# auatsu









Heat pumps extract free energy from the air and use it to heat or cool the building or prepare domestic hot water. Anyone can benefit from this inexpensive, environmentally friendly and maintenance-free heat source.

Making the best use of state-of-the-art technology, Auratsu heat pumps operate over a broad range of outdoor temperatures and achieve high temperature performance for both the heating system and domestic hot water. The absence of harmful emissions into the environment, the safety of use and their

maintenance-free operation make Auratsu heat pumps perfect for anyone building a house and replacing or upgrading an existing heat source. Auratsu heat pumps are suitable for single-family, multi-family and commercial buildings.



















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# Highly reliable, environmentally-friendly and energy-efficient heat pumps that provide year-round user functionality and comfort

Auratsu heat pumps can heat a building and produce domestic hot water while operating in conjunction with conventional heat sources and solar panels.



Mobile application



High efficiency



Wide range of temperatures



Timer 24h



Multilingual menu



Rapid heating



Freeze protection



Pre-heating



Holiday mode



Operates in conjunction with conventional heat sources



Weekly calendar



Can be coupled with PV modules

# Out of concern for the **environment**

#### **Smart inverter compressor**

The heat pump automatically adjusts its performance to the existing conditions (depending on the frequency modulation of the compressor). This ensures the optimum temperature control of the outlet water and the elimination of compressor frequency fluctuations, contributing to the heat pump's higher energy efficiency.



#### **Environmentally-friendly refrigerant**

The eco-friendly R32 refrigerant used in Auratsu heat pumps has one of the lowest GWPs of any refrigerants available (675) and, thanks to its zero ODP (Ozone Depletion Potential), it does not cause damage to the ozone layer.



#### **ECO** mode

The activation of the ECO mode allows the selection of one of the eight outlet water temperature settings depending on the ambient temperature, ensuring the system's energy-efficient and highly-functional operation.



EAT PUMP AIR TO WATER

# Energy-efficient solutions



#### Low operating costs

Auratsu heat pumps reduce the running costs of a building to a considerable degree. This significant reduction applies to both the costs of heating the rooms and domestic hot water, as well as regular maintenance costs.



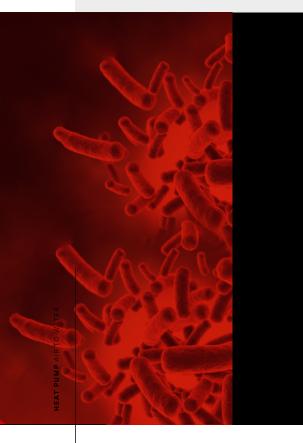
#### Reduced CO<sub>2</sub> emissions

Auratsu heat pumps are a perfect alternative to gas-fired, coal-fired and pellet boilers. They produce no smoke, which helps to reduce CO<sub>2</sub> emissions into the atmosphere.

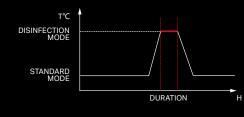


#### The highest energy efficiency rating

Auratsu heat pumps have the highest seasonal energy efficiency rating of A+++ and the Seasonal Coefficient of Performance (SCOP) of up to 5.22 in heating mode.



# Safe functioning Water can be heated up to 65°C, with a disinfection rate of up to 99.99%.



auratsu

Meet the
Auratsu

Environmentally-friendly,
energy-efficient
and highly reliable



Why A

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### Stable functioning over a wide temperature range

Reliability over a wide range of outdoor air temperatures, even in temperatures as low as -25°C. A wide operating range of water temperatures.



# Simple operation



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## Intuitive control

The unit can be controlled remotely via Wi-Fi thanks to a convenient mobile app.



#### Holiday mode

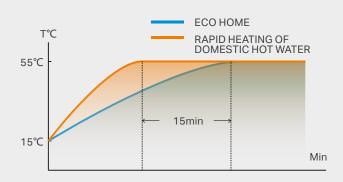
Selecting the holiday mode before departure will put the unit on minimum energy consumption while protecting the entire system from freezing.

