



# AIR TO WATER














**SELECTION** Choose the series that best matches the building layout.




Excellent ecodan's heating performance, even at low outdoor temperature!

| R32 | INDOOR UNIT  | OUTDOOR UNIT  |  |
|-----|--|---|--|
|     |  | Packaged type   | Medium capacity (6.0kW-11.2kW)*  |
|     | <p>Hydro box, cylinder unit</p>  | <br><br>PUZ-WM50                   | <br>PUZ-WM60/85/112           |
|     |  | <br><br>PUD-SHWM60/80/100/120/140 | <br>PUD-SHWM60/80/100/120/140 |
|     |  | <br><br>PUD-SWM60/80/100/120   | <br>PUD-SWM60/80/100/120     |
|     |  | <br><br>SUZ-SWM40/60           | <br>SUZ-SWM80               |

\*Rated capacity is at conditions A2W35. (according to EN14511)

| R410A | INDOOR UNIT   | OUTDOOR UNIT   |   |
|-------|---|--|---|
|       |   | Split type   | Large capacity (≥16kW)*   |
|       | <p>Hydro box, cylinder unit</p>  | <br><br>PUHZ-SHW80/112 | <br>PUHZ-SHW140    |
|       |   | <br>PUHZ-SHW230   | <br>PUHZ-SHW230    |
|       |   | <br><br>PUHZ-SW75/100  | <br>PUHZ-SW120     |
|       |   | <br>PUHZ-SW160/200  | <br>PUHZ-SW160/200 |

\*Rated capacity is at conditions A2W35. (according to EN14511)

| Other ATW-related system | Mr.SLIM+   | PUMY + ecodan  | ecodan geodan   |
|--------------------------|--|--|---|
|                          | <p>R410A</p> <br>PUHZ-FRP71 | <p>R410A</p> <br>PUMY-P112/125/140 | <p>R32</p> <br>EHGT17D-YM9ED |

# New Eco-design Directive

## What is the ErP Directive?

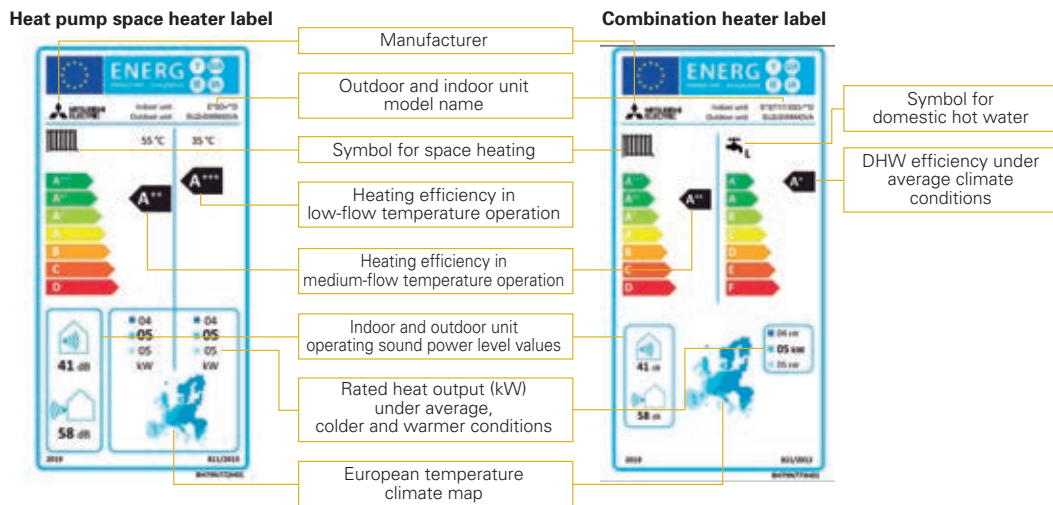
The Eco-design Directive for Energy-related Products (ErP Directive) established a framework to set mandatory standards for ErPs sold in the European Union (EU). The ErP Directive introduces new energy efficiency ratings across various product categories. It affects how products such as computers, vacuum cleaners, boilers and even windows are classified in terms of environmental performance. Labelling regulations that apply to our ATW heat pumps came into effect from September 26, 2015, and then revised from September 26, 2019.

## New energy label and measurements

Under directive 2009/125/EC, ATW heat pumps of up to 70kW are required to show their heating efficiency on the energy label. The purpose of the energy label is to inform customers about the energy efficiency of a heating unit. The efficiency for space heating is ranked from A+++ to D (from September 2019). In the case of domestic hot water, it is from A+ to F (from September 2019).

### Product label

This label is for individual heating units, such as an ecodan heat pump. Typically, the space heater label is used for ecodan systems with a hydro box, and the combination heater label is used for ecodan systems with a cylinder unit.



These labels are delivered with all ecodan outdoor units.

## What is the package label?

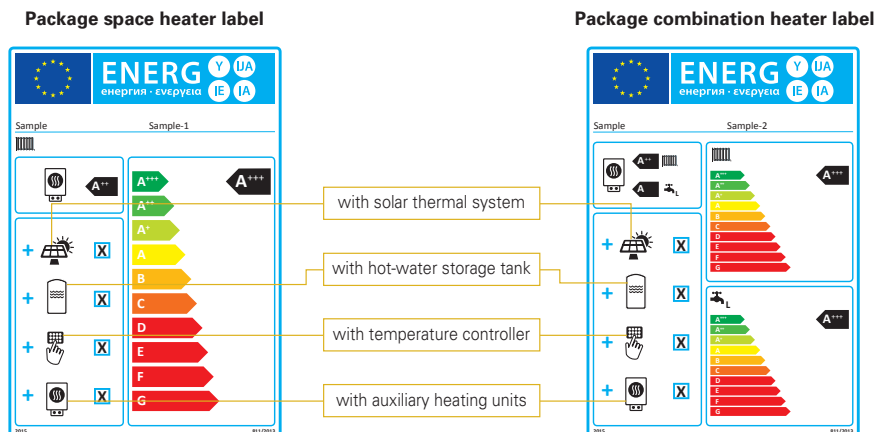
A heating system can use several energy-related products, such as a controller or solar thermal system. Therefore, a label showing the efficiency of the total heating system is required. The category range is defined from A+++ to G.

Creating the package label is the responsibility of the installers and distributors. A useful tool on the Mitsubishi Electric website is available to easily create the labels for ecodan products and controllers.

<http://erp.mitsubishielectric.eu/erp/options>

### Package label

This label is for heating systems that use several energy-related products, such as a controller or a solar thermal system.



Customised package labels including ecodan heat pumps and the FTC6 controller can be created on the Mitsubishi Electric website.

# New R32 Eco Inverter Line-up

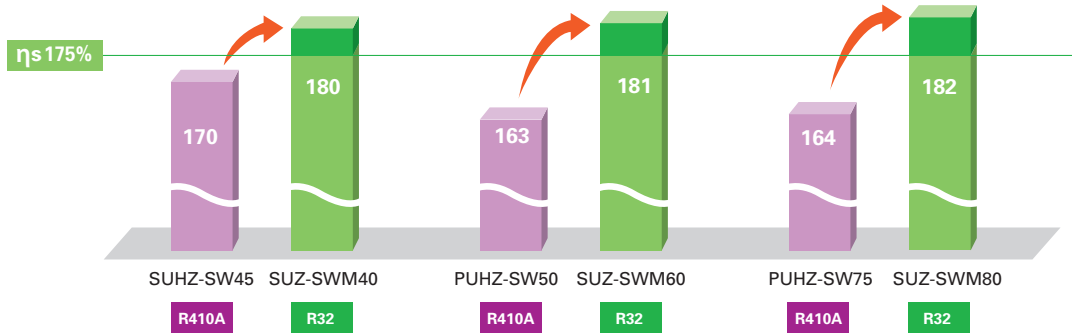
## Energy Efficient and Environmentally Friendly Heating

- Wide variety of product line with R32 refrigerant
- More energy efficient than conventional eco inverter models



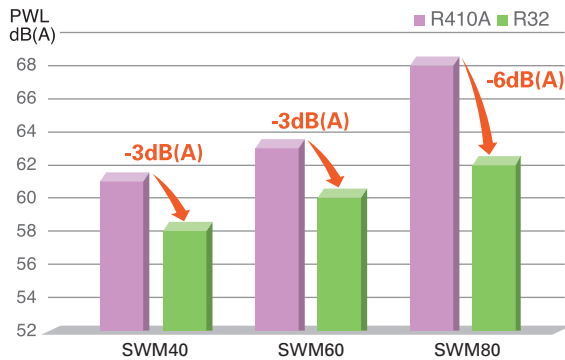
## High Performance

All models have achieved the "RANK A+++" for SCOP at low temperature.



## Low Noise

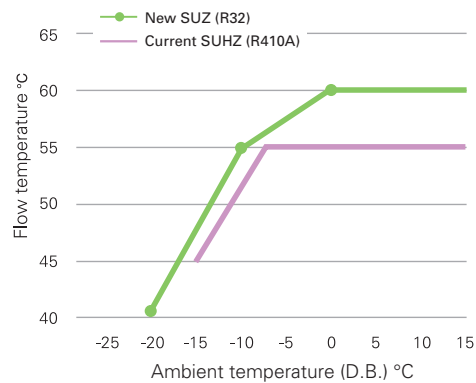
Compared with conventional outdoor unit, New R32 eco inverter achieved lower noise level, assuring the flexibility of installation in dense residential areas.



\*Compared SUZ-SWM40/60/80VA with SUHZ-SW45VA/PUHZ-SW50VKA/PUHZ-SW75VHA  
\*Rated condition (According to EN12102)

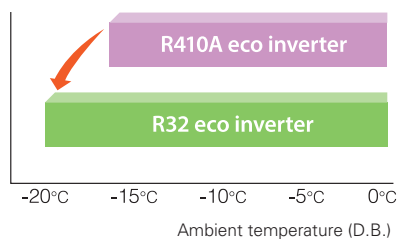
## 60°C Flow Temperature

Along with its increased lower operating range the New R32 range is capable of delivering a higher flow rate of 60°C, 5°C higher than the conventional model.



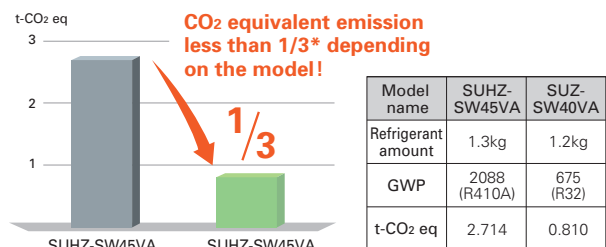
## Guaranteed Operating Range Expansion

Guaranteed heating operating range is extended to -20°C.



## Reducing Refrigerant Amount

<R410A vs R32> CO<sub>2</sub> equivalent emission



\*Source: IPCC 4th Assessment Report, global warming potential (GWP) 100-year value. Comparison of 2088 (R410A) and 675 (R32).

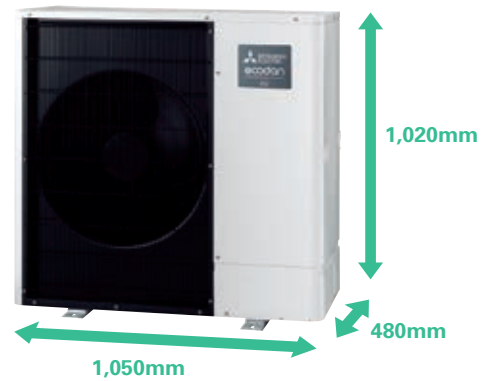
# Dedicated Heat Pump for Residence



## Stylish and Compact

### The Stylish Design and Compact Size Harmonises Residential Application

- Simple and elegant design by rounding left and right corners of the unit.
- Concealing the fan by matching the panel and the grille in dark colour.
- Unified shape and safety by setting the fan whole backwards and matching the grille on the same level of the front panel.
- Wider lineup with environmental-friendly R32 refrigerant.

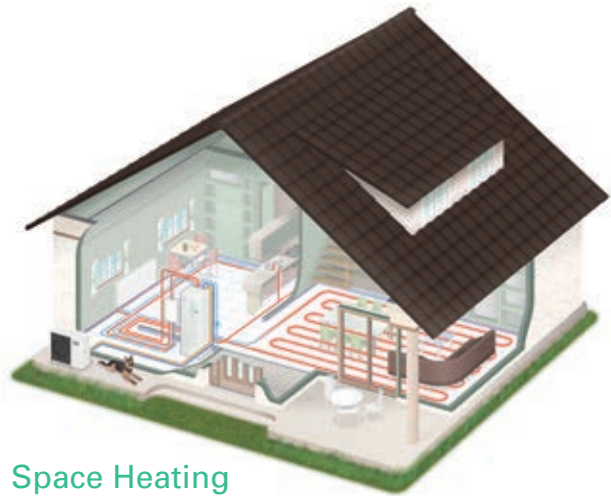


## High Performance

### New Compressor



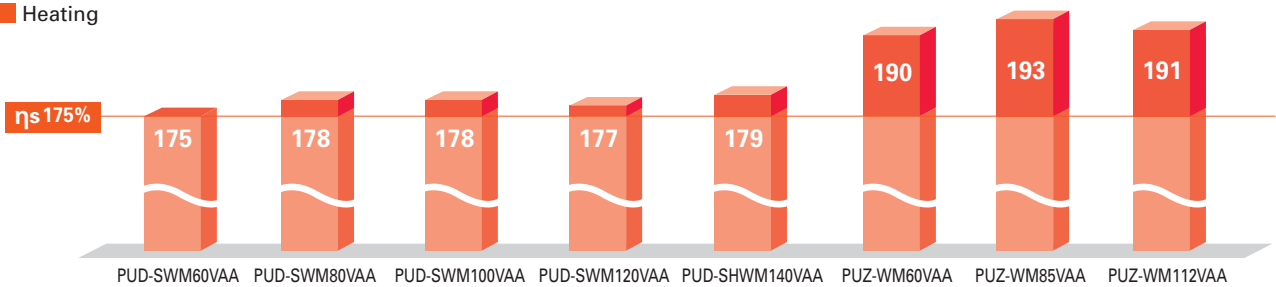
- Compact
  - High performance
  - Flash injection\*
- \*ZUBADAN (SHWM) only



## ErP Lot 1 Compliant with Highest Seasonal Space Heating Energy Efficiency Class A+++

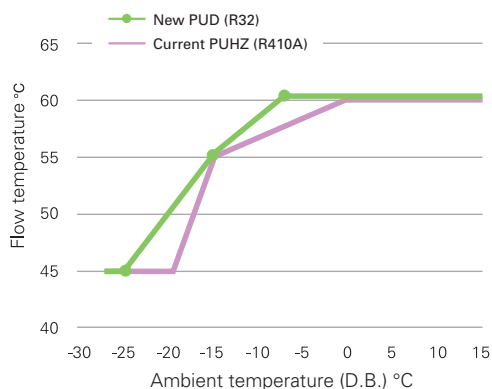
All models have achieved the "RANK A+++ " for SCOP at low temperature.

### Heating



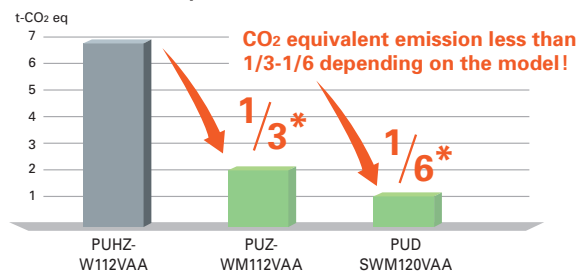
## 60°C Flow Temperature at Low Ambient Temperature

60°C max flow temperature can be maintained up to Ambient -7°C. (For PUD-S(H)WM models)



## Reducing Refrigerant Amount

### <R410A vs 32> CO<sub>2</sub> equivalent emission



| Model name           | PUHZ-W112VAA | PUZ-WM112VAA | PUD-SWM120VAA |
|----------------------|--------------|--------------|---------------|
| Refrigerant amount   | 3.3kg        | 3.0kg        | 1.6kg         |
| GWP                  | 2088 (R410A) | 675 (R32)    | 675 (R32)     |
| t-CO <sub>2</sub> eq | 6.890        | 2.025        | 1.080         |

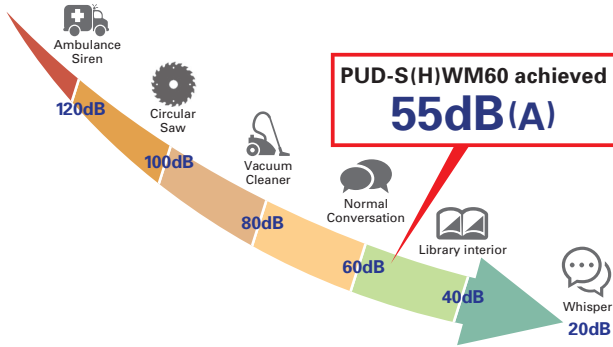
\*Source: IPCC 4th Assessment Report, global warming potential (GWP) 100-year value. Comparison of 2088(R410A) and 675 (R32).

## Compact with Silence

### Noise Reduction-10dB(A)

Mitsubishi Electric heat pumps are designed to give you highly efficient and eco-friendly heating with 10dB(A) less in PWL. Compared with conventional models.

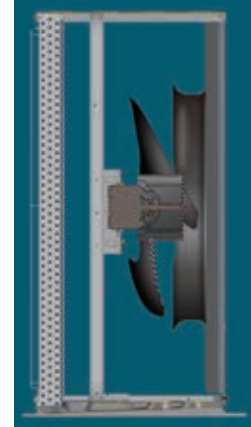
\* Rated condition (According to EN12102)



## Blowing Air

### To Reduce Fan Noise

- Optimising fan position
- Optimising bell mouth shape
- Bigger fan diameter



## Enclosing Noise

### Shutting Out Noise from Compressor

- The structure of double enclosing

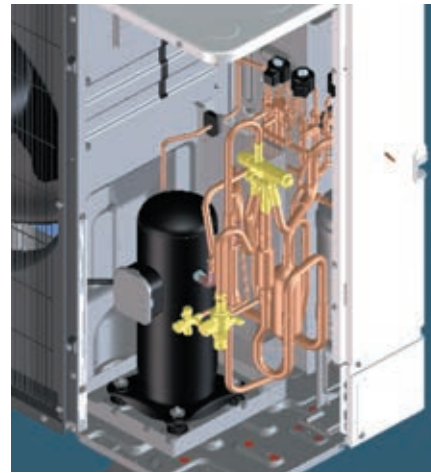
Primary: enclosing a compressor (the structure is patented.)

Secondary: enclosing machine room.



## Avoiding Vibration and Resonance

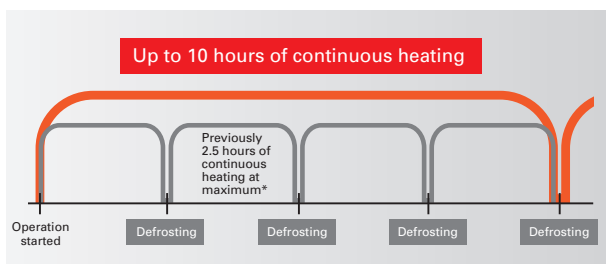
- Dedicated soft rubber mount for the compressor to avoid vibration.
- Optimising piping structure to avoid vibration and resonance.



## New Control for Eco-friendly Heating

### Defrost Improvement

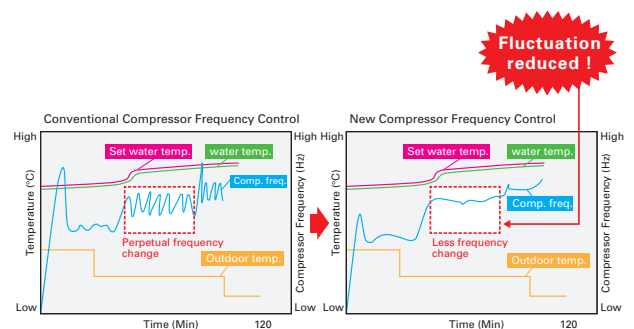
Conventional models often switch to defrost operation even when there is not much frost on outdoor units. By detecting frost more precisely, it is possible to prevent frequent on/off for defrosting and to give you more comfort.



\* Comparison between prior PUHZ-SHW-AA model and new PUD-S(H)WM-AA model. Maximum number of operational hours at our Company's laboratory (external temperature  $-15^{\circ}\text{C}$ ). Hours of continuous operation may differ depending on external temperature conditions.

## New Compressor Frequency Control

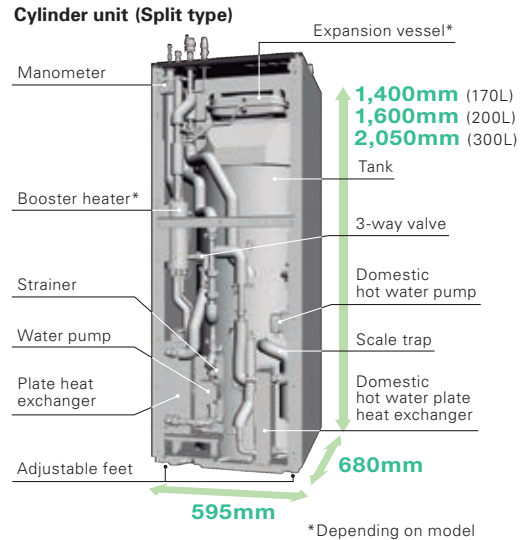
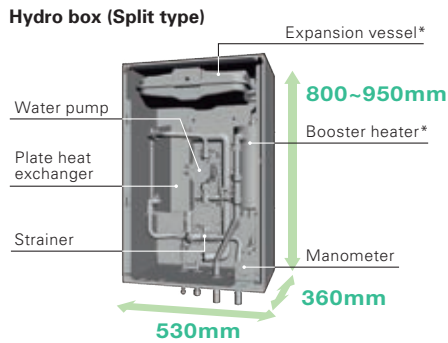
By reducing frequency changes (from 17 to 4 times per hour), hunting is prevented. Reducing fluctuation improves efficiency and prolongs compressor life.



# New D generation Indoor Unit

## New All-in-one Compact Indoor Unit

- All-in-one: Key functional components are incorporated
- Compact cylinder unit: 1,400~2,050mm in height
- Compact hydro box: Only 530x360mm footprint
- Easy installation: Factory fitted pressure relief valve
- Easy service: Relevant parts are located at the front of the unit for easy maintenance
- Easy transport: Handles attached on front and back (cylinder unit)



## New Line-up

ecodan's line-up has many types of indoor units to satisfy diverse customers' needs, requests and local regulations. It includes various capacity units, with/without booster heater, with/without an expansion vessel, etc. In addition, a reversible hydro box and a reversible cylinder unit are available.



### Available options

- Packaged or Split type
- With/without booster heater
- With/without expansion vessel
- Cylinder unit has an integrated 170L/200L/300L stainless steel tank
- Hydro box is control ready for domestic hot water with a stand-alone tank (locally supplied)

## New Reversible Models (for heating/cooling)

### Perfect Comfort in Winter and Summer Time, Thanks to Our Reversible Models.

Reversible models are now available for both hydro box and cylinder units (Both for split type and cylinder unit for packaged type). The new reversible cylinder is now able to produce cold water for cooling use and can alternatively produce domestic hot water in summer time.



## Easy Installation and Low Maintenance

### Simple Piping Arrangement

All water piping is aligned at the rear side of the unit for easy connection and neat finish.



