





# POWERFUL HEATING




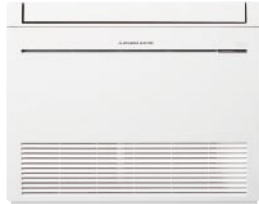
SERIES



# SELECTION

Line-up consists of two series.  
Choose the series that best matches the building layout.

| ZUBADAN <span style="float: right;">ZUBADAN SERIES</span>  |  |
|--|--|
| The line-up includes outdoor unit models 112-140 class and three types of indoor units.  |  |
| <p><b>Outdoor Unit</b></p>  <p>PUHZ-SHW112VHA<br/>PUHZ-SHW112/140YHA</p>                                      | <p><b>Indoor Unit</b></p> <p style="text-align: center;"><b>4-way cassette</b></p>  <p style="text-align: center;">PLA Series</p><br><p style="text-align: center;"><b>Wall-mounted</b></p>  <p style="text-align: center;">PKA Series</p> |
| <p style="text-align: center;"><b>Ceiling-concealed</b></p>  <p style="text-align: center;">PEAD Series</p> |  |

| MSZ-FH/MFZ-KJ VEHZ SERIES   |  |
|---|--|
| The line-up includes outdoor models 25-50   |  |
| <p><b>Outdoor Unit</b></p>  <p>MUZ-FH25/35VEHZ<br/>MUFZ-KJ25/35VEHZ</p><br> <p>MUZ-FH50VEHZ<br/>MUFZ-KJ50VEHZ</p> | <p><b>Indoor Unit</b></p> <p style="text-align: center;"><b>Wall-mounted</b></p>  <p style="text-align: center;">MSZ-FH25/35/50VE</p><br><p style="text-align: center;"><b>Floor-standing</b></p>  <p style="text-align: center;">MFZ-KJ25/35/50VE</p> |

# ZUBADAN SERIES

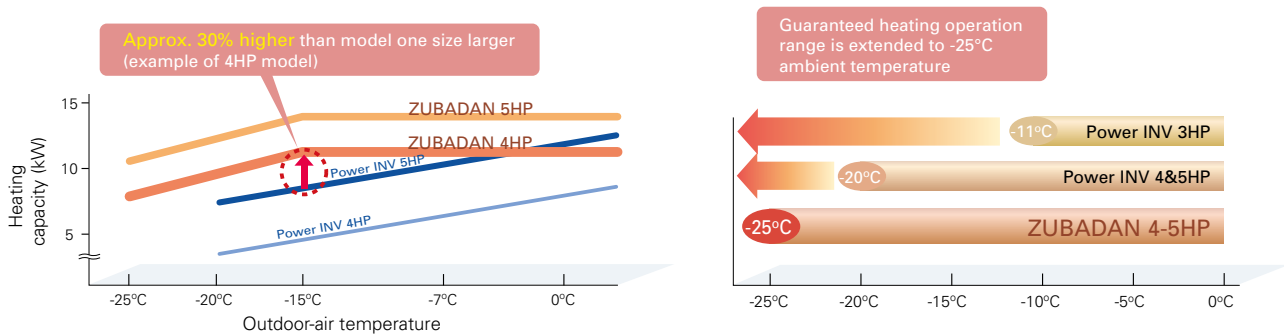
The ZUBADAN Series incorporates an original Flash Injection technology that improves the already high heating capacity of the system. This new member of the series line-up ensures comfortable heat pump-driven heating performance in cold regions.



\* 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  $-15^{\circ}\text{C}$ , and the guaranteed heating operation range of the heating mode has been extended to  $-25^{\circ}\text{C}$ . Accordingly, the heat-pump units of the ZUBADAN Series are perfect for warming homes in the coldest of regions.

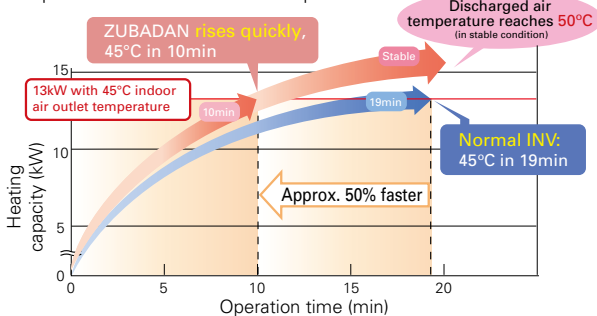


## Enhanced Comfort

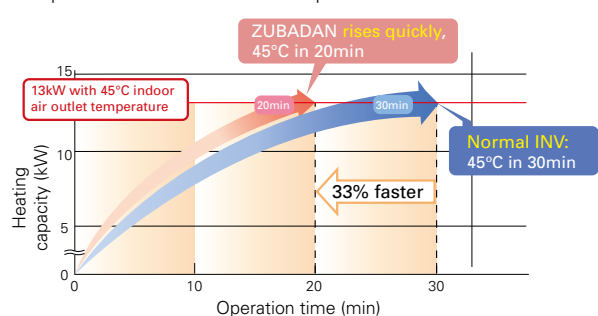
The Flash Injection circuit improves start-up and recover from the defrosting operation. A newly introduced defrost operation control also improves defrost frequency. These features enable the temperature to reach the set temperature more quickly, and contribute to maintaining it at the desired setting.

### Quick Start-up

■ Operation at  $+2^{\circ}\text{C}$  outdoor temperature



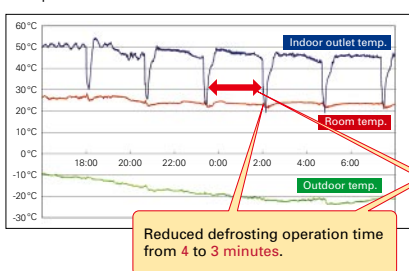
■ Operation at  $-20^{\circ}\text{C}$  outdoor temperature



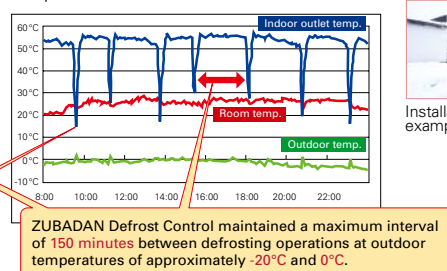
### ZUBADAN Defrost Control and Faster Recovery from Defrost Operation

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

■ Operation data for 25 Jan. 2005



■ Operation data for 2 Dec. 2004



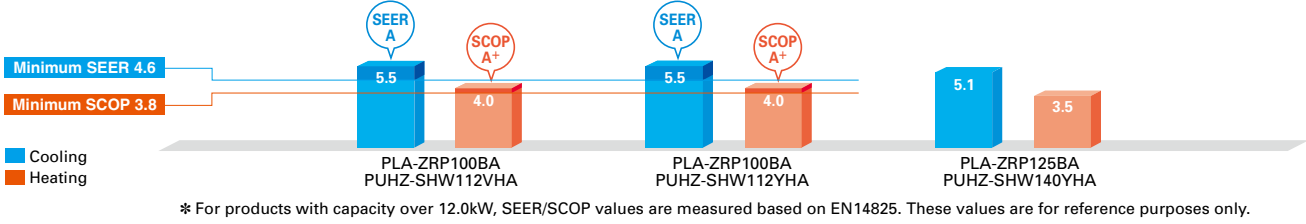
Installation example



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



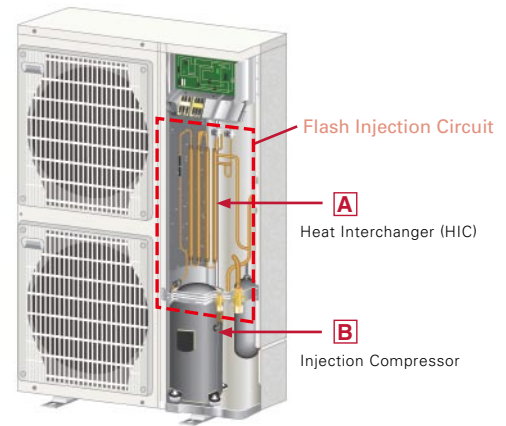
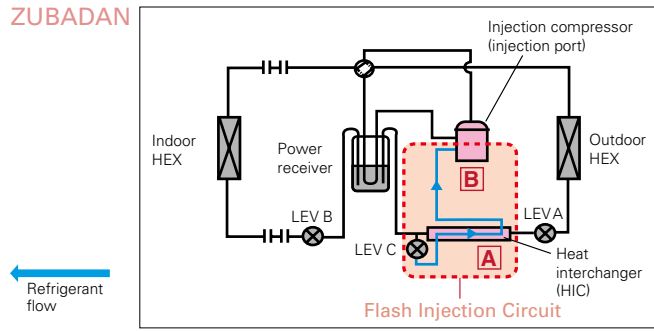
Powerful heating yet annually high energy efficiency in both cooling and heating, achieving rank A and A+.



