







# 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   |   |
| <p><b>Outdoor Unit</b></p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p><b>R32</b><br/><b>R410A</b></p>  <p>MUZ-LN25/35VGHZ2<br/>MUZ-FT25VGHZ<br/>MUZ-KJ25/35VEHZ</p> </div> <div style="text-align: center;"> <p><b>R32</b></p>  <p>MUZ-FT35/50VGHZ</p> </div> </div> <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="text-align: center;"> <p><b>R32</b><br/><b>R410A</b></p>  <p>MUZ-LN50VGHZ2<br/>MUZ-KJ50VEHZ</p> </div> </div> | <p><b>Indoor Unit</b></p> <p><b>Wall-mounted</b></p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p><b>R32</b><br/><b>R410A</b>*</p>  <p>MSZ-LN25/35/50VG2<br/>(W)(V)(R)(B)</p> </div> <div style="text-align: center;"> <p><b>R32</b></p>  <p>MSZ-FT25/35/50VG</p> </div> </div> <p><b>Floor-standing</b></p> <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="text-align: center;">  </div> <div style="text-align: center;"> <p><b>R410A</b></p> <p>MFZ-KJ25/35/50VE2</p> </div> </div> <p style="text-align: right; font-size: small;">* R410A is for PUMY connection.</p> |

| ZUBADAN SERIES   |  |
|--|--|
| The line-up includes outdoor unit models 112-140 class and three types of indoor units.  |  |
| <p><b>Outdoor Unit</b></p> <div style="text-align: center;"> <p><b>R410A</b></p>  <p>PUHZ-SHW112VHA<br/>PUHZ-SHW112/140YHA</p> </div> | <p><b>Indoor Unit</b></p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p><b>4-way cassette</b></p> <p><b>R32</b><br/><b>R410A</b></p>  <p>PLA Series</p> </div> <div style="text-align: center;"> <p><b>Ceiling-concealed</b></p> <p><b>R32</b><br/><b>R410A</b></p>  <p>PEAD Series</p> </div> <div style="text-align: center;"> <p><b>Wall-mounted</b></p> <p><b>R32</b><br/><b>R410A</b></p>  <p>PKA Series</p> </div> </div> |

| MXZ-VAHZ/VFHZ SERIES   |  |
|--|--|
| <p><b>Outdoor Unit</b></p> <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="text-align: center;"> <p><b>R32</b></p>  <p>MXZ-2F53VFHZ</p> </div> <div style="text-align: center;"> <p><b>R32</b></p>  <p>MXZ-4F83VFHZ</p> </div> </div> <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="text-align: center;"> <p><b>R410A</b></p>  <p>MXZ-2E53VAHZ</p> </div> <div style="text-align: center;"> <p><b>R410A</b></p>  <p>MXZ-4E83VAHZ</p> </div> </div> |  |

# LN VGHZ SERIES

Single / MXZ, PUMY PUMY **R410A**

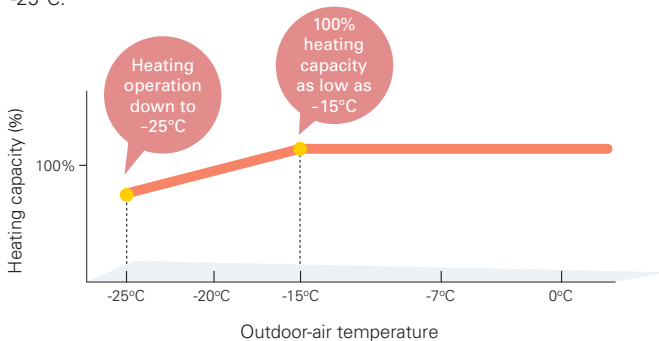
Unlike conventional air conditioning systems, the LN Series don't lose heating capacity when it's cold outside. Original technologies ensure excellent heating performance under extremely low outdoor temperatures and an impressive guaranteed operating range.



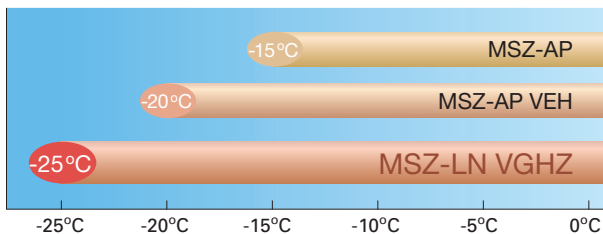
MSZ-LN25/35/50VG2(W)(V)(R)(B)

## Unparalleled Heating Performance

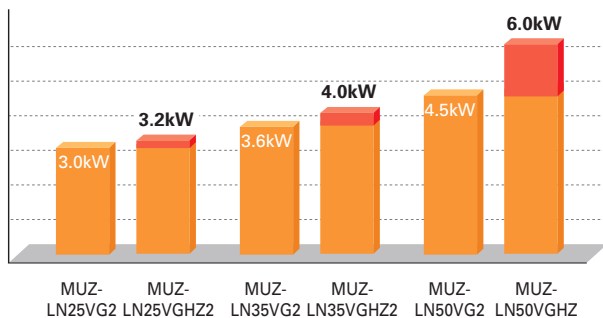
LN Series outdoor units are equipped with a high-output compressor that provides enhanced heating performance under low outdoor temperatures. The heating operation range is extended down to -25°C.



## Operating Range



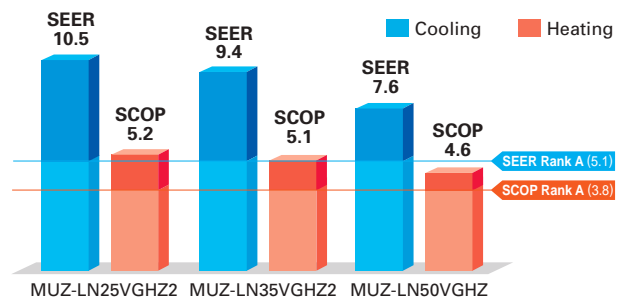
## Declared Capacity (at reference design temperature)



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

DC Inverter

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



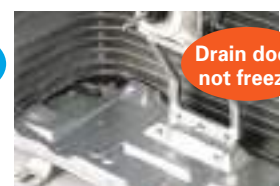
## Freeze-prevention Heater Equipped as Standard

