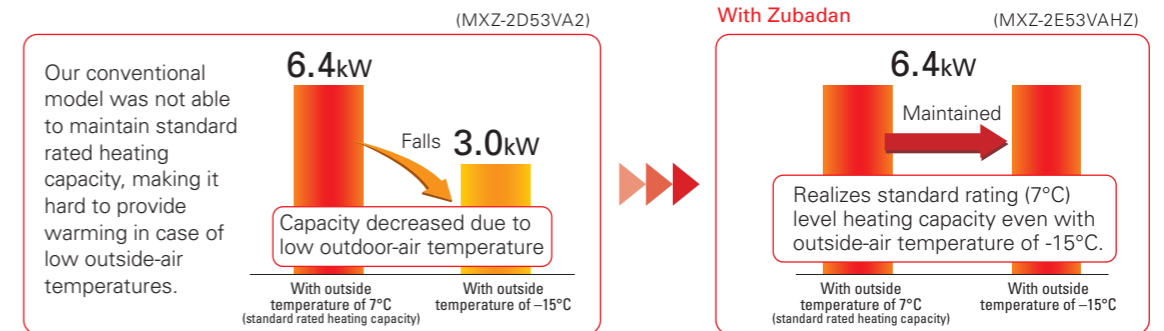
MXZ-VAHZ SERIES

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.

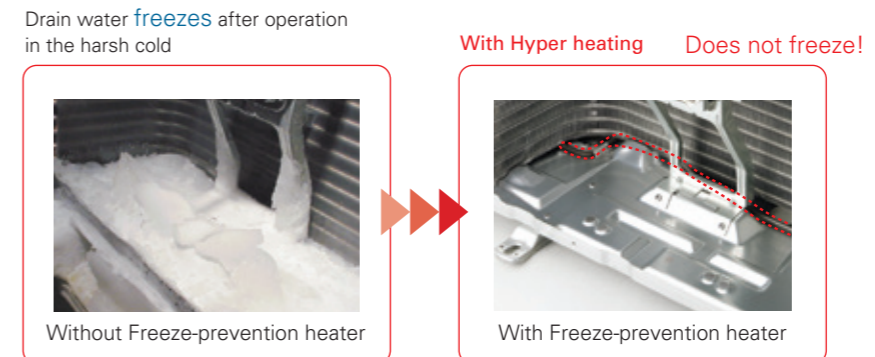


Can operate at outside-air temperature of -25°C

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.

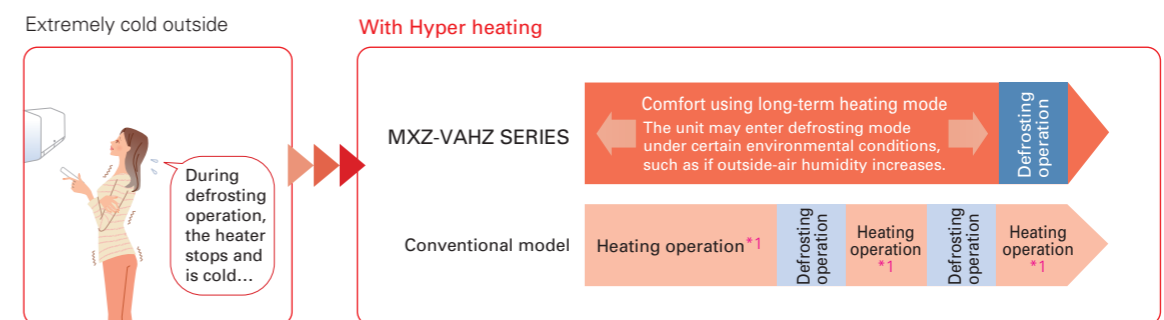
Freeze-prevention heater standard equipment

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.

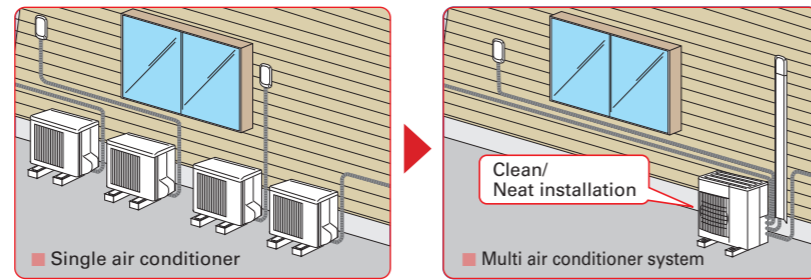


*1: Conventional model performs continuous heating approximately 30min up to a maximum of 90min.

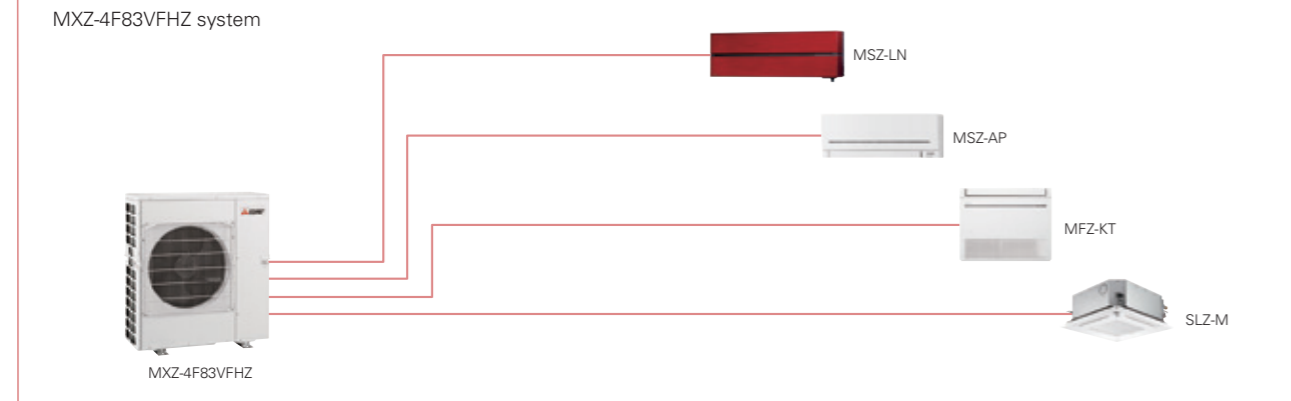
One outdoor unit supports multiple indoor units.

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



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 MXZ-2F53VFHZ	4-room use MXZ-4F83VFHZ

INDOOR UNITS			
Wall-mounted 	Floor-standing 	Cassette 	Ceiling-suspended
Ceiling-concealed 			

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

MXZ-VAHZ SERIES



Outdoor Unit



Type		Inverter Heat Pump					
Indoor Unit		Please refer to**4**5					
Outdoor Unit		MXZ-2F53VFHZ	MXZ-4F83VFHZ	MXZ-2E53VAHZ	MXZ-4E83VAHZ		
Refrigerant		R32**6		R410A**1			
Power Supply		Outdoor power supply					
Source		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 x W x D	mm	796 x 950 x 330	1048 x 950 x 330	796 x 950 x 330	1048 x 950 x 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 x 2 / 9.52 x 2	6.35 x 4 / 12.7 x 1+9.52 x 3	6.35 x 2 / 9.52 x 2	6.35 x 4 / 12.7 x 1+9.52 x 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 CO₂ 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-2F53VFHZ MSZ-LN18VG2 + MSZ-LN35VG2

MXZ-4F83VFHZ 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 115-116.

*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 CO₂ 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.

*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

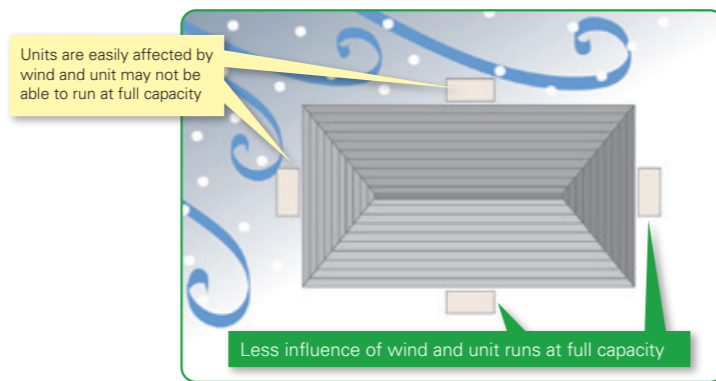


* RAC/PAC (inc. Air to Water) /MXZ

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

1 Installation Location

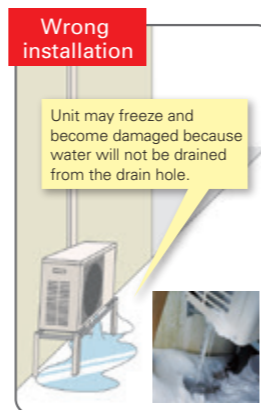
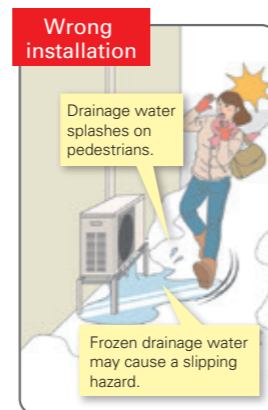
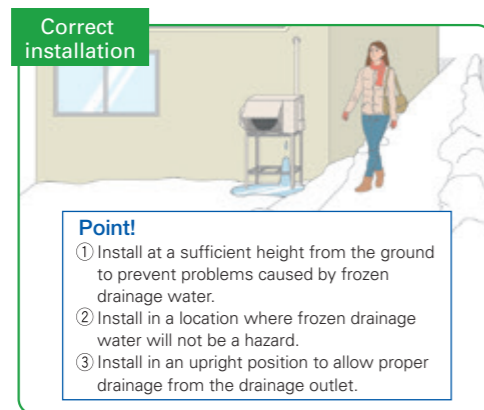
Be aware of the prevailing wind direction in winter and install the outdoor unit where it is as sheltered as possible.



2 Measures for Drainage of Water

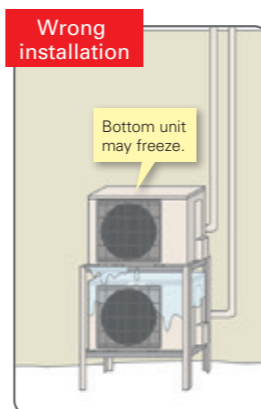
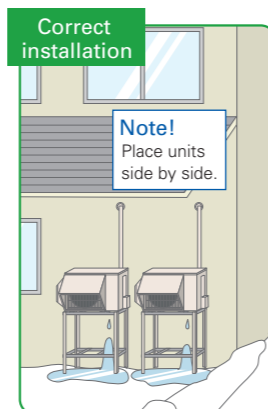
Case 1: Unit is installed close to passage (walkway)

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]

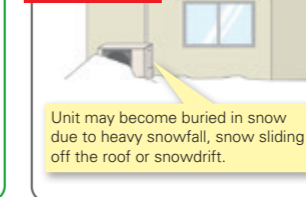
Correct installation



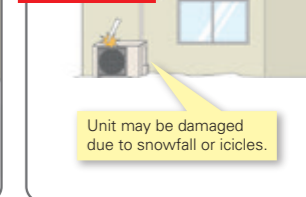
Point!

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

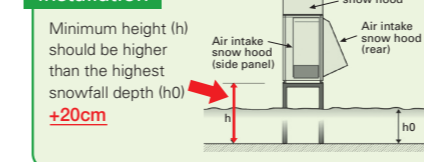


Wrong installation

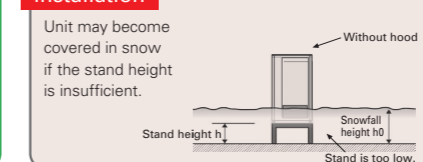


Use a stand to add sufficient height to protect the unit heat exchanger from snow and prevent icicles forming during defrost operation.

Correct installation



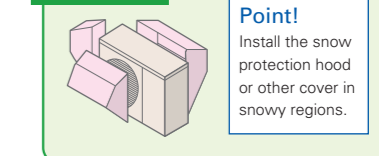
Wrong installation



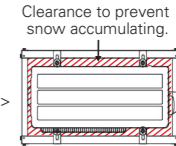
Install snow protection hood as necessary

[RAC / PAC / MXZ]

Correct installation



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>
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.
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NEW ECODESIGN DIRECTIVE

WHAT IS THE ErP DIRECTIVE?

The Ecodesign Directive for Energy-related Products (ErP Directive) establishes a framework to set mandatory standards for ErPs sold in the European Union (EU). The ErP directive introduces new energy-efficiency ratings across various product categories and affects how products such as computers, vacuum cleaners, boilers and even windows are classified in terms of environmental performance.

Regulations that apply to air conditioning systems of rated capacity up to 12kW came into effect as of January 1, 2013. Based on the use of future-orientated technologies, Mitsubishi Electric is one step ahead of these changes, with our air conditioning systems already achieving compliance with these new regulations.

NEW ENERGY LABEL AND MEASUREMENTS

Under regulation 2011/626/EU, supplementing directive 2010/30/EU, air conditioning systems are newly classified into energy-efficiency classes on the basis of a new energy labelling system, which includes three new classes: A+, A++ and A+++.

Revisions to the measurement points and calculations of the seasonal energy efficiency ratio (SEER) and seasonal coefficient of performance (SCOP) has resulted in changes to how air conditioning systems are classified into energy-efficiency classes.

Specifically, for cooling mode, air conditioning systems must achieve at least class B. For heating mode, air conditioning systems must achieve at least a SCOP value of 3.8.

■ New Energy Efficiency Label

SEER and SCOP
The SEER (Seasonal Energy Efficiency Ratio) value indicates the seasonal energy efficiency value in the cooling mode. The SCOP (Seasonal Coefficient of Performance) value refers to the seasonal efficiency in the heating mode.

Energy efficiency classes from A+++ to D SCOP in heating mode

A+++	> 5,1
A++	> 4,6
A+	> 4,0
A	> 3,4
B	> 3,1
C	> 2,8
D	< 2,5

Energy efficiency classes from A+++ to D SEER in cooling mode

A+++	> 8,5
A++	> 6,1
A+	> 5,6
A	> 5,1
B	> 4,6
C	> 4,1
D	< 3,6

Energy efficiency class
Energy efficiency class of the unit in cooling and heating mode of the unit model

In the heating mode, the indication for the unit model is shown for all three climate zones.

Nominal capacity in cooling mode
SEER value

Annual power consumption for cooling
ZY db

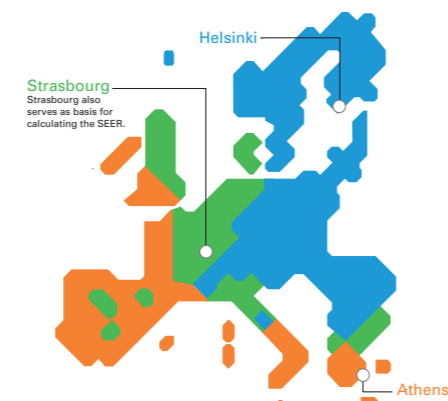
Operating noise, indoors/outdoors
The sound power level is an important sound energy parameter for assessing a sound source. Contrary to the sound pressure - the sound power is independent of the location of the source and/or the receiver. Maximally admissible values are:

Cooling capacity ≤ 6 kW		Cooling capacity > 6 kW ≤ 12 kW	
Indoor unit	Outdoor unit	Indoor unit	Outdoor unit
60dB(A)	65dB(A)	65dB(A)	70dB(A)

Climate zones
For heating mode, the EU is divided into three climate zones for calculation and classification purposes. This aims at calculating the energy efficiency taking into consideration the actual regional ambient temperatures.

■ Climate Zones for Heating Mode

Reference climate zones for calculating the SCOP
Since the climate conditions have a great influence on the operating behaviour in the heat pump mode, three climate zones have been stipulated for the EU: *warm, moderate, cold*. The measurement points are homogenous at 12°C, 7°C and -7°C.



Warm (Athens)

Partial load	Temperature conditions		Indoors
	Outdoors	WB	
100%	2°C	1°C	20°C
64%	7°C	6°C	20°C
29%	12°C	11°C	20°C

Moderate (Strasbourg)

Partial load	Temperature conditions		Indoors
	Outdoors	WB	
88%	-7°C	-8°C	20°C
54%	2°C	1°C	20°C
35%	7°C	6°C	20°C
15%	12°C	11°C	20°C

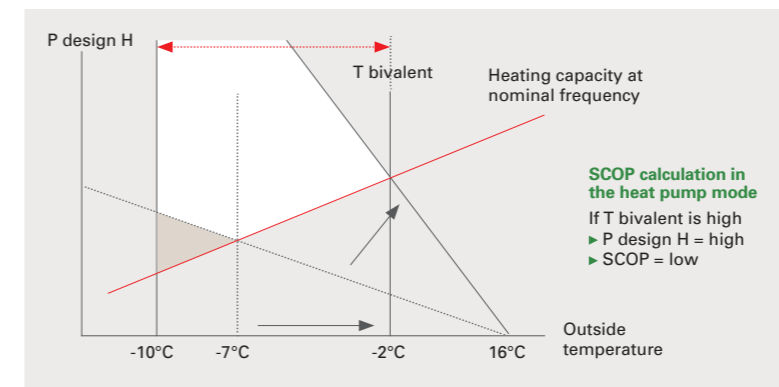
Cold (Helsinki)

Partial load	Temperature conditions		Indoors
	Outdoors	WB	
61%	-7°C	-8°C	20°C
37%	2°C	1°C	20°C
24%	7°C	6°C	20°C
11%	12°C	11°C	20°C

SEER/SCOP

Air conditioning systems were previously assessed using the energy-efficiency rating (EER), which evaluated efficiency in cooling mode, and the coefficient of performance (COP), which defined the efficiency, or the ratio of consumed and output power, in heating mode. Under this system, assessments were not truly reflective of performance as they were based on a single measurement point, which led to manufacturers optimising products accordingly in order to achieve higher efficiency ratings. SEER and SCOP address this problem by including seasonal variation in the ratings via use of realistic measurement points. For cooling mode, measurements at outside temperatures of 20, 25, 30 and 35°C are incorporated and weighted in accordance with climate data for Strasbourg, which is used as a single reference point for the whole EU. For instance, for partial-load operation, which represents more than 90% of operation, there is a correspondingly high weighting for the efficiency classification. For heating mode, a comprehensive temperature profile for the whole EU was not possible, so the EU has been divided into three climate zones, north, central and south, and load profiles created. The same measurement points, at outside temperatures of 12, 7, 2 and -7°C, are used for all three zones.

■ SCOP Calculation



Technical Terms with Respect to the SCOP

P design H: Corresponds to a heating load of 100%. The value depends on the selected bivalence point.

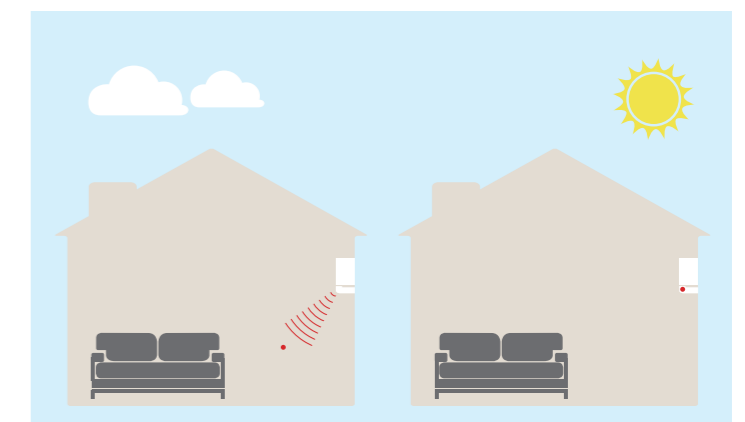
T design: Outside temperature which determines the P design H point. The latter is determined from the area conditions.

T bivalent: Corresponds to the lowest temperature at which full heating performance can be achieved with the heat pump (without additional heating). This point can be freely selected within the prescribed temperature ranges (T design - T bivalent).

SOUND PRESSURE LEVEL

■ Sound Pressure vs Sound Power Level

Consumers will also receive more information on the noise levels emitted by split-system air conditioners to help them make their purchasing decision. Specifically, the sound power level of indoor and outdoor units is to be indicated in decibels as an objective parameter. Knowing the sound power makes it possible to calculate sound emissions while considering distance and radiation characteristics, which is beneficial because it allows the noise levels of different air conditioning systems to be compared regardless of the usage location and how the sound pressure is measured. This is an improvement on sound pressure values which are usually measured at an approximate distance of 1m where all modern split-system air conditioning systems tend to be very quiet at an average of 21 decibels.



Sound pressure level dB(A)
The sound pressure level is a sound field parameter which indicates the perceived operating noise of an indoor unit within a certain distance.

Sound power level dB(A)
The sound power is an acoustic parameter which describes the source strength of a sound generator and is thus independent of the distance to the receiver location.

DC Inverter INVERTER TECHNOLOGIES

Mitsubishi Electric inverters ensure superior performance including the optimum control of operation frequency. As a result, optimum power is applied in all heating/cooling ranges and maximum comfort is achieved while consuming minimal energy. Fast, comfortable operation and amazingly low running cost — That's the Mitsubishi Electric promise.

INVERTERS — HOW THEY WORK

Inverters electronically control the electrical voltage, current and frequency of electrical devices such as the compressor motor in an air conditioner. They receive information from sensors monitoring operating conditions, and adjust the revolution speed of the compressor, which directly regulates air conditioner output. Optimum control of operation frequency results in eliminating the consumption of excessive electricity and providing the most comfortable room environment.

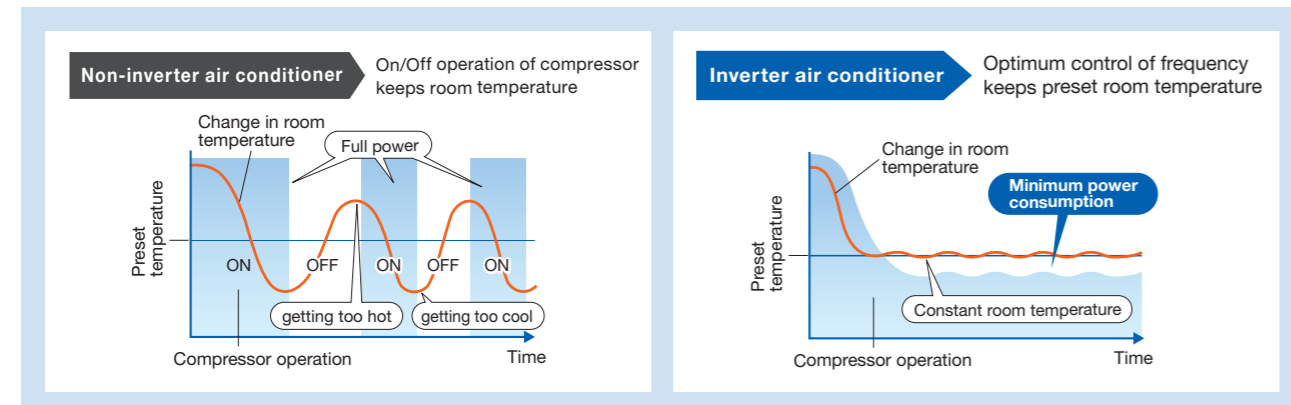
ECONOMIC OPERATION

Impressively low operating cost is a key advantage of inverter air conditioners. We've combined advanced inverter technologies with cutting-edge electronics and mechanical technologies to achieve a synergistic effect that enables improvements in heating/cooling performance efficiency. Better performance and lower energy consumption are the result.

TRUE COMFORT

Below is a simple comparison of air conditioner operation control with and without an inverter.

■ Inverter operation comparison



The compressors of air conditioners without an inverter start and stop repeatedly in order to maintain the preset room temperature. This repetitive on/off operation uses excessive electricity and compromises room comfort. The compressors of air conditioners equipped with an inverter run continuously; the inverter quickly optimizing the operating frequency according to changes in room temperature. This ensures energy-efficient operation and a more comfortable room.

Point 1 Quick & Powerful

Increasing the compressor motor speed by controlling the operation frequency ensures powerful output at start-up, brings the room temperature to the comfort zone faster than units not equipped with an inverter. Hot rooms are cooled, and cold rooms are heated faster and more efficiently.

Point 2 Room Temperature Maintained

The compressor motor operating frequency and the change of room temperature are monitored to calculate the most efficient waveform to maintain the room temperature in the comfort zone. This eliminates the large temperature swings common with non-inverter systems, and guarantees a pleasant, comfortable environment.

KEY TECHNOLOGIES

Our Rotary Compressor

Our rotary compressors use our original "Poki-Poki Motor" and "Heat Caulking Fixing Method" to realise downsizing and higher efficiency, and are designed to match various usage scenes in residential to commercial applications. Additionally, development of an innovative production method known as "Divisible Middle Plate" realises further size/weight reductions and increased capacity while also answering energy-efficiency needs.

Our Scroll Compressor

Our scroll compressors are equipped with an advanced frame compliance mechanism that allows self-adjustment of the position of the orbiting scroll according to pressure load and the accuracy of the fixed scroll position. This minimises gas leakage in the scroll compression chamber, maintains cooling capacity and reduces power loss.

MORE ADVANTAGES WITH MITSUBISHI ELECTRIC

Joint Lap DC Motor

Mitsubishi Electric has developed a unique motor, called the "Poki-Poki Motor" in Japan, which is manufactured using a joint lapping technique. This innovative motor operates based on a high-density, high-magnetic force, leading to extremely high efficiency and reliability.

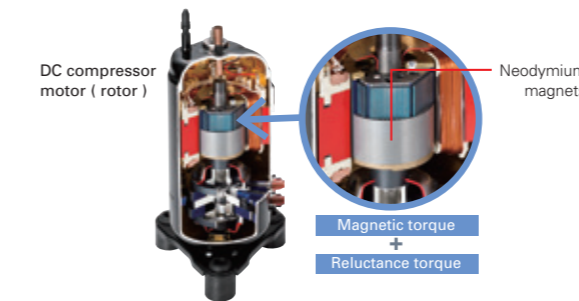


Magnetic Flux Vector Sine Wave Drive

This drive device is actually a microprocessor that converts the compressor motor's electrical current waveform from a conventional waveform to a sine wave (180° conduction) to achieve higher efficiency by raising the motor winding utilisation ratio and reducing energy loss.

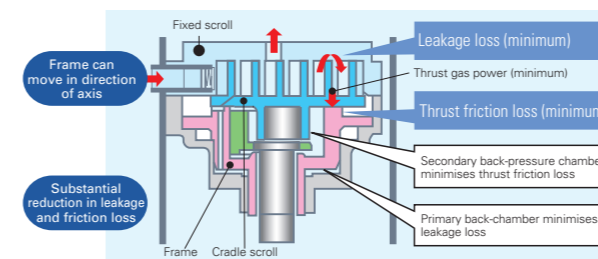
Reluctance DC Rotary Compressor

Powerful neodymium magnets are used in the rotor of the reluctance DC motor. More efficient operation is realised by strong magnetic and reluctance torques produced by the magnets.



Highly Efficient DC Scroll Compressor

Higher efficiency has been achieved by adding a frame compliance mechanism to the DC scroll compressor. The mechanism allows movement in the axial direction of the frame supporting the cradle scroll, thereby greatly reducing leakage and friction loss, and ensuring extremely high efficiency at all speeds.



Heat Caulking Fixing Method

To fix internal parts in place, a "Heat Caulking Fixing Method" is used, replacing the former arc spot welding method. Distortion of internal parts is reduced, realising higher efficiency.



DC Fan Motor

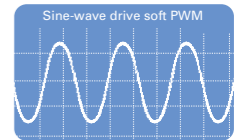
A highly efficient DC motor drives the fan of the outdoor unit. Efficiency is much higher than an equivalent AC motor.

Vector-Wave Eco Inverter

This inverter monitors the varying compressor motor frequency and creates the most efficient waveform for the motor speed. As the result, operating efficiency in all speed ranges is improved, less power is used and annual electricity cost is reduced.

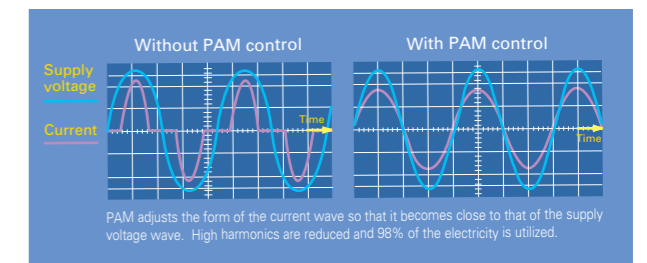
Smooth wave pattern

Inverter size has been reduced using insert-molding, where the circuit pattern is molded into the synthetic resin. To ensure quiet operation, soft PWM control is used to prevent the metallic whine associated with conventional inverters.

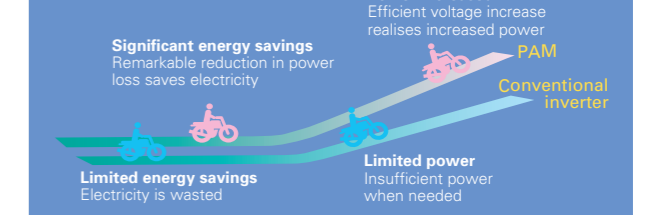


PAM PAM (Pulse Amplitude Modulation)

PAM is a technology that controls the current waveform so that it resembles the supply voltage wave, thereby reducing loss and realising more efficient use of electricity. Using PAM control, 98% of the input power supply is used effectively.

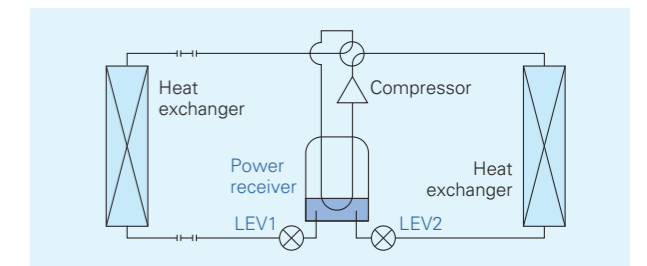


■ Merits of PAM Control



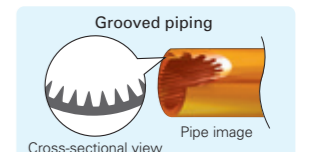
Power Receiver and Twin LEV Control

Mitsubishi Electric has developed a power receiver and twin linear expansion valves (LEVs) circuit that optimise compressor performance. This technology ensures optimum control in response to operating waveform and outdoor temperature. Operating efficiency has been enhanced by tailoring the system to the characteristics of R410A refrigerant.



Grooved Piping

High-performance grooved piping is used in heat exchangers to increase the heat exchange area.

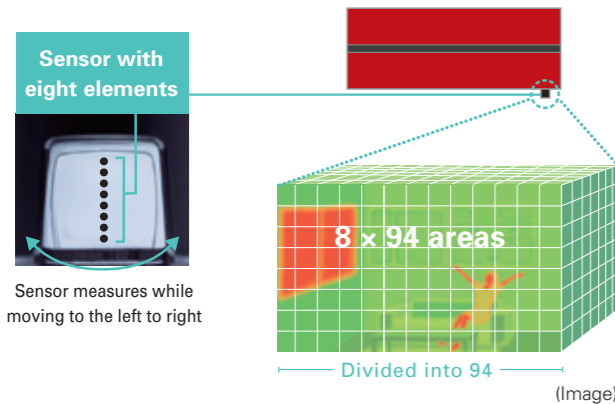


COMFORT

3D i-see Sensor

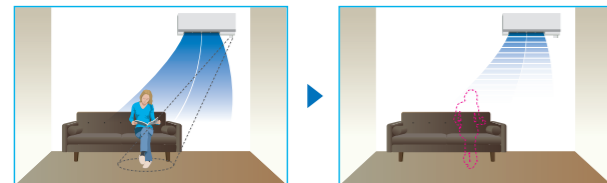
3D i-see Sensor for M SERIES

The LN Series and FH Series are equipped with the 3D i-see Sensor, an infrared-ray sensor that measures the temperature at distant positions. While moving to the left and right, eight vertically arranged sensor elements analyze the room temperature in three dimensions. This detailed analysis makes it possible to judge where people are in the room, thus allowing creation of features such as "Indirect airflow," to avoid airflow hitting people directly, and "direct airflow" to deliver airflow to where people are.



No occupancy energy-saving mode

The sensors detect whether there are people in the room. When no-one is in the room, the unit automatically switches to energy-saving mode.



The "3D i-see Sensor" detects people's absence and the power consumption is automatically reduced approximately 10% after 10 minutes and 20% after 60 minutes.

3D i-see Sensor for S & P SERIES

Detects number of people

The 3D i-see Sensor detects the number of people in the room and adjusts the power accordingly. This makes automatic power-saving operation possible in places where the number of people changes frequently. Additionally, when the area is continuously unoccupied, the system switches to a more enhanced power-saving mode. Depending on the setting, it can also stop the operation.

Detects people's position

Once a person is detected, the angle of the vane is automatically adjusted. Each vane can be independently set to "Direct Airflow" or "Indirect Airflow" according to taste.

Highly accurate people detection

A total of eight sensors rotate a full 360° in 3-minute intervals. In addition to detecting human body temperature, our original algorithm also detects people's positions and the number of people.

Indirect Airflow

The indirect airflow setting can be used when the flow of air feels too strong or direct. For example, it can be used during cooling to avert airflow and prevent body temperature from becoming excessively cooled.



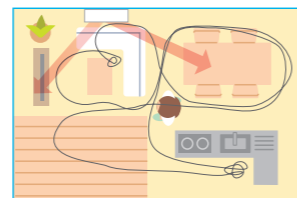
Direct Airflow

This setting can be used to directly target airflow at people such as for immediate comfort when coming indoors on a hot (cold) day.

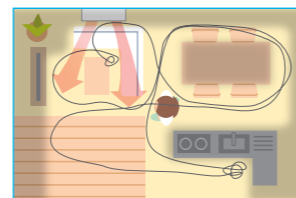


Even Airflow *LN Series only

Normal swing mode



Even airflow mode

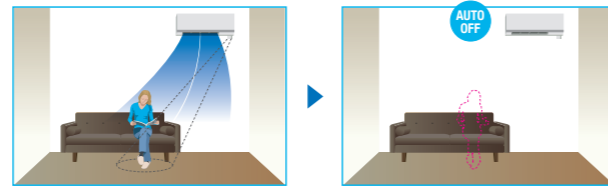


The airflow is distributed equally throughout the room, even to spaces where there is no human movement.

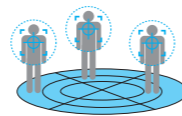
The 3D i-see sensor memorizes human movement and furniture positions, and efficiently distributes airflow.

No occupancy Auto-OFF mode *LN Series only

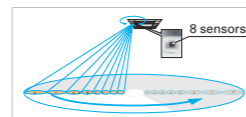
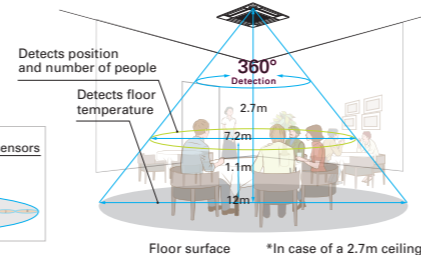
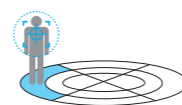
The sensors detect whether or not there are people in the room. When there is no one in the room, the unit turns off automatically.



Detects number of people



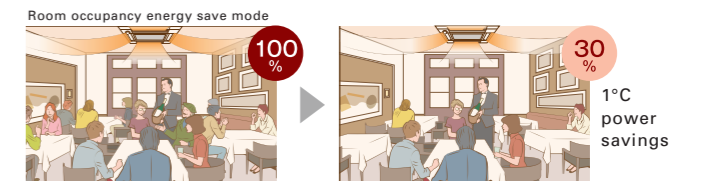
Detects people's position



Detects number of people

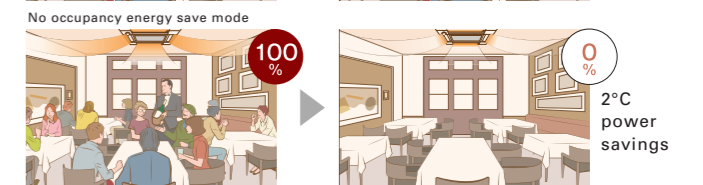
Room occupancy energy-saving mode

The 3D i-see Sensor detects the number of people in the room. It then calculates the occupancy rate based on the maximum number of people in the room up to that point in time in order to save air-conditioning power. When the occupancy rate is approximately 30%, air-conditioning power equivalent to 1°C during both cooling and heating operation is saved. The temperature is controlled according to the number of people.



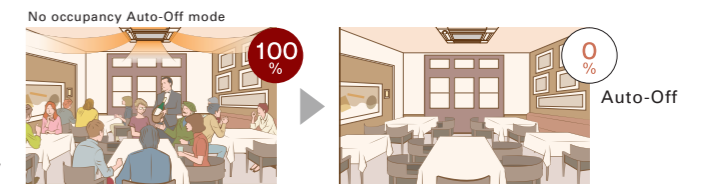
No occupancy energy-saving mode

When 3D i-see Sensor detects that no one is in the room, the system is switched to a pre-set power-saving mode. If the room remains unoccupied for more than 60min, air-conditioning power equivalent to 2°C during both cooling and heating operation is saved. This contributes to preventing waste in terms of heating and cooling.



No occupancy Auto-OFF mode*

When the room remains unoccupied for a pre-set period of time, the air conditioner turns off automatically, thereby providing even greater power savings. The time until operation is stopped can be set in intervals of 10min, ranging from 60 to 180 min.



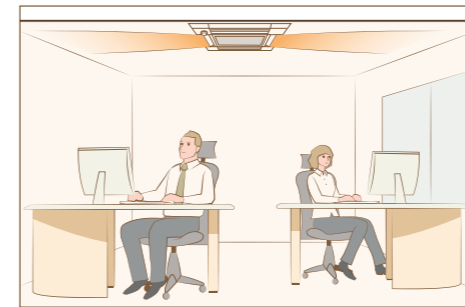
*When MA Remote Controller is used to control multiple refrigerant systems, "No occupancy Auto-OFF mode" cannot be used.

*PAR-41MAA is required for each setting

Detects people's position

Direct/Indirect settings*

The horizontal airflow spreads across the ceiling. When set to "Indirect Airflow" uncomfortable drafty-feeling is eliminated!



*PAR-41MAA or PAR-SL101A-E is required for each setting.

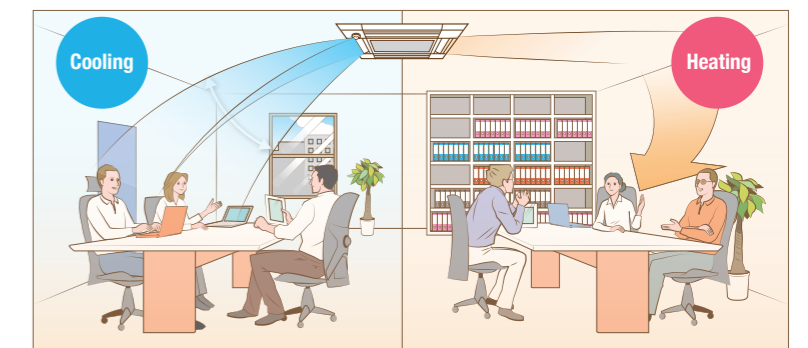
Seasonal airflow*

When cooling

Saves energy while keeping a comfortable effective temperature by automatically switching between ventilation and cooling. When a pre-set temperature is reached, the air conditioning unit switches to swing fan operation to maintain the effective temperature. This clever function contributes to keeping a comfortable coolness.

When heating

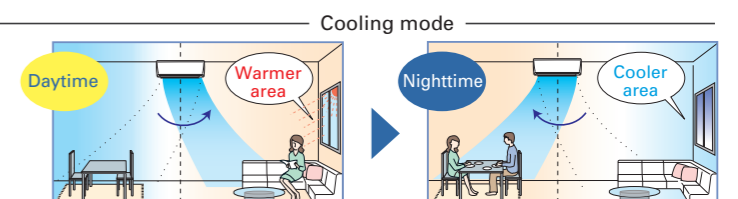
The air conditioning unit automatically switches between circulator and heating. Wasted heat that accumulates near the ceiling is reused via circulation. When a pre-set temperature is reached the air conditioner switches from heating to circulator and blows air in the horizontal direction. It pushes down the warm air that has gathered near the ceiling to people's height, thereby providing smart heating.



*PAR-41MAA is required for each setting.

AREA Area Temperature Monitor

The "3D i-see Sensor" monitors the whole room in sections and directs the airflow to areas of the room where the temperature does not match the temperature setting. (When cooling the room, if the middle of the room is detected to be hotter, more airflow is directed towards it.) This eliminates unnecessary heating /cooling and contributes to lower electricity costs.



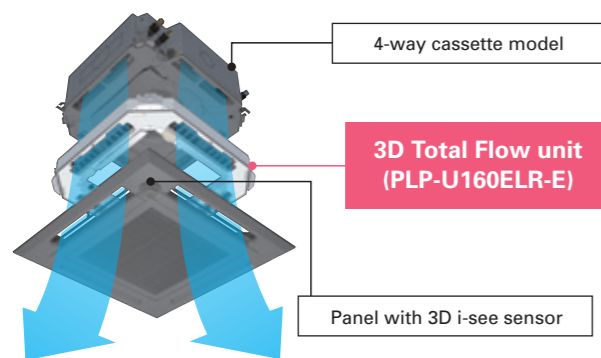
COMFORT

3D TOTAL FLOW

3D Total Flow*

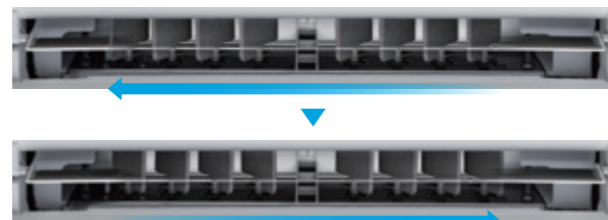
3D Total Flow is an innovative function. Our original 3D i-see sensor detects the temperature of the floor, and then the newly installed 3D Total Flow unit automatically controls the airflow in the left/right directions in a smart manner.

*3D Total Flow unit (PLP-U160ELR-E) cannot be used with Plasma Quad Connect (PAC-SK51FT-E), Insulation kit (PAC-SK36HK-E), Shutter Plate (PAC-SJ37SP-E), Multi functional casement (PAC-SJ41TM-E) and High-efficiency filter element (PAC-SH59KF-E)



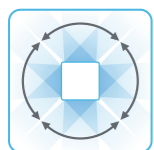
Horizontal louver (3D Total Flow)

In addition to the ability of conventional models to control airflow in the vertical direction, the adoption of a horizontal louver unit allows each outlet to blow air over a horizontal angle of 90 degrees. The combination of four outlets delivers 360° airflow control around the entire circumference. This now makes it possible to blow air in diagonal directions which eliminates temperature irregularities.



louvers can provide horizontal airflow control.

Fine-tuned sensing & airflow direction control (3D Total Flow)

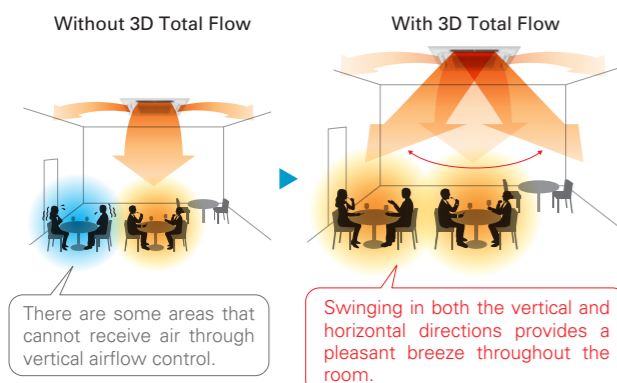


Swinging

Since airflow can be controlled in the horizontal and vertical directions, you can efficiently make the entire room comfortable.

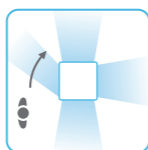
Horizontal, vertical, and diagonal airflow delivered to every corner

The combination of the vertical vanes with the horizontal louver unit makes it possible to direct airflow in any direction. This quickly makes the entire room comfortable, even when diagonal airflow is necessary.



There are some areas that cannot receive air through vertical airflow control.

Swinging in both the vertical and horizontal directions provides a pleasant breeze throughout the room.

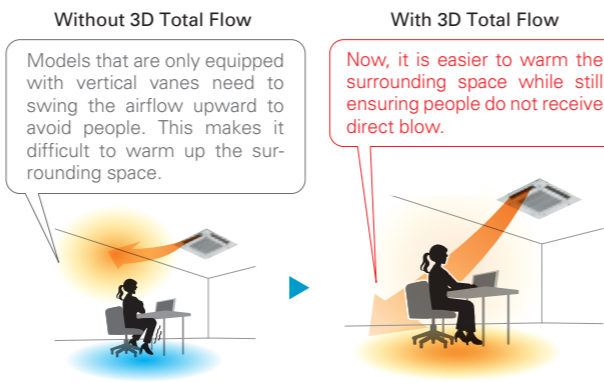


Indirect mode

When set to "Indirect" mode, the system detects the position of a person and maintains comfort while diverting airflow away from them.

Prevents direct airflow and keeps you comfortable

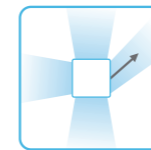
This function prevents people from being directly exposed to airflow while still ensuring comfort. The "Indirect" mode of 3D Total Flow keeps the downward airflow while avoiding direct blow to people, delivering a pleasant warmth.



Models that are only equipped with vertical vanes need to swing the airflow upward to avoid people. This makes it difficult to warm up the surrounding space.

Now, it is easier to warm the surrounding space while still ensuring people do not receive direct blow.

*If people are present throughout the entire airflow range of an outlet, the airflow is shifted horizontally to avoid direct airflow.

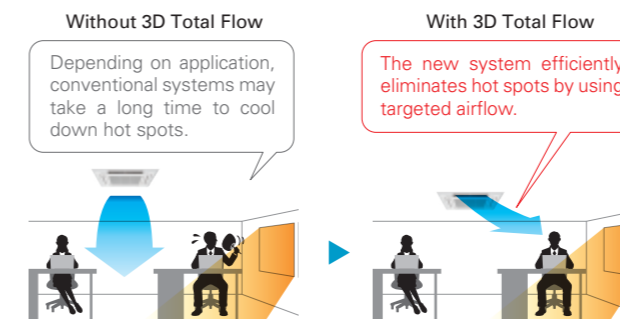


Targeting

The system can detect spaces with uneven temperatures and target them by sending air even if they are in a diagonal direction.

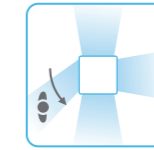
Detects and targets areas with uneven temperatures

3D i-see sensor detects areas with uneven temperatures, even if they are caused by the installation orientation of the air conditioner or the influence of strong sunlight. Efficient air conditioning is possible thanks to the ability to send focused airflow to such areas, even those in a diagonal position.



Without 3D Total Flow
Depending on application, conventional systems may take a long time to cool down hot spots.

With 3D Total Flow
The new system efficiently eliminates hot spots by using targeted airflow.

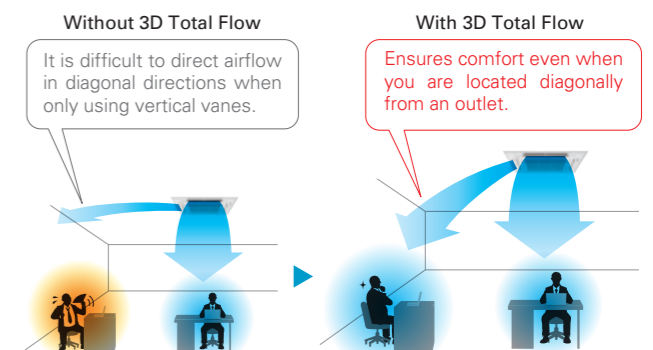


Direct mode

When set to "Direct" mode, the system detects the position and diverts airflow towards wherever they are located.

Delivers airflow even in diagonal directions

You can freely turn on "Direct" mode depending on personal preference. This allows for air conditioning in diagonal directions which was difficult for models that could only swing the airflow up and down. This feature is perfect for when you come back home on a hot day.



Without 3D Total Flow
It is difficult to direct airflow in diagonal directions when only using vertical vanes.

With 3D Total Flow
Ensures comfort even when you are located diagonally from an outlet.

COMFORT

ENERGY-SAVING

Econo Cool Energy-Saving Feature

"Econo Cool" is an intelligent temperature control feature that adjusts the amount of air directed towards the body based on the air-outlet temperature. The setting temperature can be raised by as much as 2°C without any loss in comfort, thereby realising a 20% gain in energy efficiency. (Function only available during manual cooling operation.)

	Conventional	Econo Cool
Ambient temperature	35°C	35°C
Set temperature	25°C	27°C
Perceived temperature	30°C	29.3°C

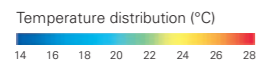
Econo Cool Mode

A comfortable room environment is maintained even when setting the temperature 2°C higher than the conventional cooling mode.

Econo Cool on



Conventional cooling mode



Demand Function (Onsite Adjustment)

The demand function can be activated when the unit is equipped with a commercially available timer or an On/Off switch is added to the CNDM connector (option) on the control board of the outdoor unit. Energy consumption can be reduced up to 100% of the normal consumption according to the signal input from outside.

[Example: Power Inverter Series]

Limit energy consumption by changing the settings of SW7-1, SW2 and SW3 on the control board of the outdoor unit. The following settings are possible.

SW7-1	SW2	SW3	Energy consumption
ON	OFF	OFF	100%
	ON	OFF	75%
	ON	ON	50%
	OFF	ON	0% (Stop)

*PUHZ outdoor only

AIR DISTRIBUTION

Double Vane

Double vane separates the airflow in the different directions to deliver airflow not only across a wide area of the room, but also simultaneously to two people in different locations.

Horizontal Vane

The air outlet vane swings up and down so that the airflow is spread evenly throughout the room.

Vertical Vane

The air outlet fin swings from side to side so that the airflow reaches every part of the room.

High Ceiling Mode

In the case of rooms with high ceilings, the outlet-air volume can be increased to ensure that air is circulated all the way to the floor.

Low Ceiling Mode

If the room has a low ceiling, the airflow volume can be reduced for less draft.

Auto Fan Speed Mode

The airflow speed mode adjusts the fan speed of the indoor unit automatically according to the present room conditions.

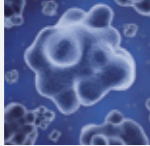
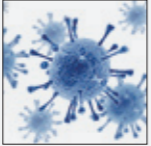
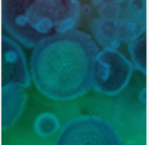
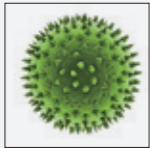

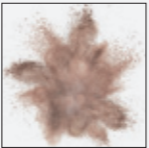
Circulator Mode

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 to eliminate uneven temperature in the room.

AIR QUALITY

Plasma Quad Plus

Plasma Quad Plus is a plasma-based filter system that effectively removes six kinds of air pollutants. Plasma Quad Plus captures mold and allergens more effectively than Plasma Quad. It can also capture PM2.5 and particles smaller than 2.5µm, creating healthy living spaces for all.

<p>Bacteria</p>  <p>Test results have confirmed that Plasma Quad Plus neutralizes 99% of bacteria in 162 minutes in a 25m³ test space.</p> <p><Test No.> KRCEs-Bio. Test Report No. 2016-0118</p>	<p>Viruses</p>  <p>Test results have confirmed that Plasma Quad Plus neutralizes 99% of virus particles in 72 minutes in a 25m³ test space.</p> <p><Test No.> vrc.center, SMC No. 28-002</p>	<p>Molds</p>  <p>Test results have confirmed that Plasma Quad Plus neutralizes 99% of mold in 135 minutes in a 25m³ test space.</p> <p><Test No.> Japan Food Research Laboratories Test Report No. 16069353001-0201</p>
<p>Allergens</p>  <p>In a test, air containing cat fur and pollen was passed through the air cleaning device at the low airflow setting. Before and after measurements confirm that Plasma Quad Plus neutralizes 98% of cat fur and pollen.</p> <p><Test No.> ITEA Report No. T1606028</p>	<p>PM2.5</p>  <p>Test results have confirmed that Plasma Quad Plus removes 99% of PM2.5 in 145 minutes in a 28m³ test space.</p> <p><In-company investigation></p>	<p>Dust</p>  <p>Test results have confirmed that Plasma Quad Plus removes 99.7% of dust and mites.</p> <p><Test No.> ITEA Report No. T1606028</p>

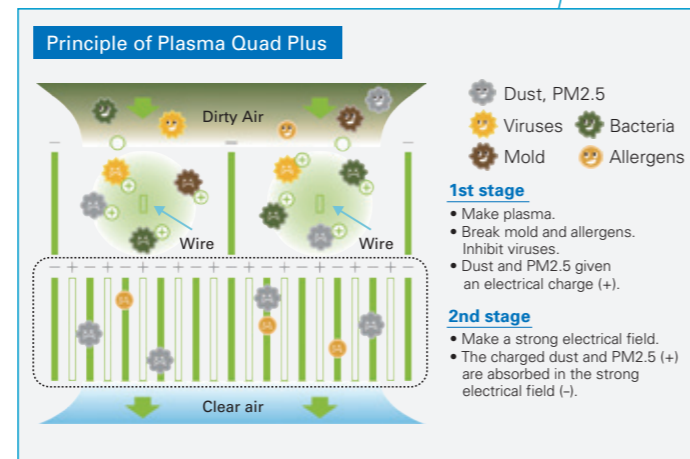
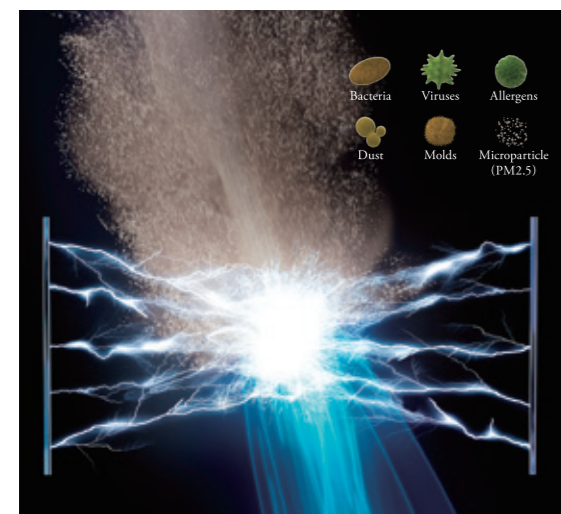
Model	Name	Method	Bacteria	Viruses	Molds	Allergens	Dust	PM2.5*
FH Series	Plasma Quad	One-Stage Plasma	A	A	B	B	C	
LN Series	Plasma Quad Plus	Two-Stage Plasma	A	A	A	A	A	A

A: Highly effective
B: Effective
C: Partially effective

*PM2.5: Particles smaller than 2.5µm



Image of Plasma Quad Plus









Hi-performance Plasma Filtration System

Plasma Quad Connect (Optional Parts)


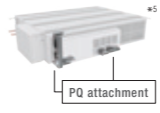
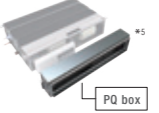

Plasma Quad Connect is an high-performance air purifying device which can even be installed on the existing units, contributing to a better air quality in your room. Plasma Quad Connect applies a voltage of 6,000 volts to the electrode to generate plasma, effectively removing various kinds of particles such as viruses, bacteria, molds, allergens, dust, and PM2.5.



 Virus 99% inhibited*1*2	 Bacteria 99% inhibited*2
 Mold 99% inhibited*2	 Dust 99.7% inhibited
 Allergen 98% inhibited	 PM2.5 99% inhibited*2

*1 The result of test with Influenza A virus.
*2 The result is based on the test with a device installed on the representative indoor unit. (MSZ-AP series)

Specifications

Model Name	MAC-100FT-E	PAC-HA11PAR, PAC-HA31PAR PAC-HA21PAU, PAC-HA31PAU (Attachment for Ducted Indoor Units)*1,*3	PAC-KE91PTB-E, PAC-KE92PTB-E PAC-KE93PTB-E, PAC-KE94PTB-E PAC-KE95PTB-E (Box for Ducted Indoor Units)*1,*3	PAC-SK51FT-E*4
Product Image				
Compatible with	MSZ, PKA, and PKFY*2 (Wall mounted models)	SEZ, PEAD, and PEFY*2	PEAD, and PEFY*2	PLA and PLFY*2 (4-way Cassette 3X3 models)
Input Voltage	Single Phase AC220-240V	—	—	Single Phase AC220-240V
Frequency	50/60Hz	—	—	50/60Hz
Power Consumption	4W	—	—	4W
Size H×W×D	56mm×499.5mm×168mm	—*6	247mm×917mm×179mm*7	134mm×840mm×840mm
Weight	1,600g	360g*6	4,570g*7	8,700g

*1 Both MAC-100FT-E and PQ Attachment or PQ box will be required when using with ducted models. *2 Please contact your nearest sales office about compatible model. *3 Specifications are subject to change without notice.
*4 When multi-functional casement or automatic filter elevation panel is used/installed, PAC-SK51FT-E can not be used. *5 The image shows rear suction. *6 Depends on model. Shows weight of PAC-HA11PAR.
*7 Depends on model. Shows size/weight of PAC-KE92PTB-E.

Test Report Results

Following test results were conducted under controlled laboratory conditions. Performance might differ in real life environment.

Tested Materials	Tested Standard	Capacity	Time	Result	Testing Organization	Test Report	
Virus	New Coronavirus (SARS-CoV-2)	Original	—*8	360min	99.8% inhibited*9	Japan Textile Products Quality and Technology Center	20KB070569
	Influenza A	JEM1467	25m ³	175min	99% inhibited*10	SMC Virus Research Center Japan (JAPAN)	R2-003
Bacteria	Staphylococcus Aureus	GB21551.6-2010	30m ³	335min	99% inhibited*10	CHEARI (Beijing) Certification & Testing Co., Ltd.	WK-21-50161
Mold	Penicillium Citrinum	JEM1467	25m ³	160min	99% inhibited*10	Life Science Research Laboratory (JAPAN)	LSRL-51021E-E091
Allergen	Cat Fur and Pollen	Original	—*8	—	98% inhibited*11	Institute of Tokyo Environmental Allergy (JAPAN)	No.T1606028
Dust	Dust and Mites	Original	—*8	—	99.7% inhibited*11	Institute of Tokyo Environmental Allergy (JAPAN)	No.T1606028
PM2.5	Cigarette smoke	JEM1467	25m ³	300min	99% inhibited*10	Life Science Research Laboratory (JAPAN)	SRL-21010E-E091

*8 The test was conducted on the Plasma Quad device alone, not designed to evaluate product performance. *9 The result without the effect of natural attenuation is 96.3%.
*10 The result is based on the test with a device installed on the representative indoor unit. (MSZ-AP series) *11 It shows the result when allergen and dust pass through the device once.

AIR QUALITY

Filters & Cleaning Functions

Fresh-air Intake

Indoor air quality is enhanced by the direct intake of fresh exterior air.

High-efficiency Filter

This high-performance filter has a much finer mesh compared to standard filters, and is capable of capturing minute particulates floating in the air that were not previously caught.

Air Purifying Filter

The filter has a large capture area and also generates antibacterial, antifungal, and deodorant effects.

Oil Mist Filter

The oil mist filter prevents oil mist from penetrating into the inner part of the air conditioner.

Long-life Filter

A special process for the entrapment surface improves the filtering effect, making the maintenance cycle longer than that of units equipped with conventional filters.

Filter Check Signal

Air conditioner operating time is monitored, and the user is notified when filter maintenance is necessary.

Silver-ionized Air Purifier Filter

Silver-ionized Air Purifier Filter made of non-woven fabric can capture tiny particles. Silver ions and enzymes contained in the filter effectively act on bacteria and allergens and neutralises them.

Dual Barrier Coating

A two-barrier coating which prevents hydrophobic and hydrophilic dirt from sticking to the inner surface and inner parts of the indoor unit.

Dual Barrier Material

Antifouling materials are kneaded into horizontal vane and vertical vane, preventing dust and greasy dirt accumulating on the surface of indoor unit.

Deodorising Filter

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

V Blocking Filter

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.

AIR QUALITY

Plasma Quad Protect

Provide clean air and protection for your indoor air quality around the clock without taking up floorspace.



JC-4K-EU

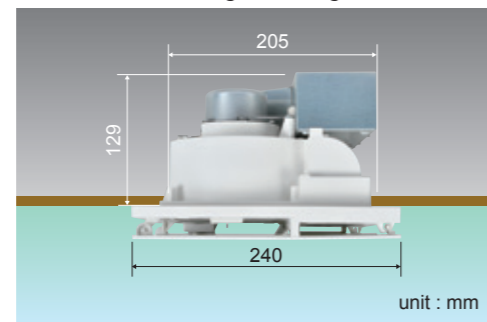
Plasma Quad Technology

Plasma Quad technology was developed by Mitsubishi Electric in 2012. It suppresses airborne viruses, bacteria and allergens as they pass through an electrical field that is generated by applying DC voltage to a discharger comprising a discharging electrode and counter electrode.

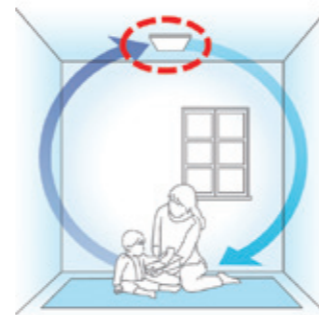
Simple & Floorspace-saving Installation

No duct work is needed, and no floorspace is taken up.

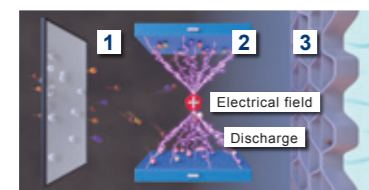
■ Cross-sectional image of ceiling installation



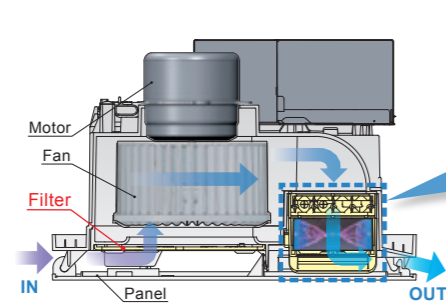
unit : mm



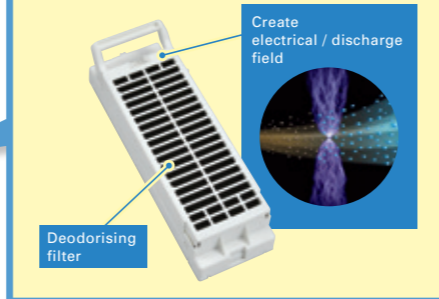
Structure



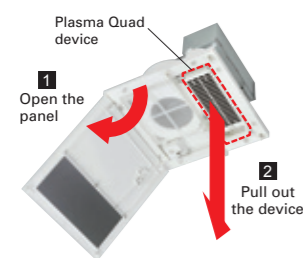
- 1 Large particles are collected by the filter.
- 2 Particles that pass through the filter are suppressed and collected by the Plasma Quad device.
- 3 Clean air is released into the room.



■ Plasma Quad Device



Maintenance-saving



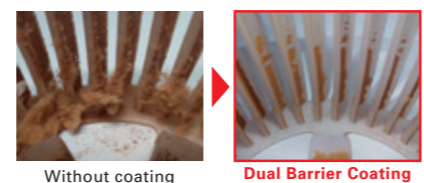
- Rinse with water or lukewarm water. (Neutral detergent is available)
- Soak the deodorising filter in water for about 30 minutes. (This soaking time is a rough estimate.)



Dual Barrier Coating

Dual Barrier Coating effectively prevents buildup of dust and dirt in the fan.

■ Comparison of the buildup of dust and dirt containing moisture on fan blades after 10 years of operation. (Test according to Mitsubishi Electric standards)



Without coating

Dual Barrier Coating

Specifications

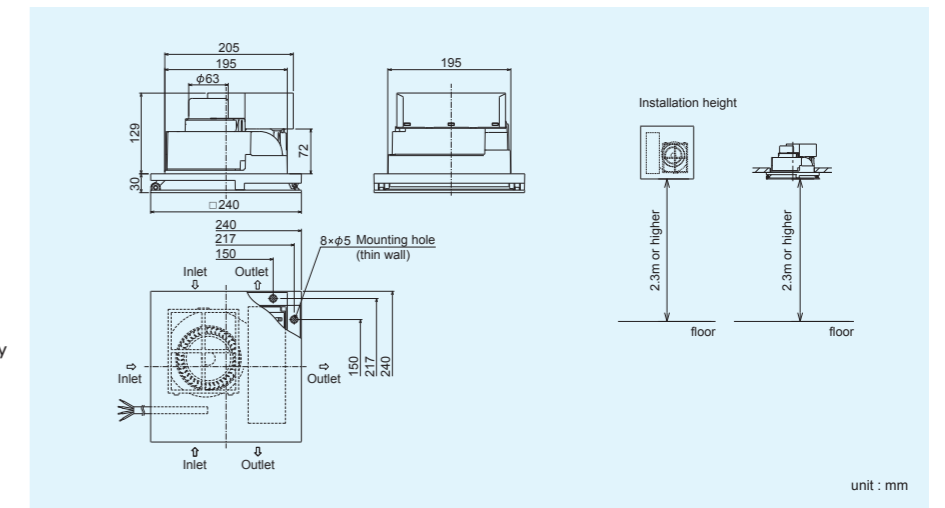
JC-4K-EU type



Key Features

- Plasma Quad Device
- Dual Barrier Coating
- Low Noise Operation and Energy Efficiency
- Installed to Ceiling and Wall

■ Dimensions



unit : mm

■ Specifications

Model	Voltage	Fan speed	Power consumption [W]	Air volume [m ³ /h]	Noise level [dB]	Weight [kg]
JC-4K-EU	220V	High	11.5	38	35	2.4
		Low	7.5	19	20	
	230V	High	12.5	40	36.5	
		Low	8	20	21	
	240V	High	13.5	42	38.5	
		Low	8.5	21	22	

Test Report Results

Following test results were conducted under controlled laboratory conditions. Performance might differ in real life environment

Tested Materials	Tested Standard	Capacity	Time	Result	Testing Organization	Test Report	
Virus	SARS-CoV-2	New Coronavirus (SARS-CoV-2)	—	480min	99.4% suppression*1	Japan Textile Products Quality and Technology Center	20KB070532
	Influenza A	JEM1467	25m ³	416min	99% suppression	Sendai Medical Center	R2-001
Bacteria	<i>Staphylococcus aureus</i>	JEM1467	25m ³	388min	99% suppression	Kitasato Research Center for Environmental Science	No.2015_0046
Allergen	Pollen	Original	—	—	88% suppression*2	Institute of Tokyo Environmental Allergy	15M-RPTMAY021
PM2.5	Cigarette smoke	JEM1467	27.5m ³	370min	99% suppression	Mitsubishi Electric	—

* 1 It shows the result against the virus attached to the testing equipment which using the plasma quad technology.