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

### Flash Injection Circuit

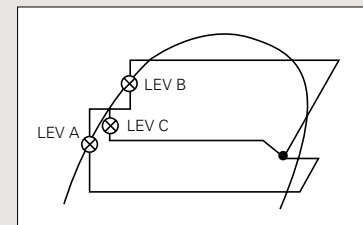
ZUBADAN



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.

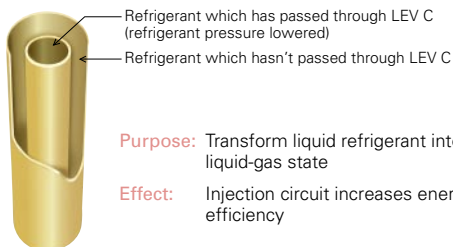
In traditional units, when the outdoor temperature is low, the volume of refrigerant circulating in the compressor decreases due to the drop in refrigerant pressure and the protection from overheating caused by high compression, thereby reducing heating capacity. The Flash Injection Heating circuit injects refrigerant to maintain the refrigerant circulation volume and compressor operation load, thereby maintaining heating capacity.

Mollier Chart Image Representing Flash Injection Circuit Operation



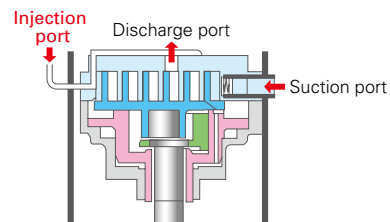
#### A Heat Interchanger (HIC)

HIC cross-sectional view



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

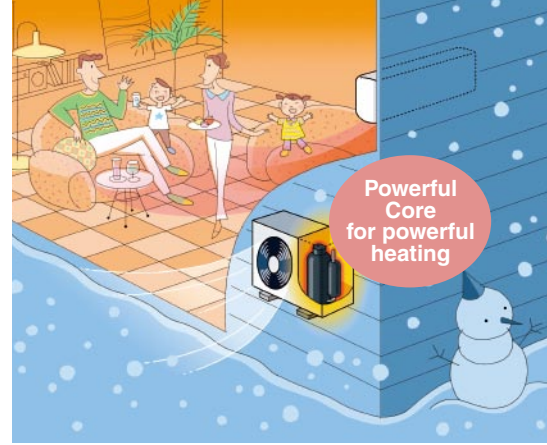


**Purpose:** To increase the volume of refrigerant being circulated  
**Effect:** Improves heating capacity at low outdoor temperatures, and enables higher indoor-air outlet temperature adjustment and higher defrost operation speed

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.

# FH VEHZ SERIES

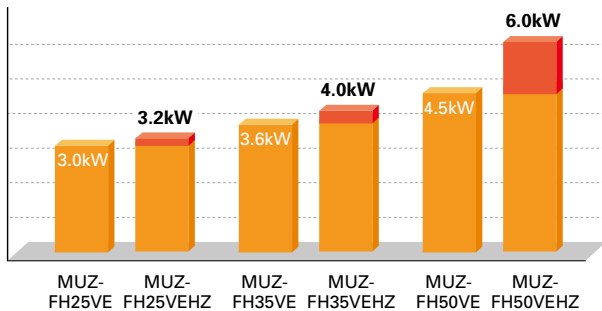
Unlike conventional air conditioning systems, the FH Series doesn't lose heating capacity when it's cold outside. Original technologies ensure excellent heating performance under extremely low outdoor temperatures and an impressive guaranteed operating range.



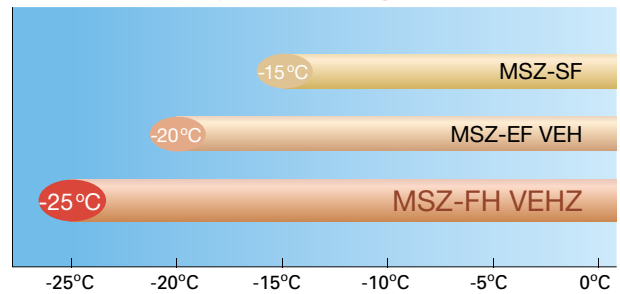
## Unparalleled Heating Performance

FH 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.

### Declared Capacity (at reference design temperature)

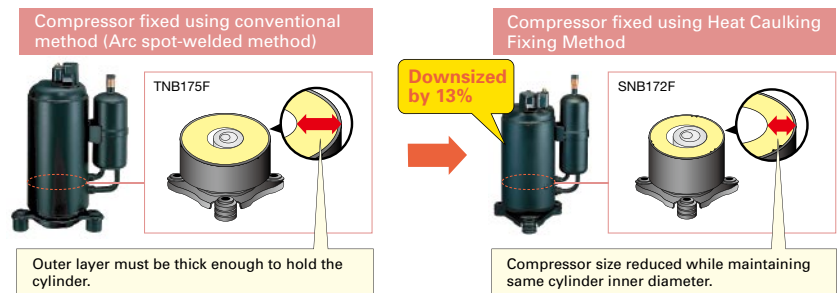


### Operation Range



### Compact, Powerful Compressor

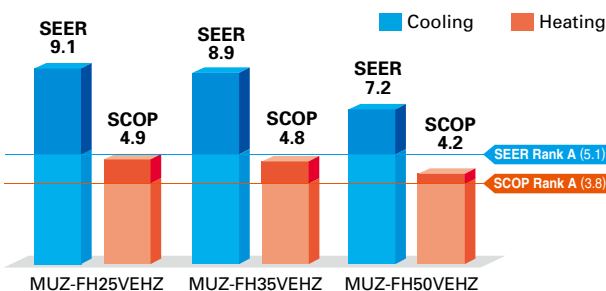
A special manufacturing technology, "Heat Caulking Fixing Method," has been introduced to reduce compressor size while maintaining a high compressor output. This technology enables the installation of a powerful compressor in compact MUZ outdoor units. As a result, excellent heating performance is achieved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



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



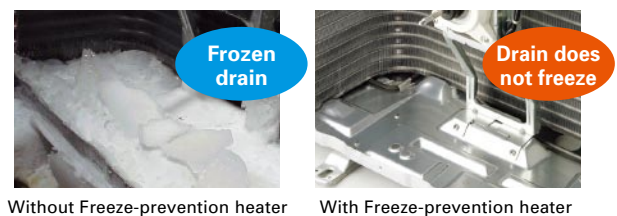
With indoor units that combine functionality, design and capacity and outdoor units equipped with a high-efficiency compressor, the MUZ-FH VEHZ simultaneously achieves high heating capacity and energy-saving performance.