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

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



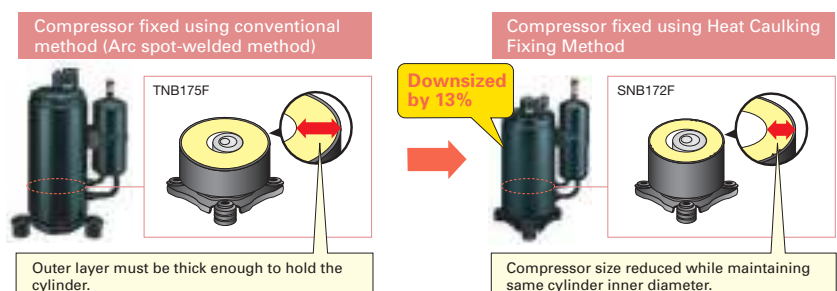
Without Freeze-prevention heater



With Freeze-prevention heater

## Compact, Powerful Compressor

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



# MSZ-LN VGHZ SERIES



## 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) | MSZ-LN50VG2(W)(V)(R)(B)      |                              |                               |                 |
| Outdoor Unit                             |  | MUZ-LN25VGHZ2                   | MUZ-LN35VGHZ2           | MUZ-LN50VGHZ                 |                              |                               |                 |
| Refrigerant                              |  | R32 <sup>(*)1</sup>             |                         |                              |                              |                               |                 |
| 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 <sup>(*)2</sup>           | kWh/a                           | 83                      | 130                          | 230                          |                               |                 |
|  | SEER <sup>(*)4</sup>                                     |                                 | 10.5                    | 9.4                          | 7.6                          |                               |                 |
|  | Capacity   | Energy Efficiency Class         |                         | A+++                         | A+++                         | A++                           |                 |
|  |  | Rated                           | kW                      | 2.5                          | 3.5                          | 5.0                           |                 |
|  | Total Input  | Min - Max                       | kW                      | 0.8 - 3.5                    | 0.8 - 4.0                    | 1.4 - 5.8                     |                 |
|  |  | Rated                           | kW                      | 0.485                        | 0.820                        | 1.380                         |                 |
| Heating (Average Season) <sup>(*)5</sup> | Design Load  | kW                              | 3.2 (-10°C)             | 4.0 (-10°C)                  | 6.0 (-10°C)                  |                               |                 |
|  | Declared Capacity  | at reference design temperature | kW                      | 3.2 (-10°C)                  | 4.0 (-10°C)                  | 6.0 (-10°C)                   |                 |
|  |  | at bivalent temperature         | kW                      | 3.2 (-10°C)                  | 4.0 (-10°C)                  | 6.0 (-10°C)                   |                 |
|  |  | at operation limit temperature  | kW                      | 2.3 (-25°C)                  | 3.1 (-25°C)                  | 4.7 (-25°C)                   |                 |
|  |  | Back Up Heating Capacity        | kW                      | 0.0 (-10°C)                  | 0.0 (-10°C)                  | 0.0 (-10°C)                   |                 |
|  | Annual Electricity Consumption <sup>(*)2</sup>           | kWh/a                           | 861                     | 1098                         | 1826                         |                               |                 |
|  | SCOP <sup>(*)4</sup>                                     |                                 | 5.2                     | 5.1                          | 4.6                          |                               |                 |
|  | Capacity   | Energy Efficiency Class         |                         | A+++                         | A+++                         | A++                           |                 |
|  |  | Rated                           | kW                      | 3.2                          | 4.0                          | 6.0                           |                 |
|  | Total Input  | Min - Max                       | kW                      | 0.8 - 6.3                    | 0.9 - 6.6                    | 1.8 - 8.7                     |                 |
| Rated                                    |  | kW                              | 0.600                   | 0.820                        | 1.480                        |                               |                 |
| Operating Current (max)                  |  | A                               | 9.9                     | 10.5                         | 15.2                         |                               |                 |
| Indoor Unit                              | Input  | Rated                           | kW                      | 0.027                        | 0.027                        | 0.034                         |                 |
|  | Operating Current (max)                                  |                                 | A                       | 0.3                          | 0.3                          | 0.4                           |                 |
|  | Dimensions   |                                 | H x W x D               | mm                           | 307 - 890 - 233              | 307 - 890 - 233               | 307 - 890 - 233 |
|  | Weight   |                                 | kg                      | 15.5                         | 15.5                         | 15.5                          |                 |
|  | Air Volume (SLo-Lo-Mid-Hi-SHi <sup>(*)3</sup> (Dry/Wet)) | Cooling                         | m <sup>3</sup> /min     | 4.3 - 5.8 - 7.1 - 8.8 - 11.9 | 4.3 - 5.8 - 7.1 - 8.8 - 12.8 | 5.7 - 7.6 - 8.9 - 10.6 - 13.9 |                 |
|  |  | Heating                         | m <sup>3</sup> /min     | 4.0 - 5.7 - 7.1 - 8.5 - 14.4 | 4.3 - 5.7 - 7.1 - 8.5 - 13.7 | 5.4 - 6.4 - 8.5 - 10.7 - 15.7 |                 |
|  | Sound Level (SPL) (SLo-Lo-Mid-Hi-SHi <sup>(*)3</sup> )   | Cooling                         | dB(A)                   | 19 - 23 - 29 - 36 - 42       | 19 - 24 - 29 - 36 - 43       | 27 - 31 - 35 - 39 - 46        |                 |
|  |  | Heating                         | dB(A)                   | 19 - 24 - 29 - 36 - 45       | 19 - 24 - 29 - 36 - 45       | 25 - 29 - 34 - 39 - 47        |                 |
|  | Sound Level (PWL)  |                                 | dB(A)                   | 58                           | 58                           | 60                            |                 |
|  | Outdoor Unit   | Dimensions                      |                         | H x W x D                    | mm                           | 550 - 800 - 285               | 550 - 800 - 285 |
| Weight                                   |  | kg                              | 35                      | 36                           | 55                           |                               |                 |
| Air Volume                               |  | Cooling                         | m <sup>3</sup> /min     | 31.4                         | 33.8                         | 48.8                          |                 |
|  |  | Heating                         | m <sup>3</sup> /min     | 27.4                         | 27.4                         | 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                               | 9.6                     | 10.2                         | 14.8                         |                               |                 |
| Breaker Size                             |  | A                               | 10                      | 12                           | 16                           |                               |                 |
| Ext. Piping                              | Diameter   |                                 | Liquid / Gas            | mm                           | 6.35/9.52                    | 6.35/9.52                     | 6.35/9.52       |
|  | Max. Length  |                                 | Out-In                  | m                            | 20                           | 20                            | 20              |
|  | Max. Height  |                                 | Out-In                  | m                            | 12                           | 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 550. This means that if 1 kg of this refrigerant fluid would be leaked to the atmosphere, the impact on global warming would be 550 times higher than 1 kg of CO<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. 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 51-52 for heating (warmer season/colder season) specifications.

# FT VGHZ 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.



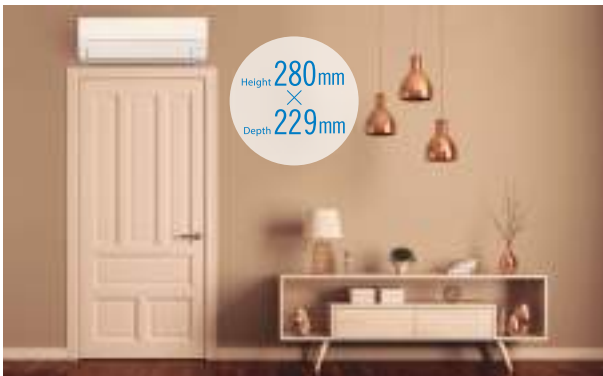
MSZ-FT25/35/50VG(K)



Powerful Core for powerful heating

## Compact Design

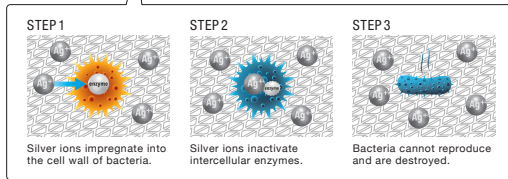
The FT series features its compact design with 280mm height and 229mm depth, which is suitable for the installation above the door.



Height 280mm  
Depth 229mm

## 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.



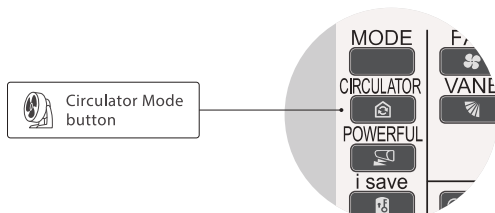
## Remote Controller with Backlight

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



## Circulator Mode

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



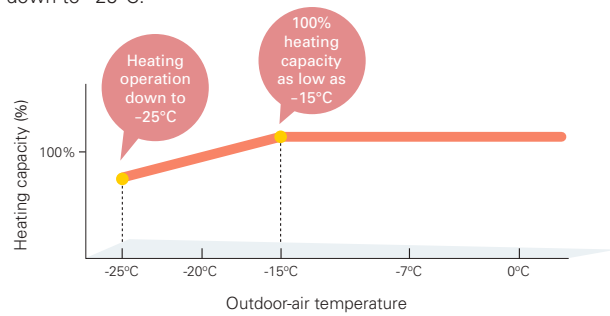
## Built-in Wi-Fi

(MSZ-FT25/35/50VGK)

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

## Hyper Heating

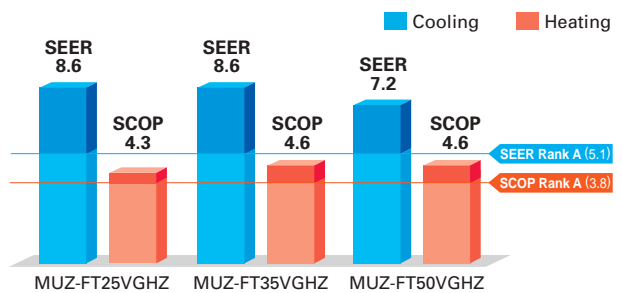
Mitsubishi Electric's powerful compressor and highly cold-resistant parts enable the heat pump to provide 100% or more heating capacity even at  $-15^{\circ}\text{C}$ , and also the heating operation is guaranteed down to  $-25^{\circ}\text{C}$ .