* 2 The test was conducted on the Plasma Quad device only. It shows the result when allergen pass through the device once.

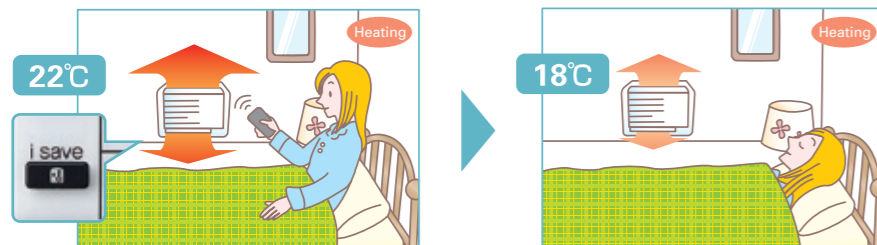
CONVENIENCE

CONVENIENCE

"i save" Mode

"i save" is a simplified setting function that recalls the preferred (preset) temperature by pressing a single button on the remote controller. Press the same button twice in repetition to immediately return to the previous temperature setting.

Using this function contributes to comfortable waste-free operation, realising the most suitable air conditioning settings and saving on power consumption when, for example, leaving the room or going to bed.



* Temperature can be preset to 10°C when heating in the "i-save" mode.

Auto Changeover

The air conditioner automatically switches between heating and cooling modes to maintain the desired temperature.

Low-temperature Cooling

Intelligent fan speed control in the outdoor unit ensures optimum performance even when the outside temperature is low.

Ampere Limit Adjustment

Dip switch settings can be used to adjust the maximum electrical current for operation. This function is highly recommended for managing energy costs.

*Maximum capacity is lowered with the use of this function.

Operation Lock (Indoor unit)

To accommodate specific-use applications, cooling or heating operation can be specified using the wireless remote controller. A convenient option when a system needs to be configured for exclusive cooling or heating service.

Operation Lock (Outdoor unit)

To accommodate specific-use applications, cooling or heating operation can be specified when setting the control board of the outdoor unit. A convenient option when a system needs to be configured for exclusive cooling or heating service.

Auto Restart

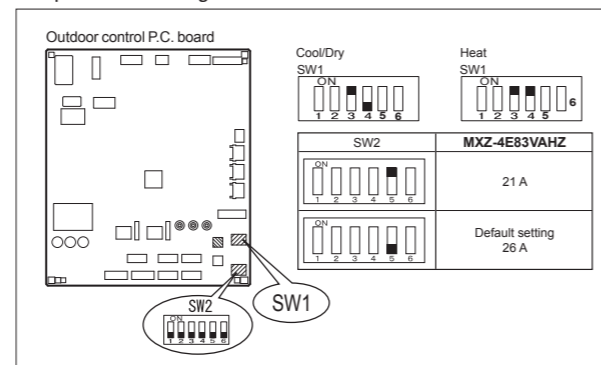
Especially useful at the time of power outages, the unit turns back on automatically when power is restored.

10°C Heating

During heating operation, the temperature can be set in 1°C increments down to 10°C.

*MLZ and MFZ series: Only when using "i-save" mode, the temperature can be set to 10°C, but not in 1°C increments.

Dip Switch Setting (Board for MXZ-5E102)



Night Mode

When Night Mode is activated using the wireless remote controller, it will switch to the settings described below.

- The brightness of the operation indicator lamp will become dimmer.
- The beeping sound will be disabled.
- The outdoor operating noise will drop to 3dB lower than the rated specification operating noise.

*The cooling/heating capacity may drop.

*Night mode does not function when connected to MXZ.

Built-in Weekly Timer Function

Easily set desired temperatures and operation ON/OFF times to match lifestyle patterns. Reduce wasted energy consumption by using the timer to prevent forgetting to turn off the unit and eliminate temperature setting adjustments.

Example Operation Pattern (Winter/Heating mode)

	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.	Sun.
6:00	ON 20°C	ON 20°C	ON 20°C	ON 20°C	ON 20°C	ON 20°C	ON 20°C
8:00	Automatically changes to high-power operation at wake-up time						
10:00	OFF	OFF	OFF	OFF	OFF	ON 18°C	ON 18°C
12:00	Automatically turned off during work hours					Midday is warmer, so the temperature is set lower	
14:00							
16:00							
18:00	ON 22°C	ON 22°C	ON 22°C	ON 22°C	ON 22°C	ON 22°C	ON 22°C
20:00	Automatically turns on, synchronized with arrival at home					Automatically raises temperature setting to match time when outside-air temperature is low	
22:00 (during sleeping hours)	ON 18°C	ON 18°C	ON 18°C	ON 18°C	ON 18°C	ON 18°C	ON 18°C
	Automatically lowers temperature at bedtime for energy-saving operation at night						

Settings Pattern Settings: Input up to four settings for each day

Settings: •Start/Stop operation •Temperature setting *The operation mode cannot be set.

Easy set-up using dedicated buttons

The remote controller is equipped with buttons that are used exclusively for setting the Weekly Timer. Setting operation patterns is easy and quick.

- Start by pushing the "SET" button and follow the instructions to set the desired patterns. Once all of the desired patterns are input, point the top end of the remote controller at the indoor unit and push the "SET" button one more time. (Push the "SET" button only after inputting all of the desired patterns into the remote controller memory. Pushing the "CANCEL" button will end the set-up process without sending the operation patterns to the indoor unit).
- It takes a few seconds to transmit the Weekly Timer operation patterns to the indoor unit. Please continue to point the remote controller at the indoor unit until all data has been sent.

Back Light Remote Controller

Not only the indoor units, but the wireless remote controllers come in four colours as well. Each remote controller matches the indoor unit. Even the textures are the same.



The setting can be easily checked in the dark.

INSTALLATION & MAINTENANCE

INSTALLATION

Cleaning-free Pipe Reuse

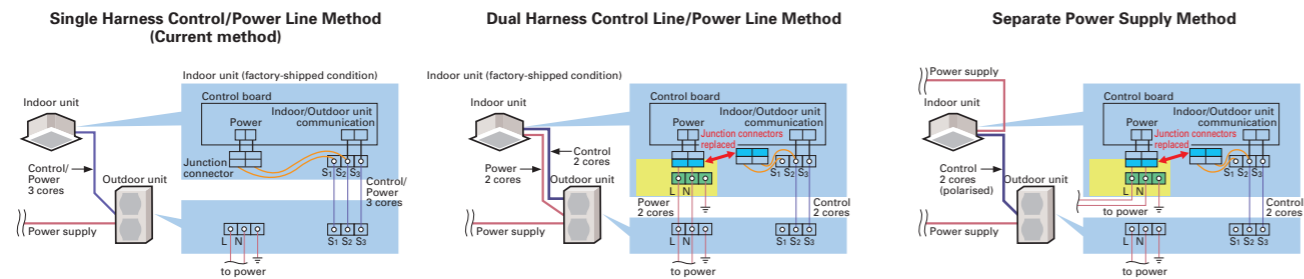
It is possible to reuse the same piping. It allows cleaning-free renewal of air conditioning systems that use R22 or R410 refrigerant.

Reuse of Existing Wiring

Wiring recycling problem solved! Compatible with other wiring connection methods*

The wiring method has been improved, making it possible to use methods different from that utilized for control and power supply. Units are compatible with the dual harness control line/power line method and the separate power supply method. Using a power supply terminal kit, wire can be efficiently reused at the time of system renewal regardless of the method the existing system uses.

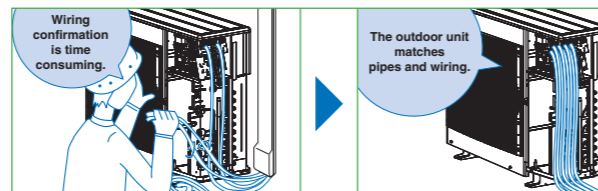
*Optional. Usage may be limited due to wiring type diameter.



Wiring/Piping Correction Function*

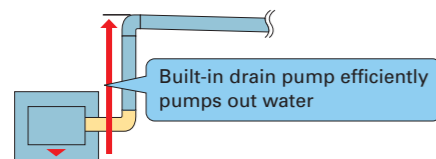
The push of a single button is all that is required to confirm that piping and wiring are properly connected. Corrections are made automatically if a wiring error is detected, eliminating the need for complicated wiring confirmation work when expanding the number of rooms served.

* This function cannot be used when the outdoor temperature is below 0°C. The correction process requires 10–20 minutes, and only works when the unit is set to the Cooling mode.



Drain Pump

A built-in drain pump enables drain piping to be raised.



Flare Connection

Flare connection to cooling pipe work is possible.

MAINTENANCE

Self-Diagnostic Function (Check Code Display)

Check codes are displayed on the remote controller or the operation indicator to inform the user of malfunctions detected.

Failure Recall Function

Operation failures are recorded, allowing confirmation when needed.

Pump Down Switch

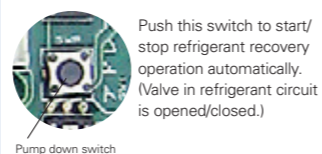
Enables smooth and easy recovery of refrigerant. Simply press the "Pump Down" switch before moving or changing the unit.

Outdoor unit control circuit board



*Photo of Model PUHZ-P100

Pump Down Switch



Push this switch to start/stop refrigerant recovery operation automatically. (Valve in refrigerant circuit is opened/closed.)

Pump down switch

SYSTEM CONTROL

SYSTEM CONTROL

PAR-41MAA/PAC-YT52CRA/PAC-CT01MAA

Units are compatible for use with the PAR-41MAA, PAC-YT52CRA or PAC-CT01MAA remote controller, which has a variety of management functions.

System Group Control

The same remote controller is capable of controlling the operational status of up to 16 refrigerant systems.

M-NET Connection

Units can be connected to MELANS system controllers (M-NET controllers) such as the AG-150A.

MELCloud (Wi-Fi interface)

MELCloud for fast, easy remote control and monitoring

MELCloud is a Cloud-based solution for controlling air-conditioner either locally or remotely by computer, tablet or smartphone via the Internet. Setting up and remotely operating via MELCloud is simple and straight forward. All you need is wireless computer connectivity in your home or the building where the air-conditioner is installed and an Internet connection on your mobile or fixed terminal. To set up the system, the router and the Wi-Fi interface must be paired, and this is done simply and quickly using the WPS button found on all mainstream routers. You can control and check air-conditioner via MELCloud from virtually anywhere an Internet connection is available. That means, thanks to MELCloud, you can use much more easily and conveniently.

Key control and monitoring features

- 1 Turn system on/off
- 2 See status of operating & adjust set point
- 3 Live weather feed from your location
 - Schedule timer - Set 7 day weekly schedule
 - Error status
- 4 Energy Consumption Monitoring



MELCloud uses the MAC-567IF-E interface

COMPO (Simultaneous Multi-unit Operation)

Multiple indoor units can be connected to a single outdoor unit. (Depending on the unit combination, connection of up to four units is possible; however, all indoor units must operate at the same settings.)

MXZ Connection

Connection to the MXZ multi-split outdoor unit is possible.

Connecting the Wi-Fi interface

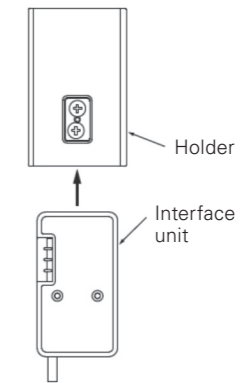
The new Wi-Fi interface MAC-567IF-E can be mounted on the wall or on the outer side of the indoor unit. For LN Series, there is a built-in Wi-Fi interface inside the indoor unit.

When mounting on the wall

The interface can be mounted simply by affixing the holder to the wall on either side of the unit and inserting the interface unit into the holder.

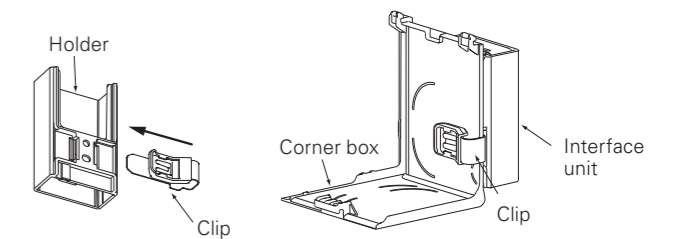


*When mounting on the right side of the unit



When mounting on the outer side of the unit

The interface can be mounted on the right side, left side, bottom right, or bottom left of the indoor unit. After inserting the clip into the holder, slip the clip over the edge of the corner box.



Right side



Bottom right



Left side



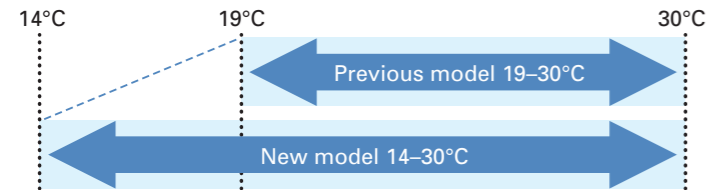
Bottom left

CONTROL TECHNOLOGIES

Extended cooling set temperature range*

In environments such as gyms where people do strenuous exercise, even if the room is cooled to an appropriate temperature, people may feel that it is hot, and they need a cooler air. To satisfy such demands, we have extended the lower limit of the cooling set temperature range from 19–30°C. to 14–30°C.

*Insulation kit (PAC-SK36HK-E) is required when indoor unit is PLA series.
*Availability of this function is depending on outdoor unit, indoor unit and remote controller.



Preliminary error history*

In addition to error history, the history of permissible abnormalities can be displayed. The feature enables the unit status check during inspection and maintenance.

*Availability of this function is depending on outdoor unit, indoor unit and remote controller.

●Error history (Sample)

Error	Unit#	dd/mm/yy	Time
E0	0-1	21/10/20	PM12:34
E0	0-1	20/12/20	AM 1:23
E0	0-1	20/11/20	PM10:55
E0	0-1	20/10/20	PM12:01

●Preliminary error history (Sample)

Error	Unit#	dd/mm/yy	Time
E0	0-1	21/10/20	PM12:34
E0	0-1	20/12/20	AM 1:23
E0	0-1	20/11/20	PM10:55
E0	0-1	20/10/20	PM12:01

Display of power consumption*

It is possible to measure, acquire, and display the amount of energy used by each air conditioning system.

*Availability of this function is depending on outdoor unit, indoor unit and remote controller.

< Data Collection Period >

Time data: Every 30 minutes over the past month

Monthly/daily data: Monthly over the past 14 months

Energy consumption values are calculated from estimated power consumption values according to the operating conditions. They may vary from the actual power consumption values. Please note that the power consumption of optional parts is not included except in the case of optional parts that have their power supplied directly by the outdoor unit.

●Every 30 minutes (example)

Time	Energy	Page
2019-1-1	1234.5kWh	1/6
0:30	123.4kWh	2:30
1:00	123.4kWh	3:00
1:30	123.4kWh	3:30
2:00	123.4kWh	4:00

●Daily (example)

Time	Energy	Page
2019-1	123456.7kWh	1/4
31	1234.5kWh	27
30	1234.5kWh	26
29	1234.5kWh	25
28	1234.5kWh	24

●Monthly (example)

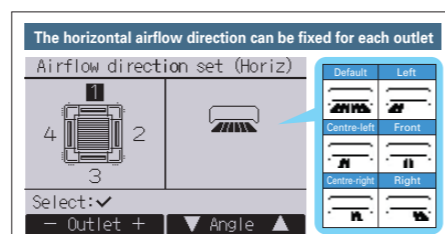
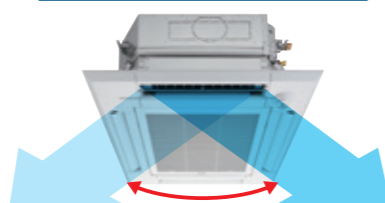
Year	Month	Energy	Page
2019	1	123456.7kWh	1/3
2018	12	123456.7kWh	
2018	11	123456.7kWh	
2018	10	123456.7kWh	
2018	9	123456.7kWh	

Horizontal airflow settings

The 4-way cassette model with 3D Total Flow system lets you easily set the horizontal airflow direction. This allows you to freely tailor the air conditioning performance according to your particular space and purpose.

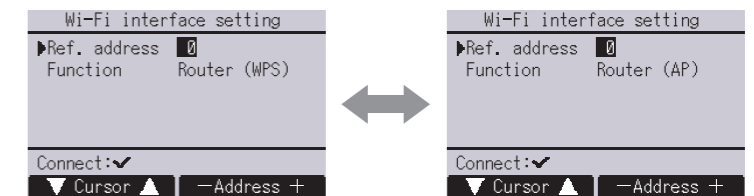
*PLP-P160ELR-E is required to activate this function.

When 3D Total Flow is equipped



Wi-Fi interface setting

When setting up a wireless LAN connection, it is now possible to switch between WPS and AP modes via the remote controller. You can configure a wireless network using the most convenient method according to the installation environment.



Easy To Read & Easy To Use

Inverted display screen

The screen background color can be set to black to suit the atmosphere of the installation location.



Full Dot Liquid-crystal Display Adopted

Easier to read thanks to use of a full dot liquid-crystal display with backlight, and easier to use owing to adopting a menu format that has reduced the number of operating buttons.

Display Example [Operation Mode]

Full Dot LCD



Multi-language Display

Multi-language

Control panel operation in fourteen different languages

Choose the desired language, among the following languages.

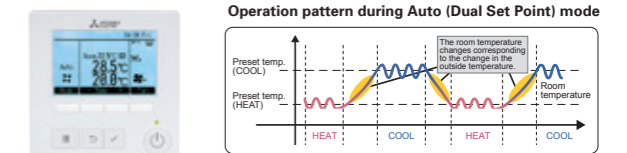
English	Spanish	Italian	Turkish
French	Greek	Portuguese	Swedish
German	Russian	Polish	Czech
Hungarian	Dutch		

Temperature Control

Dual Set Point

Two preset temperatures

When the operation mode is set to the Auto (Dual Set Point) mode, two preset temperatures (one each for cooling and heating) can be set. Depending on the room temperature, indoor unit will automatically operate in either the COOL or HEAT mode and keep the room temperature within the preset range.



*Please refer to the function list on pages 193-200 for the combination of the available units.

Energy-efficient Control

Operation Control Functions

Energy-saving Schedule

Precise control of power consumption

The amount of power consumed in each time period is managed so that the demand value is not exceeded. The demand control function can be set to start and finish in 5-minute units. Additionally, the level can be adjusted to 0, 50, 60, 70, 80 or 90% of maximum capacity, and up to 4 patterns can be set per day. Air-conditioning operation is automatically controlled to ensure that electricity in excess of the contracted volume is not consumed.

■Setting pattern example

Start time	Finish time	Capacity savings
8:15	→ 12:00	80%
12:00	→ 13:00	50%
13:00	→ 17:00	90%
17:00	→ 21:00	50%

Auto-return

Prevents wasteful operation by automatically returning to the preset temperature after specified operating time

After adjusting the temperature for initial heating in winter or cooling on a hot summer day, it is easy to forget to return the temperature setting to its original value. The Auto-return function automatically resets the temperature back to the original setting after a specified period of time, thereby preventing overheating/overcooling. The Auto-return activation time can be set in 10-minute units, in a range between 30 and 120 minutes.

*Auto-return cannot be used when Temperature Range Restrictions is in use.

Auto-off Timer

Turns heating/cooling off automatically after preset time elapses

When using Auto-off Timer, even if one forgets to turn off the unit, operation stops automatically after the preset time elapses, thereby preventing wasteful operation. Auto-off Timer can be set in 10-minute units, in a range between 30 minutes and 4 hours. Eliminates all anxiety about forgetting to turn off the unit.

Recommended for **Meeting room** **Changing room**

CONTROL TECHNOLOGIES

Night Setback

Keep desired room temperatures automatically

This function monitors the room temperature and automatically activates the heating mode when the temperature drops below the preset minimal temperature setting. It has the same function for cooling, automatically activating the cooling mode when the temperature rises above the preset maximum temperature setting.

Operation Lock

Fixed temperature setting promotes energy savings

In addition to operation start/stop, the operation mode, temperature setting and airflow direction can be locked. Unwanted adjustment of temperature settings is prevented and an appropriate temperature is constantly maintained, leading to energy savings. This feature is also useful in preventing erroneous operation or tampering.

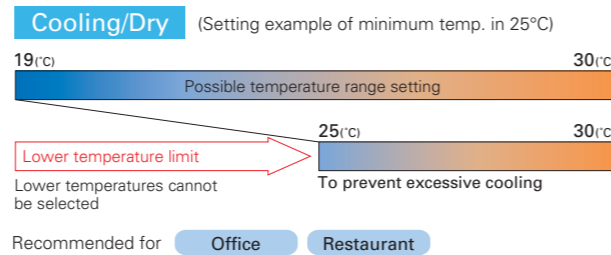
Recommended for **Office** **School** **Public hall**
Hospital **Computer server facility**

Temperature Range Restriction

Temperature Range Restriction prevents overheating/overcooling

Using a temperature that is 1°C lower/higher for heating/cooling results in a 10% reduction in power consumption.* Temperature Range Restriction limits the maximum and minimum temperature settings, contributing to the prevention of overheating/overcooling.

*In-house calculations



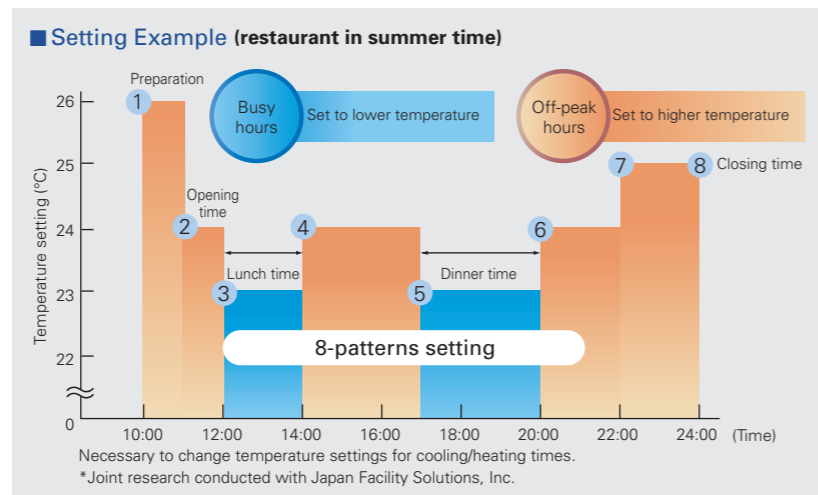
Weekly Timer

Weekly Timer with Two Types of Settings

Weekly schedule timer can save two different settings which can be easily switched according to different seasons.

In addition, it offers eight different pattern setting per day. (on, off and temperature setting)

*Weekly Timer cannot be used when On/Off Timer is in use.



Installation/Maintenance Support Functions

Smooth Maintenance

Outdoor unit data accessed immediately, enabling fast maintenance (only PUZ/PUHZ type)

Using the Stable Operation Control (fixed frequency) of the Smooth Maintenance function, the operating status of the inverter can be checked easily via the screen on the remote controller.

Smooth Maintenance Function Operating Procedure



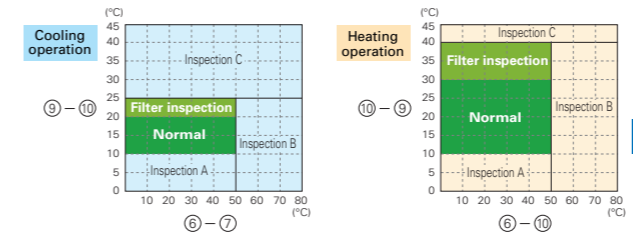
Display information (11 items)

Compressor		Indoor Unit	
① COMP. current (A)	⑦ OU TH6 temp. (°C)	⑨ IU air temp. (°C)	⑩ IU HEX temp. (°C)
② COMP. run time (Hr)	⑧ OU TH7 temp. (°C)	⑪ IU filter operating time* (Hr)	
③ COMP. ON/OFF (times)			
④ COMP. frequency (Hz)			
Outdoor Unit			
⑤ Sub cool (°C)	⑥ OU TH4 temp. (°C)		

*IU filter operating time is the time elapsed since filter was reset.

Inspection Guidelines

The computed temperature difference is plotted as in the graph below and operating status is determined.



		Item
Cooling	Temp. difference	(⑥ OU TH4 temp.) - (⑦ OU TH6 temp.)
Heating		(⑨ IU air temp.) - (⑩ IU HEX temp.)
		(⑥ OU TH4 temp.) - (⑩ IU HEX temp.)
		(⑩ IU HEX temp.) - (⑨ IU air temp.)

Normal	Normal operating status.
Filter inspection	Filter may be blocked.*1
Inspection A	Capacity is reduced. Detailed inspection is necessary.
Inspection B	Refrigerant level is low.
Inspection C	Filter or indoor unit heat exchanger is blocked.

*1: Due to indoor and outdoor temperatures, "Filter inspection" may be displayed even if the filter is not blocked.
* The above graphs are based on trial data. Results may vary depending on installation/temperature conditions.

- Stable operation may not be possible under the following temperature conditions: a) In cooling mode when the outdoor induction temperature is over 40°C or the indoor induction temperature is below 23°C. b) In heating mode when the outdoor induction temperature is over 20°C or when the indoor induction temperature is over 25°C.
- If the above temperature conditions do not apply and stable operation is not achieved after 30 minutes has passed, please inspect the units.
- The operating status may change due to frost on the outdoor heat exchanger.

Manual Vane Angle Setting

Direction of vertical airflow for each vane can be set

Setting the vertical airflow direction for each individual vane can be performed simply via illustrated display. Seasonal settings such as switching between cooling and heating are easily changed as well.

Silent Mode

Three outdoor noise level setting

The outdoor noise level can be reduced on demand according to the surrounding environment. Select from three setting mode: standard mode (rated), silent mode and ultra-silent mode.

Auto-descending Panel Operation

Easily raise/lower panels using the remote controller

Auto-descending panel operation is available as an option. Panels can be raise/lower using a button on the wired remote controller. Filter cleaning can be performed easily.

Initial Password Setting

Password for initial settings

A password is required (default setting is "0000") for initial settings such as time and display language.

Simple MA Remote Controller PAC-YT52CRA

Backlit LCD

Features a liquid-crystal display (LCD) with backlight for operation in dark conditions.

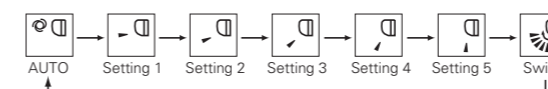
Flat Back

The slim and flat-back shape makes installation easier without requiring a hole in the wall. Thickness is 14.5mm or less.

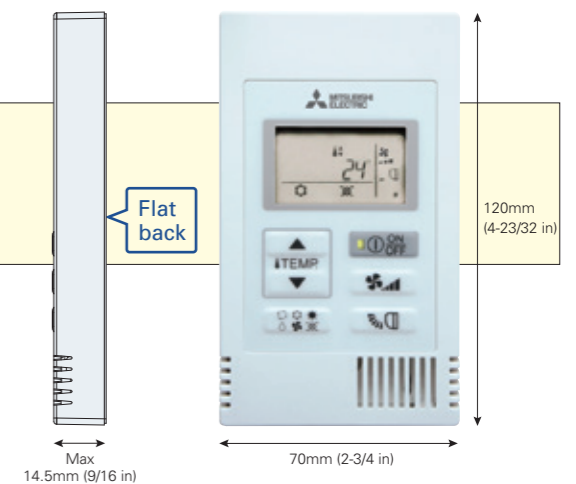
Vane Angle Setting

The vane button has been added to allow users to change the airflow direction (ceiling-cassette and wall-mounted units).

Pressing the button will switch the vane direction.



- * The settable vane directions vary depending on the indoor unit model to be connected.
- * If the unit has no vane function, the vane direction cannot be set. In this case, the vane icon flashes when the button is pressed.

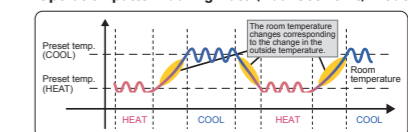


Dual Set Point

Two preset temperatures

When the operation mode is set to the Auto (Dual Set Point) mode, two preset temperatures (one each for cooling and heating) can be set. Depending on the room temperature, indoor unit will automatically operate in either the COOL or HEAT mode and keep the room temperature within the preset range.

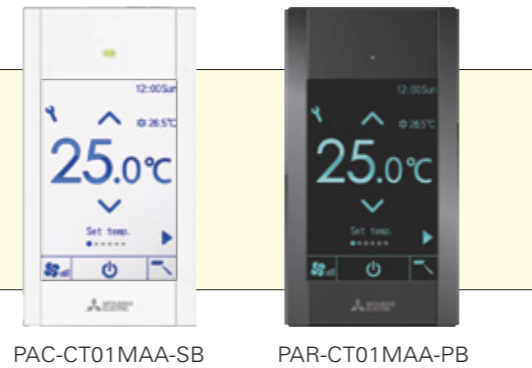
Operation pattern during Auto (Dual Set Point) mode



*Please refer to the function list on pages 193-200 for the combination of the available units.

CONTROL TECHNOLOGIES

MA Touch Remote Controller
PAR-CT01MAA-SB
PAR-CT01MAA-PB



User-friendly Visible big size icons on the full color touch panel display.

Full color touch panel display



Touch Panel

3.5 inch/HVGA Full Color LCD



Operation panels



Flexibility Customized display, color on parameter and background, editable parameter, logo image on the initial display.

Multiple color pattern

180 color patterns can be selected for control parameters or background on the display.

Control parameter customize

Users can customize the panel to display the selected parameters only.

● **Control parameter customize**

Simple operation panel is liked by users, especially in hotels. It is available to display only ON/OFF, set temp., fan speed.



Logo image customization

Logo image can be displayed on the initial screen.



Available in a wide variety of colors to suit the decor of any room.



Expandability Smartphone / tablet App is available for setting, customize, and control.

Bluetooth® low energy technology

Remote controller can communicate with smartphone or tablet device via Bluetooth Low Energy (BLE). Operation & Setting App are available on the App store.



*The Bluetooth® word mark is trademark of Bluetooth SIG, Inc., USA.
 *Contact the sales company for information on "Bluetooth" function.



<App screen image>



Convenient BLE transmission functions for installation contractors

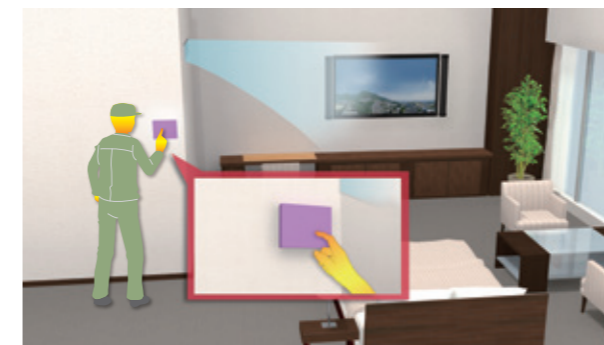
Initial setup for the remote controller can be easily performed using BLE transmission via a smartphone.

● **Previous model**

Previously, initial setup (selecting function parameters) was only available via the remote controller installed each room.

● **New model**

The initial setup (selecting function parameters) can now be performed in advance on a smartphone, with the settings transmitted to the remote controller by enabling BLE transmission upon entry to the room.



Convenient BLE transmission functions for guests

The remote controller has been further upgraded with hotels in mind, to allow smartphone connectivity and multilingual support.

Smartphone connectivity

For example, hotel guests can operate the air conditioner via their smartphones, without getting out of bed.

Multilingual support

The smartphone app can be displayed in the language that the guest's smartphone is set to.



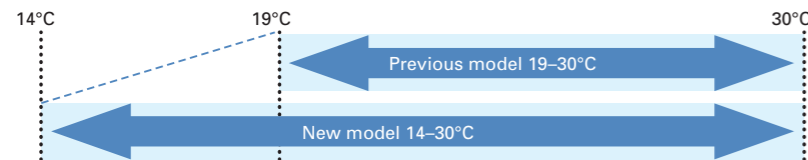
CONTROL TECHNOLOGIES

Wireless Remote Controller PAR-SL101A-E

Extended cooling set temperature range*

In environments such as gyms where people do strenuous exercise, even if the room is cooled to an appropriate temperature, people may feel that it is hot, and they need a cooler air. To satisfy such demands, we have extended the lower limit of the cooling set temperature range from 19–30°C. to 14–30°C.

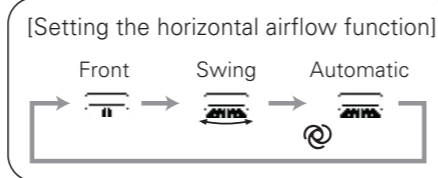
*Insulation kit (PAC-SK36HK-E) is required when indoor unit is PLA series.
*Availability of this function is depending on outdoor unit, indoor unit and remote controller.



Horizontal airflow settings

The 4-way cassette model complete with the Smart 360-degree Airflow system lets you easily set the horizontal airflow direction. This allows you to freely tailor the air conditioning performance according to your particular space and purpose.

Front	Centre-right	Right	Centre-left	Left	No setting



Weekly Timer

The Weekly Timer enables the setting of operation start and finish times and adjusting the temperature as standard features. Up to 4 patterns per day can be set, providing operation that matches the varying conditions of each period, such as the number of customers in the store.

Example Operation Pattern (Winter/Heating mode)

	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.	Sun.
6:00	ON 20°C	ON 20°C	ON 20°C	ON 20°C	ON 20°C	ON 20°C	ON 20°C
8:00	Automatically changes to high-power operation at wake-up time						
10:00	OFF	OFF	OFF	OFF	OFF	ON 18°C	ON 18°C
12:00	Automatically turned off during work hours						
14:00	Midday is warmer, so the temperature is set lower						
16:00	ON 20°C	ON 20°C	ON 20°C	ON 20°C	ON 20°C	ON 20°C	ON 20°C
18:00	Automatically turns on, synchronized with arrival at home						
20:00	Automatically raises temperature setting to match time when outside temperature is low						
22:00	ON 18°C	ON 18°C	ON 18°C	ON 18°C	ON 18°C	ON 18°C	ON 18°C
During sleeping hours	Automatically lowers temperature at bedtime for energy-saving operation at night						

*Weekly Timer cannot be used when On/Off Timer is in use.

*Only for SLZ-KF25/35/50/60VA2, PLA-ZP/RP35/50/60/71/100/125/140EA



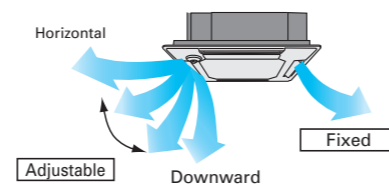
Backlight

Backlight function incorporated, making screen easy to read in the dark. Even in dimly lit rooms, the screen can be seen clearly for trouble-free remote controller operation.



Individual Vane Settings

The airflow directions of the four vanes can each be adjusted independently. Easily set the optimum airflow according to the room setting.



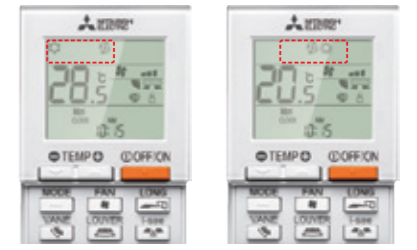
Battery Replacement Sign

Previous wireless remote controllers were not easy to read, understand or use sometimes because the battery was low. Beginning with the PAR-SL101A-E, a battery charge indicator that shows the charge status is included in the LCD so it can be seen when the battery is low and needs to be changed.

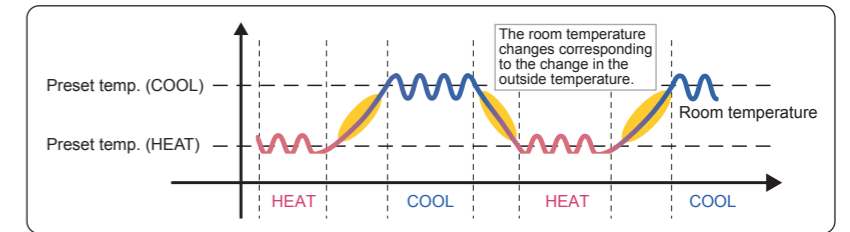


Dual Set Point

When the operation mode is set to the Auto (Dual Set Point) mode, two preset temperatures (one each for cooling and heating) can be set. Depending on the room temperature, the indoor unit will automatically operate in either the COOL or HEAT mode and keep the room temperature within the preset range.



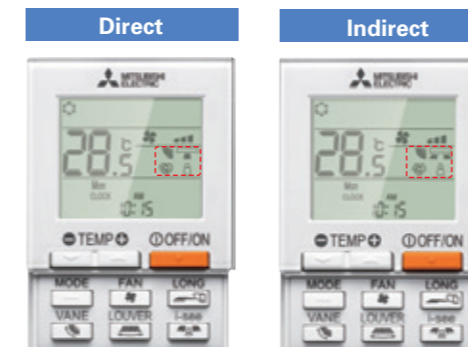
Operation pattern during Auto (Dual Set Point) mode



* Only available for compatible models.

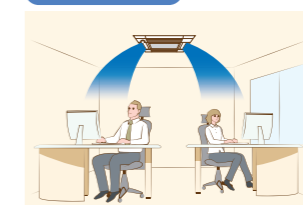
3D i-see Sensor (Direct/Indirect Airflow)

Pressing the i-see button enables direct or indirect setting of all vanes.

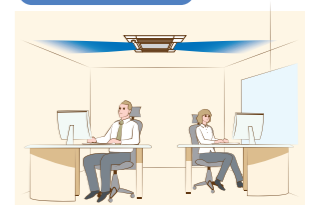


	Vane setting	
	Direct	Indirect
Cooling	horizontal → swing	keep horizontal
Heating	keep downward	downward → horizontal

Direct Airflow



Indirect Airflow



* Only available for models equipped with 3D i-see Sensor.

Basic Functions

Functions	Button	Liquid crystal
OFF / ON	OFF/ON	
Preset temperature	TEMP	88.5
Mode	MODE	Cool, Dry, Heat, Fan, Auto, Dual set point
Fan speed	FAN	4-Speed, Auto
Vane angle	VANE	5-step, Swing, Auto
Louver	WIDE VANE	Fixed, Swing
3D i-see Sensor	i-see	Direct, Indirect
Send sign		
Battery replacement sign		
Function setting		FUNCTION
Test run		TEST
Self check		CHECK
Not available		N/A

*This remote controller is only compatible with the following models: SLZ-M15/25/35/50/60FA, PLFY-P15/20/25/32/40/50VFM-E1, PLA-ZM/RP35/50/60/71/100/125/140EA, PLFY-P20/25/32/40/50/63/80/100/125VEM-E

*Functions available vary according to the model.

SYSTEM CONTROL

Versatile system controls can be realised using optional parts, relay circuits, control panels, etc.

MAJOR SYSTEM CONTROL

System Examples			
Indoor Unit	M Series Indoor Unit	S Series & P Series Indoor Unit	S Series & P Series
Outdoor Unit	M Series and MXZ Series Outdoor	S Series and MXZ Series Outdoor	P Series Outdoor
<p>PAR-41MAA Control PAC-YT52CRA Control</p>			
Details	<ul style="list-style-type: none"> Wired remote controller can be connected to indoor unit 	Standard equipment (for indoor units compatible with wired remote controllers)	
Major Optional Parts Required	<ul style="list-style-type: none"> MAC-334IF-E (Interface) PAR-41MAA (Wired remote controller) PAR-CT01MAA (Wired remote controller) PAC-YT52CRA (Wired remote controller) 	<ul style="list-style-type: none"> PAR-41MAA (Wired remote controller) PAR-CT01MAA (Wired remote controller) PAC-YT52CRA (Wired remote controller) 	
<p>System Group Control</p>			
Details	<ul style="list-style-type: none"> One remote controller can control plural air conditioners with the same settings simultaneously. One remote controller can control up to 16 refrigerant systems. (When connected to a MXZ unit, MAC-334IF-E is counted as one system.) Up to two remote controller can be connected. PAR-SL101A cannot be used when connected through the MAC-334IF-E or when group control is used. 		
Major Optional Parts Required	<ul style="list-style-type: none"> MAC-334IF-E (Interface) PAR-41MAA (Wired remote controller) PAR-CT01MAA (Wired remote controller) PAC-YT52CRA (Wired remote controller) 	<ul style="list-style-type: none"> PAR-41MAA (Wired remote controller) PAR-CT01MAA (Wired remote controller) PAC-YT52CRA (Wired remote controller) 	
<p>M-NET Connections</p>			
Details	<ul style="list-style-type: none"> Group of air conditioners can be controlled by MELANS system controller (M-NET). 		
Major Optional Parts Required	<ul style="list-style-type: none"> MAC-334IF-E (M-NET Interface) MELANS System controller PAC-SC51KUA (power supply unit) 	<ul style="list-style-type: none"> PAC-SJ95MA-E or PAC-SJ96MA-E (M-NET converter) MELANS System controller PAC-SC51KUA (power supply unit) 	

OTHERS

For M Series Indoor Units (New A-control Models Only)

	System Examples	Connection Details	Control Details	Major Optional Parts Required
<p>1 Remote On/Off Operation</p> <ul style="list-style-type: none"> Air conditioner can be started/stopped remotely. (1) and (2) can be used in combination 		Connect the interface to the air conditioner. Then connect the locally purchased remote controller to the terminal in the interface.	On/Off operation is possible from a remote location.	<ul style="list-style-type: none"> MAC-334IF-E (Interface) Parts for circuit such as relay box, lead wire, etc. (to be purchased locally)
<p>2 Remote Display of Operation Status</p> <ul style="list-style-type: none"> The On/Off status of air conditioners can be confirmed remotely. (1) and (2) can be used in combination 		Connect the interface to the air conditioner. Then connect the locally purchased remote controller to the terminal in the interface.	The operation status (On/Off) or error signals can be monitored from a remote location.	<ul style="list-style-type: none"> MAC-334IF-E (Interface) Parts for circuit to be purchased locally (DC power source needed) External power source (12V DC) is required when using MAC-334IF-E.

For P Series and S Series Indoor Units

	System Examples		Details	Major Optional Parts Required
	Wired remote controller	Wireless remote controller		
<p>A 2-remote Controller Control</p> <p>With two remote controllers, control can be performed locally and remotely from two locations.</p>	<p>(Example of 1 : 1 system)</p>	<p>(Example of Simultaneous Twin)</p>	<ul style="list-style-type: none"> Up to two remote controllers can be connected to one group. Both wired and wireless remote controllers can be used in combination. 	<ul style="list-style-type: none"> Wired Remote Controller PAR-41MAA / PAC-YT52CRA (for PKA, PAC-SH29TC-E is required) Wireless Remote Controller PAR-SL97A-E / PAR-SL101A-E (only for SLZ) Wireless Remote Controller Kit for PCA PAR-SL94B-E
<p>B Operation Control by Level Signal</p> <p>Air conditioner can be started/stopped remotely. In addition, On/Off operation by local remote controller can be prohibited/permitted.</p>	<p>(Example of 1 : 1 system x 2)</p>	<p>(Example of 1 : 1 system x 2)</p>	<ul style="list-style-type: none"> Operation other than On/Off (e.g., adjustment of temperature, fan speed, and airflow) can be performed even when remote controller operation is prohibited. Timer control is possible with an external timer. 	<ul style="list-style-type: none"> Adapter for remote On/Off PAC-SE55RA-E Relay box (to be purchased locally) Remote control panel (to be purchased locally)
<p>C Operation Control by Pulse Signal</p>	<p>(Example of 1 : 1 system x 2)</p>	<p>(Example of 1 : 1 system x 2)</p>	<ul style="list-style-type: none"> The pulse signal can be turned On/Off. Operation/emergency signal can be received at a remote location. 	<ul style="list-style-type: none"> Connector cable for remote display PAC-SA88HA-E / PAC-725AD (10 pcs. x PAC-SA88HA-E) Relay box (to be purchased locally) Remote control panel (to be purchased locally)
<p>D Remote Display of Operating Status</p> <p>Operating status can be displayed at a remote location.</p>	<p>(Example of 1 : 1 system)</p>	<p>(Example of Simultaneous Twin)</p>	<ul style="list-style-type: none"> Operation/emergency signal can be received at a remote location (when channeled through the PAC-SF40RM-E → no-voltage signal, when channeled through the PAC-SA88HA-E → DC 12V signal). 	<ul style="list-style-type: none"> Remote display panel (to be purchased locally) Connector cable for remote display PAC-SA88HA-E / PAC-725AD (10 pcs. x PAC-SA88HA-E) Relay box (to be purchased locally) Remote operation adapter PAC-SF40RM-E *Unable to use with wireless remote controller
<p>E Timer Operation</p> <p>Allows On/Off operation with timer</p> <p>*For control by an external timer, refer to [B] Operation Control by Level Signal.</p>	<p>(Example of 1 : 1 system)</p>		<ul style="list-style-type: none"> Weekly Timer: On/Off and up to 8 pattern temperatures can be set for each calendar day. (Initial setting) On/Off Timer: On/Off can be set once each within 72 hr in intervals of 5-minute units. Auto-off Timer: Operation will be switched off after a certain time elapse. Set time can be changed from 30 min. to 4 hr. at 10 min. intervals. *Simple Timer and Auto-off Timer cannot be used at the same time. 	Standard functions of PAR-41MAA / PAR-CT01MAA

FUNCTION LIST (1)

Category	Icon	Combination	M SERIES										M SERIES									
			Indoor unit	MSZ-RW25/35/50VG	MSZ-LN18/25/35/50/60VG2 (W)(V)(R)(B)	MSZ-FT25/35/50VG	MSZ-AP15/20VG	MSZ-AP25/35/42/50/60/71VG	MSZ-EF18/22/25/35/42/50VG(W)(B)(S)	MSZ-BT20/25/35/50VG	MSZ-HR25/35/42/50/60/71VF		MSZ-DW25/35/50VF	MSZ-FH25/35/50VE2	MSZ-SF25/35/42/50VE3	MSZ-GF60/71VE2	MSZ-WN25/35VA	MSZ-DM25/35VA	MSZ-HJ25/35/50VA	MSZ-HJ60/71VA	MFZ-KT25/35/50/60VG	MLZ-KP25/35/50VF
			Outdoor unit	MUZ-RW	MUZ-LN	MUZ-FT	MUZ-AP		MUZ-EF	MUZ-BT	MUZ-HR		MUZ-DW	MUZ-FH	MUZ-SF	MUZ-GF	MUZ-WN	MUZ-DM	MUZ-HJ	MUZ-HJ	SUZ-M	SUZ-M
Technology	DC Inverter		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
	Joint Lap DC Motor		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
	Reluctance DC Rotary Compressor																					
	Heating Caulking (Compressor)		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
	DC Fan Motor		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
	PAM (Pulse Amplitude Modulation)		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
	Power Receiver and Twin LEV Control																					
i-see Sensor	Grooved Piping		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
	Felt Temperature Control (3D i-see Sensor)		●	●																		
Energy Saving	AREA Temperature Monitor		●	●																		
	Econo Cool Energy-saving Feature		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
Air Quality	Standby Power Consumption Cut		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
	Plasma Quad Plus		●	●																		
	Plasma Quad																					
	Dual Barrier Coating		●	●																		
	Dual Barrier Material		●																			
	Silver-ionized Air Purifier Filter			Opt	●		Opt	●	Opt	Opt	Opt	●	Opt	Opt	●	●	Opt	Opt	●	Opt	Opt	
Air Distribution	V Blocking Filter		Opt	Opt	●	●	●	●	●	Opt	Opt											
	Air Purifying Filter				●	●	●	●	●	●	●	●	●	●								
	Double Vane		●	●																		
	Horizontal Vane		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
	Vertical Vane		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
	High Ceiling Mode																				●	
Convenience	Auto Fan Speed Mode		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
	Circulator Mode		●*5	●*5	●*5																	
	On/off Operation Timer		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
	"i save" Mode		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
	Auto Changeover		●	●	●	●	●	●	●	●*1	●*1	●	●	●	●	●	●	●	●	●*1	●	
	Auto Restart		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
	Low-temperature Cooling		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
	10°C Heating		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
	Low-noise Operation (Outdoor Unit)																					
	Night Mode		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
System Control	Ampere Limit Adjustment																					
	Operation Lock (Indoor)		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
	Operation Lock (Outdoor)																					
	Built-in Weekly Timer Function		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
	Drive Mode Selector		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
	PAR-41MAA Control *3		Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	
	PAR-CT01MAA Control *3		Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	
	PAC-YT52CRA Control *3		Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	
Centralised On/Off Control *3		Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt		
System Group Control *3		Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt		
M-NET Connection *3		Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt		
Wi-Fi Interface		●	●	●*6	●*6	●*6	●*6	●*6	●*6	●*6	●*6	●*6	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt		
Energy Consumption Monitoring through MELCloud																						
Installation	Cleaning-free Pipe Reuse		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
	Wiring/Piping Correction Function																				●	
	Drain Pump																				●	
	Flare Connection		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
Maintenance	Self-Diagnosis Function (Check Code Display)		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
	Failure Recall Function		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	

*1 When multiple indoor units connected to an MXZ outdoor unit are running at the same time, simultaneous cooling and heating is not possible.
 *2 For the possible connectivity of MXZ outdoor units and indoor units, please refer to the list on pages 115-116 for details.
 *3 Please refer to "System Control" on pages for details.
 *4 When connected to MXZ outdoor units, the outdoor operating sound will not change.
 *5 Available only for Scandinavian model.
 *6 Only VGK model

• The figures listed in the table are "only when combined with an outdoor unit with the appropriate capacity range".
 • Opt: Separate parts must be purchased.

FUNCTION LIST (2)

Category	Icon	Combination Indoor unit Outdoor unit	S SERIES							P SERIES										
			SLZ-M15/25/35/50/60FA2 *4				SEZ-M25/35/50/60/71DA(L)2			PLA-ZM35/50/60/71/100/125/140EA2			PLA-M35/50/60/71/100/125/140EA2							
			SUZ-M	SUZ-KA	PUZ-ZM	PUHZ-ZRP	SUZ-M	SUZ-KA	PUZ-ZM	PUHZ-SHW	PUZ-ZM	PUHZ-ZRP	PUHZ-SHW	PUZ-ZM	PUHZ-ZRP	SUZ-M	SUZ-KA	PUZ-M	PUHZ-P	
Function merit-up	3D Total Flow																			
	2+1 Back-up rotation																			
	Extended cooling set temperature range																			
	Display of model names and serial numbers																			
	Display of power consumption	●				●			●					●						
	Avoiding simultaneous defrosting																			
	Defrosting when people are absent																			
	Defrosting when operation is stopped																			
	Collection of operation data via MELCloud																		●	
	Demand control via MELCloud																		●	
Notification of potential abnormality via MELCloud																		●		
Technology	DC Inverter	●	●	●	●	●	●		●	●	●	●	●	●	●	●	●	●	●	
	Joint Lap DC Motor	●	●			●	●										100	100		
	Magnetic Flux Vector Sine Wave Drive																			
	Reluctance DC Rotary Compressor	●	●			●	●										100-140	100-140		
	Highly Efficient DC Scroll Compressor																			
	Heating Caulking (Compressor)	●	●			●	●										100	100		
	DC Fan Motor	●	●	●	●	●	●		●	●	●	●	●	●	●	●	●	●	●	
	Vector-Wave Eco Inverter																			
	PAM (Pulse Amplitude Modulation)	●	●	●	●	●	●		●	●	●	●	●	●	●	●	100-140V	100-140V		
	Power Receiver and Twin LEV Control																			
Grooved Piping	●	●	●	●	●	●		●	●	●	●	●	●	●	●					
Functions	i-see Sensor	Felt Temperature Control (3D i-see Sensor)	Opt	Opt	Opt	Opt														
		AREA Temperature Monitor	Opt	Opt	Opt	Opt				Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	
	Energy Saving	Demand Function																		
		Pure White	●	●	●	●				●	●	●	●	●	●	●	●	●	●	●
	Attractive	Auto Vane	●	●	●	●				●	●	●	●	●	●	●	●	●	●	
		Fresh-air Intake	●	●	●	●				●	●	●	●	●	●	●	●	●	●	
	Air Quality	High-efficiency Filter								Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	
		Oil Mist Filter																		
		Long-life Filter	●	●	●	●				●	●	●	●	●	●	●	●	●	●	
		Filter Check Signal	●	●	●	●				●	●	●	●	●	●	●	●	●	●	
	Air Distribution	Horizontal Vane	●	●	●	●				●	●	●	●	●	●	●	●	●	●	
		Vertical Vane																		
		High Ceiling Mode	●	●	●	●				●	●	●	●	●	●	●	●	●	●	
		Low Ceiling Mode								●	●	●	●	●	●	●	●	●	●	
	Convenience	Auto Fan Speed Mode	●	●	●	●	●	●		●	●	●	●	●	●	●	●	●	●	
		On/off Operation Timer	●	●	●	●	●	●		●	●	●	●	●	●	●	●	●	●	
		Auto Changeover	●	●	●	●	●	●		●	●	●	●	●	●	●	●	●	●	
		Auto Restart	●	●	●	●	●	●		●	●	●	●	●	●	●	●	●	●	
Low-temperature Cooling		●	●	●	●	●	●		●	●	●	●	●	●	●	●	●	●		
Low-noise Operation (Outdoor Unit)									●	●	●	●	●	●	●	●	●	●		
Ampere Limit Adjustment				60-140V	60-140V				112/140	60-140V 200/250	60-140V 200/250	112/140	60-140V 200/250	60-140V 200/250						
Operation Lock																				
Rotation, Back-up and 2nd Stage Cut-in Functions			●	●				●	●	●	●	●	●			●	●			
Dual Set Point *3			●	●												●	●			
System Control	PAR-41MAA Control *1	Opt	Opt	Opt	Opt	Opt	Opt		Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt		
	PAR-CT01MAA Control *1	Opt	Opt	Opt	Opt	Opt	Opt		Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt		
	PAC-YT52CRA Control *1	Opt	Opt	Opt	Opt	Opt	Opt		Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt		
	Centralised On/Off Control *1	Opt	Opt	Opt	Opt	Opt	Opt		Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt		
	System Group Control *1	Opt	Opt	Opt	Opt	Opt	Opt		●	●	●	●	●	●	●	●	●	●		
	M-NET Connection *1	Opt	Opt			Opt	Opt		Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt		
Installation	COMPO *2			71-140	71-140				●	71-250	71-250	●	71-250	71-250			●	●		
	Cleaning-free Pipe Reuse	●	●	●	●	●	●		●	●	●	●	●	●	●	●	●	●		
	Reuse of Existing Wiring								Opt	Opt	Opt	Opt	Opt	Opt			Opt	Opt		
	Wiring/Piping Correction Function																			
	Drain Pump	●	●	●	●	Opt	Opt		●*5	●*5	●*5	●*5	●*5	●*5	●*5	●*5	●*5	●*5		
	Pump Down Switch								●	●	●	●	●	●	●	●	●	●		
	Flare Connection	●	●	●	●	●	●		●	●	●	●	●	●	●	●	●	●		
	Self-Diagnosis Function (Check Code Display)	●	●	●	●	●	●		●	●	●	●	●	●	●	●	●	●		
Maintenance	Failure Recall Function	●	●	●	●	●	●		●	●	●	●	●	●	●	●	●	●		

*1 Please refer to "System Control" on pages for details.
 *2 Please refer to page 57 for details.
 *3 This function is only available with PAR-41MAA, PAC-YT52CRA, PAR-SL101A-E.
 *4 SLZ-M15 can be connected with R32 MXZ only.
 *5 PEAD-M JAL are not equipped with a drain pump.

• If a numerical figure is listed, the feature is only available with the outdoor unit of that capacity.
 • Opt: Optional parts must be purchased.

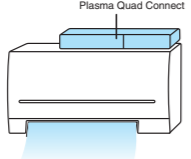
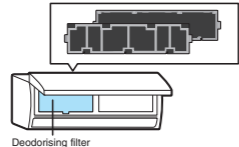
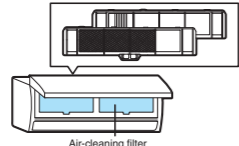
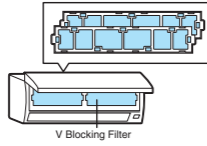
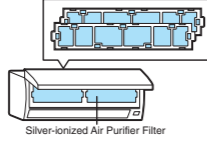
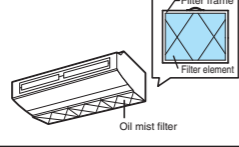
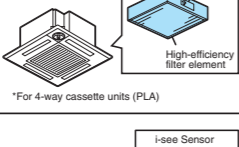
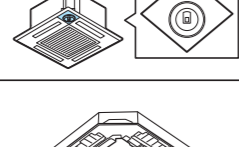
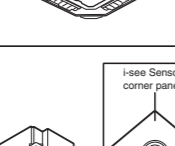
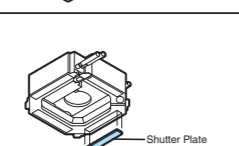

FUNCTION LIST (2)

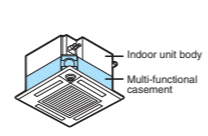
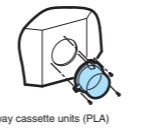
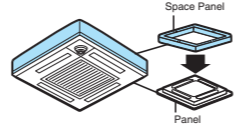
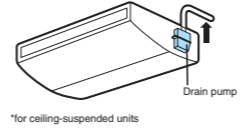
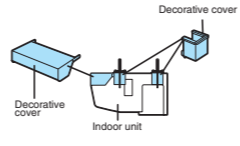
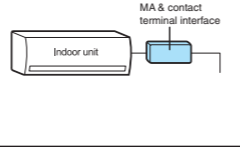
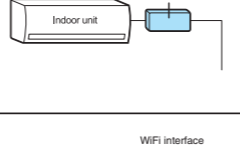

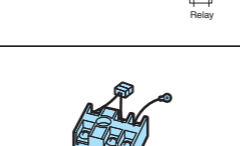
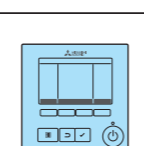

Category	Icon	Series	MXZ SERIES														MXZ SERIES				
			Std					Lo-std		H2i		Lo-std		Std			Std			Hyper Heating	
			MXZ-VA(2)					MXZ-VA		MXZ-VA		MXZ-VF		MXZ-VF3			MXZ-VF			MXZ-VFHZ	
			2D	3E	4E	5E	6D	2DM	3DM	2E	4E	2HA	3HA	2F	3F	4F	4F	5F	6F	2F	4F
Technology	DC Inverter		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
	Joint Lap DC Motor		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
	Magnetic Flux Vector Sine Wave Drive																				
	Reluctance DC Rotary Compressor			83	●	●															
	Highly Efficient DC Scroll Compressor																				
	Heating Caulking (Compressor)		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
	DC Fan Motor		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
	Vector-Wave Eco Inverter																				
	PAM (Pulse Amplitude Modulation)		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
	Power Receiver and Twin LEV Control			●	72			●			●		●	●							
Grooved Piping		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		
i-see Sensor	Felt Temperature Control (3D i-see)																				
	AREA Temperature Monitor																				
	Energy Saving	Demand Function																			
		Pure White																			
	Attractive	Auto Vane																			
		Fresh-air Intake																			
	Air Quality	High-efficiency Filter																			
		Oil Mist Filter																			
		Filter Check Signal																			
		Horizontal Vane																			
Air Distribution	Vertical vane																				
	High Ceiling Mode																				
	Auto Fan Speed Mode																				
Convenience	On/off Operation Timer																				
	Auto Changeover		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
	Auto Restart		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
	Low-temperature Cooling		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
	10°C Heating		●*1	●*1	●*1	●*1	●*1		●*1	●*1		●*1	●*1	●*1	●*1	●*1	●*1	●*1	●*1	●*1	
	Low-noise Operation (Outdoor)		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
	Night Mode																				
	Ampere Limit Adjustment			83	●	●			●	●											
	Operation Lock (Indoor)																				
	Operation Lock (Outdoor)		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
System Control	PAR-41MAA Control		Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt		
	PAR-CT01MAA Control		Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt		
	PAC-YT52CRA Control		Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt		
	Centralised On/off Control		Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt		
	System Group Control		Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt	Opt		
	M-NET Connection				Opt (83)	Opt	Opt		Opt	Opt											
	Wi-Fi Interface																				
	Energy/Consumption Monitoring through MEL Cloud																				
	COMPO																				
	MXZ Connection		●*2	●*2	●*2	●*2	●*2	●*2	●*2	●*2	●*2	●*2	●*2	●*2	●*2	●*2	●*2	●*2	●*2		
Installation	Cleaning-free Pipe Reuse										●*3	●*3	●*3	●*3	●*3	●*3	●*3	●*3			
	Reuse of Existing Wiring																				
	Wiring/Piping Correction Function		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●			
	Drain Pump																				
	Pump Down Switch			●	●	●	●	●	●	●	●	●	●	●	●	●	●	●			
	Flare Connection		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●			
Maintenance	Self-Diagnosis Function (Check Code Display)		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●			
	Failure Recall Function		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●			

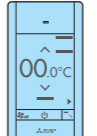

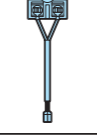
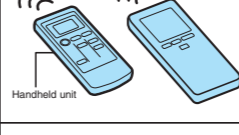
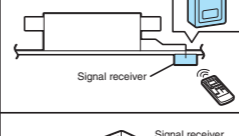

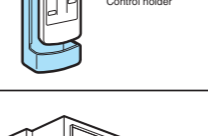
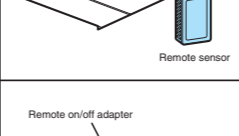
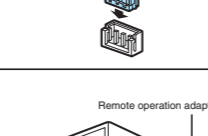
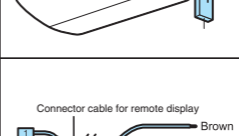
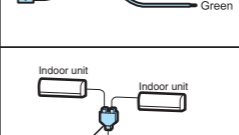
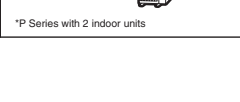
*1 When multiple indoor units connected to an MXZ outdoor unit are running at the same time, simultaneous cooling and heating is not possible.
 *2 For the possible connectivity of MXZ outdoor units and indoor units, please refer to the list on pages 113 for details.
 *3 Please refer to "System Control" on pages for details.

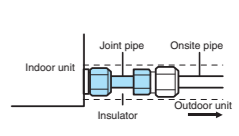
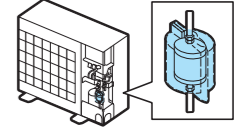
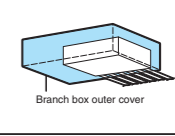
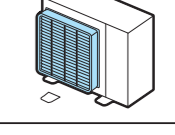
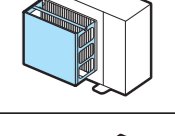
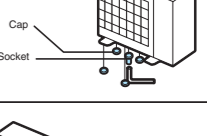
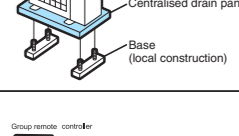
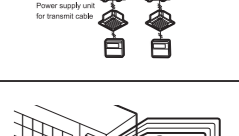
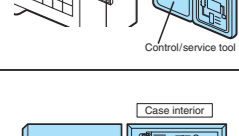


• The figures listed in the table are *only when combined with an outdoor unit with the appropriate capacity range*.
 • Opt: Separate parts must be purchased.

Major Optional Parts

Part Name	Description
Plasma Quad Connect High performance air purifying device that effectively removes various kinds of air pollutants and is even installable on the existing indoor unit.	
Deodorising Filter Captures small foul-smelling substances in the air.	
Air-cleaning Filter Removes fine dust particles from the air by means of static electricity.	
V Blocking Filter Inhibits 99% of adhered virus, and other harmful substances, such as bacteria, mold and allergen.	
Silver-ionized Air Purifier Filter Captures the bacteria, pollen and other allergens in the air and neutralises them.	
Oil Mist Filter Element Filter element (12 pieces) that blocks the oil mist for ceiling-suspended models used in professional kitchens.	
High-efficiency Filter Element Element for high-efficiency filter. Removes fine dust particles from the air.	
3D i-see Sensor Corner Panel for SLZ Corner panel holding the 3D i-see Sensor.	
3D Total Flow for PLA Casement equipped with horizontal louver.	
3D i-see Sensor Corner Panel for PLA Corner panel holding the 3D i-see Sensor.	
Shutter Plate Plate for blocking an air outlet of the 4-way cassette (PLA) indoor unit.	

Part Name	Description
Multi-functional Casement Casement for fresh-air intake and attaching the high-efficiency filter element (optional).	
Fresh-air Intake Duct Flange Flange attachment for adding a duct to take in fresh air from outside.	
Space Panel Decorative cover for the installation when the ceiling height is low.	
Drain Pump Pumps drain water to a point higher than that where the unit is installed.	
Decorative Cover To be attached to the upper section of ceiling-suspended models for professional kitchen use. Helps prevent dust accumulation.	
MA Interface Interface for connecting with the PAR-41MAA remote controller and PAC-YT52CRA.	
System Control Interface Interface to connect with M-NET controllers.	
Wi-Fi Interface Interface enabling users to control air conditioners and check operating status via devices such as personal computers, tablets and smartphones.	
Connector Cable This product is an adaptor which inputs the incoming signals from an open/close switch to the air conditioner and outputs the on/off signals from the air conditioner to the back-up heater.	
Power Supply Terminal Kit Terminal bed to change the power supply from outdoor power supply to separate indoor/outdoor power supplies.	
Wired Remote Controller Advanced deluxe remote controller with full-dot liquid-crystal display and backlight. Equipped with convenient functions like night-setback.	