## Freeze-prevention Heater Equipped as Standard

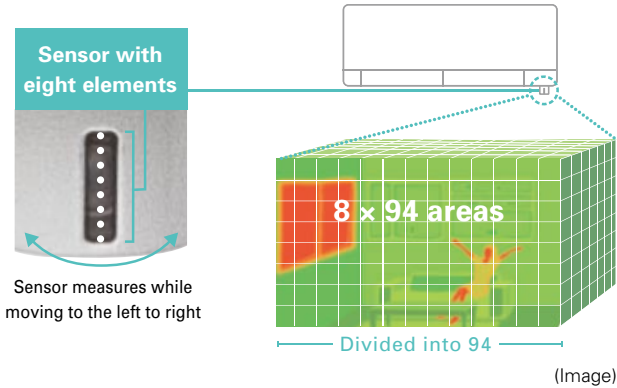
The Freeze-prevention heater restricts lowered capacity and operation shutdowns caused by the drain water freezing. This supports stable operation in low-temperature environments.

### Operation Guaranteed at Outside Temperature of -25°C



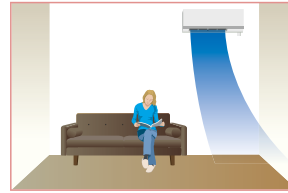
## 3D i-see Sensor

The FH 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.



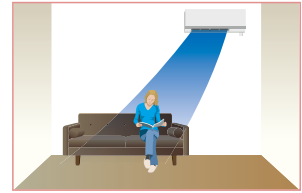
### Indirect Airflow

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.



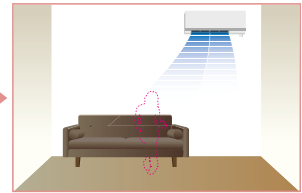
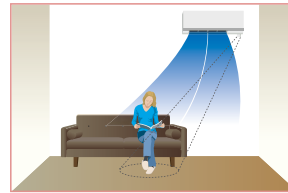
### Direct Airflow

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



### Absence Detection

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.



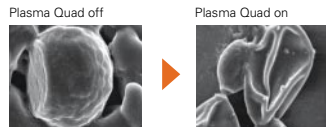
The "3D i-see Sensor" detects people's absence and the power consumption is automatically reduced approximately 10% after 10 minutes and 20% after 60 minutes.

## Plasma Quad

Air, like water, is something we use everyday unconsciously. Yet, clean, fresh air is a vital part of creating a healthy space for humans. Achieving this healthy air is Plasma Quad, a plasma-based filter system that effectively removes four kinds of air pollutants; namely, bacteria, viruses, allergens and dust, which the air contains countless particles of.

### Bacteria

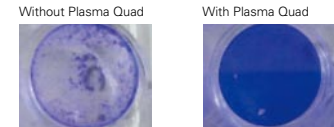
Test results have confirmed that Plasma Quad neutralizes 99% of bacteria in 115 minutes in a 25m<sup>3</sup> test space.



<Test No.> KRCEs-Bio.Test Report No.23\_0317

### Viruses

Test results have confirmed that Plasma Quad neutralizes 99% of virus particles in 65 minutes in a 25m<sup>3</sup> test space.



\* Hepatic cells turn transparent when affected by a virus.  
<Test No.> vrc.center, SMC No.23-002

Effective deodorizing using the air-purifying filter

### Allergens

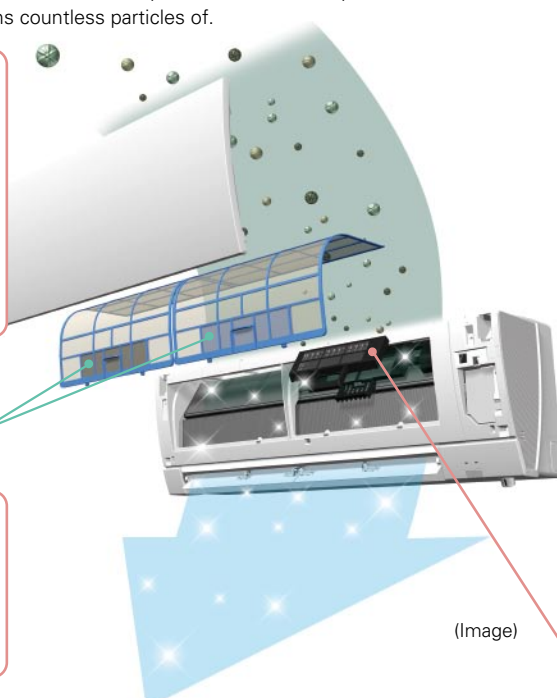
In a test, air containing cat fur and pollen was passed through the air cleaning device at the low airflow setting. Before and after measurements confirm that Plasma Quad neutralizes 94% of cat fur and 98% of pollen.

<Test No.> ITEA No.12M-RPTFEB022

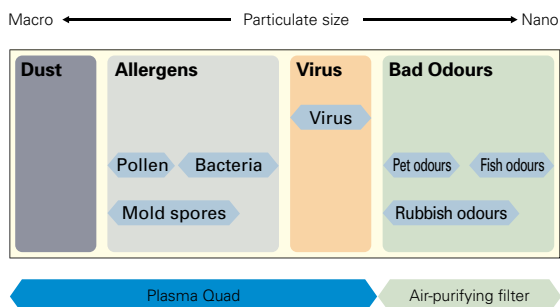
### Dust

In a test, air containing dust and ticks was passed through the air cleaning device at the low airflow setting. Before and after measurements confirm that Plasma Quad removes 88.6% of dust and ticks.

<Test No.> ITEA No.12M-RPTFEB022

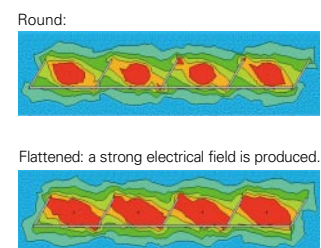
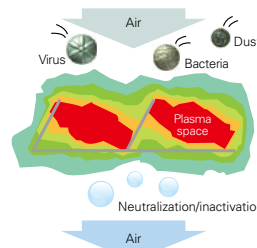


### [ Effective Range ]



### Principle of Plasma Quad

Plasma Quad attacks bacteria and viruses from inside the unit using a strong curtain-like electrical field and discharge of electric current across the whole inlet-air opening of the unit. Tungsten discharge electrodes are used as they provide both discharge capacity and strength. In addition, through flattening the standard, round form of the field to a ribbon-like shape, a strong electrical field is produced.





# PLZ-SHW SERIES



## Indoor Unit



PLA-ZRP100/125BA

### Standard Panel

- PLP-6BA (only Panel)
- PLP-6BALM (with wireless remote controller)

### Automatic Filter Elevation Panel

- PLP-6BAJ (only Panel)

### Standard Panel with "i-see Sensor"

- PLP-6BAE (only Panel)
- PLP-6BALME (with wireless remote controller)