## High Energy Efficiency – Energy Rank of A<sup>+</sup> 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)

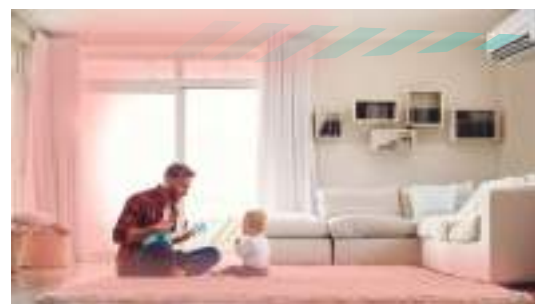
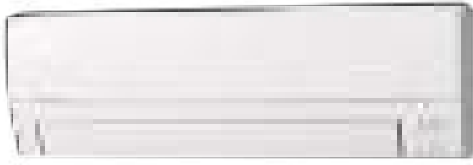


Image is for illustration purposes.

# MSZ-FT SERIES



## Indoor Unit



MSZ-FT25/35/50VG(K)

## Outdoor Unit



MUZ-FT25VGHZ



MUZ-FT35/50VGHZ

## Remote Controller



| Type                                     |  | Inverter Heat Pump              |                     |                               |                                |                                |
|--|--|---------------------------------|---------------------|-------------------------------|--------------------------------|--------------------------------|
| Indoor Unit                              |  | MSZ-FT25VG(K)                   | MSZ-FT35VG(K)       | MSZ-FT50VG(K)                 |                                |                                |
| Outdoor Unit                             |  | MUZ-FT25VGHZ                    | MUZ-FT35VGHZ        | MUZ-FT50VGHZ                  |                                |                                |
| Refrigerant                              |  | R32 <sup>(*)1</sup>             |                     |                               |                                |                                |
| 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 <sup>(*)2</sup>           | kWh/a                           | 101                 | 142                           | 243                            |                                |
|  | SEER <sup>(*)4</sup>                                     |                                 | 8.6                 | 8.6                           | 7.2                            |                                |
|  | Energy Efficiency Class                                  |                                 |                     | A+++                          | A++                            |                                |
|  | Capacity   | Rated                           | kW                  | 2.5                           | 3.5                            | 5.0                            |
|  |  | Min - Max                       | kW                  | 0.8 - 3.5                     | 0.8 - 4.0                      | 0.8 - 5.2                      |
| Total Input                              | Rated  | kW                              | 0.580               | 0.910                         | 1.630                          |                                |
| Heating (Average Season) <sup>(*)5</sup> | 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 <sup>(*)2</sup>           | kWh/a                           | 973                 | 1216                          | 1625                           |                                |
|  | SCOP <sup>(*)4</sup>                                     |                                 | 4.6                 | 4.6                           | 4.3                            |                                |
|  | Energy Efficiency Class                                  |                                 |                     | A++                           | A+                             |                                |
|  | Capacity   | Rated                           | kW                  | 3.2                           | 4.0                            | 5.0                            |
|  |  | Min - Max                       | kW                  | 0.9 - 6.2                     | 0.9 - 6.6                      | 0.9 - 7.8                      |
| Total Input                              | Rated  | kW                              | 0.760               | 1.020                         | 1.300                          |                                |
| Operating Current (max)                  |  | A                               | 10.0                | 11.6                          | 13.9                           |                                |
| Indoor Unit                              | Input  | Rated                           | kW                  | 0.039                         | 0.04                           | 0.047                          |
|  | Operating Current (max)                                  |                                 | A                   | 0.4                           |                                |                                |
|  | Dimensions   |                                 | H x W x D           | mm 280 - 838 - 229            |                                |                                |
|  | Weight   |                                 | kg                  | 10                            |                                |                                |
|  | Air Volume (SLo-Lo-Mid-Hi-SHi <sup>(*)3</sup> (Dry/Wet)) | Cooling                         | m <sup>3</sup> /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 <sup>3</sup> /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 <sup>(*)3</sup> )   | 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                            |                                |                                |
|  | Dimensions   |                                 | H x W x D           | mm 550 - 800 - 285            | 714 - 800 - 285                | 714 - 800 - 285                |
| Weight                                   |  | kg                              | 40                  |                               |                                |                                |
| Air Volume                               | Cooling  | m <sup>3</sup> /min             | 30.4                | 40.2                          | 40.2                           |                                |
|  | Heating  | m <sup>3</sup> /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)                        |  | dB(A)                           | 60                  | 61                            | 64                             |                                |
| Operating Current (max)                  |  | A                               | 9.6                 | 11.2                          | 13.5                           |                                |
| Breaker Size                             |  | A                               | 12                  |                               |                                |                                |
| Ext. Piping                              | Diameter   | Liquid / Gas                    | mm 6.35 / 9.52      | 6.35 / 9.52                   | 6.35 / 9.52                    |                                |
|  | Max. Length  | Out-In                          | m 20                | 30                            | 30                             |                                |
|  | Max. Height  | Out-In                          | m 12                | 15                            | 15                             |                                |
| Guaranteed Operating Range (Outdoor)     |  | Cooling                         | °C -10 ~ +46        | -10 ~ +46                     | -10 ~ +46                      |                                |
|  |  | Heating                         | °C -25 ~ +24        | -25 ~ +24                     | -25 ~ +24                      |                                |

(\*)1 Refrigerant leakage contributes to climate change. Refrigerant with lower global warming potential (GWP) would contribute less to global warming than a refrigerant with higher GWP, if leaked to the atmosphere. This appliance contains a refrigerant fluid with a GWP equal to 1975. This means that if 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. The GWP of R410A is 2088 in the IPCC 4th Assessment Report.

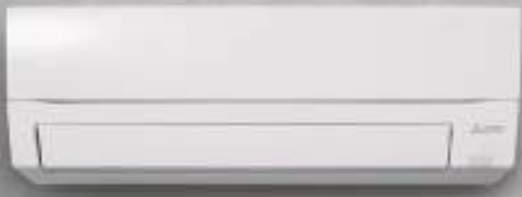
(\*)2 Energy consumption based on standard test results. Actual energy consumption will depend on how the appliance is used and where it is located.

(\*)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 51-52 for heating (warmer season) specifications.