### Easy Adjustment

Adjust bolt capable of 50mm expansion for easy installation on uneven surfaces.



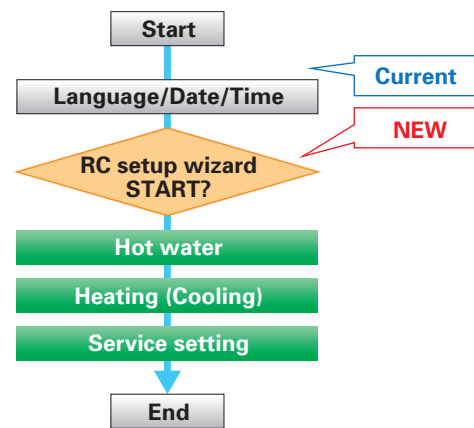
### Built-in Drain Pan for Reversible Cylinder Models

Reversible models now include a built-in space saving drain pan and the drain socket is positioned at the back of the unit. With use of the adjuster bolt, the outlet height can be higher than 50mm, allowing 5m drainage.



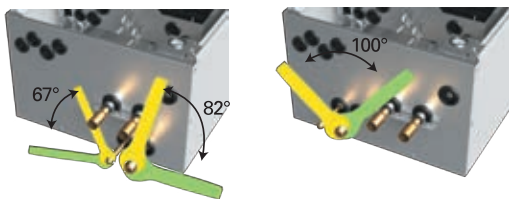
### Initial Setting Wizard

In addition to language, date and time, you can set up hot water and heating/cooling operation, pump speed, flow rate range initial setting much simpler than previous models.



### Hydro Box Piping Arrangement Improvement

Through structural innovation related to the space around the pipes, the area where the spanner can be moved has been increased, thus improving pipe work and enabling it to be completed smoothly.



### Operation Data Monitoring

Time, operation mode, flow/return/tank temperature, can be displayed on main remote controller.

Sample display of monitoring setting

| 26 Feb 2019 10:00 |      |      |      |      |
|-------------------|------|------|------|------|
|                   | THW1 | THW2 | THW5 | Flow |
| 10:00 ☀           | 41°C | 38°C | 54°C | 20L  |
| 9:55 ☀            | 38°C | 38°C | 54°C | 20L  |
| 9:50 ☀            | 48°C | 48°C | 54°C | 20L  |
| 9:45 🚰            | 60°C | 56°C | 54°C | 15L  |
| 9:40 🚰            | 59°C | 55°C | 52°C | 15L  |

Navigation icons: *i*, left arrow, right arrow, (1/5)

### Minimum Additional Water Required

In average/warmer conditions, minimum additional water is required for outdoor unit. If there is enough water amount inside water pipe, radiator, or underfloor heating no buffer tank is required.

\*Refer to the indoor unit installation manual for specific outdoor unit models.

### New 2 Zone Kit

You can select from 3 types of pump operations, 1. Fixed speed mode, 2. Fixed pressure mode, 3. Energy saving mode, depending on your preference.



- All-in-one kit: Key functional components are incorporated in 2 zone kit.
- Easy installation: G1 screw type flex-piping to avoid brazing.
- Compact size: Just to fit on the top of cylinder unit, also wall mountable.



## High Performance

### Improved Efficiency

With additional thermistor (THW5A),  $\eta_{wh}$  [%] rating is improved by more than 40% compared to previous C generation 200L models allowing 170L and 200L to achieve A+, the highest possible domestic hot water efficiency rank.

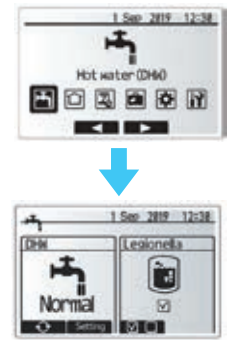
Excellent DHW efficiency



|              | 170L            | 200L            | 300L            |
|--------------|-----------------|-----------------|-----------------|
|              | $\eta_{wh}$ [%] | $\eta_{wh}$ [%] | $\eta_{wh}$ [%] |
| Conventional | –               | 96~104          | –               |
| New          | 120~148         | 135~159         | 118~128         |
| Load Profile | L               | L               | XL              |
| DHW Rank     | A+              | A+              | A/A+            |

### Thermistor Position of Cylinder

The thermistor position is now selectable allowing the unit to accommodate for different water demands in order to maximise the efficiency of the unit for any size of household or application. Using two thermistors equipped with all sizes of tanks, you can now select the DHW recharge amount from two options (Standard/Large). It helps accommodate for different water demands in order to maximise the efficiency of the unit for any size of household or application. This mode can be selected from main remote controller.



## Unique Technology of ecodan

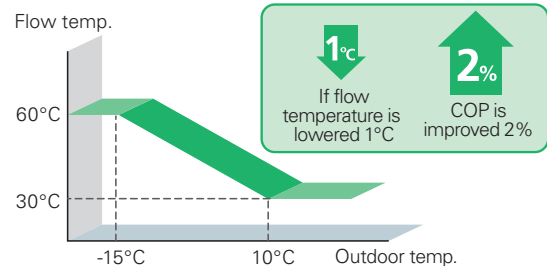
### Auto Adaptation

### Maximise Energy Savings While Retaining Comfort at All Times

Regarding the relation of flow temperature and unit performance, a 1°C drop in the flow temperature improves the coefficient of performance (COP) of the ATW system by 2%. This means that energy savings are dramatically affected by controlling the flow temperature in the system.

In a conventional system controller, the flow temperature is determined based on the pre-set heat curve depending on the actual outdoor temperature. However, this requires a complicated setting to achieve the optimal heat curve.

■ Heat curve setting (Example)



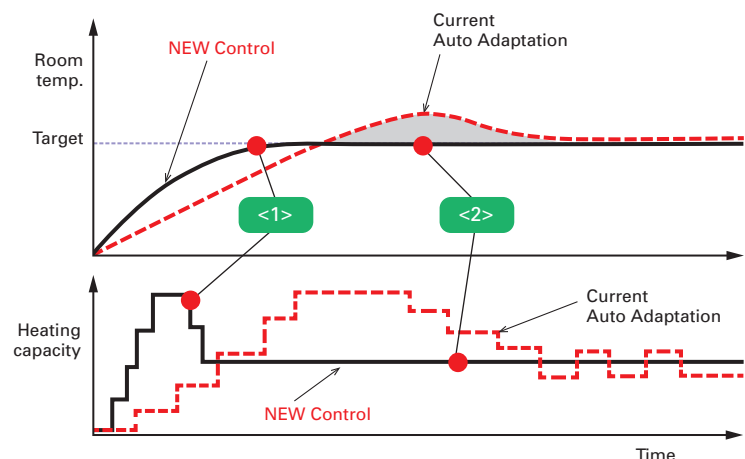
### Auto Adaptation Improvement

### Mitsubishi Electric's Auto Adaptation Function Automatically Tracks Changes in the Actual Room Temperature and Outdoor Temperature and Adjusts the Flow Temperatures Accordingly.

Aiming to realise further comfort and energy savings, Mitsubishi Electric has already introduced a revolutionary new controller. Auto Adaptation function measures the room temperature and outdoor temperature, and then calculates the required heating capacity for the room. Simply stated, the flow temperature is automatically controlled according to the required heating capacity, while optimal room temperature is maintained at all times, ensuring the appropriate heating capacity and preventing energy from being wasted.

Furthermore, by estimating future changes in room temperature, the system works to prevent unnecessary increases and decreases in the flow temperature. Accordingly, Auto Adaptation maximises both comfort and energy savings without the need for complicated settings.

For Mitsubishi Electric ecodan, by introducing improved control logic, we achieved faster heating and more energy saving.

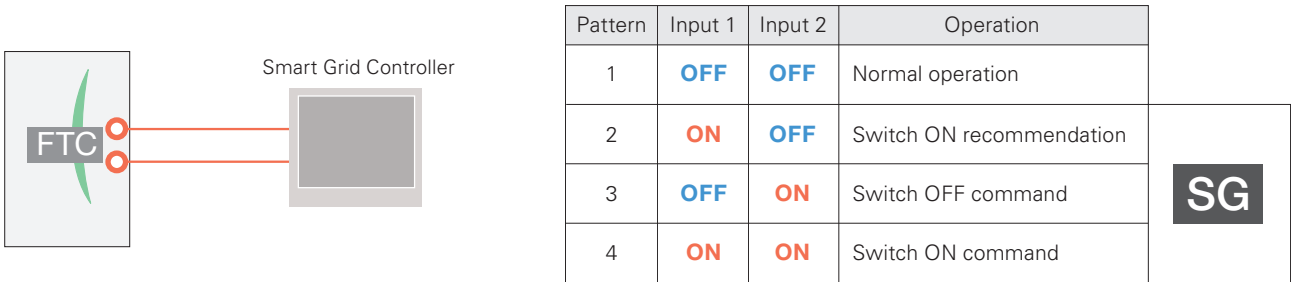


<1> Fast heating with improved accuracy in learning building heat load  
 <2> Energy saving by avoiding over heating and capacity fluctuation with better control response, i.e. control interval and resolution

# Smart Grid Ready Function

In recent years renewable energy generation has become popular. However, this rapid growing causes the problem of supply and demand gap of electricity. The aim of "SG Ready" is to make the electricity demand response more flexible by creating a uniform interface for the smart grid integration of heat pumps. Air-to-Water units need to be able to change the operation pattern when the signal is received from the Smart Grid Controller.

New ecodan Cylinder, Hydro box and FTC have been modified to communicate with Smart Grid Controller. The communication protocol is based on "SG Ready" label regulation. (Version 1.1; gültig ab 01.01.2013)



### Pattern 1: Normal operation

When there is no signal from the Smart Grid Controller, DHW and Heating operate according to user settings.

### Pattern 2: Switch ON recommendation

When set to the "Switch ON" recommendation, the target temperature of DHW is increased a specified amount and the heating "Thermo ON" condition range is extended.

### Pattern 3: Switch OFF command

When the "Switch OFF" command is received, both DHW and Heating are turned off.

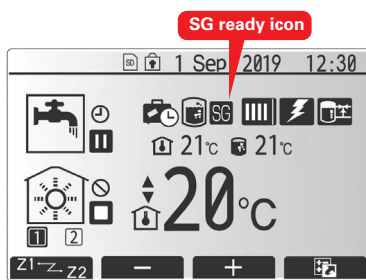
### Pattern 4: Switch ON command

When the "Switch ON" command is received, the target temperature of DHW is increased to the maximum target temperature and Heating continues.

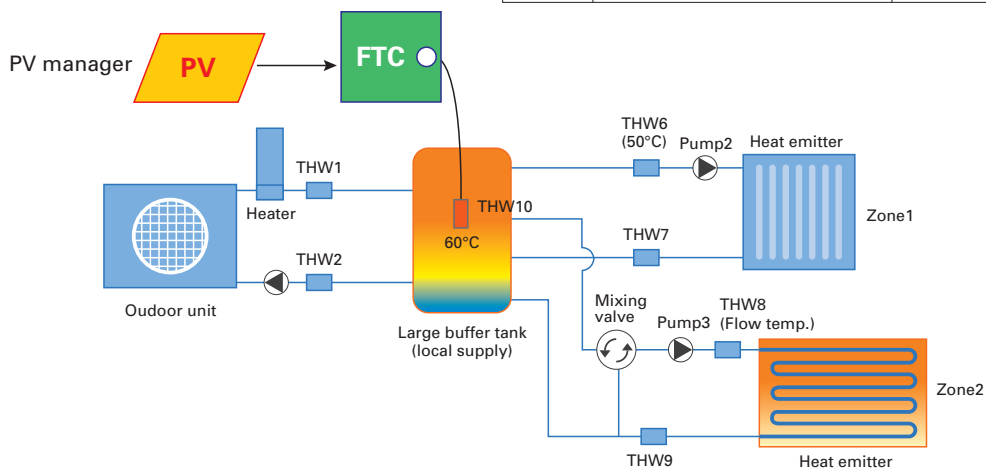
# Improved Smart Grid Ready

SG ready icon on main remote controller indicates that SG ready is active and its setting can be easily operated with main remote controller. Improved SG ready function enables you to choose the target temperature in unit of 1°C. Also, when PV manager is interlocked with ecodan and ecodan receives its signal, heat is stored as much as possible while heat pump and/or electric heater running.

Heat storage in large buffer tank will be made available for zone2 as well when peak cut signal is on. As long as a mixing valve keeps its control, zone2 flow temperature is maintained.



| Pattern | Operation                                  | R/C indication |
|---------|--|----------------|
| 1       | Normal operation                           | —              |
| 2       | Switch ON recommendation                   | SG             |
| 3       | Switch OFF command                         |                |
| 4       | Switch ON command (while PV is generating) |                |





\*SD logo is a trademark of SD-3C, LLC

## Intelligent Hybrid Control (boiler interlock)

### An Existing Boiler Can Be Used for Extra Heating Capacity in an Efficient Way

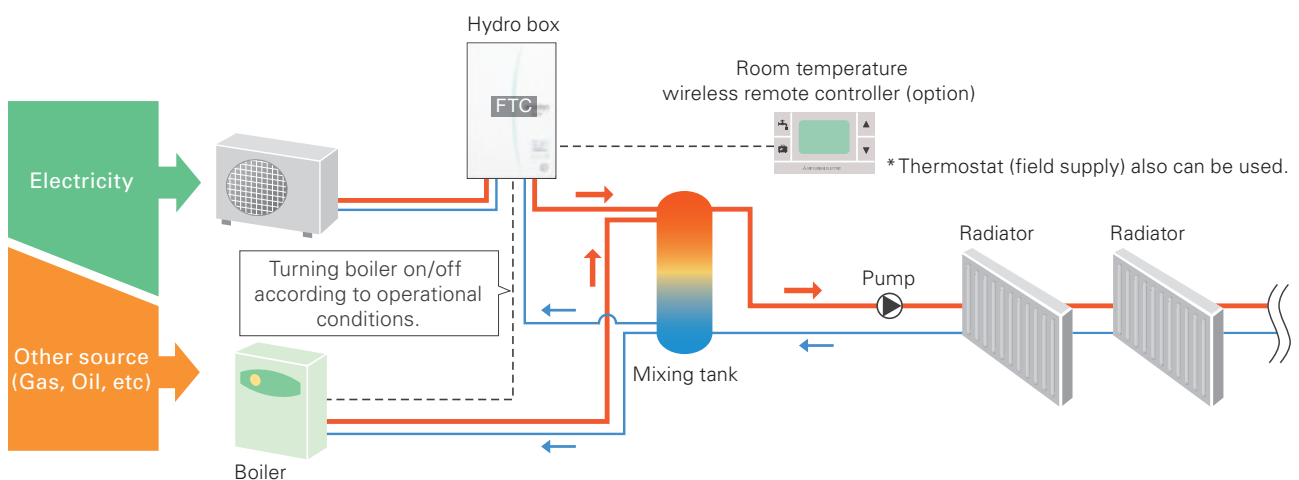
The flexibility of ecodan's intelligent control allows the system to be combined with the boiler currently in use. Additionally, this control can judge which heating source to use either ecodan or the existing boiler, based on various conditions\*.

In the event of one heating unit not working due to some unforeseen problem, the other heating system can be used as a back-up, thereby preventing the heating system operation from stopping completely.

\*Please see below "Heat source switchover".

### Intelligent system combining a boiler with ecodan

#### ■ Intelligent boiler interlock system



\* Items such as a mixing tank, and pump are not included and need to be purchased locally.

### Heat source switchover - Choose appropriate system based on needs

#### 4 types of heat source switchover logic

- ① Switchover based on actual outdoor temperature
  - Heat source switchover occurs when the outdoor temperature drops below a pre-set temperature.
- ② Switchover based on running cost
  - Heat source switchover occurs by judging optimal operation based on running cost.
  - \*Pre-registration of the energy price of electricity, and gas or oil per 1kWh is necessary.
- ③ Switchover based on CO<sub>2</sub> emission level
  - Heat source switchover occurs to minimise CO<sub>2</sub> emission.
  - \*Pre-registration of CO<sub>2</sub> emission amount from electricity and gas or oil is necessary.
- ④ Switchover can also be activated via external input
  - For example, the peak cut signal from electric power company.



\*SD logo is a trademark of SD-3C, LLC

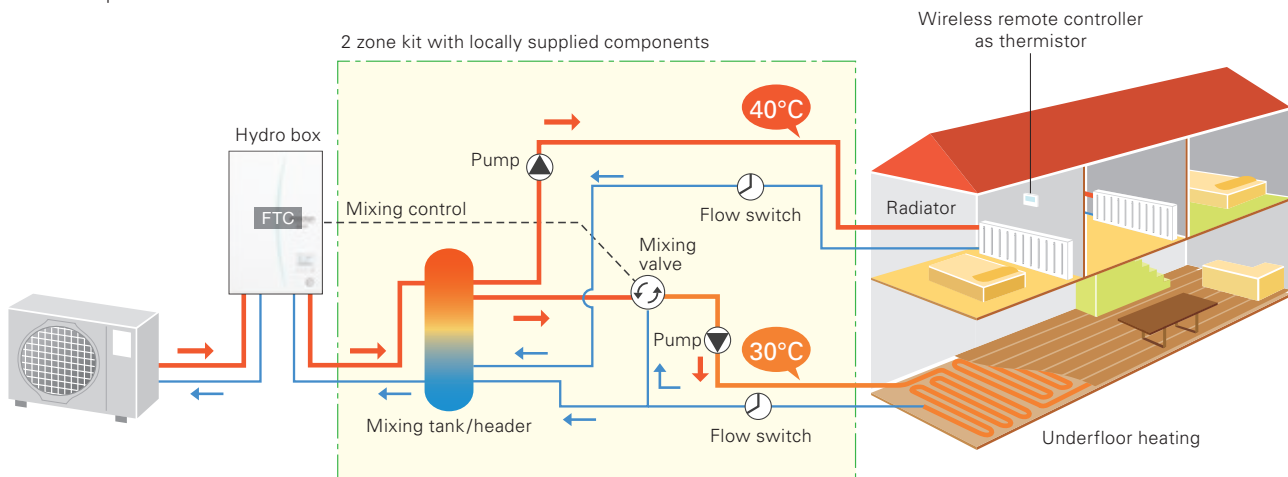
## 2 Zone Control (for heating/cooling)

### Improved Simultaneous Control of Two Different Zones

Using ecodan, it is possible to control two different flow temperatures, thereby managing two different heating load requirements. The system can adjust and maintain two flow temperatures when different temperatures are required for different rooms; for example, controlling a flow temperature of 40°C for the bedroom radiators and another flow temperature of 30°C for the living room floor heating.

Moreover, mixing valve control is advanced for improving zone 2 comfort by using heat storage in buffer tank. Also, new controller monitors the temperature inside buffer tank and prioritizes using the heat inside the tank to avoid frequent on/off operation when using 2 zone control.

#### Two temperature zones



\*Items such as a mixing tank, mixing valve flow switch and pumps are not included and need to be purchased locally.

## Multiple Unit Control

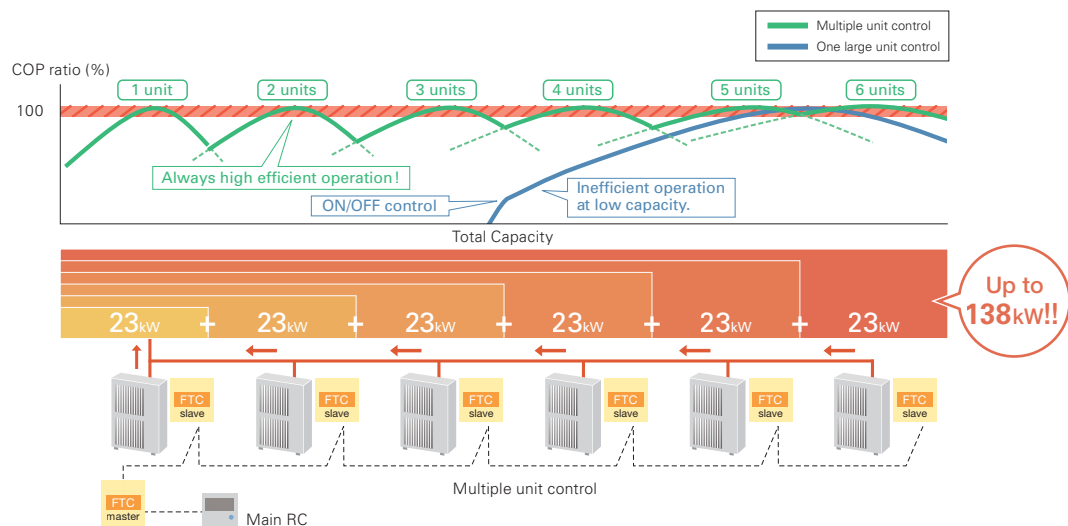
### Connect up to 6 Units – Automatic Control of Multiple Units for Bigger Capacity and Better Efficiency

A maximum of 6 units\* can be configured according to the heating/cooling load of the building. The most efficient number of operating units is determined automatically based on heating/cooling load. This enables ecodan to provide optimal room temperature control, and thus superior comfort for room occupants. Also incorporated is a rotation function that enables each unit to run for an equal time period.

If one of the units malfunctions when using the Multiple Unit Control, another unit can be automatically operated for back-up, thereby preventing the system operation from stopping completely.

\*Only same models (same capacity) can be used.

#### Multiple unit control



# Remote Controllers

## Smart User-friendly Controller with Stylish Design

### Main remote controller

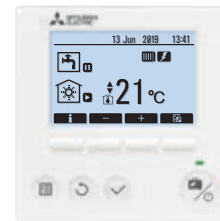
- Large screen and backlight for excellent visibility, even in dark environment
- Multi-language support (supports 15 languages)
- Can be removed from main unit and installed in a remote location (up to 500m)
- Quick reading of operation data (7.5 times faster than previous model)
- Wide range of convenient functions in response to user demand

#### Function settings

- Energy monitoring
- Two-zone control (cooling and heating)
- Two separate schedules
- Summer time setting
- Built-in room temperature sensors
- Hybrid control (boiler interlock)
- Floor drying mode
- Weekly timer
- Holiday mode
- Legionella prevention
- Error codes

### Wireless remote controller (optional)

- Built-in room temperature sensor; easy to place in the best position to detect room temperature
- Wiring work eliminated
- Simple design that is easy to operate
- Remote control from any room without needing to choose an installation location
- Backlight and big buttons that are easy to operate
- Domestic hot water boost and cancellation
- Simplified holiday mode



Main controller



PAR-WR51R-E (Option) Receiver



PAR-WT50R-E (Option) Wireless remote controller



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# Energy Monitoring

## View Electricity Consumption and Heat Output on the Remote Controller

Every end user can now easily check the energy data of the ecodan heat pump.

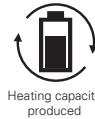
### Other features

- Daily, monthly and yearly data are stored and can be displayed using the main remote controller.
- External power meter and heat meter can be connected for accurate measurement.
- SD card is also available for storing data.

\*Using pre-set values on the main remote controller, estimated energy consumption/output can be shown without external power and a heat meter.

Depending on operating condition and system configuration, there is some possibility to show different data from the reality.

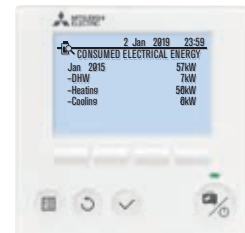
\*This function is available depending on the version of the outdoor unit model.