Part Name	Description
MA Touch Remote Controller Remote controller with the full color touch display. Smartphone/Tablet App is available for setting, customize and control.	
Simple Wired Remote Controller Remote controller with liquid-crystal display, and backlight function for operation in dark location.	
Remote Controller Terminal Block Kit for PKA The terminal block is used as a relay to wire an indoor unit and to two remote controllers or to wire a remote controller and multiple indoor units in order to perform group control.	
Wireless Remote Controller Signal Sender Handheld unit for sending operation signals to the indoor unit.	
Wireless Remote Controller Signal Receiver Receives operation signals from the wireless remote controller handheld unit.	
Wireless Remote Controller Kit (Sender & Receiver) Remote controller handheld unit (signal sender) and receiver (signal receiver) for ceiling-suspended units.	
Control Holder Holder for storing the remote controller.	
Remote Sensor Sensor to detect the room temperature at remote positions.	
Remote On/Off Adapter Connector for receiving signals from the local system to control the on/off function.	
Remote Operation Adapter Adapter to display the operation status and control on/off function from a distance.	
Connector Cable for Remote Display Connector used to display the operation status and control on/off function from a distance.	
Distribution Pipe Branch pipe for P Series simultaneous multi-system use, or to connect two branch boxes for PUMY.	

Part Name	Description
Joint Pipe Part for connecting refrigerant pipes of different diameters.	
Liquid Refrigerant Dryer Removes water and minute particles from refrigerant pipes.	
Branch Box Outer Cover Casement for branch boxes.	
Air Discharge Guide Changes the direction of air being exhausted from the outdoor unit.	
Air Protection Guide Protects the outdoor unit from the wind.	
Drain Socket A set of caps to cover unnecessary holes at the bottom of the outdoor unit, and a socket to guide drain water to the local drain pipe.	
Centralised Drain Pan Catches drain water generated by the outdoor unit.	
M-NET Converter Used to connect P Series A-control models to M-NET controllers.	
Control/Service Tool Monitoring tool to display operation and self-diagnosis data.	
Step Interface Interface for adjusting the capacity of inverter-equipped outdoor units.	
High-static Fan Motor Static pressure enhanced up to +30pa.	

Optional Parts List <Indoor>

Indoor Unit	Option	Filter													Wired Remote Controller									
		Silver-ionized Air Purifier Filter				V Blocking Filter				Deodorising Filter		Plasma Quad Connect	Softdry cloth	System Control Interface	MA Interface	Wi-Fi Interface	Connector Cable		Controller			Wireless Remote Controller	Controller Holder	
		MAC-2360 FT	MAC-2370 FT	MAC-2380 FT	MAC-2390 FT	MAC-2450 FT	MAC-2460 FT	MAC-2470 FT	MAC-2490 FT	MAC-3000 FT-E	MAC-3010 FT-E	MAC-100 FT-E	MAC-1001 CL-E	MAC-334 IF-E	MAC-497 IF-E	MAC-587 IF-E	MAC-1702 RA-E	MAC-1710 RA-E	PAR-41MAA	PAR-CT01 MAA	PAC-YT52 CRA	MAC-SL100 M-E	MAC-1200 RC-E	MAC-1300 RC-E
M SERIES	Wall - mounted	MSZ-RW25VG																	● ¹	● ²	● ¹			
	MSZ-RW35VG																		● ¹	● ²	● ¹			
	MSZ-RW50VG																		● ¹	● ²	● ¹			
	MSZ-LN18VG2(W)(V)(R)(B)																		● ¹	● ²	● ¹			● ⁴
	MSZ-LN25VG2(W)(V)(R)(B)																		● ¹	● ²	● ¹			● ⁴
	MSZ-LN35VG2(W)(V)(R)(B)																		● ¹	● ²	● ¹			● ⁴
	MSZ-LN50VG2(W)(V)(R)(B)																		● ¹	● ²	● ¹			● ⁴
	MSZ-LN60VG2(W)(V)(R)(B)																		● ¹	● ²	● ¹			● ⁴
	MSZ-FT25VG																		● ¹	● ²	● ¹			
	MSZ-FT35VG																		● ¹	● ²	● ¹			
	MSZ-FT50VG																		● ¹	● ²	● ¹			
	MSZ-AP15VG																		● ¹	● ²	● ¹			
	MSZ-AP20VG																		● ¹	● ²	● ¹			
	MSZ-AP25VG																		● ¹	● ²	● ¹			
	MSZ-AP35VG																		● ¹	● ²	● ¹			
	MSZ-AP42VG																		● ¹	● ²	● ¹			
	MSZ-AP50VG																		● ¹	● ²	● ¹			
	MSZ-AP60VG																		● ¹	● ²	● ¹			
	MSZ-AP71VG																		● ¹	● ²	● ¹			
	MSZ-EF18VG(W)(B)(S)																		● ¹	● ²	● ¹			
	MSZ-EF22VG(W)(B)(S)																		● ¹	● ²	● ¹			
	MSZ-EF25VG(W)(B)(S)																		● ¹	● ²	● ¹			
	MSZ-EF35VG(W)(B)(S)																		● ¹	● ²	● ¹			
	MSZ-EF42VG(W)(B)(S)																		● ¹	● ²	● ¹			
	MSZ-EF50VG(W)(B)(S)																		● ¹	● ²	● ¹			
	MSZ-BT20VG																		● ¹	● ²	● ¹			
	MSZ-BT25VG																		● ¹	● ²	● ¹			
	MSZ-BT35VG																		● ¹	● ²	● ¹			
	MSZ-BT50VG																		● ¹	● ²	● ¹			
	MSZ-HR25VF																		● ¹	● ²	● ¹			
	MSZ-HR35VF																		● ¹	● ²	● ¹			
	MSZ-HR42VF																		● ¹	● ²	● ¹			
	MSZ-HR50VF																		● ¹	● ²	● ¹			
	MSZ-HR60VF																		● ¹	● ²	● ¹			
	MSZ-HR71VF																		● ¹	● ²	● ¹			
	MSZ-DW25VF																		● ¹	● ²	● ¹			
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	MSZ-DW50VF																		● ¹	● ²	● ¹			
	MSY-TP35VF																		● ¹	● ²	● ¹			
	MSY-TP50VF																		● ¹	● ²	● ¹			
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	MSZ-FH35VE2																		● ¹	● ²	● ¹			
	MSZ-FH50VE2																		● ¹	● ²	● ¹			
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	MSZ-SF20VA																		● ¹	● ²	● ¹			
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	MSZ-SF35VE3																		● ¹	● ²	● ¹			
	MSZ-SF42VE3																		● ¹	● ²	● ¹			
	MSZ-SF50VE3																		● ¹	● ²	● ¹			
	MSZ-GF60VE2																		● ¹	● ²	● ¹			
	MSZ-GF71VE2																		● ¹	● ²	● ¹			
	MSZ-WN25VA																		● ¹	● ²	● ¹			
	MSZ-WN35VA																		● ¹	● ²	● ¹			
	MSZ-DM25VA																		● ¹	● ²	● ¹			
	MSZ-DM35VA																		● ¹	● ²	● ¹			
MSZ-HJ25VA																								
MSZ-HJ35VA																								
MSZ-HJ50VA																								
MSZ-HJ60VA																								
MSZ-HJ71VA																								
Floor-standing	MFZ-KT25VG																		● ¹	● ²	● ¹			
	MFZ-KT35VG																		● ¹	● ²	● ¹			
	MFZ-KT50VG																		● ¹	● ²	● ¹			
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MFZ-KW50VG																		● ¹	● ²	● ¹				
MFZ-KW60VG																		● ¹	● ²	● ¹				
1-way cassette	MLZ-KP25VF																		● ¹	● ²	● ¹			
	MLZ-KP35VF																		● ¹	● ²	● ¹			
	MLZ-KP50VF																		● ¹	● ²	● ¹			

*1 Either MAC-334IF-E or MAC-497IF-E is required. Up to two wired remote controllers can be connected at the same time.

*2 Either MAC-334IF-E or MAC-497IF-E is required. Only one wired remote controller can be connected.

*3 Outside attachment only.

*4 Available only for LN18/25/35/50/60VG2W.

Optional Parts List <Indoor>

Option		Filter														Filter														Plasma Quad Connect														3D i-see Sensor Corner Panel		3D Total Flow unit	Shutter Plate	Insulation kit		Multi-functional Casement
		Oil Mist Filter Element	Long Life Filter	High-efficiency Filter Element					V Blocking Filter				Filter Box		Filter Box			Plasma Quad Connect		Attachment for Ducted			Box for Ducted					PAC-SF1 ME-E	PAC-SE1 ME-E	PLP-U160 ELR-E	PAC-SJ37 SP-E	PAC-SK36 HK-E	PAC-SJ41 TM-E																	
				¹¹⁰	¹¹¹	¹¹²	¹¹³	¹¹⁴	¹¹⁵	¹¹⁶	¹¹⁷	MAC-2470 FT-E	MAC-1416 FT-E	PAC-KE92 TB-E	PAC-KE93 TB-E	PAC-KE94 TB-E	PAC-KE95 TB-E	PAC-KE96 TB-F	MAC-100 FT-E	¹¹²	PAC-HA11 PAR	PAC-HA31 PAR	PAC-HA31 PAU	PAC-KE91 PTB-E	PAC-KE92 PTB-E	PAC-KE93 PTB-E	PAC-KE94 PTB-E	PAC-KE95 PTB-E																						
		PAC-SG38 KF-E	PAC-KE85 LAF	PAC-SH59 KF-E	PAC-SH88 KF-E	PAC-SH89 KF-E	PAC-SH90 KF-E	PAC-SK53 KF-E	PAC-SK54 KF-E	PAC-SK55 KF-E	PAC-SK56 KF-E	PAC-SK57 KF-E																																						
Indoor Unit																																																		
S SERIES	4-way cassette	SLZ-M15FA2							●																								●																	
		SLZ-M25FA2							●																																									
		SLZ-M35FA2							●																																									
		SLZ-M50FA2							●																																									
		SLZ-M60FA2							●																																									
	Ceiling - concealed	SEZ-M25DA(L)2																●			●																													
		SEZ-M35DA(L)2																●			●																													
		SEZ-M50DA(L)2																●			●																													
		SEZ-M60DA(L)2																●			●																													
		SEZ-M71DA(L)2																●			●																													
P SERIES	4-way Cassette	PLA-ZM35EA2		●				●										●																				●												
		PLA-ZM50EA2		●				●											●																				●											
		PLA-ZM60EA2		●				●											●																					●										
		PLA-ZM71EA2		●				●											●																					●										
		PLA-ZM100EA2		●				●											●																					●										
		PLA-ZM125EA2		●				●											●																					●										
		PLA-ZM140EA2		●				●											●																					●										
		PLA-M35EA2		●				●											●																					●										
		PLA-M50EA2		●				●											●																					●										
		PLA-M60EA2		●				●											●																					●										
		PLA-M71EA2		●				●											●																					●										
		PLA-M100EA2		●				●											●																					●										
	PLA-M125EA2		●				●											●																					●											
	PLA-M140EA2		●				●											●																					●											
	Ceiling - concealed	PEAD-M35JA(L)2																●				●																												
		PEAD-M50JA(L)2																●				●																												
PEAD-M60JA(L)2																		●			●																													
PEAD-M71JA(L)2																		●			●																													
PEAD-M100JA(L)2																		●				●																												
PEAD-M125JA(L)2																		●				●																												
PEAD-M140JA(L)2																		●				●																												
Wall - mounted	PEA-M200LA		●																																															
	PEA-M250LA		●																																															
	PKA-M35LA(L)2												●																																					
Ceiling - suspended	PKA-M50LA(L)2											●																																						
	PKA-M60KA(L)2													●																																				
	PKA-M71KA(L)2																																																	
	PKA-M100KA(L)2																																																	
Floor - standing	PCA-M35KA2					●												●																																
	PCA-M50KA2					●													●																															
	PCA-M60KA2						●																																											
	PCA-M71KA2						●																																											
	PCA-M100KA2							●																																										
	PCA-M125KA2								●																																									
	PCA-M140KA2									●																																								

*1 3D Total Flow unit(PLP-U160ELR-E) cannot be used with Plasma Quad Connect(PAC-SK51FT-E), Insulation kit(PAC-SK36HK-E), Shutter Plate(PAC-SJ37SP-E), Multi functional casement(PAC-SJ41TM-E) and High-efficiency filter element(PAC-SH59KF-E).
 *2 Plasma Quad Connect(PAC-SK51FT-E) cannot be used with PLP-U160ELR-E(3D Total Flow unit), Insulation kit (PAC-SK36HK-E), Auto elevation panel(PLP-6EAJ, PLP-6EAJE), Multi functional casement(PAC-SJ41TM-E) and High-efficiency filter element(PAC-SH59KF-E).
 *3 Insulation kit(PAC-SK36HK-E) cannot be used with 3D Total Flow unit(PLP-U160ELR-E), Plasma Quad Connect(PAC-SK51FT-E), Auto elevation panel(PLP-6EAJ, PLP-6EAJE), Shutter Plate(PAC-SJ37SP-E), Multi functional casement(PAC-SJ41TM-E) and High-efficiency filter element(PAC-SH59KF-E).
 *4 V Blocking Filter(PAC-SK53KF-E) cannot be used with High-efficiency filter element(PAC-SH59KF-E).
 *5 V Blocking Filter(PAC-SK55KF-E) cannot be used with High-efficiency filter element(PAC-SH88KF-E).
 *6 V Blocking Filter(PAC-SK56KF-E) cannot be used with High-efficiency filter element(PAC-SH89KF-E).
 *7 V Blocking Filter(PAC-SK57KF-E) cannot be used with High-efficiency filter element(PAC-SH90KF-E).
 *8 Shutter Plate(PAC-SJ37SP-E) cannot be used with 3D Total Flow unit(PLP-U160ELR-E) and Insulation kit(PAC-SK36HK-E).
 *9 Multi functional casement(PAC-SJ41TM-E) cannot be used with 3D Total Flow unit(PLP-U160ELR-E), Plasma Quad Connect(PAC-SK51FT-E) and Insulation kit(PAC-SK36HK-E).

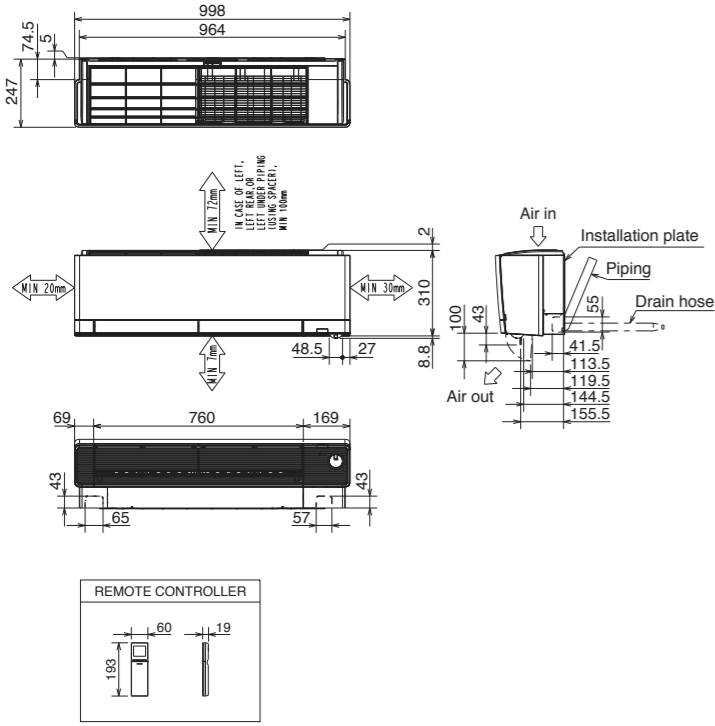
*10 High-efficiency filter element(PAC-SH59KF-E) cannot be used with 3D Total Flow unit(PLP-U160ELR-E), Plasma Quad Connect(PAC-SK51FT-E), Insulation kit (PAC-SK36HK-E) and V Blocking Filter(PAC-SK53KF-E).
 *11 High-efficiency filter element(PAC-SH88KF-E) cannot be used with V Blocking Filter(PAC-SH88KF-E).
 *12 High-efficiency filter element(PAC-SH89KF-E) cannot be used with V Blocking Filter(PAC-SH89KF-E).
 *13 High-efficiency filter element(PAC-SH90KF-E) cannot be used with V Blocking Filter(PAC-SH90KF-E).

External Dimensions

M SERIES

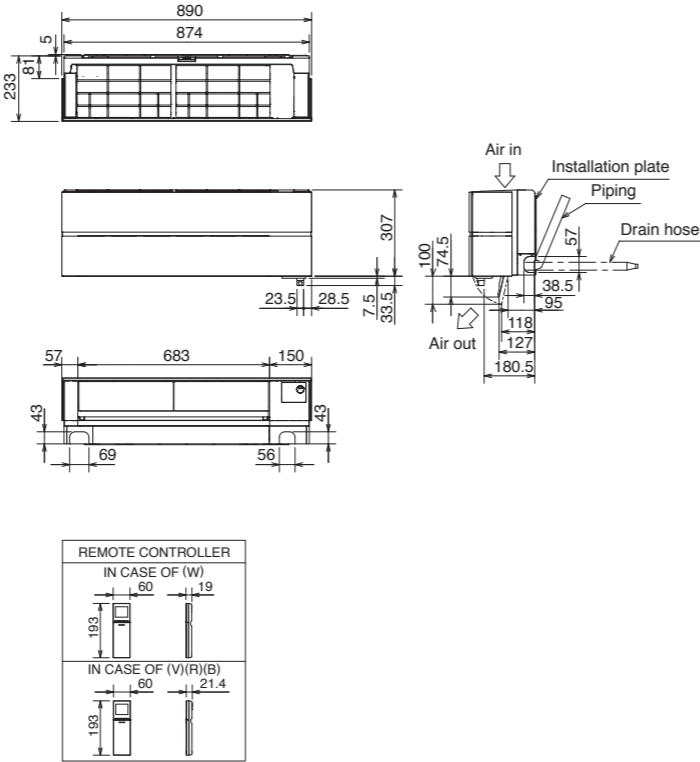
MUZ-RW25VGHZ MUZ-RW35VGHZ MUZ-RW50VGHZ

INDOOR UNIT



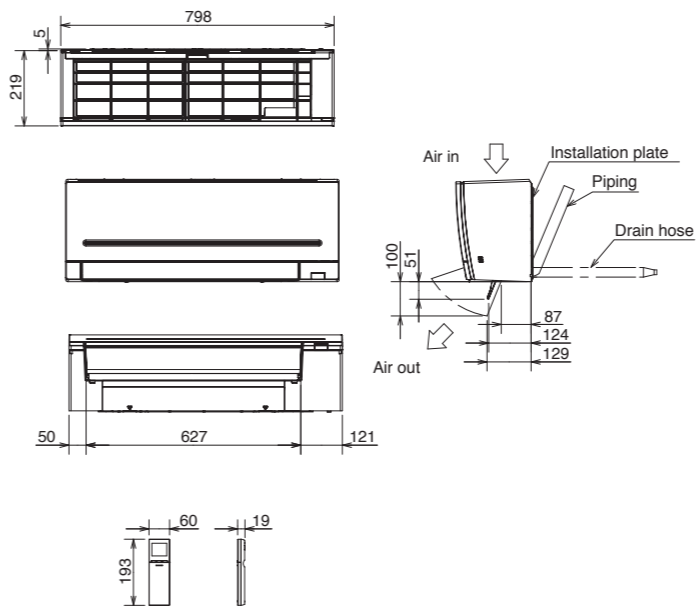
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MSZ-LN50VG2(W)(V)(R)(B) MSZ-LN60VG2(W)(V)(R)(B)**

INDOOR UNIT



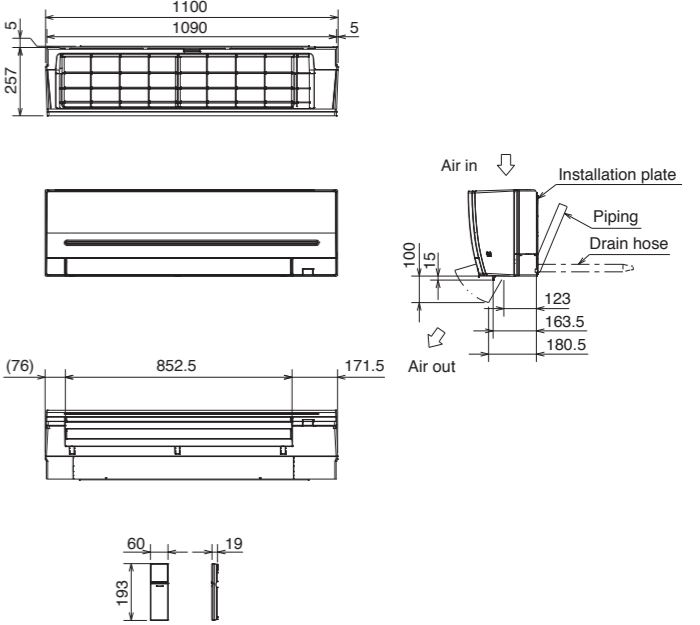
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MSZ-AP25VGK MSZ-AP35VGK MSZ-AP42VGK MSZ-AP50VGK**

INDOOR UNIT



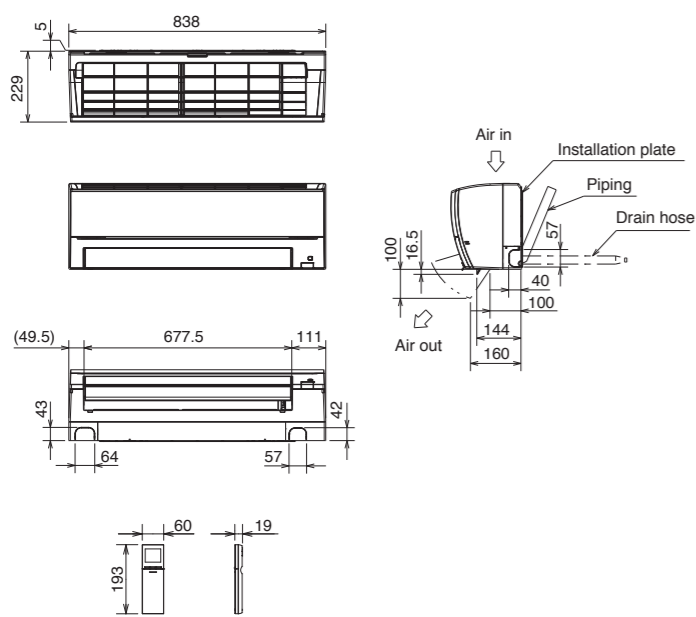
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MSZ-AP60VGK MSZ-AP71VGK**

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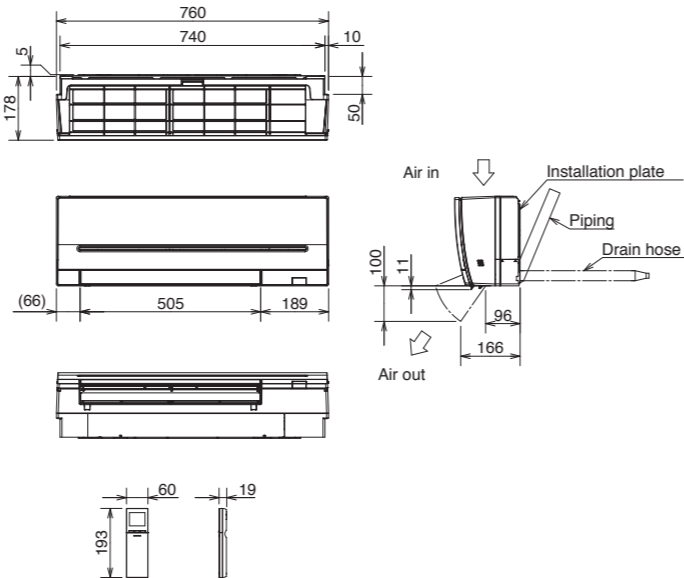
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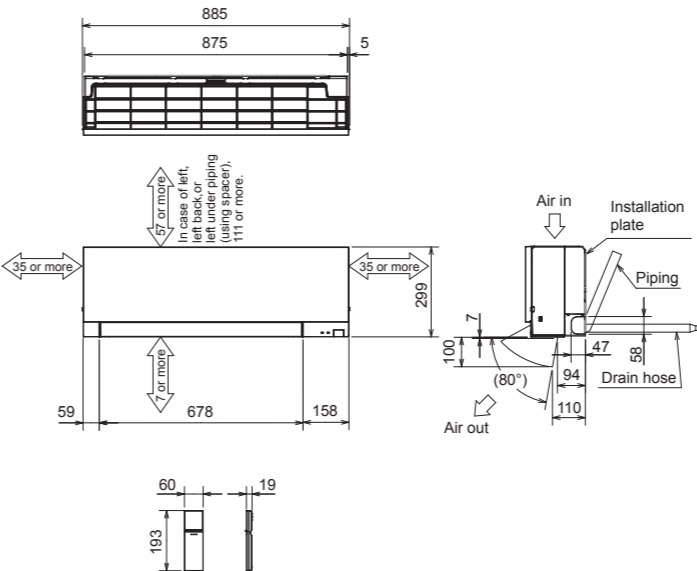
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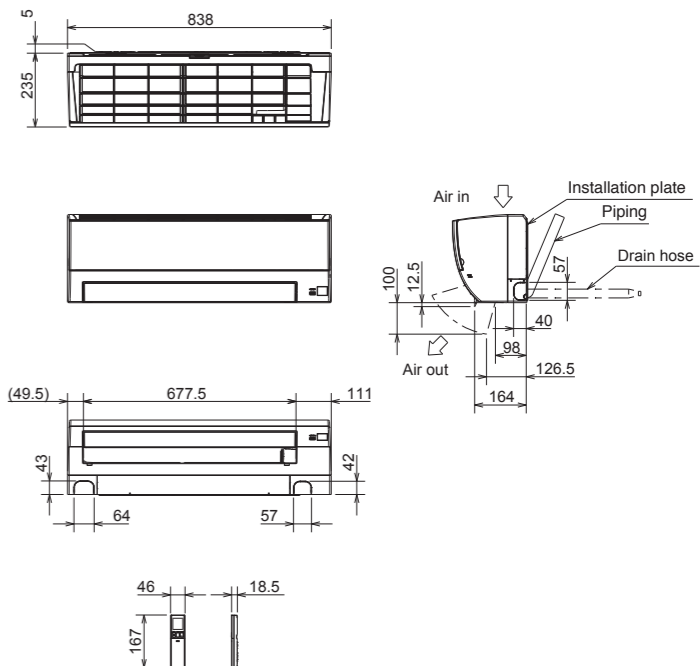
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MSZ-EF25VG(W)(B)(S) MSZ-EF35VG(W)(B)(S)
MSZ-EF42VG(W)(B)(S) MSZ-EF50VG(W)(B)(S)
MSZ-EF18VGK(W)(B)(S) MSZ-EF22VGK(W)(B)(S)
MSZ-EF25VGK(W)(B)(S) MSZ-EF35VGK(W)(B)(S)
MSZ-EF42VGK(W)(B)(S) MSZ-EF50VGK(W)(B)(S)**

INDOOR UNIT



**MSZ-BT20VG MSZ-BT25VG MSZ-BT35VG MSZ-BT50VG
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INDOOR UNIT

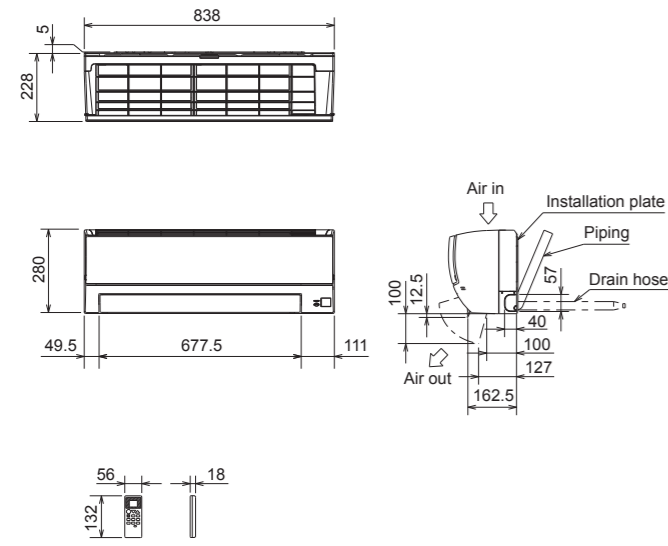


Unit : mm

Unit : mm

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MSZ-HR50VF(K)**

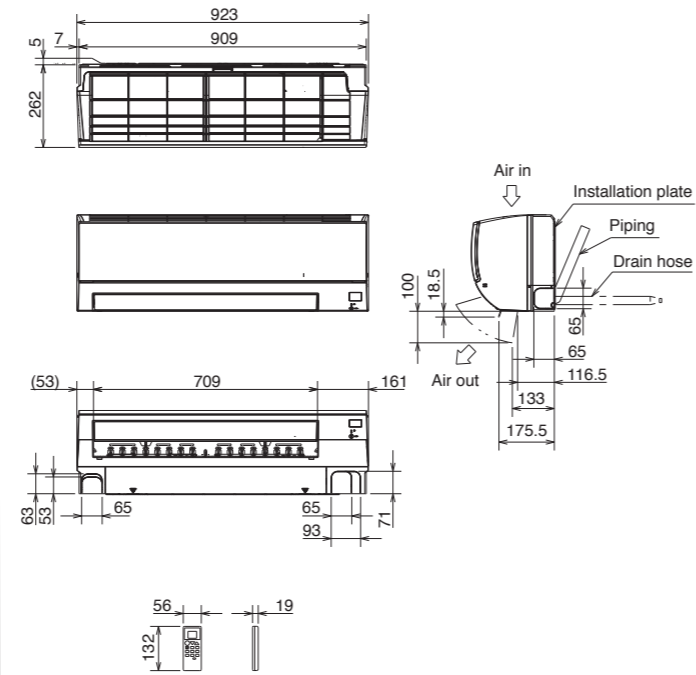
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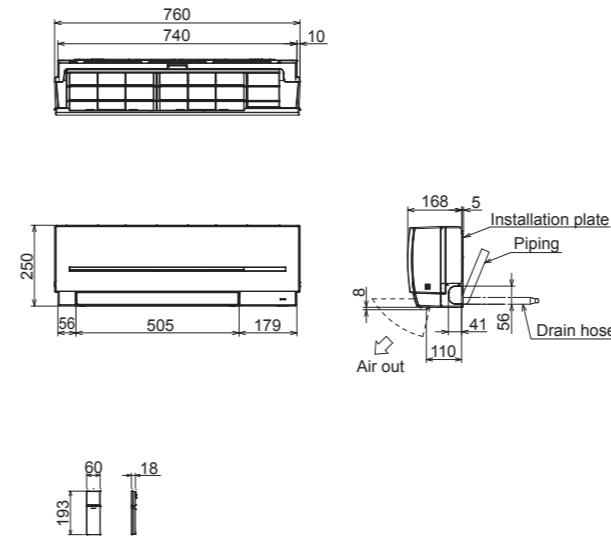
MSZ-HR60VF(K) MSZ-HR71VF(K)

INDOOR UNIT



MSZ-SF15VA MSZ-SF20VA

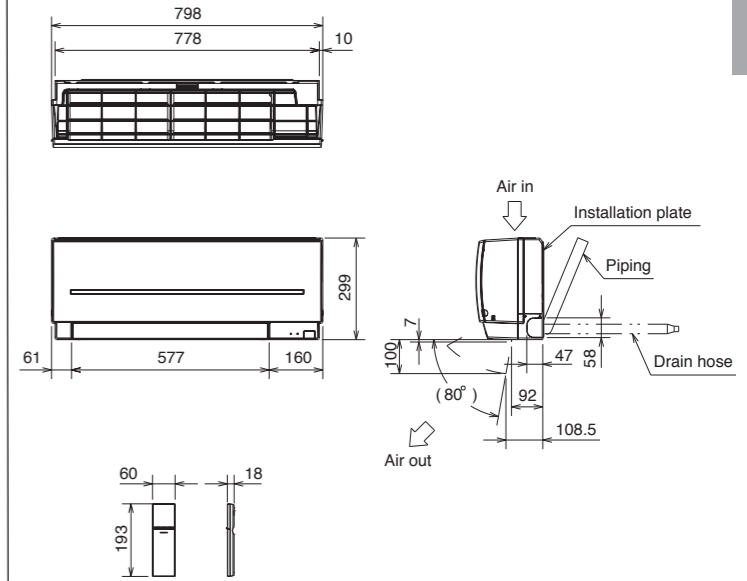
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Unit : mm

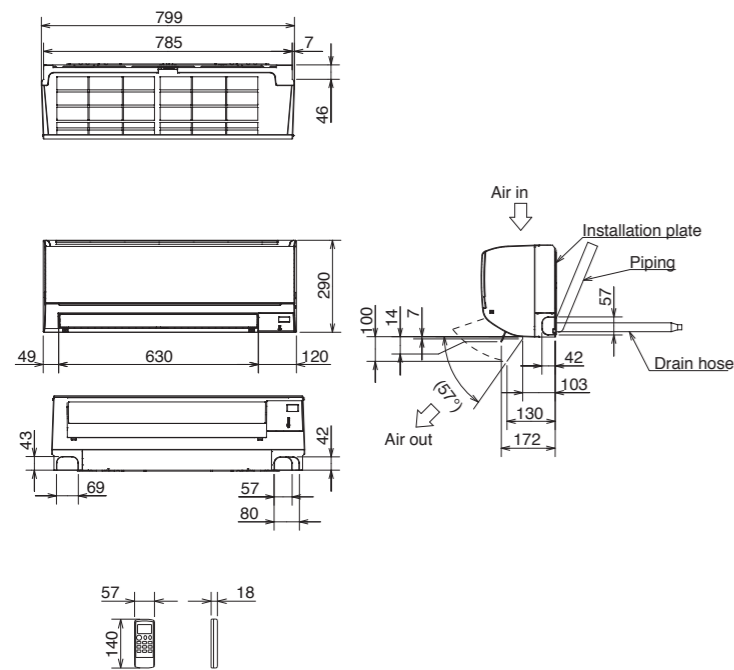
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MSZ-SF50VE3**

INDOOR UNIT



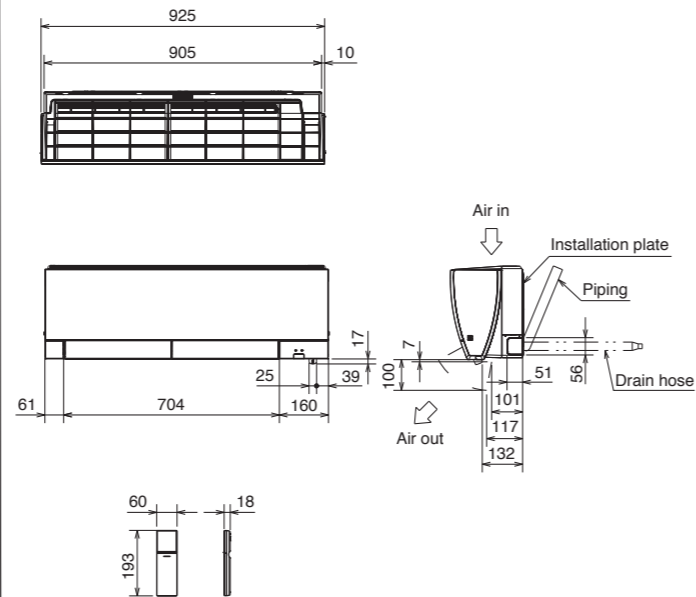
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INDOOR UNIT



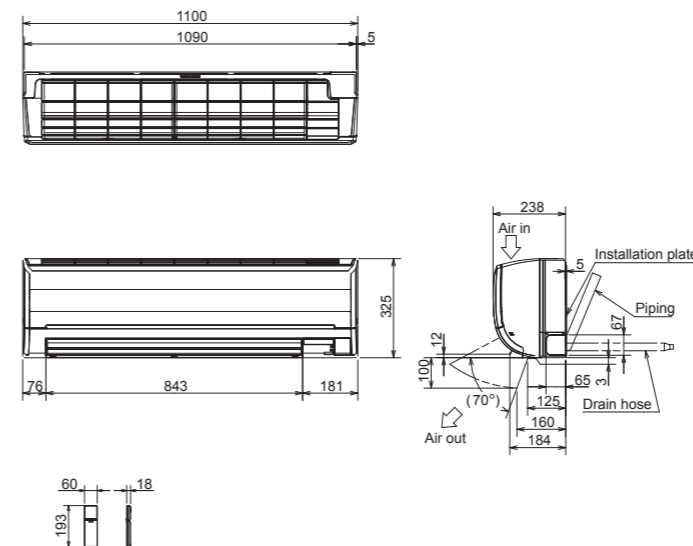
MSZ-FH25VE2 MSZ-FH35VE2 MSZ-FH50VE2

INDOOR UNIT



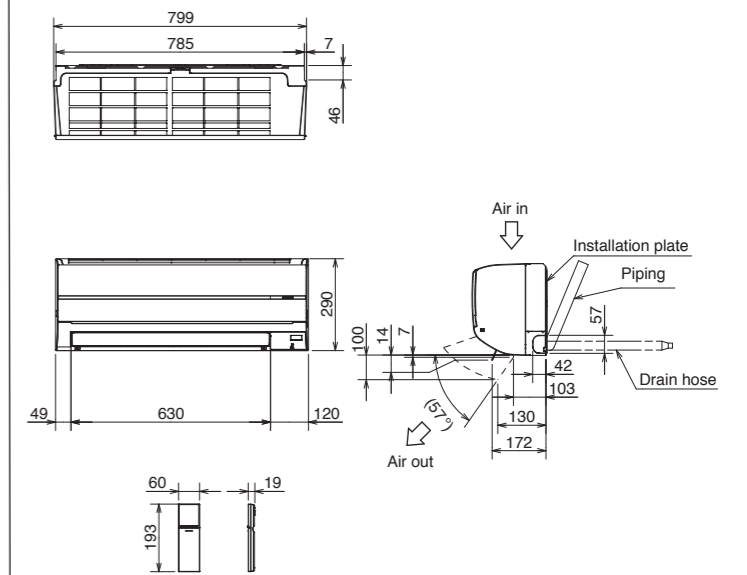
MSZ-GF60VE2 MSZ-GF71VE2

INDOOR UNIT

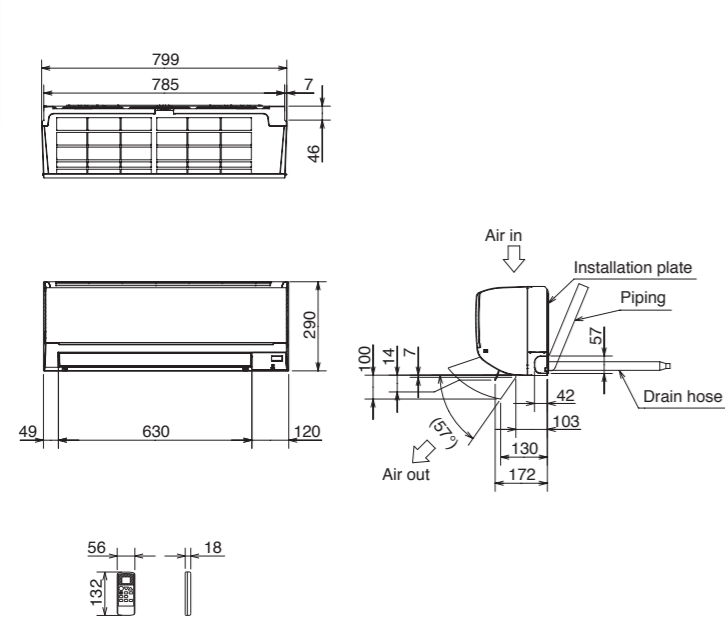


MSZ-WN25VA MSZ-WN35VA

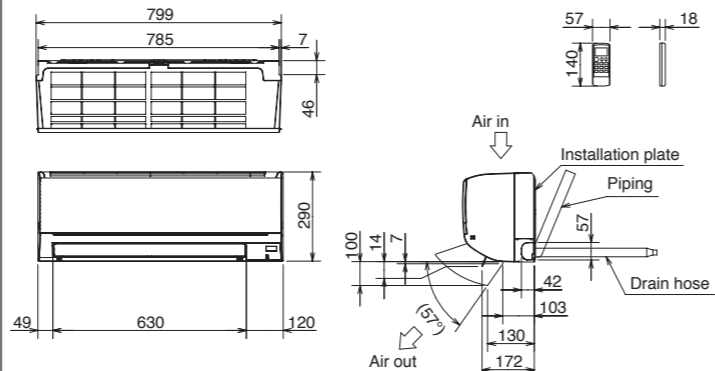
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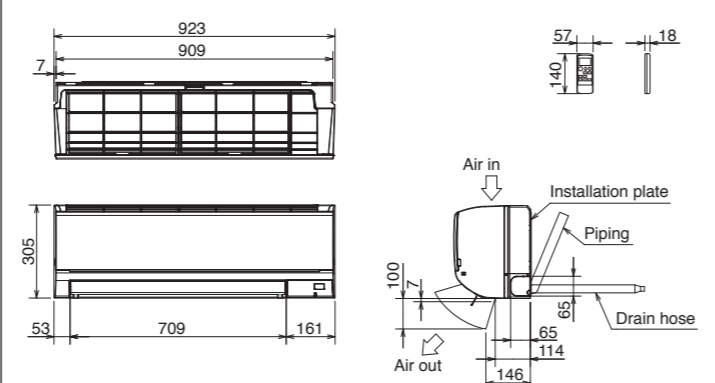
MSZ-DM25VA MSZ-DM35VA
INDOOR UNIT



MSZ-HJ25VA MSZ-HJ35VA MSZ-HJ50VA
INDOOR UNIT

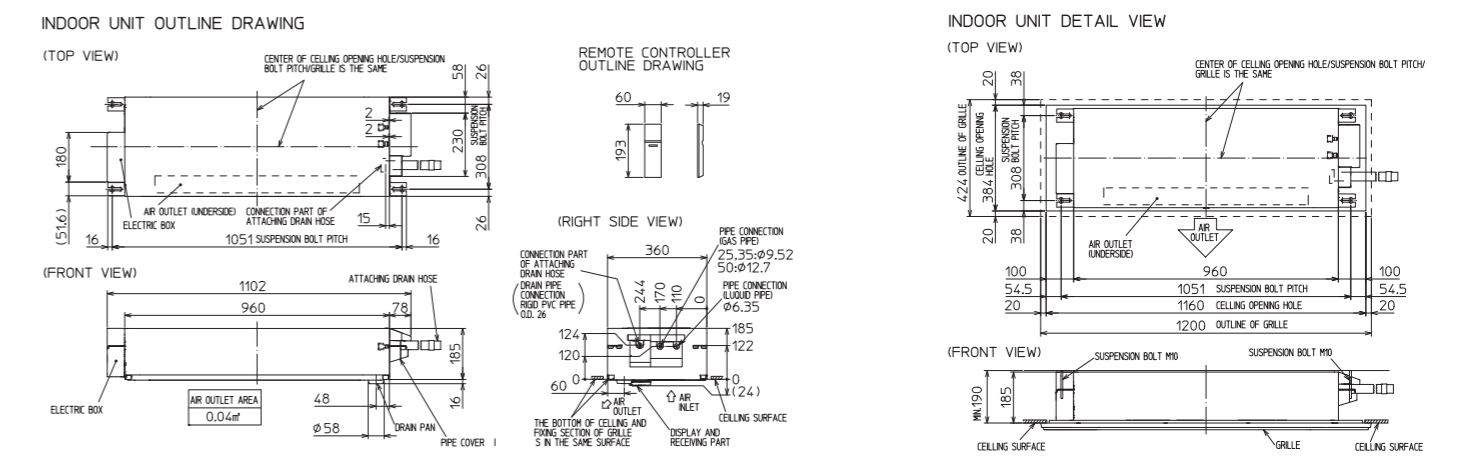


MSZ-HJ60VA MSZ-HJ71VA
MSY-TP35VF MSY-TP50VF

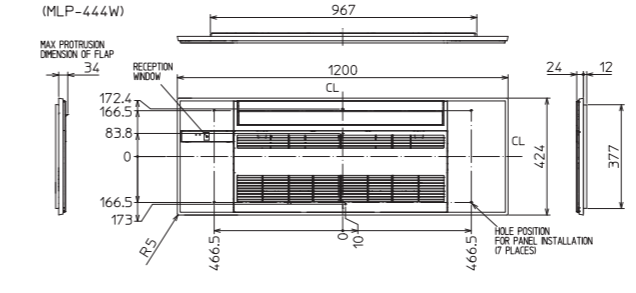


Unit : mm

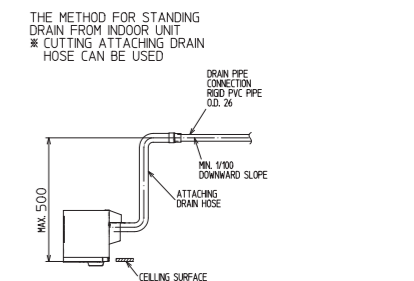
MLZ-KP25VF MLZ-KP35VF MLZ-KP50VF
INDOOR UNIT



GRILLE OUTLINE DRAWING
(MLP-444W)

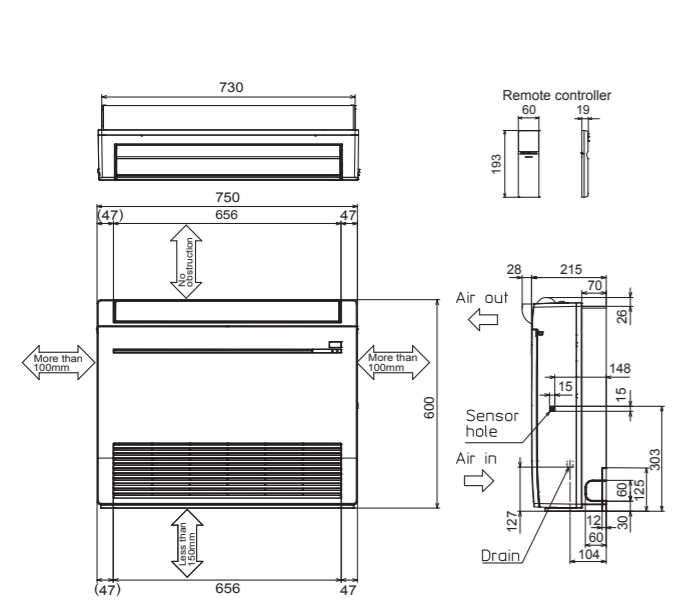


	KP25/35VF	KP50VF
EXTENSION PIPE	LIQUID PIPE O.D. φ6.35 GAS PIPE O.D. φ9.52	φ6.35 φ12.7
CONNECTING PIPE	LIQUID PIPE φ9.52 GAS PIPE FLARED CONNECTION φ2.7	FLARED CONNECTION φ6.35 FLARED CONNECTION φ2.7
DRAIN HOSE	HEAT INSULATOR O.D. φ32	CONNECTION I.D. φ25 EFFECTIVE LENGTH 480
DRAIN PIPE CONNECTION	RIGID PVC PIPE O.D. 26	

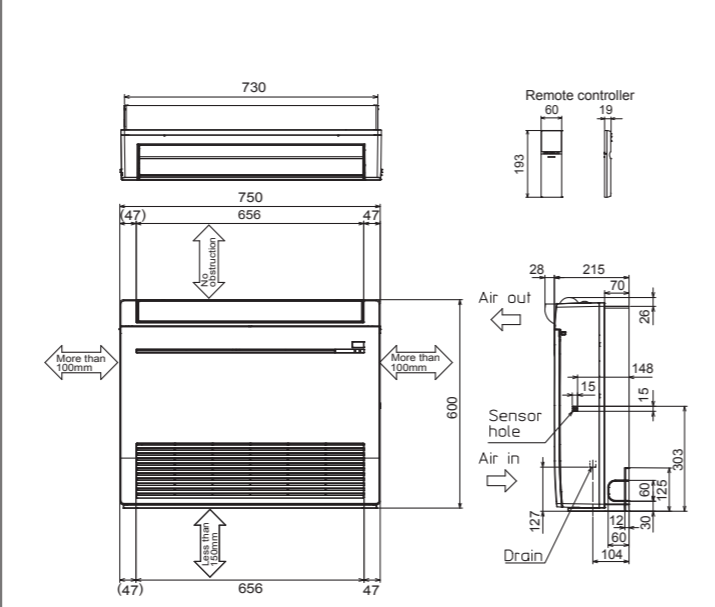


Unit : mm

MFZ-KT25VG MFZ-KT35VG MFZ-KT50VG MFZ-KT60VG
INDOOR UNIT

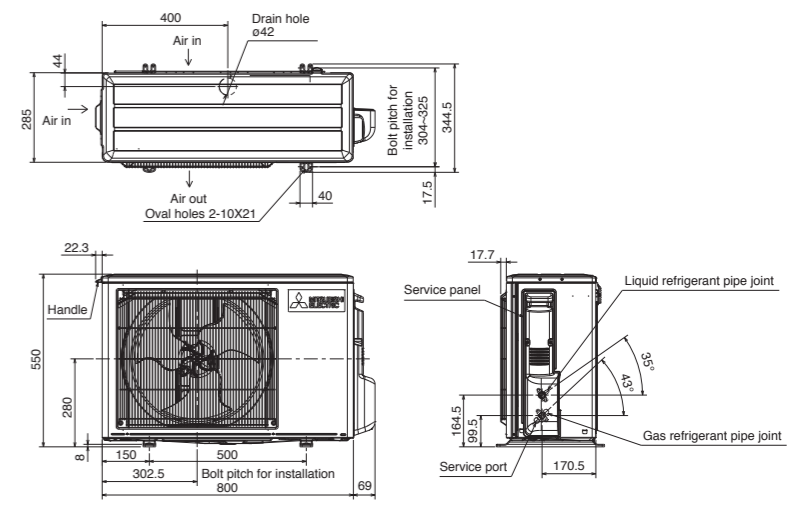


MFZ-KW25VG MFZ-KW35VG MFZ-KW50VG MFZ-KW60VG
INDOOR UNIT



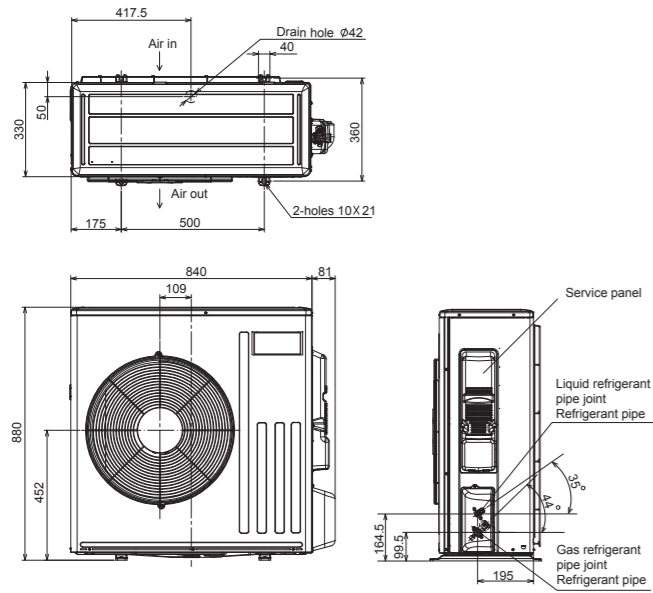
- MUZ-LN25VG MUZ-LN25VGHZ
- MUZ-LN35VG MUZ-LN35VGHZ
- MUZ-AP20VG MUZ-AP25VGH
- MUZ-AP25VG MUZ-AP35VGH
- MUZ-AP35VG MUZ-AP42VGH
- MUZ-AP42VG MUZ-AP42VGH
- MUZ-FT25VGHZ
- MUZ-FH25VE MUZ-FH35VE
- MUZ-FH25VEHZ MUZ-FH35VEHZ
- MUZ-EF25VG MUZ-EF25VGH
- MUZ-EF35VG MUZ-EF35VGH
- MUZ-EF42VG MUZ-TP35VF
- MUZ-SF25VE MUZ-SF25VEH
- MUZ-SF35VEH MUZ-SF42VE
- MUZ-HJ50VA
- MUFZ-KJ25VE MUFZ-KJ35VE
- MUFZ-KJ25VEHZ MUFZ-KJ35VEHZ

OUTDOOR UNIT



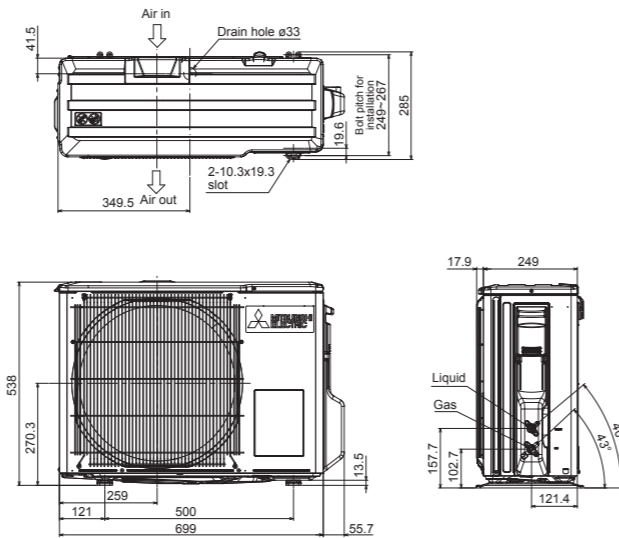
MUZ-LN50VGHZ MUZ-LN60VG
 MUZ-FH50VE MUZ-FH50VEHZ
 MUZ-SF50VE MUZ-SF50VEH
 MUZ-GF60VE MUZ-GF71VE
 MUZ-HJ60VA MUZ-HJ71VA
 MUFZ-KJ50VE MUFZ-KJ50VEHZ

OUTDOOR UNIT

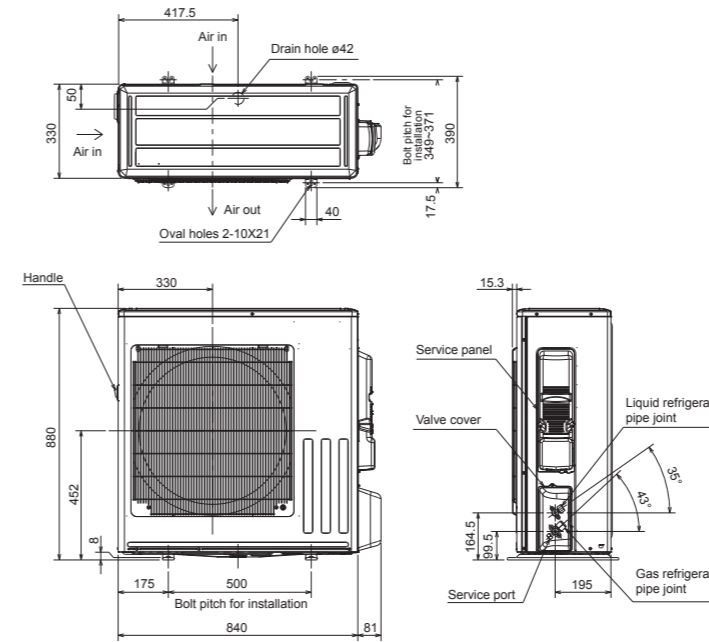


Unit : mm

MUZ-AP15VG MUZ-BT20VG
OUTDOOR UNIT



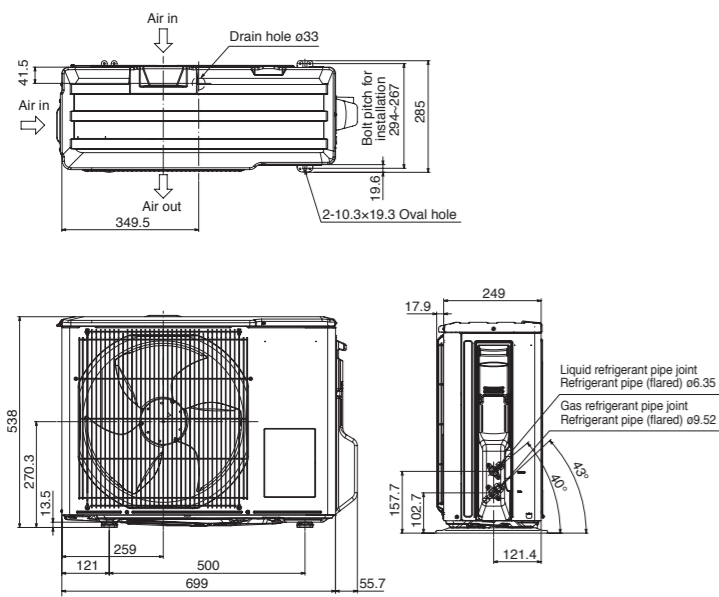
MUZ-RW50VGHZ
INDOOR UNIT



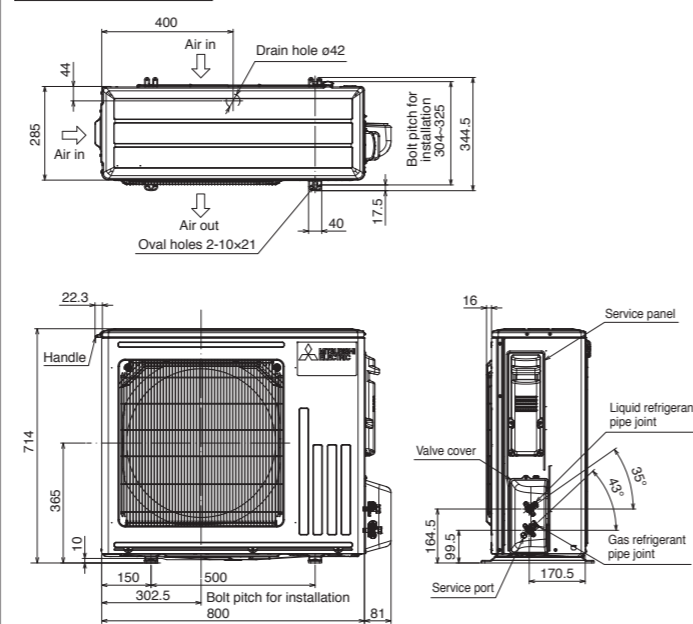
Unit : mm

MUZ-WN25VA MUZ-WN35VA MUZ-HR25VF MUZ-BT25VG
 MUZ-DM25VA MUZ-DM35VA MUZ-HR35VF MUZ-BT35VG
 MUZ-HJ25VA MUZ-HJ35VA
 MUZ-DW25VF MUZ-DW35VF

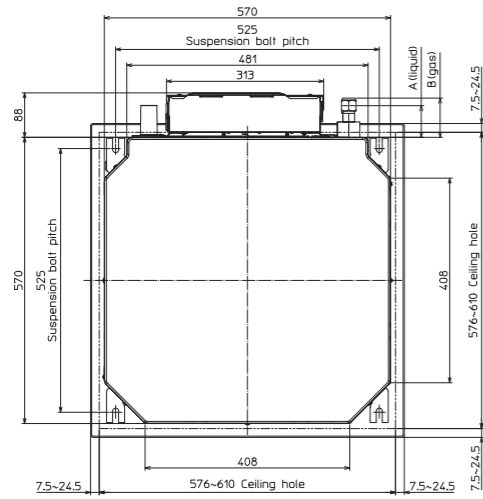
OUTDOOR UNIT



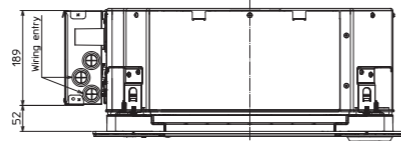
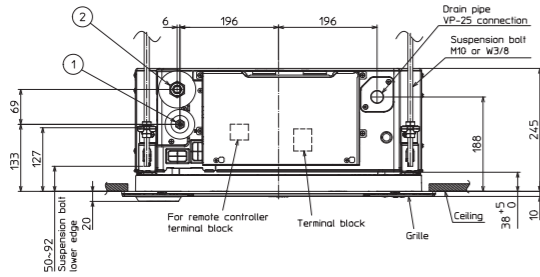
MUZ-RW25VGHZ MUZ-RW35VGHZ
 MUZ-LN50VG
 MUZ-FT35/50VGHZ
 MUZ-AP50VG MUZ-AP50VGH MUZ-AP60VG
 MUZ-EF50VG
 MUZ-HR60VF MUZ-HR71VF
OUTDOOR UNIT



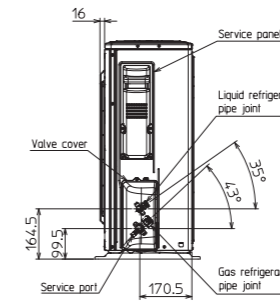
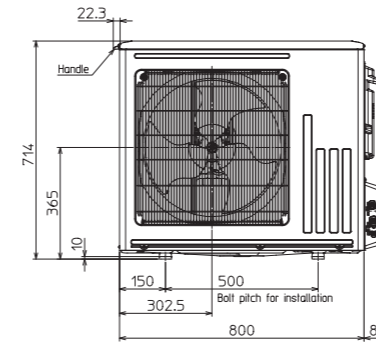
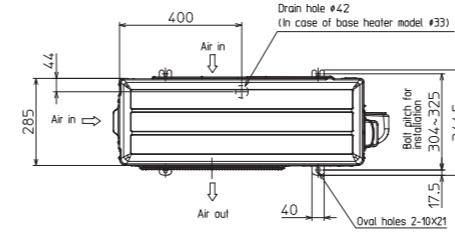
**SLZ-M15FA2
SLZ-M25FA2 SLZ-M35FA2
SLZ-M50FA2 SLZ-M60FA2**
INDOOR UNIT



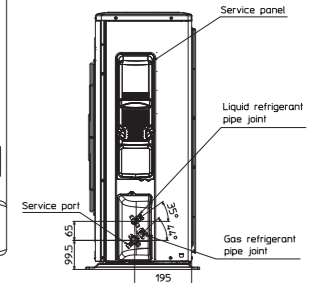
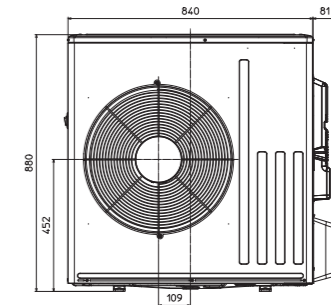
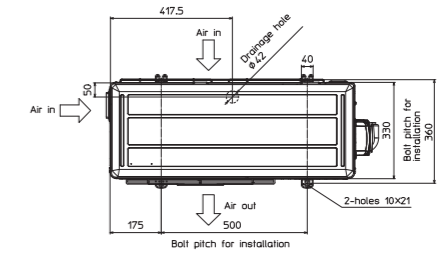
Models	① Refrigerant pipe (liquid)	② Refrigerant pipe (gas)	A	B
SLZ-M15FA2	φ6.35mm flared connection 1/4F	φ9.52mm flared connection 3/8F	63mm	72mm
SLZ-M25FA2	φ6.35mm flared connection 1/4F	φ12.7mm flared connection 1/2F	63mm	78mm
SLZ-M35FA2	φ6.35mm flared connection 1/4F	φ15.88mm flared connection 5/8F	63mm	78mm



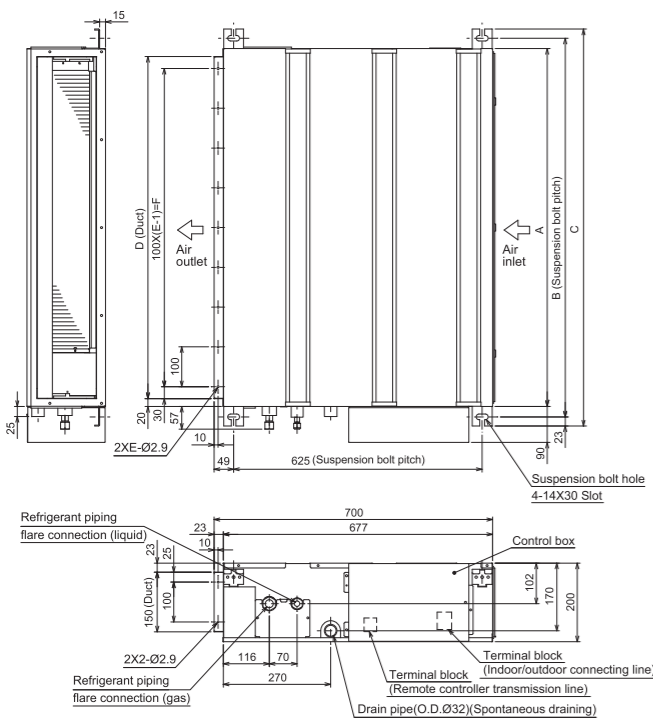
SUZ-M50VA
OUTDOOR UNIT



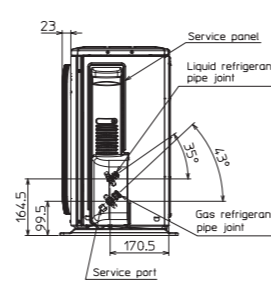
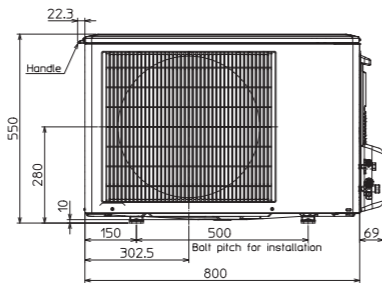
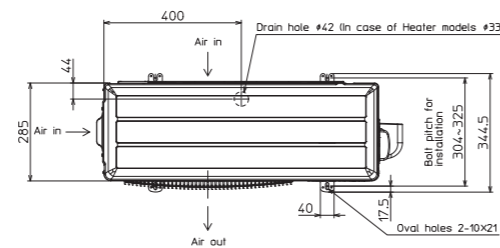
SUZ-M60VA SUZ-M71VA
INDOOR UNIT



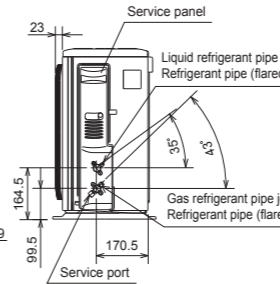
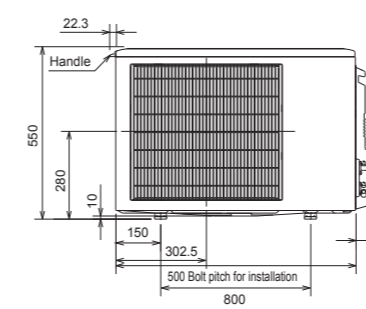
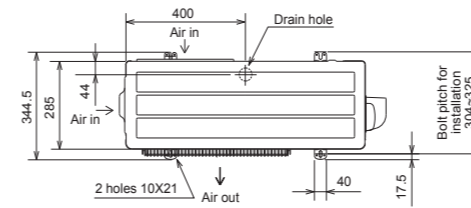
**SEZ-M25DA(L)2 SEZ-M35DA(L)2 SEZ-M50DA(L)2
SEZ-M60DA(L)2 SEZ-M71DA(L)2**
INDOOR UNIT



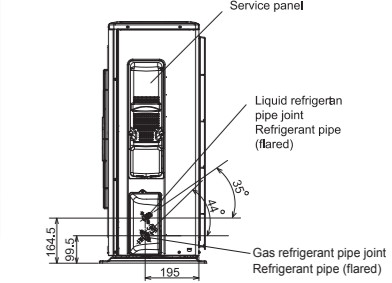
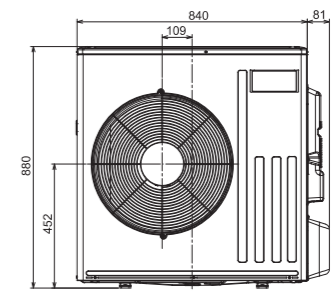
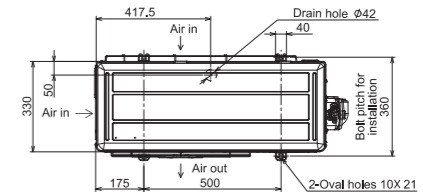
SUZ-M25VA SUZ-M35VA
OUTDOOR UNIT



SUZ-KA25VA6 SUZ-KA35VA6
INDOOR UNIT

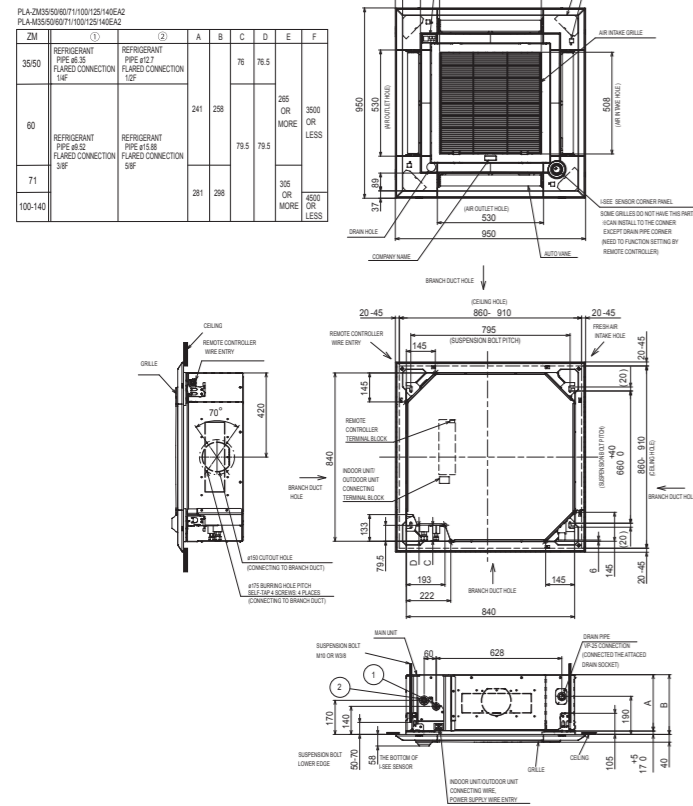


SUZ-KA50VA6 SUZ-KA60VA6 SUZ-KA71VA6
INDOOR UNIT



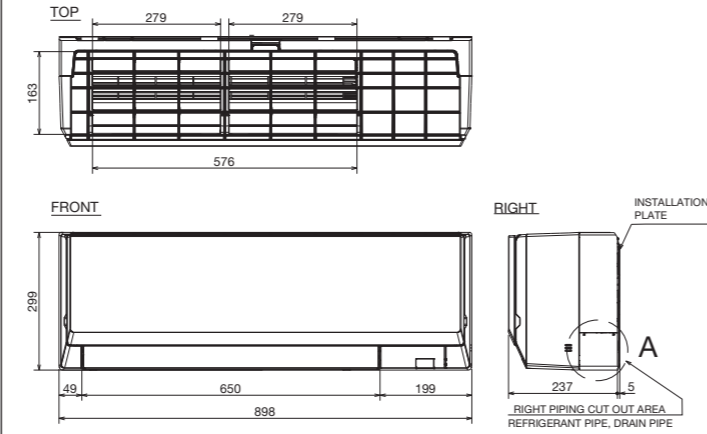
PLA-ZM35EA2 PLA-ZM50EA2 PLA-ZM60EA2 PLA-ZM71EA2
 PLA-ZM100EA2 PLA-ZM125EA2 PLA-ZM140EA2
 PLA-M35EA2 PLA-M50EA2 PLA-M60EA2 PLA-M71EA2
 PLA-M100EA2 PLA-M125EA2 PLA-M140EA2

INDOOR UNIT



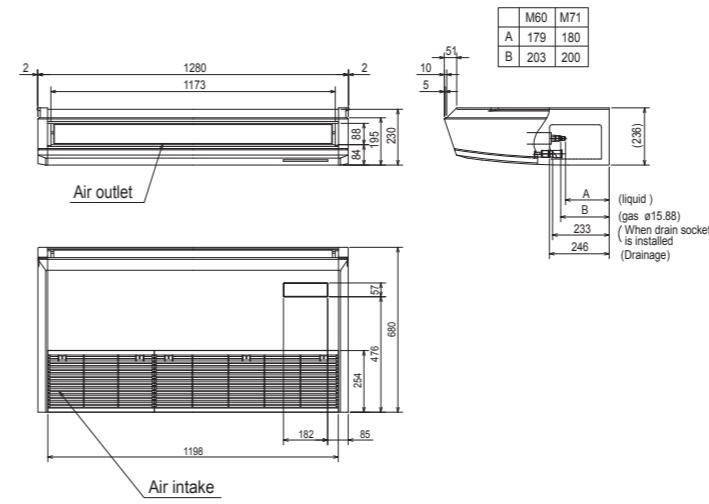
PKA-M35LA(L)2 PKA-M50LA(L)2

INDOOR UNIT



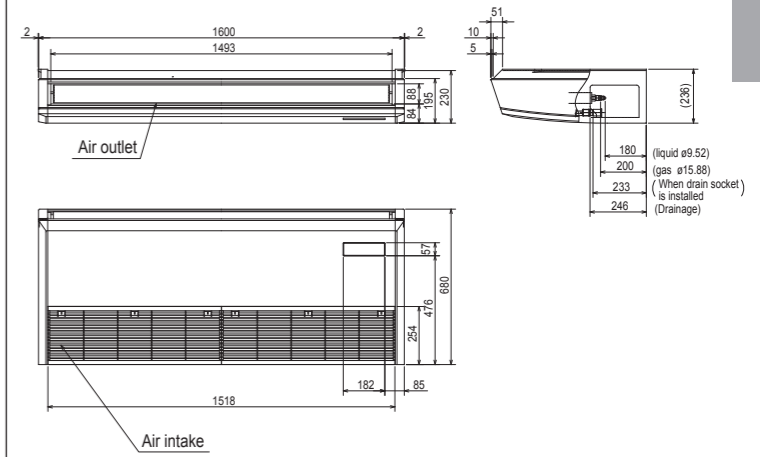
PCA-M60KA2 PCA-M71KA2

INDOOR UNIT



PCA-M100KA2 PCA-M125KA2 PCA-M140KA2

INDOOR UNIT



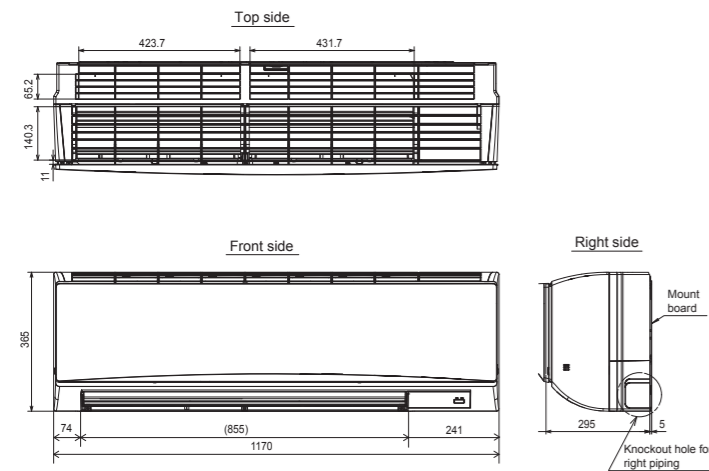
- NOTES.
 1. Use M10 or W3/8 screw for anchor bolt.
 2. Please be sure when installing the drain pump (option parts), refrigerant pipe will be only upward.