# MFZ-KJ SERIES



## Indoor Unit

**R410A**  
Single / Multi



MFZ-KJ25/35/50VE2



GOOD DESIGN  
AWARD 2014

## Outdoor Unit



MUFZ-KJ25/35VEHZ



MUFZ-KJ50VEHZ

## Remote Controller



| Type                                 |  | Inverter Heat Pump              |                     |                             |                             |                               |                 |
|--------------------------------------|--|---------------------------------|---------------------|-----------------------------|-----------------------------|-------------------------------|-----------------|
| Indoor Unit                          |  | MFZ-KJ25VE2                     | MFZ-KJ35VE2         | MFZ-KJ50VE2                 |                             |                               |                 |
| Outdoor Unit                         |  | MUFZ-KJ25VEHZ                   | MUFZ-KJ35VEHZ       | MUFZ-KJ50VEHZ               |                             |                               |                 |
| Refrigerant                          |  | R410A <sup>(*)1</sup>           |                     |                             |                             |                               |                 |
| 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 <sup>(*)2</sup>           | kWh/a                           | 102                 | 150                         | 266                         |                               |                 |
|                                      | SEER <sup>(*)4</sup>                                     |                                 | 8.5                 | 8.1                         | 6.5                         |                               |                 |
|                                      | Energy Efficiency Class                                  |                                 |                     | A+++                        | A++                         | A++                           |                 |
|                                      | Capacity   | Rated                           | kW                  | 2.5                         | 3.5                         | 5.0                           |                 |
|                                      |  | Min - Max                       | kW                  | 0.5 - 3.4                   | 0.5 - 3.7                   | 1.6 - 5.7                     |                 |
| Total Input                          | Rated  | kW                              | 0.540               | 0.940                       | 1.410                       |                               |                 |
| Heating (Average Season)             | Design Load  | kW                              | 3.5                 | 3.6                         | 4.5                         |                               |                 |
|                                      | Declared Capacity  | at reference design temperature | kW                  | 3.5                         | 3.6                         | 4.5                           |                 |
|                                      |  | at bivalent temperature         | kW                  | 3.5                         | 3.6                         | 4.5                           |                 |
|                                      |  | at operation limit temperature  | kW                  | 1.6                         | 2.3                         | 3.3                           |                 |
|                                      | Back Up Heating Capacity                                 |                                 | kW                  | 0.0                         | 0.0                         | 0.0                           |                 |
|                                      | Annual Electricity Consumption <sup>(*)2</sup>           | kWh/a                           | 1104                | 1158                        | 1467                        |                               |                 |
|                                      | SCOP <sup>(*)4</sup>                                     |                                 | 4.4                 | 4.3                         | 4.2                         |                               |                 |
|                                      | Energy Efficiency Class                                  |                                 |                     | A+                          | A+                          | A+                            |                 |
|                                      | Capacity   | Rated                           | kW                  | 3.4                         | 4.3                         | 6.0                           |                 |
|                                      |  | Min - Max                       | kW                  | 1.2 - 5.1                   | 1.2 - 5.8                   | 2.2 - 8.4                     |                 |
| Total Input                          | Rated  | kW                              | 0.770               | 1.100                       | 1.610                       |                               |                 |
| 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                          |                               |                 |
|                                      | Air Volume (SLo-Lo-Mid-Hi-SHi <sup>(*)3</sup> (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 <sup>(*)3</sup> )   | 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)                    |  |                                 | 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                     |                 |
|                                      | Heating  |                                 |                     | °C                          | -25 ~ +24                   | -25 ~ +24                     |                 |

(\*)1 Refrigerant leakage contributes to climate change. Refrigerant with lower global warming potential (GWP) would contribute less to global warming than a refrigerant with higher GWP, if leaked to the atmosphere. This appliance contains a refrigerant fluid with a GWP equal to 1975. This means that if 1 kg of this refrigerant fluid would be leaked to the atmosphere, the impact on global warming would be 1975 times higher than 1 kg of CO<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. The GWP of R410A is 2088 in the IPCC 4th Assessment Report.

(\*)2 Energy consumption based on standard test results. Actual energy consumption will depend on how the appliance is used and where it is located.

(\*)3 SHi: Super High

(\*)4 SEER, SCOP and other related description are based on COMMISSION DELEGATED REGULATION (EU) No.626/2011. The temperature conditions for calculating SCOP are based on "Average Season".

# ZUBADAN SERIES

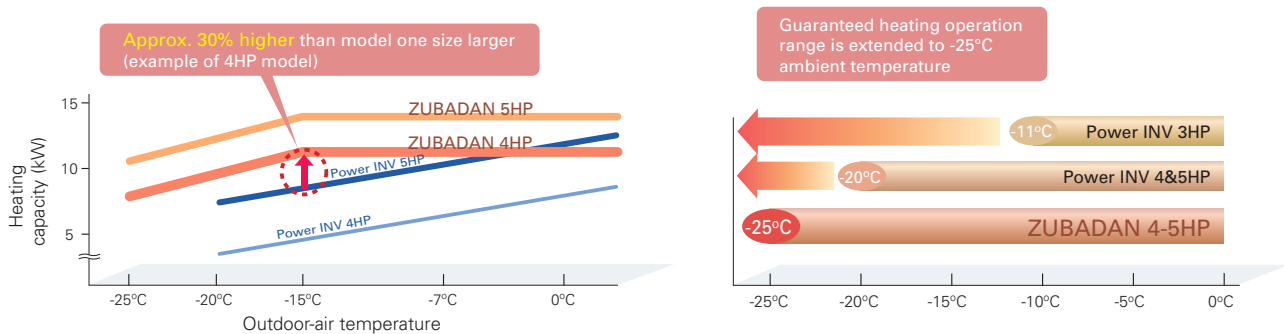
The ZUBADAN Series incorporates an original Flash Injection technology that improves the already high heating capacity of the system. This new member of the series line-up ensures comfortable heat pump-driven heating performance in cold regions.



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

## Improved Heating Performance

Mitsubishi Electric's unique "Flash Injection" circuit achieves remarkably high heating performance. This technology has resulted in an excellent heating capacity rating in outdoor temperatures as low as  $-15^{\circ}\text{C}$ , 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.

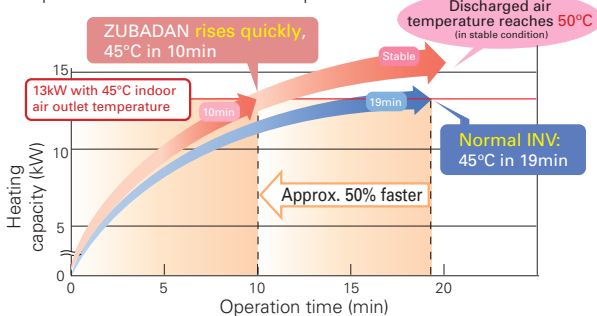


## Enhanced Comfort

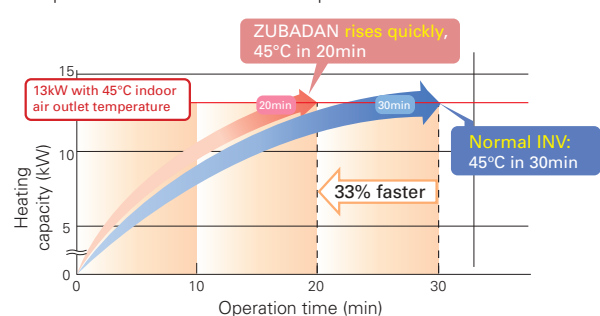
The Flash Injection circuit improves start-up and recover from the defrosting operation. A newly introduced defrost operation control also improves defrost frequency. These features enable the temperature to reach the set temperature more quickly, and contribute to maintaining it at the desired setting.

### Quick Start-up

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



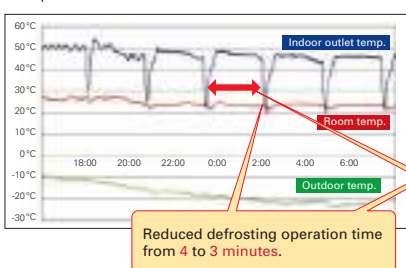
■ Operation at  $-20^{\circ}\text{C}$  outdoor temperature



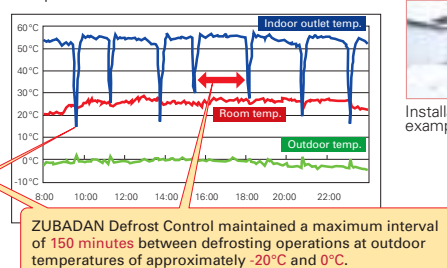
### ZUBADAN Defrost Control and Faster Recovery from Defrost Operation