Heating capacity produced



Electric energy used



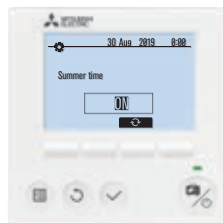
\*SD logo is a trademark of SD-3C, LLC

# Summer Time Setting

## Easy Adjustment for Summer Time

Just switch the summer time mode 'on' using the main remote controller and the clock in the main remote controller is adjusted to summer time hours.

This function can release the end user from clock setting tasks.

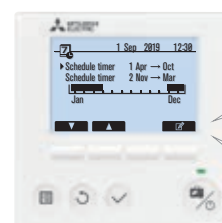


# Two Separate Schedules

## Pre-setting Two Different Schedules for Winter and Summer Seasons

Two different schedule settings are available for use via the main remote controller.

These schedules can be pre-set and changed depending on the season. For example, from November to March, space heating and domestic hot water are used; however, during warm months such as from April to October, only domestic hot water is used.



<Example>

- Schedule 1** Winter time
  - Space heating **daytime**
  - Domestic hot water **early morning**
- Schedule 2** Summer time
  - Domestic hot water **any time**

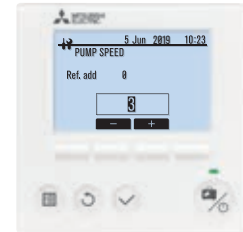
## Easy Commissioning

### Pump for Primary Water Circuit\* Speed Setting Possible Using ecodan's Main Remote Controller

Even when the system is running, pump output can be set to one of five different settings using the main remote controller.

The person commissioning the system can adjust this speed much more easily.

\*Speed setting of pump for domestic hot water is not available through the main remote controller when the system is running.

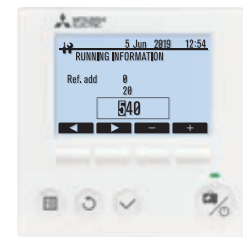


### Flow sensor newly incorporated

The flow sensor is key for monitoring energy output and can also be used to detect flow error as well.

– Flow rate can be checked on the main remote controller.

– Flow rate can also be shown as graphs using the SD card tool.



### Run indoor unit\* without outdoor unit

During installation or situations such as an outdoor unit malfunction, the indoor unit can be operated using a heater.

While using this mode, flow and tank temperature are selectable.

Fixing and maintenance of the outdoor unit can be done without stopping heating and domestic hot water operation\*.

\*Models with electric heater only.

\*When the indoor unit operation stops, please check all settings after the outdoor unit is connected.



\*SD logo is a trademark of SD-3C, LLC

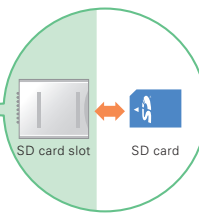
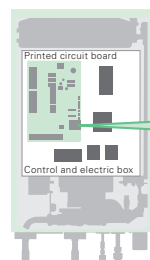
## SD\* Card

### For Easier Settings and Data Logging

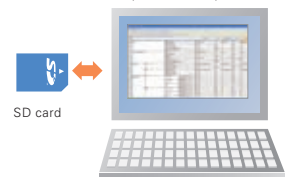
The initial setting for ecodan is now simpler than ever before. The special software enables the required initial settings to be saved to an SD card using a personal computer. The system set-up is as easy as moving the SD card from the computer to the SD card slot in the indoor unit. Compared to the previous procedure of inputting settings using the main controller at the installation site, a remarkable reduction in set-up time has been achieved. Thus, it is ideal for busy installers.

\*SD card function is only used at the time of installation.

Hydro box operation panel



Settings can be performed easily and the logging of operation data saved to an SD card can be confirmed via a personal computer.



### Items that can be pre-set

Simply copying pre-set data to an SD card, the same settings can input into another unit using the SD card.

- Initial settings (time display, contact number, etc.)
- Heating settings
  - Auto adaptation
  - Heat curve
  - Two different temperature zones (heating and cooling)
- Interlocked boiler operation settings
- Holiday mode settings
- Schedule timer settings (two separate schedules)
- Domestic hot water settings
- Legionella prevention settings

All items that are set by the main controller can be set via a personal computer.

### Data that can be stored

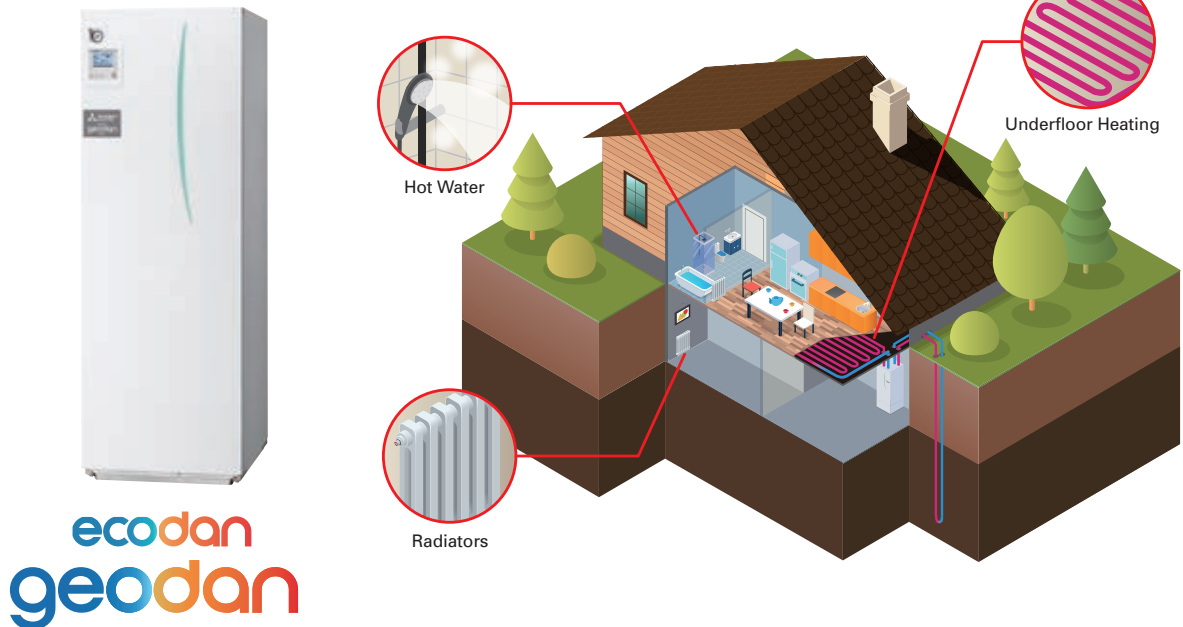
Operation data up to a month long can be stored on a single SD card

- Consumed electrical energy
- Delivered energy
- Flow rate
- Operation time
- Defrost time
- Actual temperature
  - Room temperature
  - Flow temperature
  - Return temperature
  - Domestic hot water temperature
  - Outdoor temperature
- Error record
- Input signal
- Etc.

# ecodan geodan

## Excellent Performance with Mitsubishi Electric First Residential Ground Source Heat Pump

Ground source heat pump works best especially in replacement from old ground source heat pump.



ecodan  
geodan

### Performance / Function

#### High Performance

ErP Lot 1 Compliant with highest seasonal space heating energy efficiency class A+++.

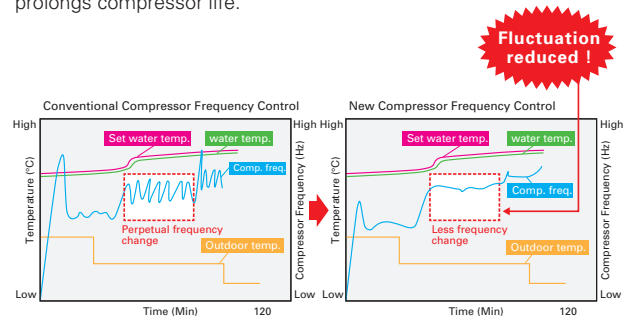


TIME FOR  
**R32**

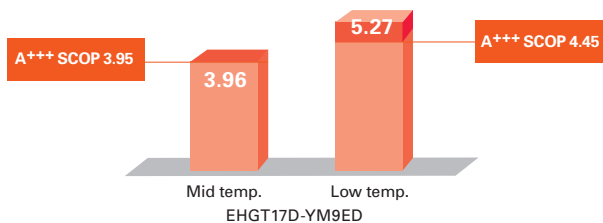
Low GWP refrigerant R32 contributes the reduction of CO<sub>2</sub> emission compared with conventional R410A refrigerant.

#### New Compressor Frequency Control

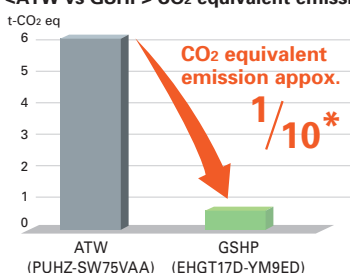
By reducing frequency changes (from 17 to 4 times per hour), hunting is prevented. Reducing fluctuation improves efficiency and prolongs compressor life.



#### A+++ Class Energy Efficiency



#### <ATW vs GSHP> CO<sub>2</sub> equivalent emission

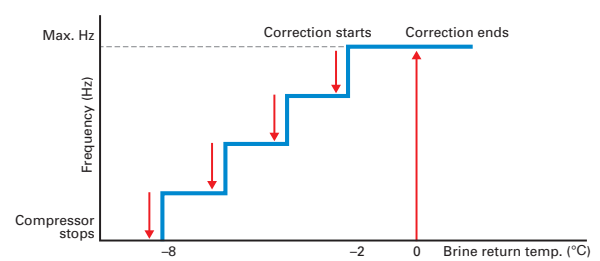


| Model name           | PUHZ-SW75VAA | EHGT17D-YM9ED |
|----------------------|--------------|---------------|
| Refrigerant amount   | 3.0kg        | 0.9kg         |
| GWP                  | 2088 (R410A) | 675 (R32)     |
| t-CO <sub>2</sub> eq | 6.264        | 0.608         |

\*Source: IPCC 4th Assessment Report, global warming potential (GWP) 100-year value. Comparison of 2088(R410A) and 675 (R32).

#### Borehole Protection Control

When the unit detects low underground temperature, it automatically reduces the capacity by decreasing heat source collection in order to protect the borehole.

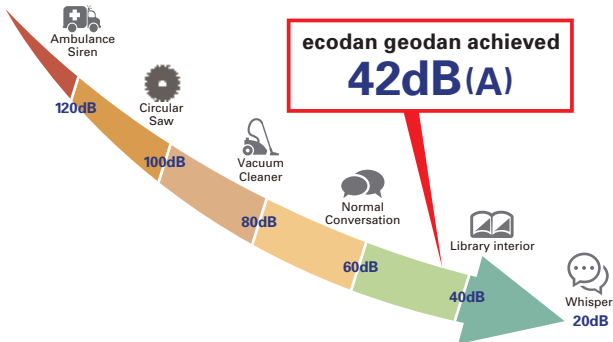


When the brine return temperature is below -8°C and brine outlet temperature is below -12°C, the unit operates only by booster heater. The correction temperature can be changed by dip SW.

## Comfort with Silence

Mitsubishi Electric heat pumps are designed to give you highly efficient and eco-friendly heating with the lowest possible noise level. ecodan geodan achieved industry-leading low noise, 42dB(A)\*.

\*B0W35 Rated condition



## Silencing Noise

The triple covering structure of the compressor unit greatly reduces sound level through noise absorption.

### 1st Cover

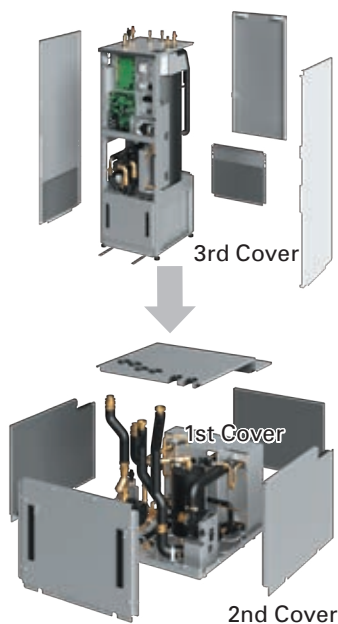
Compressor sound insulation box (with noise absorbing felt and damper)

### 2nd Cover

Module Box (with noise absorbing felt)

### 3rd Cover

Outside panel (with noise absorbing felt)



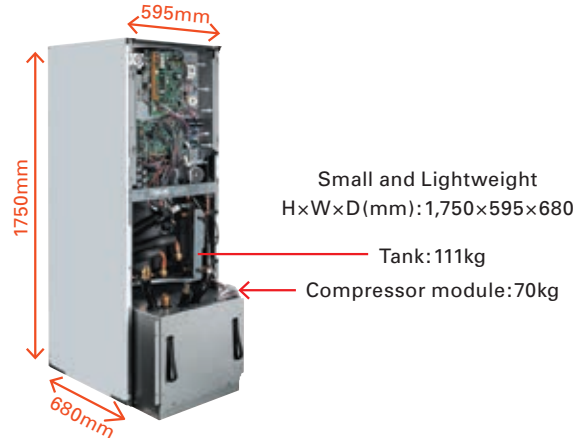
## Avoiding Vibration Noise

Rubber mounted stabilizer plate cushions the vibration noise of the compressor



## Easy Installation & Transportation

At only 1750mm, ecodan geodan is the class-leading compact unit on the market, making it the ideal solution for rooms and basements with a low ceiling height.



## Easy Transportation

Compressor module can be removed for easier installation and transportation. Once removed, the tank can be transported horizontally.



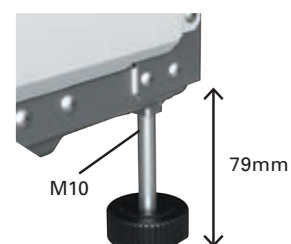
## Flexible Piping Work

Pipings on top are placed in a Zig-Zag shape. This enables easier installation without interrupting each piping work, especially in case of replacement.



## Easy Adjustment

Adjust bolt capable of 50mm expansion for easy installation even on uneven surfaces.





# Mr. SLIM+

## A Smart Air Conditioning and Hot Water Supply System Conceived from Eco-conscious Ideas

Mr. SLIM+ has a heat recovery function, which uses waste heat from air conditioners to heat water. Thanks to heat recovery, the Mr. SLIM+ model can achieve a COP of 7.0\*, resulting in intelligent systems with amazing efficiency.

\*Conditions for air-to-air cooling: Indoor 27°C (dry bulb), 19°C (wet bulb); Outdoor 35°C (dry bulb)

## 1 Unit, 2 Roles – Total Comfort Year-round

### Air Conditioning and Hot Water Supply Matching the Needs of Each Room

#### All-in-one outdoor unit (air conditioning, domestic hot water supply and hot water heating)

##### Mr. SLIM for Air-to-Air

Mr. SLIM+ utilises a duct system that enables the air conditioning or heating of multiple rooms, and other indoor unit type systems that it is possible to fit to various applications.

##### ecodan for Air-to-Water

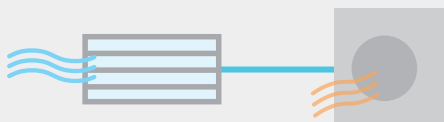
- ✓Domestic hot water (DHW) supply
- ✓Heating for multiple rooms



## Various Operations

#### Mr. SLIM / ATA (Air Cooling)

Cooling using ATA indoor unit



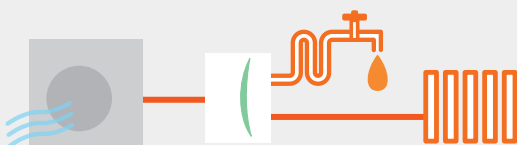
#### Mr. SLIM / ATA (Air Heating)

Heating using ATA indoor unit



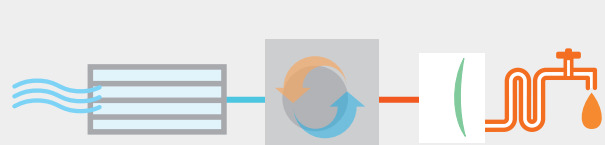
#### ecodan / ATW (Hot water heating + DHW)

Heating and DHW using ATW indoor unit



#### Mr. SLIM + ecodan / ATA (Air Cooling) + DHW

Heat recovery using both ATA and ATW indoor units



# Specifications

| Indoor unit                          |                                     |                                   |                                 | PLA-ZM71EA                  | PKA-M71KAL                                     | PCA-M71KA      | PSA-RP71KA     | PEAD-M71JA     | PEAD-M71JAL    |             |
|--------------------------------------|-------------------------------------|-----------------------------------|---------------------------------|-----------------------------|--|----------------|----------------|----------------|----------------|-------------|
| Outdoor unit                         |                                     |                                   |                                 | PUHZ-FRP71VHA2              | PUHZ-FRP71VHA2                                 | PUHZ-FRP71VHA2 | PUHZ-FRP71VHA2 | PUHZ-FRP71VHA2 | PUHZ-FRP71VHA2 |             |
| Refrigerant                          |                                     |                                   |                                 | R410A*1                     |  |                |                |                |                |             |
| Power supply                         |                                     | Outdoor (V / Phase / Hz)          |                                 | 230 / Single / 50           |  |                |                |                |                |             |
| Air-to-Air (ATA)                     | Cooling                             | Capacity                          | Rated                           | kW                          | 7.1  | 7.1            | 7.1            | 7.1            | 7.1            | 7.1         |
|                                      |                                     |                                   | Min-Max                         | kW                          | 3.3-8.1  | 3.3-8.1        | 3.3-8.1        | 3.3-8.1        | 3.3-8.1        | 3.3-8.1     |
|                                      |                                     | Total input                       | Rated                           | kW                          | 1.88   | 1.93           | 1.93           | 2.15           | 2.10           | 2.04        |
|                                      |                                     |                                   | EER                             |                             | 3.77   | 3.67           | 3.67           | 3.30           | 3.38           | 3.48        |
|                                      |                                     | Design load                       |                                 | kW                          | 7.1  | 7.1            | 7.1            | 7.1            | 7.1            | 7.1         |
|                                      |                                     | Annual electricity consumption *2 |                                 | kWh/a                       | 376  | 386            | 384            | 409            | 444            | 427         |
|                                      |                                     | SEER *4                           |                                 |                             | 6.6  | 6.4            | 6.4            | 6.0            | 5.5            | 5.8         |
|                                      |                                     |                                   |                                 | Energy-efficiency class     | A++  | A++            | A++            | A+             | A              | A+          |
|                                      | Heating (average season)            | Capacity                          | Rated                           | kW                          | 8.0  | 8.0            | 8.0            | 8.0            | 8.0            | 8.0         |
|                                      |                                     |                                   | Min-Max                         | kW                          | 3.5-10.2                                       | 3.5-10.2       | 3.5-10.2       | 3.5-10.2       | 3.5-10.2       | 3.5-10.2    |
|                                      |                                     | Total input                       | Rated                           | kW                          | 2.11   | 2.29           | 2.29           | 2.42           | 2.11           | 2.11        |
|                                      |                                     |                                   | COP                             |                             | 3.80   | 3.50           | 3.50           | 3.30           | 3.79           | 3.79        |
|                                      |                                     | Design load                       |                                 | kW                          | 4.7  | 4.7            | 4.7            | 4.7            | 4.9            | 4.9         |
|                                      |                                     | Declared capacity                 | at reference design temperature | kW                          | 4.7 (-10°C)                                    | 4.7 (-10°C)    | 4.7 (-10°C)    | 4.7 (-10°C)    | 4.9 (-10°C)    | 4.9 (-10°C) |
|                                      |                                     |                                   | at bivalent temperature         | kW                          | 4.7 (-10°C)                                    | 4.7 (-10°C)    | 4.7 (-10°C)    | 4.7 (-10°C)    | 4.9 (-10°C)    | 4.9 (-10°C) |
|                                      |                                     |                                   | at operation limit temperature  | kW                          | 3.5 (-20°C)                                    | 3.5 (-20°C)    | 3.5 (-20°C)    | 3.5 (-20°C)    | 3.7 (-20°C)    | 3.7 (-20°C) |
|                                      |                                     | Back-up heating capacity          |                                 | kW                          | 0  | 0              | 0              | 0              | 0              | 0           |
|                                      |                                     | Annual electricity consumption *2 |                                 | kWh/a                       | 1,509  | 1,564          | 1,556          | 1,699          | 1,791          | 1,791       |
|                                      |                                     | SCOP *4                           |                                 |                             | 4.3  | 4.2            | 4.2            | 3.8            | 3.8            | 3.8         |
|                                      |                                     |                                   |                                 | Energy-efficiency class     | A+   | A+             | A+             | A              | A              | A           |
| Air-to-Water (ATW)                   | Nominal flow rate (for heating)     |                                   |                                 | L/min                       | 22.90  |                |                |                |                |             |
|                                      | Heating*5                           | A7W35                             | Capacity                        | kW                          | 8.00   | 8.00           | 8.00           | 8.00           | 8.00           | 8.00        |
|                                      |                                     |                                   | Input                           | kW                          | 1.98   | 1.98           | 1.98           | 1.98           | 1.98           | 1.98        |
|                                      |                                     |                                   | COP                             |                             | 4.05   | 4.05           | 4.05           | 4.05           | 4.05           | 4.05        |
|                                      |                                     | A2W35                             | Capacity                        | kW                          | 7.50   | 7.50           | 7.50           | 7.50           | 7.50           | 7.50        |
|                                      |                                     |                                   | Input                           | kW                          | 2.67   | 2.67           | 2.67           | 2.67           | 2.67           | 2.67        |
|                                      |                                     |                                   | COP                             |                             | 2.81   | 2.81           | 2.81           | 2.81           | 2.81           | 2.81        |
|                                      | Heat recovery (ATA cooling & ATW)*6 | W45                               | Capacity (ATA cooling + ATW)    | kW                          | 7.1+8.0  | 7.1+8.0        | 7.1+8.0        | 7.1+8.0        | 7.1+8.0        | 7.1+8.0     |
|                                      |                                     |                                   | Input                           | kW                          | 1.90   | 1.93           | 1.95           | 2.02           | 2.15           | 2.13        |
|                                      |                                     |                                   | COP                             |                             | 7.95   | 7.82           | 7.74           | 7.48           | 7.02           | 7.09        |
|                                      |                                     | W55                               | Capacity (ATA cooling + ATW)    | kW                          | 7.1+9.0  | 7.1+9.0        | 7.1+9.0        | 7.1+9.0        | 7.1+9.0        | 7.1+9.0     |
|                                      |                                     |                                   | Input                           | kW                          | 2.97   | 3.00           | 3.02           | 3.09           | 3.22           | 3.20        |
|                                      |                                     |                                   | COP                             |                             | 5.42   | 5.37           | 5.33           | 5.21           | 5.00           | 5.03        |
|                                      | ATW indoor unit                     |                                   |                                 |                             | Cylinder unit or Hydro box (see previous page) |                |                |                |                |             |
|                                      | Outdoor unit                        | Dimensions                        | HxWxD                           | mm                          | 943-950-330 (+30)                              |                |                |                |                |             |
| Weight                               |                                     |                                   | kg                              | 73                          | 73   | 73             | 73             | 73             | 73             |             |
|                                      |                                     | Air volume                        | Cooling                         | m <sup>3</sup> /min         | 50   | 50             | 50             | 50             | 50             | 50          |
|                                      |                                     | Heating                           | m <sup>3</sup> /min             | 50                          | 50   | 50             | 50             | 50             | 50             |             |
| Sound pressure level (SPL)           |                                     | Cooling                           | dB(A)                           | 47                          | 47   | 47             | 47             | 47             | 47             |             |
|                                      |                                     | Heat recovery                     | dB(A)                           | 47                          | 47   | 47             | 47             | 47             | 47             |             |
|                                      |                                     | ATA Heating                       | dB(A)                           | 49                          | 49   | 49             | 49             | 49             | 49             |             |
|                                      |                                     | ATW Heating                       | dB(A)                           | 49                          | 49   | 49             | 49             | 49             | 49             |             |
|                                      |                                     | Sound power level (PWL)           | Cooling                         | dB(A)                       | 67   | 67             | 67             | 67             | 67             | 67          |
|                                      |                                     | Heat recovery                     | dB(A)                           | 67                          | 67   | 67             | 67             | 67             | 67             |             |
|                                      |                                     | ATA Heating                       | dB(A)                           | 68                          | 68   | 68             | 68             | 68             | 68             |             |
|                                      |                                     | ATW Heating                       | dB(A)                           | 68                          | 68   | 68             | 68             | 68             | 68             |             |
| Operating current (max)              |                                     | A                                 | 19.0                            | 19.0                        | 19.0   | 19.0           | 19.0           | 19.0           |                |             |
| Breaker size                         |                                     | A                                 | 25                              | 25                          | 25   | 25             | 25             | 25             |                |             |
| Ext.piping                           | Diameter                            | Liquid/Gas                        | mm                              | 9.52/15.88                  | 9.52/15.88                                     | 9.52/15.88     | 9.52/15.88     | 9.52/15.88     | 9.52/15.88     |             |
|                                      | Max. length                         | Out-In                            | m                               | 30 (for ATA) + 30 (for ATW) |  |                |                |                |                |             |
|                                      | Max. height                         | Out-In                            | m                               | 20                          | 20   | 20             | 20             | 20             | 20             |             |
| Guaranteed operating range (outdoor) | Cooling *3                          | °C                                | -15~+46                         | -15~+46                     | -15~+46  | -15~+46        | -15~+46        | -15~+46        | -15~+46        |             |
|                                      | Heating                             | °C                                | -20~+21                         | -20~+21                     | -20~+21  | -20~+21        | -20~+21        | -20~+21        | -20~+21        |             |
|                                      | ATW                                 | °C                                | -20~+35                         | -20~+35                     | -20~+35  | -20~+35        | -20~+35        | -20~+35        | -20~+35        |             |
|                                      | Heat recovery                       | °C                                | +7~+46                          | +7~+46                      | +7~+46   | +7~+46         | +7~+46         | +7~+46         | +7~+46         |             |

\*1 Refrigerant leakage contributes to climate change. Refrigerant with lower global warming potential (GWP) would contribute less to global warming than a refrigerant with higher GWP, if leaked to the atmosphere. This appliance contains a refrigerant fluid with a GWP equal to 1975. This means that if 1 kg of this refrigerant fluid would be leaked to the atmosphere, the impact on global warming would be 1975 times higher than 1 kg of 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 Optional air protection guide is required where ambient temperature is lower than -5°C.