## Outdoor Unit



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

## Remote Controller



Enclosed in  
PLP-6BALM/PLP-6BALME



\*optional



\*optional



| Type                                 |                                   |                                 | Inverter Heat Pump                          |                          |                     |              |
|--------------------------------------|-----------------------------------|---------------------------------|---|--------------------------|---------------------|--------------|
| Indoor Unit                          |                                   |                                 | PLA-ZRP100BA                                |                          | PLA-ZRP125BA        |              |
| Outdoor Unit                         |                                   |                                 | PUHZ-SHW112VHA(-BS)                         | PUHZ-SHW112YHA(-BS)      | PUHZ-SHW140YHA(-BS) |              |
| Refrigerant                          |                                   |                                 | R410A**                                     |                          |                     |              |
| Power Supply                         |                                   |                                 | Outdoor power supply                        |                          |                     |              |
| Outdoor (V/Phase/Hz)                 |                                   |                                 | VHA:230 / Single / 50, YHA:400 / Three / 50 |                          |                     |              |
| Cooling                              | Capacity                          | Rated                           | 10.0  | 10.0                     | 12.5                |              |
|                                      |                                   | Min - Max                       | 4.9 - 11.4                                  | 4.9 - 11.4               | 5.5 - 14.0          |              |
|                                      | Total Input                       | Rated                           | 2.786                                       | 2.786                    | 4.449               |              |
|                                      | EER                               |                                 | -   | -                        | 2.81                |              |
|                                      |                                   | EEL Rank                        |   | -                        | -                   |              |
|                                      | Design Load                       | kW                              | 10.0  | 10.0                     | 12.5                |              |
|                                      | Annual Electricity Consumption*2  | kWh/a                           | 633   | 633                      | 856                 |              |
|                                      | SEER                              |                                 | 5.5   | 5.5                      | 5.1**4              |              |
|                                      |                                   | Energy Efficiency Class         |   | A                        | -                   |              |
|                                      | Heating (Average Season)          | Capacity                        | Rated                                       | 11.2                     | 11.2                | 14.0         |
| Min - Max                            |                                   |                                 | 4.5 - 14.0                                  | 4.5 - 14.0               | 5.0 - 16.0          |              |
| Total Input                          |                                   | Rated                           | 2.667                                       | 2.667                    | 3.879               |              |
| COP                                  |                                   |                                 | -   | -                        | 3.61                |              |
|                                      |                                   | EEL Rank                        |   | -                        | -                   |              |
| Design Load                          |                                   | kW                              | 12.7  | 12.7                     | 15.8                |              |
| Declared Capacity                    |                                   | at reference design temperature | kW  | 11.2 (-10°C)             | 11.2 (-10°C)        | 14.0 (-10°C) |
|                                      |                                   | at bivalent temperature         | kW  | 11.2 (-7°C)              | 11.2 (-7°C)         | 14.0 (-7°C)  |
|                                      |                                   | at operation limit temperature  | kW  | 9.4 (-25°C)              | 9.4 (-25°C)         | 9.5 (-25°C)  |
|                                      |                                   | Back Up Heating Capacity        | kW  | 1.5                      | 1.5                 | 1.8          |
| Annual Electricity Consumption*2     | kWh/a                             | 4420                            | 4420  | 6213                     |                     |              |
| SCOP                                 |                                   | 4.0                             | 4.0   | 3.5**4                   |                     |              |
|                                      | Energy Efficiency Class           |                                 | A+  | -                        |                     |              |
| Operating Current (max)              |                                   |                                 | A   | 35.7                     | 13.7                |              |
| Indoor Unit                          | Input                             | Rated                           | 0.08  | 0.08                     | 0.09                |              |
|                                      |                                   | Operating Current (max)         | A   | 0.74                     | 0.74                | 0.80         |
|                                      | Dimensions <Panel>                | H x W x D                       | mm  | 298-840-840 <35-950-950> |                     |              |
|                                      | Weight <Panel>                    | kg                              | 26 <6>                                      | 26 <6>                   | 27 <6>              |              |
|                                      | Air Volume [Lo-Mi2-Mi1-Hi]        | m³/min                          | 20 - 23 - 26 - 30                           | 20 - 23 - 26 - 30        | 22 - 25 - 28 - 31   |              |
|                                      | Sound Level (SPL) [Lo-Mi2-Mi1-Hi] | dB(A)                           | 32 - 34 - 37 - 40                           | 32 - 34 - 37 - 40        | 34 - 36 - 39 - 41   |              |
|                                      | Sound Level (PWL)                 | dB(A)                           | 65  | 65                       | 66                  |              |
| Outdoor Unit                         | Dimensions                        | H x W x D                       | mm  | 1350 - 950 - 330 (+30)   |                     |              |
|                                      | Weight                            |                                 | kg  | 120                      | 134                 | 134          |
|                                      |                                   | Air Volume                      | Cooling                                     | m³/min                   | 100.0               | 100.0        |
|                                      |                                   | Heating                         | m³/min                                      | 100.0                    | 100.0               | 100.0        |
|                                      | Sound Level (SPL)                 | Cooling                         | dB(A)                                       | 51                       | 51                  | 51           |
|                                      |                                   | Heating                         | dB(A)                                       | 52                       | 52                  | 52           |
|                                      | Sound Level (PWL)                 | Cooling                         | dB(A)                                       | 69                       | 69                  | 69           |
|                                      | Operating Current (max)           |                                 |   | A                        | 35.0                | 13.0         |
|                                      | Breaker Size                      |                                 |   | A                        | 40                  | 16           |
|                                      | Ext. Piping                       | Diameter                        | Liquid / Gas                                | mm                       | 9.52 / 15.88        | 9.52 / 15.88 |
| Max. Length                          |                                   | Out-In                          | m   | 75                       | 75                  |              |
| Max. Height                          |                                   | Out-In                          | m   | 30                       | 30                  |              |
| Guaranteed Operating Range [Outdoor] | Cooling*3                         | °C                              | -15 ~ +46                                   | -15 ~ +46                | -15 ~ +46           |              |
|                                      |                                   | °C                              | -25 ~ +21                                   | -25 ~ +21                | -25 ~ +21           |              |

\*1 Refrigerant leakage contributes to climate change. Refrigerant with lower global warming potential (GWP) would contribute less to global warming than a refrigerant with higher GWP, if leaked to the atmosphere. This appliance contains a refrigerant fluid with a GWP equal to 1975. This means that if 1 kg of this refrigerant fluid would be leaked to the atmosphere, the impact on global warming would be 1975 times higher than 1 kg of CO<sub>2</sub> 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/SCOP values are measured based on EN14825. These values are reference purpose only.

# PLZ-SHW SERIES



## Indoor Unit



PLA-RP100/125BA

### Standard Panel

PLP-6BA (only Panel)  
PLP-6BALM (with wireless remote controller)

### Automatic Filter Elevation Panel

PLP-6BAJ (only Panel)

### Standard Panel with "i-see Sensor"

PLP-6BAE (only Panel)  
PLP-6BALME (with wireless remote controller)