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

■ Operation data for 25 Jan. 2005



■ Operation data for 2 Dec. 2004



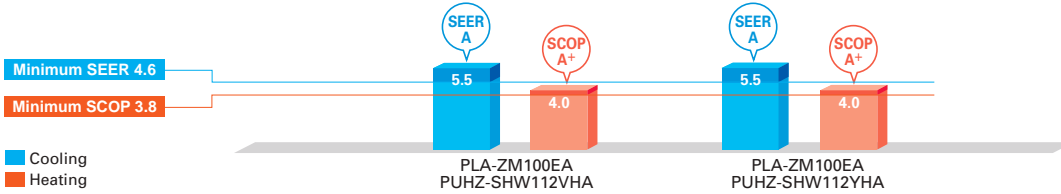
Installation example



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



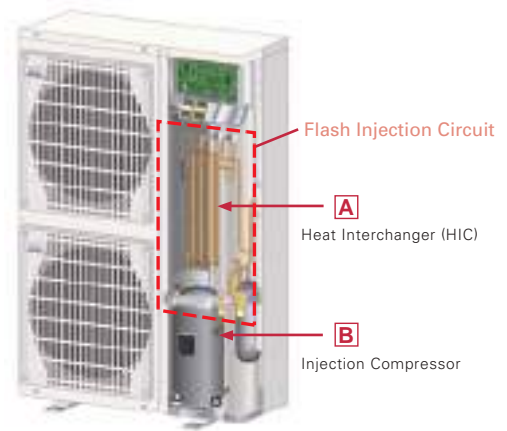
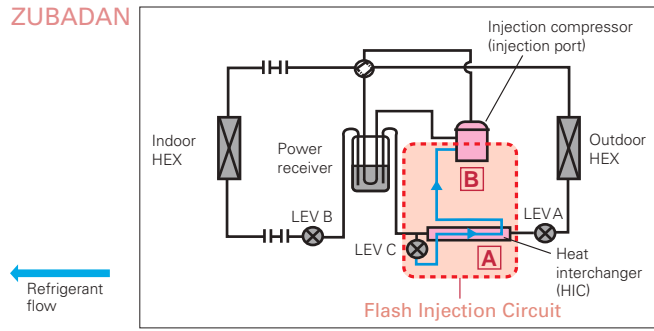
Powerful heating yet annually high energy efficiency in both cooling and heating, achieving rank A and A+.



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

### Flash Injection Circuit

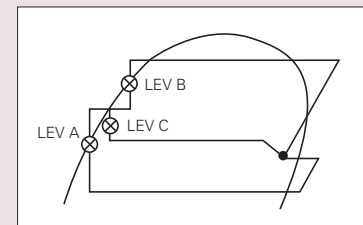
ZUBADAN



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.

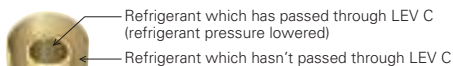
In traditional units, when the outdoor temperature is low, the volume of refrigerant circulating in the compressor decreases due to the drop in refrigerant pressure and the protection from overheating caused by high compression, thereby reducing heating capacity. The Flash Injection Circuit injects refrigerant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

Mollier Chart Image Representing Flash Injection Circuit Operation



#### A Heat Interchanger (HIC)

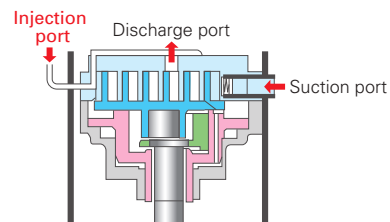
HIC cross-sectional view



**Purpose:** Transform liquid refrigerant into liquid-gas state  
**Effect:** Injection circuit increases energy efficiency

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

#### B Injection Compressor



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

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

# PLZ-SHW SERIES



## Indoor Unit



PLA-ZM100/125EA

### Panel

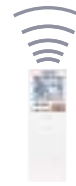
| Panel      | With Signal Receiver | With 3D i-see Sensor | With Wireless Remote Controller | With Auto Elevation |
|------------|----------------------|----------------------|---------------------------------|---------------------|
| PLP-6EA    |                      |                      |      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

## Outdoor Unit



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

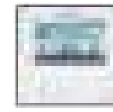
## Remote Controller



Enclosed in  
PLP-6EALM/PLP-6EALME



\*optional



\*optional



\*optional



| Type                                 | Inverter Heat Pump                |                                 |                |                          |              |              |
|--------------------------------------|-----------------------------------|---------------------------------|----------------|--------------------------|--------------|--------------|
| Indoor Unit                          | PLA-ZM100EA                       |                                 | PLA-ZM125EA    |                          |              |              |
| Outdoor Unit                         | PUHZ-SHW112VHA                    | PUHZ-SHW112YHA                  | PUHZ-SHW140YHA |                          |              |              |
| Refrigerant                          | R410A*1                           |                                 |                |                          |              |              |
| Power Supply                         | Outdoor power supply              |                                 |                |                          |              |              |
|                                      | 230 / 1 / 50                      | 400 / 3 / 50                    | 400 / 3 / 50   |                          |              |              |
| Cooling                              | Capacity                          | Rated                           | kW             | 10.0                     | 10.0         | 12.5         |
|                                      |                                   | Min - Max                       | kW             | 4.9 - 11.4               | 4.9 - 11.4   | 5.5 - 14.0   |
|                                      | Total Input                       | Rated                           | kW             | 2.857                    | 2.857        | 5.000        |
|                                      | EER                               |                                 |                | -                        | -            | 2.50         |
|                                      |                                   | EEL Rank                        |                | -                        | -            | -            |
|                                      | Design Load                       |                                 | kW             | 10.0                     | 10.0         | -            |
|                                      | Annual Electricity Consumption*2  |                                 | kWh/a          | 633                      | 633          | -            |
| Heating (Average Season)             | SEER*4                            |                                 |                | 5.5                      | 5.5          | -            |
|                                      |                                   | Energy Efficiency Class         |                | A                        | A            | -            |
|                                      | Capacity                          | Rated                           | kW             | 11.2                     | 11.2         | 14.0         |
|                                      |                                   | Min - Max                       | kW             | 4.5 - 14.0               | 4.5 - 14.0   | 5.0 - 16.0   |
|                                      | Total Input                       | Rated                           | kW             | 2.667                    | 2.667        | 4.000        |
|                                      | COP                               |                                 |                | -                        | -            | 3.50         |
|                                      |                                   | EEL Rank                        |                | -                        | -            | -            |
| Operating Current (max)              | Design Load                       |                                 | kW             | 12.7                     | 12.7         | -            |
|                                      | Declared Capacity                 | at reference design temperature | kW             | 11.2 (-10°C)             | 11.2 (-10°C) | -            |
|                                      |                                   | at bivalent temperature         | kW             | 11.2 (-7°C)              | 11.2 (-7°C)  | -            |
|                                      |                                   | at operation limit temperature  | kW             | 9.3 (-25°C)              | 9.3 (-25°C)  | -            |
|                                      | Back Up Heating Capacity          |                                 | kW             | 1.5                      | 1.5          | -            |
|                                      | Annual Electricity Consumption*2  |                                 | kWh/a          | 4420                     | 4420         | -            |
|                                      | SCOP*4                            |                                 |                | 4.0                      | 4.0          | -            |
|                                      | Energy Efficiency Class           |                                 | A+             | A+                       | -            |              |
| Indoor Unit                          | Operating Current (max)           |                                 | A              | 35.5                     | 13.5         | 13.5         |
|                                      | Input                             | Rated                           | kW             | 0.07                     | 0.07         | 0.08         |
|                                      | Operating Current (max)           |                                 | A              | 0.47                     | 0.47         | 0.52         |
|                                      | Dimensions <Panel>                | H x W x D                       | mm             | 298-840-840 <40-950-950> |              |              |
|                                      | Weight <Panel>                    |                                 | kg             | 26 <5>                   | 26 <5>       | 26 <5>       |
|                                      | Air Volume [Lo-Mi2-Mi1-Hi]        |                                 | m³/min         | 19-22-25-28              | 19-22-25-28  | 21-24-26-29  |
|                                      | Sound Level (SPL) [Lo-Mi2-Mi1-Hi] |                                 | dB(A)          | 31-34-37-40              | 31-34-37-40  | 33-36-39-41  |
| Outdoor Unit                         | Sound Level (PWL)                 |                                 | dB(A)          | 61                       | 61           | 62           |
|                                      | Dimensions                        | H x W x D                       | mm             | 1350-950-330 (+30)       |              |              |
|                                      | Weight                            |                                 | kg             | 120                      | 134          | 134          |
|                                      | Air Volume                        | Cooling                         | m³/min         | 100                      | 100          | 100          |
|                                      |                                   | Heating                         | m³/min         | 100                      | 100          | 100          |
|                                      | Sound Level (SPL)                 | Cooling                         | dB(A)          | 51                       | 51           | 51           |
|                                      |                                   | Heating                         | dB(A)          | 52                       | 52           | 52           |
| Sound Level (PWL)                    | Cooling                           | dB(A)                           | 69             | 69                       | 69           |              |
| Operating Current (max)              |                                   | A                               | 35             | 13                       | 13           |              |
| Breaker Size                         |                                   | A                               | 40             | 16                       | 16           |              |
| Ext. Piping                          | Diameter                          | Liquid / Gas                    | mm             | 9.52 / 15.88             | 9.52 / 15.88 | 9.52 / 15.88 |
|                                      | Max. Length                       | Out-In                          | m              | 75                       | 75           | 75           |
|                                      | Max. Height                       | Out-In                          | m              | 30                       | 30           | 30           |
| Guaranteed Operating Range [Outdoor] | Cooling*3                         | °C                              | -15 ~ +46      | -15 ~ +46                | -15 ~ +46    |              |
|                                      | Heating                           | °C                              | -25 ~ +21      | -25 ~ +21                | -25 ~ +21    |              |