\*4 SEER/SCOP values are measured based on EN14825.

\*5 Air-to-Water values are measured based on EN14511 (Circulation pump input is not included).

\*6 Conditions for Air-to-Air cooling: Indoor 27°C (dry bulb) /19°C (wet bulb); Outdoor 35°C (dry bulb).

# PUMY+ecodan

Air-to-Air and Air-to-Water Hybrid Multi Split System

1 Unit, 2 Roles – Total Comfort Year-round

Air Conditioning and Hot Water Supply Matching the Needs of Each Room

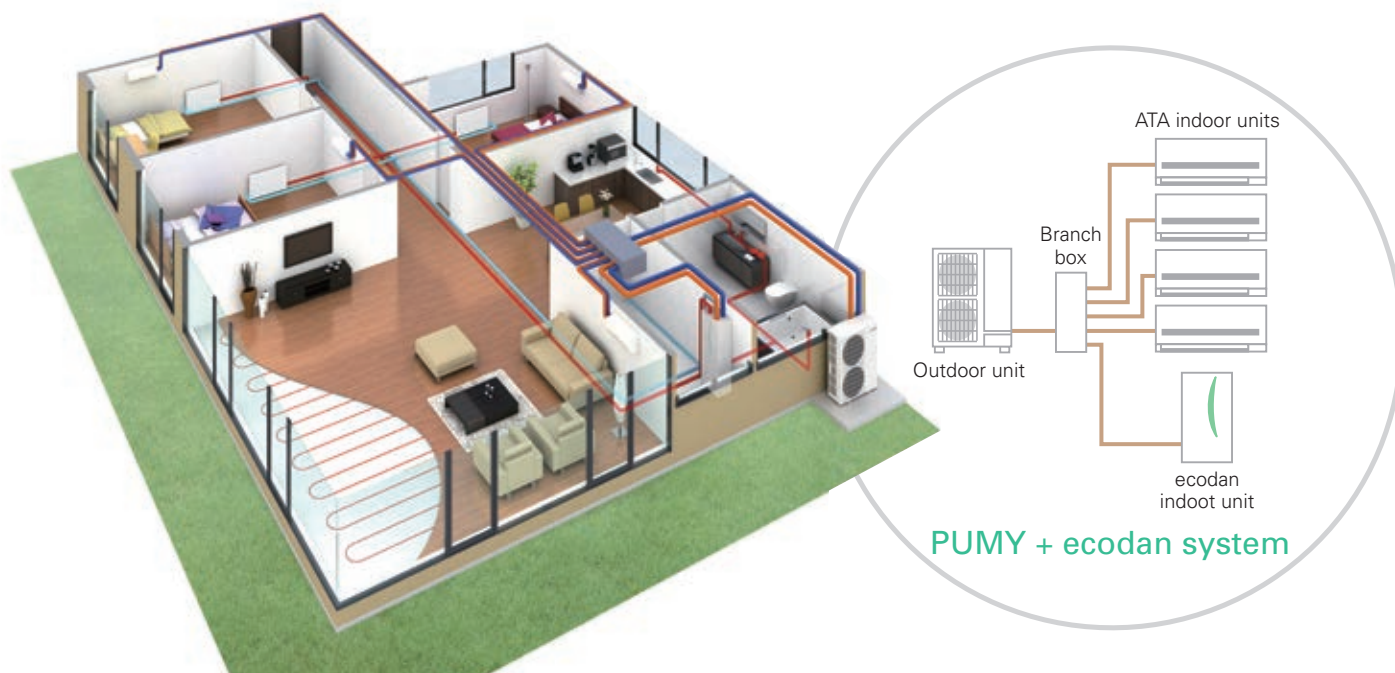
All-in-one outdoor unit (air conditioning, domestic hot water supply and hot water heating)

**PUMY for Air-to-Air**

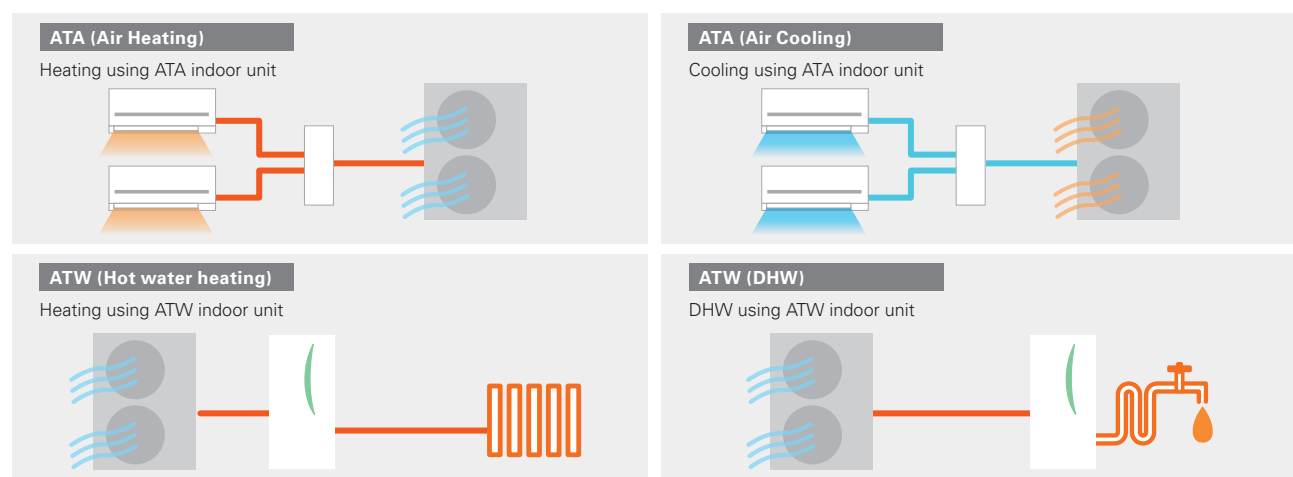
PUMY utilises various indoor units, enabling the air conditioning or heating of multiple rooms, and controls each unit individually.

**ecodan for Air-to-Water**

- ✓Domestic hot water (DHW) supply
- ✓Heating for multiple rooms



## Main Operation Patterns



## Optional Operation Patterns\* (simultaneous)

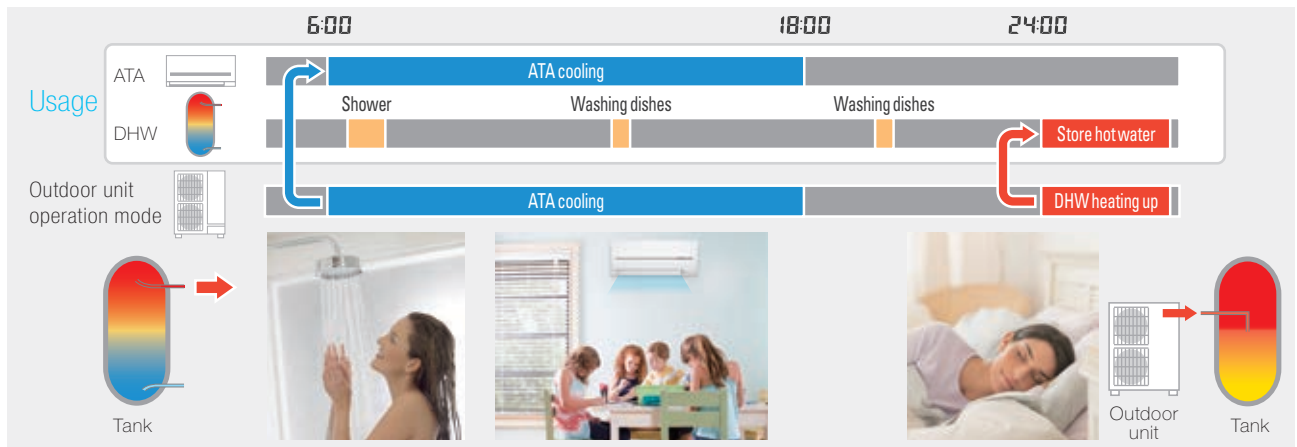


\*When using optional simultaneous operation, there are some restrictions, such as connectable indoor units, operation range and DHW flow temp.

## Usage Pattern All-in-one System Solution

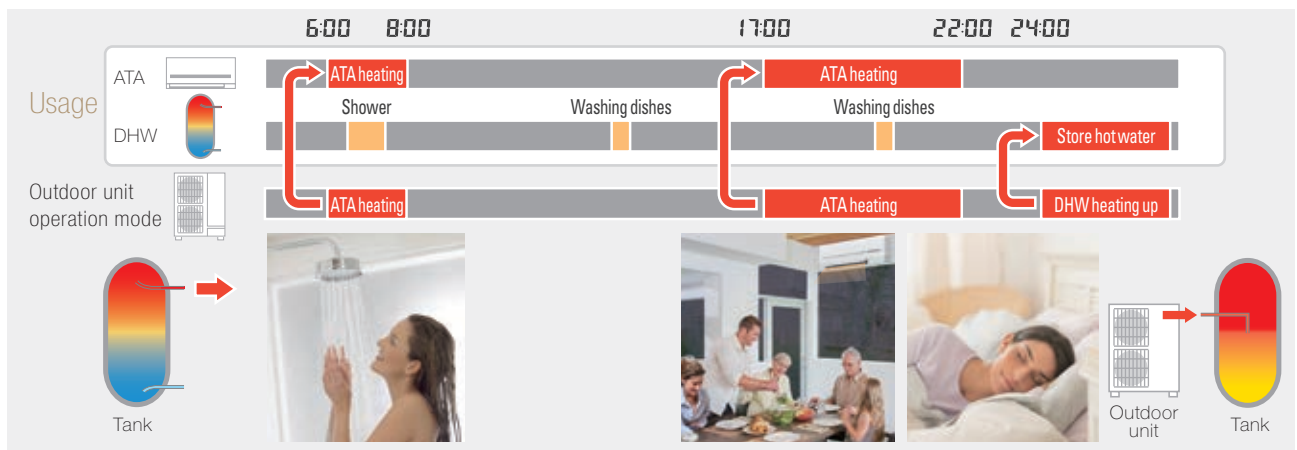
### Summer 2-in-1 Operation

In summer ATA cooling and DHW are utilised. Keep your room comfortable with ATA cooling during high temperature daytime. Heat pump operates to heat up water stored in the DHW tank when ATA is not operated. The hot water can be utilised for shower and washing dishes during daytime.



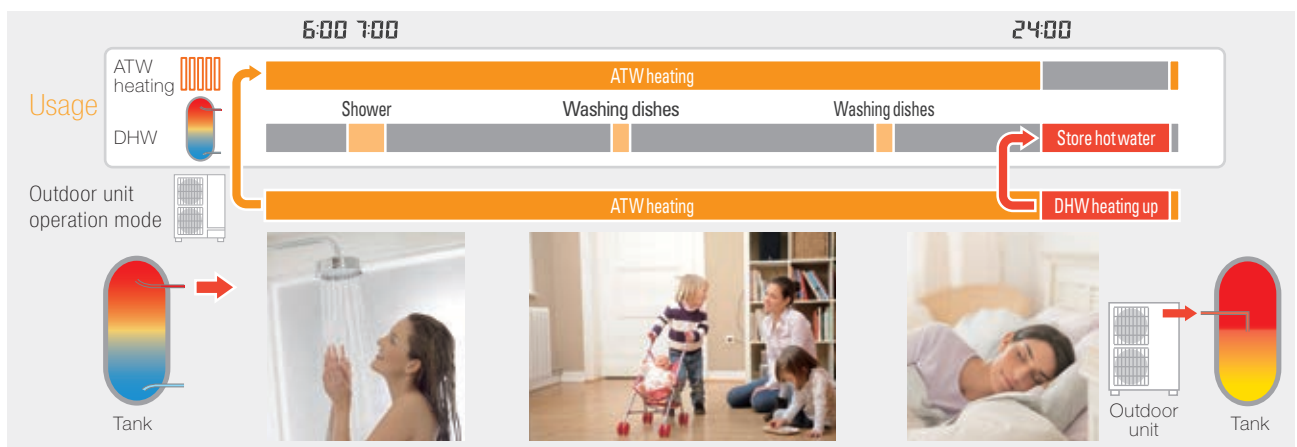
### Spring & Autumn 2-in-1 Operation

In spring and autumn, ATA heating and DHW are utilised. ATA heating can warm up each room quickly during the low temperature morning and evening. Heat pump operates to heat up water stored in the DHW tank when ATA is not operated. The hot water can be utilised for shower and washing dishes during daytime.



### Winter ecodan

In winter ATW heating and DHW are utilised. ATW heating warms home all the day in severe cold weather. ATW heating stops temporarily only when the heat pump operates to heat up water stored in the DHW tank.



| Model name                      |  |                                |                                | PUMY-P112VKM4(-BS)             | PUMY-P125VKM4(-BS)   | PUMY-P140VKM4(-BS) | PUMY-P112YKM(E)4(-BS)          | PUMY-P125YKM(E)4(-BS) | PUMY-P140YKM(E)4(-BS) |               |
|---------------------------------|--|--------------------------------|--------------------------------|--------------------------------|--|--------------------|--------------------------------|-----------------------|-----------------------|---------------|
| Power supply                    |  |                                |                                | 1-phase 220 - 230 - 240V, 50Hz |  |                    | 3-phase 380 - 400 - 415V, 50Hz |                       |                       |               |
| Air-to-Air (ATA)                | Cooling (nominal)*1                              | Capacity                       | kW                             | 12.5                           | 14.0   | 15.5               | 12.5                           | 14.0                  | 15.5                  |               |
|                                 |  | Power input                    | kW                             | 2.79                           | 3.46   | 4.52               | 2.79                           | 3.46                  | 4.52                  |               |
|                                 |  | EER                            |                                | 4.48                           | 4.05   | 3.43               | 4.48                           | 4.05                  | 3.43                  |               |
|                                 | Temp. range of cooling                           | Indoor temp.                   | W.B.                           | 15 - 24°C                      |  |                    |                                |                       |                       |               |
|                                 |  | Outdoor temp.*2                | D.B.                           | -5 - 52°C                      |  |                    |                                |                       |                       |               |
|                                 | Heating (nominal)*1                              | Capacity                       | kW                             | 14.0                           | 16.0   | 18.0               | 14.0                           | 16.0                  | 18.0                  |               |
| Power input                     |  | kW                             | 3.04                           | 3.74                           | 4.47   | 3.04               | 3.74                           | 4.47                  |                       |               |
| COP                             |  |                                | 4.61                           | 4.28                           | 4.03   | 4.61               | 4.28                           | 4.03                  |                       |               |
| Temp. range of heating          | Indoor temp.                                     | W.B.                           | 15 - 27°C                      |                                |  |                    |                                |                       |                       |               |
|                                 | Outdoor temp.                                    | D.B.                           | -20 - 15°C                     |                                |  |                    |                                |                       |                       |               |
| Air-to-Water (ATW)              | Nominal flow rate (for heating)                  |                                |                                | L/min                          | 35.8   |                    |                                |                       |                       |               |
|                                 | Heating*3  | A7W35                          | Capacity                       | kW                             | 12.5   |                    |                                |                       |                       |               |
|                                 |  |                                | Power input                    | kW                             | 3.06   |                    |                                |                       |                       |               |
|                                 |  |                                | COP                            |                                | 4.08   |                    |                                |                       |                       |               |
|                                 | A2W35  | Capacity                       | kW                             | 10.0                           |  |                    |                                |                       |                       |               |
|                                 |  | Power input                    | kW                             | 3.50                           |  |                    |                                |                       |                       |               |
|                                 |  | COP                            |                                | 2.86                           |  |                    |                                |                       |                       |               |
|                                 | Guaranteed operating range                       | ATA                            | Heating                        | D.B.                           | -20 - +21°C  |                    |                                |                       |                       |               |
|                                 |  |                                | DHW                            | D.B.                           | -20 - +35°C  |                    |                                |                       |                       |               |
|                                 |  |                                | ATA heating + DHW              | D.B.                           | 7 - +21°C  |                    |                                |                       |                       |               |
| ATA + ATW                       | ATA heating + ATW heating *4                     | D.B.                           | -10 - +21°C                    |                                |  |                    |                                |                       |                       |               |
|                                 | Maximum Outlet water temp.                       |                                |                                | °C                             | 55   |                    |                                |                       |                       |               |
| Outdoor unit                    | Indoor unit connectable                          | ATA only                       | Total capacity                 |                                | 50 to 130% of outdoor unit capacity                                |                    |                                |                       |                       |               |
|                                 |  |                                | Model/Quantity                 | Branch box system              | 15-100/8   | 15-100/8           | 15-100/8                       | 15-100/8              | 15-100/8              | 15-100/8      |
|                                 |  |                                |                                | Mixed system*12                | 15-140*5/10  | 15-140*5/10*6      | 15-140*5/10*6                  | 15-140*5/10           | 15-140*5/10*6         | 15-140*5/10*6 |
|                                 | ATA + ATW individual operation                   | Model/Quantity (including ATW) | Total capacity                 |                                | ATA : Max 130% of outdoor unit capacity + ATW (EHST20C or EHSC) *7 |                    |                                |                       |                       |               |
|                                 |  |                                | Model/Quantity                 | Branch box system              | 15-100/8   | 15-100/8           | 15-100/8                       | 15-100/8              | 15-100/8              | 15-100/8      |
|                                 |  |                                |                                | Mixed system*12                | 15-140*5/10  | 15-140*5/10*6      | 15-140*5/10*6                  | 15-140*5/10           | 15-140*5/10*6         | 15-140*5/10*6 |
|                                 | ATA + ATW simultaneous operation                 | Model/Quantity                 | Total capacity                 |                                | Max 100% of outdoor unit capacity : ATA + ATW (EHST20C or EHSC) *7 |                    |                                |                       |                       |               |
|                                 |  |                                | ATA*12                         |                                | 15/1*8   | 15-25/2*9          | 15-42*11/3*10                  | 15/1*8                | 15-25/2*9             | 15-42*11/3*10 |
|                                 |  |                                | ATW                            |                                | ATW (EHST20C or EHSC) / 1  |                    |                                |                       |                       |               |
|                                 | Sound pressure level (measured in anechoic room) |                                |                                | dB<A>                          | 49 / 51  | 50 / 52            | 51 / 53                        | 49 / 51               | 50 / 52               | 51 / 53       |
|                                 | Sound power level (measured in anechoic room)    |                                |                                | dB<A>                          | 69 / 71  | 70 / 72            | 71 / 73                        | 69 / 71               | 70 / 72               | 71 / 73       |
|                                 | Refrigerant piping diameter                      |                                |                                | Liquid pipe                    | mm   | 9.52 flare         |                                |                       |                       |               |
|                                 |  |                                |                                | Gas pipe                       | mm   | 15.88 flare        |                                |                       |                       |               |
|                                 | Fan  | Type x Quantity                |                                | Propeller fan x 2              |  |                    |                                |                       |                       |               |
|                                 |  | Airflow rate                   |                                | m³/min                         | 110  |                    |                                |                       |                       |               |
|                                 |  | L/s                            | 1,883                          |                                |  |                    |                                |                       |                       |               |
|                                 |  | cfm                            | 3,884                          |                                |  |                    |                                |                       |                       |               |
| Compressor                      | Motor output                                     |                                | 0.074 + 0.074                  |                                |  |                    |                                |                       |                       |               |
|                                 | Type x Quantity                                  |                                | Scroll hermetic compressor x 1 |                                |  |                    |                                |                       |                       |               |
|                                 | Starting method                                  |                                | Inverter                       |                                |  |                    |                                |                       |                       |               |
| Motor output                    |  |                                | kW                             | 2.9                            | 3.5  | 3.9                | 2.9                            | 3.5                   | 3.9                   |               |
| External dimensions (H x W x D) |  |                                | mm                             | 1,338 x 1,050 x 330 (+40)      |  |                    |                                |                       |                       |               |
| Weight                          |  |                                | kg                             | 122                            |  |                    | YKM: 125 / YKME: 136           |                       |                       |               |

\*1

|         | Indoor            | Outdoor         | Piping length | Level difference |
|---------|-------------------|-----------------|---------------|------------------|
| Cooling | 27°C DB / 19°C WB | 35°C DB         | 7.5m          | 0m               |
| Heating | 20°C DB           | 7°C DB / 6°C WB | 7.5m          | 0m               |

\*2 10 to 52°C D.B.: When connecting PKFY-P15/20/25VBM, PFFY-P20/25/32VKM, PFFY-P20/25/32VLE(R)M, PEFY-P\*VMA3 or M, S and P series indoor unit.