Use the current nuts meeting the pipe size of the outdoor unit.
 Available pipe size

- NOTES.
 1. Use M10 or W3/8 screw for anchor bolt.
 2. Please be sure when installing the drain pump (option parts), refrigerant pipe will be only upward.

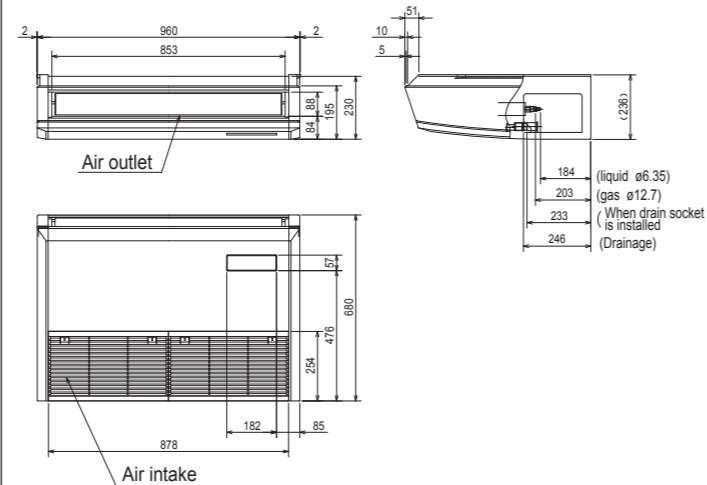
PKA-M60KA(L)2 PKA-M71KA(L)2 PKA-M100KA(L)2

INDOOR UNIT



PCA-M35KA2 PCA-M50KA2

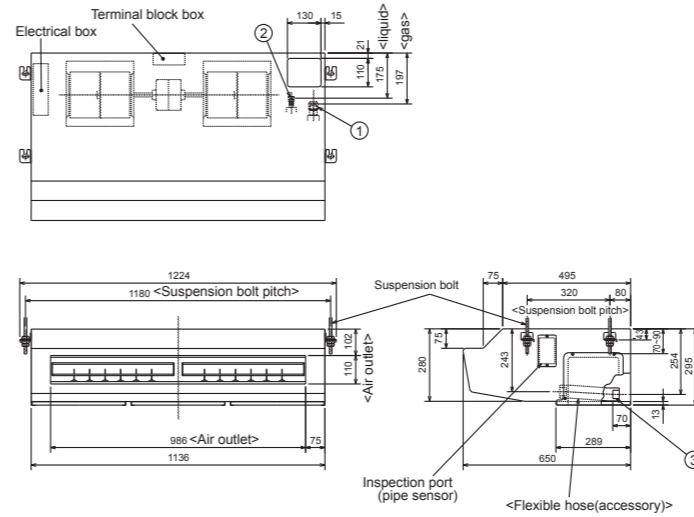
INDOOR UNIT



- NOTES.
 1. Use M10 or W3/8 screw for anchor bolt.
 2. Please be sure when installing the drain pump (option parts), refrigerant pipe will be only upward.

PCA-M71HA2

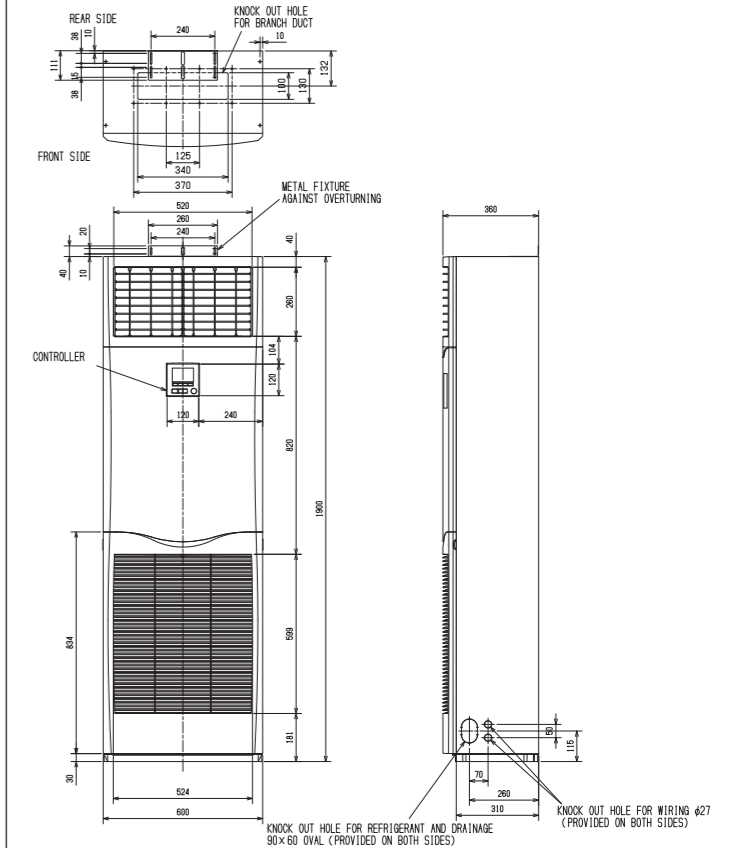
INDOOR UNIT



- ① Refrigerant pipe connection (gas pipe side/flared connection)
 ② Refrigerant pipe connection (liquid pipe side/flared connection)
 ③ Flexible hose (accessory) - Drainage pipe connection

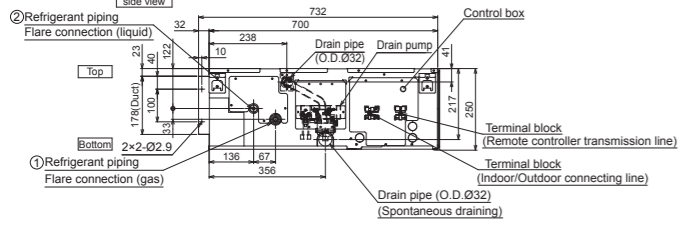
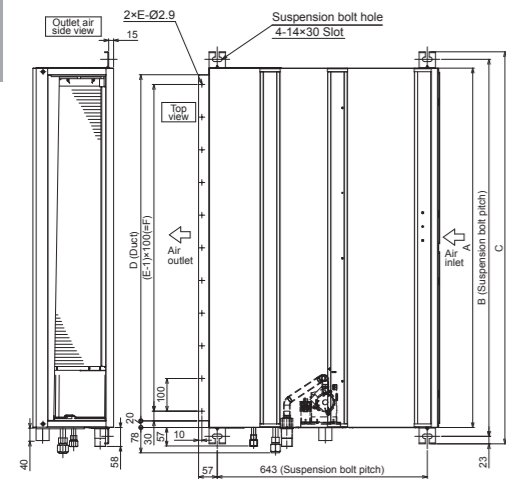
PSA-M71KA PSA-M100KA PSA-M125KA PSA-M140KA

INDOOR UNIT



PEAD-M35JA2 PEAD-M50JA2 PEAD-M60JA2 PEAD-M71JA2
PEAD-M100JA2 PEAD-M125JA2 PEAD-M140JA2

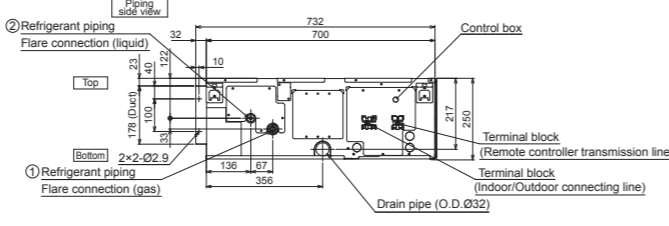
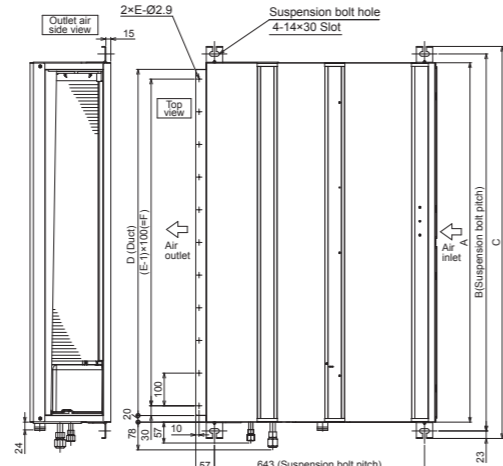
INDOOR UNIT



Model	A	B	C	D	E	F	G	① Gas pipe	② Liquid pipe
PEAD-M35_50JA2	900	954	1000	860	9	800	858	Ø12.7	Ø6.35
PEAD-M60_71JA2	1100	1154	1200	1060	11	1000	1058		
PEAD-M100_125JA2	1400	1454	1500	1360	14	1300	1358	Ø15.88	Ø9.52
PEAD-M140JA2	1600	1654	1700	1560	16	1500	1558		

PEAD-M35JAL2 PEAD-M50JAL2 PEAD-M60JAL2
PEAD-M71JAL2 PEAD-M100JAL2 PEAD-M125JAL2
PEAD-M140JAL2

INDOOR UNIT

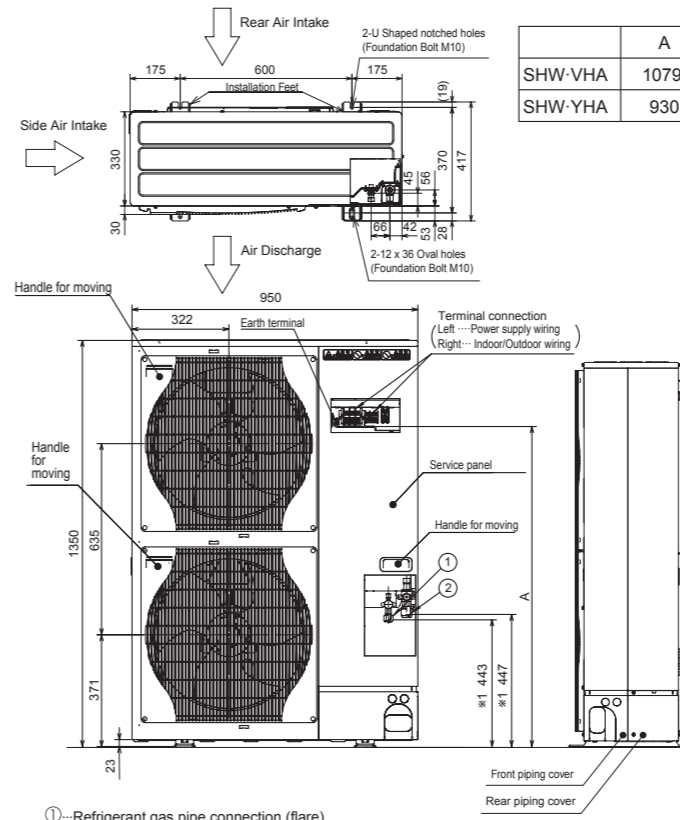


Model	A	B	C	D	E	F	G	① Gas pipe	② Liquid pipe
PEAD-M35_50JAL2	900	954	1000	860	9	800	858	Ø12.7	Ø6.35
PEAD-M60_71JAL2	1100	1154	1200	1060	11	1000	1058		
PEAD-M100_125JAL2	1400	1454	1500	1360	14	1300	1358	Ø15.88	Ø9.52
PEAD-M140JAL2	1600	1654	1700	1560	16	1500	1558		

Unit: mm

PUHZ-SHW112VHA PUHZ-SHW112YHA
PUHZ-SHW140YHA

OUTDOOR UNIT



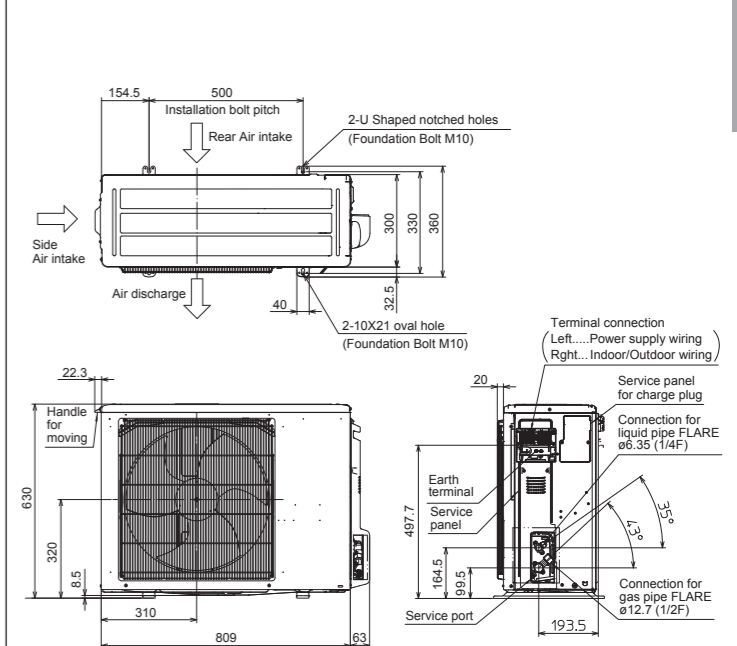
	A
SHW-VHA	1079
SHW-YHA	930

- ①---Refrigerant gas pipe connection (flare)
- ②---Refrigerant liquid pipe connection (flare)
- *---Indicates stop valve connection location.

Unit: mm

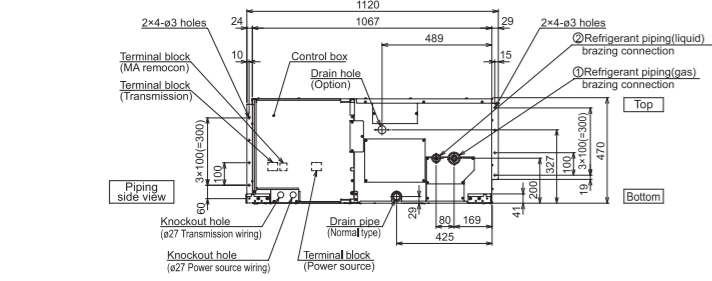
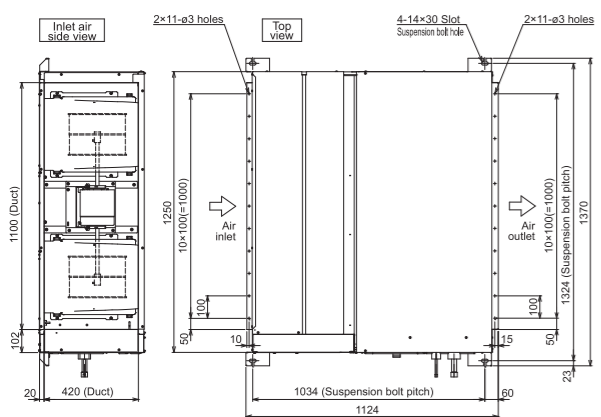
PUZ-ZM35VKA2 PUZ-ZM50VKA2

OUTDOOR UNIT



PEA-M200LA PEA-M250LA

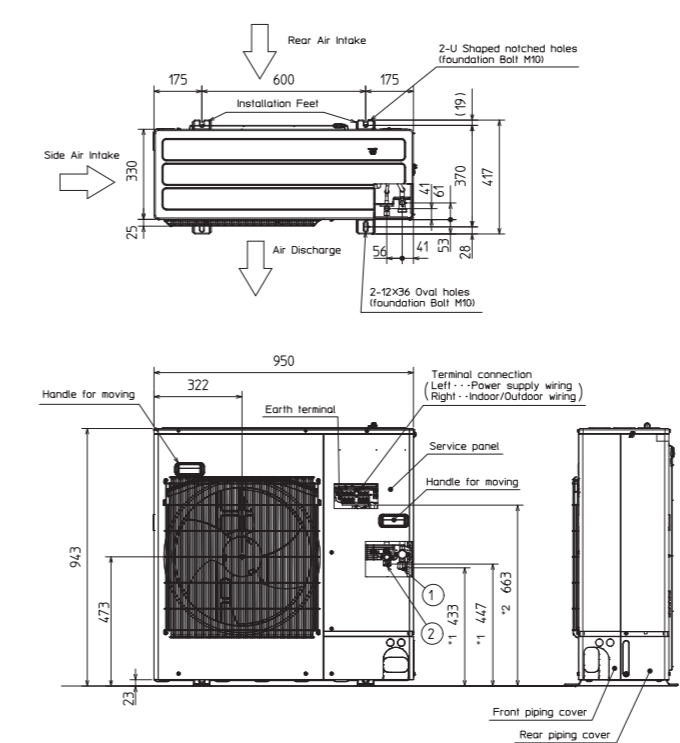
INDOOR UNIT



Model	① Gas pipe	② Liquid pipe	③ Drain hose
PEA-M200LA	ø25.4	ø9.52	Drain hose 32mm <flexible joint> <accessory>
PEA-M250LA	ø25.4	ø12.7	

PUZ-ZM60VHA2 PUZ-ZM71VHA2

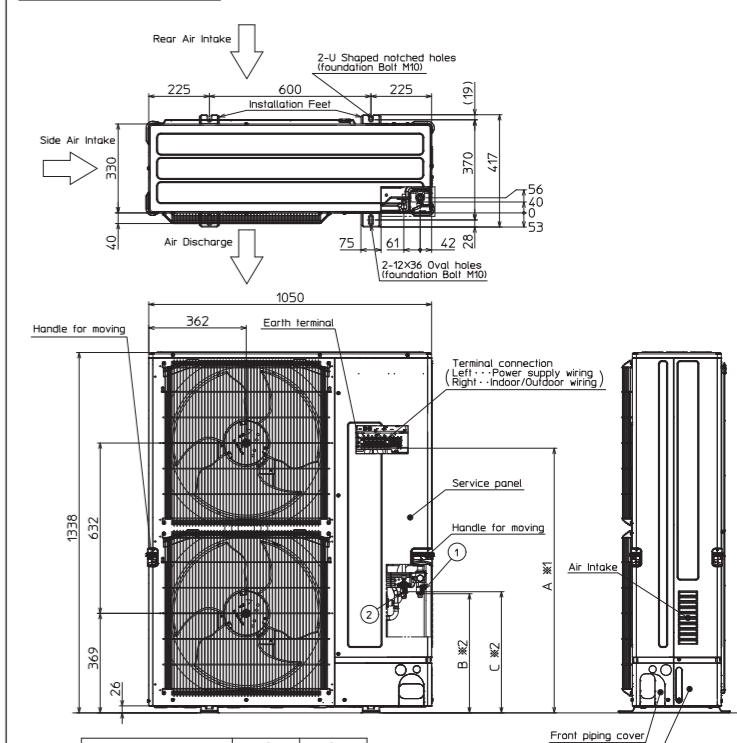
OUTDOOR UNIT



- ①---Refrigerant GAS pipe connection (FLARE) Ø15.88 (5/8F)
- ②---Refrigerant LIQUID pipe connection (FLARE) Ø9.52 (3/8F)
- *1---Indication of STOP VALVE connection location.
- *2---Indication of Terminal connection location.

PUZ-ZM100VKA2 PUZ-ZM125VKA2 PUZ-ZM140VKA2
PUZ-ZM100YKA2 PUZ-ZM125YKA2 PUZ-ZM140YKA2

OUTDOOR UNIT

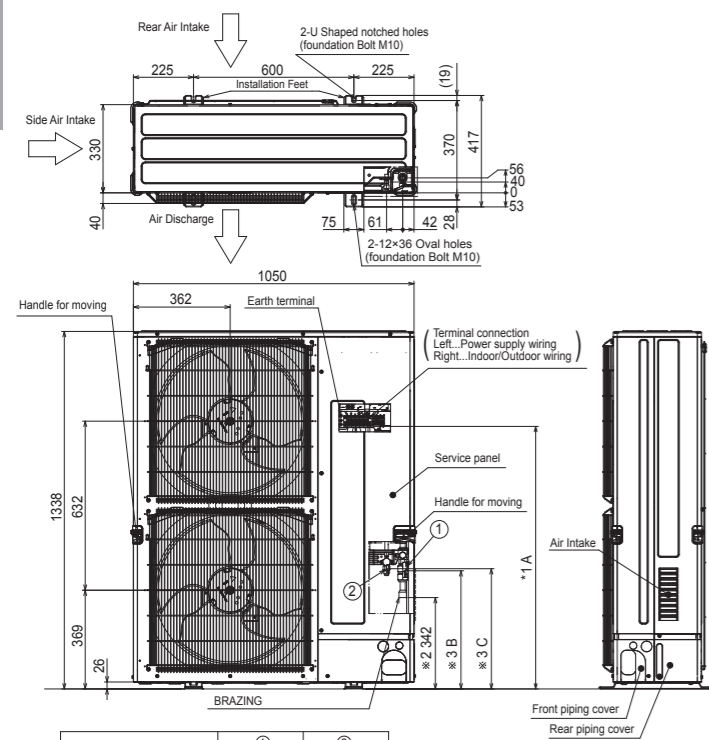


Model	① Refrigerant GAS pipe connection	② Refrigerant LIQUID pipe connection
PUZ-ZM100-140V/YKA/LK	Ø15.88 (5/8F)	Ø9.52 (3/8F)

Model	A	B	C
PUZ-ZM100-140VKA/LK	807	442	450
PUZ-ZM100-140YKA/LK	999	442	450

*1---Indication of Terminal connection location.
*2---Indication of STOP VALVE connection location.

PUZ-ZM200YKA2 PUHZ-ZM250YKA2
OUTDOOR UNIT

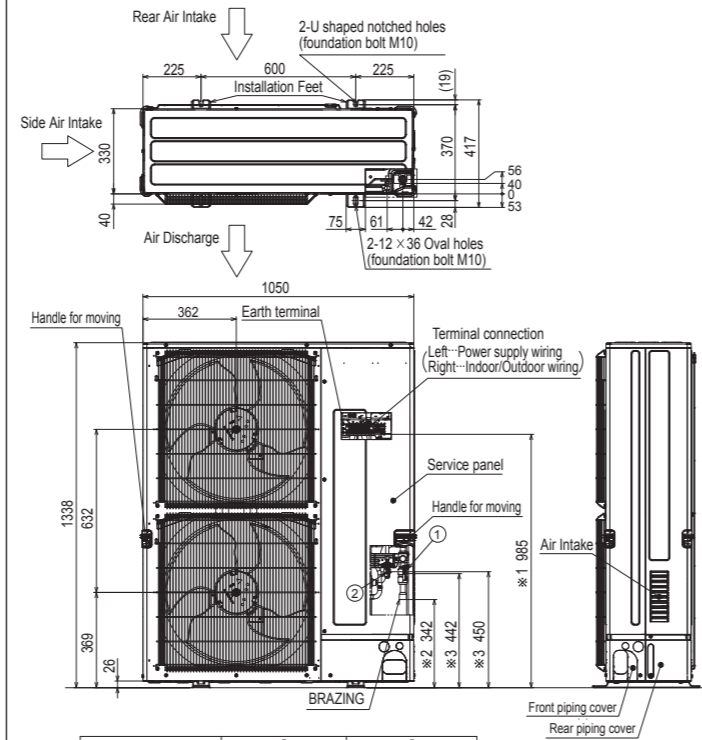


Model	① Refrigerant GAS pipe connection	② Refrigerant LIQUID pipe connection
PUZ-ZM/M200YKA.UK	ø19.05 (3/4F)	ø9.52 (3/8F)
PUZ-ZM/M250YKA.UK	ø19.05 (3/4F)	ø12.7 (1/2F)

Model	A	B	C
PUZ-ZM/M200,250YKA.UK	985	442	450

*1...Indication of Terminal connection location.
*2...Refrigerant GAS PIPE connection (BRAZING) O.Dø25.4.
*3...Indication of STOP VALVE connection location.

PUHZ-ZRP200YKA3 PUHZ-ZRP250YKA3
OUTDOOR UNIT

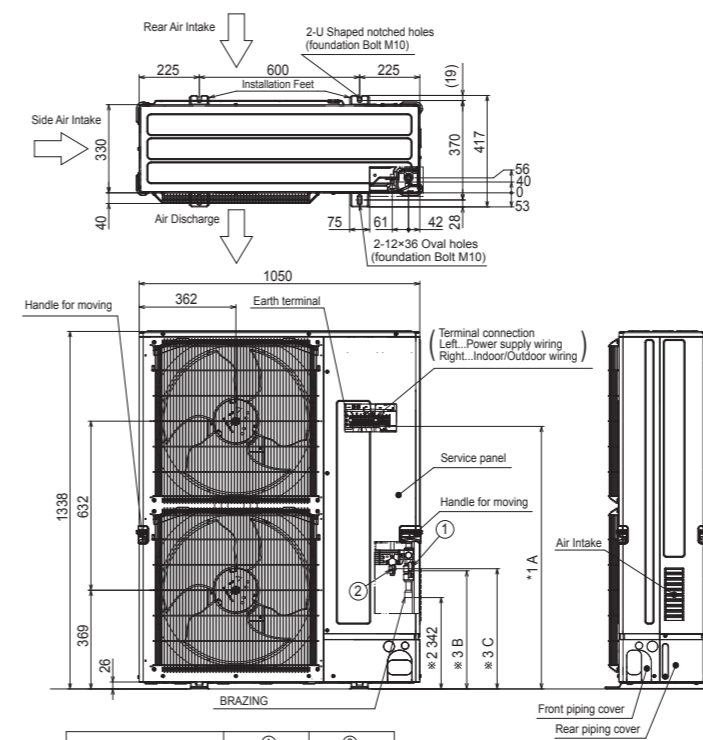


Model	① Refrigerant GAS pipe connection	② Refrigerant LIQUID pipe connection
PUHZ-ZRP200YKA3	ø19.05 (3/4F)	ø9.52 (3/8F)
PUHZ-ZRP250YKA3	ø19.05 (3/4F)	ø12.7 (1/2F)

*1...Indication of Terminal connection location.
*2...Refrigerant GAS pipe connection (BRAZING) O.Dø25.4.
*3...Indication of STOP VALVE connection location.

Unit : mm

PUZ-M200YKA2 PUZ-M250YKA2
OUTDOOR UNIT

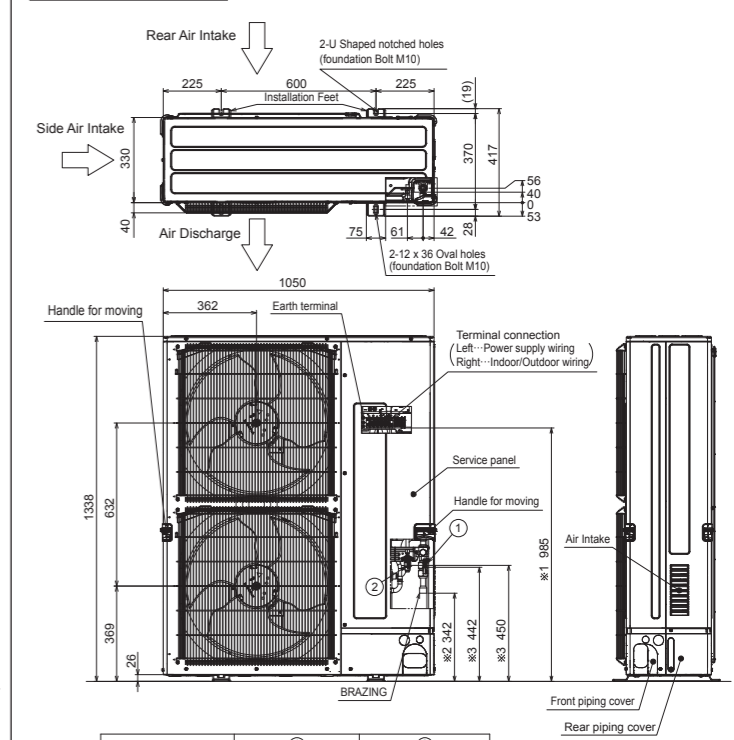


Model	① Refrigerant GAS pipe connection	② Refrigerant LIQUID pipe connection
PUZ-ZM/M200YKA.UK	ø19.05 (3/4F)	ø9.52 (3/8F)
PUZ-ZM/M250YKA.UK	ø19.05 (3/4F)	ø12.7 (1/2F)

Model	A	B	C
PUZ-ZM/M200,250YKA.UK	985	442	450

*1...Indication of Terminal connection location.
*2...Refrigerant GAS PIPE connection (BRAZING) O.Dø25.4.
*3...Indication of STOP VALVE connection location.

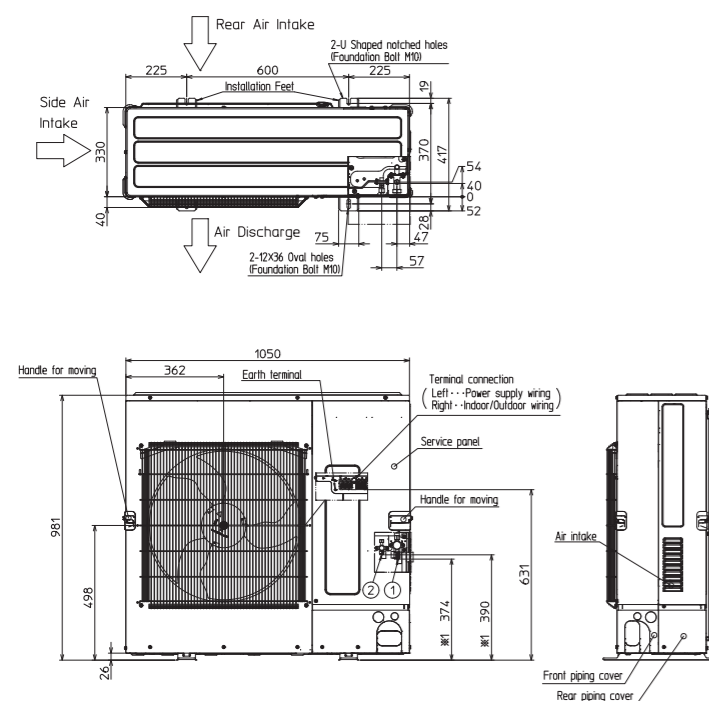
PUHZ-P200YKA3 PUHZ-P250YKA3
OUTDOOR UNIT



Model	① Refrigerant GAS pipe connection	② Refrigerant LIQUID pipe connection
PUHZ-P200YKA3	ø19.05 (3/4F)	ø9.52 (3/8F)
PUHZ-P250YKA3	ø19.05 (3/4F)	ø12.7 (1/2F)

*1...Indication of Terminal connection location.
*2...Refrigerant GAS pipe connection (BRAZING) O.Dø25.4.
*3...Indication of STOP VALVE connection location.

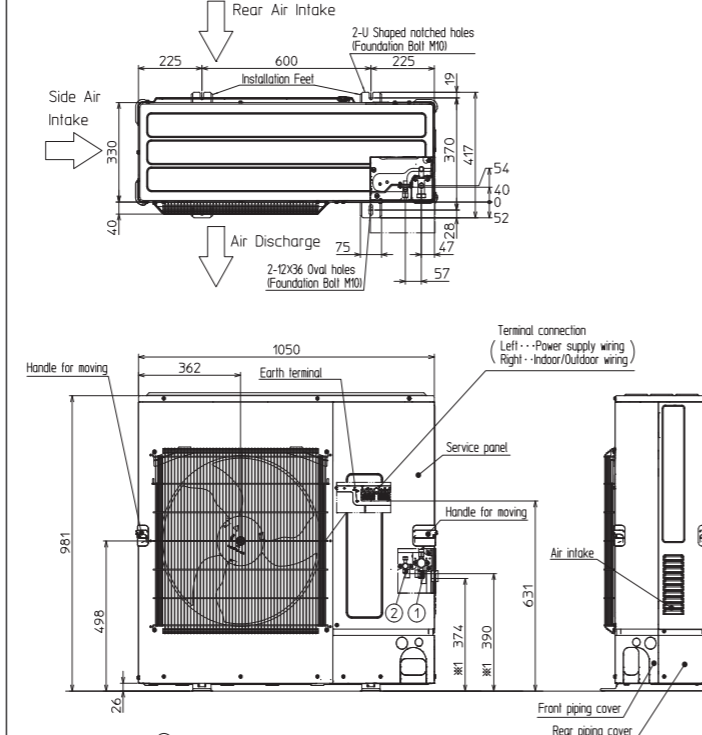
PUZ-M100VKA2 PUZ-M100YKA2
PUZ-M125VKA2 PUZ-M125YKA2
PUZ-M140VKA2 PUZ-M140YKA2
OUTDOOR UNIT



Example Of Notes

- ①...Refrigerant GAS pipe connection (FLARE) ø15.88 (5/8F)
- ②...Refrigerant LIQUID pipe connection (FLARE) ø9.52 (3/8F)
- *1...Indication of STOP VALVE connection location.

PUHZ-P100VKA PUHZ-P100YKA
PUHZ-P125VKA PUHZ-P125YKA
PUHZ-P140VKA PUHZ-P140YKA
OUTDOOR UNIT

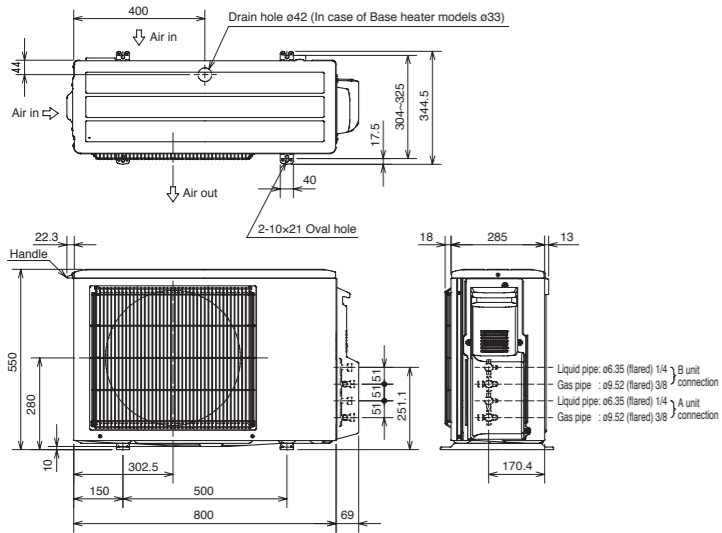


- ①...Refrigerant GAS pipe connection (FLARE) ø15.88 (5/8F)
- ②...Refrigerant LIQUID pipe connection (FLARE) ø9.52 (3/8F)
- *1...Indication of STOP VALVE connection location.

MXZ SERIES

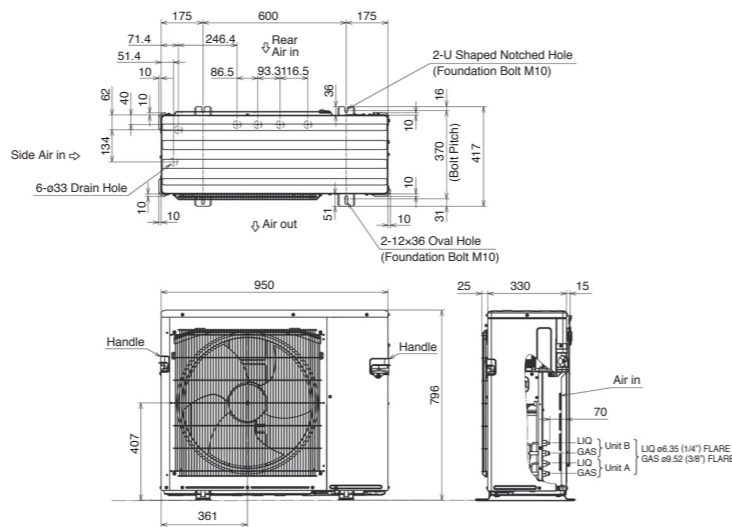
MXZ-2D33VA MXZ-2D42VA2 MXZ-2D53VA2 MXZ-2D53VAH2
 MXZ-2DM40VA MXZ-2HA40VF MXZ-2HA50VF
 MXZ-2F33VF3 MXZ-2F42VF3 MXZ-2F53VF3 MXZ-2F53VFH3

OUTDOOR UNIT

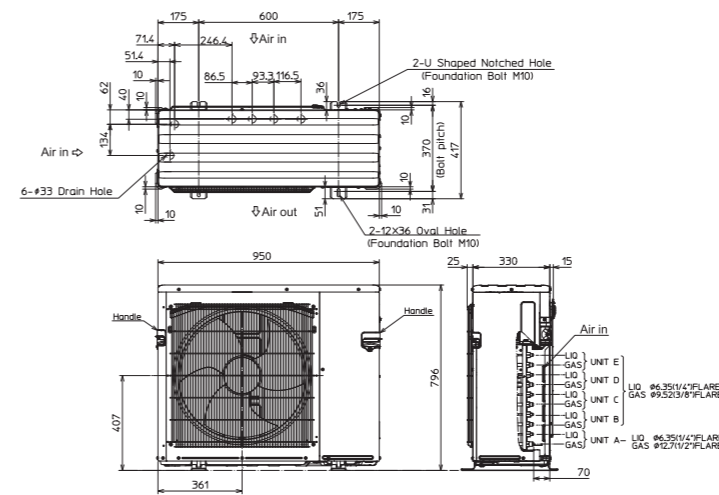


Unit : mm

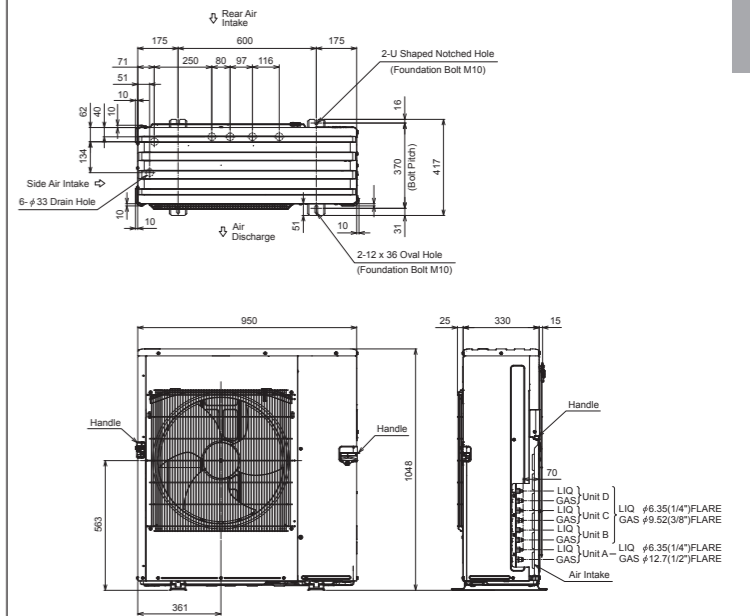
MXZ-2E53VAHZ MXZ-2F53VFHZ
OUTDOOR UNIT



MXZ-4E83VA MXZ-5E102VA MXZ-4F83VF MXZ-5F102VF
OUTDOOR UNIT



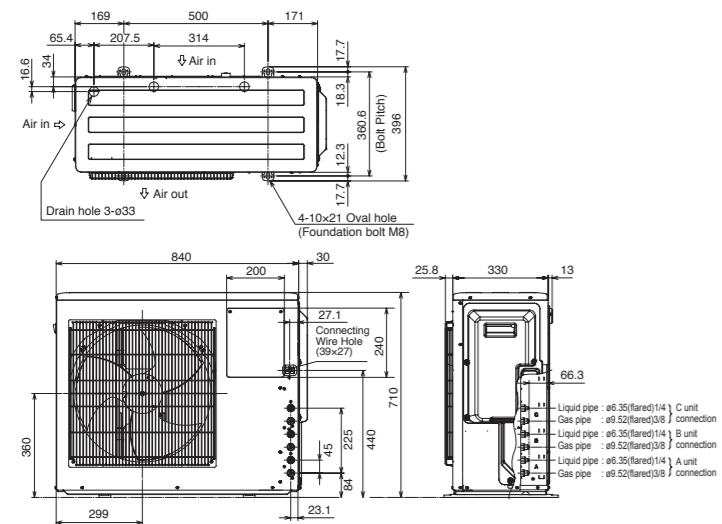
MXZ-4E83VAHZ MXZ-4F83VFHZ
OUTDOOR UNIT



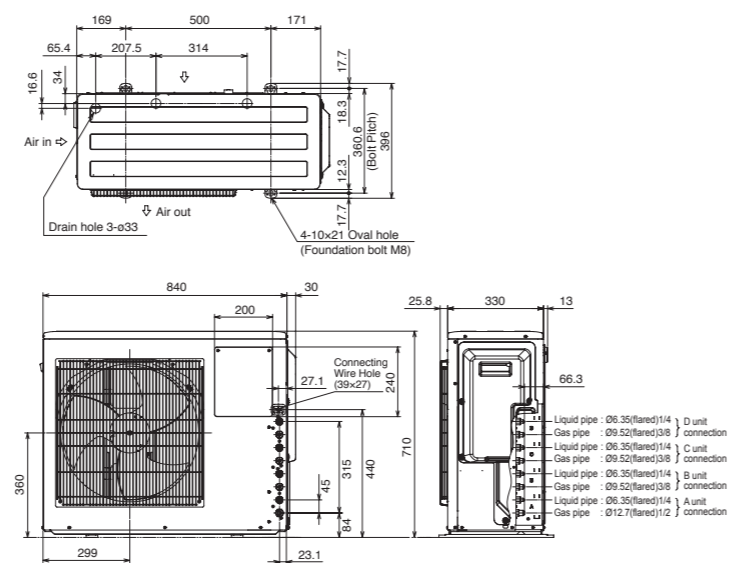
Unit : mm

MXZ-3E54VA MXZ-3E68VA
 MXZ-3DM50VA MXZ-3HA50VF
 MXZ-3F54VF3 MXZ-3F68VF3

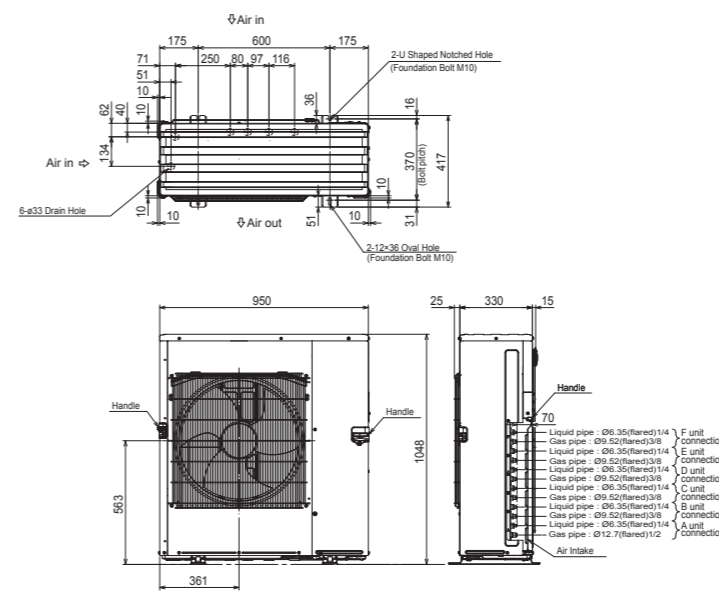
OUTDOOR UNIT



MXZ-4E72VA
 MXZ-4F72VF3 MXZ-4F80VF3
OUTDOOR UNIT

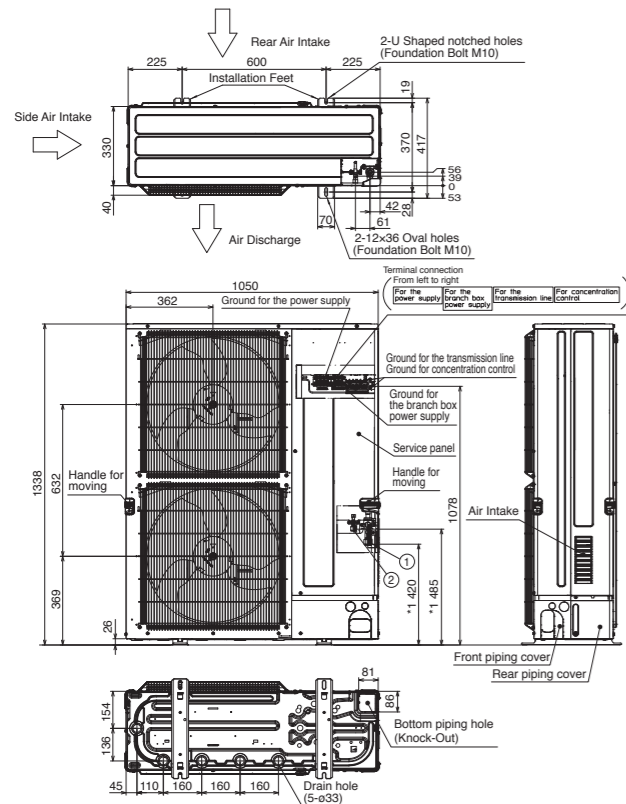


MXZ-6D122VA2 MXZ-6F122VF
OUTDOOR UNIT



PUMY-P112/125/140VKM5(-BS)

OUTDOOR UNIT

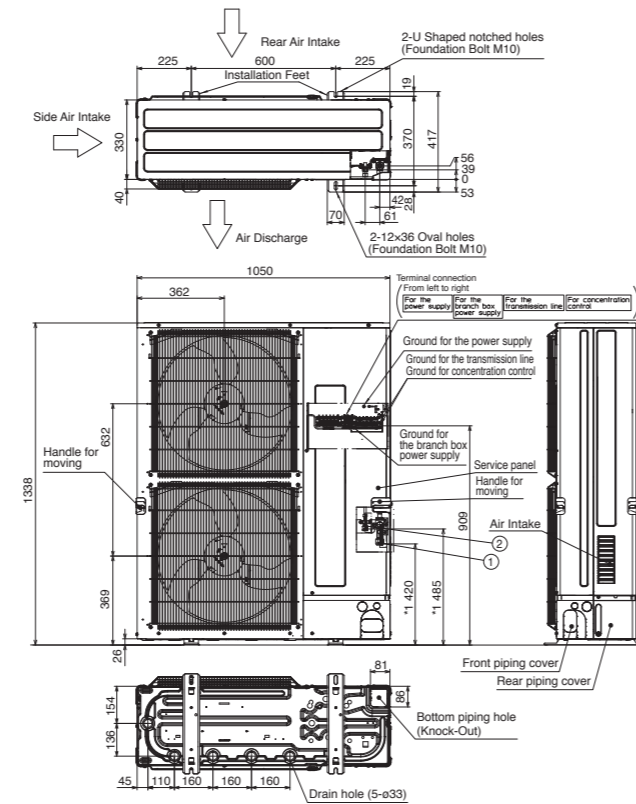


Example of Notes

- ① --- Refrigerant GAS pipe connection (FLARE) ø15.88 (5/8F)
- ② --- Refrigerant LIQUID pipe connection (FLARE) ø9.52 (3/8F)
- *1 --- Indication of STOP VALVE connection location.

PUMY-P112/125/140YKM(E)4(-BS)

OUTDOOR UNIT



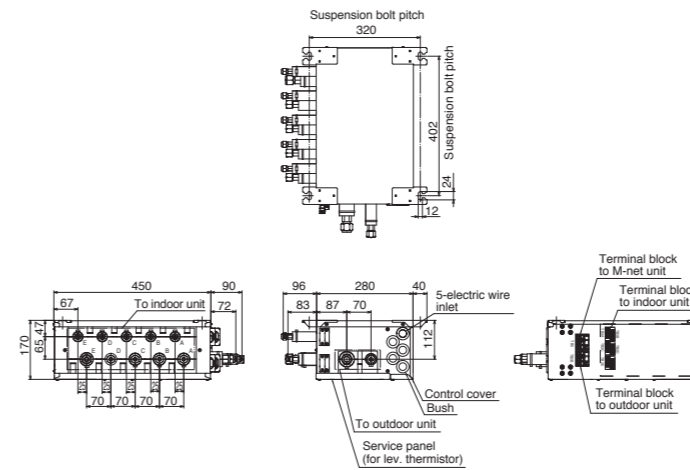
Example of Notes

- ① --- Refrigerant GAS pipe connection (FLARE) ø15.88 (5/8F)
- ② --- Refrigerant LIQUID pipe connection (FLARE) ø9.52 (3/8F)
- *1 --- Indication of STOP VALVE connection location.

PAC-MK54BC

Suspension bolt: W3/W8 (M10)

Branch box



Suspension bolt : W3/8(M10)

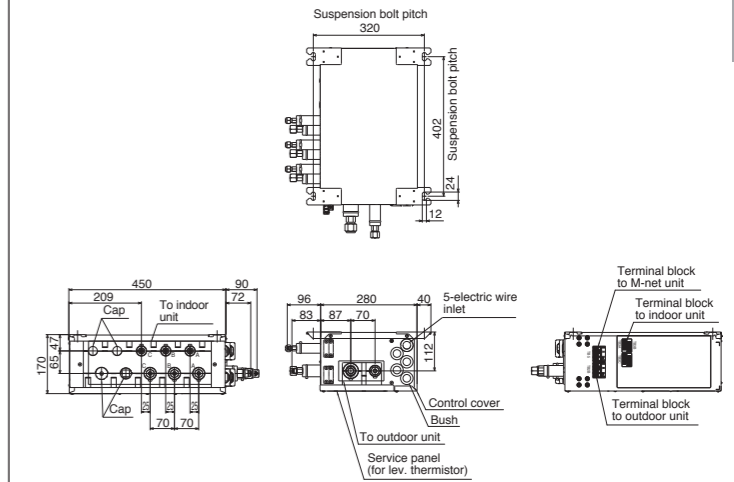
Refrigerant pipe flared connection

	A	B	C	D	E	To outdoor unit
Liquid pipe	1/4F	1/4F	1/4F	1/4F	1/4F	3/8F
Gas pipe	3/8F	3/8F	3/8F	3/8F	1/2F	5/8F

PAC-MK34BC

Suspension bolt: W3/W8 (M10)

Branch box



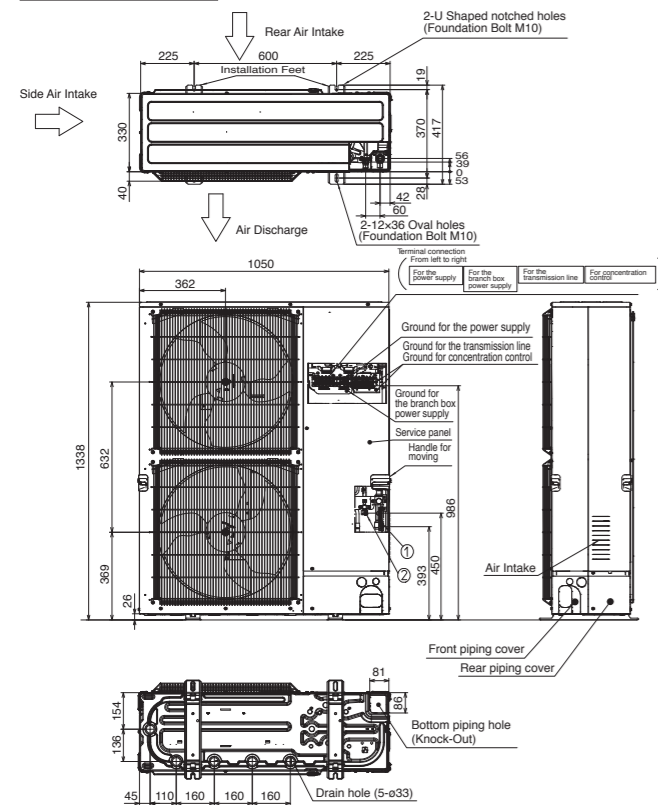
Suspension bolt : W3/8(M10)

Refrigerant pipe flared connection

	A	B	C	To outdoor unit
Liquid pipe	1/4F	1/4F	1/4F	3/8F
Gas pipe	3/8F	3/8F	3/8F	5/8F

PUMY-P200YKM2(-BS)

OUTDOOR UNIT

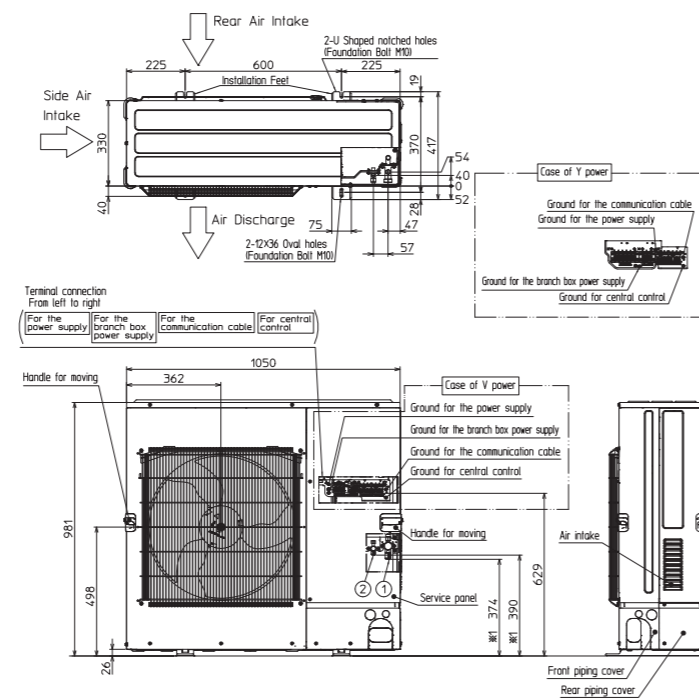


Example of Notes

- ① --- Refrigerant GAS pipe connection (FLARE) ø19.05 (3/4F)
- ② --- Refrigerant LIQUID pipe connection (FLARE) ø9.52 (3/8F)
- *1 --- Indication of STOP VALVE connection location.

PUMY-SP112/125/140VKM(-BS)
PUMY-SP112/125/140YKM(-BS)

OUTDOOR UNIT

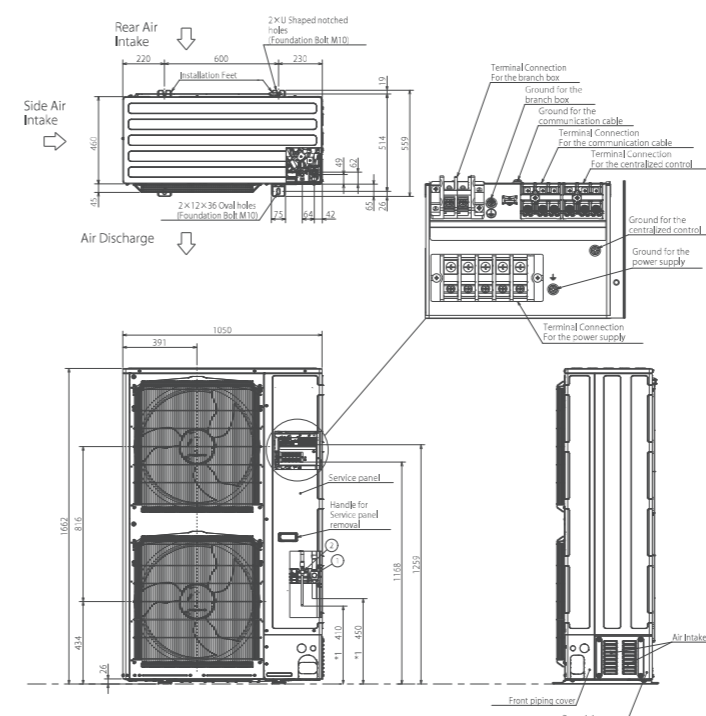


Example of Notes

- ① --- Refrigerant GAS pipe connection (FLARE) ø15.88 (5/8F)
- ② --- Refrigerant LIQUID pipe connection (FLARE) ø9.52 (3/8F)
- *1 --- Indication of STOP VALVE connection location.

PUMY-P250YBM(-BS)
PUMY-P300YBM(-BS)

OUTDOOR UNIT



Example of Notes

- ① --- Refrigerant GAS pipe connection ø22.2(7/8F)
- ② --- Refrigerant LIQUID pipe connection ø9.52(3/8F)
- *1 --- Indication of STOP VALVE and BALL VALVE connection location.