## Outdoor Unit



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

## Remote Controller



Enclosed in  
PLP-6BALM/PLP-6BALME



\*optional



\*optional



| Type                                 |                                   | Inverter Heat Pump                          |                          |                     |              |
|--------------------------------------|-----------------------------------|---|--------------------------|---------------------|--------------|
| Indoor Unit                          |                                   | PLA-RP100BA                                 |                          | PLA-RP125BA         |              |
| Outdoor Unit                         |                                   | PUHZ-SHW112VHA(-BS)                         | PUHZ-SHW112YHA(-BS)      | PUHZ-SHW140YHA(-BS) |              |
| Refrigerant                          |                                   | R410A**                                     |                          |                     |              |
| Power Supply                         |                                   | Outdoor power supply                        |                          |                     |              |
| Outdoor (V/Phase/Hz)                 |                                   | 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                                       | 2.850                    | 4.449               |              |
|                                      | EER                               |   | -                        | 2.81                |              |
|                                      |                                   | EEL Rank                                    | -                        | -                   |              |
|                                      | Design Load                       | kW  | 10.0                     | 12.5                |              |
|                                      | Annual Electricity Consumption*2  | kWh/a                                       | 661                      | 858                 |              |
|                                      | SEER                              |   | 5.3                      | 5.1**               |              |
|                                      |                                   | Energy Efficiency Class                     | A                        | -                   |              |
|                                      | Heating (Average Season)          | Capacity                                    | Rated                    | 11.2                | 14.0         |
| Min - Max                            |                                   |   | 4.5 - 14.0               | 5.0 - 16.0          |              |
| Total Input                          |                                   | Rated                                       | 2.794                    | 3.879               |              |
| COP                                  |                                   |   | -                        | 3.61                |              |
|                                      |                                   | EEL Rank                                    | -                        | -                   |              |
| Design Load                          |                                   | kW  | 12.7                     | 15.8                |              |
| Declared Capacity                    |                                   | at reference design temperature             | kW                       | 11.2 (-10°C)        | 14.0 (-10°C) |
|                                      |                                   | at bivalent temperature                     | kW                       | 11.2 (-7°C)         | 14.0 (-7°C)  |
|                                      |                                   | at operation limit temperature              | kW                       | 9.4 (-25°C)         | 9.5 (-25°C)  |
|                                      |                                   | Back Up Heating Capacity                    | kW                       | 1.5                 | 1.8          |
| Annual Electricity Consumption*2     | kWh/a                             | 4445  | 6506                     |                     |              |
| SCOP                                 |                                   | 4.0   | 3.4**                    |                     |              |
|                                      | Energy Efficiency Class           | A+  | -                        |                     |              |
| Operating Current (max)              |                                   | A   | 35.7                     | 13.8                |              |
| Indoor Unit                          | Input                             | Rated                                       | 0.14                     | 0.15                |              |
|                                      |                                   | Operating Current (max)                     | A                        | 0.94                |              |
|                                      | Dimensions <Panel>                | H x W x D                                   | 298-840-840 <35-950-950> |                     |              |
|                                      | Weight <Panel>                    | kg  | 25 <6>                   | 25 <6>              |              |
|                                      | Air Volume [Lo-Mi2-Mi1-Hi]        | m³/min                                      | 20 - 23 - 26 - 30        | 22 - 25 - 28 - 31   |              |
|                                      | Sound Level (SPL) [Lo-Mi2-Mi1-Hi] | dB(A)                                       | 32 - 34 - 37 - 40        | 34 - 36 - 39 - 41   |              |
|                                      | Sound Level (PWL)                 | dB(A)                                       | 62                       | 63                  |              |
|                                      | Dimensions                        | H x W x D                                   | 1350 - 950 - 330 (+30)   |                     |              |
| Outdoor Unit                         | Weight                            | kg  | 120                      | 134                 |              |
|                                      |                                   | Air Volume                                  | Cooling                  | m³/min              | 100.0        |
|                                      |                                   | Heating                                     | m³/min                   | 100.0               | 100.0        |
|                                      | 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                        | 35.0                | 13.0         |
|                                      | Breaker Size                      | A   | 40                       | 16                  |              |
|                                      | Ext. Piping                       | Diameter                                    | Liquid / Gas             | 9.52 / 15.88        | 9.52 / 15.88 |
|                                      |                                   | Max. Length                                 | Out-In                   | 75                  | 75           |
| Max. Height                          |                                   | 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 1kg of this refrigerant fluid would be leaked to the atmosphere, the impact on global warming would be 1975 times higher than 1kg of CO<sub>2</sub> 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/SCOP values are measured based on EN14825. These values are reference purpose only.



# PKZ-SHW SERIES



## Indoor Unit



PKA-RP100KAL

## Outdoor Unit



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

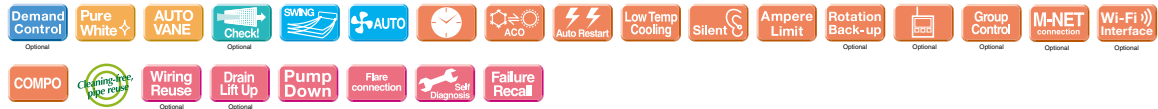
## Remote Controller



\*optional



\*optional



| Type                                 |                                  |              | Inverter Heat Pump                          |                        |                     |              |
|--------------------------------------|----------------------------------|--------------|---|------------------------|---------------------|--------------|
| Indoor Unit                          |                                  |              | PKA-RP100KAL                                |                        |                     |              |
| Outdoor Unit                         |                                  |              | PUHZ-SHW112VHA(-BS)                         |                        | PUHZ-SHW112YHA(-BS) |              |
| Refrigerant                          |                                  |              | R410A*1                                     |                        |                     |              |
| Power Supply                         |                                  |              | 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                  | 2.924               |              |
|                                      | Design Load                      |              | kW  | 10.0                   | 10.0                |              |
|                                      | Annual Electricity Consumption*2 |              | kWh/a                                       | 673                    | 673                 |              |
|                                      | SEER                             |              |   | 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                                 |                                  |              | 3.8   | 3.8                    |                     |              |
|                                      |                                  |              | Energy Efficiency Class                     | A                      | A                   |              |
| Operating Current (max)              |                                  |              | A   | 35.6                   | 13.6                |              |
| Indoor Unit                          | Input                            | Rated        | kW  | 0.08                   | 0.08                |              |
|                                      | 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]           |              | m <sup>3</sup> /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      | m <sup>3</sup> /min                         | 100.0                  | 100.0               |              |
|                                      |                                  | Heating      | m <sup>3</sup> /min                         | 100.0                  | 100.0               |              |
|                                      | 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   | 35.0                   | 13.0                |              |
| Breaker Size                         |                                  | A            | 40  | 16                     |                     |              |
| Ext. Piping                          | Diameter                         | Liquid / Gas | mm  | 9.52 / 15.88           | 9.52 / 15.88        |              |
|                                      | Max. Length                      | Out-In       | m   | 75                     | 75                  |              |
|                                      | Max. Height                      | Out-In       | m   | 30                     | 30                  |              |
| Guaranteed Operating Range [Outdoor] | Cooling*3                        | °C           |   | -15 ~ +46              | -15 ~ +46           |              |
|                                      | Heating                          | °C           |   | -25 ~ +21              | -25 ~ +21           |              |

\*1 Refrigerant leakage contributes to climate change. Refrigerant with lower global warming potential (GWP) would contribute less to global warming than a refrigerant with higher GWP, if leaked to the atmosphere. This appliance contains a refrigerant fluid with a GWP equal to 1975. This means that if 1kg of this refrigerant fluid would be leaked to the atmosphere, the impact on global warming would be 1975 times higher than 1kg of CO<sub>2</sub> 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.