\*3 In the case of ATW single connection. Input to circulation pump is not included.

\*4 In the case of simultaneous operation of ATA heating and ATW heating, target flow temperature range is restricted to 45-55°C and when the ambient temp is under 7°C, the flow temp is lowered.

\*5 Up to P100 when connecting via branch box.

\*6 Up to 11 units when connecting via 2 branch boxes.

\*7 Only one ecodan unit can be connected.

\*8 Exceptionally, one MSZ-SF15VA or MSZ-AP15VF can be connected.

\*9 Exceptionally, two MSZ-SF15VA or MSZ-AP15VF can be connected.

\*10 Exceptionally, three MSZ-SF15VA or MSZ-AP15VF can be connected.

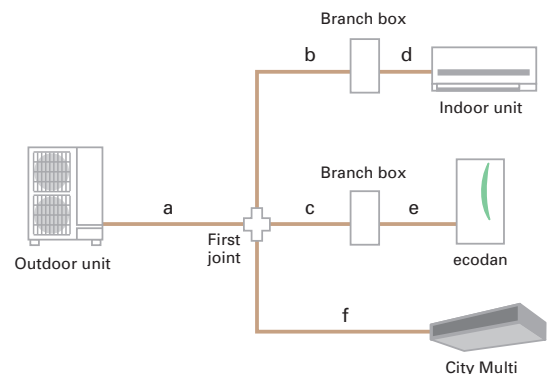
\*11 In the case of City Multi connection, maximum is P32.

\*12 PKFY and PFFY series are not connectable.

### Piping specifications

|   |   |         |                |
|---|---|---------|----------------|
| Total piping length                                       | m | 150*    | a+b+c+d+e+f    |
| Farthest piping length                                    | m | 80      | a+b+d or a+c+e |
|   |   | 85      | a+f            |
| Total piping length between outdoor unit and branch box   | m | 55      | a+b+c          |
| Total piping length between branch boxes and indoor units | m | 95      | d+e            |
| Farthest piping length from the first joint               | m | 30      | b or c or f    |
| Farthest piping length after branch box                   | m | 25      | d or e         |
| Height difference (Outdoor upside / Outdoor downside)     | m | 50 / 40 |                |

\*When an ecodan is connected, the maximum piping length is 150m.



## PUMY+ ecodan Compatibility Table

ATW branch box connection compatibility table

| Series | Type          | Model name     | Compatibility | Type      | Model name  | Compatibility | Type       | Model name  | Compatibility |
|--------|---------------|----------------|---------------|-----------|-------------|---------------|------------|-------------|---------------|
| ATW    | Cylinder unit | EHST20C-VM2/6D | ●             | Hydro box | EHSC-VM2/6D | ●             | Branch box | PAC-MK53BC  | ●             |
|        |               | EHST20C-YM9D   | ●             |           | EHSC-YM9D   | ●             |            | PAC-MK33BC  | ●             |
|        |               | EHST20C-TM9D   | ●             |           | EHSC-TM9D   | ●             |            | PAC-MK53BCB | ●             |
|        |               | EHST20C-YM9ED  | ●             |           | EHSC-YM9ED  | ●             |            | PAC-MK33BCB | ●             |

Branch box connection compatibility table

| Series   | Type              | Model name   | Capacity |    |    |    |    |    |    |    |    |    |     |
|----------|-------------------|--------------|----------|----|----|----|----|----|----|----|----|----|-----|
|          |                   |              | 15       | 18 | 20 | 22 | 25 | 35 | 42 | 50 | 60 | 71 | 100 |
| M series | Wall-mounted      | MSZ-LN•VG    |          |    |    |    | ●  | ●  |    | ●  |    |    |     |
|          |                   | MSZ-AP•VG    | ●        |    | ●  |    | ●  | ●  | ●  | ●  |    |    |     |
|          |                   | MSZ-FH•VE2   |          |    |    |    | ●  | ●  |    | ●  |    |    |     |
|          |                   | MSZ-EF•VG    |          | ●  |    | ●  | ●  | ●  | ●  | ●  |    |    |     |
|          |                   | MSZ-SF•VA    | ●        |    | ●  |    |    |    |    |    |    |    |     |
|          |                   | MSZ-SF•VE3   |          |    |    |    | ●  | ●  | ●  | ●  |    |    |     |
|          | MSZ-GF•VE2        |              |          |    |    |    |    |    |    |    | ●  | ●  |     |
|          | Floor-standing    | MFZ-KJ•VE 2  |          |    |    |    | ●  | ●  |    | ●  |    |    |     |
|          | 1-way cassette    | MLZ-KP•VF    |          |    |    |    | ●  | ●  |    | ●  |    |    |     |
| S series | Ceiling-concealed | SEZ-M•DA(L)  |          |    |    |    | ●  | ●  |    | ●  | ●  | ●  |     |
|          | 2x2 cassette      | SLZ-M•FA     | ●        |    |    |    | ●  | ●  |    | ●  |    |    |     |
| P series | Ceiling-suspended | PCA-M•KA     |          |    |    |    |    | ●  |    | ●  | ●  | ●  |     |
|          | 4-way cassette    | PLA-M•EA     |          |    |    |    |    | ●  |    | ●  | ●  | ●  |     |
|          | Ceiling-concealed | PEAD-M•JA(L) |          |    |    |    |    |    |    | ●  | ●  | ●  |     |

LEV kit connection compatibility table

| Series   | I/U type       | Model name  | Capacity |    |    |    |    |    |    |    |    |    |
|----------|----------------|-------------|----------|----|----|----|----|----|----|----|----|----|
|          |                |             | 15       | 18 | 20 | 22 | 25 | 35 | 42 | 50 | 60 | 71 |
| M series | Wall-mounted   | MSZ-LN•VG   |          |    |    |    | ●  | ●  |    | ●  |    |    |
|          |                | MSZ-AP•VG   | ●        |    | ●  |    | ●  | ●  | ●  | ●  |    |    |
|          |                | MSZ-FH•VE2  |          |    |    |    | ●  | ●  |    | ●  |    |    |
|          |                | MSZ-EF•VG   |          | ●  |    | ●  | ●  | ●  | ●  | ●  |    |    |
|          |                | MSZ-SF•VA   | ●        |    | ●  |    |    |    |    |    |    |    |
|          | MSZ-SF•VE3     |             |          |    |    | ●  | ●  | ●  | ●  |    |    |    |
|          | Floor-standing | MFZ-KJ•VE 2 |          |    |    |    | ●  | ●  |    | ●  |    |    |

### Connectable indoor unit capacity

For individual operation ATA+ATW (no simultaneous operation) ATA: Max 130% of outdoor unit capacity + ATW (EHST20C or EHSC)

|                         |  |   |
|-------------------------|--|---|
| Outdoor capacity 12.5kW | ATW indoor unit (Cylinder or Hydro box) 11.2kW | Connectable ATA indoor unit total capacity: Max.16.2kW (130%) |
| Outdoor capacity 14.0kW | ATW indoor unit (Cylinder or Hydro box) 11.2kW | Connectable ATA indoor unit total capacity: Max.18.2kW (130%) |
| Outdoor capacity 15.5kW | ATW indoor unit (Cylinder or Hydro box) 11.2kW | Connectable ATA indoor unit total capacity: Max.20.2kW (130%) |

For simultaneous operation of ATA+ATW Max 100% of outdoor unit capacity: ATA + ATW (EHST20C or EHSC)

|                         |  |                         |   |
|-------------------------|--|-------------------------|---|
| Outdoor capacity 12.5kW | ATW indoor unit (Cylinder or Hydro box) 11.2kW | ATA capacity Max. 1.3kW | *Exceptionally, one MSZ-SF15VA or MSZ-AP15VF can be connected.            |
| Outdoor capacity 14.0kW | ATW indoor unit (Cylinder or Hydro box) 11.2kW | ATA capacity Max. 2.8kW | *Exceptionally, two units of MSZ-SF15VA or MSZ-AP15VF can be connected.   |
| Outdoor capacity 15.5kW | ATW indoor unit (Cylinder or Hydro box) 11.2kW | ATA capacity Max. 4.3kW | *Exceptionally, three units of MSZ-SF15VA or MSZ-AP15VF can be connected. |

# Split Type Specifications

## Indoor unit

### <Cylinder unit (Heating only)>

| Model name                                  |                                      |                               | Small capacity        |                             |               |               |               |               |               |                       |               |               |               |               |  |
|---|--------------------------------------|-------------------------------|-----------------------|-----------------------------|---------------|---------------|---------------|---------------|---------------|-----------------------|---------------|---------------|---------------|---------------|--|
|   |                                      |                               | EHST17D-VM2D          | EHST20D-MED                 | EHST20D-VM2D  | EHST20D-VM6D  | EHST20D-VM9D  | EHST20D-VM9ED | EHST20D-TM9D  | EHST30D-MED           | EHST30D-VM6ED | EHST30D-VM9ED | EHST30D-TM9ED |               |  |
| Type  |                                      |                               | Heating only          |                             |               |               |               |               |               |                       |               |               |               |               |  |
| Expansion vessel                            |                                      |                               | ✓                     | —                           | ✓             | ✓             | ✓             | ✓             | ✓             | —                     | —             | —             | —             |               |  |
| Booster heater (2/6/9 kW)                   |                                      |                               | ✓                     | —                           | ✓             | ✓             | ✓             | ✓             | ✓             | —                     | ✓             | ✓             | ✓             |               |  |
| Dimensions                                  | HxWxD                                | mm                            | 1400x595x680          | 1600x595x680                |               |               |               |               |               | 2050x595x680          |               |               |               |               |  |
| Weight (empty)                              |                                      | kg                            | 93                    | 98                          | 104           | 105           | 106           | 101           | 106           | 113                   | 115           | 116           | 116           |               |  |
| Control Board Power supply (Phase / V / Hz) |                                      |                               | ~/N,230V,50Hz         | ~/N,230V,50Hz               | ~/N,230V,50Hz | ~/N,230V,50Hz | ~/N,230V,50Hz | ~/N,230V,50Hz | ~/N,230V,50Hz | ~/N,230V,50Hz         | ~/N,230V,50Hz | ~/N,230V,50Hz | ~/N,230V,50Hz | ~/N,230V,50Hz |  |
| Heater                                      | Booster heater                       | Power supply (Phase / V / Hz) | ~/N,230V,50Hz         | —                           | ~/N,230V,50Hz | ~/N,230V,50Hz | 3~/400V,50Hz  | 3~/400V,50Hz  | 3~/400V,50Hz  | 3~/230V,50Hz          | —             | ~/N,230V,50Hz | 3~/400V,50Hz  | 3~/230V,50Hz  |  |
|   |                                      | Capacity                      | kW                    | 2                           | —             | 2             | 2+4           | 3+6           | 3+6           | 3+6                   | —             | 2+4           | 3+6           | 3+6           |  |
|   |                                      | Current                       | A                     | 9                           | —             | 9             | 26            | 13            | 13            | 23                    | —             | 26            | 13            | 23            |  |
|   |                                      | Breaker size                  | A                     | 16                          | —             | 16            | 32            | 16            | 16            | 32                    | —             | 32            | 16            | 32            |  |
| Domestic hot water tank                     | Volume / Material                    | L / -                         | 170 / Stainless steel | 200 / Stainless steel       |               |               |               |               |               | 300 / Stainless steel |               |               |               |               |  |
| Guaranteed operating range *1               | Ambient                              | °C                            | 0 - 35 (≤80%RH)       |                             |               |               |               |               |               |                       |               |               |               |               |  |
|   | Outdoor                              | Heating                       | °C                    | See outdoor unit spec table |               |               |               |               |               |                       |               |               |               |               |  |
|   |                                      | Cooling                       | °C                    | —                           |               |               |               |               |               |                       |               |               |               |               |  |
| Target temperature range                    | Heating                              | Room temperature              | °C                    | 10 - 30                     |               |               |               |               |               |                       |               |               |               |               |  |
|   |                                      | Flow temperature              | °C                    | 20 - 60                     |               |               |               |               |               |                       |               |               |               |               |  |
|   | Cooling                              | Room temperature              | °C                    | —                           |               |               |               |               |               |                       |               |               |               |               |  |
|   |                                      | Flow temperature              | °C                    | —                           |               |               |               |               |               |                       |               |               |               |               |  |
| DHW tank performance                        | Max. hot water temperature           | °C                            | 70                    | *2                          | 70            |               |               |               |               |                       | *2            | 70            |               |               |  |
|   | Water heater energy efficiency class |                               | A+                    |                             |               |               |               |               | A - A+        |                       |               |               |               |               |  |
| Sound pressure level (PWL)                  |                                      |                               | dB (A)                |                             | 41            |               |               |               |               |                       |               |               |               |               |  |

\*1 The indoor environment must be frost-free

\*2 For the model without booster heater and immersion heater, the maximum allowable hot water temperature is 3°C lower than maximum outlet water of outdoor unit. For the maximum outlet water of outdoor unit, refer to outdoor unit data book.

### <Cylinder unit (Heating only)>

| Model name                                  |                                      |                               | Medium capacity       |                             |               |               |               |               |                       |               |               |               |               |               |
|---|--------------------------------------|-------------------------------|-----------------------|-----------------------------|---------------|---------------|---------------|---------------|-----------------------|---------------|---------------|---------------|---------------|---------------|
|   |                                      |                               | EHST20C-MED           | EHST20C-VM2D                | EHST20C-VM6D  | EHST20C-VM9D  | EHST20C-VM9ED | EHST20C-TM9D  | EHST30C-MED           | EHST30C-VM6ED | EHST30C-VM9ED | EHST30C-TM9ED |               |               |
| Type  |                                      |                               | Heating only          |                             |               |               |               |               |                       |               |               |               |               |               |
| Expansion vessel                            |                                      |                               | —                     | ✓                           | ✓             | ✓             | —             | ✓             | —                     | —             | —             | —             | —             |               |
| Booster heater (2/6/9 kW)                   |                                      |                               | —                     | ✓                           | ✓             | ✓             | ✓             | ✓             | —                     | ✓             | ✓             | ✓             | ✓             |               |
| Dimensions                                  | HxWxD                                | mm                            | 1600x595x680          |                             |               |               |               |               | 2050x595x680          |               |               |               |               |               |
| Weight (empty)                              |                                      | kg                            | 106                   | 113                         | 114           | 115           | 109           | 115           | 118                   | 120           | 121           | 121           | 121           |               |
| Control Board Power supply (Phase / V / Hz) |                                      |                               | ~/N,230V,50Hz         | ~/N,230V,50Hz               | ~/N,230V,50Hz | ~/N,230V,50Hz | ~/N,230V,50Hz | ~/N,230V,50Hz | ~/N,230V,50Hz         | ~/N,230V,50Hz | ~/N,230V,50Hz | ~/N,230V,50Hz | ~/N,230V,50Hz | ~/N,230V,50Hz |
| Heater                                      | Booster heater                       | Power supply (Phase / V / Hz) | —                     | ~/N,230V,50Hz               | ~/N,230V,50Hz | 3~/400V,50Hz  | 3~/400V,50Hz  | 3~/400V,50Hz  | —                     | ~/N,230V,50Hz | 3~/400V,50Hz  | 3~/400V,50Hz  | 3~/230V,50Hz  |               |
|   |                                      | Capacity                      | kW                    | —                           | 2             | 2+4           | 3+6           | 3+6           | 3+6                   | —             | 2+4           | 3+6           | 3+6           |               |
|   |                                      | Current                       | A                     | —                           | 9             | 26            | 13            | 13            | 23                    | —             | 26            | 13            | 23            |               |
|   |                                      | Breaker size                  | A                     | —                           | 16            | 32            | 16            | 16            | 32                    | —             | 32            | 16            | 32            |               |
| Domestic hot water tank                     | Volume / Material                    | L / -                         | 200 / Stainless steel |                             |               |               |               |               | 300 / Stainless steel |               |               |               |               |               |
| Guaranteed operating range *1               | Ambient                              | °C                            | 0 - 35 (≤80%RH)       |                             |               |               |               |               |                       |               |               |               |               |               |
|   | Outdoor                              | Heating                       | °C                    | See outdoor unit spec table |               |               |               |               |                       |               |               |               |               |               |
|   |                                      | Cooling                       | °C                    | —                           |               |               |               |               |                       |               |               |               |               |               |
| Target temperature range                    | Heating                              | Room temperature              | °C                    | 10 - 30                     |               |               |               |               |                       |               |               |               |               |               |
|   |                                      | Flow temperature              | °C                    | 20 - 60                     |               |               |               |               |                       |               |               |               |               |               |
|   | Cooling                              | Room temperature              | °C                    | —                           |               |               |               |               |                       |               |               |               |               |               |
|   |                                      | Flow temperature              | °C                    | —                           |               |               |               |               |                       |               |               |               |               |               |
| DHW tank performance                        | Max. hot water temperature           | °C                            | *2                    | 70                          |               |               |               |               |                       | *2            | 70            |               |               |               |
|   | Water heater energy efficiency class |                               | A+                    |                             |               |               |               |               | A                     |               |               |               |               |               |
| Sound pressure level (PWL)                  |                                      |                               | dB (A)                |                             | 40            |               |               |               |                       |               |               |               |               |               |

\*1 The indoor environment must be frost-free

\*2 For the model without booster heater and immersion heater, the maximum allowable hot water temperature is 3°C lower than maximum outlet water of outdoor unit. For the maximum outlet water of outdoor unit, refer to outdoor unit data book.

### <Hydro box (Heating only)>

| Model name                                  |                |                               | Small capacity  |                             |               |               |               |               | Medium capacity |               |               |               |               | Large capacity |               |               |  |
|---|----------------|-------------------------------|-----------------|-----------------------------|---------------|---------------|---------------|---------------|-----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|--|
|   |                |                               | EHSD-MED        | EHSD-VM2D                   | EHSD-VM6D     | EHSD-VM9D     | EHSD-VM9ED    | EHSD-TM9D     | EHSC-MED        | EHSC-VM2D     | EHSC-VM6D     | EHSC-VM9D     | EHSC-VM9ED    | EHSC-TM9D      | EHSE-VM9ED    | EHSE-MED      |  |
| Type  |                |                               | Heating only    |                             |               |               |               |               |                 |               |               |               |               |                |               |               |  |
| Expansion vessel                            |                |                               | —               | ✓                           | ✓             | ✓             | —             | ✓             | —               | ✓             | ✓             | ✓             | —             | ✓              | —             | —             |  |
| Booster heater (2/6/9 kW)                   |                |                               | —               | ✓                           | ✓             | ✓             | ✓             | —             | ✓               | ✓             | ✓             | ✓             | ✓             | ✓              | —             |               |  |
| Dimensions                                  | HxWxD          | mm                            | 800x530x360     |                             |               |               |               |               |                 |               |               | 950x600x360   |               |                |               |               |  |
| Weight (empty)                              |                | kg                            | 36              | 43                          | 44            | 44            | 40            | 44            | 40              | 47            | 48            | 48            | 43            | 48             | 63            | 61            |  |
| Control Board Power supply (Phase / V / Hz) |                |                               | ~/N,230V,50Hz   | ~/N,230V,50Hz               | ~/N,230V,50Hz | ~/N,230V,50Hz | ~/N,230V,50Hz | ~/N,230V,50Hz | ~/N,230V,50Hz   | ~/N,230V,50Hz | ~/N,230V,50Hz | ~/N,230V,50Hz | ~/N,230V,50Hz | ~/N,230V,50Hz  | ~/N,230V,50Hz | ~/N,230V,50Hz |  |
| Heater                                      | Booster heater | Power supply (V / Phase / Hz) | —               | ~/N,230V,50Hz               | ~/N,230V,50Hz | 3~/400V,50Hz  | 3~/400V,50Hz  | 3~/230V,50Hz  | —               | ~/N,230V,50Hz | ~/N,230V,50Hz | 3~/400V,50Hz  | 3~/400V,50Hz  | 3~/230V,50Hz   | 3~/400V,50Hz  | —             |  |
|   |                | Capacity                      | kW              | —                           | 2             | 2+4           | 3+6           | 3+6           | 3+6             | —             | 2             | 2+4           | 3+6           | 3+6            | 3+6           | 3+6           |  |
|   |                | Current                       | A               | —                           | 9             | 26            | 13            | 13            | 23              | —             | 9             | 26            | 13            | 13             | 23            | 13            |  |
|   |                | Breaker size                  | A               | —                           | 16            | 32            | 16            | 16            | 32              | —             | 16            | 32            | 16            | 16             | 32            | 16            |  |
| Guaranteed operating range *1               | Ambient        | L / -                         | 0 - 35 (≤80%RH) |                             |               |               |               |               |                 |               |               |               |               |                |               |               |  |
|   | Outdoor        | Heating                       | °C              | See outdoor unit spec table |               |               |               |               |                 |               |               |               |               |                |               |               |  |
|   |                | Cooling                       | °C              | —                           |               |               |               |               |                 |               |               |               |               |                |               |               |  |
| Target temperature range                    | Heating        | Room temperature              | °C              | 10 - 30                     |               |               |               |               |                 |               |               |               |               |                |               |               |  |
|   |                | Flow temperature              | °C              | 20 - 60                     |               |               |               |               |                 |               |               |               |               |                |               |               |  |
|   | Cooling        | Room temperature              | °C              | —                           |               |               |               |               |                 |               |               |               |               |                |               |               |  |
|   |                | Flow temperature              | °C              | —                           |               |               |               |               |                 |               |               |               |               |                |               |               |  |
| Sound pressure level (PWL)                  |                |                               | dB (A)          |                             | 41            |               |               |               |                 |               | 40            |               |               |                |               | 45            |  |

\*1 The indoor environment must be frost-free.