\*1 Refrigerant leakage contributes to climate change. Refrigerant with lower global warming potential (GWP) would contribute less to global warming than a refrigerant with higher GWP, if leaked to the atmosphere. This appliance contains a refrigerant fluid with a GWP equal to 1975. This means that if 1kg of this refrigerant fluid would be leaked to the atmosphere, the impact on global warming would be 1975 times higher than 1kg of CO<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 and SCOP are based on 2009/125/EC:Energy-related Products Directive and Regulation(EU) No206/2012.

# PLZ-SHW SERIES



## Indoor Unit

R410A



PLA-M100/125EA

### Panel

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

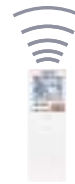
## Outdoor Unit

R410A



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

## Remote Controller



Enclosed in  
PLP-6EALM/PLP-6EALME



\*optional



\*optional



\*optional



| Type                                 |                                   | Inverter Heat Pump               |                                 |                   |              |
|--------------------------------------|-----------------------------------|----------------------------------|---------------------------------|-------------------|--------------|
| Indoor Unit                          |                                   | PLA-M100EA                       |                                 | PLA-M125EA        |              |
| Outdoor Unit                         |                                   | PUHZ-SHW112VHA                   | PUHZ-SHW112YHA                  | PUHZ-SHW140YHA    |              |
| Refrigerant                          |                                   | R410A*1                          |                                 |                   |              |
| Power Supply                         |                                   | Outdoor power supply             |                                 |                   |              |
| Source                               |                                   | 230 / 1 / 50                     |                                 |                   |              |
| Outdoor (V/Phase/Hz)                 |                                   | 400 / 3 / 50                     |                                 |                   |              |
| 400 / 3 / 50                         |                                   | 400 / 3 / 50                     |                                 |                   |              |
| Cooling                              | Capacity                          | Rated                            | 10.0                            | 12.5              |              |
|                                      | Min - Max                         | kW                               | 4.9 - 11.4                      | 5.5 - 14.0        |              |
|                                      | Total Input                       | Rated                            | 2.940                           | 5.000             |              |
|                                      | EER                               |                                  |                                 | 2.50              |              |
|                                      |                                   | EEL Rank                         |                                 |                   |              |
|                                      |                                   |                                  |                                 |                   |              |
|                                      |                                   | Design Load                      | kW                              | 10.0              | 10.0         |
|                                      |                                   | Annual Electricity Consumption*2 | kWh/a                           | 661               | 661          |
|                                      |                                   | SEER*4                           |                                 | 5.3               | 5.3          |
|                                      |                                   |                                  | Energy Efficiency Class         | A                 | A            |
| Heating (Average Season)             | Capacity                          | Rated                            | 11.2                            | 14.0              |              |
|                                      | Min - Max                         | kW                               | 4.5 - 14.0                      | 5.0 - 16.0        |              |
|                                      | Total Input                       | Rated                            | 2.793                           | 4.000             |              |
|                                      | COP                               |                                  |                                 | 3.50              |              |
|                                      |                                   | EEL Rank                         |                                 |                   |              |
|                                      |                                   |                                  |                                 |                   |              |
|                                      |                                   | Design Load                      | kW                              | 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          | kW                               | 1.5                             | 1.5               |              |
|                                      | Annual Electricity Consumption*2  | kWh/a                            | 4445                            | 4445              |              |
|                                      | SCOP*4                            |                                  | 4.0                             | 4.0               |              |
|                                      |                                   | Energy Efficiency Class          | A+                              | A+                |              |
| Operating Current (max)              |                                   | A                                | 35.5                            | 13.7              |              |
| Indoor Unit                          | Input                             | Rated                            | 0.07                            | 0.08              |              |
|                                      | Operating Current (max)           | A                                | 0.46                            | 0.66              |              |
|                                      | Dimensions <Panel>                | H x W x D                        | 298-840-840 <40-950-950>        |                   |              |
|                                      | Weight <Panel>                    | kg                               | 24 <5>                          | 26 <5>            |              |
|                                      | Air Volume [Lo-Mi2-Mi1-Hi]        | m³/min                           | 19 - 23 - 26 - 29               | 21 - 25 - 28 - 31 |              |
|                                      | Sound Level (SPL) [Lo-Mi2-Mi1-Hi] | dB(A)                            | 31 - 34 - 37 - 40               | 33 - 37 - 41 - 44 |              |
|                                      | Sound Level (PWL)                 | dB(A)                            | 61                              | 65                |              |
|                                      | Dimensions                        | H x W x D                        | 1350 - 950 - 330 (+30)          |                   |              |
| Outdoor Unit                         | 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           |
|                                      |                                   | Heating                          | dB(A)                           | 69                | 69           |
|                                      | Operating Current (max)           | A                                | 35                              | 13                |              |
|                                      | Breaker Size                      | A                                | 40                              | 16                |              |
|                                      | Ext. Piping                       | Diameter                         | Liquid / Gas                    | 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         |              |
|                                      |                                   | °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 and SCOP are based on 2009/125/EC:Energy-related Products Directive and Regulation(EU) No206/2012.

# PEDZ-SHW JA SERIES



## Indoor Unit



PEAD-M100JA(L)