# PEDZ-SHW JA SERIES



## Indoor Unit



PEAD-RP100/125JA(L)Q

## Outdoor Unit



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

## Remote Controller



\*optional



\*optional



\*optional



| Type                                 |                                  | Inverter Heat Pump                          |                     |                          |                          |                          |     |
|--------------------------------------|----------------------------------|---|---------------------|--------------------------|--------------------------|--------------------------|-----|
| Indoor Unit                          |                                  | PEAD-RP100JA(L)Q                            |                     |                          |                          |                          |     |
| Outdoor Unit                         |                                  | PUHZ-SHW112VHA(-BS)                         | PUHZ-SHW112YHA(-BS) | PEAD-RP125JA(L)Q         |                          |                          |     |
| Refrigerant                          |                                  | R410A*1                                     |                     |                          |                          |                          |     |
| Power Supply                         |                                  | Outdoor power supply                        |                     |                          |                          |                          |     |
|                                      |                                  | VHA:230 / Single / 50, YHA:400 / Three / 50 |                     |                          |                          |                          |     |
| Cooling                              | Capacity                         | Rated                                       | kW                  | 10.0                     | 10.0                     | 12.5                     |     |
|                                      |                                  | Min - Max                                   | kW                  | 4.9 - 11.4               | 4.9 - 11.4               | 5.5 - 14.0               |     |
|                                      | Total Input                      | Rated                                       | kW                  | 2.924 (2.904)            | 2.924 (2.904)            | 3.895 (3.875)            |     |
|                                      | EER                              |   |                     | -                        | -                        | 3.21 (3.22)              |     |
|                                      |                                  | EEL Rank                                    |                     | -                        | -                        | -                        |     |
|                                      | Design Load                      |   | kW                  | 10.0                     | 10.0                     | 12.5                     |     |
|                                      | Annual Electricity Consumption*2 |   | kWh/a               | 729 (714)                | 729 (714)                | 906 (892)                |     |
| SEER                                 |                                  |   | 4.8 (4.9)           | 4.8 (4.9)                | 4.8 (4.9)*4              |                          |     |
|                                      | Energy Efficiency Class          |   | B                   | B                        | -                        |                          |     |
| Heating (Average Season)             | Capacity                         | Rated                                       | kW                  | 11.2                     | 11.2                     | 14.0                     |     |
|                                      |                                  | Min - Max                                   | kW                  | 4.5 - 14.0               | 4.5 - 14.0               | 5.0 - 16.0               |     |
|                                      | Total Input                      | Rated                                       | kW                  | 3.103                    | 3.103                    | 3.879                    |     |
|                                      | COP                              |   |                     | -                        | -                        | 3.61                     |     |
|                                      |                                  | EEL Rank                                    |                     | -                        | -                        | -                        |     |
|                                      | Design Load                      |   | kW                  | 12.7                     | 12.7                     | 15.8                     |     |
|                                      | Declared Capacity                | at reference design temperature             | kW                  | 11.2 (-10°C)             | 11.2 (-10°C)             | 14.0 (-10°C)             |     |
|                                      |                                  | at bivalent temperature                     | kW                  | 11.2 (-7°C)              | 11.2 (-7°C)              | 14.0 (-7°C)              |     |
|                                      |                                  | at operation limit temperature              | kW                  | 9.4 (-25°C)              | 9.4 (-25°C)              | 9.5 (-25°C)              |     |
|                                      | Back Up Heating Capacity         |   | kW                  | 1.5                      | 1.5                      | 1.8                      |     |
| Annual Electricity Consumption*2     |                                  | kWh/a                                       | 4664                | 4664                     | 6072                     |                          |     |
| SCOP                                 |                                  |   | 3.8                 | 3.8                      | 3.6*4                    |                          |     |
|                                      | Energy Efficiency Class          |   | A                   | A                        | -                        |                          |     |
| Operating Current (max)              |                                  |   | A                   | 37.7                     | 15.7                     | 15.8                     |     |
| Indoor Unit                          | Input [Cooling / Heating]        | Rated                                       | kW                  | 0.25 (0.23) / 0.23       | 0.25 (0.23) / 0.23       | 0.36 (0.34) / 0.34       |     |
|                                      |                                  | Operating Current (max)                     | A                   | 2.65                     | 2.65                     | 2.76                     |     |
|                                      | Dimensions                       | H x W x D                                   | mm                  | 250 - 1400 - 732         |                          |                          |     |
|                                      | Weight                           |   | kg                  | 41 (40)                  | 41 (40)                  | 43 (42)                  |     |
|                                      | Air Volume [Lo-Mid-Hi]           |   | m <sup>3</sup> /min | 24.0 - 29.0 - 34.0       | 24.0 - 29.0 - 34.0       | 29.5 - 35.5 - 42.0       |     |
|                                      | External Static Pressure         |   | Pa                  | 35 / 50 / 70 / 100 / 150 | 35 / 50 / 70 / 100 / 150 | 35 / 50 / 70 / 100 / 150 |     |
|                                      | Sound Level (SPL) [Lo-Mid-Hi]    |   | dB(A)               | 29 - 34 - 38             | 29 - 34 - 38             | 33 - 36 - 40             |     |
|                                      | Sound Level (PWL)                |   | dB(A)               | 61                       | 61                       | 65                       |     |
|                                      | Outdoor Unit                     | Dimensions                                  | H x W x D           | mm                       | 1350 - 950 - 330 (+30)   |                          |     |
|                                      |                                  | Weight                                      |                     | kg                       | 120                      | 134                      | 134 |
| Air Volume                           |                                  | Cooling                                     | m <sup>3</sup> /min | 100.0                    | 100.0                    | 100.0                    |     |
|                                      |                                  | Heating                                     | m <sup>3</sup> /min | 100.0                    | 100.0                    | 100.0                    |     |
| Sound Level (SPL)                    |                                  | Cooling                                     | dB(A)               | 51                       | 51                       | 51                       |     |
|                                      |                                  | Heating                                     | dB(A)               | 52                       | 52                       | 52                       |     |
| Sound Level (PWL)                    |                                  | Cooling                                     | dB(A)               | 69                       | 69                       | 69                       |     |
| Operating Current (max)              |                                  | A   | 35.0                | 13.0                     | 13.0                     |                          |     |
| Breaker Size                         |                                  | A   | 40                  | 16                       | 16                       |                          |     |
| Ext. Piping                          | Diameter                         | Liquid / Gas                                | mm                  | 9.52 / 15.88             | 9.52 / 15.88             | 9.52 / 15.88             |     |
|                                      | Max. Length                      | Out-In                                      | m                   | 75                       | 75                       | 75                       |     |
|                                      | Max. Height                      | Out-In                                      | m                   | 30                       | 30                       | 30                       |     |
| Guaranteed Operating Range [Outdoor] | Cooling*3                        | °C  | -15 ~ +46           | -15 ~ +46                | -15 ~ +46                |                          |     |
|                                      | Heating                          | °C  | -25 ~ +21           | -25 ~ +21                | -25 ~ +21                |                          |     |

\*1 Refrigerant leakage contributes to climate change. Refrigerant with lower global warming potential (GWP) would contribute less to global warming than a refrigerant with higher GWP, if leaked to the atmosphere. This appliance contains a refrigerant fluid with a GWP equal to 1975. This means that if 1kg of this refrigerant fluid would be leaked to the atmosphere, the impact on global warming would be 1975 times higher than 1kg of CO<sub>2</sub> 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/SCOP values are measured based on EN14825. These values are reference purpose only.