# Split Type Specifications

## Indoor unit

### <Cylinder unit (Reversible)>

|   |                                      |                               | Small capacity        |                                |                       | Medium capacity       |                       |         |
|---|--------------------------------------|-------------------------------|-----------------------|--------------------------------|-----------------------|-----------------------|-----------------------|---------|
| Model name                                  |                                      |                               | ERST17D-VM2D          | ERST20D-VM2D                   | ERST30D-VM2ED         | ERST20C-VM2D          | ERST30C-VM2ED         |         |
| Type  |                                      |                               | Heating and Cooling   |                                |                       |                       |                       |         |
| Expansion vessel                            |                                      |                               | ✓                     | ✓                              |                       | ✓                     | —                     |         |
| Booster heater (2/6/9kW)                    |                                      |                               | ✓                     | ✓                              | ✓                     | ✓                     | ✓                     |         |
| Dimensions                                  | HxWxD                                | mm                            | 1400x595x680          | 1600x595x680                   | 2050x595x680          | 1600x595x680          | 2050x595x680          |         |
| Weight (empty)                              |                                      | kg                            | 93                    | 104                            | 114                   | 113                   | 120                   |         |
| Control Board Power supply (Phase / V / Hz) |                                      |                               | ~ /N, 230V, 50Hz      | ~ /N, 230V, 50Hz               | ~ /N, 230V, 50Hz      | ~ /N, 230V, 50Hz      | ~ /N, 230V, 50Hz      |         |
| Heater                                      | Booster heater                       | Power supply (V / Phase / Hz) | ~ /N, 230V, 50Hz      | ~ /N, 230V, 50Hz               | ~ /N, 230V, 50Hz      | ~ /N, 230V, 50Hz      | ~ /N, 230V, 50Hz      |         |
|   |                                      | Capacity                      | kW                    | 2                              | 2                     | 2                     | 2                     | 2       |
|   |                                      | Current                       | A                     | 9                              | 9                     | 9                     | 9                     | 9       |
|   |                                      | Breaker size                  | A                     | 16                             | 16                    | 16                    | 16                    | 16      |
| Domestic hot water tank                     | Volume / Material                    | L / -                         | 170 / Stainless steel | 200 / Stainless steel          | 300 / Stainless steel | 200 / Stainless steel | 300 / Stainless steel |         |
| Guaranteed operating range *1               | Ambient                              | °C                            | 0 - 35 (≤80%RH)       |                                |                       |                       |                       |         |
|   | Outdoor                              | Heating                       | °C                    | See outdoor unit spec table    |                       |                       |                       |         |
|   |                                      | Cooling                       | °C                    | See outdoor unit spec table *2 |                       |                       |                       |         |
| Target temperature range                    | Heating                              | Room temperature              | °C                    |                                |                       |                       |                       | 10 - 30 |
|   |                                      | Flow temperature              | °C                    |                                |                       |                       |                       | 20 - 60 |
|   | Cooling                              | Room temperature              | °C                    |                                |                       |                       |                       | —       |
|   |                                      | Flow temperature              | °C                    |                                |                       |                       |                       | 5 - 25  |
| DHW tank performance                        | Max. hot water temperature           | °C                            | 70                    |                                |                       |                       |                       |         |
|   | Water heater energy efficiency class |                               | A+                    | A+                             | A - A+                | A+                    | A                     |         |
| Sound pressure level (PWL)                  |                                      |                               | dB (A)                |                                |                       | 40                    |                       |         |

\*1 The indoor environment must be frost-free.

\*2 During cooling operation at low outdoor temperature (10°C or lower), frozen water may cause damage on plate heat exchanger.

### <Hydro box (Reversible)>

|   |                |                               | Small capacity   |                             | Medium capacity  |                  | Large capacity   |                  |   |
|---|----------------|-------------------------------|------------------|-----------------------------|------------------|------------------|------------------|------------------|---|
| Model name                                  |                |                               | ERSD-MED         | ERSD-VM2D                   | ERSC-MED         | ERSC-VM2D        | ERSE-YM9ED       | ERSE-MED         |   |
| Type  |                |                               | Heating only     |                             |                  |                  |                  |                  |   |
| Expansion vessel                            |                |                               | —                | ✓                           | —                | ✓                | —                | —                |   |
| Booster heater (2/6/9kW)                    |                |                               | —                | ✓                           | —                | ✓                | ✓                | —                |   |
| Dimensions                                  | HxWxD          | mm                            | 800x530x360      |                             |                  |                  | 950x600x360      |                  |   |
| Weight (empty)                              |                | kg                            | 38               | 44                          | 40               | 47               | 64               | 62               |   |
| Control Board Power supply (Phase / V / Hz) |                |                               | ~ /N, 230V, 50Hz | ~ /N, 230V, 50Hz            | ~ /N, 230V, 50Hz | ~ /N, 230V, 50Hz | ~ /N, 230V, 50Hz | ~ /N, 230V, 50Hz |   |
| Heater                                      | Booster heater | Power supply (V / Phase / Hz) | —                | ~ /N, 230V, 50Hz            | —                | ~ /N, 230V, 50Hz | 3 ~, 400V, 50Hz  | —                |   |
|   |                | Capacity                      | kW               | —                           | 2                | —                | 2                | 3+6              | — |
|   |                | Current                       | A                | —                           | 9                | —                | 9                | 13               | — |
|   |                | Breaker size                  | A                | —                           | 16               | —                | 16               | 16               | — |
| Guaranteed operating range *1               | Ambient        | °C                            | 0 - 35 (≤80%RH)  |                             |                  |                  |                  |                  |   |
|   | Outdoor        | Heating                       | °C               | See outdoor unit spec table |                  |                  |                  |                  |   |
|   |                | Cooling                       | °C               | See outdoor unit spec table |                  |                  |                  |                  |   |
| Target temperature range                    | Heating        | Room temperature              | °C               |                             |                  |                  |                  | 10 - 30          |   |
|   |                | Flow temperature              | °C               |                             |                  |                  |                  | 20 - 60          |   |
|   | Cooling        | Room temperature              | °C               |                             |                  |                  |                  | —                |   |
|   |                | Flow temperature              | °C               |                             |                  |                  |                  | 5-25             |   |
| Sound pressure level (PWL)                  |                |                               | dB (A)           |                             |                  | 45               |                  |                  |   |

\*1 The indoor environment must be frost-free

\*2 If you use our system in cooling mode at the low ambient temperature (10°C or below), there are some risks of plate heat exchanger breaking by frozen water.



# Split Type Specifications

## Outdoor unit

|  |          |            |       | Eco Inverter    |                 |                 |
|--|----------|------------|-------|-----------------|-----------------|-----------------|
| Model name                                   |          |            |       | SUZ-SWM40VA     | SUZ-SWM60VA     | SUZ-SWM80VA     |
| Refrigerant                                  |          |            |       | R32*1           |                 |                 |
| Dimensions                                   |          | HxWxD      | mm    | 880x840x330     | 880x840x330     | 880x840x330     |
| Weight                                       |          |            | kg    | 54              | 54              | 54              |
| Power supply (V / Phase / Hz)                |          |            |       | 230 / 1-ph / 50 | 230 / 1-ph / 50 | 230 / 1-ph / 50 |
| Heating                                      | A7W35*2  | Nominal    | kW    | 4.0             | 6.0             | 7.5             |
|  |          | COP        |       | 5.20            | 4.86            | 4.70            |
|  | A2W35*2  | Nominal    | kW    | 4.0             | 5.0             | 6.5             |
|  |          | COP        |       | 3.90            | 3.33            | 3.40            |
| Average climate water outlet 35°C*3          |          | Class      | A+++  | A+++            | A+++            |                 |
|  |          | ηs         | 180   | 181             | 182             |                 |
| Average climate water outlet 55°C*3          |          | Class      | A++   | A++             | A++             |                 |
|  |          | ηs         | 129   | 130             | 131             |                 |
| DHW 200L(L) Load Profile (Average climate)*4 |          | Class      | A+    | A+              | A+              |                 |
|  |          | ηwh        | 159   | 148             | 148             |                 |
| Max outlet water temperature (°C)            |          |            |       | 60              | 60              | 60              |
| Cooling                                      | A35W7*2  | Nominal    | kW    | 4.5             | 5.0             | 5.4             |
|  |          | EER        |       | 3.29            | 3.03            | 3.00            |
|  | A35W18*2 | Nominal    | kW    | 5.6             | 6.0             | 6.3             |
|  |          | EER        |       | 4.97            | 4.88            | 4.80            |
| PWL (Heating)*5                              |          |            | dB(A) | 58              | 60              | 62              |
| Max operating current                        |          |            |       | A               | 13.9            | 13.9            |
| Breaker size                                 |          |            |       | A               | 16              | 16              |
| Piping                                       | Diameter | Liquid/Gas | mm    | 6.35 / 12.7     | 6.35 / 12.7     | 6.35 / 12.7     |
|  | Length   | Out-In     | m     | 5-30            | 5-30            | 5-30            |
|  | Height   | Out-In     | m     | Max 30          | Max 30          | Max 30          |
| Guaranteed Operating Range                   | Heating  |            | °C    | -20°C-24°C      | -20°C-24°C      | -20°C-24°C      |
|  | DHW      |            | °C    | -20°C-35°C      | -20°C-35°C      | -20°C-35°C      |
|  | Cooling  |            | °C    | 10°C-46°C       | 10°C-46°C       | 10°C-46°C       |







## Outdoor unit

|   |          |            |         | Power Inverter, Heating only               |                |                 |                 | ZUBADAN, Heating only |                 |                  |                  |                  |       |
|---|----------|------------|---------|--|----------------|-----------------|-----------------|-----------------------|-----------------|------------------|------------------|------------------|-------|
| Model name  |          |            |         | PUD-SWM60VAA                               | PUD-SWM80V/YAA | PUD-SWM100V/YAA | PUD-SWM120V/YAA | PUD-SHWM60VAA         | PUD-SHWM80V/YAA | PUD-SHWM100V/YAA | PUD-SHWM120V/YAA | PUD-SHWM140V/YAA |       |
| Refrigerant   |          |            |         | R32*1                                      |                |                 |                 |                       |                 |                  |                  |                  |       |
| Dimensions  |          | HxWxD      | mm      | 1020x1050x480                              | 1020x1050x480  | 1020x1050x480   | 1020x1050x480   | 1020x1050x480         | 1020x1050x480   | 1020x1050x480    | 1020x1050x480    | 1020x1050x480    |       |
| Weight  |          |            | kg      | 101  | 101/114        | 105/118         | 105/118         | 102                   | 102/115         | 108/121          | 108/121          | 110/122          |       |
| Power supply (V / Phase / Hz)                         |          |            |         | VAA: 230 / 1-ph / 50, YAA: 400 / 3-ph / 50 |                |                 |                 |                       |                 |                  |                  |                  |       |
| Heating   | A7W35*2  | Nominal    | kW      | 5.0  | 6.0            | 8.0             | 10.0            | 5.0                   | 6.0             | 8.0              | 10.0             | 12.0             |       |
|   |          | COP        |         | 4.76                                       | 4.76           | 4.95            | 4.70            | 4.94                  | 5.00            | 5.00             | 4.80             | 4.70             |       |
|   | A2W35*2  | Nominal    | kW      | 6.0  | 8.0            | 10.0            | 12.0            | 6.0                   | 8.0             | 10.0             | 12.0             | 14.0             |       |
|   |          | COP        |         | 3.60                                       | 3.55           | 3.30            | 3.24            | 3.80                  | 3.75            | 3.45             | 3.30             | 3.05             |       |
| Average climate water outlet 35°C*3                   |          | Class      | A+++    | A+++                                       | A+++           | A+++            | A+++            | A+++                  | A+++            | A+++             | A+++             |                  |       |
|   |          | ηs         | 175     | 178/176                                    | 178/177        | 177/176         | 178             | 181/179               | 180/178         | 179/177          | 179/177          |                  |       |
| Average climate water outlet 55°C*3                   |          | Class      | A++     | A++  | A++            | A++             | A++             | A++                   | A++             | A++              | A++              |                  |       |
|   |          | ηs         | 130     | 131/130                                    | 131/130        | 129/128         | 134             | 135/134               | 136/135         | 135/134          | 134/134          |                  |       |
| DHW 200L(L)/300L(XL) Load Profile (Average climate)*4 |          | Class      | A+ / A  | A+ / A                                     | A+ / A         | A+ / A          | A+ / A          | A+ / A                | A+ / A          | A+ / A           | A+ / A           |                  |       |
|   |          | ηwh        | 148/121 | 148/121                                    | 148/121        | 148/121         | 148/121         | 148/121               | 148/121         | 148/121          | 145/121          |                  |       |
| Max outlet water temperature (°C)                     |          |            |         | 60   | 60             | 60              | 60              | 60                    | 60              | 60               | 60               |                  |       |
| PWL (Heating)*5                                       |          |            | dB(A)   | 55   | 56             | 59              | 60              | 55                    | 56              | 59               | 60               | 62               |       |
| Max operating current                                 |          |            |         | A  | 16.5           | 22/8            | 26/10           | 28/12                 | 16.5            | 22/8             | 26/10            | 35/12            |       |
| Breaker size  |          |            |         | A  | 20             | 25/16           | 30/16           | 32/16                 | 20              | 25/16            | 30/16            | 32/16            | 40/16 |
| Piping  | Diameter | Liquid/Gas | mm      | 6.35/12.7                                  | 6.35/12.7      | 6.35/12.7       | 6.35/12.7       | 6.35/12.7             | 6.35/12.7       | 6.35/12.7        | 6.35/12.7        | 6.35/12.7        |       |
|   | Length   | Out-In     | m       | 2 - 30                                     | 2 - 30         | 2 - 30          | 2 - 30          | 2 - 30                | 2 - 30          | 2 - 30           | 2 - 30           | 2 - 25           |       |
|   | Height   | Out-In     | m       | Max. 30                                    | Max. 30        | Max. 30         | Max. 30         | Max. 30               | Max. 30         | Max. 30          | Max. 30          | Max. 25          |       |
| Guaranteed Operating Range                            | Heating  |            | °C      | -25°C-24°C                                 | -25°C-24°C     | -25°C-24°C      | -25°C-24°C      | -28°C-24°C            | -28°C-24°C      | -28°C-24°C       | -28°C-24°C       | -28°C-24°C       |       |
|   | DHW      |            | °C      | -25°C-35°C                                 | -25°C-35°C     | -25°C-35°C      | -25°C-35°C      | -28°C-35°C            | -28°C-35°C      | -28°C-35°C       | -28°C-35°C       | -28°C-35°C       |       |

\*1 Refrigerant leakage contribute 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 Air-to-Water values are measured based on EN14511 (Circulation pump unit is not included.).

\*3 ηs values are measured based on EN14825. \*4 ηwh values are measured based on EN16147. \*5 Sound power levels are measured based on EN12102.

| Split type  | Small capacity (Under 5kW)*   | Medium capacity (6.0kW-14kW)*  |
|---|---|--|
|  |   | <br>PUD-SHWM60/80/100/120/140 |
|  |   | <br>PUD-SWM60/80/100/120      |
| <b>Eco Inverter</b>   | <br>SUZ-SWM40/60 | <br>SUZ-SWM80                 |

\*Rated capacity is at conditions A2W35. (according to EN14511)

# Split Type Specifications

## Outdoor unit







| Model name   |          |         |            | Power Inverter  |                      |                      |                    |                    |            |      |
|--|----------|---------|------------|---|----------------------|----------------------|--------------------|--------------------|------------|------|
|  |          |         |            | PUHZ-SW75V/YAA(-BS)                                       | PUHZ-SW100V/YAA(-BS) | PUHZ-SW120V/YHA(-BS) | PUHZ-SW160YKA(-BS) | PUHZ-SW200YKA(-BS) |            |      |
| Refrigerant  |          |         |            | R410A*1   |                      |                      |                    |                    |            |      |
| Dimensions   |          | HxWxD   | mm         | 1020x1050x480   | 1020x1050x480        | 1350x950x330         | 1338x1050x330      | 1338x1050x330      |            |      |
| Weight   |          | kg      |            | 92/104  | 114/126              | 118/130              | 136                | 136                |            |      |
| Power supply (V / Phase / Hz)                      |          |         |            | VAA, VHA: 230 / 1-ph / 50, YAA, YHA, YKA: 400 / 3-ph / 50 |                      |                      |                    |                    |            |      |
| Heating  | A7W35*2  | Nominal |            | kW  | 8.0                  | 11.2                 | 16.0               | 22.0               | 25.0       |      |
|  |          | COP     |            |   | 4.40                 | 4.46                 | 4.10               | 4.20               | 4.00       |      |
|  | A2W35*2  | Nominal |            | kW  | 7.5                  | 10.0                 | 12.0               | 16.0               | 20.0       |      |
|  |          | COP     |            |   | 3.40                 | 3.32                 | 3.24               | 3.11               | 2.80       |      |
| Average climate water outlet 35°C*3                |          | Class   |            |   | A++                  | A++                  | A++                | A++                |            |      |
|  |          | ηs      |            |   | 162/160              | 167/165              | 162/162            | 161                | 163        |      |
| Average climate water outlet 55°C*3                |          | Class   |            |   | A++                  | A++                  | A++                | A++                |            |      |
|  |          | ηs      |            |   | 129/128              | 130/129              | 125/125            | 125                | 127        |      |
| DHW 200(L)/300(L) Load Profile (Average climate)*4 |          | Class   |            |   | A+ / A               | A+ / A               | -                  | -                  |            |      |
|  |          | ηwh     |            |   | 145/120              | 145/120              | 138/118            | -                  | -          |      |
| Max outlet water temperature (°C)                  |          |         |            |   | 60                   | 60                   | 60                 | -                  | -          |      |
| Cooling  | A35W7*2  | Nominal |            | kW  | 7.1                  | 10.0                 | 12.5               | 16.0               | 20.0       |      |
|  |          | EER     |            |   | 2.70                 | 2.83                 | 2.32               | 2.76               | 2.25       |      |
|  | A35W18*2 | Nominal |            | kW  | 7.1                  | 10.0                 | 14.0               | 18.0               | 22.0       |      |
|  |          | EER     |            |   | 4.43                 | 4.47                 | 4.08               | 4.56               | 4.1        |      |
| PWL (Heating)*5                                    |          |         |            | dB(A)   |                      | 58                   | 60                 | 72                 | 78         | 78   |
| Max operating current                              |          |         |            | A   |                      | 22.0/11.5            | 28.0/12.0          | 29.5/13.0          | 19.0       | 21.0 |
| Breaker size                                       |          |         |            | A   |                      | 25/16                | 32/16              | 32/16              | 25         | 32   |
| Piping   | Diameter |         | Liquid/Gas | mm  | 9.52/15.88           | 9.52/15.88           | 9.52/15.88         | 9.52/25.4          | 12.7/25.4  |      |
|  | Length   |         | Out-In     | m   | 40                   | 75                   | 75                 | 80                 | 80         |      |
|  | Height   |         | Out-In     | m   | 10                   | 10                   | 30                 | 30                 | 30         |      |
| Guaranteed Operating Range                         | Heating  |         | °C         |   | -20°C~21°C           | -20°C~21°C           | -20°C~21°C         | -20°C~21°C         | -20°C~21°C |      |
|  | DHW      |         | °C         |   | -20°C~35°C           | -20°C~35°C           | -20°C~35°C         | -20°C~35°C         | -20°C~35°C |      |
|  | Cooling  |         | °C         |   | -15°C~46°C           | -15°C~46°C           | -15°C~46°C         | -15°C~46°C         | -15°C~46°C |      |

| Model name   |          |         |            | ZUBADAN   |                  |                |                 |            |    |
|--|----------|---------|------------|---|------------------|----------------|-----------------|------------|----|
|  |          |         |            | PUHZ-SHW80V/YAA(-BS)                                      | PUHZ-SHW112V/YAA | PUHZ-SHW140YHA | PUHZ-SHW230YKA2 |            |    |
| Refrigerant  |          |         |            | R410A*1   |                  |                |                 |            |    |
| Dimensions   |          | HxWxD   | mm         | 1020x1050x480   | 1020x1050x480    | 1350x950x330   | 1338x1050x330   |            |    |
| Weight   |          | kg      |            | 116/128   | 116/128          | 134            | 143             |            |    |
| Power supply (V / Phase / Hz)                      |          |         |            | VAA, VHA: 230 / 1-ph / 50, YAA, YHA, YKA: 400 / 3-ph / 50 |                  |                |                 |            |    |
| Heating  | A7W35*2  | Nominal |            | kW  | 8.0              | 11.2           | 14.0            | 23.0       |    |
|  |          | COP     |            |   | 4.65             | 4.40           | 4.22            | 3.65       |    |
|  | A2W35*2  | Nominal |            | kW  | 8.0              | 11.2           | 14.0            | 23.0       |    |
|  |          | COP     |            |   | 3.55             | 3.22           | 2.96            | 2.37       |    |
| Average climate water outlet 35°C*3                |          | Class   |            |   | A++              | A++            | A++             |            |    |
|  |          | ηs      |            |   | 169/167          | 171/169        | 163             | 164        |    |
| Average climate water outlet 55°C*3                |          | Class   |            |   | A++              | A++            | A++             |            |    |
|  |          | ηs      |            |   | 133/132          | 135/135        | 127             | 127        |    |
| DHW 200(L)/300(L) Load Profile (Average climate)*4 |          | Class   |            |   | A+ / A           | A+ / A         | -               | -          |    |
|  |          | ηwh     |            |   | 145/120          | 145/120        | 138/118         | -          |    |
| Max outlet water temperature (°C)                  |          |         |            | 60  |                  | 60             | 60              | 60         |    |
| Cooling  | A35W7*2  | Nominal |            | kW  | 7.1              | 10.0           | 12.5            | 20.0       |    |
|  |          | EER     |            |   | 3.31             | 2.83           | 2.17            | 2.22       |    |
|  | A35W18*2 | Nominal |            | kW  | 7.1              | 10             | 12.5            | 20.0       |    |
|  |          | EER     |            |   | 4.52             | 4.74           | 4.26            | 3.55       |    |
| PWL (Heating)*5                                    |          |         |            | dB(A)   |                  | 59             | 60              | 70         | 75 |
| Max operating current                              |          |         |            | A   |                  | 22/13          | 28/13           | 13         | 20 |
| Breaker size                                       |          |         |            | A   |                  | 25/16          | 32/16           | 16         | 25 |
| Piping   | Diameter |         | Liquid/Gas | mm  | 9.52/15.88       | 9.52/15.88     | 9.52/15.88      | 12.7/25.4  |    |
|  | Length   |         | Out-In     | m   | 75               | 75             | 75              | 80         |    |
|  | Height   |         | Out-In     | m   | 30               | 30             | 30              | 30         |    |
| Guaranteed Operating Range                         | Heating  |         | °C         |   | -28°C~21°C       | -28°C~21°C     | -28°C~21°C      | -25°C~21°C |    |
|  | DHW      |         | °C         |   | -28°C~35°C       | -28°C~35°C     | -28°C~35°C      | -25°C~35°C |    |
|  | Cooling  |         | °C         |   | -15°C~46°C       | -15°C~46°C     | -15°C~46°C      | -15°C~46°C |    |

\*1 Refrigerant leakage contribute 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 R410a us 2088 in the IPCC 4th Assessment Report.

\*2 Air-to-Water values are measured based on EN14511 (Circulation pump input is not included.).

\*3 ηs values are measured based on EN14825. \*4 ηwh values are measured based on EN16147. \*5 Sound power levels are measured based on EN12102.

| R410A   | Split type | Medium capacity (7.5kW~14kW)  |   | Large capacity (≥16kW)  |   |
|---|------------|---|---|---|---|
|   |            |  |  |    |  |
|  |            |  |  |  |   |

# Packaged Type Specifications

## Indoor unit

<Cylinder unit (Heating only)>

Table with 12 columns for model names (EHPT17X-VM2D to EHPT30X-VM9ED) and rows for Type, Dimensions, Weight, Power supply, Heater specifications, Domestic hot water tank, and Sound pressure level.

- \*1 The indoor environment must be frost-free.
\*2 Do not fit immersion heaters without thermal cut-out. Use only Mitsubishi Electric service parts as a direct replacement.
\*3 For the model without booster heater and immersion heater, the maximum allowable hot water temperature is 3°C lower than maximum outlet water of outdoor unit.

<Cylinder unit (Reversible)>

Table with 5 columns for model names (ERPT17X-VM2D to ERPT30X-VM2ED) and rows for Type, Dimensions, Weight, Power supply, Heater specifications, Domestic hot water tank, and Sound pressure level.

- \*1 The indoor environment must be frost-free.
\*2 Do not fit immersion heaters without thermal cut-out. Use only Mitsubishi Electric service parts as a direct replacement.
\*3 During cooling operation at low outdoor temperature (10°C or lower), frozen water may cause damage on plate heat exchanger.