Piping Installation

M SERIES

Single type

Series	Class <Outdoor unit>	Maximum Piping Length (m)		Maximum Height Difference (m)		Maximum Number of Bends	
		Total length (A)	Indoor unit - Outdoor unit (H)	Outdoor unit - Indoor unit (H)	Total number		
MSZ-RW	25 / 35	20	12	12	10		
	50	30	15	15	10		
MSZ-L	25 / 35	20	12	12	10		
	50	20	12	12	10		
	60	30	15	15	10		
MSZ-FT	25	20	12	12	10		
	35 / 50	30	15	15	10		
MSZ-A	15 / 25 / 35 / 42 / 50	20	12	12	10		
	60 / 71	30	15	15	10		
MSZ-EF	25 / 35 / 42	20	12	12	10		
	50	30	15	15	10		
MSZ-BT	20 / 25 / 35 / 50	20	12	12	10		
MSZ-HR	25 / 35 / 42 / 50	20	12	12	10		
	60 / 71	30	15	15	10		
MSY-DW	25 / 35 / 50	20	12	12	10		
MSY-TP	35 / 50	20	12	12	10		
MSZ-F MFZ	25 / 35	20	12	12	10		
	50	30	15	15	10		
MSZ-S	25 / 35 / 42	20	12	12	10		
	50 / 60	30	15	15	10		
MSZ-G	60 / 71	30	15	15	10		
MSZ-W MSZ-D	25 / 35	20	12	12	10		
	25 / 35 / 50	20	12	12	10		
MSZ-HJ	60 / 71	30	15	15	10		

S SERIES & P SERIES

Single type

Series	Class <Outdoor unit>	Maximum Piping Length (m)		Maximum Height Difference (m)		Maximum Number of Bends	
		Total length (A)	Indoor unit - Outdoor unit (H)	Outdoor unit - Indoor unit (H)	Total number		
ZUBADAN (PUHZ-SHW)	80 / 112 / 140	75	30	30	15		
Power Inverter (PUZ-ZM)	35 / 50	50	30	30	15		
	60 / 71	55	30	30	15		
	100 / 125 / 140	100	30	30	15		
Power Inverter (PUHZ-ZRP)	35 / 50 / 60 / 71	50	30	30	15		
	100 / 125 / 140	75	30	30	15		
	200 / 250	100	30	30	15		
Standard Inverter (PUZ-M & SUZ-M)	25 / 35	20	12	12	10		
	50 / 60 / 71	30	30	30	10		
	100	55	30	30	15		
	125 / 140	65	30	30	15		
Standard Inverter (PUHZ-P & SUZ-KA)	25 / 35	20	12	12	10		
	50 / 60 / 71	30	30	30	10		
	100 / 125 / 140	50	30	30	15		
	200 / 250	70	30	30	15		

Twin type

Series	Class <Outdoor unit>	Maximum Piping Length (m)			Maximum Height Difference (m)			Maximum Number of Bends
		Total length A+B+C	Pipe length difference from distribution pipe B-C	Indoor unit - Distribution pipe B	Outdoor unit - Indoor unit H	Indoor unit - Indoor unit h	Total number	
ZUBADAN (PUHZ-SHW)	80 / 112 / 140	75	8	20	30	1	15	
Power Inverter (PUZ-ZM)	71	55	8	20	30	1	15	
	100 / 125 / 140	100	8	20	30	1	15	
	200 / 250	100	8	20	30	1	15	
Power Inverter (PUHZ-ZRP)	71	50	8	20	30	1	15	
	100 / 125 / 140	75	8	20	30	1	15	
	200 / 250	100	8	30	30	1	15	
Standard Inverter (PUZ-M)	100	55	8	20	30	1	15	
	125 / 140	65	8	20	30	1	15	
	200 / 250	65	8	20	30	1	15	
Standard Inverter (PUHZ-P)	100 / 125 / 140	50	8	20	30	1	15	
	200 / 250	70	8	30	30	1	15	

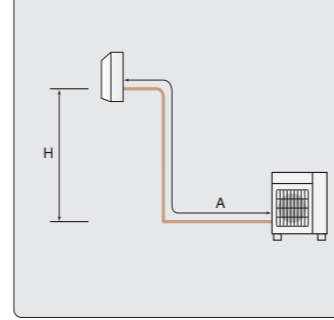
Triple type

Series	Class <Outdoor unit>	Maximum Piping Length (m)			Maximum Height Difference (m)			Maximum Number of Bends
		Total length A+B+C+D	Pipe length difference from distribution pipe B-C	Indoor unit - Distribution pipe B	Outdoor unit - Indoor unit H	Indoor unit - Indoor unit h	Total number	
Power Inverter (PUZ-ZM)	140	100	8	20	30	1	15	
	200 / 250	100	8	20	30	1	15	
Power Inverter (PUHZ-ZRP)	140	75	8	20	30	1	15	
	200 / 250	100	8	30	30	1	15	
Standard Inverter (PUZ-M)	140	65	8	20	30	1	15	
	200 / 250	65	8	20	30	1	15	
Standard Inverter (PUHZ-P)	140	50	8	20	30	1	15	
	200 / 250	70	8	28	30	1	15	

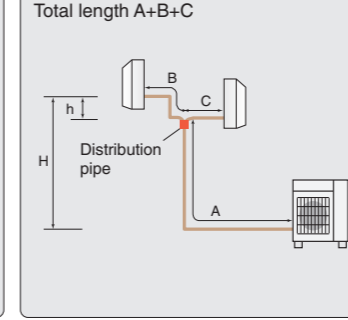
Quadruple type

Series	Class <Outdoor unit>	Maximum Piping Length (m)			Maximum Height Difference (m)			Maximum Number of Bends
		Total length A+B+C+D+E	Pipe length difference from distribution pipe B-C	Indoor unit - Distribution pipe B	Outdoor unit - Indoor unit H	Indoor unit - Indoor unit h	Total number	
Power Inverter (PUZ-ZM, PUHZ-ZRP)	200 / 250	100	8	30	30	1	15	
Standard Inverter (PUZ-M, PUHZ-P)	200 / 250	70	8	22	30	1	15	

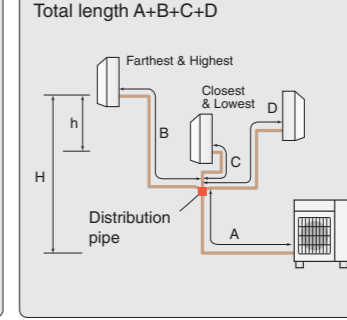
Single type



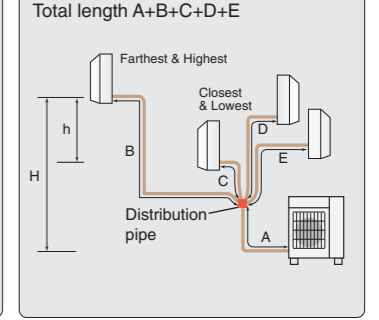
Twin type



Triple type



Quadruple type



MXZ SERIES

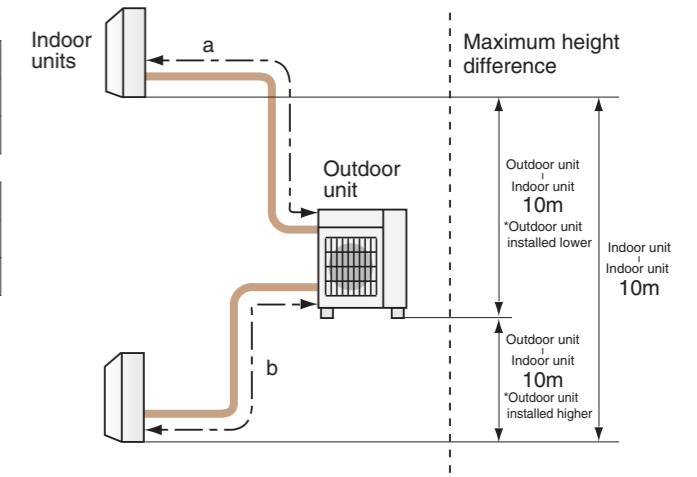
MXZ-2D33VA, MXZ-2F33VF3

Maximum Piping Length	
Outdoor unit - Indoor unit (a,b)	15m
Total length (a+b)	20m

Maximum Number of Bends	
Outdoor unit - Indoor unit (a,b)	15
Total number (a+b)	20

* When connecting MFZ-KJ Series indoor unit, additional refrigerant is required. For details, please contact Mitsubishi Electric.

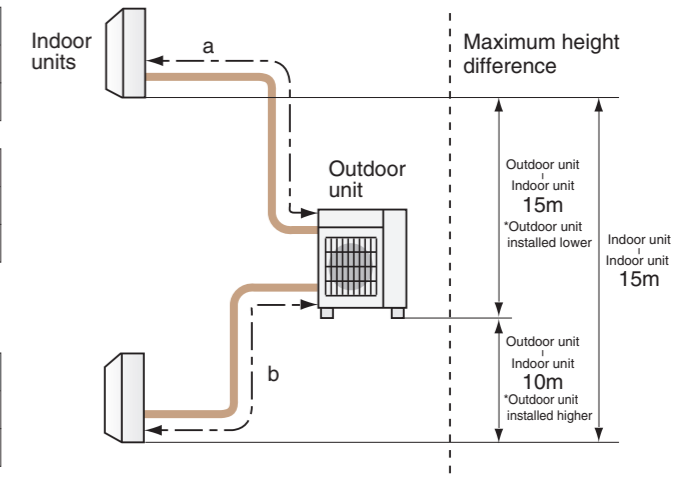
Regarding MXZ-2D33, the second unit should be a different type in the case of selecting one MFZ-KJ.



MXZ-2D42VA2, MXZ-2F42VF3

Maximum Piping Length	
Outdoor unit - Indoor unit (a,b)	20m
Total length (a+b)	30m

Maximum Number of Bends	
Outdoor unit - Indoor unit (a,b)	20
Total number (a+b)	30



MXZ-2D53VA(H)2, MXZ-2E53VAHZ, MXZ-2F53VF(H)3

Maximum Piping Length	
Outdoor unit - Indoor unit (a,b)	20m
Total length (a+b)	30m

Maximum Number of Bends	
Outdoor unit - Indoor unit (a,b)	20
Total number (a+b)	30

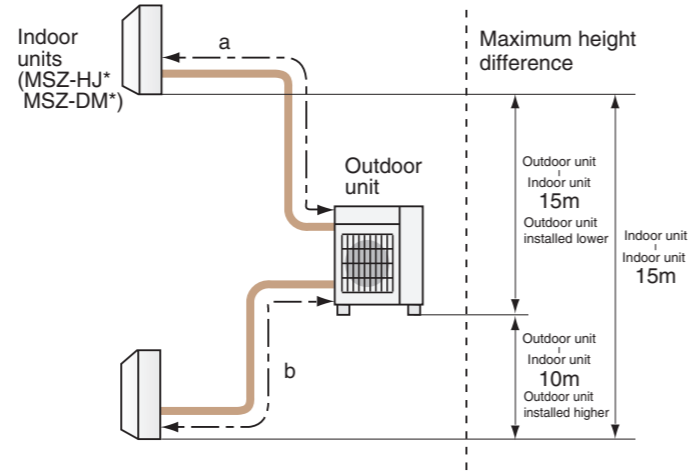
* When connecting MFZ-KJ Series indoor unit to MXZ-2D42VA2 or MXZ-2D53VA(H)2, additional refrigerant is required. For details, please contact Mitsubishi Electric.

MXZ SERIES

MXZ-2DM40VA, MXZ-2HA40VF, MXZ-2HA50VF

Maximum Piping Length	
Outdoor unit - Indoor unit (a,b)	20m
Total length (a+b)	30m

Maximum Number of Bends	
Outdoor unit - Indoor unit (a,b)	20
Total number (a+b)	30

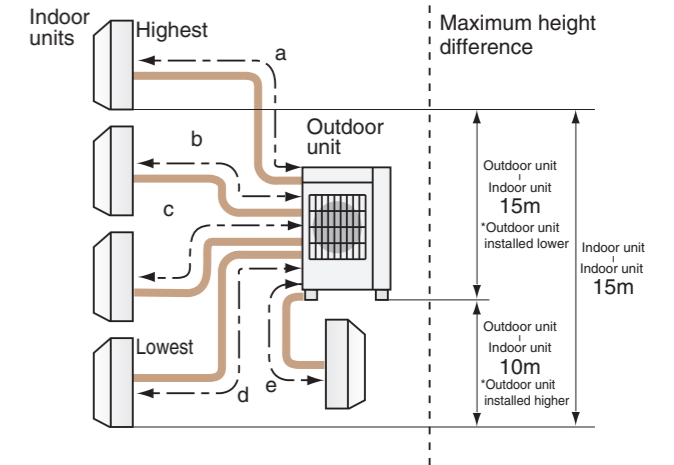


* Only MSZ-HJ and DM model is connectable.

MXZ-5E102VA, MXZ-5F102VA

Maximum Piping Length	
Outdoor unit - Indoor unit (a,b,c,d,e)	25m
Total length (a+b+c+d+e)	80m

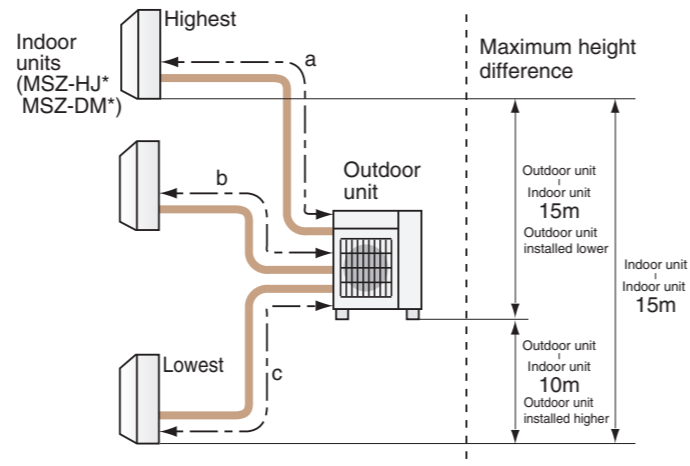
Maximum Number of Bends	
Outdoor unit - Indoor unit (a,b,c,d,e)	25
Total number (a+b+c+d+e)	80



MXZ-3DM50VA, MXZ-3HA50VF

Maximum Piping Length	
Outdoor unit - Indoor unit (a,b,c)	25m
Total length (a+b+c)	50m

Maximum Number of Bends	
Outdoor unit - Indoor unit (a,b,c)	25
Total number (a+b+c)	50

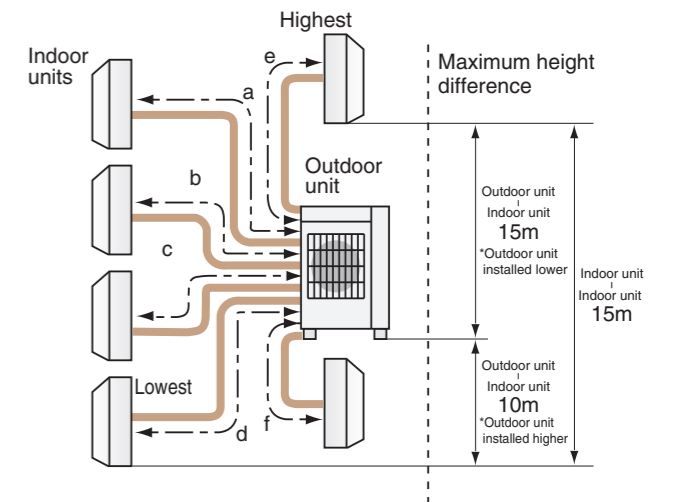


* Only MSZ-HJ and DM model is connectable.

MXZ-6D122VA2, MXZ-6F122VF

Maximum Piping Length	
Outdoor unit - Indoor unit (a,b,c,d,e,f)	25m
Total length (a+b+c+d+e+f)	80m

Maximum Number of Bends	
Outdoor unit - Indoor unit (a,b,c,d,e,f)	25
Total number (a+b+c+d+e+f)	80



MXZ-4E72VA, MXZ-4F72VF3

Maximum Piping Length	
Outdoor unit - Indoor unit (a,b,c,d)	25m
Total length (a+b+c+d)	60m

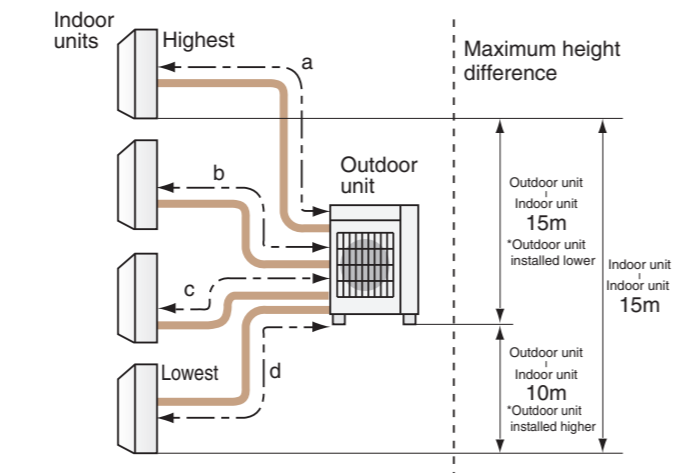
Maximum Number of Bends	
Outdoor unit - Indoor unit (a,b,c,d)	25
Total number (a+b+c+d)	60

* When connecting MFZ-KJ Series indoor unit, additional refrigerant is required. For details, please contact Mitsubishi Electric.

MXZ-4E83VA, MXZ-4E83VAHZ

Maximum Piping Length	
Outdoor unit - Indoor unit (a,b,c,d)	25m
Total length (a+b+c+d)	70m

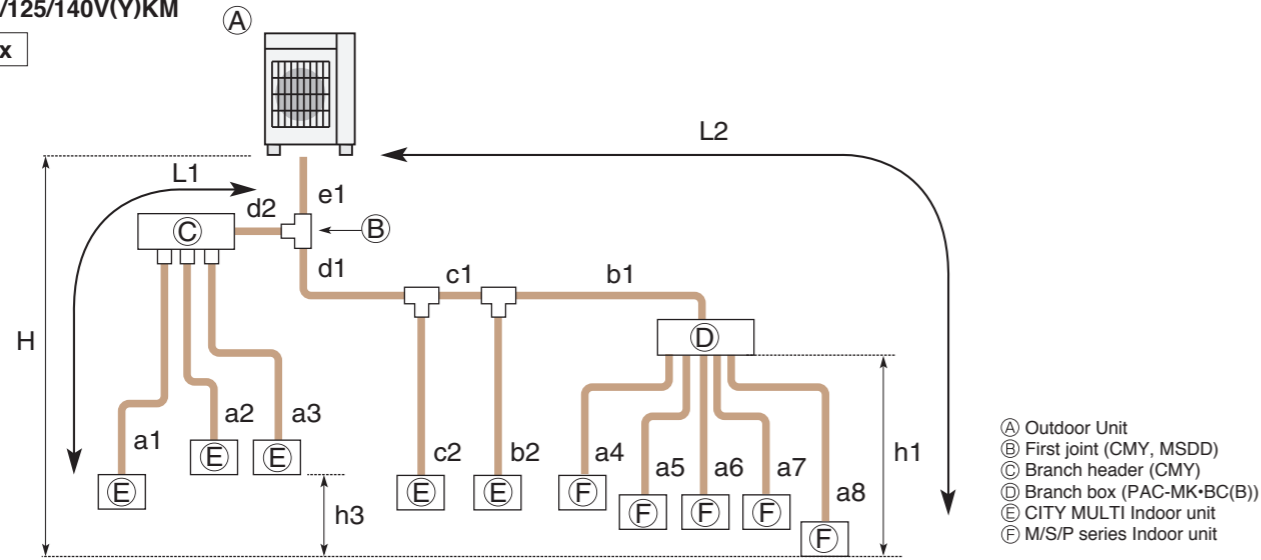
Maximum Number of Bends	
Outdoor unit - Indoor unit (a,b,c,d)	25
Total number (a+b+c+d)	70



PUMY SERIES

PUMY-SP112/125/140V(Y)KM

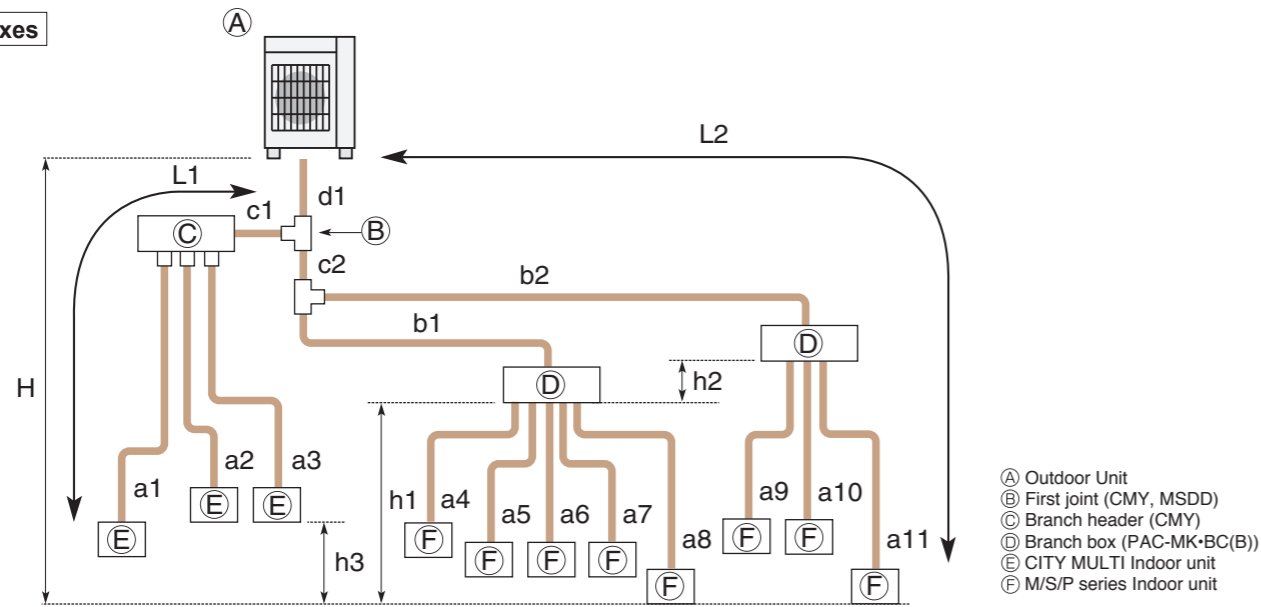
1-Branch box



Permissible length (One-way)	Total piping length	$e1 + d1 + d2 + c1 + c2 + b1 + b2 + a1 + a2 + a3 + a4 + a5 + a6 + a7 + a8 \leq 120 \text{ m}$
	Farthest piping length (L1)	$e1 + d2 + a1 \text{ or } e1 + d1 + c1 + b2 \leq 70 \text{ m}$
	Farthest piping length. Via Branch box (L2)	$e1 + d1 + c1 + b1 + a8 \leq 50 \text{ m}$
	Piping length between outdoor unit and branch box	$e1 + d1 + c1 + b1 \leq 55 \text{ m}$
	Farthest piping length from the first joint	$d1 + c1 + b1 \text{ or } d1 + c1 + b2 \leq 50 \text{ m}$
	Farthest piping length after branch box	$a8 \leq 25 \text{ m}$
	Total piping length between branch boxes and indoor units	$a4 + a5 + a6 + a7 + a8 \leq 95 \text{ m}$
Permissible height difference (One-way)	In indoor/outdoor section (H)*1	$H \leq 50 \text{ m}$ (In case of outdoor unit is set higher than indoor unit) $H \leq 30 \text{ m}$ (In case of outdoor unit is set lower than indoor unit)
	In branch box/indoor unit section (h1)	$h1 \leq 15 \text{ m}$
	In each indoor unit (h3)	$h3 \leq 12 \text{ m}$
Number of bends		$le1 + d2 + a1, le1 + d2 + a2, le1 + d2 + a3, le1 + d1 + c2, le1 + d1 + c1 + b2, le1 + d1 + c1 + b1 + a4, le1 + d1 + c1 + b1 + a5, le1 + d1 + c1 + b1 + a6, le1 + d1 + c1 + b1 + a7, le1 + d1 + c1 + b1 + a8 \leq 15$

*1: Branch box should be placed within the level between the outdoor unit and indoor units.

2-Branch boxes

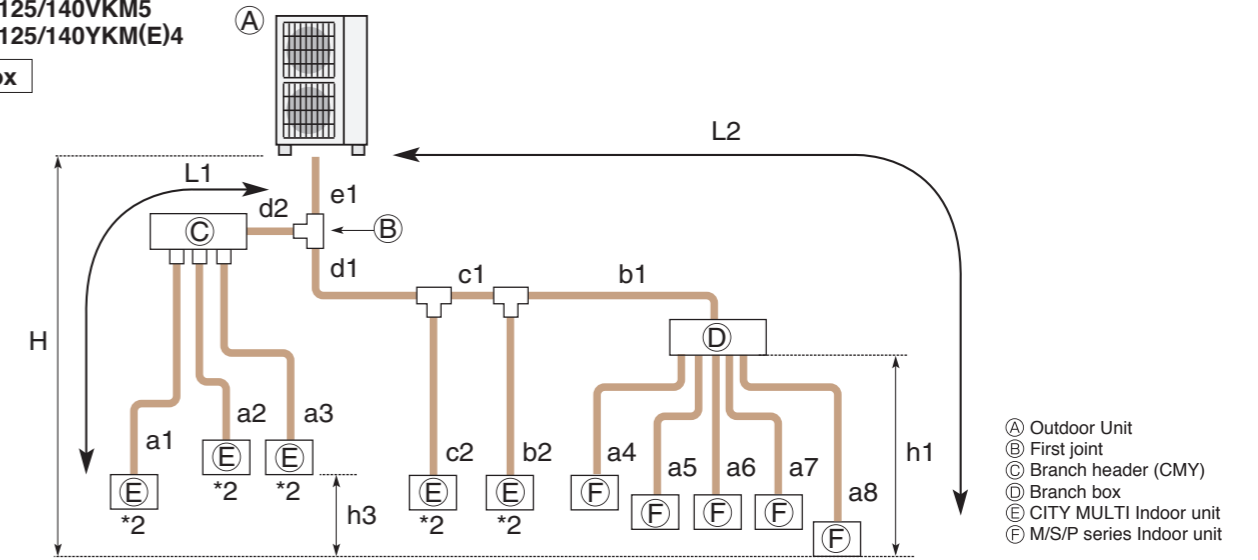


Permissible length (One-way)	Total piping length	$d1 + c1 + c2 + b1 + b2 + a1 + a2 + a3 + a4 + a5 + a6 + a7 + a8 + a9 + a10 + a11 \leq 120 \text{ m}$
	Farthest piping length (L1)	$d1 + c1 + a1 \leq 70 \text{ m}$
	Farthest piping length. Via Branch box (L2)	$d1 + c2 + b2 + a11 \leq 80 \text{ m}$
	Piping length between outdoor unit and branch boxes	$d1 + c2 + b1 + b2 \leq 55 \text{ m}$
	Farthest piping length from the first joint	$c2 + b2 \text{ or } c1 + a1 \leq 50 \text{ m}$
	Farthest piping length after branch box	$a11 \leq 25 \text{ m}$
	Farthest branch box from outdoor unit	$d1 + c2 + b2 \leq 55 \text{ m}$
Total piping length between branch boxes and indoor units	$a4 + a5 + a6 + a7 + a8 + a9 + a10 + a11 \leq 95 \text{ m}$	
Permissible height difference (One-way)	In indoor/outdoor section (H)*1	$H \leq 50 \text{ m}$ (In case of outdoor unit is set higher than indoor unit) $H \leq 30 \text{ m}$ (In case of outdoor unit is set lower than indoor unit)
	In branch box/indoor unit section (h1)	$h1 + h2 \leq 15 \text{ m}$
	In each indoor unit (h3)	$h3 \leq 12 \text{ m}$
Number of bends		$ld1 + c1 + a1, ld1 + c1 + a2, ld1 + c1 + a3, ld1 + c2 + b1 + a4, ld1 + c2 + b1 + a5, ld1 + c2 + b1 + a6, ld1 + c2 + b1 + a7, ld1 + c2 + b1 + a8, ld1 + c2 + b1 + a9, ld1 + c2 + b2 + a10, ld1 + c2 + b2 + a11 \leq 15$

*1: Branch box should be placed within the level between the outdoor unit and indoor units.

PUMY-P112/125/140VKM5
PUMY-P112/125/140YKM(E)4

1-Branch box

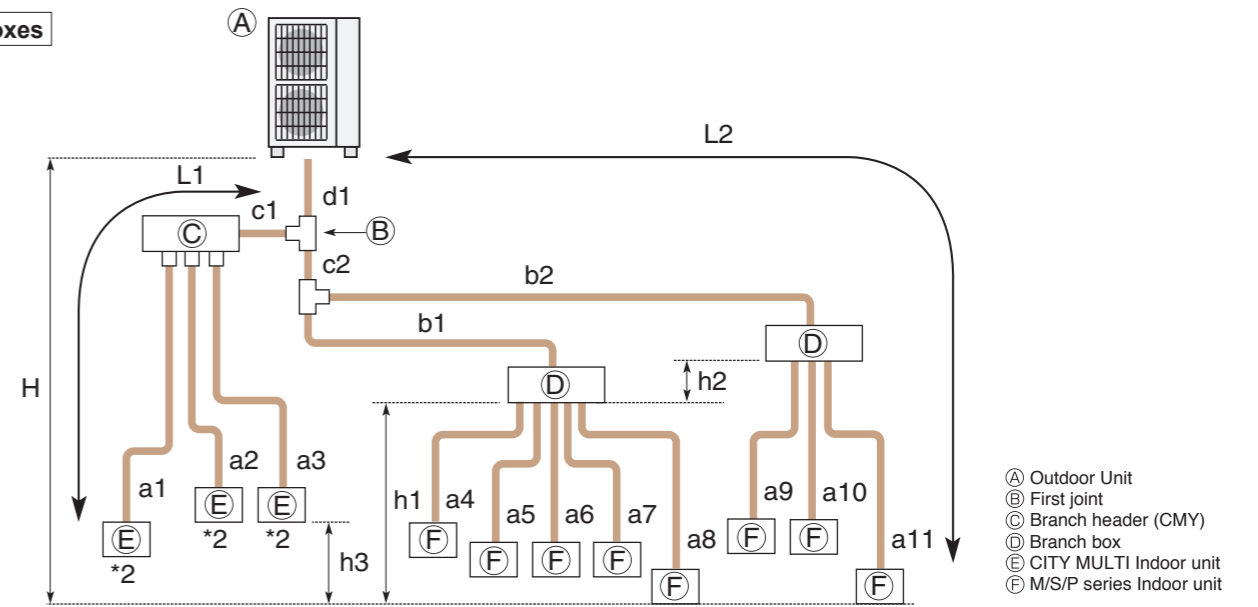


Permissible length (One-way)	Total piping length	$e1 + d1 + d2 + c1 + c2 + b1 + b2 + a1 + a2 + a3 + a4 + a5 + a6 + a7 + a8 \leq 300 \text{ m}$
	Farthest piping length (L1)	$e1 + d2 + a1 \text{ or } e1 + d1 + c1 + b2 \leq 85 \text{ m}$
	Farthest piping length. Via Branch box (L2)	$e1 + d1 + c1 + b1 + a8 \leq 80 \text{ m}$
	Piping length between outdoor unit and branch box	$e1 + d1 + c1 + b1 \leq 55 \text{ m}$
	Farthest piping length from the first joint	$d1 + c1 + b1 \text{ or } d1 + c1 + b2 \leq 30 \text{ m}$
	Farthest piping length after branch box	$a8 \leq 25 \text{ m}$
	Total piping length between branch boxes and indoor units	$a4 + a5 + a6 + a7 + a8 \leq 95 \text{ m}$
Permissible height difference (One-way)	In indoor/outdoor section (H)*1	$H \leq 50 \text{ m}$ (In case of outdoor unit is set higher than indoor unit) $H \leq 40 \text{ m}$ (In case of outdoor unit is set lower than indoor unit)
	In branch box/indoor unit section (h1)	$h1 \leq 15 \text{ m}$
	In each indoor unit (h3)	$h3 \leq 12 \text{ m}$
Number of bends		$le1 + d2 + a1, le1 + d2 + a2, le1 + d2 + a3, le1 + d1 + c2, le1 + d1 + c1 + b2, le1 + d1 + c1 + b1 + a4, le1 + d1 + c1 + b1 + a5, le1 + d1 + c1 + b1 + a6, le1 + d1 + c1 + b1 + a7, le1 + d1 + c1 + b1 + a8 \leq 15$

*1: Branch box should be placed within the level between the outdoor unit and indoor units.

*2: PKFY and PFFY Series cannot be connected.

2-Branch boxes



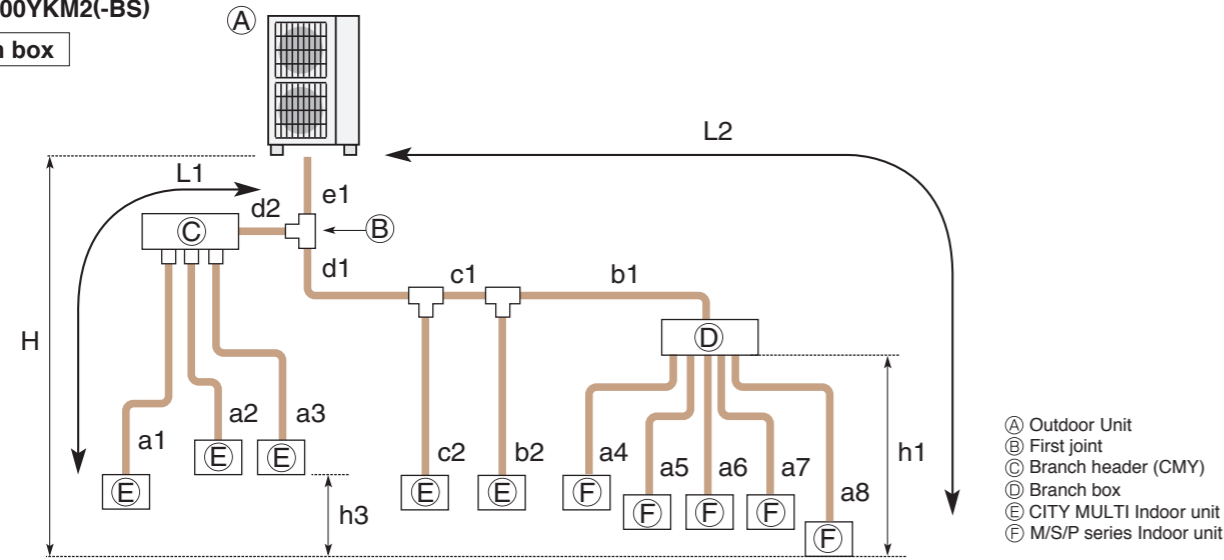
Permissible length (One-way)	Total piping length	$d1 + c1 + c2 + b1 + b2 + a1 + a2 + a3 + a4 + a5 + a6 + a7 + a8 + a9 + a10 + a11 \leq 240 \text{ m}$
	Farthest piping length (L1)	$d1 + c1 + a1 \leq 85 \text{ m}$
	Farthest piping length. Via Branch box (L2)	$d1 + c2 + b2 + a11 \leq 80 \text{ m}$
	Piping length between outdoor unit and branch boxes	$d1 + c2 + b1 + b2 \leq 55 \text{ m}$
	Farthest piping length from the first joint	$c2 + b2 \text{ or } c1 + a1 \leq 30 \text{ m}$
	Farthest piping length after branch box	$a11 \leq 25 \text{ m}$
	Farthest branch box from outdoor unit	$d1 + c2 + b2 \leq 55 \text{ m}$
Total piping length between branch boxes and indoor units	$a4 + a5 + a6 + a7 + a8 + a9 + a10 + a11 \leq 95 \text{ m}$	
Permissible height difference (One-way)	In indoor/outdoor section (H)*1	$H \leq 50 \text{ m}$ (In case of outdoor unit is set higher than indoor unit) $H \leq 40 \text{ m}$ (In case of outdoor unit is set lower than indoor unit)
	In branch box/indoor unit section (h1)	$h1 + h2 \leq 15 \text{ m}$
	In each indoor unit (h3)	$h3 \leq 12 \text{ m}$
Number of bends		$ld1 + c1 + a1, ld1 + c1 + a2, ld1 + c1 + a3, ld1 + c2 + b1 + a4, ld1 + c2 + b1 + a5, ld1 + c2 + b1 + a6, ld1 + c2 + b1 + a7, ld1 + c2 + b1 + a8, ld1 + c2 + b1 + a9, ld1 + c2 + b2 + a10, ld1 + c2 + b2 + a11 \leq 15$

*1: Branch box should be placed within the level between the outdoor unit and indoor units.

*2: PKFY and PFFY Series cannot be connected.

PUMY-P200YKM2(-BS)

1-Branch box



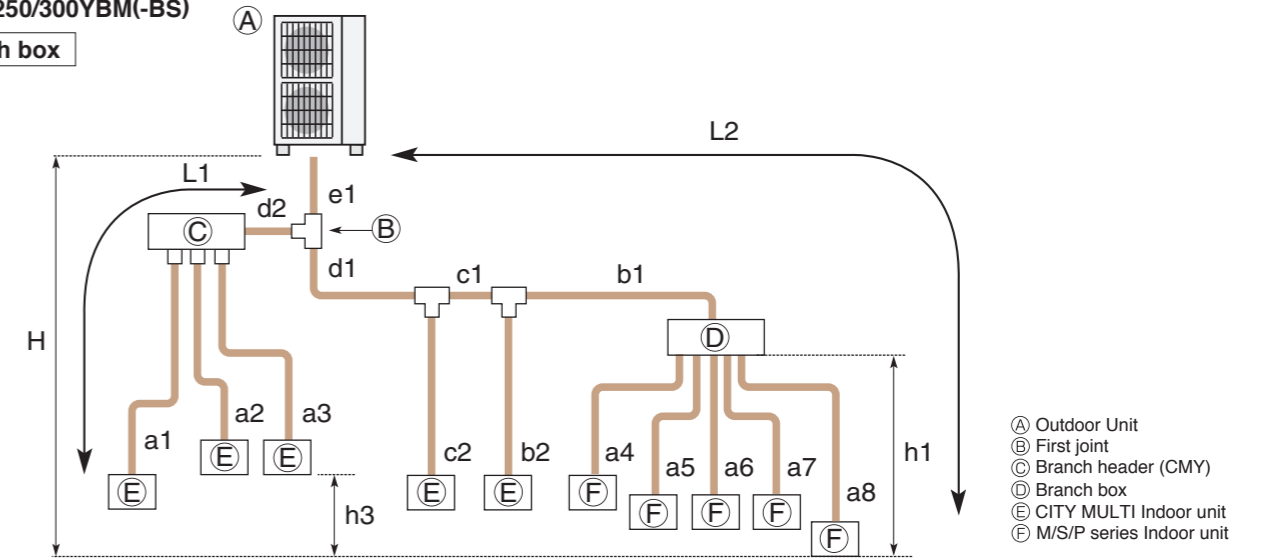
- Ⓐ Outdoor Unit
- Ⓑ First joint
- Ⓒ Branch header (CMY)
- Ⓓ Branch box
- Ⓔ CITY MULTI Indoor unit
- Ⓕ M/S/P series Indoor unit

Permissible length (One-way)	Total piping length	$e1 + d1 + d2 + c1 + c2 + b1 + b2 + a1 + a2 + a3 + a4 + a5 + a6 + a7 + a8 \leq 150 \text{ m}$
	Farthest piping length (L1)	$e1 + d2 + a1 \text{ or } e1 + d1 + c1 + b2 \leq 80 \text{ m}$
	Farthest piping length. Via Branch box (L2)	$e1 + d1 + c1 + b1 + a8 \leq 80 \text{ m}$
	Piping length between outdoor unit and branch box	$e1 + d1 + c1 + b1 \leq 55 \text{ m}$
	Farthest piping length from the first joint	$d1 + c1 + b1 \text{ or } d1 + c1 + b2 \leq 30 \text{ m}$
	Farthest piping length after branch box	$a8 \leq 25 \text{ m}$
	Total piping length between branch boxes and indoor units	$a4 + a5 + a6 + a7 + a8 \leq 95 \text{ m}$
Permissible height difference (One-way)	In indoor/outdoor section (H)*1	$H \leq 50 \text{ m}$ (In case of outdoor unit is set higher than indoor unit) $H \leq 40 \text{ m}$ (In case of outdoor unit is set lower than indoor unit)
	In branch box/indoor unit section (h1)	$h1 \leq 15 \text{ m}$
	In each indoor unit (h3)	$h3 \leq 12 \text{ m}$
Number of bends		$le1 + d2 + a1, le1 + d2 + a2, le1 + d2 + a3, le1 + d1 + c2, le1 + d1 + c1 + b2, le1 + d1 + c1 + b1 + a4, le1 + d1 + c1 + b1 + a5, le1 + d1 + c1 + b1 + a6, le1 + d1 + c1 + b1 + a7, le1 + d1 + c1 + b1 + a8 \leq 15$

*1: Branch box should be placed within the level between the outdoor unit and indoor units.

PUMY-P250/300YBM(-BS)

1-Branch box

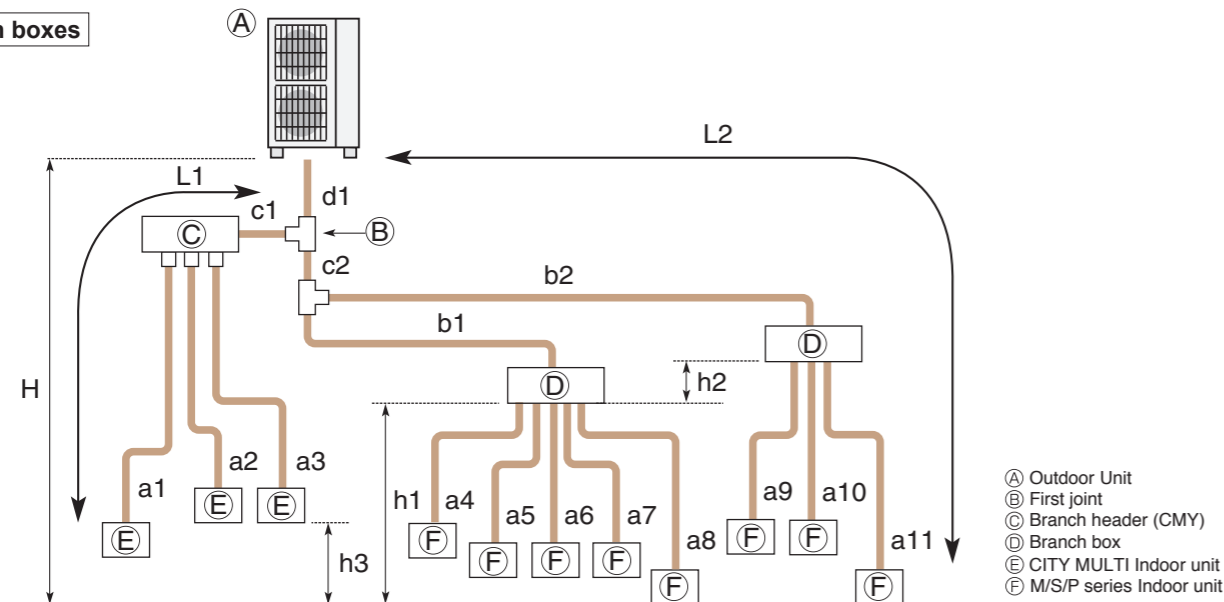


- Ⓐ Outdoor Unit
- Ⓑ First joint
- Ⓒ Branch header (CMY)
- Ⓓ Branch box
- Ⓔ CITY MULTI Indoor unit
- Ⓕ M/S/P series Indoor unit

Permissible length (One-way)	Total piping length	$e1 + d1 + d2 + c1 + c2 + b1 + b2 + a1 + a2 + a3 + a4 + a5 + a6 + a7 + a8 \leq 310 \text{ m}$
	Farthest piping length (L1)	$e1 + d2 + a1 \text{ or } e1 + d1 + c1 + b2 \leq 85 \text{ m}$
	Farthest piping length. Via Branch box (L2)	$e1 + d1 + c1 + b1 + a8 \leq 80 \text{ m}$
	Piping length between outdoor unit and branch box	$e1 + d1 + c1 + b1 \leq 80 \text{ m}$
	Farthest piping length from the first joint	$d1 + c1 + b1 \text{ or } d1 + c1 + b2 \leq 30 \text{ m}$
	Farthest piping length after branch box	$a8 \leq 25 \text{ m}$
	Total piping length between branch boxes and indoor units	$a4 + a5 + a6 + a7 + a8 \leq 145 \text{ m}$
Permissible height difference (One-way)	In indoor/outdoor section (H)*1	$H \leq 50 \text{ m}$ (In case of outdoor unit is set higher than indoor unit) $H \leq 40 \text{ m}$ (In case of outdoor unit is set lower than indoor unit)
	In branch box/indoor unit section (h1)	$h1 \leq 15 \text{ m}$
	In each indoor unit (h3)	$h3 \leq 12 \text{ m}$
Number of bends		$le1 + d2 + a1, le1 + d2 + a2, le1 + d2 + a3, le1 + d1 + c2, le1 + d1 + c1 + b2, le1 + d1 + c1 + b1 + a4, le1 + d1 + c1 + b1 + a5, le1 + d1 + c1 + b1 + a6, le1 + d1 + c1 + b1 + a7, le1 + d1 + c1 + b1 + a8 \leq 23$

*1: Branch box should be placed within the level between the outdoor unit and indoor units.

2-Branch boxes

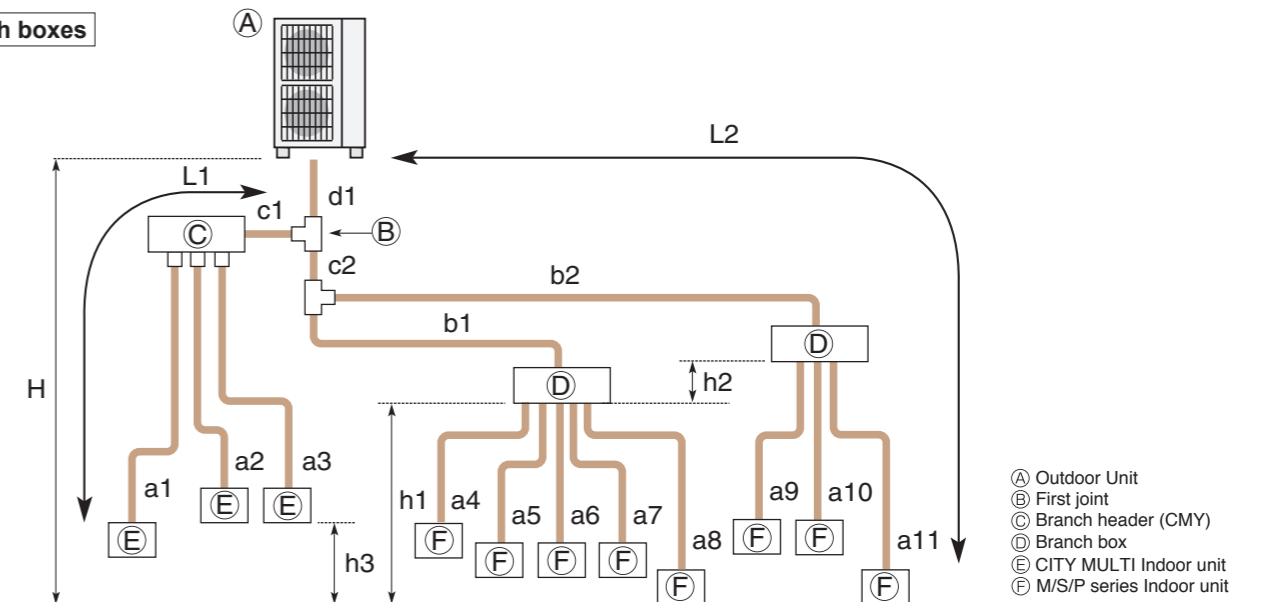


- Ⓐ Outdoor Unit
- Ⓑ First joint
- Ⓒ Branch header (CMY)
- Ⓓ Branch box
- Ⓔ CITY MULTI Indoor unit
- Ⓕ M/S/P series Indoor unit

Permissible length (One-way)	Total piping length	$d1 + c1 + c2 + b1 + b2 + a1 + a2 + a3 + a4 + a5 + a6 + a7 + a8 + a9 + a10 + a11 \leq 150 \text{ m}$
	Farthest piping length (L1)	$d1 + c1 + a1 \leq 80 \text{ m}$
	Farthest piping length. Via Branch box (L2)	$d1 + c2 + b2 + a11 \leq 80 \text{ m}$
	Piping length between outdoor unit and branch boxes	$d1 + c2 + b1 + b2 \leq 55 \text{ m}$
	Farthest piping length from the first joint	$c2 + b2 \text{ or } c1 + a1 \leq 30 \text{ m}$
	Farthest piping length after branch box	$a11 \leq 25 \text{ m}$
	Farthest branch box from outdoor unit	$d1 + c2 + b2 \leq 55 \text{ m}$
Total piping length between branch boxes and indoor units	$a4 + a5 + a6 + a7 + a8 + a9 + a10 + a11 \leq 95 \text{ m}$	
Permissible height difference (One-way)	In indoor/outdoor section (H)*1	$H \leq 50 \text{ m}$ (In case of outdoor unit is set higher than indoor unit) $H \leq 40 \text{ m}$ (In case of outdoor unit is set lower than indoor unit)
	In branch box/indoor unit section (h1)	$h1 + h2 \leq 15 \text{ m}$
	In each branch unit (h2)	$h2 \leq 15 \text{ m}$
	In each indoor unit (h3)	$h3 \leq 12 \text{ m}$
Number of bends		$ld1 + c1 + a1, ld1 + c1 + a2, ld1 + c1 + a3, ld1 + c2 + b1 + a4, ld1 + c2 + b1 + a5, ld1 + c2 + b1 + a6, ld1 + c2 + b1 + a7, ld1 + c2 + b1 + a8, ld1 + c2 + b2 + a9, ld1 + c2 + b2 + a10, ld1 + c2 + b2 + a11 \leq 15$

*1: Branch box should be placed within the level between the outdoor unit and indoor units.

2-Branch boxes

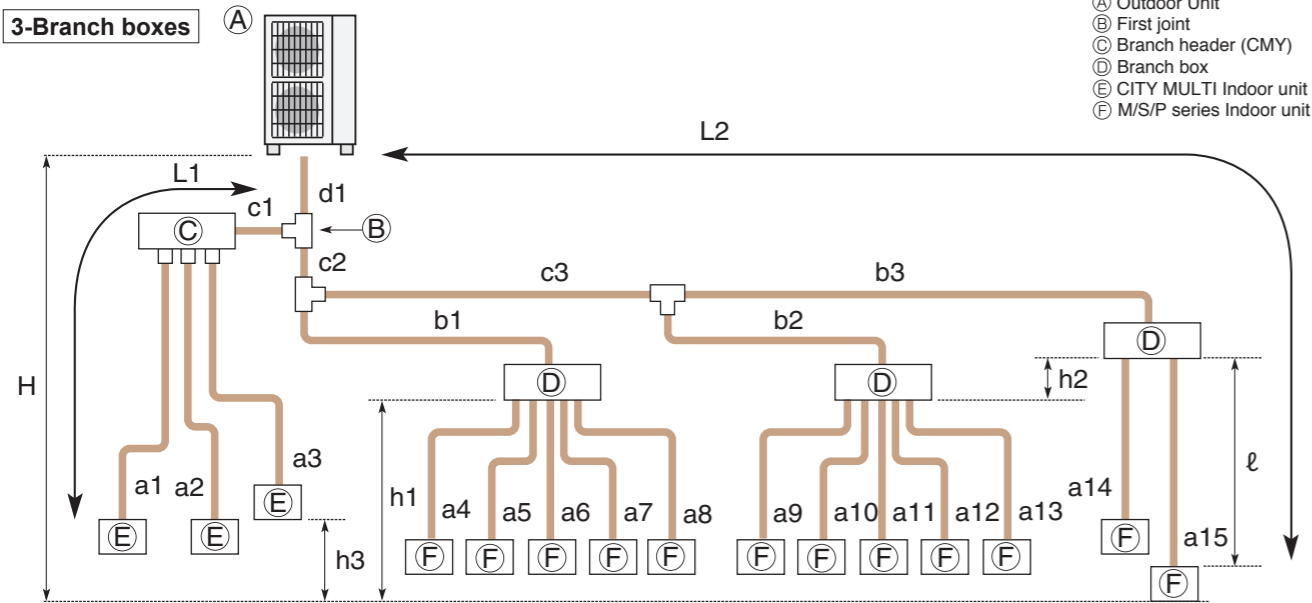


- Ⓐ Outdoor Unit
- Ⓑ First joint
- Ⓒ Branch header (CMY)
- Ⓓ Branch box
- Ⓔ CITY MULTI Indoor unit
- Ⓕ M/S/P series Indoor unit

Permissible length (One-way)	Total piping length	$d1 + c1 + c2 + b1 + b2 + a1 + a2 + a3 + a4 + a5 + a6 + a7 + a8 + a9 + a10 + a11 \leq 310 \text{ m}$
	Farthest piping length (L1)	$d1 + c1 + a1 \leq 85 \text{ m}$
	Farthest piping length. Via Branch box (L2)	$d1 + c2 + b2 + a11 \leq 80 \text{ m}$
	Piping length between outdoor unit and branch boxes	$d1 + c2 + b1 + b2 \leq 95 \text{ m}$
	Farthest piping length from the first joint	$c2 + b2 \text{ or } c1 + a1 \leq 30 \text{ m}$
	Farthest piping length after branch box	$a11 \leq 25 \text{ m}$
	Total piping length between branch boxes and indoor units	$a4 + a5 + a6 + a7 + a8 + a9 + a10 + a11 \leq 145 \text{ m}$
Permissible height difference (One-way)	In indoor/outdoor section (H)*1	$H \leq 50 \text{ m}$ (In case of outdoor unit is set higher than indoor unit) $H \leq 40 \text{ m}$ (In case of outdoor unit is set lower than indoor unit)
	In branch box/indoor unit section	$h1 + h2 \leq 15 \text{ m}$
	In each branch unit (h2)	$h2 \leq 15 \text{ m}$
	In each indoor unit (h3)	$h3 \leq 12 \text{ m}$
Number of bends		$ld1 + c1 + a1, ld1 + c1 + a2, ld1 + c1 + a3, ld1 + c2 + b1 + a4, ld1 + c2 + b1 + a5, ld1 + c2 + b1 + a6, ld1 + c2 + b1 + a7, ld1 + c2 + b1 + a8, ld1 + c2 + b2 + a9, ld1 + c2 + b2 + a10, ld1 + c2 + b2 + a11 \leq 23$

*1: Branch box should be placed within the level between the outdoor unit and indoor units.

3-Branch boxes



- A Outdoor Unit
- B First joint
- C Branch header (CMY)
- D Branch box
- E CITY MULTI Indoor unit
- F M/S/P series Indoor unit

Permissible length (One-way)	Total piping length	$d1 + c1 + c2 + c3 + b1 + b2 + b3 + a1 + a2 + a3 + a4 + a5 + a6 + a7 + a8 + a9 + a10 + a11 + a12 + a13 + a14 + a15 \leq 310 \text{ m}$
	Farthest piping length (L1)	$d1 + c1 + a1 \leq 85 \text{ m}$
	Farthest piping length. Via Branch box (L2)	$d1 + c2 + c3 + b3 + a15 \leq 80 \text{ m}$
	Piping length between outdoor unit and branch boxes	$d1 + c2 + c3 + b1 + b2 + b3 \leq 95 \text{ m}$
	Farthest piping length from the first joint	$c2 + c3 + b3 \text{ or } c1 + a1 \leq 30 \text{ m}$
	Farthest piping length after branch box (ℓ)	$a15 \leq 25 \text{ m}$
	Total piping length between branch boxes and indoor units	$a4 + a5 + a6 + a7 + a8 + a9 + a10 + a11 + a12 + a13 + a14 + a15 \leq 145 \text{ m}$
Permissible height difference (One-way)	In indoor/outdoor section (H)*1	$H \leq 50 \text{ m}$ (In case of outdoor unit is set higher than indoor unit) $H \leq 40 \text{ m}$ (In case of outdoor unit is set lower than indoor unit)
	In branch box/indoor unit section	$h1 + h2 \leq 15 \text{ m}$
	In each branch unit (h2)	$h2 \leq 15 \text{ m}$
	In each indoor unit (h3)	$h3 \leq 12 \text{ m}$
Number of bends	$ d1 + c1 + a1 , d1 + c1 + a2 , d1 + c1 + a3 ,$ $ d1 + c2 + b1 + a4 , d1 + c2 + b1 + a5 , d1 + c2 + b1 + a6 , d1 + c2 + b1 + a7 ,$ $ d1 + c2 + b1 + a8 , d1 + c2 + c3 + b2 + a9 , d1 + c2 + c3 + b2 + a10 ,$ $ d1 + c2 + c3 + b2 + a11 , d1 + c2 + c3 + b2 + a12 , d1 + c2 + c3 + b2 + a13 ,$ $ d1 + c2 + c3 + b3 + a14 , d1 + c2 + c3 + b3 + a15 \leq 23$	

*1: Branch box should be placed within the level between the outdoor unit and indoor units.

Explanation of Terminology

Maximum piping length:

This is the **maximum allowable length of the refrigerant piping**. The amount of refrigerant pipe used cannot be longer than the length specified.

Total length:

The maximum allowable combined length of all the refrigerant piping between the outdoor unit and indoor unit(s).

Outdoor Unit - Indoor Unit:

The maximum allowable length of the refrigerant piping between the outdoor unit and indoor units installed when multiple units are connected to a single outdoor unit. This distance limitation refers to the maximum length between the outdoor unit and the farthest indoor unit.

Pipe length difference from distribution pipe:

The maximum allowable difference in refrigerant piping length from the distribution pipe to the farthest indoor unit and from the distribution pipe to the closest indoor unit when multiple indoor units are connected to a single outdoor unit using a distribution pipe.

Indoor Unit - Distribution Pipe:

The maximum allowable length of the refrigerant piping between indoor units and the distribution pipe when multiple indoor units are connected to a single outdoor unit.

Maximum height difference:

This is the **maximum allowable height difference**. It is necessary to install the air conditioning system so that the height distance is no more than the difference specified. (Specified differences may vary if the outdoor unit is installed higher or lower than the indoor units).

Outdoor unit - Indoor unit:

The maximum allowable difference in height between the outdoor unit and indoor units when installed (when multiple indoor units are connected to a single outdoor unit, this distance limitation refers to the maximum height difference between the outdoor unit and an indoor unit).

Indoor unit - Indoor unit:

The maximum allowable difference between the heights of indoor units when multiple indoor units are connected to a single outdoor unit.

Maximum number of bends:

This is the **maximum allowable number of bends in the refrigerant piping**. The total number of bends in the refrigerant piping used cannot exceed the number specified.

Total number:

The maximum allowable number of bends for all refrigerant piping between the outdoor unit and indoor units.

Outdoor unit - Indoor unit:

The maximum allowable number of bends between the outdoor unit and each indoor unit when multiple indoor units are connected to a single outdoor unit.

Conditions for specifications

Temperature conditions are based on JIS B8616.

Cooling	Indoor	27°C DB, 19°C WB
	Outdoor	35°C DB, 24°C WB
Heating	Indoor	20°C DB
	Outdoor	7°C DB, 6°C WB

Refrigerant piping length ; 5m

The figures for total input are based on the following voltages.

Series	Indoor unit	Outdoor unit
M Series		
S Series		
P Series (except for PEA)		
MXZ Series		
POWERFUL HEATING Series		
PEA Series	400V/Three phase/50Hz	400V/Three phase/50Hz

Sound pressure level

- The sound pressure measurement is conducted in an anechoic chamber.
- The actual sound level depends on the distance from the unit and the acoustic environment.

How to read a model name

1) M & S Series

M	M : M Series S : S Series
S	"S"= Wall-mounted , "F"= Compact floor-standing , "E"= Compact ceiling-concealed , "L"= 4- or 1-way cassette , "U"= Outdoor unit
Z	"Z"= Inverter heat pump , "H"= Fixed-speed heat pump , "blank"= Cooling only of Non-inverter , "Y"= Cooling only of inverter
-	
F	Series
H	Generation
25	Rated cooling capacity (kW base)
V	230V / Single phase / 50Hz
E	"A"= R410A with new A control , "B"= R410A with conventional control , "E"= R410A with new A control & ErP correspondance , "G"=R32 with new A control & ErP correspondance , "F"= R32 with new A control
HZ	"HZ"= Hyper Heating model , "H"= Anti-freeze heater equipped model , "S"= Silver indoor unit , "W"= White/Natural White indoor unit , "B"= Black/Onyx Black indoor unit , "V"= Pearl White indoor unit , "R"= Ruby Red indoor unit

2) P Series

P	P Series
U	"K"= Wall-mounted , "S"= Floor-standing , "L"= 4-way cassette , "E"= Ceiling-concealed , "C"= Ceiling-suspended , "U"= Outdoor unit
H	"H"= For heating and cooling
Z	"Z"= Inverter
-	

ZM/M/ZRP/PP "ZM"= R32 Eco-conscious Power Inverter , "M"= R32 &R410A

"ZRP"/"PP"= R410A & cleaning-free pipe reuse , "P"=R410A
SHW "SH"= Powerful heating ZUBADAN , "W"= can be used as air to water application

71	Rated cooling capacity (kW base)
V	"V"= 230V / Single phase / 50Hz , "Y"= 400V / Three phase / 50Hz
H	Generation
A	"A"= A control

3) MXZ Series

M	M Series
X	Multi-system outdoor unit (heat pump)
Z	Inverter heat pump
-	
4	Maximum number of connectable indoor units
D/E/F/HJ/DM	Generation / Type
72	Rated cooling capacity (kW base)
V	"V"= 230V / Single phase / 50Hz
A	"A"= R410A with new A control
HZ	"HZ"= Hyper Heating model , "H"= Anti-freeze heater equipped model

Refrigerant Amount

M/S/P/Multi/Zubadan/ATW

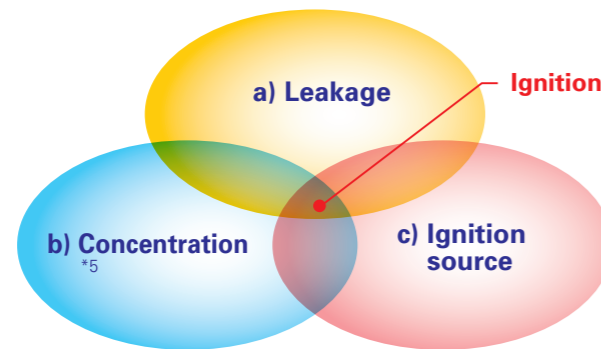
Model Name	Refrigerant	Pre-charged quantity		Max. added quantity		
		GWP	Weight (kg)	CO ₂ equivalent (t)	Weight (kg)	CO ₂ equivalent (t)
MUZ-RW25VG	R32	675	1.20	0.81	1.40	0.95
MUZ-RW35VG	R32	675	1.10	0.74	1.30	0.88
MUZ-RW50VG	R32	675	1.21	0.82	1.51	1.02
MUZ-LN25VG	R32	675	1.00	0.68	0.26	0.18
MUZ-LN25VG2	R32	675	0.8	0.54	0.20	0.135
MUZ-LN35VG	R32	675	1.00	0.68	0.26	0.18
MUZ-LN35VG2	R32	675	0.85	0.57	0.20	0.14
MUZ-LN50VG	R32	675	1.25	0.85	0.26	0.18
MUZ-LN50VG2	R32	675	1.25	0.85	0.10	0.07
MUZ-LN60VG	R32	675	1.45	0.98	0.46	0.32
MUZ-LN25VGHZ	R32	675	1.00	0.68	0.26	0.18
MUZ-LN35VGHZ	R32	675	1.00	0.68	0.26	0.18
MUZ-LN50VGHZ	R32	675	1.45	0.98	0.46	0.32
MUZ-FT25VGHZ	R32	675	0.85	0.58	0.25	0.17
MUZ-FT35VGHZ	R32	675	0.95	0.65	0.45	0.31
MUZ-FT50VGHZ	R32	675	0.95	0.65	0.45	0.31
MUZ-AP15VG	R32	675	0.49	0.34	0.26	0.18
MUZ-AP20VG	R32	675	0.55	0.37	0.26	0.18
MUZ-AP25VG	R32	675	0.55	0.37	0.26	0.18
MUZ-AP35VG	R32	675	0.55	0.37	0.26	0.18
MUZ-AP42VG	R32	675	0.70	0.47	0.26	0.18
MUZ-AP50VG	R32	675	1.00	0.68	0.26	0.18
MUZ-AP60VG	R32	675	1.05	0.71	0.30	0.20
MUZ-AP71VG	R32	675	1.50	1.02	0.30	0.20
MUZ-AP25VGH	R32	675	0.55	0.37	0.26	0.18
MUZ-AP35VGH	R32	675	0.55	0.37	0.26	0.18
MUZ-AP42VGH	R32	675	0.70	0.47	0.26	0.18
MUZ-AP50VGH	R32	675	1.00	0.68	0.26	0.18
MUZ-EF25VGH(H)	R32	675	0.62	0.42	0.26	0.18
MUZ-EF35VGH(H)	R32	675	0.74	0.50	0.26	0.18
MUZ-EF42VG	R32	675	0.74	0.50	0.26	0.18
MUZ-EF50VG	R32	675	1.05	0.71	0.46	0.32
MUZ-BT20VG	R32	675	0.45	0.30	0.26	0.18
MUZ-BT25VG	R32	675	0.50	0.34	0.26	0.18
MUZ-BT35VG	R32	675	0.50	0.34	0.26	0.18
MUZ-BT50VG	R32	675	0.70	0.47	0.26	0.18
MUZ-HR25VF	R32	675	0.40	0.27	0.26	0.18
MUZ-HR35VF	R32	675	0.45	0.30	0.26	0.18
MUZ-HR42VF	R32	675	0.70	0.47	0.26	0.18
MUZ-HR50VF	R32	675	0.80	0.54	0.26	0.18
MUZ-HR60VF	R32	675	1.05	0.71	0.46	0.32
MUZ-HR71VF	R32	675	1.05	0.71	0.46	0.32
MUZ-DW25VG	R32	675	0.50	0.34	0.25	0.17
MUZ-DW35VG	R32	675	0.55	0.38	0.25	0.17
MUZ-DW50VG	R32	675	0.97	0.66	0.25	0.17
MUY-TP35VF	R410A	2088	0.85	0.57	0.13	0.09
MUY-TP50VF	R410A	2088	0.85	0.57	0.13	0.09
MUZ-FH25VE	R410A	2088	1.15	2.41	0.39	0.82
MUZ-FH35VE	R410A	2088	1.15	2.41	0.39	0.82
MUZ-FH50VE	R410A	2088	1.55	3.24	0.46	0.97
MUZ-FH25VEHZ	R410A	2088	1.15	2.41	0.39	0.82
MUZ-FH35VEHZ	R410A	2088	1.15	2.41	0.39	0.82
MUZ-FH50VEHZ	R410A	2088	1.55	3.24	0.46	0.97
MUZ-SF25VE(H)	R410A	2088	0.70	1.47	0.39	0.82
MUZ-SF35VE(H)	R410A	2088	0.80	1.68	0.39	0.82
MUZ-SF42VE(H)	R410A	2088	1.15	2.41	0.39	0.82
MUZ-SF50VE(H)	R410A	2088	1.55	3.24	0.46	0.97
MUZ-GF60VE	R410A	2088	1.55	3.24	0.40	0.84
MUZ-GF71VE	R410A	2088	1.90	3.97	1.10	2.30
MUZ-WN25VA	R410A	2088	0.70	1.47	0.26	0.55
MUZ-WN35VA	R410A	2088	0.70	1.47	0.26	0.55
MUZ-DM25VA	R410A	2088	0.70	1.47	0.26	0.55
MUZ-DM35VA	R410A	2088	0.72	1.51	0.26	0.55
MUZ-HJ25VA	R410A	2088	0.70	1.47	0.26	0.55
MUZ-HJ35VA	R410A	2088	0.72	1.51	0.26	0.55
MUZ-HJ50VA	R410A	2088	1.15	2.41	0.26	0.55
MUZ-HJ60VA	R410A	2088	1.80	3.76	0.46	0.97
MUZ-HJ71VA	R410A	2088	1.80	3.76	0.46	0.97
MUFZ-KW25VGHZ	R32	675	1.0	0.68	1.26	0.86
MUFZ-KW35VGHZ	R32	675	1.0	0.68	1.26	0.86
MUFZ-KW50VGHZ	R32	675	1.3	0.88	1.76	1.19
MUFZ-KW60VGHZ	R32	675	1.3	0.88	1.76	1.19
MXZ-2D33VA	R410A	2088	1.15	2.72	0.0	0.00
MXZ-2D42VA2	R410A	2088	1.3	2.72	0.2	0.42
MXZ-2D53VA(H)2	R410A	2088	1.3	2.72	0.2	0.42
MXZ-3E54VA	R410A	2088	2.7	5.64	0.2	0.42
MXZ-3E68VA	R410A	2088	2.7	5.64	0.4	0.84
MXZ-4E72VA	R410A	2088	2.7	5.64	0.4	0.84
MXZ-4E83VA	R410A	2088	2.99	6.25	0.9	1.88
MXZ-5E102VA	R410A	2088	2.99	6.25	1.6	3.35
MXZ-6D122VA	R410A	2088	4.0	8.36	1.0	2.09
MXZ-2F33VF3	R32	675	0.8	0.54	0.8	0.54
MXZ-2F42VF3	R32	675	1.0	0.675	1.0	0.675
MXZ-2F53VF(H)3	R32	675	1.0	0.675	1.0	0.675
MXZ-3F54VF3	R32	675	2.4	1.62	0	0
MXZ-3F68VF3	R32	675	2.4	1.62	0	0
MXZ-4F72VF3	R32	675	2.4	1.62	0	0
MXZ-4F80VF3	R32	675	2.4	1.62	0	0
MXZ-4F83VF	R32	675	2.4	1.62	0	0
MXZ-5F102VF	R32	675	2.4	1.62	0	0
MXZ-6F122VF	R32	675	2.4	1.62	0	0
MXZ-2F53VFHZ	R32	675	2.4	1.62	0	0
MXZ-4F83VFHZ	R32	675	2.4	1.62	0	0
MXZ-2E53VAHZ	R410A	2088	2.0	4.18	0.2	0.42
MXZ-4E83VAHZ	R410A	2088	3.9	8.15	0.9	1.88
MXZ-2DM40VA	R410A	2088	0.95	1.99	0.2	0.42
MXZ-3DM50VA	R410A	2088	2.7	5.64	0.2	0.42
MXZ-2HA40VF	R32	675	0.9	0.61	0.9	0.61
MXZ-2HA50VF	R32	675	0.9	0.61	0.9	0.61
MXZ-3HA50VF	R32	675	1.4	0.95	1.6	1.08

Model Name	Refrigerant	Pre-charged quantity		Max. added quantity		
		GWP	Weight (kg)	CO ₂ equivalent (t)	Weight (kg)	CO ₂ equivalent (t)
SUZ-M25VA	R32	675	0.65	0.44	0.26	0.18
SUZ-M35VA	R32	675	0.90	0.61	0.26	0.18
SUZ-M50VA	R32	675	1.20	0.81	0.46	0.31
SUZ-M60VA	R32	675	1.25	0.84	0.46	0.31
SUZ-M71VA	R32	675	1.45	0.98	0.92	0.62
SUZ-KA25VA6	R410A	2088	0.80	1.68	0.39	0.82
SUZ-KA35VA6	R410A	2088	1.15	2.41	0.39	0.82
SUZ-KA50VA6	R410A	2088	1.60	3.35	0.46	0.97
SUZ-KA80VA6	R410A	2088	1.60	3.35	0.46	0.97
SUZ-KA71VA6	R410A	2088	1.80	3.76	1.265	2.65
PUZ-ZM35VKA2	R32	675	2.0	1.35	0.3	0.20
SUZ-ZM50VKA2	R32	675	2.0	1.35	0.3	0.20
PUZ-ZM60VHA2	R32	675	2.8	1.89	0.8	0.54
PUZ-ZM71VHA2	R32	675	2.8	1.89	0.8	0.54
PUZ-ZM100VKA2	R32	675	3.6	2.43	2.4	1.62
PUZ-ZM100YKA2	R32	675	3.6	2.43	2.4	1.62
PUZ-ZM125VKA2	R32	675	3.6	2.43	2.4	1.62
PUZ-ZM125YKA2	R32	675	3.6	2.43	2.4	1.62
PUZ-ZM140VKA2	R32	675	3.6	2.43	2.4	1.62
PUZ-ZM200YKA2	R32	675	6.3	4.25	9.2	6.21
PUZ-ZM250YKA2	R32	675	6.8	4.59	9.2	6.21
PUHZ-ZRP35VKA2	R410A	2088	2.2	4.60	0.4	0.84
PUHZ-ZRP50VKA2	R410A	2088	2.4	5.02	0.4	0.84
PUHZ-ZRP60VHA2	R410A	2088	3.5	7.31	1.2	2.51
PUHZ-ZRP71VHA2	R410A	2088	3.5	7.31	1.2	2.51
PUHZ-ZRP100VKA3	R410A	2088	5.0	10.44	2.4	5.02
PUHZ-ZRP100YKA3	R410A	2088	5.0	10.44	2.4	5.02
PUHZ-ZRP125VKA3	R410A	2088	5.0	10.44	2.4	5.02
PUHZ-ZRP125YKA3	R410A	2088	5.0	10.44	2.4	5.02
PUHZ-ZRP140VKA3	R410A	2088	5.0	10.44	2.4	5.02
PUHZ-ZRP140YKA3	R410A	2088	5.0	10.44	2.4	5.02
PUHZ-ZRP200YKA3	R410A	2088	7.1	14.83	3.6	7.52
PUHZ-ZRP250YKA3	R410A	2088	7.7	16.08	4.8	10.03
PUZ-M100VKA2	R32	675	3.1	2.1	1.0	0.7
PUZ-M100YKA2	R32	675	3.1	2.1	1.0	0.7
PUZ-M125VKA2	R32	675	3.6	2.4	1.4	0.95
PUZ-M125YKA2	R32	675	3.6	2.4	1.4	0.95
PUZ-M140VKA2	R32	675	3.6	2.4	1.4	0.95
PUZ-M140YKA2	R32	675	3.6	2.4	1.4	0.95
PUZ-M200YKA2	R32	675	5.6	3.78	1.6	1.08
PUZ-M250YKA2	R32	675	6.8	4.59	2.4	1.62
PUHZ-P100VKA	R4					

R32 REFRIGERANT

R32 REFRIGERANT PROPERTIES

Under the conditions shown below, there is a possibility that R32 could ignite.