# MSZ-FH VEHZ SERIES



## Indoor Unit



MSZ-FH25/35/50VE



## Outdoor Unit



MUZ-FH25/35VEHZ



MUZ-FH50VEHZ

## Remote Controller



| Type                                 |   | Inverter Heat Pump              |                     |                                     |                       |                                     |                               |
|--------------------------------------|---|---------------------------------|---------------------|-------------------------------------|-----------------------|-------------------------------------|-------------------------------|
| Indoor Unit                          |   | MSZ-FH25VE                      | MSZ-FH35VE          | MSZ-FH50VE                          |                       |                                     |                               |
| Outdoor Unit                         |   | MUZ-FH25VEHZ                    | MUZ-FH35VEHZ        | MUZ-FH50VEHZ                        |                       |                                     |                               |
| Refrigerant                          |   | R410A (*1)                      |                     |                                     |                       |                                     |                               |
| Power Supply                         |   | Outdoor power supply            |                     |                                     |                       |                                     |                               |
| Source                               |   | 230 / Single / 50               |                     |                                     |                       |                                     |                               |
| Outdoor (V/Phase/Hz)                 |   |                                 |                     |                                     |                       |                                     |                               |
| Cooling                              | Design Load                                   |                                 | kW                  | 2.5                                 | 3.5                   | 5.0                                 |                               |
|                                      | Annual Electricity Consumption (*2)           |                                 | kWh/a               | 96                                  | 138                   | 244                                 |                               |
|                                      | SEER (*4)                                     |                                 |                     | 9.1                                 | 8.9                   | 7.2                                 |                               |
|                                      | Energy Efficiency Class                       |                                 |                     | A+++                                | A+++                  | A++                                 |                               |
|                                      | Capacity                                      | Rated                           | kW                  | 2.5                                 | 3.5                   | 5.0                                 |                               |
|                                      |   | Min - Max                       | kW                  | 0.8 - 3.5                           | 0.8 - 4.0             | 1.9 - 6.0                           |                               |
| Total Input                          | Rated   | kW                              | 0.485               | 0.820                               | 1.380                 |                                     |                               |
| Heating (Average Season) (*5)        | Design Load                                   |                                 | kW                  | 3.2 (-10°C)                         | 4.0 (-10°C)           | 6.0 (-10°C)                         |                               |
|                                      | Declared Capacity                             | at reference design temperature | kW                  | 3.2 (-10°C)                         | 4.0 (-10°C)           | 6.0 (-10°C)                         |                               |
|                                      |   | at bivalent temperature         | kW                  | 3.2 (-10°C)                         | 4.0 (-10°C)           | 6.0 (-10°C)                         |                               |
|                                      |   | at operation limit temperature  | kW                  | 1.7 (-25°C)                         | 2.6 (-25°C)           | 3.8 (-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               | 924                                 | 1173                  | 2006                                |                               |
|                                      | SEER (*4)                                     |                                 |                     | 4.9                                 | 4.8                   | 4.2                                 |                               |
|                                      | Energy Efficiency Class                       |                                 |                     | A++                                 | A++                   | A+                                  |                               |
|                                      | Capacity                                      | Rated                           | kW                  | 3.2                                 | 4.0                   | 6.0                                 |                               |
|                                      |   | Min - Max                       | kW                  | 1.0 - 6.3                           | 1.0 - 6.6             | 1.7 - 8.7                           |                               |
| Total Input                          | Rated   | kW                              | 0.580               | 0.800                               | 1.480                 |                                     |                               |
| Operating Current (max)              |   | A                               | 9.6                 | 10.5                                | 14.0                  |                                     |                               |
| Indoor Unit                          | Input   |                                 | Rated               | kW                                  | 0.029                 | 0.029                               | 0.031                         |
|                                      | Operating Current (max)                       |                                 | A                   | 0.4                                 | 0.4                   | 0.4                                 |                               |
|                                      | Dimensions                                    |                                 | H x W x D           | mm                                  | 305 (+17) - 925 - 234 |                                     |                               |
|                                      | Weight  |                                 | kg                  | 13.5                                | 13.5                  | 13.5                                |                               |
|                                      | Air Volume (SLo-Lo-Mid-Hi-SHi (*3) (Dry/Wet)) | Cooling                         | m <sup>3</sup> /min | 3.9 - 4.7 - 6.3 - 8.6 - 11.6 (10.5) |                       | 3.9 - 4.7 - 6.3 - 8.6 - 11.6 (10.5) | 6.4 - 7.4 - 8.6 - 10.1 - 12.4 |
|                                      |   | Heating                         | m <sup>3</sup> /min | 4.0 - 4.7 - 6.4 - 9.2 - 13.2        |                       | 4.0 - 4.7 - 6.4 - 9.2 - 13.2        | 5.7 - 7.2 - 9.0 - 11.2 - 14.6 |
|                                      | Sound Level (SPL) (SLo-Lo-Mid-Hi-SHi (*3))    | Cooling                         | dB(A)               | 20 - 23 - 29 - 36 - 42              |                       | 21 - 24 - 29 - 36 - 42              | 27 - 31 - 35 - 39 - 44        |
|                                      |   | Heating                         | dB(A)               | 20 - 24 - 29 - 36 - 44              |                       | 21 - 24 - 29 - 36 - 44              | 25 - 29 - 34 - 39 - 46        |
|                                      | Sound Level (PWL)                             |                                 | dB(A)               | 58                                  | 58                    | 60                                  |                               |
|                                      | Outdoor Unit                                  | Dimensions                      |                     | H x W x D                           | mm                    | 550 - 800 - 285                     | 880 - 840 - 330               |
| Weight                               |   | kg                              | 37                  | 37                                  | 55                    |                                     |                               |
| Air Volume                           |   | Cooling                         | m <sup>3</sup> /min | 31.3                                | 33.6                  | 48.8                                |                               |
|                                      |   | Heating                         | m <sup>3</sup> /min | 31.3                                | 33.6                  | 51.3                                |                               |
| Sound Level (SPL)                    |   | Cooling                         | dB(A)               | 46                                  | 49                    | 51                                  |                               |
|                                      |   | Heating                         | dB(A)               | 49                                  | 50                    | 54                                  |                               |
| Sound Level (PWL)                    |   | dB(A)                           | 60                  | 61                                  | 64                    |                                     |                               |
| Operating Current (max)              |   | A                               | 9.2                 | 10.1                                | 13.6                  |                                     |                               |
| Breaker Size                         |   | A                               | 10                  | 12                                  | 16                    |                                     |                               |
| Ext. Piping                          | Diameter                                      |                                 | Liquid / Gas        | mm                                  | 6.35 / 9.52           | 6.35 / 12.7                         |                               |
|                                      | Max. Length                                   |                                 | Out-In              | m                                   | 20                    | 30                                  |                               |
|                                      | Max. Height                                   |                                 | Out-In              | m                                   | 12                    | 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 CO<sub>2</sub>, 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 47 for heating (warmer season) specifications.