<Hydro box (Heating only)>

Table with 5 columns for model names (EHPX-MED to EHPX-VM9ED) and rows for Type, Dimensions, Weight, Power supply, Heater specifications, and Sound pressure level.

- \*1 The indoor environment must be frost-free.

## Outdoor unit

Table with 4 columns for model names (PUZ-WM50VA to PUZ-WM112V/YAA) and rows for Refrigerant, Dimensions, Weight, Power supply, Heating/Cooling specifications, and Sound pressure level.

- \*1 Refrigerant leakage contribute 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.
\*2 Air-to-Water values are measured based on EN14511 (Circulation pump input is not included).
\*3 ηs values are measured based on EN14825.
\*4 ηwh values are measured based on EN16147.
\*5 Sound power levels are measured based on EN12102.

Product image showing R32 Packaged type units: Small capacity (Under 5kW)\* and Medium capacity (6.0kW-11.2kW)\*. Includes the POWER INVERTER logo and model numbers PUZ-WM50 and PUHZ-WM60/85/112.

\*Rated capacity is at conditions A2W35. (according to EN14511)

## Optional Parts

### Split type

<Indoor unit>

| Parts name                 | Model name      | Cylinder | Hydrobox | Remarks                                     |
|----------------------------|-----------------|----------|----------|---|
| Wireless remote controller | PAR-WT50R-E     | ✓        | ✓        |   |
| Wireless receiver          | PAR-WR51R-E     | ✓        | ✓        |   |
| Thermistors                | PAC-SE41TS-E    | ✓        | ✓        | For room temp.                              |
|                            | PAC-TH011-E     | ✓        | ✓        | For buffer and zone (flow and return temp.) |
|                            | PAC-TH011TK2-E  | -        | ✓        | For tank temp. (5m)                         |
|                            | PAC-TH011TKL2-E | -        | ✓        | For tank temp. (30m)                        |
|                            | PAC-TH012HT-E   | ✓        | ✓        | For boiler and buffer (5m)                  |
|                            | PAC-TH012HTL-E  | ✓        | ✓        | For boiler and buffer (30m)                 |
| Immersion heater           | PAC-IH01V2-E    | ✓        | -        | 1Ph 1kW                                     |
|                            | PAC-IH03V2-E    | ✓        | -        | 1Ph 3kW                                     |
| Joint pipe                 | PAC-SG72RJ-E    | ✓        | ✓        | For PUHZ-SW75 ø6.35 → ø9.52                 |
|                            | PAC-SG73RJ-E    | -        | ✓        | For PUHZ-SW200YKA/SHW230YKA2 ø9.52 → ø12.7  |
|                            | PAC-SG74RJ-E    | ✓        | ✓        | For PUHZ-SW75 ø12.7 → ø15.88                |
|                            | PAC-SH30RJ-E    | ✓        | ✓        | For PUHZ-SW75AA ø9.52 → 6.35                |
|                            | PAC-SH50RJ-E    | ✓        | ✓        | For PUHZ-SW75AA ø15.88 → 12.7               |
| Wi-Fi interface            | MAC-S67IF-E     | ✓        | ✓        |   |
| 2 Zone kit                 | PAC-TZ02-E      | ✓        | ✓        |   |
| Expansion vessel           | PAC-EVP12-E     | ✓        | -        | 12L   |

<Outdoor unit>

| Parts name                                    | Model name   | R32 (Eco Inverter) |             |             | R32 Heating only (Power Inverter) |               |                |                | R32 Heating only (ZUBADAN) |               |                |                |                |
|---|--------------|--------------------|-------------|-------------|-----------------------------------|---------------|----------------|----------------|----------------------------|---------------|----------------|----------------|----------------|
|   |              | SUZ-SWM40VA        | SUZ-SWM60VA | SUZ-SWM80VA | PUD-SWM60VAA                      | PUD-SWM80VYAA | PUD-SWM100VYAA | PUD-SWM120VYAA | PUD-SHM80VAA               | PUD-SHM80VYAA | PUD-SHM100VYAA | PUD-SHM120VYAA | PUD-SHM140VYAA |
| Connector for drain hose heater signal output | PAC-SE60RA-E | -                  | -           | -           | ✓                                 | ✓             | ✓              | ✓              | ✓                          | ✓             | ✓              | ✓              | ✓              |
| Air discharge guide                           | MAC-886SG-E  | ✓                  | ✓           | ✓           | -                                 | -             | -              | -              | -                          | -             | -              | -              | -              |
|   | PAC-SG59SG-E | -                  | -           | -           | -                                 | -             | -              | -              | -                          | -             | -              | -              | -              |
|   | PAC-SH96SG-E | -                  | -           | -           | ✓                                 | ✓             | ✓              | ✓              | ✓                          | ✓             | ✓              | ✓              | ✓              |
| Air protection guide                          | PAC-SH63AG-E | -                  | -           | -           | -                                 | -             | -              | -              | -                          | -             | -              | -              | -              |
|   | PAC-SH95AG-E | -                  | -           | -           | ✓                                 | ✓             | ✓              | ✓              | ✓                          | ✓             | ✓              | ✓              | ✓              |
| Attachement                                   | PAC-SJ82AT-E | -                  | -           | -           | ✓                                 | ✓             | ✓              | ✓              | ✓                          | ✓             | ✓              | ✓              | ✓              |
| Drain socket*                                 | PAC-SG61DS-E | -                  | -           | -           | ✓                                 | ✓             | ✓              | ✓              | ✓                          | ✓             | ✓              | ✓              | ✓              |
| Centralized drain pan*                        | PAC-SG64DP-E | -                  | -           | -           | -                                 | -             | -              | -              | -                          | -             | -              | -              | -              |
|   | PAC-SH97DP-E | -                  | -           | -           | -                                 | -             | -              | -              | -                          | -             | -              | -              | -              |
|   | PAC-SJ83DP-E | -                  | -           | -           | ✓                                 | ✓             | ✓              | ✓              | ✓                          | ✓             | ✓              | ✓              | ✓              |
| Base heater                                   | MAC-642BH-U1 | ✓                  | ✓           | ✓           | -                                 | -             | -              | -              | -                          | -             | -              | -              | -              |
| Control/Service tool                          | PAC-SK52ST   | -                  | -           | -           | ✓                                 | ✓             | ✓              | ✓              | ✓                          | ✓             | ✓              | ✓              | ✓              |

| Parts name                                    | Model name   | R410A (Power Inverter) |                |                |               | R410A (ZUBADAN) |                |                 |                 |                 |
|---|--------------|------------------------|----------------|----------------|---------------|-----------------|----------------|-----------------|-----------------|-----------------|
|   |              | PUHZ-SW75VYAA          | PUHZ-SW100VYAA | PUHZ-SW120VYAA | PUHZ-SW160YKA | PUHZ-SW200YKA   | PUHZ-SHW80VYAA | PUHZ-SHW112VYAA | PUHZ-SHW140VYAA | PUHZ-SHW230YKA2 |
| Connector for drain hose heater signal output | PAC-SE60RA-E | ✓                      | ✓              | ✓              | ✓             | ✓               | ✓              | ✓               | ✓               | ✓               |
| Air discharge guide                           | MAC-886SG-E  | -                      | -              | -              | -             | -               | -              | -               | -               | -               |
|   | PAC-SG59SG-E | -                      | -              | ✓              | -             | -               | -              | -               | ✓               | -               |
|   | PAC-SH96SG-E | ✓                      | ✓              | ✓              | ✓             | ✓               | ✓              | ✓               | -               | ✓               |
| Air protection guide                          | PAC-SH63AG-E | -                      | -              | ✓              | -             | -               | -              | -               | ✓               | -               |
|   | PAC-SH95AG-E | ✓                      | ✓              | -              | ✓             | ✓               | ✓              | ✓               | -               | ✓               |
| Attachement                                   | PAC-SJ82AT-E | ✓                      | ✓              | -              | -             | -               | ✓              | ✓               | -               | ✓               |
| Drain socket*                                 | PAC-SG61DS-E | ✓                      | ✓              | ✓              | ✓             | ✓               | ✓              | ✓               | -               | -               |
| Centralized drain pan*                        | PAC-SG64DP-E | -                      | -              | ✓              | -             | -               | -              | -               | -               | -               |
|   | PAC-SH97DP-E | -                      | -              | -              | ✓             | ✓               | -              | -               | -               | -               |
|   | PAC-SJ83DP-E | ✓                      | ✓              | -              | -             | -               | ✓              | ✓               | -               | -               |
| Base heater                                   | MAC-642BH-U1 | -                      | -              | -              | -             | -               | -              | -               | -               | -               |
| Control/Service tool                          | PAC-SK52ST   | ✓                      | ✓              | ✓              | ✓             | ✓               | ✓              | ✓               | ✓               | ✓               |

\*Cannot be used for cold climate.

## Interface/Flow Temperature Controller

### Split type

| Parts name                      | Model name     | Description           |
|---------------------------------|----------------|-----------------------|
| Capacity step control interface | PAC-IF011B-E   | 1 PC board w/ Case    |
| Flow temperature controller     | PAC-IF032B-E   | 1 PC board w/ Case    |
|                                 | PAC-IF033B-E   | 1 PC board w/ Case    |
|                                 | PAC-IF033PCB-E | 10 PC board w/o case  |
| System Controllers              | PAC-IF071B-E   | 1 PC board w/ Case    |
| Pressure sensor                 | PAC-PS01-E     | For SUZ-SWM40/60/80VA |
| Flow sensor                     | PAC-FS01-E     |                       |
| Thermistor                      | PAC-TH011-E    |                       |

## Optional Parts

### Packaged type

#### <Indoor unit>

| Parts name                 | Model name      | Cylinder                 | Hydrobox | Remarks                                     |
|----------------------------|-----------------|--------------------------|----------|---|
| Wireless remote controller | PAR-WT50R-E     | ✓                        | ✓        |   |
| Wireless receiver          | PAR-WR51R-E     | ✓                        | ✓        |   |
| Thermistors                | PAC-SE41TS-E    | ✓                        | ✓        | For room temp.                              |
|                            | PAC-TH011-E     | ✓                        | ✓        | For buffer and zone (flow and return temp.) |
|                            | PAC-TH011TK2-E  | -                        | ✓        | For tank temp. (5m)                         |
|                            | PAC-TH011TKL2-E | -                        | ✓        | For tank temp. (30m)                        |
|                            | PAC-TH012HT-E   | ✓                        | ✓        | For boiler and buffer (5m)                  |
|                            | PAC-TH012HTL-E  | ✓                        | ✓        | For boiler and buffer (30m)                 |
| Immersion heater           | PAC-IH01V2-E    | ✓ (Except EHPT20X-MHEDW) | -        | 1Ph 1kW                                     |
|                            | PAC-IH03V2-E    | ✓ (Except EHPT20X-MHEDW) | -        | 1Ph 3kW                                     |
| EHPT accessories for UK    | PAC-WK02UK-E    | ✓                        | -        |   |
| Wi-Fi interface            | MAC-567F-E      | ✓                        | ✓        |   |
| 2 Zone kit                 | PAC-TZ02-E      | ✓                        | ✓        |   |
| Expansion vessel           | PAC-EVP12-E     | ✓                        | -        | 12L   |

#### <Outdoor unit>

| Parts name                                    | Model name   | R32 (Power Inverter) |             |               |                |
|---|--------------|----------------------|-------------|---------------|----------------|
|   |              | PUZ-WM50VHA          | PUZ-WM60VAA | PUZ-WM85V/YAA | PUZ-WM112V/YAA |
| Connector for drain hose heater signal output | PAC-SE60RA-E | ✓                    | ✓           | ✓             | ✓              |
| Air discharge guide                           | PAC-SG59SG-E | ✓                    | -           | -             | -              |
|   | PAC-SH96SG-E | -                    | ✓*          | ✓*            | ✓*             |
| Air protection guide                          | PAC-SH63AG-E | ✓                    | -           | -             | -              |
|   | PAC-SH95AG-E | -                    | ✓*          | ✓*            | ✓*             |
| Attachment                                    | PAC-SJ82AT-E | -                    | ✓           | ✓             | ✓              |
| Drain socket                                  | PAC-SG61DS-E | ✓                    | ✓           | ✓             | ✓              |
| Centralized drain pan                         | PAC-SG64DP-E | ✓                    | -           | -             | -              |
|   | PAC-SJ83DP-E | -                    | ✓           | ✓             | ✓              |

\*Attachment (PAC-SJ82AT-E) is necessary for the Air Guide.



## Ground Source Heat Pump Specifications

Specification with 38% propylene glycol

| Model name                         |                  | EHGT17D-YM9ED                 |               |
|------------------------------------|------------------|-------------------------------|---------------|
| Heating Capacity (Min-Max)         |                  | 2.5-10.0kW                    |               |
| Heat Output B0/W35 (Rated)         |                  | 5.0kW                         |               |
| COP B0/W35                         |                  | 4.58                          |               |
| SCOP (Average Climate)             | Low Temp         | 5.27                          |               |
|                                    | Rank             | A+++                          |               |
|                                    | $\eta_{gs}^{*2}$ | 203%                          |               |
|                                    | Mid Temp         | 3.96                          |               |
| L Load Profile (Average Climate)*3 | Rank             | A+++                          |               |
|                                    | $\eta_{wh}$      | 150%                          |               |
|                                    | Rank             | 134%                          |               |
| Sound Power Level (Rated)*4        |                  | 42dB(A)                       |               |
| Refrigerant /Amount                |                  | R32*1/0.9kg                   |               |
| GWP                                |                  | 608                           |               |
| Dimensions (HxWxD)                 |                  | 1,750mm×595mm×680mm           |               |
| DHW Tank                           |                  | 170L                          |               |
| Weight                             |                  | Unit 181kg                    |               |
| Electrical data                    | Heat pump        | Power supply                  | 3ph/400V/50Hz |
|                                    |                  | Max current                   | 8A            |
|                                    |                  | Breaker                       | 16A           |
|                                    | Booster heater   | Power supply                  | 3ph/400V/50Hz |
|                                    |                  | Capacity                      | 3kW+6kW       |
|                                    |                  | Current                       | 13A           |
|                                    | Breaker          | 16A                           |               |
| Connections                        | Water            | Primary circuit               | ø28mm         |
|                                    |                  | DHW circuit                   | ø22mm         |
|                                    | Brine            | Brine circuit                 | ø28mm         |
| Operating range                    | Heating          | Room temperature              | 10-30°C       |
|                                    |                  | Flow temperature              | 20-60°C       |
|                                    | DHW              |                               | 40-60°C       |
|                                    |                  | Legionella prevention         |               |
| Guaranteed operating range         | Ambient          |                               | 0-35°C        |
|                                    |                  | Water outlet temperature      | 20-60°C       |
|                                    |                  | Brine inlet temperature       | -8-30°C       |
|                                    |                  | Min. brine outlet temperature | -12°C         |
| Flow rate range                    | Primary circuit  | Max.                          | 27.7L/min     |
|                                    |                  | Min.                          | 7.1L/min      |
|                                    | Brine circuit    | Max.                          | 27.7L/min     |
|                                    |                  | Min.                          | 7.1L/min      |
| Heat source fluid type             |                  | 29 WT% Bioethanol             |               |
|                                    |                  | 38 WT% Propylene glycol       |               |
|                                    |                  | 25 WT% Ethylene glycol        |               |

\*1 Refrigerant leakage contribute 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  $\eta_{gs}$  values are measured based on EN14825. \*3  $\eta_{wh}$  values are measured based on EN16147. \*4 Sound power levels are measured based on EN12102.

## Interface/Flow Temperature Controller

### Packaged type

| Parts name                  | Model name     | Description          |
|-----------------------------|----------------|----------------------|
| Flow temperature controller | PAC-IF033B-E   | 1 PC board w/ Case   |
|                             | PAC-IF033PCB-E | 10 PC board w/o case |
| System Controllers          | PAC-IF072B-E   |                      |
| Flow sensor                 | PAC-FS01-E     |                      |
| Thermistor                  | PAC-TH011-E    |                      |



## MELCloud (Wi-Fi Interface) for ecodan

### MELCloud for Fast, Easy Remote Control and Monitoring of Your ecodan

MELCloud is a new Cloud-based solution for controlling ecodan either locally or remotely by computer, tablet or smartphone via the Internet. Setting up and remotely operating your ecodan heating system via MELCloud is simple and straight forward. All you need is wireless computer connectivity in your home or the building where the ecodan is installed and an Internet connection on your mobile or fixed terminal. To set up the system, the router and the ecodan WiFi interface must be paired, and this is done simply and quickly using the WPS button found on all mainstream routers.

You can control and check ecodan via MELCloud from virtually anywhere an Internet connection is available. That means, thanks to MELCloud, you can use ecodan much more easily and conveniently.



### Key Control and Monitoring Features

- 1 Turn system on/off
- 2 See status of each of your heating zones & adjust set points
- 3 See the status of your hot water cylinder & boost remotely
- 4 Live weather feed from ecodan location
  - Holiday mode - Set system parameters while away
  - Schedule timer - Set 7 day weekly schedule
  - Frost protection - Set system to run at minimum temperature
  - Error status
- 5 Check energy usage report\* \*Additional metering hardware is required.



# All A++ or Above!!

| Outdoor unit    | Indoor unit  | For medium-temperature application             |                                       |  |         |   |  |                              | For low-temperature application |  |                                       |  |     |   |  |                              |                               |
|-----------------|--------------|--|---------------------------------------|--|---------|---|--|------------------------------|---------------------------------|--|---------------------------------------|--|-----|---|--|------------------------------|-------------------------------|
|                 |              | Seasonal space heating energy efficiency class | Water heating energy efficiency class | Rated heat output under average climate conditions |         | Seasonal space heating energy efficiency under average climate conditions | Water heating energy efficiency under average climate conditions | Sound power level LWA indoor | Sound power level LWA outdoor   | Seasonal space heating energy efficiency class | Water heating energy efficiency class | Rated heat output under average climate conditions |     | Seasonal space heating energy efficiency under average climate conditions | Water heating energy efficiency under average climate conditions | Sound power level LWA indoor | Sound power level LWA outdoor |
|                 |              |  |                                       | kW   | %       |   |  |                              |                                 |  |                                       | kW   | %   |   |  |                              |                               |
| SUZ-SWM40VA     | EHST17D-***D | A++  | A+                                    | 4.6  | 129     | 148   | 41   | 58                           | A+++                            | A+   | 5.1                                   | 180  | 148 | 41  | 58   |                              |                               |
|                 | ERST17D-***D | A++  | A+                                    | 4.6  | 132     | 148   | 41   | 58                           | A+++                            | A+   | 5.1                                   | 187  | 148 | 41  | 58   |                              |                               |
|                 | EHST20D-***D | A++  | A+                                    | 4.6  | 129     | 159   | 41   | 58                           | A+++                            | A+   | 5.1                                   | 180  | 159 | 41  | 58   |                              |                               |
|                 | ERST20D-***D | A++  | A+                                    | 4.6  | 132     | 159   | 41   | 58                           | A+++                            | A+   | 5.1                                   | 187  | 159 | 41  | 58   |                              |                               |
|                 | EHSD-***D    | A++  | -                                     | 4.6  | 129     | -   | 41   | 58                           | A+++                            | -  | 5.1                                   | 180  | -   | 41  | 58   |                              |                               |
|                 | ERSD-***D    | A++  | -                                     | 4.6  | 132     | -   | 41   | 58                           | A+++                            | -  | 5.1                                   | 187  | -   | 41  | 58   |                              |                               |
| SUZ-SWM60VA     | EHST17D-***D | A++  | A+                                    | 6.0  | 130     | 144   | 41   | 60                           | A+++                            | A+   | 6.6                                   | 181  | 144 | 41  | 60   |                              |                               |
|                 | ERST17D-***D | A++  | A+                                    | 6.0  | 133     | 144   | 41   | 60                           | A+++                            | A+   | 6.6                                   | 187  | 144 | 41  | 60   |                              |                               |
|                 | EHST20D-***D | A++  | A+                                    | 6.0  | 130     | 148   | 41   | 60                           | A+++                            | A+   | 6.6                                   | 181  | 148 | 41  | 60   |                              |                               |
|                 | ERST20D-***D | A++  | A+                                    | 6.0  | 133     | 148   | 41   | 60                           | A+++                            | A+   | 6.6                                   | 187  | 148 | 41  | 60   |                              |                               |
|                 | EHSD-***D    | A++  | -                                     | 6.0  | 130     | -   | 41   | 60                           | A+++                            | -  | 6.6                                   | 181  | -   | 41  | 60   |                              |                               |
|                 | ERSD-***D    | A++  | -                                     | 6.0  | 133     | -   | 41   | 60                           | A+++                            | -  | 6.6                                   | 187  | -   | 41  | 60   |                              |                               |
| SUZ-SWM80VA     | EHST17D-***D | A++  | A+                                    | 7.1  | 131     | 144   | 41   | 62                           | A+++                            | A+   | 7.1                                   | 182  | 144 | 41  | 62   |                              |                               |
|                 | ERST17D-***D | A++  | A+                                    | 7.1  | 133     | 144   | 41   | 62                           | A+++                            | A+   | 7.1                                   | 187  | 144 | 41  | 62   |                              |                               |
|                 | EHST20D-***D | A++  | A+                                    | 7.1  | 131     | 148   | 41   | 62                           | A+++                            | A+   | 7.1                                   | 182  | 148 | 41  | 62   |                              |                               |
|                 | ERST20D-***D | A++  | A+                                    | 7.1  | 133     | 148   | 41   | 62                           | A+++                            | A+   | 7.1                                   | 187  | 148 | 41  | 62   |                              |                               |
|                 | EHST30D-***D | A++  | A+                                    | 7.1  | 131     | 127   | 41   | 62                           | A+++                            | A+   | 7.1                                   | 182  | 127 | 41  | 62   |                              |                               |
|                 | ERST30D-***D | A++  | A+                                    | 7.1  | 133     | 127   | 41   | 62                           | A+++                            | A+   | 7.1                                   | 187  | 127 | 41  | 62   |                              |                               |
|                 | EHSD-***D    | A++  | -                                     | 7.1  | 131     | -   | 41   | 62                           | A+++                            | -  | 7.1                                   | 182  | -   | 41  | 62   |                              |                               |
|                 | ERSD-***D    | A++  | -                                     | 7.1  | 133     | -   | 41   | 62                           | A+++                            | -  | 7.1                                   | 187  | -   | 41  | 62   |                              |                               |
| PUD-SWM60VAA    | E*ST17D-***D | A++  | A+                                    | 6.0  | 130     | 136   | 41   | 55                           | A+++                            | A+   | 6.0                                   | 175  | 136 | 41  | 55   |                              |                               |
|                 | E*ST20D-***D | A++  | A+                                    | 6.0  | 130     | 148   | 41   | 55                           | A+++                            | A+   | 6.0                                   | 175  | 148 | 41  | 55   |                              |                               |
|                 | E*ST30D-***D | A++  | A                                     | 6.0  | 130     | 121   | 41   | 55                           | A+++                            | A  | 6.0                                   | 175  | 121 | 41  | 55   |                              |                               |
|                 | E*SD-***D    | A++  | -                                     | 6.0  | 130     | -   | 41   | 55                           | A+++                            | -  | 6.0                                   | 175  | -   | 41  | 55   |                              |                               |
| PUD-SWM80V/YAA  | E*ST17D-***D | A++  | A+                                    | 8.0  | 131/130 | 136   | 41   | 56                           | A+++                            | A+   | 8.0                                   | 178/176  | 136 | 41  | 56   |                              |                               |
|                 | E*ST20D-***D | A++  | A+                                    | 8.0  | 131/130 | 148   | 41   | 56                           | A+++                            | A+   | 8.0                                   | 178/176  | 148 | 41  | 56   |                              |                               |
|                 | E*ST30D-***D | A++  | A                                     | 8.0  | 131/130 | 121   | 41   | 56                           | A+++                            | A  | 8.0                                   | 178/176  | 121 | 41  | 56   |                              |                               |
|                 | E*SD-***D    | A++  | -                                     | 8.0  | 131/130 | -   | 41   | 56                           | A+++                            | -  | 8.0                                   | 178/176  | -   | 41  | 56   |                              |                               |
| PUD-SWM100V/YAA | E*ST20D-***D | A++  | A+                                    | 10.0   | 131/130 | 148   | 41   | 59                           | A+++                            | A+   | 10.0                                  | 178/177  | 148 | 41  | 59   |                              |                               |
|                 | E*ST30D-***D | A++  | A                                     | 10.0   | 131/130 | 121   | 41   | 59                           | A+++                            | A  | 10.0                                  | 178/177  | 121 | 41  | 59   |                              |                               |
|                 | E*SD-***D    | A++  | -                                     | 10.0   | 131/130 | -   | 41   | 59                           | A+++                            | -  | 10.0                                  | 178/177  | -   | 41  | 59   |                              |                               |
| PUD-SWM120V/YAA | E*ST20D-***D | A++  | A+                                    | 12.0   | 129/128 | 148   | 41   | 60                           | A+++                            | A+   | 12.0                                  | 177/176  | 148 | 41  | 60   |                              |                               |
|                 | E*ST30D-***D | A++  | A                                     | 12.0   | 129/128 | 121   | 41   | 60                           | A+++                            | A  | 12.0                                  | 177/176  | 121 | 41  | 60   |                              |                               |
|                 | E*SD-***D    | A++  | -                                     | 12.0   | 129/128 | -   | 41   | 60                           | A+++                            | -  | 12.0                                  | 177/176  | -   | 41  | 60   |                              |                               |
| PUD-SHWM60VAA   | E*ST17D-***D | A++  | A+                                    | 6.0  | 134     | 136   | 41   | 55                           | A+++                            | A+   | 6.0                                   | 178  | 136 | 41  | 55   |                              |                               |
|                 | E*ST20D-***D | A++  | A+                                    | 6.0  | 134     | 148   | 41   | 55                           | A+++                            | A+   | 6.0                                   | 178  | 148 | 41  | 55   |                              |                               |
|                 | E*ST30D-***D | A++  | A                                     | 6.0  | 134     | 121   | 41   | 55                           | A+++                            | A  | 6.0                                   | 178  | 121 | 41  | 55   |                              |                               |
|                 | E*SD-***D    | A++  | -                                     | 6.0  | 134     | -   | 41   | 55                           | A+++                            | -  | 6.0                                   | 178  | -   | 41  | 55   |                              |                               |
| PUD-SHWM80V/YAA | E*ST17D-***D | A++  | A+                                    | 8.0  | 135/134 | 136   | 41   | 56                           | A+++                            | A+   | 8.0                                   | 181/179  | 136 | 41  | 56   |                              |                               |
|                 | E*ST20D-***D | A++  | A+                                    | 8.0  | 135/134 | 148   | 41   | 56                           | A+++                            | A+   | 8.0                                   | 181/179  | 148 | 41  | 56   |                              |                               |
|                 | E*ST30D-***D | A++  | A                                     | 8.0  | 135/134 | 121   | 41   | 56                           | A+++                            | A  | 8.0                                   | 181/179  | 121 | 41  | 56   |                              |                               |
|                 | E*SD-***D    | A++  | -                                     | 8.0  | 135/134 | -   | 41   | 56                           | A+++                            | -  | 8.0                                   | 181/179  | -   | 41  | 56   |                              |                               |