## Outdoor Unit



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

## Remote Controller



\*optional



\*optional



\*optional



\*optional



| Type                                 |                                  | Inverter Heat Pump                          |                                 |                          |                          |                        |
|--------------------------------------|----------------------------------|---|---------------------------------|--------------------------|--------------------------|------------------------|
| Indoor Unit                          |                                  | PEAD-M100JA(L)                              |                                 |                          |                          |                        |
| Outdoor Unit                         |                                  | PUIHZ-SHW112VHA(-BS)                        | PUIHZ-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 (2.904)            | 2.924 (2.904)            |                        |
|                                      | EER                              |   |                                 | -                        | -                        |                        |
|                                      |                                  | EEL Rank                                    |                                 | -                        | -                        |                        |
|                                      | Design Load                      |   | kW                              | 10.0                     | 10.0                     |                        |
|                                      | Annual Electricity Consumption*2 |   | kWh/a                           | 729 (714)                | 729 (714)                |                        |
| SEER*4                               |                                  |   | 4.8 (4.9)                       | 4.8 (4.9)                |                          |                        |
|                                      | Energy Efficiency Class          |   | B                               | B                        |                          |                        |
| 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                    |                        |
|                                      | COP                              |   |                                 | -                        | -                        |                        |
|                                      |                                  | EEL Rank                                    |                                 | -                        | -                        |                        |
|                                      | Design Load                      |   | kW                              | 12.7                     | 12.7                     |                        |
|                                      | Declared Capacity                |   | at reference design temperature | kW                       | 11.2                     | 11.2                   |
|                                      |                                  |   | at bivalent temperature         | kW                       | 11.2                     | 11.2                   |
|                                      |                                  |   | at operation limit temperature  | kW                       | 9.4                      | 9.4                    |
|                                      | Back Up Heating Capacity         |   | kW                              | 1.5                      | 1.5                      |                        |
| Annual Electricity Consumption*2     |                                  | kWh/a                                       | 4664                            | 4664                     |                          |                        |
| SCOP*3                               |                                  |   | 3.8                             | 3.8                      |                          |                        |
|                                      | Energy Efficiency Class          |   | A                               | A                        |                          |                        |
| Operating Current (max)              |                                  |   | A                               | 37.7                     | 15.7                     |                        |
| Indoor Unit                          | Input [Cooling / Heating]        | Rated                                       | kW                              | 0.25 (0.23) / 0.23       | 0.25 (0.23) / 0.23       |                        |
|                                      | Operating Current (max)          |   | A                               | 2.65                     | 2.65                     |                        |
|                                      | Dimensions                       | H x W x D                                   | mm                              | 250 - 1400 - 732         | 250 - 1400 - 732         |                        |
|                                      | Weight                           |   | kg                              | 41 (40)                  | 41 (40)                  |                        |
|                                      | Air Volume [Lo-Mid-Hi]           |   | m <sup>3</sup> /min             | 24.0 - 29.0 - 34.0       | 24.0 - 29.0 - 34.0       |                        |
|                                      | External Static Pressure         |   | Pa                              | 35 / 50 / 70 / 100 / 150 | 35 / 50 / 70 / 100 / 150 |                        |
|                                      | Sound Level (SPL) [Lo-Mid-Hi]    |   | dB(A)                           | 29 - 34 - 38             | 29 - 34 - 38             |                        |
|                                      | Sound Level (PWL)                |   | dB(A)                           | 61                       | 61                       |                        |
|                                      | Outdoor Unit                     | Dimensions                                  | H x W x D                       | mm                       | 1350 - 950 - 330 (+30)   | 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 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 and SCOP are based on 2009/125/EC:Energy-related Products Directive and Regulation(EU) No206/2012.

# PKZ-SHW SERIES



## Indoor Unit



PKA-M100KA(L)

## Outdoor Unit



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

## Remote Controller



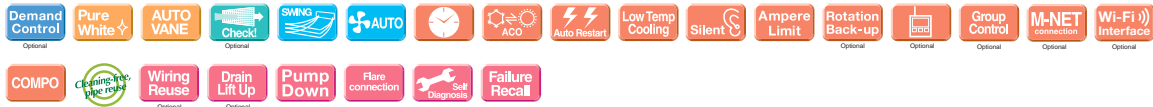
\*optional



\*optional



\*optional



| Type                                 |                                  | Inverter Heat Pump                          |                                 |                        |              |              |
|--------------------------------------|----------------------------------|---|---------------------------------|------------------------|--------------|--------------|
| Indoor Unit                          |                                  | PKA-M100KA(L)                               |                                 |                        |              |              |
| Outdoor Unit                         |                                  | PUAH-SHW112VHA(-BS)                         |                                 | PUAH-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*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         | 11.2         |
|                                      |                                  |   | at bivalent temperature         | kW                     | 11.2         | 11.2         |
|                                      |                                  |   | at operation limit temperature  | kW                     | 9.4          | 9.4          |
|                                      | Back Up Heating Capacity         |   | kW                              | 1.5                    | 1.5          |              |
|                                      | Annual Electricity Consumption*2 |   | kWh/a                           | 4664                   | 4664         |              |
|                                      | SCOP*3                           |   |                                 | 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           |              |
|                                      | Dimensions                       | H x W x D                                   | mm                              | 1350 - 950 - 330 (+30) |              |              |
| Outdoor Unit                         | 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 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 and SCOP are based on 2009/125/EC:Energy-related Products Directive and Regulation(EU) No206/2012.

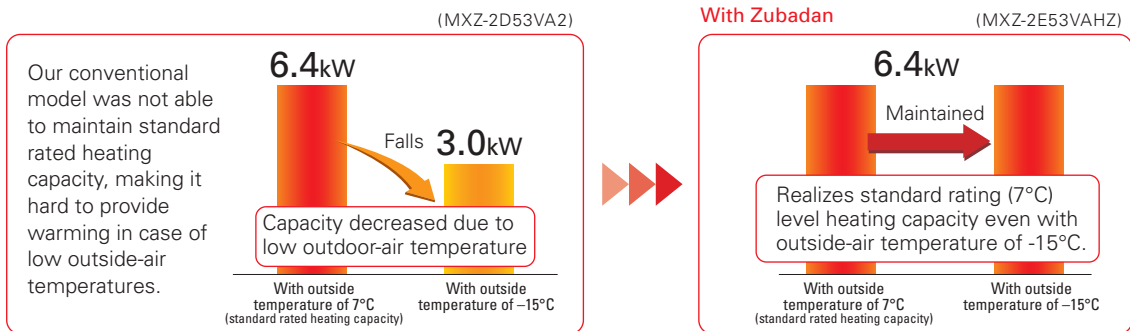
# MXZ-VAHZ SERIES



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 $-15^{\circ}\text{C}$ .

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



## Can operate at outside-air temperature of $-25^{\circ}\text{C}$

1. Incorporated key parts resistant to cold of up to  $-25^{\circ}\text{C}$  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.

Drain water **freezes** after operation in the harsh cold



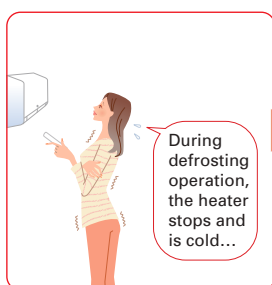
With Hyper heating Does not freeze!



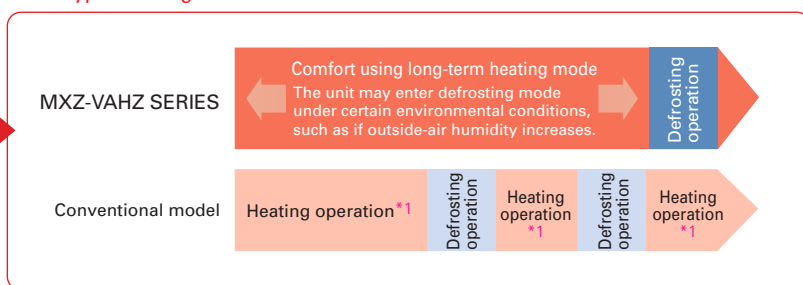
## Continuous heating for long periods

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

Extremely cold outside



With Hyper heating



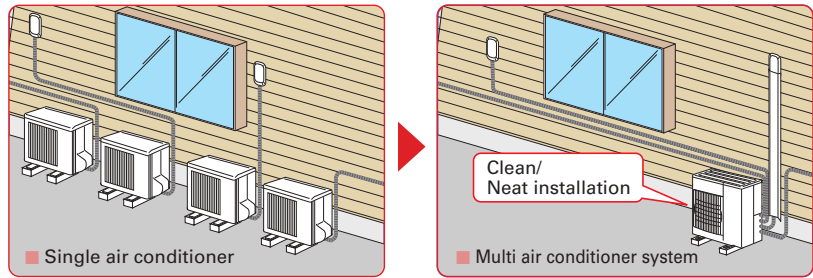
\*1: Conventional model performs continuous heating approximately 30min up to a maximum of 90min.