	R32	R410A	R22
Chemical formula	CH ₂ F ₂	CH ₂ F ₂ /CHF ₂ CF ₃	CHClF ₂
Composition (blend ratio wt. %)	Single composition	R32/R125 (50/50 wt %)	Single composition
Ozone depletion potential (ODP)	0	0	0.055
Global warming potential (GWP) *1	675	2088	1810
LFL(vol.%) *2	13.3	-	-
UFL(vol.%) *3	29.3	-	-
Flammability *4	Lower flammability (2L)	No flame propagation (1)	No flame propagation (1)

- *1 IPCC 4th assessment report.
- *2 LFL : Lower flammable limit
- *3 UFL : Upper flammable limit
- *4 ISO 817:2014
- *5 R32 consistency is higher than LFL^{*1} and lower than UFL^{*2}.

Although R32 is classified as low flammability, the possibility of igniting can be eliminated by ensuring the following three points.

a) Do not leak refrigerant.

- <Installation> -Vacuum drying should be done. Air purging is prohibited.
- Follow "4. Installation Points of Refrigerant Piping Work".
- <Repair/Relocation/Removal> -Pump down or recovering refrigerant should be done.

b) Prevent concentration.

- Ventilate during installation and servicing, such as open the door or window and use a fan.
- Follow "2. Installation Restrictions".

c) Keep ignition source away from the unit.

- Do not braze pipe and unit which contain refrigerant. Before brazing, refrigerant should be recovered.
- Do not install unit while the electricity is turned on. Turn off electricity at the fuse box and check the wiring using a tester.
- Do not smoke when working or during transportation of the product.

Note Both R32 / R410A emit a toxic gas when coming into contact with an open flame.

INSTALLATION RESTRICTIONS

In order to prevent the refrigerant from igniting, use the following instructions during installation.

1) Indoor Units

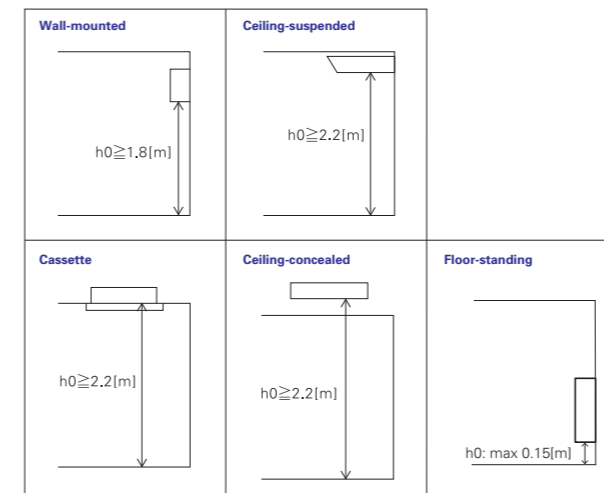
Install in a room with a floor area of Amin* or more, corresponding to refrigerant quantity M.

(M = factory-charged refrigerant + locally added refrigerant)

Install the indoor unit so that the height from the floor to the bottom of the indoor unit is hO*.

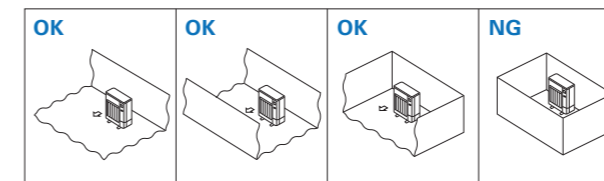
* Refer to table and drawings below.

<M Series>		<P Series>		<MXZ Series>		<Only for MFZ-KT/KW>	
M[kg]	Amin[m ²]	M[kg]	Amin[m ²]	M[kg]	Amin[m ²]	M[kg]	Amin[m ²]
0.7	1.7	1.0	4	1.0	3	1.00	No requirements
0.8	2.0	1.5	6	1.5	4.5	1.50	
0.9	2.2	2.0	8	2.0	6	1.80	
1.0	2.5	2.5	10	2.5	7.5	1.84	3.63
1.1	2.7	3.0	12	3.0	9	1.90	3.75
1.2	3.0	3.5	14	3.5	12	2.00	3.95
1.3	3.2	4.0	16	4.0	15.5	2.10	4.15
1.4	3.4	4.5	20	4.5	20	2.20	4.34
1.5	3.7	5.0	24	5.0	24	2.30	4.54
1.6	3.9	5.5	29	5.5	29	2.40	4.74
1.7	4.2	6.0	35	6.0	35		
1.8	4.4	6.5	41	6.5	41		
1.9	4.6	7.0	47	7.0	47		
2.0	4.9	7.5	54	7.5	54		



2) Outdoor Units

Install outdoor units in a place where at least one of the four sides is open or in a sufficiently large space without depressions.



If you unavoidably install a unit in a space where all four sides are blocked or there are depressions, confirm that one of these situations (A, B or C) is satisfied.

Note These countermeasures (A, B or C) are for keeping safety not for specification guarantee.

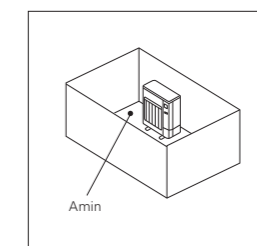
● Models with R32 Refrigerant: MSZ-L Series (single connection)

A Secure sufficient installation space (minimum installation area Amin).

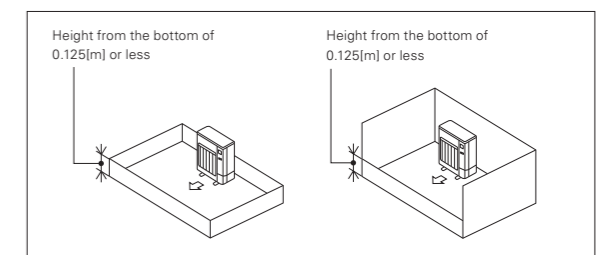
Install in a space with an installation area of Amin* or more, corresponding to refrigerant quantity M. (M = factory-charged refrigerant + locally added refrigerant)

* Refer to table and drawings below.

M[kg]	Amin[m ²]
1.0	12
1.5	17
2.0	23
2.5	28
3.0	34
3.5	39
4.0	45
4.5	50
5.0	56
5.5	62
6.0	67
6.5	73
7.0	78
7.5	84

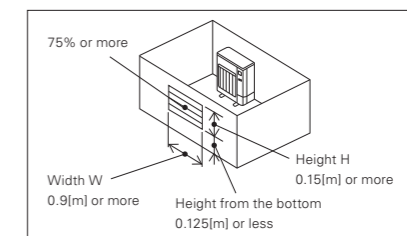


B Install in a space with a depression height of ≤0.125[m].

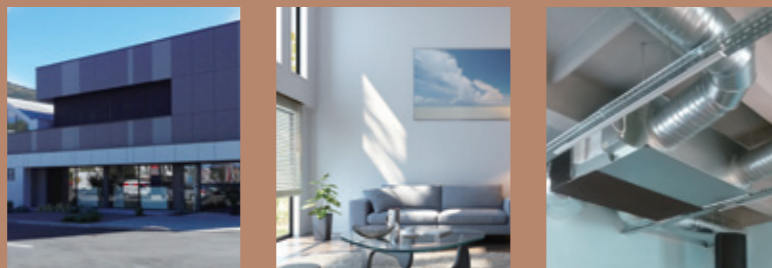


C Create an appropriate open ventilation area.

Make sure that the width of the open area is 0.9[m] or more and the height of the open area is 0.15[m] or more. However, the height from the bottom of the installation space to the bottom edge of the open area should be 0.125[m] or less. More than 75% of the ventilation area should be open to allow air circulation.

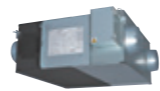











LOSSNAY SYSTEM



SELECTION

Lossnay lineup consists of two types of ventilation: Energy Recovery Ventilation (ERV) and Heat Recovery Ventilation (HRV). Choose the model that best matches your building layout and indoor environment.

PRODUCT LINEUP			
Lossnay			
Energy Recovery Ventilation	Heat Recovery Ventilation		Energy Recovery Ventilation
Centralized Ventilation			Decentralized Ventilation
Ceiling Concealed		Vertical Type	Wall mounted Type
LGH-RVX Series A commercially oriented system that can be used to deliver high performance and functions virtually anywhere. 	LGH-RVS Series Sensible heat models of the LGH series that can also be installed in sanitary areas. 	VL-CZPVU Series Vertical type for residential use. Centralized ventilation with sensible heat exchange. 	VL-100(E)U5-E Wall mounted models. Particularly suitable for houses and small offices.  VL-50(E)S2-E VL-50SR2-E 
LGH-RVXT Series Thin, large airflow models of the LGH series that deliver high performance and functions. 			
GUF Series (Lossnay with Dx-Coil Unit) Heat recovery units with a heating and cooling system that uses the City Multi outdoor units as a heat source. 			
		Dx-coil unit	Remote controller
		For Lossnay LGH-RVX/RVXT Series	For LGH-RVX/RVXT/RVS Series
		GUG Series Temperature control equipment that works with Lossnay units and Mr.Slim outdoor units. 	PZ-62DR-EA/EB  PZ-43SMF-E 

LOSSNAY LINEUP

Application	Model	Airflow	Airflow												
			50 CMH	100 CMH	150 CMH	250 CMH	350 CMH	500 CMH	650 CMH	800 CMH	1000 CMH	1500 CMH	2000 CMH	2500 CMH	
Centralized Ventilation	Ceiling Concealed	LGH-RVX Series			●	●	●	●	●	●	●	●			
		LGH-RVXT Series										●	●	●	
		LGH-RVS Series						●		●	●				
		GUF Series						●			●				
		GUG Series (Dx-coil unit for Lossnay LGH-RVX/RVXT Series)						●	●	●	●	●	●	●	●
	Vertical Type	VL-CZPVU Series				●	●	●							
Decentralized Ventilation	Wall mounted Type	VL-100(E)U5-E		●											
		VL-50(E)S2-E	●												
		VL-50SR2-E	●												

Commercial Use Lossnay

Mitsubishi Electric offers Energy Recovery Ventilation and Heat Recovery Ventilation solutions for optimizing building air quality by Lossnay

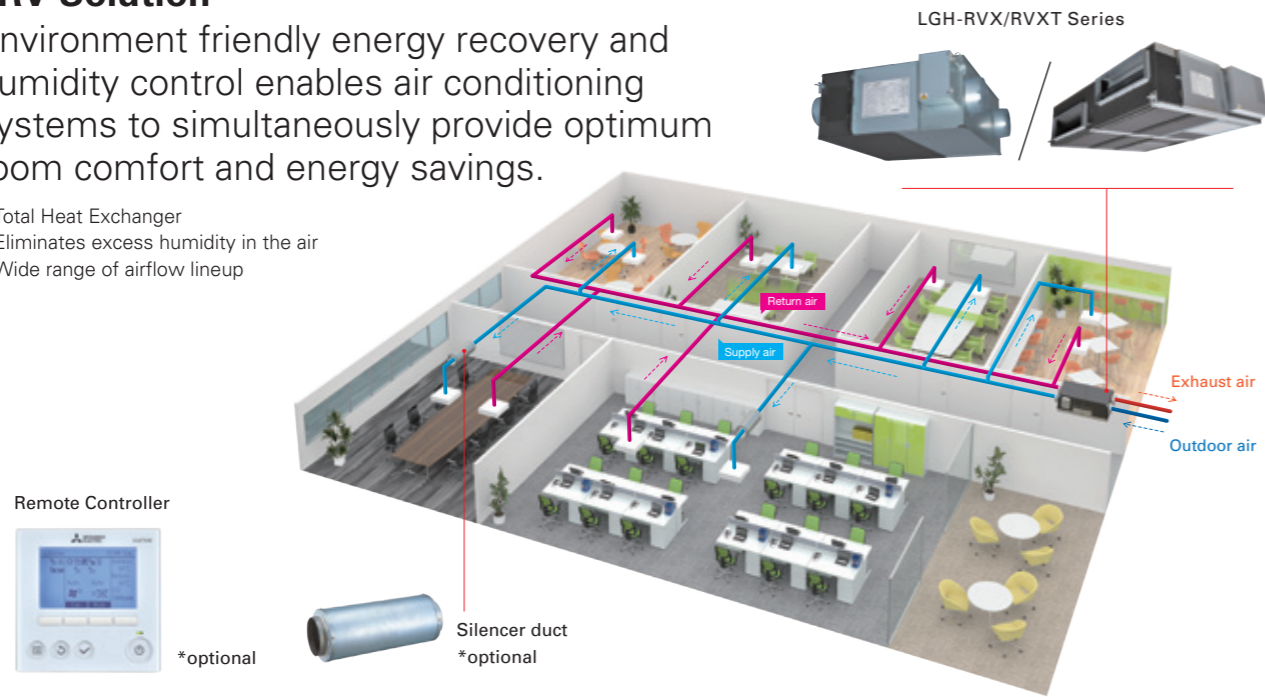
Energy Recovery Ventilation

A total heat exchange ventilation system that uses paper characteristics (Lossnay core) to perform temperature (sensible heat) and humidity (latent heat) exchange.

ERV Solution

Environment friendly energy recovery and humidity control enables air conditioning systems to simultaneously provide optimum room comfort and energy savings.

- ✓ Total Heat Exchanger
- ✓ Eliminates excess humidity in the air
- ✓ Wide range of airflow lineup



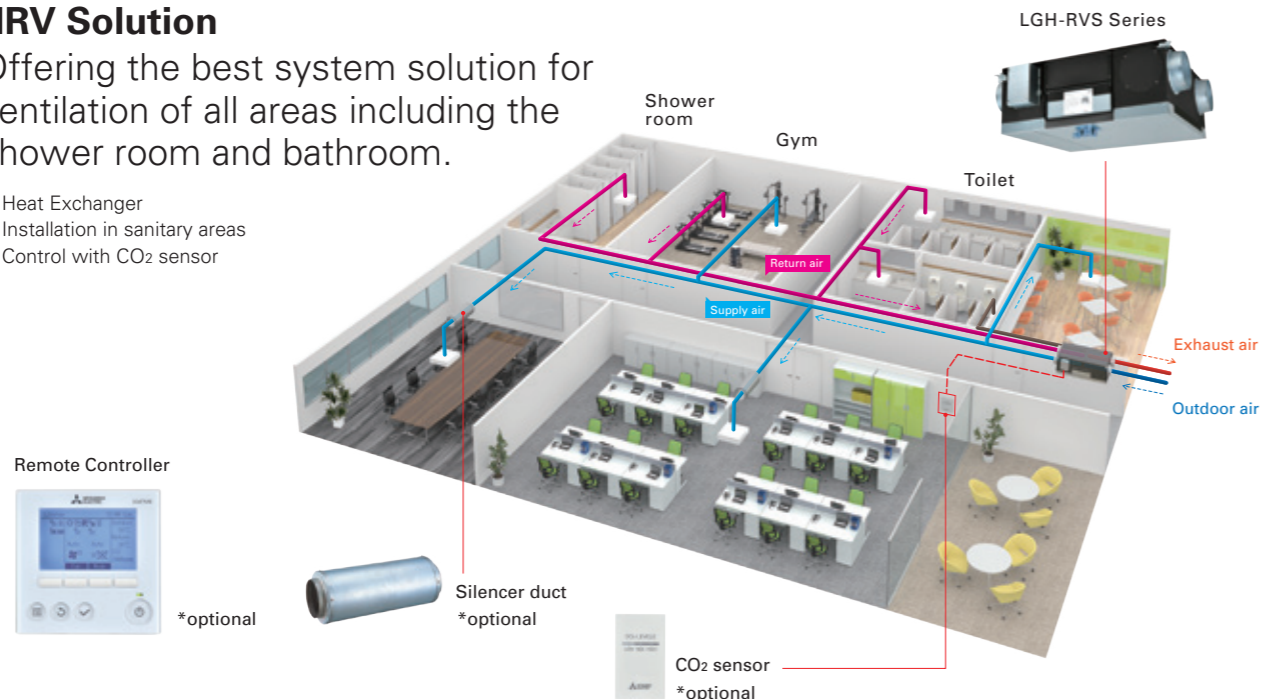
Heat Recovery Ventilation

A heat exchange ventilation system that uses a heat exchanger (Lossnay core) to perform temperature (sensible heat) exchange.

HRV Solution

Offering the best system solution for ventilation of all areas including the shower room and bathroom.

- ✓ Heat Exchanger
- ✓ Installation in sanitary areas
- ✓ Control with CO₂ sensor



Residential Use Lossnay

Mitsubishi Electric offers you decentralized ventilation and centralized ventilation solutions for optimizing your indoor air quality by Lossnay.

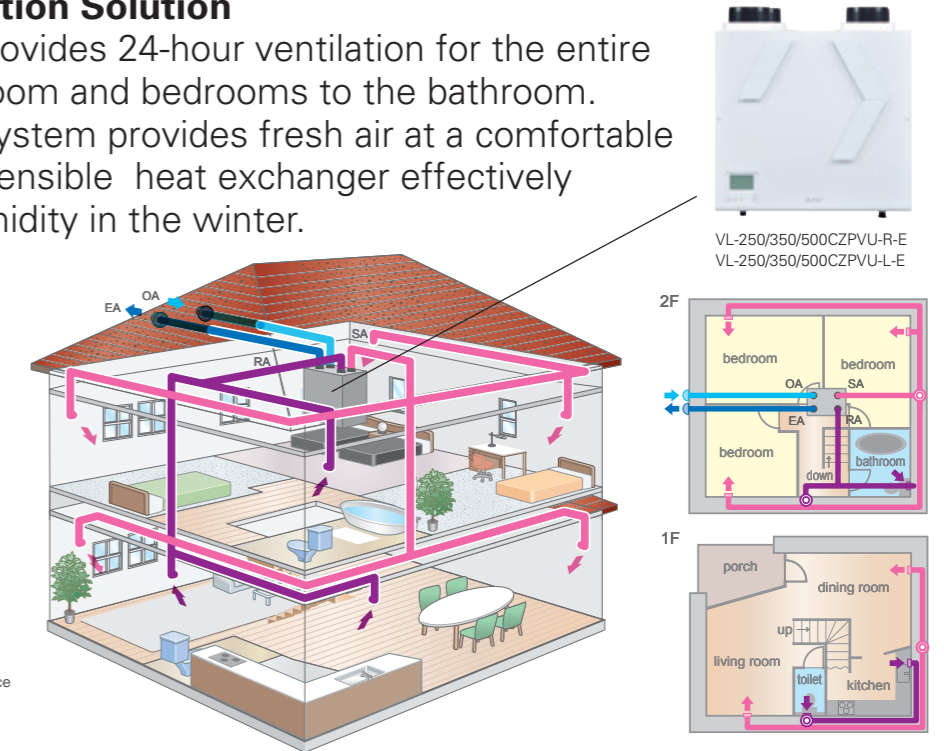
Heat Recovery Ventilation

A heat exchange ventilation system that uses a heat exchanger (Lossnay core) to perform temperature (sensible heat) exchange.

Centralized Ventilation Solution

One Lossnay unit provides 24-hour ventilation for the entire house, from living room and bedrooms to the bathroom. The heat recovery system provides fresh air at a comfortable air temperature. A sensible heat exchanger effectively reduces excess humidity in the winter.

- ✓ Heat Exchanger
- ✓ Whole-house Solution
- ✓ Air Purification
- ✓ Quiet Operation
- ✓ MELCloud Control



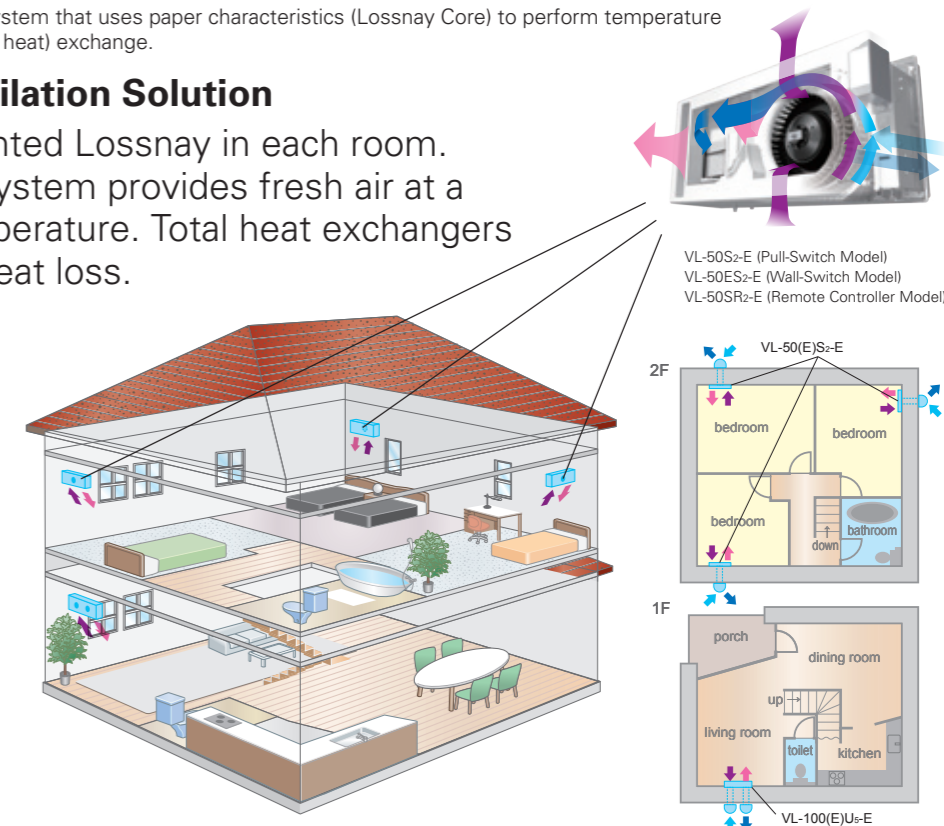
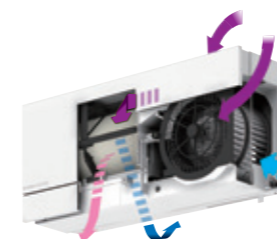
Energy Recovery Ventilation

A total heat exchange ventilation system that uses paper characteristics (Lossnay Core) to perform temperature (Sensible heat) and humidity (latent heat) exchange.

Decentralized Ventilation Solution

Install the wall-mounted Lossnay in each room. The heat recovery system provides fresh air at a comfortable air temperature. Total heat exchangers effectively reduce heat loss.

- ✓ Total Heat Exchanger
- ✓ Individual Ventilation
- ✓ Flexible Installation
- ✓ Easy Maintenance
- ✓ Stylish Design



LOSSNAY

Lossnay ventilation systems are renowned industry-wide for their efficiency. They offer environment-friendly energy recovery and humidity control, and enable air conditioning systems to simultaneously provide optimum room comfort and energy savings.



Indoor air quality inside a building is optimized through temperature and humidity exchange by Lossnay

Lossnay is a total heat exchange ventilation system that uses paper characteristics to perform temperature (sensible heat) and humidity (latent heat) exchange.

The concept of sensible heat and latent heat exchange using Lossnay core

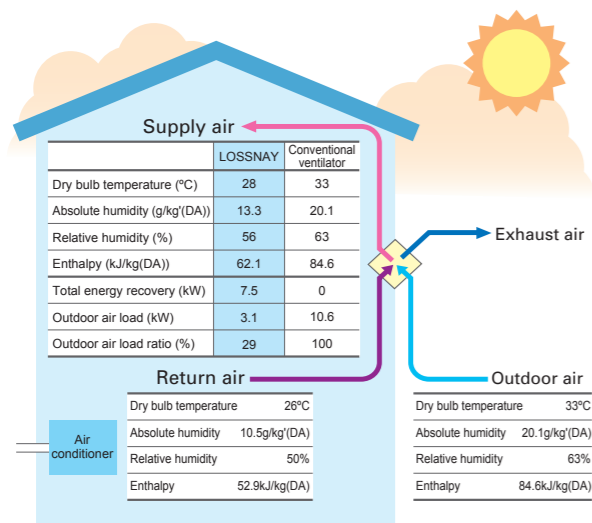


What can be improved by introducing Lossnay?

Ventilation with maximized comfort

In summer

Air similar to the conditions of cooled (dehumidified) indoor air is supplied.



Heat recovery calculation

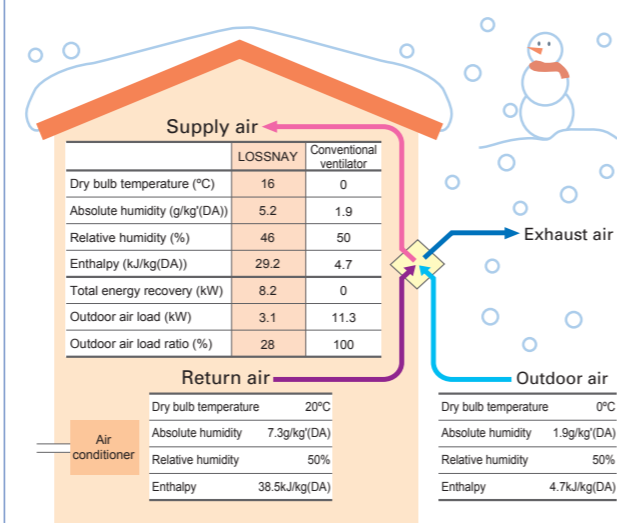
$$\text{Indoor supply-air temperature (°C)} = \text{Outdoor temperature (°C)} - \left(\text{Outdoor temperature (°C)} - \text{Indoor temperature (°C)} \right) \times \text{Temp recovery efficiency (\%)}$$

$$\text{Calculation example: } 28^{\circ}\text{C} = 33^{\circ}\text{C} - (33^{\circ}\text{C} - 26^{\circ}\text{C}) \times 71.5\%$$

*The above applies to the case of LGH-100RVX (fan speed 4).

In winter

Air similar to the conditions of heated (humidified) indoor air is supplied.



Heat recovery calculation

$$\text{Indoor supply-air temperature (°C)} = \text{Indoor temperature (°C)} - \left(\text{Indoor temperature (°C)} - \text{Outdoor temperature (°C)} \right) \times \text{Temp recovery efficiency (\%)} + \text{Outdoor temperature (°C)}$$

$$\text{Calculation example: } 16^{\circ}\text{C} = (20^{\circ}\text{C} - 0^{\circ}\text{C}) \times 80\% + 0^{\circ}\text{C}$$

*The above applies to the case of LGH-100RVX (fan speed 4).

LGH-RVX SERIES

A commercially oriented system that can be used to deliver high performance and functions virtually anywhere.

LGH-15/25/35/50/65/80/100/150RVX-E



Improved airflow range

Wide airflow range

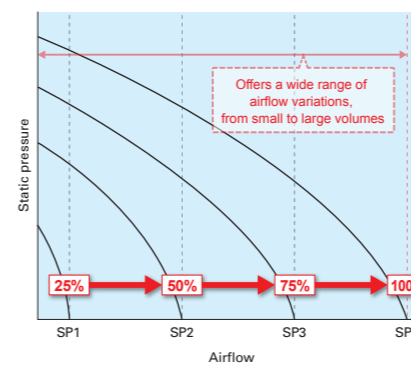
Each fan speed has a range setting of 25, 50, 75 and 100%, allowing much finer airflow control. When used in combination with the CO2 sensor or timer function, airflow can be controlled according to conditions that realize better performance and reduce power consumption.

Fan speed adjustment function

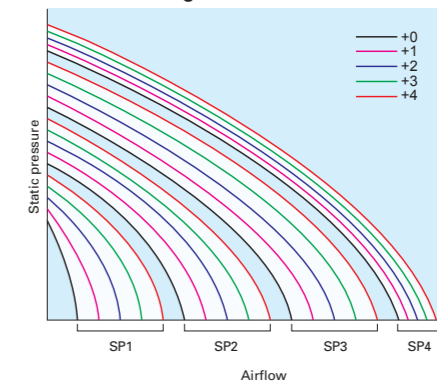
The default fan speed value can be adjusted in slight increments. Use the PZ-62DR-EA/EB remote controller to reset the speed.

- 1) Considering the total hours of Lossnay operation (filter clogging), fan power can be adjusted automatically after a given period of time.
- 2) After the unit is installed, fine adjustments can be made if the airflow is slightly lower than the desired airflow.

Characteristic curves of the LGH-RVX/RVXT Series



P-Q curve image



LGH-RVXT SERIES

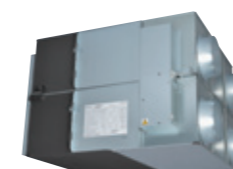
The LGH-RVXT Series has a large airflow of 1500-2500 CMH but a thin body of approximately 500mm. Therefore, the unit can be easily installed in the ceiling.

LGH-150/200/250RVXT-E



Thin body type

LGH-150RVX-E



Height: 808mm

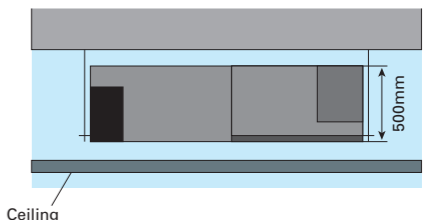
LGH-150/200/250RVXT-E



Height: 500mm

38% Thinner body

LGH-RVXT installation image



Ceiling

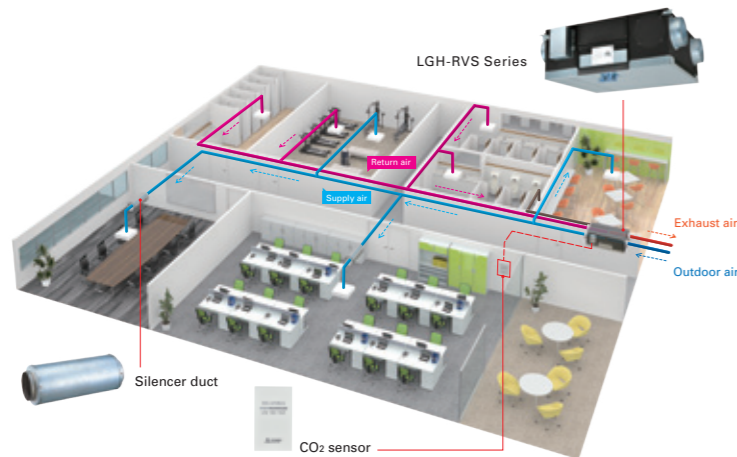
LGH-RVS SERIES

The LGH-RVS Series of sensible heat Lossnay models allows diverse solutions and options in response to customer needs.

LGH-50/80/100RVS-E



A system solution for all-area ventilation



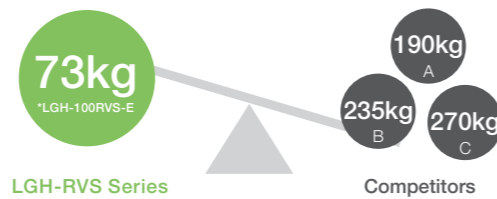
A sensible heat exchanger allows ventilation of all areas including sanitary area.

- Plug and play CO₂ sensor control including power
- Digital commissioning of fan speed increments
- Built-in condensate drainage traps

Easy installation

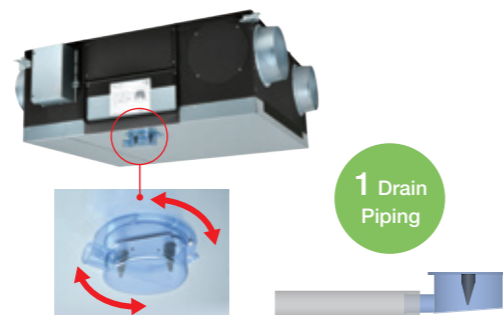
Light Chassis

Being light in weight is one of the most important factors for installation. The light chassis of the LGH-RVS series can provide a huge advantage in terms of installation cost and safety.



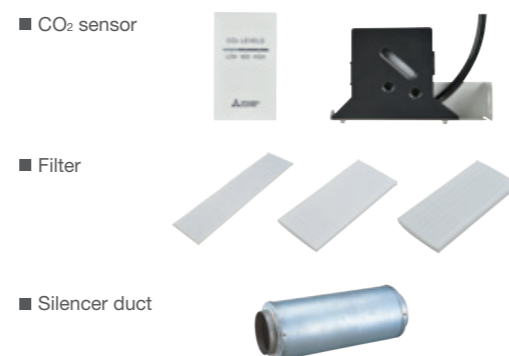
Easy Drain Piping

- Only one drain piping for both SA and EA.
- 360-degree drain pipe connection.
- Trap piping work is NOT required owing to an internal backflow stopper.



Various optional parts

The LGH-RVS series can connect with various optional parts. A CO₂ sensor is one of the best solutions for optimized airflow control. The unit operates while optimizing airflow in accordance with the level of CO₂ condensation in the room. Optimized ventilation can reduce the energy consumption of the air conditioner. A high-efficiency filter can be optionally installed in the unit as an easy solution for even better indoor air quality.



GUF SERIES



Along with Lossnay ventilation, the OA processing unit is really two units in one, functioning as the main air conditioner when the load is light and adding supplemental air conditioning when the load is heavy.

GUF-50/100RD4, GUF-50/100RDH4

These units can be used with R410A.

Outdoor units available in the GUF-RD/RDH series (For details see Mitsubishi Electric's CITY MULTI catalog).

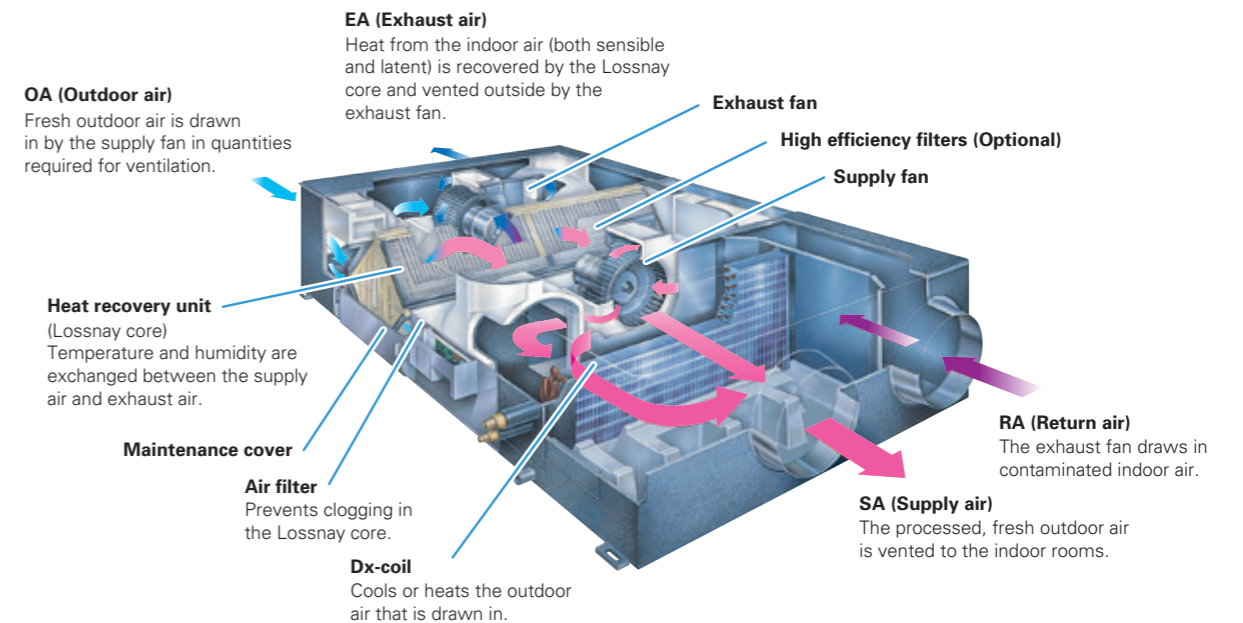
R410A refrigerant units

Model Size		P112	P125	P140	P200	P250	P300	P350	P400	P450	P500	P550	P600	P650	P700	P750	P800
Y Series	PUHY-YGM-A				●	●	●	●	●	●	●	●	●	●	●	●	●
R2 Series	PURY-YGM-A				●	●	●	●	●	●	●	●	●	●			
PUMY Series	PUMY-SP	●	●	●													
	PUMY-P	●	●	●	●												

Lossnay ventilation and Air conditioning

The OA (outdoor-air) Processing Unit creates an optimum environment while providing substantial energy savings. The OA Processing Unit comprises forced air ventilation, heat recovery, heating and cooling, and air purification. This total air conditioning system keeps indoor air fresh and comfortable all year round, and keeps it free of contaminants preventing ailments such as sick building syndrome. Inside the OA Processing Unit is the Lossnay Core, a heat-exchange unit that transfers heat efficiently, cutting ventilation load by as much as 70%. A remarkable product found nowhere else, this special combination of functionality and performance contained within a single unit ensures users ample comfort, good health, and energy savings.

GUF-RD type



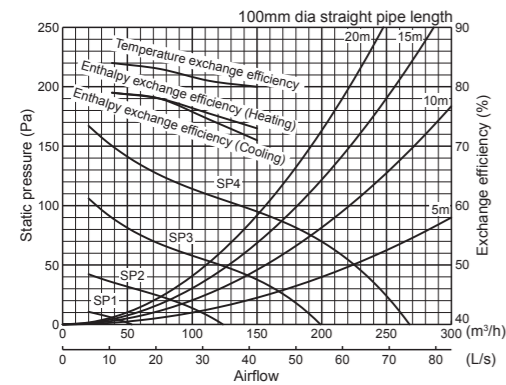
LGH-RVX SERIES

Specifications

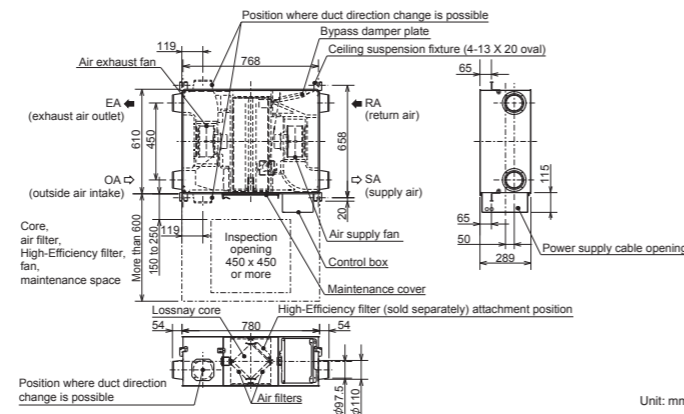
LGH-15RVX-E

Electrical power supply	220-240V/50Hz, 220V/60Hz							
	Heat recovery mode				Bypass mode			
Ventilation mode								
Fan speed	SP4	SP3	SP2	SP1	SP4	SP3	SP2	SP1
Running current (A)	0.40	0.24	0.15	0.10	0.41	0.25	0.15	0.10
Input power (W)	49	28	14	7	52	28	14	8
Airflow	(m ³ /h)				(m ³ /h)			
	(L/s)				(L/s)			
External static pressure (Pa)	95	54	24	6	95	54	24	6
Temperature exchange efficiency (%)	80							
Enthalpy exchange efficiency (%)	Heating							
	Cooling							
Noise (dB) (Measured at 1.5m under the center of the unit in an anechoic chamber)	28							
Weight (kg)	20							
Specific energy consumption class	A							

Characteristic Curves



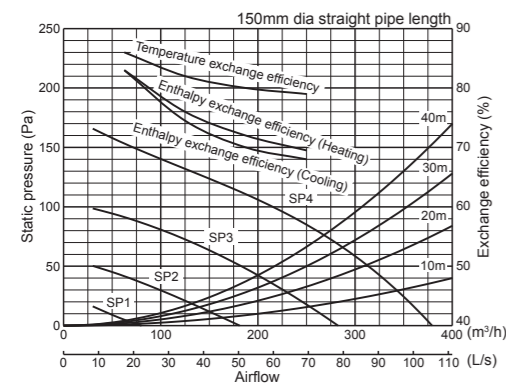
Dimensions



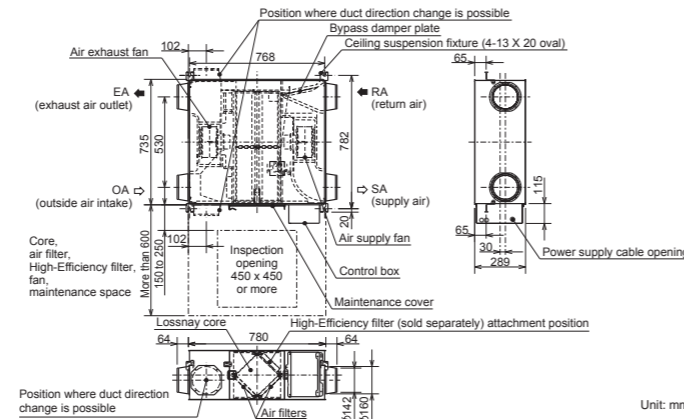
LGH-25RVX-E

Electrical power supply	220-240V/50Hz, 220V/60Hz							
	Heat recovery mode				Bypass mode			
Ventilation mode								
Fan speed	SP4	SP3	SP2	SP1	SP4	SP3	SP2	SP1
Running current (A)	0.48	0.28	0.16	0.10	0.48	0.29	0.16	0.11
Input power (W)	62	33	16	7.5	63	35	17	9
Airflow	(m ³ /h)				(m ³ /h)			
	(L/s)				(L/s)			
External static pressure (Pa)	85	48	21	5	85	48	21	5
Temperature exchange efficiency (%)	79							
Enthalpy exchange efficiency (%)	Heating							
	Cooling							
Noise (dB) (Measured at 1.5m under the center of the unit in an anechoic chamber)	27							
Weight (kg)	23							
Specific energy consumption class	A							

Characteristic Curves



Dimensions



■ For LGH-RVX and LGH-RVXT series

*The running current, the input power, the efficiency and the noise are based on the rated airflow, 230V/50Hz, and 220V/60Hz.

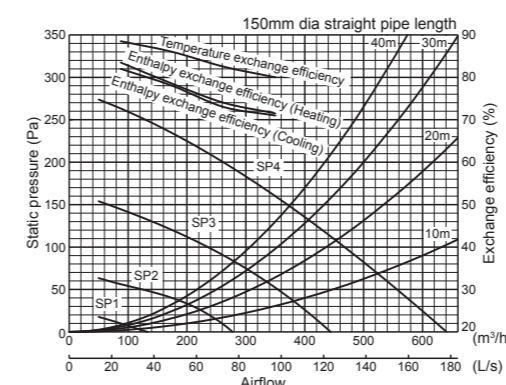
*Figures in the chart is measured according to Japan Industrial Standard (JIS B 8628). Characteristic Curves are measured by chamber method.

*For specifications at other frequencies, contact your dealer.

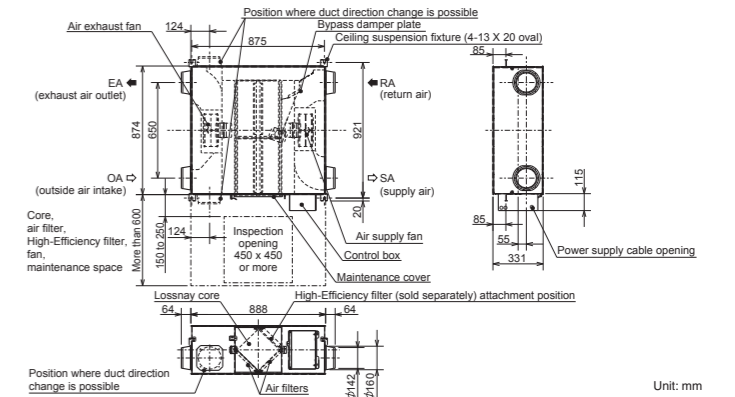
LGH-35RVX-E

Electrical power supply	220-240V/50Hz, 220V/60Hz							
	Heat recovery mode				Bypass mode			
Ventilation mode								
Fan speed	SP4	SP3	SP2	SP1	SP4	SP3	SP2	SP1
Running current (A)	0.98	0.54	0.26	0.12	0.98	0.56	0.28	0.13
Input power (W)	140	70	31	11	145	72	35	13
Airflow	(m ³ /h)				(m ³ /h)			
	(L/s)				(L/s)			
External static pressure (Pa)	160	90	40	10	160	90	40	10
Temperature exchange efficiency (%)	80							
Enthalpy exchange efficiency (%)	Heating							
	Cooling							
Noise (dB) (Measured at 1.5m under the center of the unit in an anechoic chamber)	32							
Weight (kg)	30							

Characteristic Curves



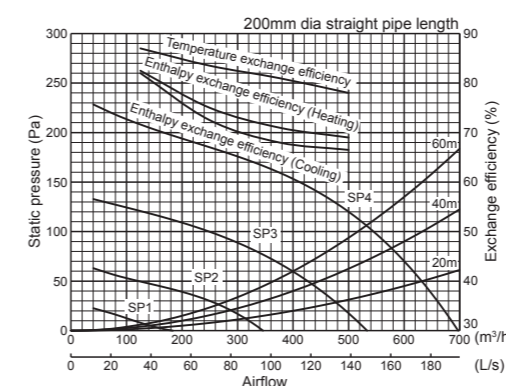
Dimensions



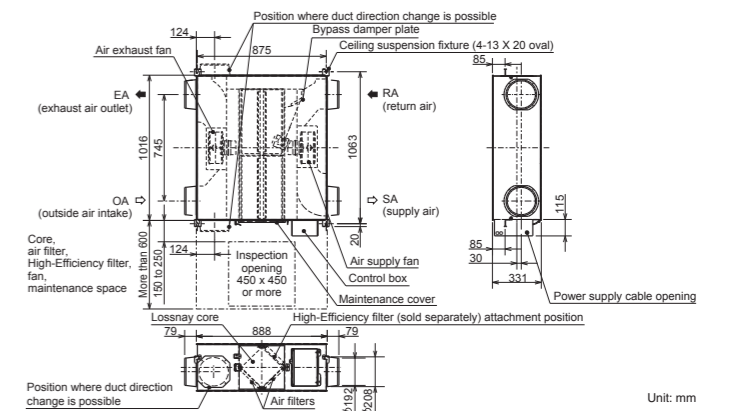
LGH-50RVX-E

Electrical power supply	220-240V/50Hz, 220V/60Hz							
	Heat recovery mode				Bypass mode			
Ventilation mode								
Fan speed	SP4	SP3	SP2	SP1	SP4	SP3	SP2	SP1
Running current (A)	1.15	0.59	0.26	0.13	1.15	0.59	0.27	0.13
Input power (W)	165	78	32	12	173	81	35	14
Airflow	(m ³ /h)				(m ³ /h)			
	(L/s)				(L/s)			
External static pressure (Pa)	120	68	30	8	120	68	30	8
Temperature exchange efficiency (%)	78							
Enthalpy exchange efficiency (%)	Heating							
	Cooling							
Noise (dB) (Measured at 1.5m under the center of the unit in an anechoic chamber)	34							
Weight (kg)	33							

Characteristic Curves



Dimensions



■ For LGH-RVX and LGH-RVXT series

*The running current, the input power, the efficiency and the noise are based on the rated airflow, 230V/50Hz, and 220V/60Hz.

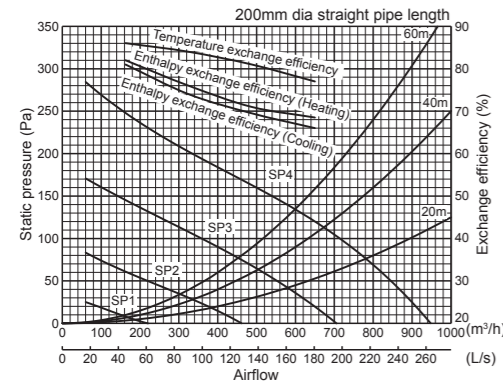
*Figures in the chart is measured according to Japan Industrial Standard (JIS B 8628). Characteristic Curves are measured by chamber method.

*For specifications at other frequencies, contact your dealer.

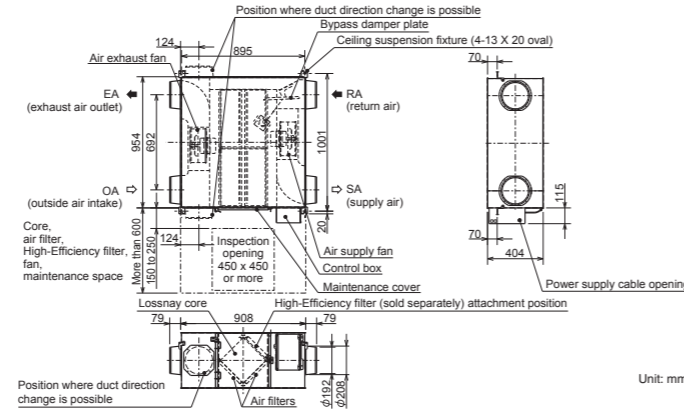
LGH-65RVX-E

Electrical power supply		220-240V/50Hz, 220V/60Hz							
Ventilation mode		Heat recovery mode				Bypass mode			
Fan speed		SP4	SP3	SP2	SP1	SP4	SP3	SP2	SP1
Running current (A)		1.65	0.90	0.39	0.15	1.72	0.86	0.38	0.16
Input power (W)		252	131	49	15	262	131	47	17
Airflow		(m ³ /h)		(L/s)		(m ³ /h)		(L/s)	
		650	488	325	163	650	488	325	163
		181	135	90	45	181	135	90	45
External static pressure (Pa)		120	68	30	8	120	68	30	8
Temperature exchange efficiency (%)		77	81	84	86	-	-	-	-
Enthalpy exchange efficiency (%)		Heating		68.5	71	76	82	-	-
		Cooling		66	69.5	74	81	-	-
Noise (dB) (Measured at 1.5m under the center of the unit in an anechoic chamber)		34.5	29	22	18	35.5	29	22	18
Weight (kg)		38							

Characteristic Curves



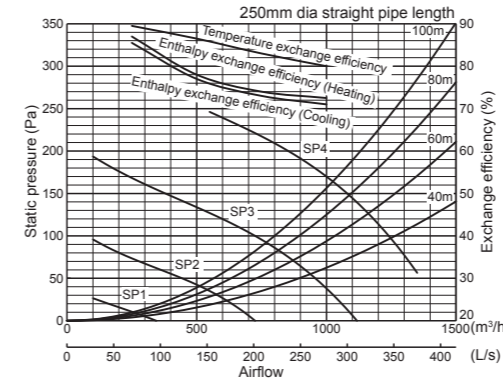
Dimensions



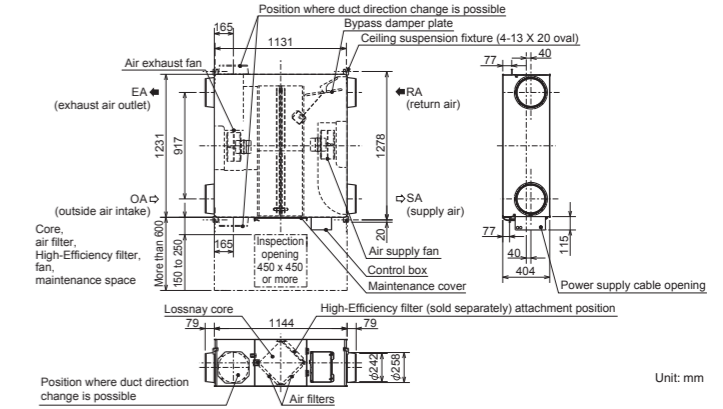
LGH-100RVX-E

Electrical power supply		220-240V/50Hz, 220V/60Hz							
Ventilation mode		Heat recovery mode				Bypass mode			
Fan speed		SP4	SP3	SP2	SP1	SP4	SP3	SP2	SP1
Running current (A)		2.50	1.20	0.50	0.17	2.50	1.20	0.51	0.19
Input power (W)		420	200	75	21	420	200	75	23
Airflow		(m ³ /h)		(L/s)		(m ³ /h)		(L/s)	
		1000	750	500	250	1000	750	500	250
		278	208	139	69	278	208	139	69
External static pressure (Pa)		170	96	43	11	170	96	43	11
Temperature exchange efficiency (%)		80	83	86.5	89.5	-	-	-	-
Enthalpy exchange efficiency (%)		Heating		72.5	74	78	87	-	-
		Cooling		71	73	77	85.5	-	-
Noise (dB) (Measured at 1.5m under the center of the unit in an anechoic chamber)		37	31	23	18	38	32	24	18
Weight (kg)		54							

Characteristic Curves



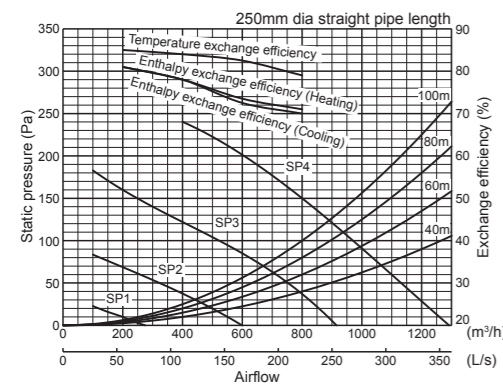
Dimensions



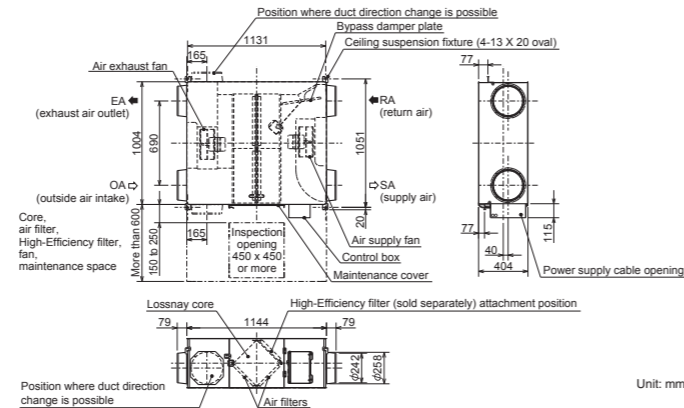
LGH-80RVX-E

Electrical power supply		220-240V/50Hz, 220V/60Hz							
Ventilation mode		Heat recovery mode				Bypass mode			
Fan speed		SP4	SP3	SP2	SP1	SP4	SP3	SP2	SP1
Running current (A)		1.82	0.83	0.36	0.15	1.97	0.86	0.40	0.15
Input power (W)		335	151	60	18	340	151	64	20
Airflow		(m ³ /h)		(L/s)		(m ³ /h)		(L/s)	
		800	600	400	200	800	600	400	200
		222	167	111	56	222	167	111	56
External static pressure (Pa)		150	85	38	10	150	85	38	10
Temperature exchange efficiency (%)		79	82.5	84	85	-	-	-	-
Enthalpy exchange efficiency (%)		Heating		71	73.5	78	81	-	-
		Cooling		70	72.5	78	81	-	-
Noise (dB) (Measured at 1.5m under the center of the unit in an anechoic chamber)		34.5	30	23	18	36	30	23	18
Weight (kg)		48							

Characteristic Curves



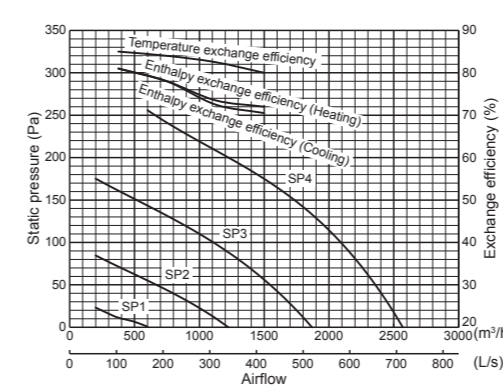
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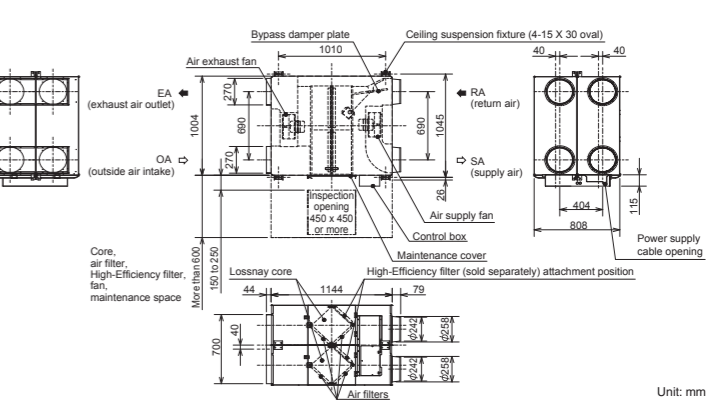
LGH-150RVX-E

Electrical power supply		220-240V/50Hz, 220V/60Hz							
Ventilation mode		Heat recovery mode				Bypass mode			
Fan speed		SP4	SP3	SP2	SP1	SP4	SP3	SP2	SP1
Running current (A)		3.71	1.75	0.70	0.29	3.85	1.78	0.78	0.30
Input power (W)		670	311	123	38	698	311	124	44
Airflow		(m ³ /h)		(L/s)		(m ³ /h)		(L/s)	
		1500	1125	750	375	1500	1125	750	375
		417	313	208	104	417	313	208	104
External static pressure (Pa)		175	98	44	11	175	98	44	11
Temperature exchange efficiency (%)		80	82.5	84	85	-	-	-	-
Enthalpy exchange efficiency (%)		Heating		72	73.5	78	81	-	-
		Cooling		70.5	72.5	78	81	-	-
Noise (dB) (Measured at 1.5m under the center of the unit in an anechoic chamber)		39	32	24	18	40.5	33	26	18
Weight (kg)		98							

Characteristic Curves



Dimensions



■ For LGH-RVX and LGH-RVXT series

* The running current, the input power, the efficiency and the noise are based on the rated airflow, 230V/50Hz, and 220V/60Hz.

* Figures in the chart is measured according to Japan Industrial Standard (JIS B 8628). Characteristic Curves are measured by chamber method.

* For specifications at other frequencies, contact your dealer.

■ For LGH-RVX and LGH-RVXT series

* The running current, the input power, the efficiency and the noise are based on the rated airflow, 230V/50Hz, and 220V/60Hz.

* Figures in the chart is measured according to Japan Industrial Standard (JIS B 8628). Characteristic Curves are measured by chamber method.

* For specifications at other frequencies, contact your dealer.