Note: E\*\*T17/20\*-\*\*\*D use "Load profile L".  
E\*\*T30\*-\*\*\*D use "Load profile XL".



# All A++ or Above!!

| Outdoor unit     | Indoor unit  | For medium-temperature application             |                                       |  |   |  |                              |                               | For low-temperature application                |                                       |  |   |  |                              |                               |
|------------------|--------------|--|---------------------------------------|--|---|--|------------------------------|-------------------------------|--|---------------------------------------|--|---|--|------------------------------|-------------------------------|
|                  |              | Seasonal space heating energy efficiency class | Water heating energy efficiency class | Rated heat output under average climate conditions | Seasonal space heating energy efficiency under average climate conditions | Water heating energy efficiency under average climate conditions | Sound power level LWA indoor | Sound power level LWA outdoor | Seasonal space heating energy efficiency class | Water heating energy efficiency class | Rated heat output under average climate conditions | Seasonal space heating energy efficiency under average climate conditions | Water heating energy efficiency under average climate conditions | Sound power level LWA indoor | Sound power level LWA outdoor |
|                  |              |  |                                       | kW   |   |  |                              |                               |  |                                       | %  |   |  |                              |                               |
| PUD-SHWM100V/YAA | E*ST20D-***D | A++  | A+                                    | 10.0   | 136/135   | 148  | 41                           | 59                            | A+++   | A+                                    | 10.0   | 180/178   | 148  | 41                           | 59                            |
|                  | E*ST30D-***D | A++  | A                                     | 10.0   | 136/135   | 121  | 41                           | 59                            | A+++   | A                                     | 10.0   | 180/178   | 121  | 41                           | 59                            |
|                  | E*SD-***D    | A++  | -                                     | 10.0   | 136/135   | -  | 41                           | 59                            | A+++   | -                                     | 10.0   | 180/178   | -  | 41                           | 59                            |
| PUD-SHWM120V/YAA | E*ST20D-***D | A++  | A+                                    | 12.0   | 135/134   | 148  | 41                           | 60                            | A+++   | A+                                    | 12.0   | 179/177   | 148  | 41                           | 60                            |
|                  | E*ST30D-***D | A++  | A                                     | 12.0   | 135/134   | 121  | 41                           | 60                            | A+++   | A                                     | 12.0   | 179/177   | 121  | 41                           | 60                            |
|                  | E*SD-***D    | A++  | -                                     | 12.0   | 135/134   | -  | 41                           | 60                            | A+++   | -                                     | 12.0   | 179/177   | -  | 41                           | 60                            |
| PUD-SHWM140V/YAA | E*ST20D-***D | A++  | A+                                    | 14.0   | 134/134   | 145  | 41                           | 62                            | A+++   | A+                                    | 14.0   | 179/177   | 145  | 41                           | 62                            |
|                  | E*ST30D-***D | A++  | A                                     | 14.0   | 134/134   | 121  | 41                           | 62                            | A+++   | A                                     | 14.0   | 179/177   | 121  | 41                           | 62                            |
|                  | E*SD-***D    | A++  | -                                     | 14.0   | 134/134   | -  | 41                           | 62                            | A+++   | -                                     | 14.0   | 179/177   | -  | 41                           | 62                            |
| PUHZ-SW75V/YAA   | EHST17D-***D | A++  | A+                                    | 7.1  | 129   | 136  | 41                           | 58                            | A++  | A+                                    | 7.2  | 162   | 136  | 41                           | 58                            |
|                  | ERST17D-***D | A++  | A+                                    | 7.1  | 132   | 136  | 41                           | 58                            | A++  | A+                                    | 7.2  | 166   | 136  | 41                           | 58                            |
|                  | EHST20D-***D | A++  | A+                                    | 7.1  | 129   | 145  | 41                           | 58                            | A++  | A+                                    | 7.2  | 162   | 145  | 41                           | 58                            |
|                  | ERST20D-***D | A++  | A+                                    | 7.1  | 132   | 145  | 41                           | 58                            | A++  | A+                                    | 7.2  | 166   | 145  | 41                           | 58                            |
|                  | EHST30D-***D | A++  | A                                     | 7.1  | 129   | 120  | 41                           | 58                            | A++  | A                                     | 7.2  | 162   | 120  | 41                           | 58                            |
|                  | ERST30D-***D | A++  | A                                     | 7.1  | 132   | 120  | 41                           | 58                            | A++  | A                                     | 7.2  | 166   | 120  | 41                           | 58                            |
|                  | EHSD-***D    | A++  | -                                     | 7.1  | 129   | -  | 41                           | 58                            | A++  | -                                     | 7.2  | 162   | -  | 41                           | 58                            |
|                  | ERSD-***D    | A++  | -                                     | 7.1  | 132   | -  | 41                           | 58                            | A++  | -                                     | 7.2  | 166   | -  | 41                           | 58                            |
| PUHZ-SW100V/YAA  | EHST20C-***D | A++  | A+                                    | 10.0   | 130   | 145  | 40                           | 60                            | A++  | A+                                    | 10.6   | 167   | 145  | 40                           | 60                            |
|                  | ERST20C-***D | A++  | A+                                    | 10.0   | 132   | 145  | 40                           | 60                            | A++  | A+                                    | 10.6   | 170   | 145  | 40                           | 60                            |
|                  | EHST30C-***D | A++  | A                                     | 10.0   | 130   | 120  | 40                           | 60                            | A++  | A                                     | 10.6   | 167   | 120  | 40                           | 60                            |
|                  | ERST30C-***D | A++  | A                                     | 10.0   | 132   | 120  | 40                           | 60                            | A++  | A                                     | 10.6   | 170   | 120  | 40                           | 60                            |
|                  | EHSC-***D    | A++  | -                                     | 10.0   | 130   | -  | 40                           | 60                            | A++  | -                                     | 10.6   | 167   | -  | 40                           | 60                            |
|                  | ERSC-***D    | A++  | -                                     | 10.0   | 132   | -  | 40                           | 60                            | A++  | -                                     | 10.6   | 170   | -  | 40                           | 60                            |
| PUHZ-SW120V/YAA  | EHST20C-***D | A++  | A+                                    | 12.0   | 125   | 138  | 40                           | 72                            | A++  | A+                                    | 12.9   | 162   | 138  | 40                           | 72                            |
|                  | ERST20C-***D | A++  | A+                                    | 12.0   | 127   | 138  | 40                           | 72                            | A++  | A+                                    | 12.9   | 164   | 138  | 40                           | 72                            |
|                  | EHST30C-***D | A++  | A                                     | 12.0   | 125   | 118  | 40                           | 72                            | A++  | A                                     | 12.9   | 162   | 118  | 40                           | 72                            |
|                  | ERST30C-***D | A++  | A                                     | 12.0   | 127   | 118  | 40                           | 72                            | A++  | A                                     | 12.9   | 164   | 118  | 40                           | 72                            |
|                  | EHSC-***D    | A++  | -                                     | 12.0   | 125   | -  | 40                           | 72                            | A++  | -                                     | 12.9   | 162   | -  | 40                           | 72                            |
|                  | ERSC-***D    | A++  | -                                     | 12.0   | 127   | -  | 40                           | 72                            | A++  | -                                     | 12.9   | 164   | -  | 40                           | 72                            |
| PUHZ-SW160YKA    | EHSE-***D    | A++  | -                                     | 13.5   | 125   | -  | 45                           | 78                            | A++  | -                                     | 15.3   | 161   | -  | 45                           | 78                            |
|                  | ERSE-***D    | A++  | -                                     | 13.5   | 126   | -  | 45                           | 78                            | A++  | -                                     | 15.3   | 163   | -  | 45                           | 78                            |
| PUHZ-SW200YKA    | EHSE-***D    | A++  | -                                     | 15.5   | 127   | -  | 45                           | 78                            | A++  | -                                     | 17.3   | 163   | -  | 45                           | 78                            |
|                  | ERSE-***D    | A++  | -                                     | 15.5   | 129   | -  | 45                           | 78                            | A++  | -                                     | 17.3   | 164   | -  | 45                           | 78                            |
| PUHZ-SHW80V/YAA  | EHST20C-***D | A++  | A+                                    | 9.0  | 133   | 145  | 40                           | 59                            | A++  | A+                                    | 9.6  | 169   | 145  | 40                           | 59                            |
|                  | ERST20C-***D | A++  | A+                                    | 9.0  | 135   | 145  | 40                           | 59                            | A++  | A+                                    | 9.6  | 172   | 145  | 40                           | 59                            |
|                  | EHST30C-***D | A++  | A                                     | 9.0  | 133   | 120  | 40                           | 59                            | A++  | A                                     | 9.6  | 169   | 120  | 40                           | 59                            |
|                  | ERST30C-***D | A++  | A                                     | 9.0  | 135   | 120  | 40                           | 59                            | A++  | A                                     | 9.6  | 172   | 120  | 40                           | 59                            |
|                  | EHSC-***D    | A++  | -                                     | 9.0  | 133   | -  | 40                           | 59                            | A++  | -                                     | 9.6  | 169   | -  | 40                           | 59                            |
|                  | ERSC-***D    | A++  | -                                     | 9.0  | 135   | -  | 40                           | 59                            | A++  | -                                     | 9.6  | 172   | -  | 40                           | 59                            |
| PUHZ-SHW112V/YAA | EHST20C-***D | A++  | A+                                    | 12.7   | 135   | 145  | 40                           | 60                            | A++  | A+                                    | 13.9   | 171   | 145  | 40                           | 60                            |
|                  | ERST20C-***D | A++  | A+                                    | 12.7   | 137   | 145  | 40                           | 60                            | A++  | A+                                    | 13.9   | 173   | 145  | 40                           | 60                            |
|                  | EHST30C-***D | A++  | A                                     | 12.7   | 135   | 120  | 40                           | 60                            | A++  | A                                     | 13.9   | 171   | 120  | 40                           | 60                            |
|                  | ERST30C-***D | A++  | A                                     | 12.7   | 137   | 120  | 40                           | 60                            | A++  | A                                     | 13.9   | 173   | 120  | 40                           | 60                            |
|                  | EHSC-***D    | A++  | -                                     | 12.7   | 135   | -  | 40                           | 60                            | A++  | -                                     | 13.9   | 171   | -  | 40                           | 60                            |
|                  | ERSC-***D    | A++  | -                                     | 12.7   | 137   | -  | 40                           | 60                            | A++  | -                                     | 13.9   | 173   | -  | 40                           | 60                            |

| Outdoor unit          | Indoor unit  | For medium-temperature application             |                                       |  |   |  |                              |                               | For low-temperature application                |                                       |  |   |  |                              |                               |
|-----------------------|--------------|--|---------------------------------------|--|---|--|------------------------------|-------------------------------|--|---------------------------------------|--|---|--|------------------------------|-------------------------------|
|                       |              | Seasonal space heating energy efficiency class | Water heating energy efficiency class | Rated heat output under average climate conditions | Seasonal space heating energy efficiency under average climate conditions | Water heating energy efficiency under average climate conditions | Sound power level LWA indoor | Sound power level LWA outdoor | Seasonal space heating energy efficiency class | Water heating energy efficiency class | Rated heat output under average climate conditions | Seasonal space heating energy efficiency under average climate conditions | Water heating energy efficiency under average climate conditions | Sound power level LWA indoor | Sound power level LWA outdoor |
|                       |              |  |                                       |  |   |  |                              |                               |  |                                       |  |   |  |                              |                               |
| PUHZ-SHW140YHA        | EHST20C-***D | A++  | A+                                    | 15.8   | 127   | 138  | 40                           | 70                            | A++  | A+                                    | 17.0   | 163   | 138  | 40                           | 70                            |
|                       | ERST20C-***D | A++  | A+                                    | 15.8   | 128   | 138  | 40                           | 70                            | A++  | A+                                    | 17.0   | 165   | 138  | 40                           | 70                            |
|                       | EHST30C-***D | A++  | A+                                    | 15.8   | 127   | 118  | 40                           | 70                            | A++  | A+                                    | 17.0   | 163   | 118  | 40                           | 70                            |
|                       | ERST30C-***D | A++  | A+                                    | 15.8   | 128   | 118  | 40                           | 70                            | A++  | A+                                    | 17.0   | 165   | 118  | 40                           | 70                            |
|                       | EHSC-***D    | A++  | -                                     | 15.8   | 127   | -  | 40                           | 70                            | A++  | -                                     | 17.0   | 163   | -  | 40                           | 70                            |
|                       | ERSC-***D    | A++  | -                                     | 15.8   | 128   | -  | 40                           | 70                            | A++  | -                                     | 17.0   | 165   | -  | 40                           | 70                            |
| PUHZ-SHW230YKA2       | EHSE-***D    | A++  | -                                     | 23.0   | 127   | -  | 45                           | 75                            | A++  | -                                     | 25.0   | 164   | -  | 45                           | 75                            |
|                       | ERSE-***D    | A++  | -                                     | 23.0   | 128   | -  | 45                           | 75                            | A++  | -                                     | 25.0   | 165   | -  | 45                           | 75                            |
| PUZ-WM50VHA           | EHPT17X-***D | A++  | A+                                    | 5.0  | 129   | 148  | 40                           | 61                            | A+++   | A+                                    | 5.0  | 183   | 148  | 40                           | 61                            |
|                       | ERPT17X-***D | A++  | A+                                    | 5.0  | 133   | 148  | 40                           | 61                            | A+++   | A+                                    | 5.0  | 190   | 148  | 40                           | 61                            |
|                       | EHPT20X-***D | A++  | A+                                    | 5.0  | 129   | 135  | 40                           | 61                            | A+++   | A+                                    | 5.0  | 183   | 135  | 40                           | 61                            |
|                       | ERPT20X-***D | A++  | A+                                    | 5.0  | 133   | 135  | 40                           | 61                            | A+++   | A+                                    | 5.0  | 190   | 135  | 40                           | 61                            |
|                       | EHPX-***D    | A++  | -                                     | 5.0  | 129   | -  | 40                           | 61                            | A+++   | -                                     | 6.0  | 190   | -  | 40                           | 61                            |
| PUZ-WM60VAA           | EHPT17X-***D | A++  | A+                                    | 6.0  | 142   | 144  | 40                           | 58                            | A+++   | A+                                    | 6.0  | 190   | 144  | 40                           | 58                            |
|                       | ERPT17X-***D | A++  | A+                                    | 6.0  | 145   | 144  | 40                           | 58                            | A+++   | A+                                    | 6.0  | 197   | 144  | 40                           | 58                            |
|                       | EHPT20X-***D | A++  | A+                                    | 6.0  | 142   | 145  | 40                           | 58                            | A+++   | A+                                    | 6.0  | 190   | 145  | 40                           | 58                            |
|                       | ERPT20X-***D | A++  | A+                                    | 6.0  | 145   | 145  | 40                           | 58                            | A+++   | A+                                    | 6.0  | 197   | 145  | 40                           | 58                            |
|                       | EHPX-***D    | A++  | -                                     | 6.0  | 142   | -  | 40                           | 58                            | A+++   | -                                     | 6.0  | 190   | -  | 40                           | 58                            |
| PUZ-WM85V/YAA         | EHPT17X-***D | A++  | A+                                    | 8.5  | 139/138   | 144  | 40                           | 58                            | A+++   | A+                                    | 8.5  | 193/190   | 144  | 40                           | 58                            |
|                       | ERPT17X-***D | A++  | A+                                    | 8.5  | 141   | 144  | 40                           | 58                            | A+++   | A+                                    | 8.5  | 197   | 144  | 40                           | 58                            |
|                       | EHPT20X-***D | A++  | A+                                    | 8.5  | 139/138   | 145  | 40                           | 58                            | A+++   | A+                                    | 8.5  | 193/190   | 145  | 40                           | 58                            |
|                       | ERPT20X-***D | A++  | A+                                    | 8.5  | 141   | 145  | 40                           | 58                            | A+++   | A+                                    | 8.5  | 197   | 145  | 40                           | 58                            |
|                       | EHPT30X-***D | A++  | A                                     | 8.5  | 139/138   | 120  | 40                           | 58                            | A+++   | A                                     | 8.5  | 193/190   | 120  | 40                           | 58                            |
|                       | ERPT30X-***D | A++  | A                                     | 8.6  | 141   | 120  | 40                           | 58                            | A+++   | A                                     | 8.5  | 197   | 120  | 40                           | 58                            |
|                       | EHPX-***D    | A++  | -                                     | 8.5  | 139/138   | -  | 40                           | 58                            | A+++   | -                                     | 8.5  | 193/190   | -  | 40                           | 58                            |
| PUZ-WM112V/YAA        | EHPT20X-***D | A++  | A+                                    | 10.0   | 134/133   | 148  | 40                           | 60                            | A+++   | A+                                    | 10.0   | 191/189   | 148  | 40                           | 60                            |
|                       | ERPT20X-***D | A++  | A+                                    | 10.0   | 136   | 148  | 40                           | 60                            | A+++   | A+                                    | 10.0   | 195   | 148  | 40                           | 60                            |
|                       | EHPT30X-***D | A++  | A                                     | 10.0   | 134/133   | 120  | 40                           | 60                            | A+++   | A                                     | 10.0   | 191/189   | 120  | 40                           | 60                            |
|                       | ERPT30X-***D | A++  | A                                     | 10.0   | 136   | 120  | 40                           | 60                            | A+++   | A                                     | 10.0   | 195   | 120  | 40                           | 60                            |
|                       | EHPX-***D    | A++  | -                                     | 10.0   | 134/133   | -  | 40                           | 60                            | A+++   | -                                     | 10.0   | 191/189   | -  | 40                           | 60                            |
| PUHZ-FRP71VHA2        | EHST20C-***D | A+   | A+                                    | 7.5  | 121   | 138  | 40                           | 68                            | A++  | A+                                    | 7.5  | 163   | 138  | 40                           | 68                            |
|                       | EHSC-***D    | A+   | -                                     | 7.5  | 121   | -  | 40                           | 68                            | A++  | -                                     | 7.5  | 163   | -  | 40                           | 68                            |
| PUMY-P112VKM3/YKM(E)4 | EHST20C-***D | A+   | A                                     | 11.2   | 121   | 106  | 40                           | 69                            | A++  | A                                     | 11.2   | 168   | 106  | 40                           | 69                            |
|                       | EHSC-***D    | A+   | -                                     | 11.2   | 121   | -  | 40                           | 69                            | A++  | -                                     | 11.2   | 168   | -  | 40                           | 69                            |
| PUMY-P125VKM3/YKM(E)4 | EHST20C-***D | A+   | A                                     | 11.2   | 121   | 106  | 40                           | 69                            | A++  | A                                     | 11.2   | 168   | 106  | 40                           | 69                            |
|                       | EHSC-***D    | A+   | -                                     | 11.2   | 121   | -  | 40                           | 69                            | A++  | -                                     | 11.2   | 168   | -  | 40                           | 69                            |
| PUMY-P140VKM3/YKM(E)4 | EHST20C-***D | A+   | A                                     | 11.2   | 121   | 106  | 40                           | 69                            | A++  | A                                     | 11.2   | 168   | 106  | 40                           | 69                            |
|                       | EHSC-***D    | A+   | -                                     | 11.2   | 121   | -  | 40                           | 69                            | A++  | -                                     | 11.2   | 168   | -  | 40                           | 69                            |

Note: E\*\*T17/20\*.\*\*\*D use "Load profile L".  
E\*\*T30\*.\*\*\*D use "Load profile XL".