# MFZ-KJ SERIES



## Indoor Unit



MFZ-KJ25/35/50VE



## Outdoor Unit



MUFZ-KJ25/35VEHZ



MUFZ-KJ50VEHZ

## Remote Controller



| Type                                 | Inverter Heat Pump                            |                                 |                     |                             |                             |                               |
|--------------------------------------|---|---------------------------------|---------------------|-----------------------------|-----------------------------|-------------------------------|
| Indoor Unit                          | MFZ-KJ25VE                                    | MFZ-KJ35VE                      | MFZ-KJ50VE          |                             |                             |                               |
| Outdoor Unit                         | MUFZ-KJ25VEHZ                                 | MUFZ-KJ35VEHZ                   | MUFZ-KJ50VEHZ       |                             |                             |                               |
| Refrigerant                          | R410A (*1)                                    |                                 |                     |                             |                             |                               |
| Power Supply                         | Outdoor power supply                          |                                 |                     |                             |                             |                               |
|                                      | 230 / Single / 50                             |                                 |                     |                             |                             |                               |
| Cooling                              | Design Load                                   | kW                              | 2.5                 | 3.5                         | 5.0                         |                               |
|                                      | Annual Electricity Consumption (*2)           | kWh/a                           | 102                 | 150                         | 266                         |                               |
|                                      | SEER (*4)                                     |                                 | 8.5                 | 8.1                         | 6.5                         |                               |
|                                      | Capacity                                      | Energy Efficiency Class         |                     | A+++                        | A++                         | A++                           |
|                                      |   | Rated                           | kW                  | 2.5                         | 3.5                         | 5.0                           |
|                                      | Total Input                                   | Rated                           | kW                  | 0.5 - 3.4                   | 0.5 - 3.7                   | 1.6 - 5.7                     |
| Heating (Average Season)             | Design Load                                   | kW                              | 3.5 (-10°C)         | 3.6 (-10°C)                 | 4.5 (-10°C)                 |                               |
|                                      | Declared Capacity                             | at reference design temperature | kW                  | 3.5 (-10°C)                 | 3.6 (-10°C)                 | 4.5 (-10°C)                   |
|                                      |   | at bivalent temperature         | kW                  | 3.5 (-10°C)                 | 3.6 (-10°C)                 | 4.5 (-10°C)                   |
|                                      |   | at operation limit temperature  | kW                  | 1.6 (-25°C)                 | 2.3 (-25°C)                 | 3.3 (-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                           | 1104                | 1158                        | 1467                        |                               |
|                                      | SEER (*4)                                     |                                 | 4.4                 | 4.3                         | 4.2                         |                               |
|                                      | Capacity                                      | Energy Efficiency Class         |                     | A+                          | A+                          | A+                            |
|                                      |   | Rated                           | kW                  | 3.4                         | 4.3                         | 6.0                           |
|                                      | Total Input                                   | Rated                           | kW                  | 1.2 - 5.1                   | 1.2 - 5.8                   | 2.2 - 8.4                     |
| Operating Current (max)              |   | A                               | 4.42                | 3.91                        | 3.73                        |                               |
| Indoor Unit                          | Input   | Rated                           | kW                  | 0.016                       | 0.016                       | 0.038                         |
|                                      | Operating Current (max)                       |                                 | A                   | 0.17                        | 0.17                        | 0.34                          |
|                                      | Dimensions                                    | H x W x D                       | mm                  | 600 - 750 - 215             |                             |                               |
|                                      | Weight  |                                 | kg                  | 15                          | 15                          | 15                            |
|                                      | Air Volume (SLo-Lo-Mid-Hi-SHi (*3) (Dry/Wet)) | Cooling                         | m <sup>3</sup> /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  |
|                                      |   | Heating                         | m <sup>3</sup> /min | 3.9 - 5.1 - 6.2 - 7.7 - 9.7 | 3.9 - 5.1 - 6.2 - 7.7 - 9.7 | 6.0 - 7.4 - 9.4 - 11.6 - 14.0 |
|                                      | Sound Level (SPL) (SLo-Lo-Mid-Hi-SHi (*3))    | Cooling                         | dB(A)               | 20 - 25 - 30 - 35 - 39      | 20 - 25 - 30 - 35 - 39      | 27 - 31 - 35 - 39 - 44        |
|                                      |   | Heating                         | dB(A)               | 19 - 25 - 30 - 35 - 41      | 19 - 25 - 30 - 35 - 41      | 29 - 35 - 40 - 45 - 50        |
|                                      | Sound Level (PWL)                             |                                 | dB(A)               | 49                          | 50                          | 56                            |
|                                      | Outdoor Unit                                  | Dimensions                      | H x W x D           | mm                          | 550 - 800 - 285             | 880 - 840 - 330               |
| Weight                               |   |                                 | kg                  | 37                          | 37                          | 55                            |
| Air Volume                           |   | Cooling                         | m <sup>3</sup> /min | 31.3                        | 31.3                        | 45.8                          |
|                                      |   | Heating                         | m <sup>3</sup> /min | 33.6                        | 33.6                        | 45.8                          |
| Sound Level (SPL)                    |   | Cooling                         | dB(A)               | 46                          | 47                          | 49                            |
|                                      |   | Heating                         | dB(A)               | 51                          | 51                          | 51                            |
| Sound Level (PWL)                    |   | Cooling                         | dB(A)               | 59                          | 60                          | 63                            |
| Operating Current (max)              |   | A                               | 9.2                 | 10                          | 13.6                        |                               |
| Breaker Size                         |   | A                               | 10                  | 12                          | 16                          |                               |
| Ext. Piping                          | Diameter                                      | Liquid / Gas                    | mm                  | 6.35 / 9.52                 | 6.35 / 12.7                 |                               |
|                                      | Max. Length                                   | Out-In                          | m                   | 20                          | 30                          |                               |
|                                      | Max. Height                                   | Out-In                          | m                   | 12                          | 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 CO<sub>2</sub>, 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".

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

# 3 Important Points to Remember When Installing the Outdoor Unit



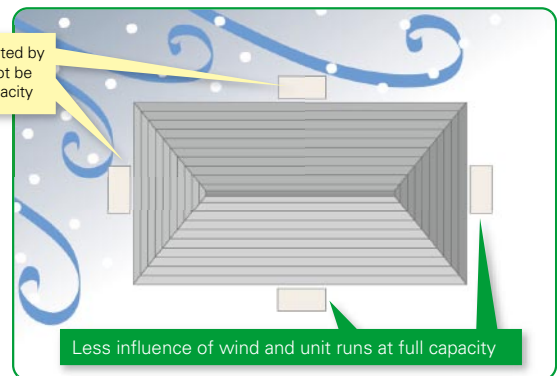
\*RAC/PAC (inc. Air to Water) /City Multi/HWHP

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.

Units are easily affected by wind and unit may not be able to run at full capacity



Less influence of wind and unit runs at full capacity

## 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.

**Correct installation**

**Point!**

- ① Install at a sufficient height from the ground to prevent problems caused by frozen drainage water.
- ② Install in a location where frozen drainage water will not be a hazard.
- ③ Install in an upright position to allow proper drainage from the drainage outlet.

**Wrong installation**

Drainage water splashes on pedestrians.

Frozen drainage water may cause a slipping hazard.

**Wrong installation**

Unit may freeze and become damaged because water will not be drained from the drain hole.

### 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.

**Correct installation**

**Note!**  
Place units side by side.

**Wrong installation**

Bottom unit may freeze.

# 3

## Measures for Snow

### Unit is installed on the ground

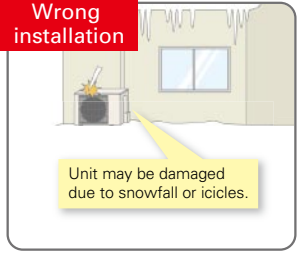
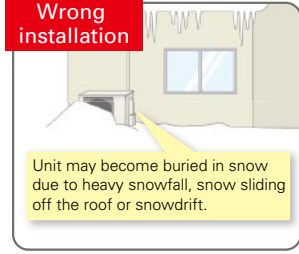
To avoid the adverse effects of snow and frozen drainage water, install the unit on a stand to ensure a sufficient height from the ground.

[RAC / PAC]



**Point!**

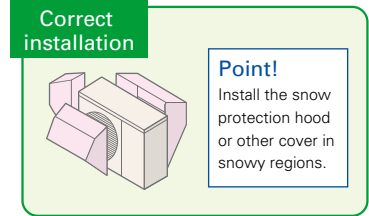
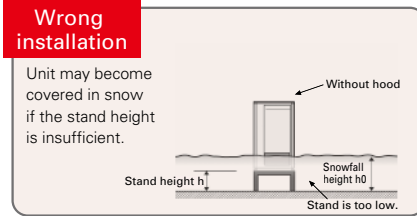
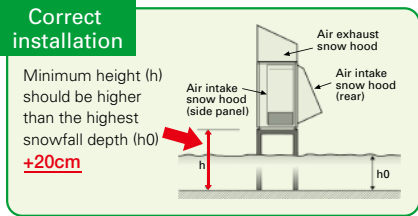
- ① Install at a position/height to prevent the unit being buried in snow \*1 and the adverse effects of frozen drainage water. \*2
  - ② Install so as to avoid the effects of snow or snowdrift.
  - ③ Install so as to avoid the damage from falling snow or icicles.
- \*1 Install at a height above the highest snowfall depth.  
\*2 Even for correct installations, dripping drainage water may form an icicle which needs to be cleared away regularly to prevent a blocked drainage outlet.



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

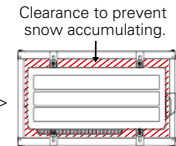
### Install snow protection hood as necessary

[RAC / PAC]



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

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

|                                     | Snowy region  | Cold region                  | Remarks   |
|-------------------------------------|---|------------------------------|---|
|                                     | Countermeasures for snow  | Countermeasures for freezing |   |
| Drain socket, Centralised drain pan | Not used  | Not used                     | Prevents freezing   |
| Stand                               | Needed  | Needed                       | [RAC / PAC]<br>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.<br>2. Install so as to prevent damage to the unit due to frozen drainage water (icicles).<br> |
| Snow protection hood                | Needed<br>*When the installation position is subject to snowfall. | —                            | 1. Prevents heat exchanger from being covered in snow.<br>2. Prevents snow accumulating inside the air duct.  |
| Base heater                         | —   | Needed                       | [RAC / PAC]<br>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.

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