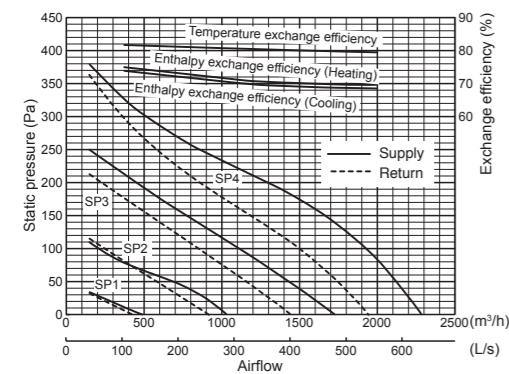
LGH-RVXT SERIES

Specifications

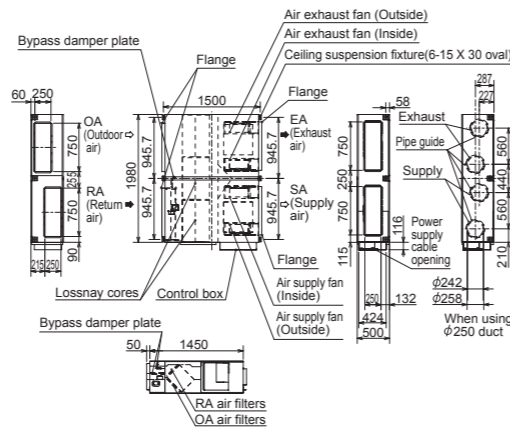
LGH-150RVXT-E

Electrical power supply		220-240V/50Hz, 220V/60Hz							
Ventilation mode		Heat recovery mode				Bypass mode			
Fan speed		SP4	SP3	SP2	SP1	SP4	SP3	SP2	SP1
Running current (A)		4.30	2.40	1.10	0.36	3.40	1.80	0.77	0.31
Input power (W)		792	421	176	48	625	334	134	37
Airflow	(m ³ /h)	1500	1125	750	375	1500	1125	750	375
	(L/s)	417	313	208	104	417	313	208	104
External static pressure (Pa)	Supply	175	98	44	11	175	98	44	11
	Return	100	56	25	6	100	56	25	6
Temperature exchange efficiency (%)		80	80.5	81	81.5	-	-	-	-
Enthalpy exchange efficiency (%)	Heating	70	71	73	75	-	-	-	-
	Cooling	69	70	72	74	-	-	-	-
Noise (dB) (Measured at 1.5m under the center of the unit in an anechoic chamber)		39.5	35.5	29.5	22	39	33	26.5	20.5
Weight (kg)		156							

Characteristic Curves



Dimensions

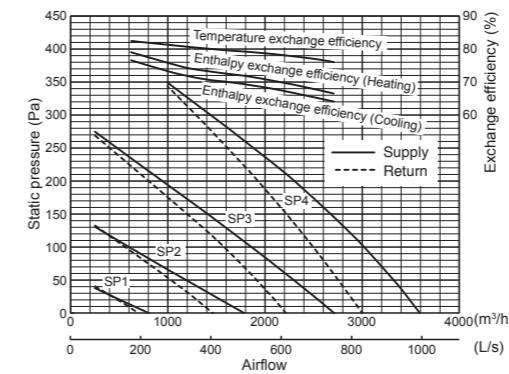


Unit: mm

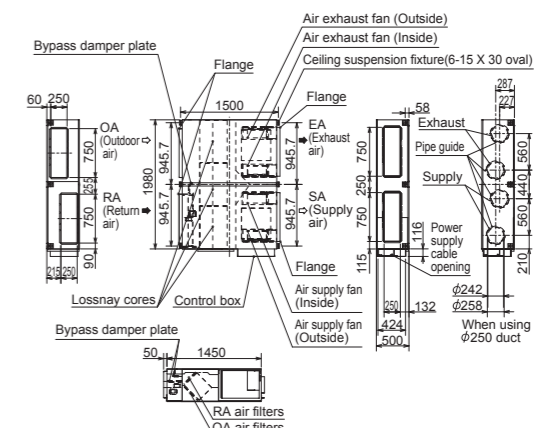
LGH-250RVXT-E

Electrical power supply		220-240V/50Hz, 220V/60Hz							
Ventilation mode		Heat recovery mode				Bypass mode			
Fan speed		SP4	SP3	SP2	SP1	SP4	SP3	SP2	SP1
Running current (A)		7.60	3.60	1.40	0.57	6.90	3.10	1.30	0.49
Input power (W)		1446	687	244	82	1298	587	212	69
Airflow	(m ³ /h)	2500	1875	1250	625	2500	1875	1250	625
	(L/s)	694	521	347	174	694	521	347	174
External static pressure (Pa)	Supply	175	98	44	11	175	98	44	11
	Return	100	56	25	6	100	56	25	6
Temperature exchange efficiency (%)		77	79	80.5	82.5	-	-	-	-
Enthalpy exchange efficiency (%)	Heating	68	71.5	74	79	-	-	-	-
	Cooling	65.5	69	71.5	76.5	-	-	-	-
Noise (dB) (Measured at 1.5m under the center of the unit in an anechoic chamber)		43	39	32	24	44	38.5	31	22.5
Weight (kg)		198							

Characteristic Curves



Dimensions

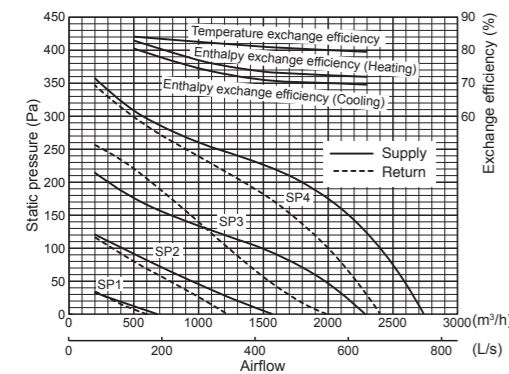


Unit: mm

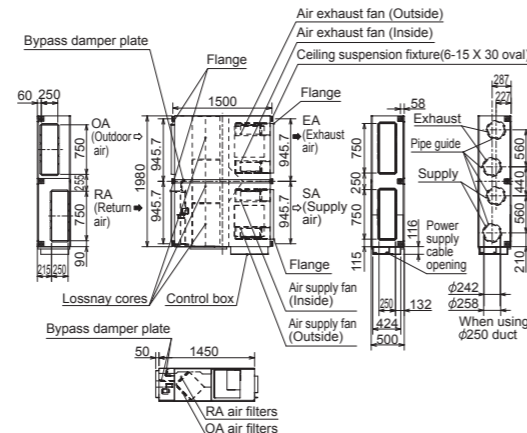
LGH-200RVXT-E

Electrical power supply		220-240V/50Hz, 220V/60Hz							
Ventilation mode		Heat recovery mode				Bypass mode			
Fan speed		SP4	SP3	SP2	SP1	SP4	SP3	SP2	SP1
Running current (A)		5.40	2.70	1.10	0.39	5.00	2.20	0.85	0.34
Input power (W)		1000	494	197	56	916	407	150	45
Airflow	(m ³ /h)	2000	1500	1000	500	2000	1500	1000	500
	(L/s)	556	417	278	139	556	417	278	139
External static pressure (Pa)	Supply	175	98	44	11	175	98	44	11
	Return	100	56	25	6	100	56	25	6
Temperature exchange efficiency (%)		80	81	82.5	84	-	-	-	-
Enthalpy exchange efficiency (%)	Heating	72.5	73.5	77	83	-	-	-	-
	Cooling	70	71	74.5	80.5	-	-	-	-
Noise (dB) (Measured at 1.5m under the center of the unit in an anechoic chamber)		39.5	35.5	28	22	40.5	34.5	27	20.5
Weight (kg)		159							

Characteristic Curves



Dimensions



Unit: mm

■ For LGH-RVX and LGH-RVXT series

*The running current, the input power, the efficiency and the noise are based on the rated airflow, 230V/50Hz, and 220V/60Hz.

*Figures in the chart is measured according to Japan Industrial Standard (JIS B 8628). Characteristic Curves are measured by chamber method.

*For specifications at other frequencies, contact your dealer.

■ For LGH-RVX and LGH-RVXT series

*The running current, the input power, the efficiency and the noise are based on the rated airflow, 230V/50Hz, and 220V/60Hz.

*Figures in the chart is measured according to Japan Industrial Standard (JIS B 8628). Characteristic Curves are measured by chamber method.

*For specifications at other frequencies, contact your dealer.

LGH-RVS SERIES

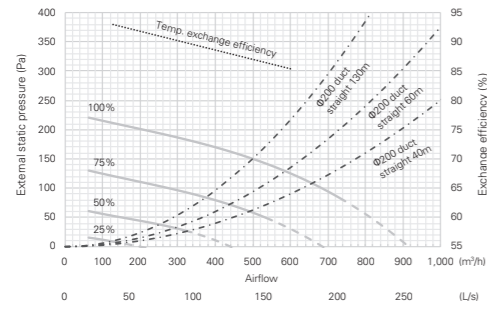
Specifications

LGH-50RVS-E

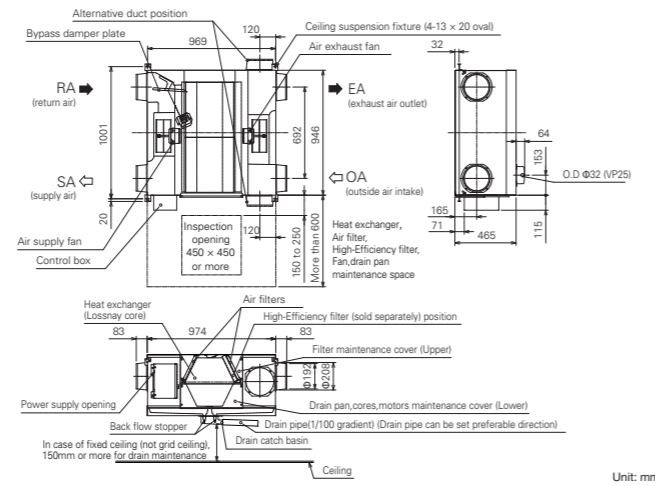
Weight	55kg (67kg with maximum drain water)			
Electrical power supply	220-240V/50Hz, 220V/60Hz			
Fan speed	100%	75%	50%	25%
Input power (W)	190	110	60	25
Airflow	(m ³ /h)	500	375	250
	(L/s)	139	104	69
Specific fan power [W/(L/s)]	1.37	1.06	0.86	0.72
External static pressure (Pa)	150	84	38	9
Temperature exchange efficiency (%)	87.0	89.0	91.0	93.0
Noise (dB)	33.0	27.0	22.0	18.0
Exhaust air transfer ratio (%)	5			

Test condition
ISO 16494
Temp. exchange efficiency is winter condition
A-weighted sound pressure level @1.5m off from the center of the unit in an anechoic chamber
Tracer gas method @100% airflow (prEN308)

Characteristic Curves



Dimensions



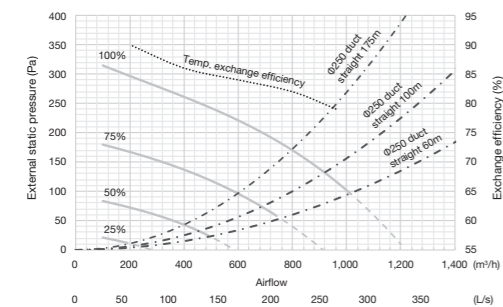
Unit: mm

LGH-80RVS-E

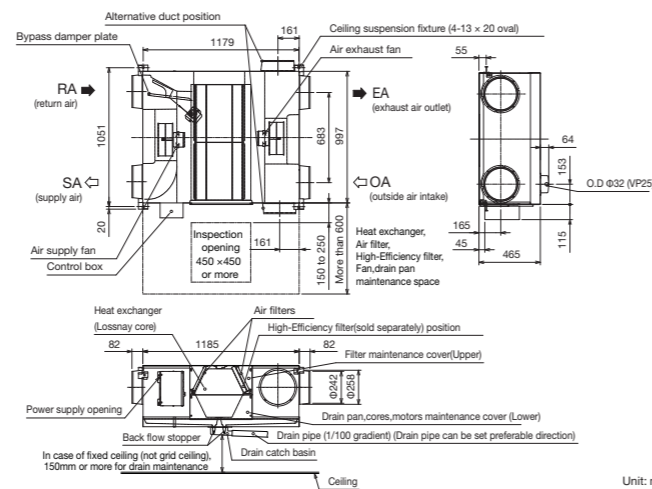
Weight	63kg (77kg with maximum drain water)			
Electrical power supply	220-240V/50Hz, 220V/60Hz			
Fan speed	100%	75%	50%	25%
Input power (W)	325	175	85	32
Airflow	(m ³ /h)	800	600	400
	(L/s)	222	167	111
Specific fan power [W/(L/s)]	1.46	1.05	0.77	0.58
External static pressure (Pa)	170	96	43	11
Temperature exchange efficiency (%)	82.0	84.0	86.0	90.0
Noise (dB)	36.0	30.0	25.0	18.0
Exhaust air transfer ratio (%)	5			

Test condition
ISO 16494
Temp. exchange efficiency is winter condition
A-weighted sound pressure level @1.5m off from the center of the unit in an anechoic chamber
Tracer gas method @100% airflow (prEN308)

Characteristic Curves



Dimensions



Unit: mm

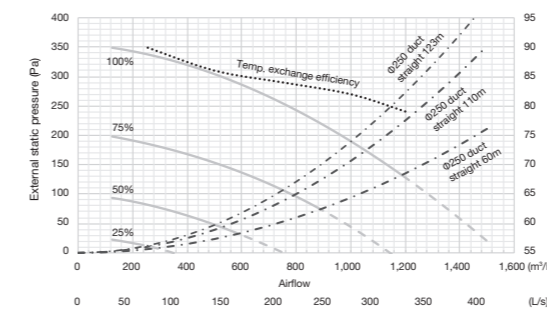
■The input power, the efficiency and the noise are based on the rating airflow, and 230V/50Hz. Temperature exchange efficiency (%) is measured at indoor DB 20°C/WB15°C and outdoor DB 5°C/WB3°C. It is measured according to ISO16494.
When the indoor humidity is low and condensation in the heat exchanger does not occur, the exchange efficiency may be decreased in winter.
■The absolute humidity of RA shall be lower than 0.0139kg/kg (DA) in winter and relative humidity of RA shall be lower than 90%RH through the year.
Example of the absolute humidity 0.0139kg/kg (DA) are 20.7°C 90%RH, 25°C 70%, 30°C 50% etc.

LGH-100RVS-E

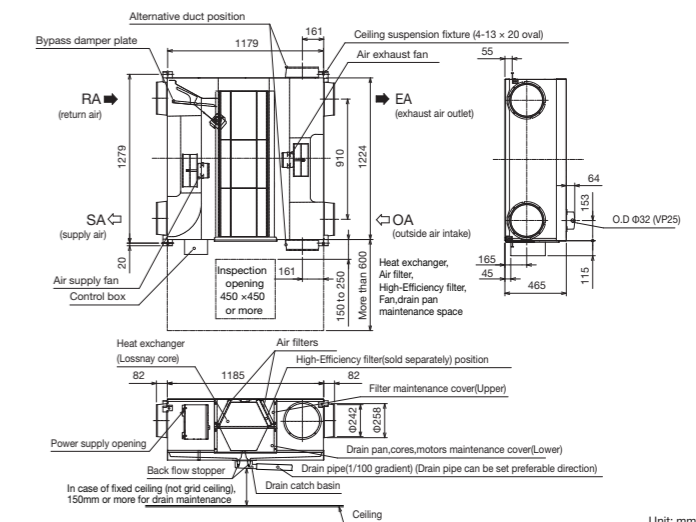
Weight	73kg (89kg with maximum drain water)			
Electrical power supply	220-240V/50Hz, 220V/60Hz			
Fan speed	100%	75%	50%	25%
Input power (W)	445	225	100	35
Airflow	(m ³ /h)	1000	750	500
	(L/s)	278	208	139
Specific fan power [W/(L/s)]	1.60	1.08	0.72	0.50
External static pressure (Pa)	190	107	48	12
Temperature exchange efficiency (%)	82.0	84.0	86.0	90.0
Noise (dB)	37.0	32.0	24.0	18.0
Exhaust air transfer ratio (%)	5			

Test condition
ISO 16494
Temp. exchange efficiency is winter condition
A-weighted sound pressure level @1.5m off from the center of the unit in an anechoic chamber
Tracer gas method @100% airflow (prEN308)

Characteristic Curves



Dimensions



Unit: mm

■The input power, the efficiency and the noise are based on the rating airflow, and 230V/50Hz. Temperature exchange efficiency (%) is measured at indoor DB 20°C/WB15°C and outdoor DB 5°C/WB3°C. It is measured according to ISO16494.
When the indoor humidity is low and condensation in the heat exchanger does not occur, the exchange efficiency may be decreased in winter.
■The absolute humidity of RA shall be lower than 0.0139kg/kg (DA) in winter and relative humidity of RA shall be lower than 90%RH through the year.
Example of the absolute humidity 0.0139kg/kg (DA) are 20.7°C 90%RH, 25°C 70%, 30°C 50% etc.

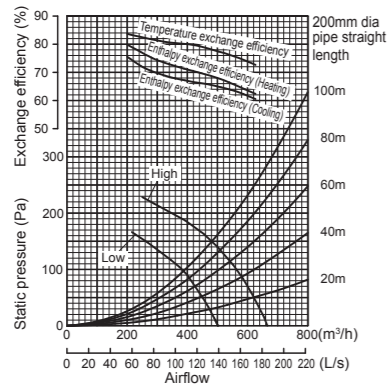
GUF SERIES

Specifications

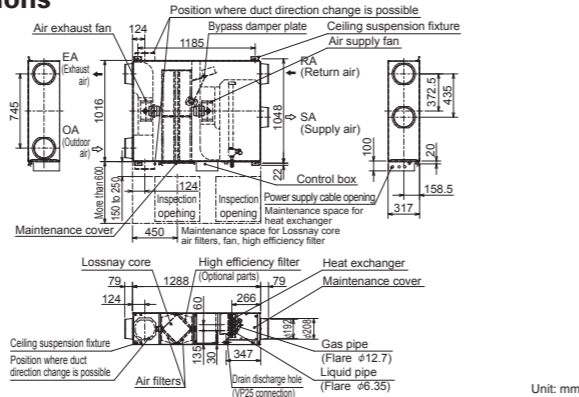
GUF-50RD4

Electrical power supply		220-240V/50Hz			
		Heat recovery mode		Bypass mode	
Ventilation mode					
Fan speed		High	Low	High	Low
Running current (A)		1.15	0.70	1.15	0.70
Input power (W)		235-265	150-165	235-265	150-165
Airflow		(m ³ /h)	500	400	500
		(L/s)	139	111	139
External static pressure (Pa)		140	90	140	90
Temperature exchange efficiency (%)		77.5	80	-	-
Enthalpy exchange efficiency (%)		Heating	68	71	-
		Cooling	65	67	-
Cooling capacity (kW)		5.57 (1.94)			
Heating capacity (kW)		6.21 (2.04)			
Capacity equivalent to the indoor unit		P32			
Humidifier		-			
Humidifying capacity (kg/h)		-			
Water supply pressure		-			
Noise (dB) (Measured at 1.5m under the center of the unit in an anechoic chamber)		33.5-34.5	29.5-30.5	35-36	29.5-30.5
Weight (kg)		48			

Characteristic Curves



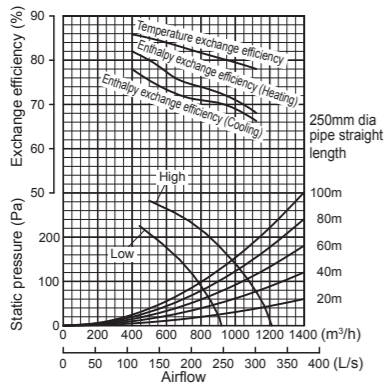
Dimensions



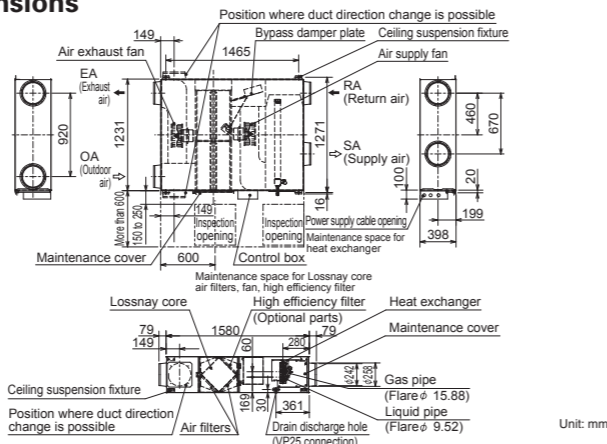
GUF-100RD4

Electrical power supply		220-240V/50Hz			
		Heat recovery mode		Bypass mode	
Ventilation mode					
Fan speed		High	Low	High	Low
Running current (A)		2.20	1.73	2.25	1.77
Input power (W)		480-505	370-395	490-515	385-410
Airflow		(m ³ /h)	1000	800	1000
		(L/s)	278	222	278
External static pressure (Pa)		140	90	140	90
Temperature exchange efficiency (%)		79.5	81.5	-	-
Enthalpy exchange efficiency (%)		Heating	71	74	-
		Cooling	69	71	-
Cooling capacity (kW)		11.44 (4.12)			
Heating capacity (kW)		12.56 (4.26)			
Capacity equivalent to the indoor unit		P63			
Humidifier		-			
Humidifying capacity (kg/h)		-			
Water supply pressure		-			
Noise (dB) (Measured at 1.5m under the center of the unit in an anechoic chamber)		38-39	34-35	38-39	35-36
Weight (kg)		82			

Characteristic Curves



Dimensions

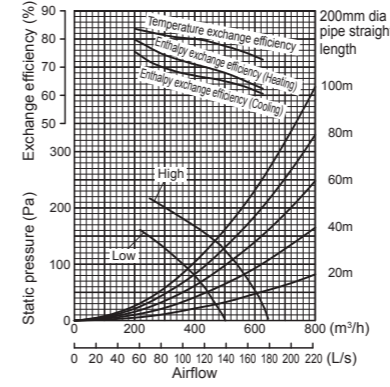


■ For GUF series
 *Cooling/Heating capacity indicates the maximum value at operation under the following condition.
 Cooling: Indoor: 27°C DB/19°C WB Outdoor: 35°C DB/24°C WB
 Heating: Indoor: 20°C DB/13.8°C WB Outdoor: 7°C DB/6°C WB
 *The figures in () indicates heat recovering capacity of heat exchange core.
 *Figures in the chart are measured according to Japan Industrial Standard (JIS B 8628). Characteristic Curves are measured by chamber method.
 *When the total capacity of indoor units connected to 1 outdoor units (PUHY or PURY) exceeds the capacity of the total unit, the total capacity of GUF needs to be 30% and less of the connected outdoor until capacity.

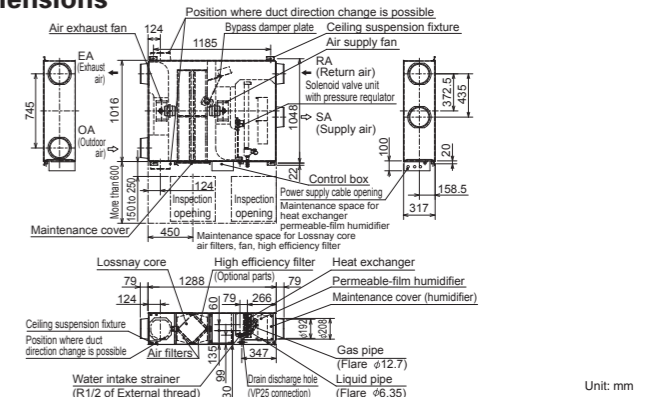
GUF-50RDH4

Electrical power supply		220-240V/50Hz			
		Heat recovery mode		Bypass mode	
Ventilation mode					
Fan speed		High	Low	High	Low
Running current (A)		1.15	0.70	1.15	0.70
Input power (W)		235-265	150-165	235-265	150-165
Airflow		(m ³ /h)	500	400	500
		(L/s)	139	111	139
External static pressure (Pa)		125	80	125	80
Temperature exchange efficiency (%)		77.5	80	-	-
Enthalpy exchange efficiency (%)		Heating	68	71	-
		Cooling	65	67	-
Cooling capacity (kW)		5.57 (1.94)			
Heating capacity (kW)		6.21 (2.04)			
Capacity equivalent to the indoor unit		P32			
Humidifier		Permeable film humidifier			
Humidifying capacity (kg/h)		2.7 (heating)			
Water supply pressure		Minimum pressure : 2.0 × 10 ⁴ Pa Maximum pressure : 49.0 × 10 ⁴ Pa			
Noise (dB) (Measured at 1.5m under the center of the unit in an anechoic chamber)		33.5-34.5	29.5-30.5	35-36	29.5-30.5
Weight (kg)		51 (filled with water 55)			

Characteristic Curves



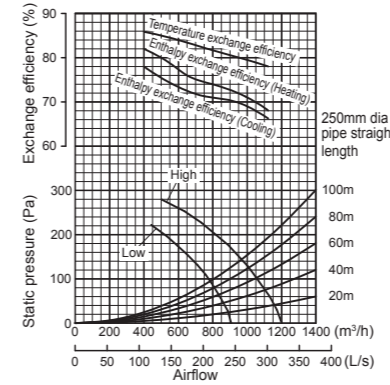
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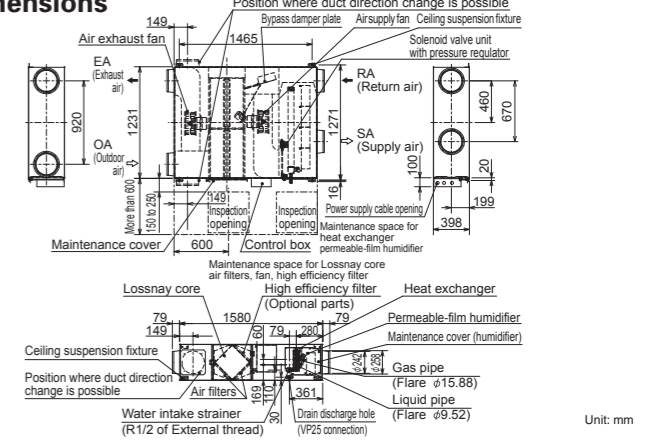
GUF-100RDH4

Electrical power supply		220-240V/50Hz			
		Heat recovery mode		Bypass mode	
Ventilation mode					
Fan speed		High	Low	High	Low
Running current (A)		2.20	1.76	2.25	1.77
Input power (W)		480-505	385-400	490-515	385-410
Airflow		(m ³ /h)	1000	800	1000
		(L/s)	278	222	278
External static pressure (Pa)		135	86	135	86
Temperature exchange efficiency (%)		79.5	81.5	-	-
Enthalpy exchange efficiency (%)		Heating	71	74	-
		Cooling	69	71	-
Cooling capacity (kW)		11.44 (4.12)			
Heating capacity (kW)		12.56 (4.26)			
Capacity equivalent to the indoor unit		P63			
Humidifier		Permeable film humidifier			
Humidifying capacity (kg/h)		5.4 (heating)			
Water supply pressure		Minimum pressure : 2.0 × 10 ⁴ Pa Maximum pressure : 49.0 × 10 ⁴ Pa			
Noise (dB) (Measured at 1.5m under the center of the unit in an anechoic chamber)		38-39	34-35	38-39	35-36
Weight (kg)		88 (filled with water 96)			

Characteristic Curves



Dimensions



■ For GUF series
 *Cooling/Heating capacity indicates the maximum value at operation under the following condition.
 Cooling: Indoor: 27°C DB/19°C WB Outdoor: 35°C DB/24°C WB
 Heating: Indoor: 20°C DB/13.8°C WB Outdoor: 7°C DB/6°C WB
 *The figures in () indicates heat recovering capacity of heat exchange core.
 *Figures in the chart are measured according to Japan Industrial Standard (JIS B 8628). Characteristic Curves are measured by chamber method.
 *When the total capacity of indoor units connected to 1 outdoor units (PUHY or PURY) exceeds the capacity of the total unit, the total capacity of GUF needs to be 30% and less of the connected outdoor until capacity.

GUG SERIES

(Optional Dx-coil Unit for Lossnay)

Temperature control equipment that works with Lossnay units and Mr.Slim outdoor units.

- GUG-01SL-E (Connection to LGH-50RVX-E or 65RVX-E)
- GUG-02SL-E (Connection to LGH-80RVX-E or 100RVX-E)
- GUG-03SL-E (Connection to LGH-150RVX-E, LGH-150/200/250RVXT-E)

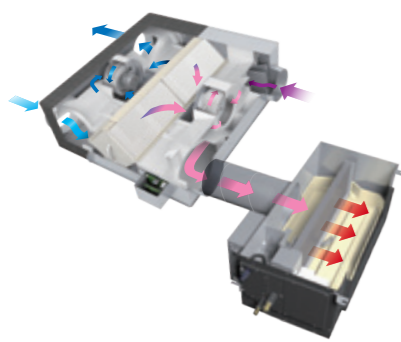


GUG-03SL-E

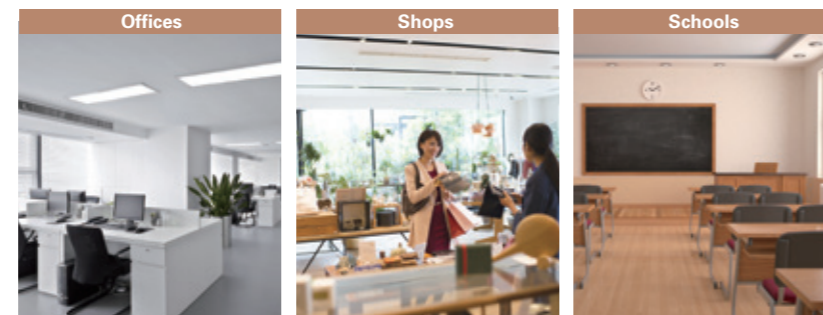
Supply comfortable control

Product Features

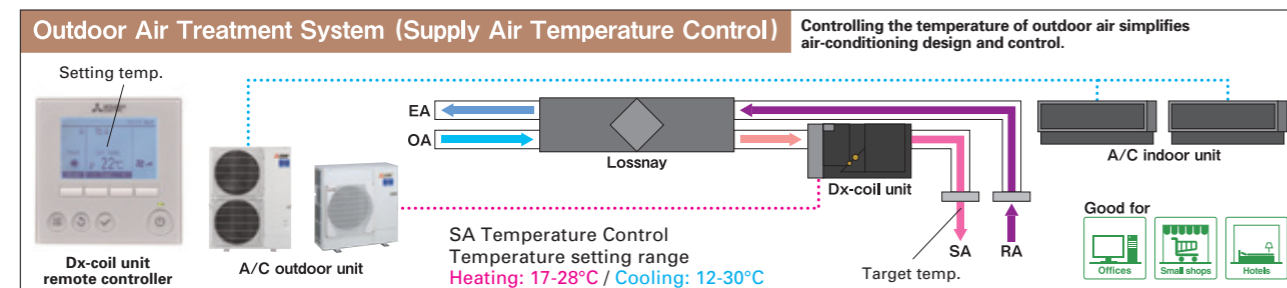
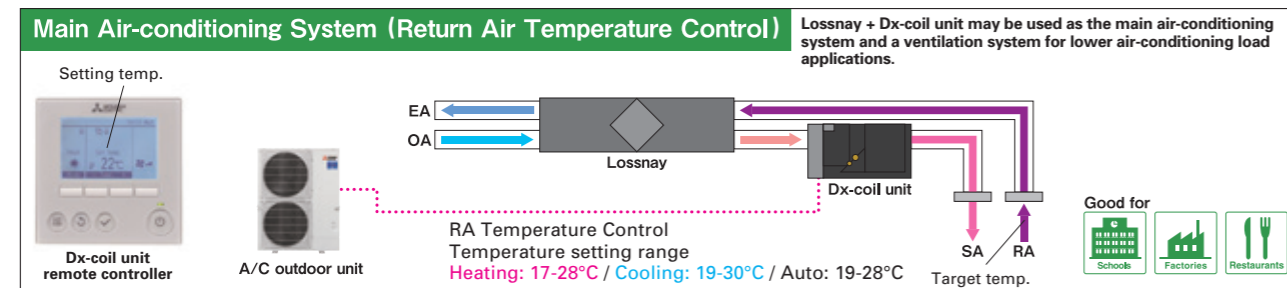
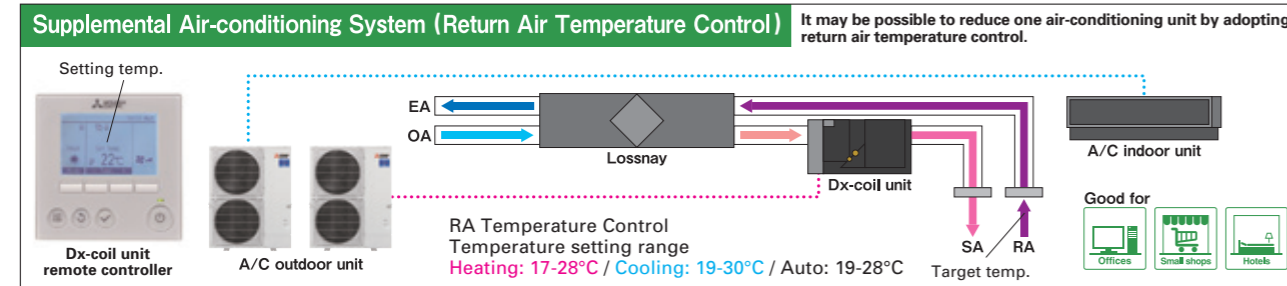
- Lossnay return air and supply air temperature control are possible by connecting the Dx-coil unit to Mr.Slim (power inverter series).
- Connecting the Dx-coil unit will expand Lossnay's temperature control range (500-2,500 CMH). Suitable for various applications such as offices, shops and schools etc.



Target Applications

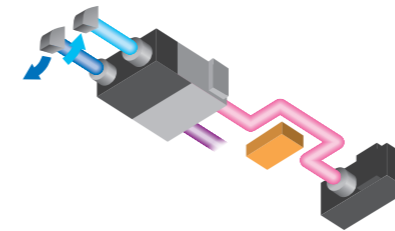


Application Examples



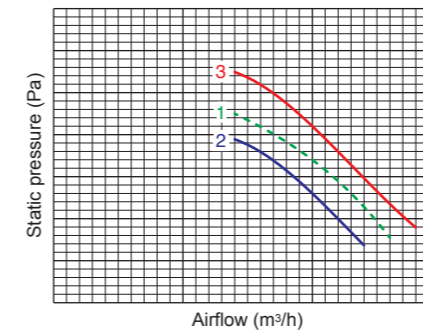
*The above images of using the LGH-RVXT Series are simply examples for reference.

Flexible installation



Flexible Connection to Lossnay

The length of the connection cable (accessory) between the Lossnay and Dx-coil unit is about 6m, so flexible installation is possible (two units can be installed close together or far apart with straight or bent ducting).



To Keep High Static Pressure

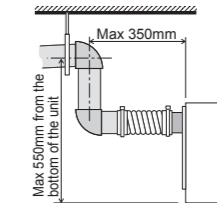
P-Q curve image

- Lossnay unit
- Lossnay unit + Dx-coil unit
- Lossnay unit (fan power-up +4) + Dx-coil unit

Dx-coil unit static pressure loss is kept to a minimum, making it possible to maintain high static pressure using the fan power-up function of the Lossnay. The fan power-up function is only available when used with the PZ-62DR-EA/EB Lossnay remote controller.

Drain Pump Equipment

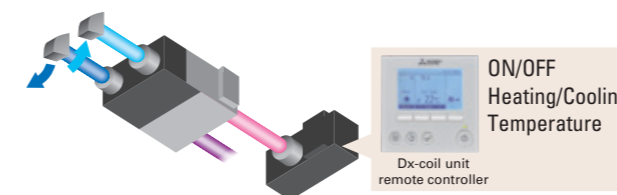
A built-in drain pump makes attaching the drain hose in the ceiling cavity easy, resulting in simple and fast installation.



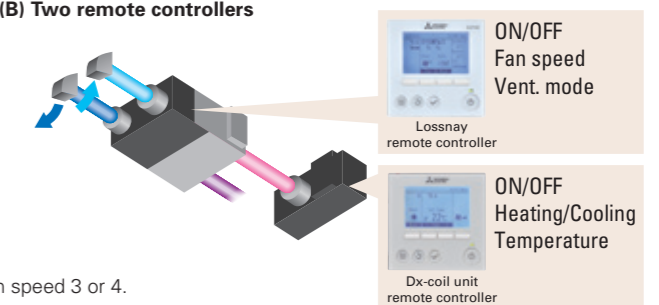
User-friendly system control

Flexible Remote Controller Selection

(A) One remote controller



(B) Two remote controllers



When using only one remote controller, Lossnay fan speed is fixed at fan speed 3 or 4. When using two remote controllers, all Lossnay functions are available.

*1: Lossnay unit and Dx-coil unit both will synchronously switch on and off.

*2: When one of the two remote controllers is turned ON, the other remote controller turns ON synchronously.

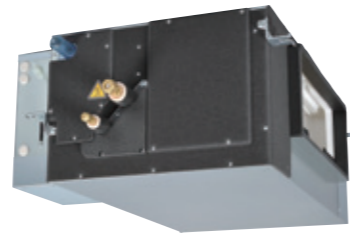
Priority Mode Selection

Temperature priority mode (factory setting) or Fan speed priority mode are selectable when Lossnay unit fan speed is controlled by a CO₂-sensor or a BMS (analog input (0 - 10 VDC) or a volt-free input).

*During fan speed 1 or 2, the Dx-coil unit is always set to thermo-OFF.

Operation mode	Fan speed order from external input	Actual fan speed	
		Temp. priority	Fan speed priority
Heating or Cooling	FS4	FS4	FS4
	FS3	FS3	FS3
	FS2	FS3	FS2
	FS1	FS3	FS1
Fan	FS4	FS4	FS4
	FS3	FS3	FS3
	FS2	FS2	FS2
	FS1	FS1	FS1

GUG SERIES Specifications



GUG-01SL-E



GUG-02SL-E

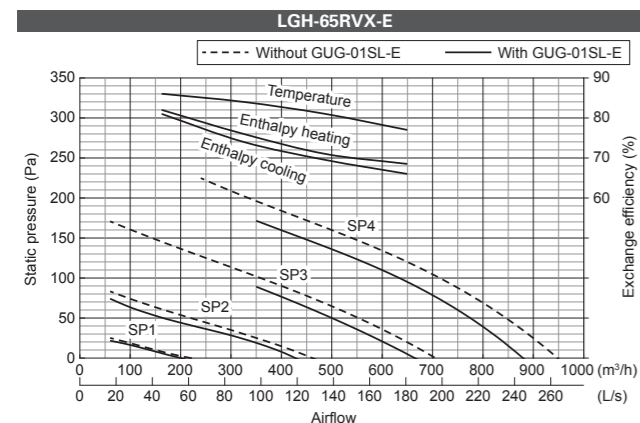
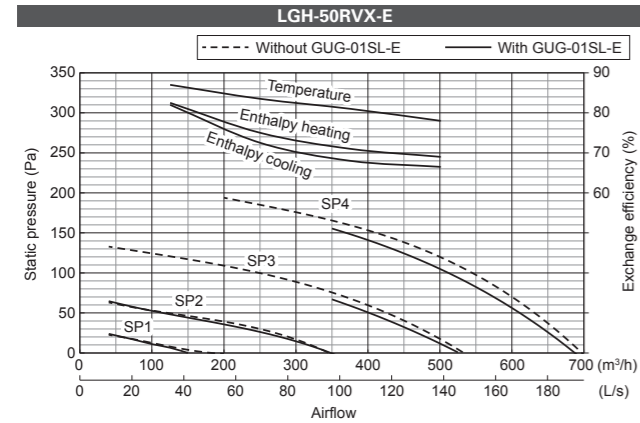
GUG-01SL-E (Connection to LGH-50RVX-E or LGH-65RVX-E)

Refrigerant	R410A								
Electrical power supply	220-240V / 50Hz, 220V / 60Hz (Supplied from outdoor unit)								
Input power	Heating / Fan: 2.5W, Cooling: 12.4W								
Running current	Less than 0.1A								
Weight	21kg *Accessories: Approx. 1kg								
Function	Heating / Cooling / Auto / Fan *Auto is only available for RA temperature control								
RA (Return Air) temperature control									
Connectable Lossnay unit	LGH-50RVX-E				LGH-65RVX-E				
Capacity [kW]	Heating	6.5 (2.4 + 4.1)			7.7 (3.2 + 4.5)				
	Cooling	5.6 (2.0 + 3.6)			6.6 (2.6 + 4.0)				
SHF	0.66				0.69				
Performance index	Heating	4.09			4.72				
	Cooling	4.69			5.03				
Airflow range at SP3 and SP4	350 - 695 m ³ /h				350 - 900 m ³ /h				
Connectable outdoor unit	PUHZ-ZRP35				PUHZ-ZRP35				
Ext. piping	Diameter Liquid / Gas: 6.35 / 12.7				Diameter Liquid / Gas: 6.35 / 12.7				
	Maximum length: 50m, Maximum height: 30m				Maximum length: 50m, Maximum height: 30m				
Ventilation specifications									
Fan speed		SP4	SP3	SP2	SP1	SP4	SP3	SP2	SP1
Airflow	[m ³ /h]	500	375	250	125	650	488	325	163
	[L/s]	139	104	69	35	181	135	90	45
External static pressure [Pa]		105	59	26	7	95	53	24	6

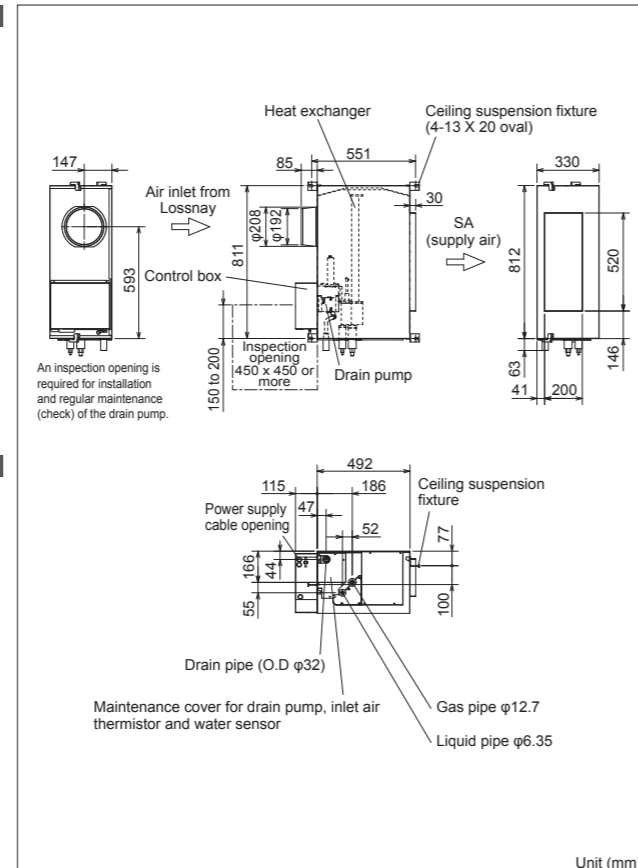
GUG-02SL-E (Connection to LGH-80RVX-E or LGH-100RVX-E)

Refrigerant	R410A								
Electrical power supply	220-240V / 50Hz, 220V / 60Hz (Supplied from outdoor unit)								
Input power	Heating / Fan: 2.5W, Cooling: 12.4W								
Running current	Less than 0.1A								
Weight	26kg *Accessories: Approx. 1kg								
Function	Heating / Cooling / Auto / Fan *Auto is only available for RA temperature control								
RA (Return Air) temperature control									
Connectable Lossnay unit	LGH-80RVX-E				LGH-100RVX-E				
Capacity [kW]	Heating	10.0 (4.0 + 6.0)			13.2 (5.1 + 8.1)				
	Cooling	8.3 (3.3 + 5.0)			11.3 (4.2 + 7.1)				
SHF	0.69				0.66				
Performance index	Heating	4.62			4.42				
	Cooling	4.76			4.98				
Airflow range at SP3 and SP4	560 - 1200 m ³ /h				700 - 1200 m ³ /h				
Connectable outdoor unit	PUHZ-ZRP50				PUHZ-ZRP71				
Ext. piping	Diameter Liquid / Gas: 6.35 / 12.7				Diameter Liquid / Gas: 9.52 / 15.88				
	Maximum length: 50m, Maximum height: 30m				Maximum length: 50m, Maximum height: 30m				
Required optional parts	PAC-SH30RJ-E and PAC-SH50RJ-E				PAC-SH30RJ-E and PAC-SH50RJ-E				
SA (Supply Air) temperature control									
Connectable Lossnay unit	LGH-80RVX-E				LGH-100RVX-E				
Capacity [kW]	Heating	10.0 (4.0 + 6.0)			11.4 (5.1 + 6.3)				
	Cooling	8.3 (3.3 + 5.0)			9.5 (4.2 + 5.3)				
SHF	0.69				0.73				
Performance index	Heating	4.62			5.09				
	Cooling	4.76			5.43				
Airflow range at SP3 and SP4	560 - 1200 m ³ /h				700 - 1200 m ³ /h				
Connectable outdoor unit	PUHZ-ZRP50				PUHZ-ZRP50				
Ext. piping	Diameter Liquid / Gas: 6.35 / 12.7				Diameter Liquid / Gas: 6.35 / 12.7				
	Maximum length: 50m, Maximum height: 30m				Maximum length: 50m, Maximum height: 30m				
Required optional parts	PAC-SH30RJ-E and PAC-SH50RJ-E				PAC-SH30RJ-E and PAC-SH50RJ-E				
Ventilation specifications									
Connectable Lossnay unit	LGH-80RVX-E				LGH-100RVX-E				
Fan speed		SP4	SP3	SP2	SP1	SP4	SP3	SP2	SP1
Airflow	[m ³ /h]	800	600	400	200	1,000	750	500	250
	[L/s]	222	167	111	56	278	208	139	69
External static pressure [Pa]		130	73	33	8	130	73	33	8

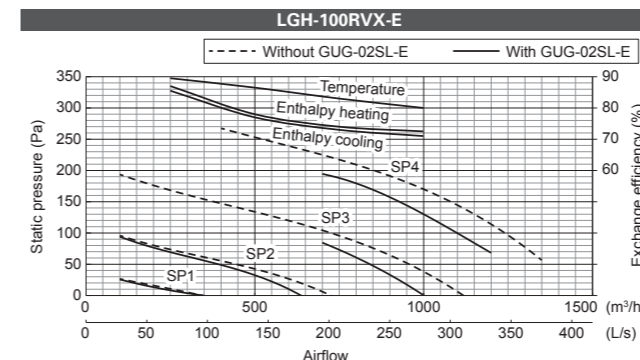
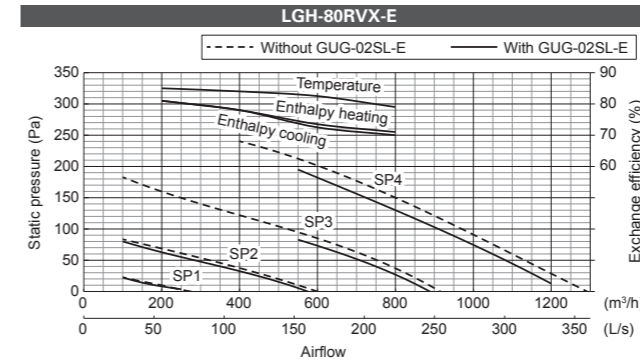
Characteristic Curves



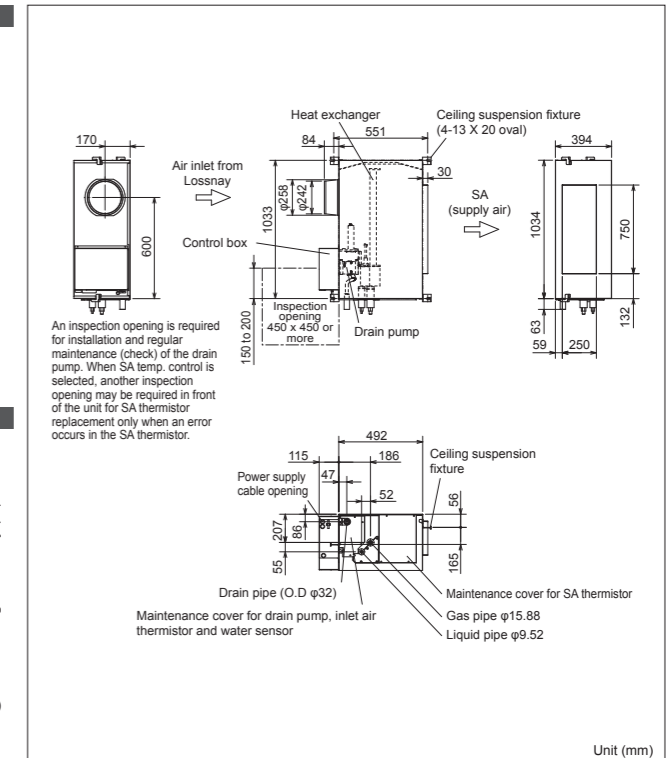
Dimensions



Characteristic Curves



Dimensions



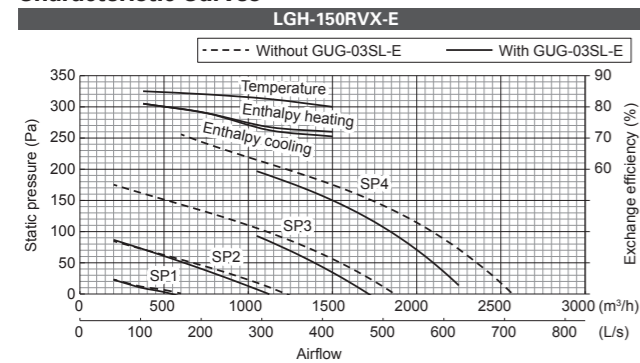


GUG-03SL-E

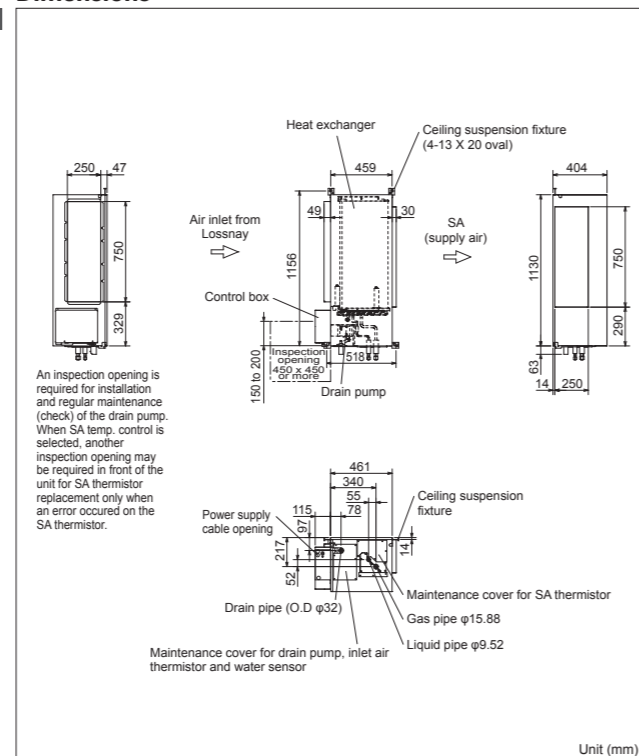
GUG-03SL-E (Connection to LGH-150RVX-E)

Refrigerant	R410A				
Electrical power supply	220-240V / 50Hz, 220V / 60Hz (Supplied from outdoor unit)				
Input power	Heating / Fan: 2.5W, Cooling: 12.4W				
Running current	Less than 0.1A				
Weight	28kg *Accessories: Approx. 1kg				
Function	Heating / Cooling / Auto / Fan *Auto is only available for RA temperature control				
Function	RA (Return Air) temperature control / SA (Supply Air) temperature control [Must be set at initial setting and not possible to change from remote controller]				
RA (Return Air) temperature control					
Connectable Lossnay unit	LGH-150RVX-E				
Capacity [kW]	Heating 20.7 (7.7 + 13.0)				
	Cooling 15.8 (6.3 + 9.5)				
SHF	0.68				
Performance index	Heating 4.07				
	Cooling 5.03				
Airflow range at SP3 and SP4	1050 - 2250 m ³ /h				
Connectable outdoor unit	PUHZ-ZRP100				
Ext. piping	Diameter Liquid / Gas: 9.52 / 15.88				
	Maximum length: 75m, Maximum height: 30m				
SA (Supply Air) temperature control					
Connectable Lossnay unit	LGH-150RVX-E				
Capacity [kW]	Heating 16.6 (7.7 + 8.9)				
	Cooling 13.4 (6.3 + 7.1)				
SHF	0.85				
Performance index	Heating 5.46				
	Cooling 5.32				
Airflow range at SP3 and SP4	1050 - 2250 m ³ /h				
Connectable outdoor unit	PUHZ-ZRP71				
Ext. piping	Diameter Liquid / Gas: 9.52 / 15.88				
	Maximum length: 50m, Maximum height: 30m				
Ventilation specifications					
Connectable Lossnay unit	LGH-150RVX-E				
Fan speed	SP4	SP3	SP2	SP1	
Airflow	[m ³ /h]	1,500	1,125	750	375
	[L/s]	417	313	208	104
External static pressure [Pa]	150	84	38	9	

Characteristic Curves



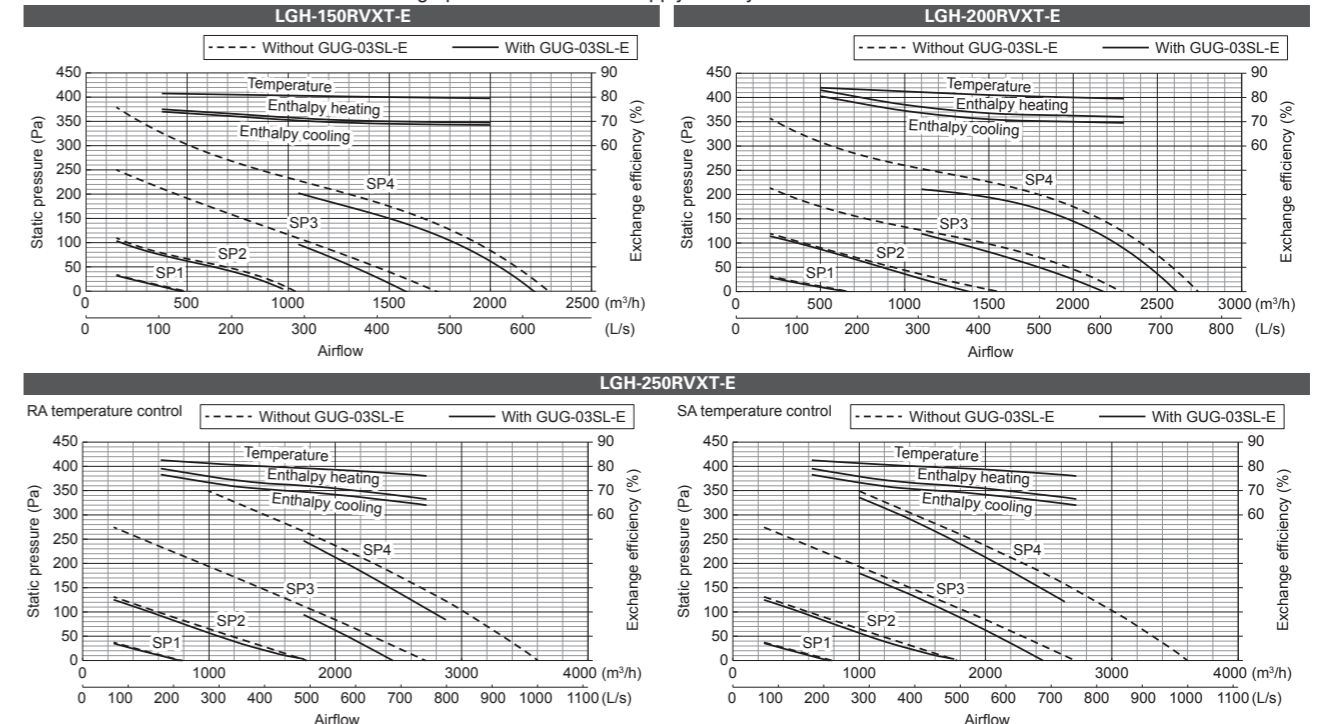
Dimensions



GUG-03SL-E (Connection to LGH-200RVXT-E, LGH-200RVXT-E or LGH-250RVXT-E)

Refrigerant	R410A												
Electrical power supply	220-240V / 50Hz, 220V / 60Hz (Supplied from outdoor unit)												
Input power	Heating / Fan: 2.5W, Cooling: 12.4W												
Running current	Less than 0.1A												
Weight	28kg *Accessories: Approx. 1kg												
Function	Heating / Cooling / Auto / Fan *Auto is only available for RA temperature control												
Function	RA (Return Air) temperature control / SA (Supply Air) temperature control [Must be set at initial setting and not possible to change from remote controller]												
RA (Return Air) temperature control													
Connectable Lossnay unit	LGH-150RVXT-E				LGH-200RVXT-E				LGH-250RVXT-E				
Capacity [kW]	Heating 20.4 (7.4 + 13.0)				23.8 (10.3 + 13.5)				26.1 (12.1 + 14.0)				
	Cooling 15.7 (6.2 + 9.5)				18.4 (8.4 + 10.0)				22.3 (9.8 + 12.5)				
SHF	0.68				0.76				0.87				
Performance index	Heating 4.07				4.86				4.75				
	Cooling 5.03				5.59				4.59				
Airflow range at SP3 and SP4	1050 - 2250 m ³ /h				1050 - 2600 m ³ /h				1750 - 2880 m ³ /h				
Connectable outdoor unit	PUHZ-ZRP100				PUHZ-ZRP100				PUHZ-ZRP125				
Ext. piping	Diameter Liquid / Gas: 9.52 / 15.88				Diameter Liquid / Gas: 9.52 / 15.88				Diameter Liquid / Gas: 9.52 / 15.88				
	Maximum length: 75m, Maximum height: 30m				Maximum length: 75m, Maximum height: 30m				Maximum length: 75m, Maximum height: 30m				
SA (Supply Air) temperature control													
Connectable Lossnay unit	LGH-150RVXT-E				LGH-200RVXT-E				LGH-250RVXT-E				
Capacity [kW]	Heating 16.3 (7.4 + 8.9)				19.5 (10.3 + 9.2)				21.6 (12.1 + 9.5)				
	Cooling 13.3 (6.2 + 7.1)				15.9 (8.5 + 7.4)				17.6 (9.8 + 7.8)				
SHF	0.86				0.90				0.95				
Performance index	Heating 5.16				6.01				5.97				
	Cooling 5.03				5.54				5.31				
Airflow range at SP3 and SP4	1050 - 2250 m ³ /h				1050 - 2600 m ³ /h				1000 - 2600 m ³ /h				
Connectable outdoor unit	PUHZ-ZRP71				PUHZ-ZRP71				PUHZ-ZRP71				
Ext. piping	Diameter Liquid / Gas: 9.52 / 15.88				Diameter Liquid / Gas: 9.52 / 15.88				Diameter Liquid / Gas: 9.52 / 15.88				
	Maximum length: 50m, Maximum height: 30m				Maximum length: 50m, Maximum height: 30m				Maximum length: 50m, Maximum height: 30m				
Ventilation specifications													
Connectable Lossnay unit	LGH-150RVXT-E				LGH-200RVXT-E				LGH-250RVXT-E				
Fan speed	SP4	SP3	SP2	SP1	SP4	SP3	SP2	SP1	SP4	SP3	SP2	SP1	
Airflow	[m ³ /h]	1,500	1,125	750	375	2,000	1,500	1,000	500	2,500	1,875	1,250	625
	[L/s]	417	313	208	104	556	417	278	139	694	521	347	174
External static pressure [Pa]	150	84	38	9	145	82	36	9	140	79	35	9	

Characteristic Curves Note The graphs below show the supply air only.



Attention

- The running current and input power are based on 230V/50Hz.
- The cooling and heating capacities are based on the air conditions listed below and the rated airflow of fan speed 4.
Cooling Indoor: 27°CDB/19°CWB, Outdoor: 35°CDB/24°CWB
Heating Indoor: 20°CDB/15°CWB, Outdoor: 7°CDB/6°CWB
- The first figure in () of the capacity specification is the heat recovery energy of the Lossnay unit. The second figure is the capacity specification for the Dx-coil connected to the outdoor unit.
- "Performance index" is the calculated value at the temperature conditions above, and is for reference purpose only.
Performance index = Total capacity ÷ total power consumption of outdoor unit and Lossnay unit
- The external static pressure listed in the tables includes the static pressure loss of the Dx-coil unit when using a 50cm straight duct between the Lossnay and Dx-coil units. When the duct work between the Lossnay and Dx-coil units is longer and/or bent, the pressure loss of the duct work should be included in the pressure loss calculation.
- The designed airflow of the system (Lossnay, Dx-coil and duct work) at fan speed 3 and 4 should be kept within "Airflow range at SP3 and SP4" listed in the tables. This range is shown as the solid line in graphs of the characteristic curves. If the Lossnay airflow is out of this range, the compressor of the outdoor unit may stop for self-protection purposes.
- By installing the Dx-coil unit with a Lossnay unit, the air blow noise level is quieter at fan speed 4. Please refer to the "Direct Expansion coil unit for Lossnay" catalog.
- 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 CO₂ over a period of 100 years. Never try to interfere with the refrigerant circuit or disassemble the product yourself and always ask a professional.

CONTROL TECHNOLOGIES

New model



PZ-62DR-EA/EB

Multi-language Display

Control panel operation in 17 different languages. Choose a desired language, among the following languages.

		-EA	-EB
Language	English	●	●
	German	●	●
	Spanish	●	●
	French	●	●
	Italian		●
	Russian	●	
	Portuguese		●
	Swedish		●
	Dutch	●	
	Turkish	●	
	Polish	●	
	Greek		●
	Czech	●	
	Hungarian	●	
	Slovenian		●
	Bulgarian	●	
	Danish		●

Compatibility Table

Function	PZ-62DR-EA/EB		PZ-43SMF-E
	LGH-RVX/ RVXT	LGH-RVS	LGH-RVX/ RVXT/ RVS
Fan speed selection	4 fan speeds	4 fan speeds and Auto (Auto is available when using a CO ₂ sensor)	2 of 4 fan speeds
Control with a CO ₂ sensor (Mitsubishi Electric)	No	Yes (Fan speed automatically changes from 25% to 100% depending on the CO ₂ concentration *)	No
Control with a CO ₂ sensor (Field supply)	Yes (Fan speed automatically changes between 4 levels depending on the CO ₂ concentration)	Yes (Fan speed automatically changes from 25% to 100% depending on the CO ₂ concentration *)	No
Ventilation mode selection	Energy recovery / Bypass / Auto	Energy recovery / Bypass / Auto	Energy recovery / Bypass / Auto
Night-purge	Yes	Yes	No
Function setting from remote controller	Yes	Yes	No
Bypass temp. free setting	Yes (Set in Function setting menu)	Yes	No
Multi-stage airflow control	No	Yes (Both supply and exhaust fan speeds can be set separately from 25% to 100% in 5% pitches)	No
ON/OFF timer	Yes	Yes	Yes
Auto-off timer	Yes	Yes	No
Weekly timer	Yes	Yes	No
Fan speed timer	Yes	Yes	No
Operation restrictions (ON/OFF, ventilation mode, fan speed)	Yes	Yes	No
Operation restrictions (fan speed skip setting)	Yes	Yes	No
Screen contrast adjustment	Yes	Yes	No
Language selection	Yes	Yes	No (English only)
CO ₂ concentration indication	No	Yes (available when using our manufactured CO ₂ sensor)	No
Filter cleaning sign	Yes	Yes (maintenance interval can be changed)	Yes
Lossnay core cleaning sign	Yes	No	No
Error indication	Yes (displays model name, serial number, contact information)	Yes (displays model name, serial number, contact information)	Yes
Error history	Yes	Yes	No
OA/RA/SA temp. display	Yes	Yes	No

*Upper and lower limits may differ when using a CO₂ sensor.

Filters & Accessories

Filters For LGH-RVX Series & LGH-RVXT Series & GUF Series

Standard Filters

Replacements for the standard filter supplied with the Lossnay main unit.



Filter Material	Filter Classification		Model Name	Included piece/set	Lossnay		
	ISO 16890	EN779 (2012)			Applicable model	Required filter pieces	
Non-woven Fabrics	Coarse 35%	G3*	PZ-15RF ₈ -E	2	LGH-15RVX-E	2	
			PZ-25RF ₈ -E	4	LGH-25RVX-E	4	
			PZ-35RF ₈ -E	4	LGH-35RVX-E	4	
			PZ-50RF ₈ -E	4	LGH-50RVX-E, GUF-50RD4, GUF-50RDH4	4	
			PZ-65RF ₈ -E	4	LGH-65RVX-E	4	
			PZ-80RF ₈ -E	4	LGH-80RVX-E	4	
	Coarse 50%	G3				LGH-150RVX-E	8
			PZ-100RF ₈ -E	4	LGH-100RVX-E, GUF-100RD4, GUF-100RDH4	4	
			PZ-150RTF-E	4	LGH-150RVXT-E	4	
			PZ-250RTF-E	4	LGH-200RVXT-E, LGH-250RVXT-E	4	

*The classification in EN779 (2002) is G3.

High-efficiency Filters Optional

These high-efficiency filters can be easily inserted in the Lossnay unit without the need to attach external parts.



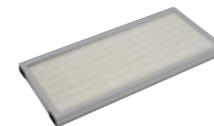
Filter Material	Filter Classification		Model Name	Included piece/set	Lossnay	
	ISO 16890	EN779 (2012)			Applicable model	Required filter pieces
Synthetic fiber	ePM ₁₀ 75%	M6*	PZ-15RFM-E	1	LGH-15RVX-E	1
			PZ-25RFM-E	2	LGH-25RVX-E	2
			PZ-35RFM-E	2	LGH-35RVX-E	2
			PZ-50RFM-E	2	LGH-50RVX-E, GUF-50RD4, GUF-50RDH4	2
			PZ-65RFM-E	2	LGH-65RVX-E	2
			PZ-80RFM-E	2	LGH-80RVX-E	2
			PZ-100RFM-E	2	LGH-100RVX-E, GUF-100RD4, GUF-100RDH4	2

*The classification in EN779 (2002) is F7.

Advanced High-efficiency Filters (For LGH-RVX and GUF Series) Optional

These advanced high-efficiency filters are designed to remove approx. 99.7% of airborne particulates that are 0.5µm or larger.

*GB/T14295-2008 : YG class, 99.7% (Collecting efficiency for particles that are 0.5µm or larger)



Filter Material	Filter Classification		Model Name	Included piece/set	Lossnay	
	ISO 16890	ASHRAE 52.2 (2017)			Applicable model	Required filter pieces
Synthetic fiber	ePM ₁ 75% ePM _{2.5} 80% ePM ₁₀ 95%	MERV16	PZ-15RFP ₂ -E	1	LGH-15RVX-E	1
			PZ-25RFP ₂ -E	2	LGH-25RVX-E	2
			PZ-35RFP ₂ -E	2	LGH-35RVX-E	2
			PZ-50RFP ₂ -E	2	LGH-50RVX-E, GUF-50RD4, GUF-50RDH4	2
			PZ-65RFP ₂ -E	2	LGH-65RVX-E	2
			PZ-80RFP ₂ -E	2	LGH-80RVX-E	2
			PZ-100RFP ₂ -E	2	LGH-100RVX-E, GUF-100RD4, GUF-100RDH4	2

Advanced High-efficiency Filters (For LGH-RVXT Series) Optional

These advanced high-efficiency filters can be easily inserted in the Lossnay unit without the need to attach external parts.