## One outdoor unit supports multiple indoor units.

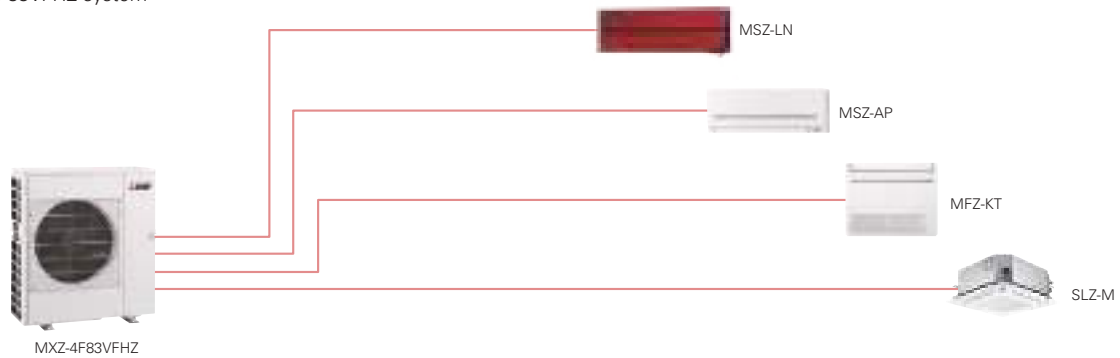
With MXZ-VAHZ, one outdoor unit can cool and heat up to six rooms. They can be installed neatly in sites with limited space such as condominium balconies.

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



### EXAMPLE SYSTEM

MXZ-4F83VFHZ system

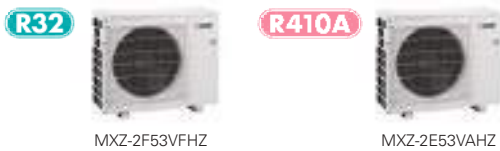


## Freedom of combinations in cold region greatly enhanced

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

### OUTDOOR UNITS

#### 2-room use



#### 4-room use



### 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

R32



MXZ-2F53VFHZ

R32



MXZ-4F83VFHZ

R410A



MXZ-2E53VAHZ

R410A



MXZ-4E83VAHZ

| 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           |              |                     |                              |                     |                              |
| Outdoor (V/Phase/Hz)                    |                                      |                                 | 220 - 230 - 240V / Single / 50 |              |                     |                              |                     |                              |
| Cooling                                 | Capacity                             | Rated                           | kW                             | 5.3          | 8.3                 | 5.3                          | 8.3                 |                              |
|   |                                      | Min - Max                       | kW                             | 1.1 - 6.0    | 3.5 - 9.2           | 1.1 - 6.0                    | 3.5 - 9.2           |                              |
|   | Total Input                          | Rated                           | kW                             | 1.29         | 1.90                | 1.29                         | 2.25                |                              |
|   | Design Load                          |                                 | kW                             | 5.3          | 8.3                 | 5.3                          | 8.3                 |                              |
|   | Annual Electricity Consumption**2    |                                 | kWh/a                          | 274          | 398                 | 282                          | 447                 |                              |
|   | SEER**4, **7                         |                                 |                                | 6.8          | 7.3                 | 6.5                          | 6.5                 |                              |
|   |                                      | Energy Efficiency Class**4      |                                | A++          | A++                 | A++                          | A++                 |                              |
| Heating (Average Season)                | Capacity                             | Rated (7°C)                     | kW                             | 6.4          | 9.0                 | 6.4                          | 9.0                 |                              |
|   |                                      | Rated (-7°C)                    | kW                             | 6.4          | 9.0                 | 6.4                          | 9.0                 |                              |
|   |                                      | Rated (-15°C)                   | kW                             | 6.4          | 9.0                 | 6.4                          | 9.0                 |                              |
|   |                                      | Min - Max                       | kW                             | 1.0 - 7.0    | 3.5 - 11.6          | 1.0 - 7.0                    | 3.5 - 11.6          |                              |
|   |                                      | Total Input                     | Rated                          | kW           | 1.36                | 1.70                         | 1.36                | 1.90                         |
|   | Design Load                          |                                 | kW                             | 6.4          | 10.1                | 6.4                          | 10.1                |                              |
|   | Declared Capacity                    | at reference design temperature | kW                             | 6.9          | 10.6                | 6.4                          | 9.0                 |                              |
|   |                                      | at bivalent temperature         | kW                             | 7.4          | 11.5                | 6.4                          | 9.0                 |                              |
|   |                                      | at operation limit temperature  | kW                             | 4.1          | 5.7                 | 2.4                          | 2.5                 |                              |
|   | Back Up Heating Capacity             |                                 | kW                             | 0.0          | 0.0                 | 0.0                          | 1.1                 |                              |
|   | Annual Electricity Consumption**2    |                                 | kWh/a                          | 2172         | 3286                | 2165                         | 3446                |                              |
| SCOP**7                                 |                                      |                                 | 4.1                            | 4.3          | 4.1                 | 4.1                          |                     |                              |
|   | Energy Efficiency Class**4           |                                 | A+                             | A+           | A+                  | A+                           |                     |                              |
| Max. Operating Current (Indoor+Outdoor) |                                      |                                 | A                              | 15.6         | 28.0                | 15.6                         | 28.0                |                              |
| Outdoor Unit                            | Dimensions                           |                                 | H 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 <sup>3</sup> /min            | 43           | 63                  | 470                          | 63.0                |                              |
|   |                                      | Heating                         | m <sup>3</sup> /min            | 41           | 77                  | 470                          | 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 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 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 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.

The GWP of R32 is 675 in the IPCC 4th Assessment Report.

\*\*7 SEER and SCOP are based on 2009/125/EC:Energy-related Products Directive and Regulation(EU) No206/2012.

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

# 3 Important Points to Remember When Installing the Outdoor Unit



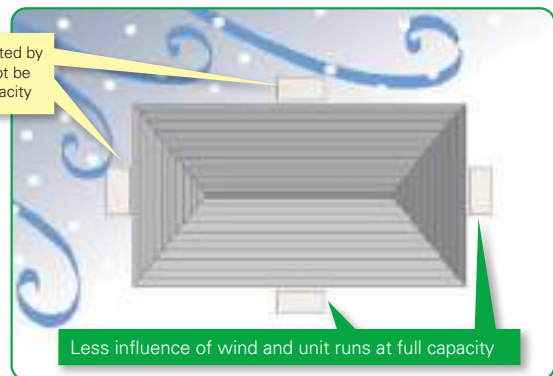
\* RAC/PAC (inc. Air to Water) /MXZ

Wind and snow can significantly reduce capacity. Be sure to check the 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 / MXZ]

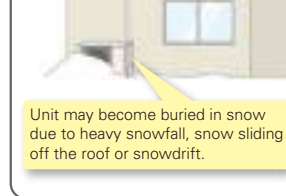
**Correct installation**



**Point!**

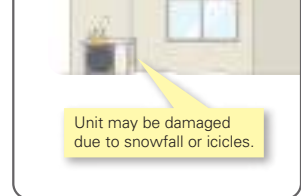
- ① Install at a position/height to prevent the unit being buried in snow\*1 and the adverse effects of frozen drainage water.\*2
  - ② Install so as to avoid the effects of snow or snowdrift.
  - ③ Install so as to avoid the damage from falling snow or icicles.
- \*1 Install at a height above the highest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

**Wrong installation**



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

**Wrong installation**



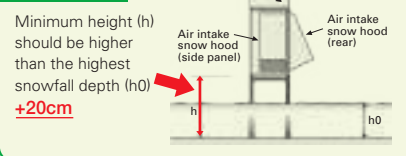
Unit may be damaged due to snowfall or icicles.

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

### Install snow protection hood as necessary

[RAC / PAC / MXZ]

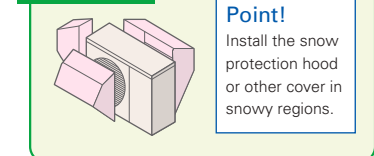
**Correct installation**



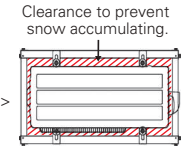
**Wrong installation**



**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]<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> Clearance to prevent snow accumulating. < Correct > |
| 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 / MXZ]<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.

### 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.