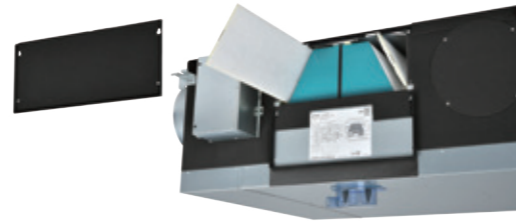
Filter Material	Filter Classification		Model Name	Included piece/set	Lossnay		
	ISO 16890	EN779 (2012)			Applicable model	Required filter pieces	
Non-woven Fabrics	ePM ₁₀ 75% ePM ₁ 65% ePM _{2.5} 75% ePM ₁₀ 90%	M6*	PZ-M6RTFM-E	3	LGH-150RVXT-E, LGH-200RVXT-E, LGH-250RVXT-E	3	
			M6*	PZ-M6TDF-E			3
				F8*			PZ-F8TDF-E

*There is no data for the classification in EN779 (2002).

Filters For LGH-RVS Series

Filters

A lineup of three types of filters offers optimum indoor air quality solutions! All filters are ISO and EN779:2012 certified, and can be easily installed in the units. Maintenance and exchanges can also be performed easily, simply by opening the maintenance panel.



Standard Filter

Filter material	Classification		Model name	Included piece/set	Lossnay	
	ISO 16890 (2016)	EN779 (2012)			Applicable model	Required set/unit
Non-woven fabrics	Coarse 50%	G3	PZ-S50RF-E	2	LGH-50RVS-E	1
			PZ-S80RF-E	2	LGH-80RVS-E	1
			PZ-S100RF-E	2	LGH-100RVS-E	1

High-efficiency Filter

Filter material	Classification		Model name	Included piece/set	Lossnay	
	ISO 16890 (2016)	EN779 (2012)			Applicable model	Required set/unit
Pleated filter	ePM ₁₀ 80%	M6	PZ-S50RFM-E	2	LGH-50RVS-E	1
			PZ-S80RFM-E	2	LGH-80RVS-E	1
			PZ-S100RFM-E	2	LGH-100RVS-E	1

Advanced High-efficiency Filter

Filter material	Classification		Model name	Included piece/set	Lossnay	
	ISO 16890 (2016)	EN779 (2012)			Applicable model	Required set/unit
Pleated filter	ePM ₁₀ 90%	F8	PZ-S50RFH-E	2	LGH-50RVS-E	1
			PZ-S80RFH-E	2	LGH-80RVS-E	1
			PZ-S100RFH-E	2	LGH-100RVS-E	1

Accessories For LGH-RVS Series

CO₂ Sensor

A CO₂ sensor connected directly to a Lossnay RVS unit optimizes the fan speed according to the level of CO₂ detected. It improves total heat exchange efficiency and contributes to energy saving.

PZ-70CSW-E (Wall mounted type)

CO₂ levels are indicated by LED lights.



PZ-70CSB-E (Built-in type)



Automatic operation with CO₂ sensor and PZ-62DR-E

Fan speed automatically changes depending on CO₂ concentration.

Accessories For LGH-RVX/RVS Series & GUF Series

Duct Silencer

In facilities and applications requiring quiet operations, the silencer duct that reduces noise levels is the ideal solution. It contains glass wool and attenuates sound power by absorbing the noise from the airflow or operation of the unit.

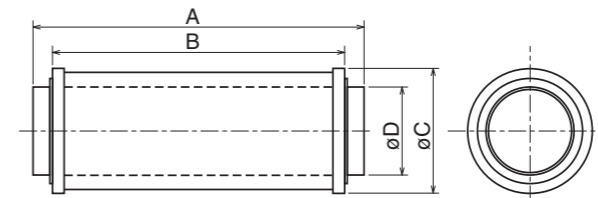


Specifications

Model	Airflow [m ³ /h]	Attenuation of sound power level [dB] for center frequency (Discharge)							
		62.5Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	8000Hz
PZ-100SS-E	50	0	3	5	7	6	6	6	8
	150	0	3	6	7	7	7	7	9
PZ-150SS-E	250	0	1	5	8	15	21	20	14
	350	0	1	4	8	14	21	21	16
PZ-200SS-E	500	0	1	4	7	13	18	16	9
	650	0	1	3	8	12	17	14	6
PZ-250SS-E	800	0	2	4	12	22	21	14	13
	1000	0	1	4	12	22	20	14	13

1. Figures on the chart above are based on the comparison with a general steel duct of the same length.
2. The silencer is placed on just before the outlet during the measurement.
3. When the airflow rate differs, the insertion loss is also different from the chart above.
4. Figures on the chart above are flat (No-weighted) values.

Dimensions

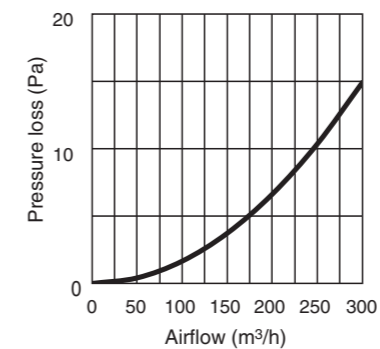


Unit: mm

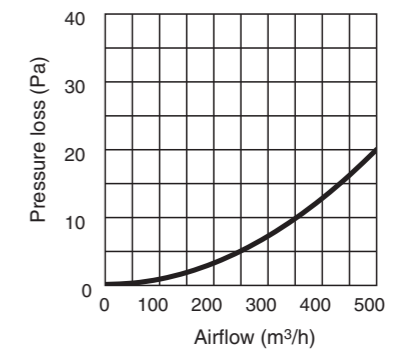
Model	A	B	C	D	Connecting duct	Weight (kg)
PZ-100SS-E	450	400	152	99	ø100	1.9
PZ-150SS-E	560	500	202	149	ø150	3.5
PZ-200SS-E	660	600	252	199	ø200	5.3
PZ-250SS-E	660	600	332	249	ø250	8.9

Pressure loss curve

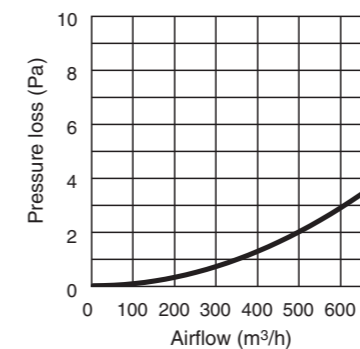
PZ-100SS-E



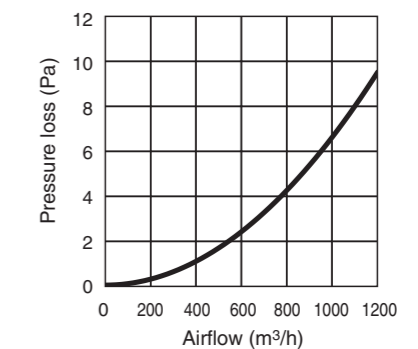
PZ-150SS-E



PZ-200SS-E



PZ-250SS-E



VL-CZPVU SERIES

Vertical type centralized ventilation with sensible heat exchange for residential use.

VL-250CZPVU-R/L-E
VL-350CZPVU-R/L-E
VL-500CZPVU-R/L-E



Key features



Quiet Operation

Noise is one of the most common concerns for residential ventilation. Ultra quiet operation is achieved with the sirocco fan designed by Mitsubishi Electric. The balance between airflow and static pressure is optimized and the fan rotation is minimized, leading to low noise levels.

Air Purification

An optional filter removes NOx and PM2.5 and improves indoor air quality. They can be incorporated inside the unit without any filter box, which saves space.

*NOx: Nitrogen oxide, which includes nitric oxide (NO) and nitrogen dioxide (NO₂).
*PM2.5: Airborne particulates that are 2.5µm or smaller in size.

Wi-Fi Control

MELCloud is a Cloud-based solution for controlling Lossnay units either locally or remotely by computer, tablet or smartphone via the Internet. It allows Lossnay operations to be checked and controlled via MELCloud from virtually anywhere and Internet connection is available. With MELCloud, the Lossnay system can be used much more easily and conveniently.

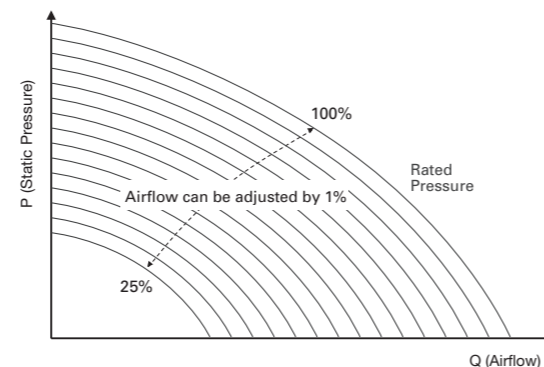
Energy efficiency

Under regulation (EU) No. 1254/2014, the VL-CZPVU series has the highest energy-saving performance in its class (ErP A+). It saves heating and cooling costs by minimizing the energy loss that occurs during ventilation.

ErP A+

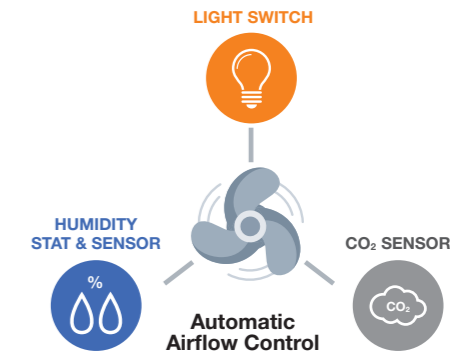
Variable airflow control

The default fan speed value (Fan speed 1: 30%, Fan speed 2: 50%, Fan speed 3: 70%, and Fan speed 4: 100%) of both supply air and exhaust air can be adjusted flexibly. Within the range between 25% and 100%, airflow can be adjusted by 1% increments to satisfactorily meet the designed airflow rate.



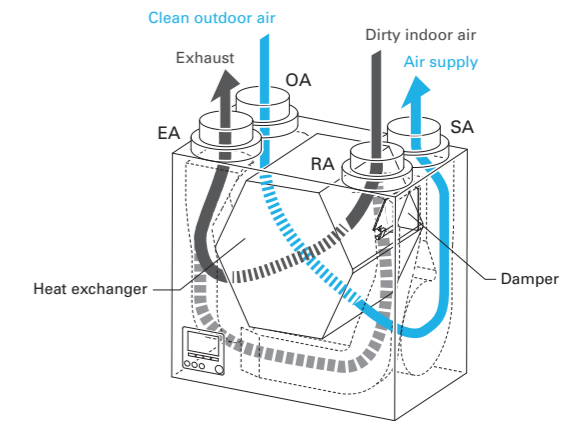
External airflow control

The airflow from the Lossnay unit can be altered using 0-10V signals from the controllers, such as the humidity stat and CO₂ sensor (field supply). The Lossnay unit is also connected to the light switch and can change to boost operation mode (input 220-240V). These devices are connected directly to the Lossnay unit, allowing automatic fan speed control according to bathroom occupation, CO₂ level, and humidity level.



Automatic bypass mode

It is possible to switch between "Lossnay ventilation (with heat exchange)" and "Bypass ventilation (without heat exchange)" either manually or automatically. When outside air is cooler than indoor air in summer, the unit directly draws in outside air, bypassing the heat exchanger.



* The figure shows VL-350CZPVU-L-E

Wide operating temperature range

The VL-CZPVU series can operate at temperatures down to -15°C. With a pre-heater, it can operate at temperatures down to -25°C.

* In areas where outdoor air falls below -20°C, an electric shutter (locally supplied) is required in the OA duct in addition to the pre-heater.

* The OA temperature must be higher than -15°C to use the pre-heater.

MELCloud for Lossnay

MELCloud enables fast, easy remote control and monitoring of Lossnay units. Wireless computer connectivity and an Internet-connected mobile or fixed terminal are all that are needed. MELCloud can also be used to control room air conditioners and Ecodan heat pumps simultaneously.

Key Control and Monitoring Features

1. Turn system on/off
2. Switching airflow & operating mode (Heat recovery / Bypass)
3. Confirming the status of the filter/core (Maintenance notification)



VL-CZPVU SERIES

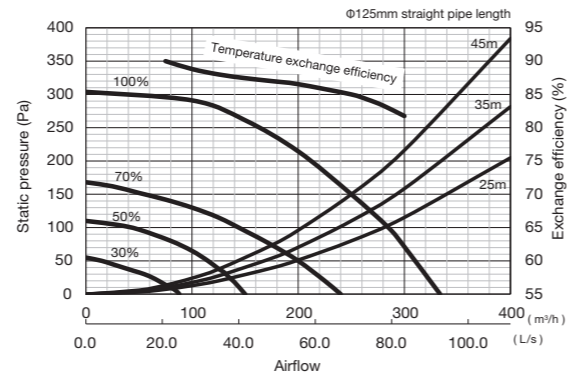
Specifications

VL-250CZPVU-R/L-E

Electrical Power Supply	220-240V/50Hz, 220V-/60Hz				
Ventilation Mode	Heat recovery mode				
Fan Speed	FS4 (100%)	FS3 (70%)	FS2 (50%)	FS1 (30%)	
Running Current (A)	0.76	0.35	0.20	0.12	
Input Power (W)	106	44	23	11	
Airflow	(m ³ /h)	250	175	125	75
	(L/s)	69	49	35	21
External Static Pressure (Pa)	150	74	38	14	
Temperature Exchange Efficiency (%)	85	87	88	90	
Noise Level (dB)	31	22	16	15 >	
Energy Efficiency Class	A+				
Weight (kg)	26				
Dimensions (mm)	(H) 565 x (W) 595 x (D) 356				

- Attention
- The above values are at factory default.
 - The running current, the input power, the efficiency and the noise are based on the rating airflow, and 230V/50Hz.
 - The sound pressure level at 3m is spherical.
 - Temperature exchange efficiency (%) is based on winter condition.
 - Mitsubishi Electric measures figures in the chart according to EN13141-7: 2010, and the characteristic curves are measured by chamber method.

Characteristic Curves



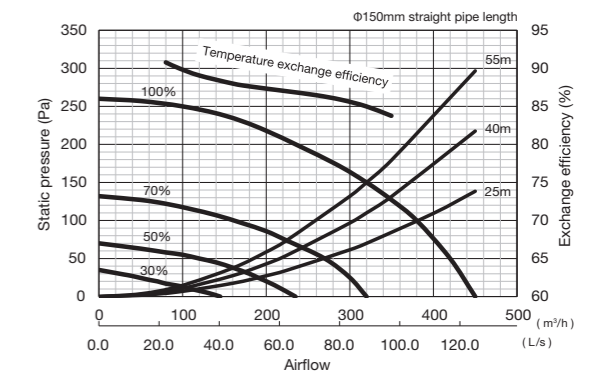
- Attention
- Mitsubishi Electric measures figures in the chart according to EN13141-7: 2010, and the characteristic curves are measured by chamber method.

VL-350CZPVU-R/L-E

Electrical Power Supply	220-240V/50Hz, 220V-/60Hz				
Ventilation Mode	Heat recovery mode				
Fan Speed	FS4 (100%)	FS3 (70%)	FS2 (50%)	FS1 (30%)	
Running Current (A)	1.08	0.52	0.31	0.18	
Input Power (W)	155	71	37	19	
Airflow	(m ³ /h)	320	224	160	96
	(L/s)	89	62	44	27
External Static Pressure (Pa)	150	74	38	14	
Temperature Exchange Efficiency (%)	85	87	88	90	
Noise Level (dB)	35	26	19	15 >	
Energy Efficiency Class	A+				
Weight (kg)	32				
Dimensions (mm)	(H) 623 x (W) 658 x (D) 432				

- Attention
- The above values are at factory default.
 - The running current, the input power, the efficiency and the noise are based on the rating airflow, and 230V/50Hz.
 - The sound pressure level at 3m is spherical.
 - Temperature exchange efficiency (%) is based on winter condition.
 - Mitsubishi Electric measures figures in the chart according to EN13141-7: 2010, and the characteristic curves are measured by chamber method.

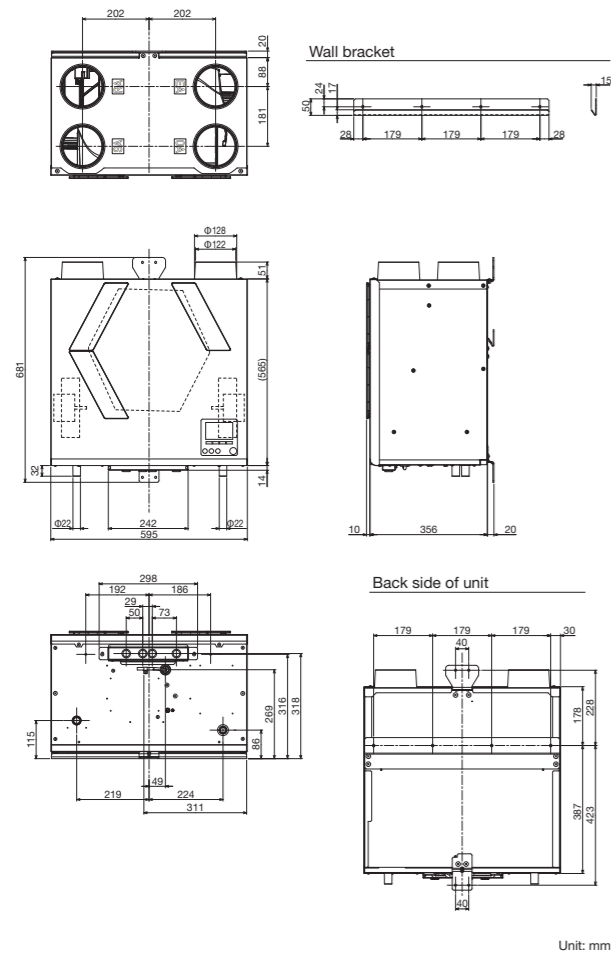
Characteristic Curves



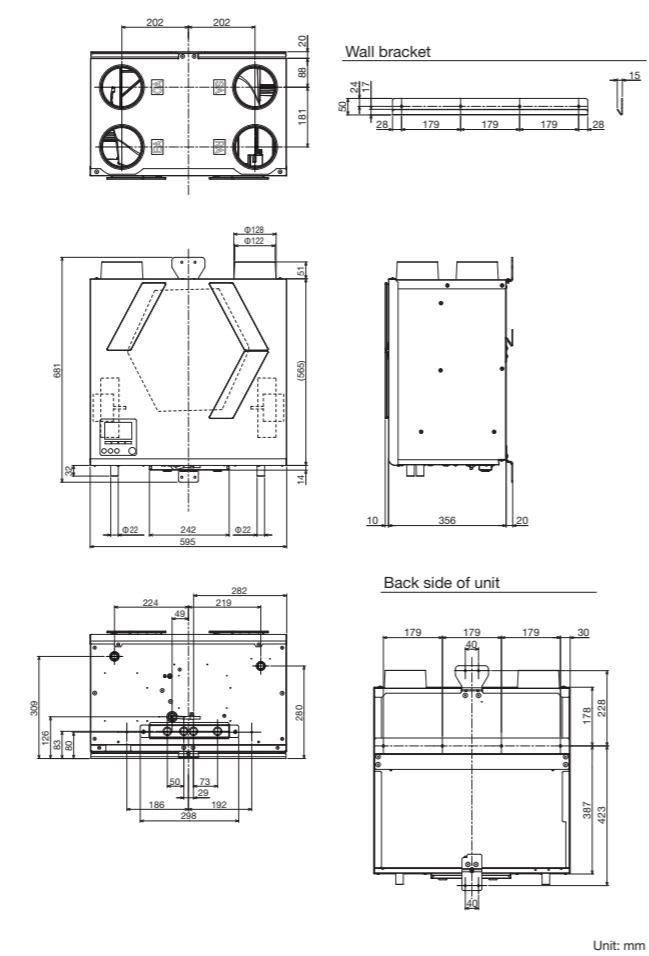
- Attention
- Mitsubishi Electric measures figures in the chart according to EN13141-7: 2010, and the characteristic curves are measured by chamber method.

Dimensions

VL-250CZPVU-R-E

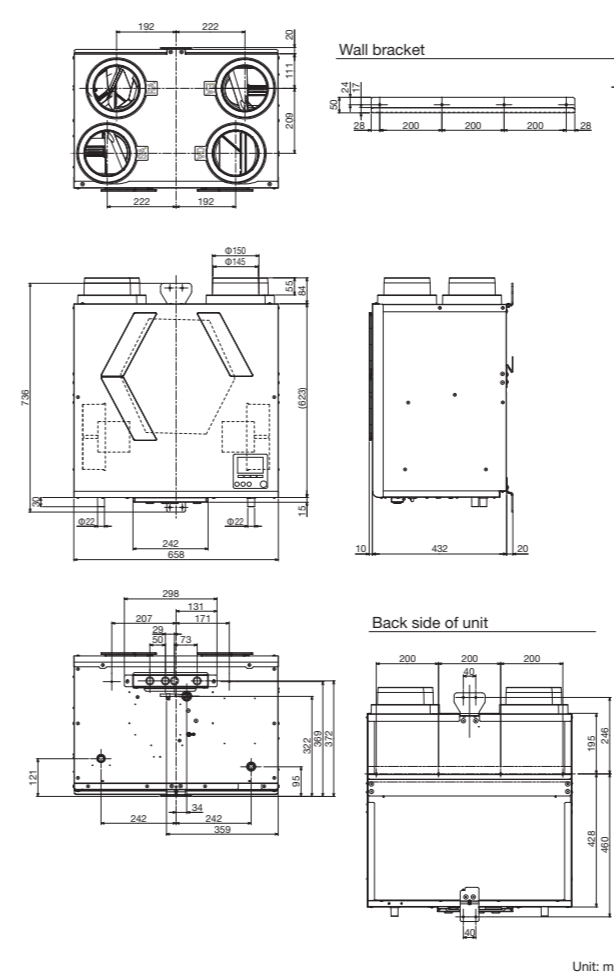


VL-250CZPVU-L-E

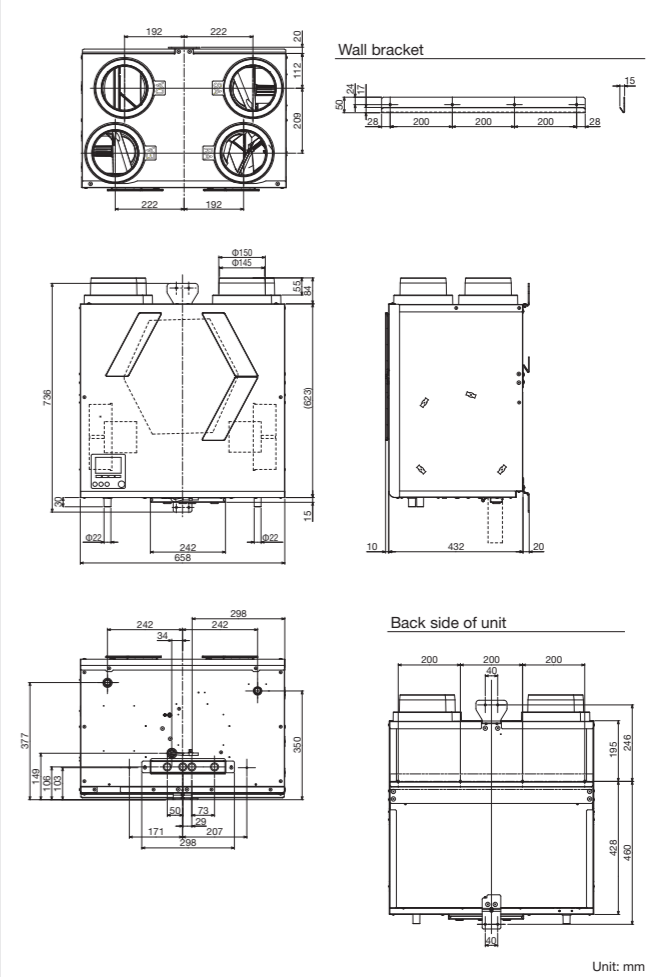


Dimensions

VL-350CZPVU-R-E



VL-350CZPVU-L-E



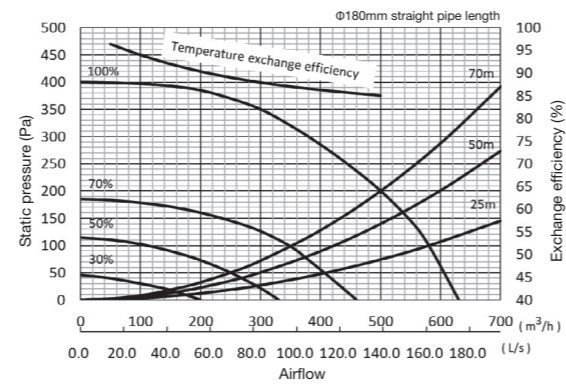
VL-500CZPVU-R/L-E

Electrical Power Supply	220-240V/50Hz, 220V-/60Hz				
Ventilation Mode	Heat recovery mode				
Fan Speed	FS4 (100%)	FS3 (70%)	FS2 (50%)	FS1 (30%)	
Running Current (A)	1.73	0.77	0.40	0.19	
Input Power (W)	275	104	49	21	
Airflow	(m³/h)	500	350	250	150
	(L/s)	139	97	69	42
External Static Pressure (Pa)	200	98	50	18	
Temperature Exchange Efficiency (%)	85	87	89	92	
Noise Level (dB)	37	29	22	15>	
Energy Efficiency Class	A+				
Weight (kg)	39				
Dimensions (mm)	(H) 632 x (W) 725 x (D) 556				

Attention

- The above values are at factory default.
- The running current, the input power, the efficiency and the noise are based on the rating airflow, and 230V/50Hz.
- The sound pressure level at 3m is spherical.
- Temperature exchange efficiency (%) is based on winter condition.
- Mitsubishi Electric measures figures in the chart according to EN13141-7: 2010, and the characteristic curves are measured by chamber method.

Characteristic Curves



Attention

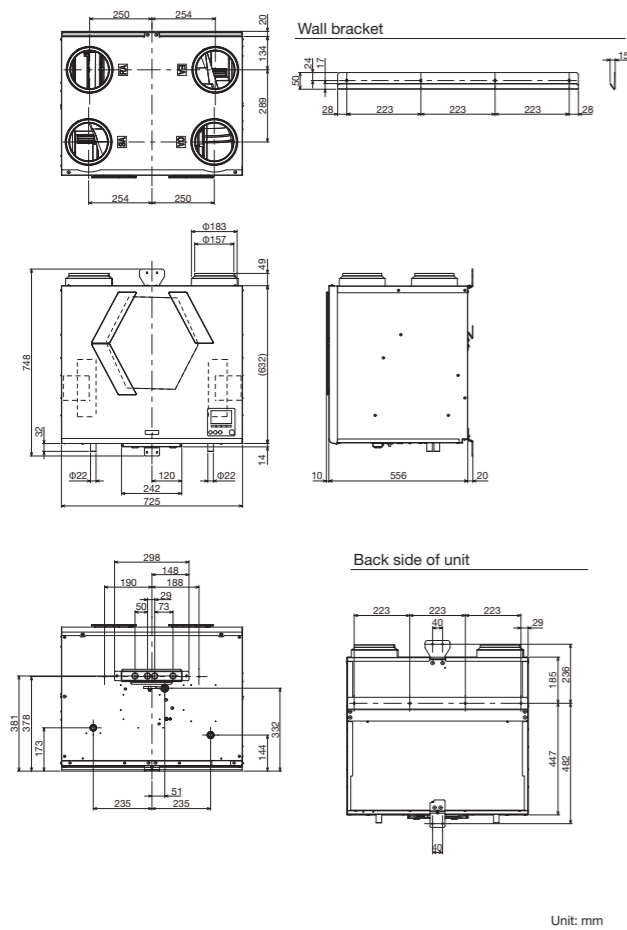
Mitsubishi Electric measures figures in the chart according to EN13141-7: 2010, and the characteristic curves are measured by chamber method.

Filters

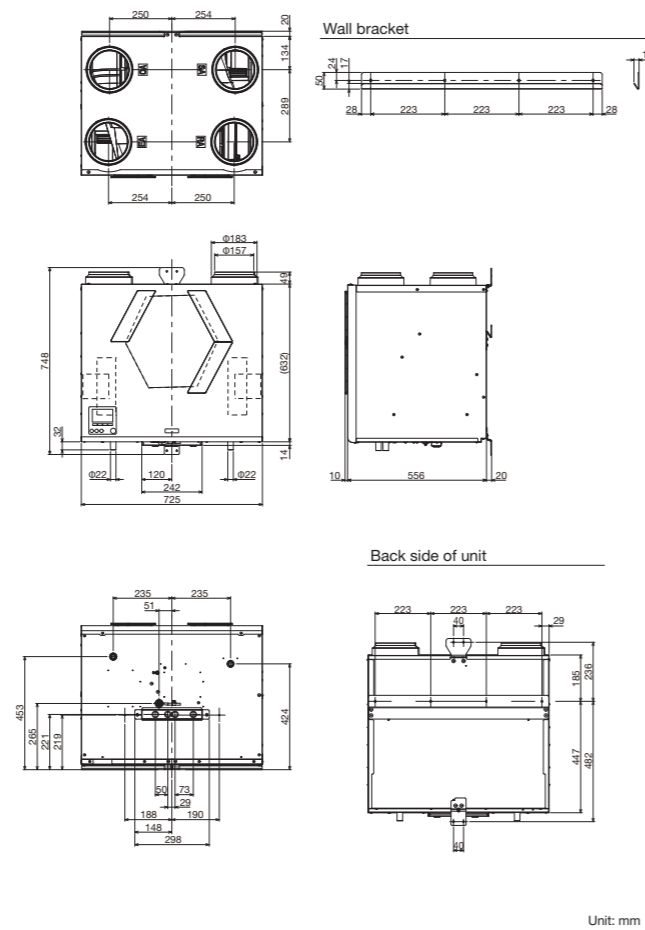
Type	Replacement Filter	Standard Filter	Medium Efficiency Filter	Advanced Efficiency Filter	Advanced High Efficiency Filter	NOx Filter
Model	P-250F-E P-350F-E P-500F-E	P-250SF-E P-350SF-E P-500SF-E	P-250MF-E P-350MF-E P-500MF-E	P-250PF-E P-350PF-E P-500PF-E	P-250PFH-E P-350PFH-E P-500PFH-E	P-250NF-E P-350NF-E P-500NF-E
Classification	EN779 (2012) ISO 16890 (2016)	G3 Coarse 55%	G4 Coarse 90%	M6 ePM10 80% ePM2.5 50%	M6 ePM1 55%	NO _x 90%

Dimensions

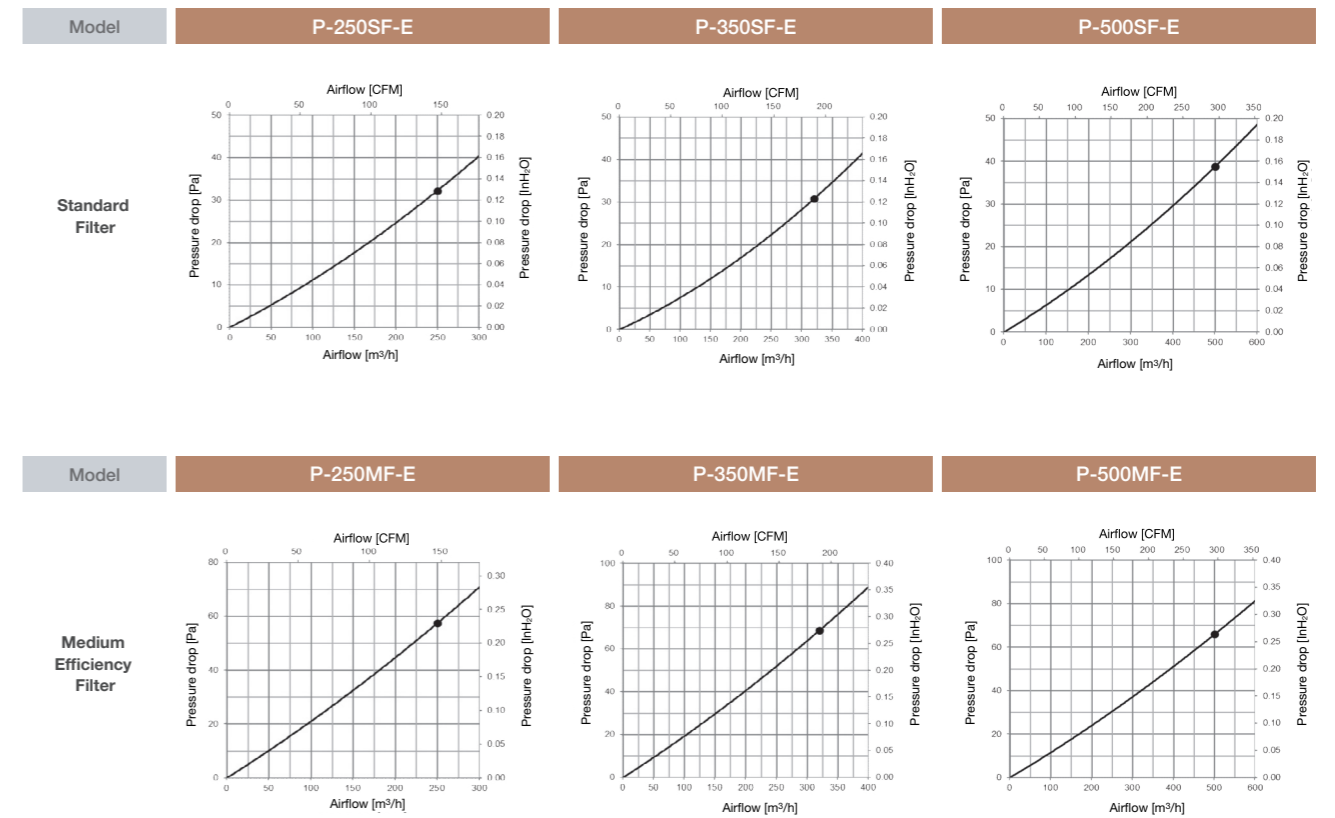
VL-500CZPVU-R-E



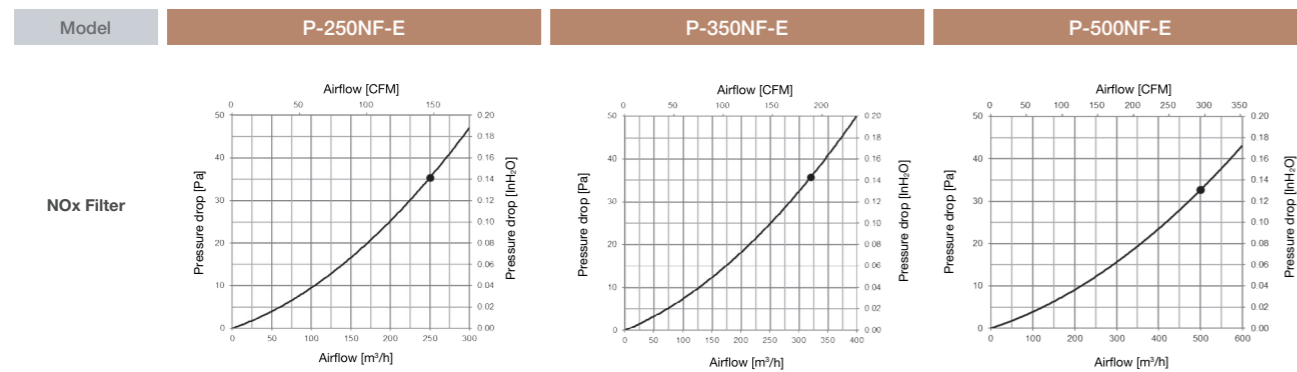
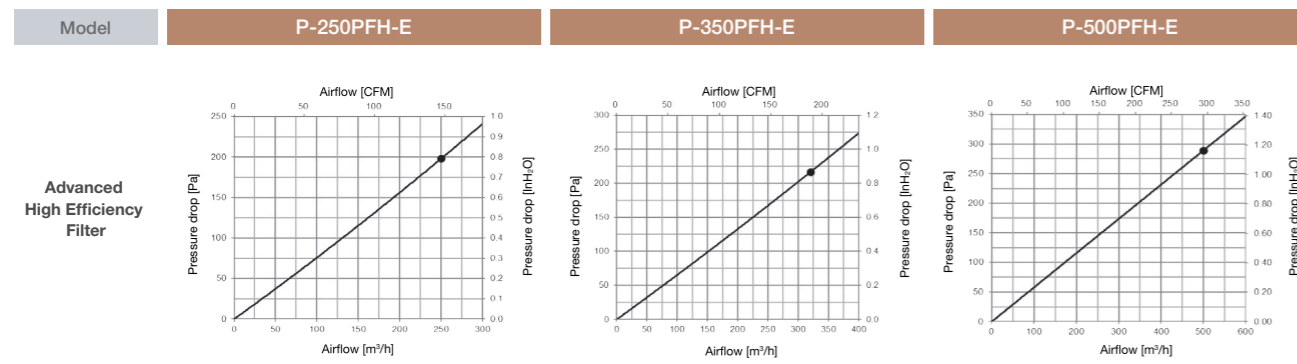
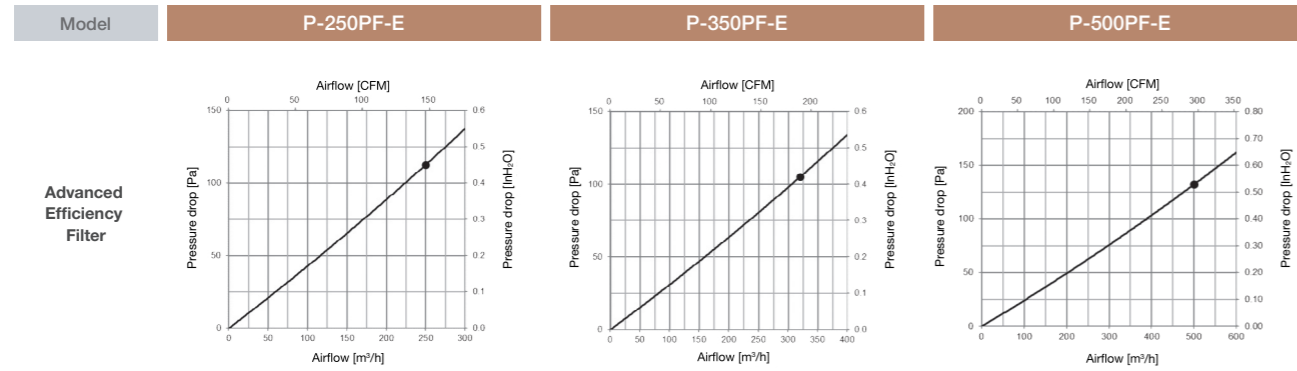
VL-500CZPVU-L-E



Pressure loss characteristics



Pressure loss characteristics



Silencer Box

P-250/350/500SB-E

Noise level can be further decreased by using a silencer box.



Model P-250SB-E

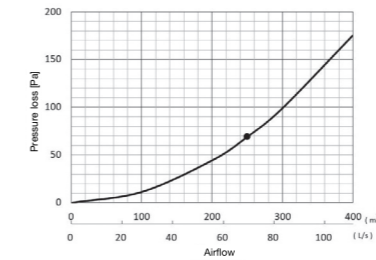
Attenuation of sound power level for center frequency

Airflow (m³/h)	Static pressure (Pa)	Point	Attenuation of sound power level for center frequency Hz (dB)							
			63	125	250	500	1000	2000	4000	8000
175	74	Outlet (SA/EA)	9	7	11	19	29	28	21	13

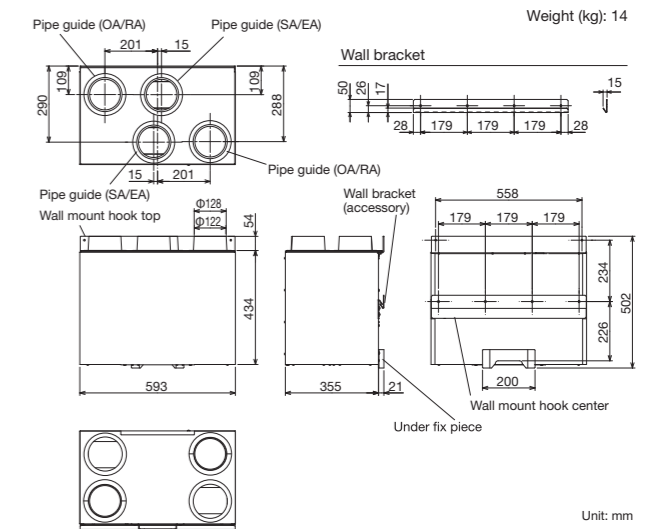
- Figures in the chart above are measured by Mitsubishi Electric.
- The silencer box is placed just after the outlet of the Lossnay unit as specified in the Installation Manual.
- When airflow differs, attenuation may also differ from the chart above.

Pressure loss curve

The curve on the right shows the total pressure drop of the OA and SA or RA and EA ducts in the silencer box.



Dimensions



Model P-350SB-E

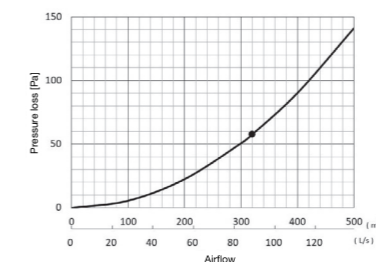
Attenuation of sound power level for center frequency

Airflow (m³/h)	Static pressure (Pa)	Point	Attenuation of sound power level for center frequency Hz (dB)							
			63	125	250	500	1000	2000	4000	8000
224	74	Outlet (SA/EA)	12	8	11	21	32	29	19	12

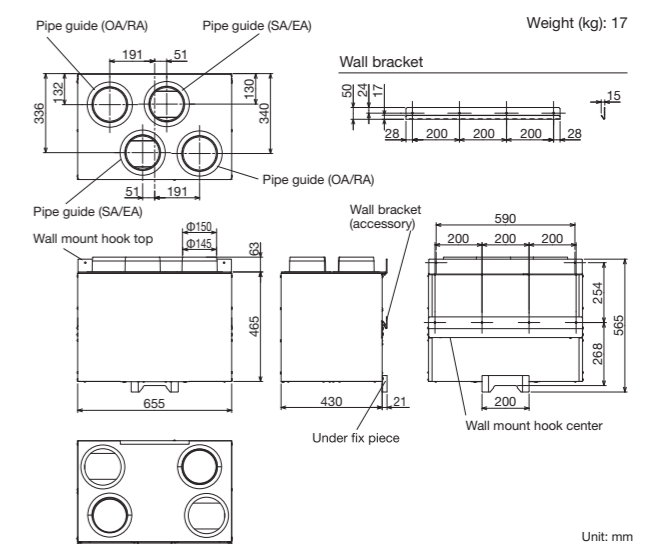
- Figures in the chart above are measured by Mitsubishi Electric.
- The silencer box is placed just after the outlet of the Lossnay unit as specified in the Installation Manual.
- When airflow differs, attenuation may also differ from the chart above.

Pressure loss curve

The curve on the right shows the total pressure drop of the OA and SA or RA and EA ducts in the silencer box.



Dimensions



Model P-500SB-E

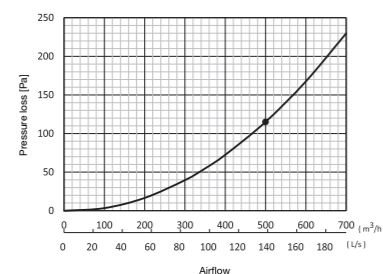
■ Attenuation of sound power level for center frequency

Airflow (m ³ /h)	Static pressure (Pa)	Point	Attenuation of sound power level for center frequency Hz (dB)							
			63	125	250	500	1000	2000	4000	8000
350	98	Outlet (SA/EA)	10.5	9.5	13.0	21.0	27.0	29.0	26.0	14.0

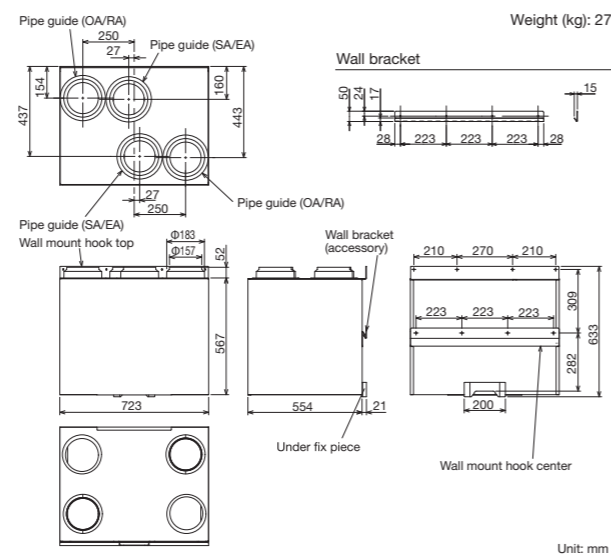
- Figures on the chart above are measured by Mitsubishi Electric.
- The silencer box is placed on the just after the outlet of the Lossnay unit as specified in the Installation Manual.
- When the airflow differs, the attenuation may be also different from the chart above.

■ Pressure loss curve

The curve on the right shows the total pressure drop of the OA and SA or RA and EA ducts in the silencer box.



■ Dimensions

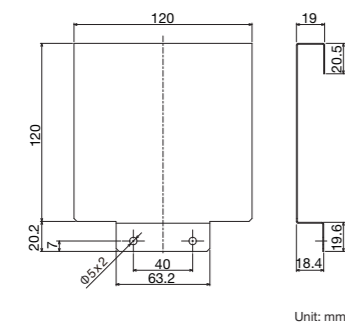


Remote Controller Cover

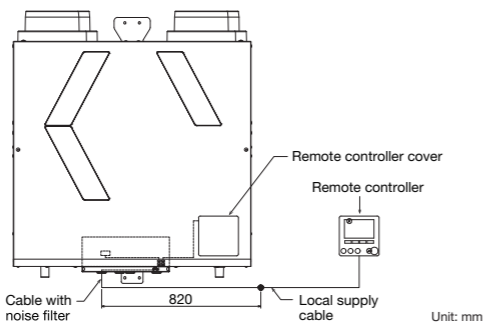
P-RCC-E

By attaching a Remote Controller Cover, the remote controller can be installed at a distance from the unit.

■ Dimensions



■ Configuration



Remote Controller Cover



Cable with Noise Filter (Cable length outside the product: Approximately 820 mm)

**VL-50(E)S₂-E, VL-50SR₂-E
VL-100(E)U₅-E**

Wall mounted models. Particularly suitable for houses and small offices.



VL-50(E)S₂-E
VL-50SR₂-E



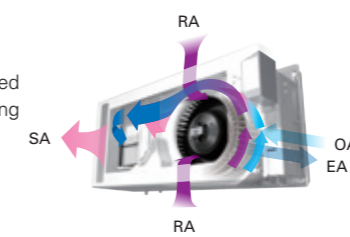
VL-100(E)U₅-E

Decentralized ventilation: VL-50(E)S₂-E, VL-50SR₂-E and VL-100(E)U₅-E

Product advantages

Air supplied and Exhausted Simultaneously

Air is supplied and exhausted simultaneously while transferring the heat.

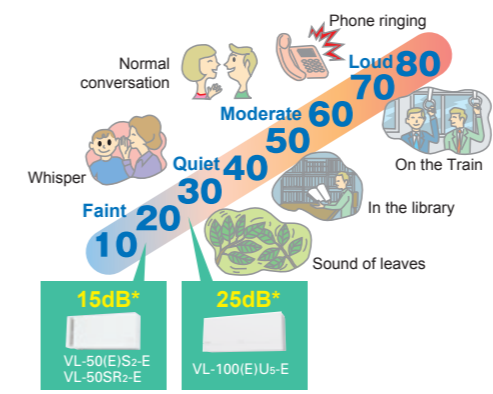


Energy Efficient

- Total heat exchange minimizes heat loss.
- Achieve over 80%* temperature efficiency.

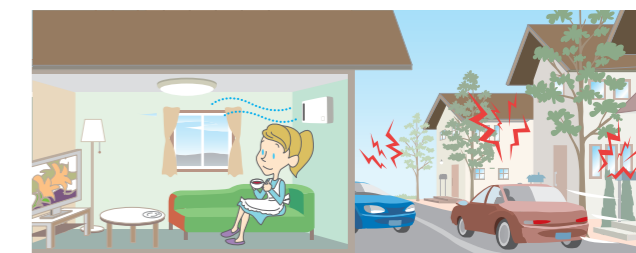
*VL-100(E)U₅-E at low fan speed in 230V 50Hz
*VL-50(E)S₂-E at low fan speed in 230V 50Hz

Low noise levels are ideal for bedrooms and children's rooms.



Sound Insulation

A sound insulation effect reduces the level of noise generated outside.

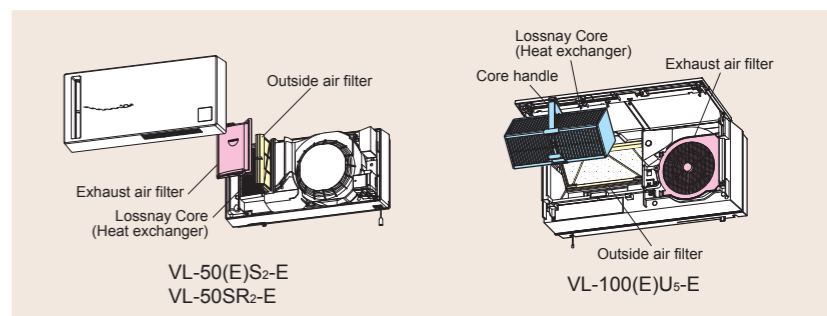


Sound Insulation Effect	Sound Source Side Average sound pressure dB	Sound Receiving Side Average sound pressure dB	Difference
	103.4	63.2	40.2

*Tested based on VL-08S₂-AE
*Measured by average sound pressure level of more than 30dB in 500Hz according to JIS A1416.
VL-08S₂-AE is a Japanese dedicated model equivalent to VL-50(E)S₂-E

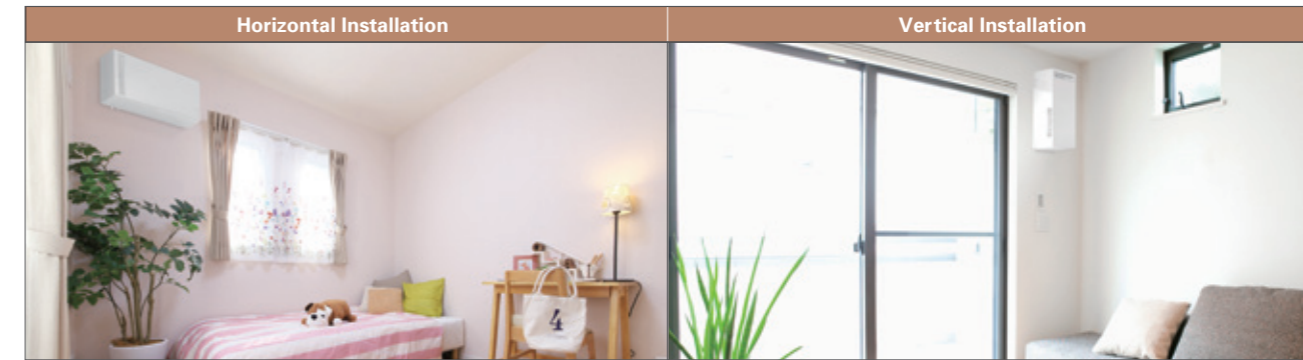
Easy Maintenance

The only maintenance required is cleaning the outside-air filter and exhaust-air filter. Filters are easily accessible, making quick and thorough cleaning possible.



Flexible Installation for Only VL-50(E)S₂-E and VL-50SR₂-E

Both horizontal and vertical installations are possible to fit various types of rooms.



VL-50(E)S₂-E, VL-50SR₂-E, VL-100(E)U₅-E

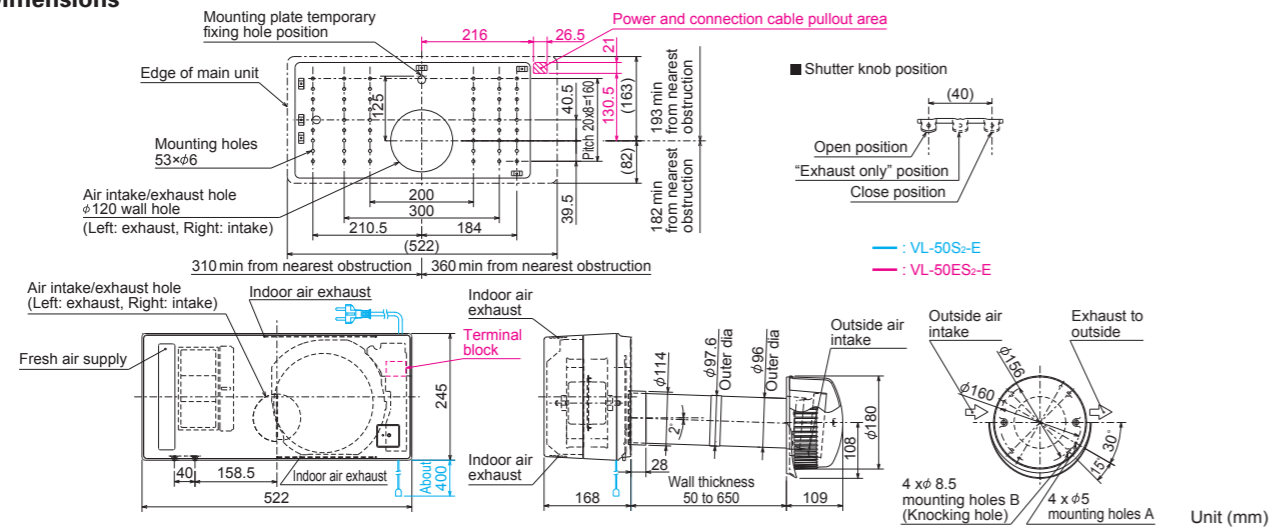
Specifications

Model: VL-50S₂-E (Pull-Switch Model) and VL-50ES₂-E (Wall-Switch Model)

Model	VL-50(E)S ₂ -E							
	220V/50Hz		230V/50Hz		240V/50Hz		220V/60Hz	
Electrical power supply	220V/50Hz		230V/50Hz		240V/50Hz		220V/60Hz	
Fan speed	High	Low	High	Low	High	Low	High	Low
Airflow (m ³ /h)	51	15	52.5	16	54	17	54	17
Power consumption (W)	19	4	20	4.5	21	5	21	5.5
Temperature exchange efficiency (%)	70	86	69	85	68	84	68	84
Noise level (dB)	36.5	14	37	15	37.5	15.5	37.5	15.5
Weight (kg)	6.2							
Specific energy consumption class	C							

*Figures in the chart were measured according to Japan Industrial Standard (JIS B 8628) with the shutter knob in open position.

Dimensions

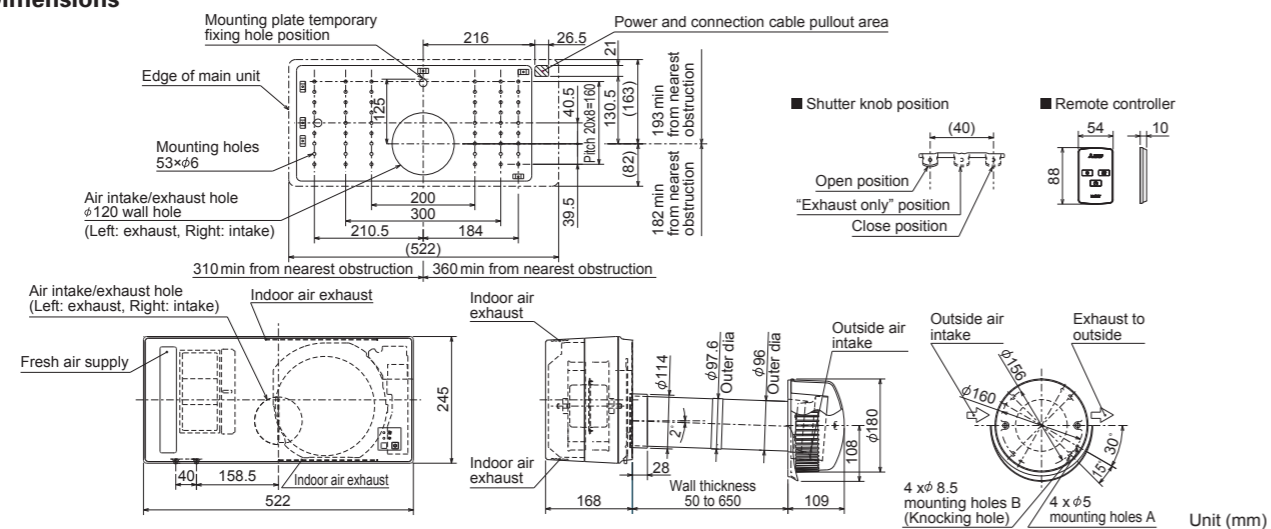


Model: VL-50SR₂-E (Remote Controller Model)

Model	VL-50SR ₂ -E							
	220V/50Hz		230V/50Hz		240V/50Hz		220V/60Hz	
Electrical power supply	220V/50Hz		230V/50Hz		240V/50Hz		220V/60Hz	
Fan speed	High	Low	High	Low	High	Low	High	Low
Airflow (m ³ /h)	51	15	52.5	16	54	17	54	17
Power consumption (W)	19	4.5	20	5	21	5.5	21	6
Temperature exchange efficiency (%)	70	86	69	85	68	84	68	84
Noise level (dB)	36.5	14	37	15	37.5	15.5	37.5	15.5
Weight (kg)	6.2							
Specific energy consumption class	C							

*Figures in the chart were measured according to Japan Industrial Standard (JIS B 8628) with the shutter knob in open position.

Dimensions

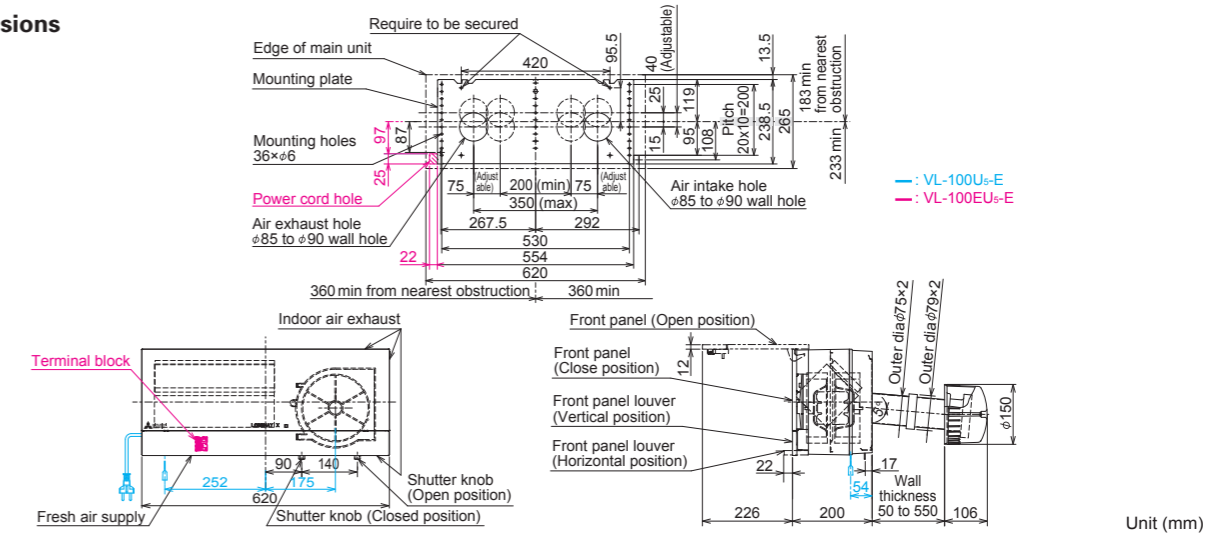


Model: VL-100U₅-E (Pull-Switch Model) and VL-100EU₅-E (Wall-Switch Model)

Model	VL-100(E)U ₅ -E							
	220V/50Hz		230V/50Hz		240V/50Hz		220V/60Hz	
Electrical power supply	220V/50Hz		230V/50Hz		240V/50Hz		220V/60Hz	
Fan speed	High	Low	High	Low	High	Low	High	Low
Airflow (m ³ /h)	100	55	105	60	106	61	103	57
Power consumption (W)	30	13	31	15	34	17	34	17
Temperature exchange efficiency (%)	73	80	73	80	72	79	73	80
Noise level (dB)	36.5	24	37	25	38	27	38	25
Weight (kg)	7.5							
Specific energy consumption class	B							

*Figures in the chart were measured according to Japan Industrial Standard (JIS B 8628) with the shutter knob in open position.

Dimensions



Optional Parts

Optional Parts for VL-50(E)S₂-E and VL-50SR₂-E

Filter, Extension Pipe and Stainless Hood

Type	Replacement Filter	High Efficiency Filter	Extension Pipe	Joint	Stainless Hood
Design					
Model	P-50F ₂ -E	P-50HF ₂ -E	P-50P-E	P-50PJ-E	P-50VSQ ₅ -E
Feature	-	-	Total length when connected to the joint is 350mm.	Joint for extension pipe	Stylish stainless hood
Classification (EN779:2012)	G3	-	-	-	-
Classification (ISO16890)	Coarse 35%	ePM ₁₀ 75%	-	-	-

Optional Parts for VL-100(E)U₅-E

Filter and Extension Pipe

Type	Replacement Filter	High Efficiency Filter	Extension Pipe	Joint
Design				
Model	P-100F ₅ -E	P-100HF ₅ -E	P-100P-E	P-100PJ-E
Feature	-	-	Total length when connected to the joint is 300mm.	• Joint for extension pipe • Screw-in method
Classification (EN779:2012)	G3	M6	-	-
Classification (ISO16890)	Coarse 35%	ePM ₁₀ 70%	-	-

List of optional parts

Optional Parts		Lossnay																	
		LGH-15RVX-E	LGH-25RVX-E	LGH-35RVX-E	LGH-50RVX-E	LGH-65RVX-E	LGH-80RVX-E	LGH-100RVX-E	LGH-150RVX-E	LGH-150RVXT-E	LGH-200RVXT-E	LGH-250RVXT-E	GUF-50RD4	GUF-50RDH4	GUF-100RD4	GUF-100RDH4	LGH-50RVSE	LGH-80RVSE	LGH-100RVSE
Lossnay Remote Controller	PZ-62DR-EA/EB	●	●	●	●	●	●	●	●	●	●	●					●	●	●
	PZ-43SMF-E	●	●	●	●	●	●	●	●	●	●	●					●	●	●
Standard Filter	PZ-15RF ₈ -E	●																	
	PZ-25RF ₈ -E		●																
	PZ-35RF ₈ -E			●															
	PZ-50RF ₈ -E				●								●	●					
	PZ-65RF ₈ -E					●													
	PZ-80RF ₈ -E						●		●										
	PZ-100RF ₈ -E							●							●	●			
	PZ-150RTF-E									●									
	PZ-250RTF-E										●	●							
	PZ-S50RF-E																●		
	PZ-S80RF-E																	●	
	PZ-S100RF-E																		●
	High-efficiency Filters	PZ-15RFM-E	●																
PZ-25RFM-E			●																
PZ-35RFM-E				●															
PZ-50RFM-E					●								●	●					
PZ-65RFM-E						●													
PZ-80RFM-E							●		●										
PZ-100RFM-E								●							●	●			
PZ-S50RFM-E																	●		
PZ-S80RFM-E																		●	
PZ-S100RFM-E																			●
Advanced High-efficiency Filters	PZ-15RFP ₂ -E	●																	
	PZ-25RFP ₂ -E		●																
	PZ-35RFP ₂ -E			●															
	PZ-50RFP ₂ -E				●								●	●					
	PZ-65RFP ₂ -E					●													
	PZ-80RFP ₂ -E						●		●										
	PZ-100RFP ₂ -E							●							●	●			
	PZ-M6RTFM-E									●	●	●							
	PZ-F8RTFM-E									●	●	●							
	PZ-S50RFH-E																●		
	PZ-S80RFH-E																	●	
	PZ-S100RFH-E																		●
	Duct Silencer	PZ-100SS-E	●																
PZ-150SS-E			●	●															
PZ-200SS-E					●	●							●	●			●		
PZ-250SS-E							●	●	●					●	●		●	●	
CO ₂ Sensor	PZ-70CSW-E															●	●	●	
	PZ-70CSB-E															●	●	●	

Note: Please refer to each product page for required number of pieces/sets.

List of optional parts for the VL-CZPVU Series

Optional Parts					Lossnay		
					VL-250CZPVU-R/L-E	VL-350CZPVU-R/L-E	VL-500CZPVU-R/L-E
Filter	Type	Classification (EN779:2012)	Classification (ISO16890)	Model			
	Replacement Filter	G3	Coarse 55%	P-250F-E	●		
				P-350F-E		●	
				P-500F-E			●
	Standard Filter	G4	Coarse 90%	P-250SF-E	●		
				P-350SF-E		●	
				P-500SF-E			●
	Medium Efficiency Filter	M6	ePM ₁₀ 80%	P-250MF-E	●		
				P-350MF-E		●	
				P-500MF-E			●
	Advanced Efficiency Filter	M6	ePM _{2.5} 50%	P-250PF-E	●		
				P-350PF-E		●	
				P-500PF-E			●
Advanced High Efficiency Filter		ePM ₁ 55%	P-250PFH-E	●			
			P-350PFH-E		●		
			P-500PFH-E			●	
NoxFILTER		NO ₂ 90%	P-250NF-E	●			
			P-350NF-E		●		
			P-500NF-E			●	
Silencer Box				P-250SB-E	●		
				P-350SB-E		●	
				P-500SB-E			●
Remote Controller Cover				P-RCC-E	●	●	●

List of optional parts for the VL-50/100 Series

Optional Parts					Lossnay					
					VL-50S ₂ -E	VL-50ES ₂ -E	VL-50SR ₂ -E	VL-100U ₅ -E	VL-100EU ₅ -E	
Filter	Type	Classification (EN779:2012)	Classification (ISO16890)	Model						
	Replacement Filter	G3		Coarse 35%	P-50F ₂ -E	●	●	●		
					P-100F ₅ -E				●	●
High Efficiency Filter			M6	ePM ₁₀ 75%	●	●	●			
Extension Pipe				ePM ₁₀ 70%	P-100HF ₅ -E				●	●
				P-50P-E	●	●	●			
Joint				P-100P-E				●	●	
				P-50PJ-E	●	●	●			
Stainless Hood				P-100PJ-E				●	●	
				P-50VSQ ₅ -E	●	●	●			