# HEAT PUMP AIR TO WATER

## Enhanced functionality

## Rapid heating of domestic hot water

By selecting the function of rapid heating of domestic hot water, it is possible to achieve the desired outlet water temperature much faster. By way of example, approximately 15 minutes are saved when increasing the water's temperature from 15°C to 55°C.

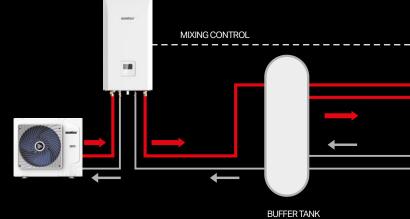


# Weather control

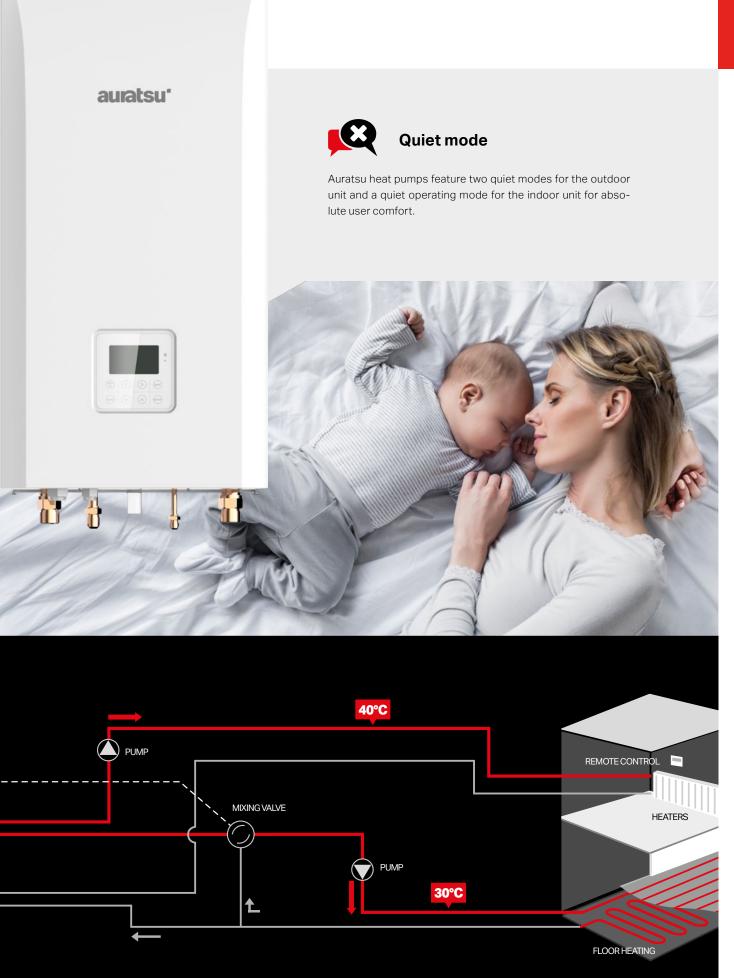
The built-in weather control system automatically adjusts the outlet water temperature according to external conditions using the pre-set or custom heating curves. This particular solution guarantees stable thermal comfort inside the home.

## Control of two heating circuits

The unit's automatic system controls the water temperature while adjusting the operation of the mixer pump and the valve position. The control of two heating circuits enables the handling of circuits with different supply water temperatures, which ensures comfort and convenience for the users.



HYDRAULIC SEPARATOR





# Indoor units

| MODEL                                |  |             | AHM-60RA1                 | AHM-100RA3                | AHM-160RA3                          |
|--------------------------------------|--|-------------|---------------------------|---------------------------|-------------------------------------|
| Compatible outdoor un                | it models                              |             | AHA-06RA1                 | AHA-08RA1<br>AHA-10RA1    | AHA-12RA3<br>AHA-14RA3<br>AHA-16RA3 |
| Heat exchanger                       | type                                   |             | plate                     | plate                     | plate                               |
| Circulation pump                     | type                                   |             | adjustable DC<br>inverter | adjustable DC<br>inverter | adjustable DC<br>inverter           |
|                                      | head                                   | m H₂O       | 9,5                       | 9,5                       | 9,5                                 |
| Expansion vessel                     | volume                                 | I           | 8                         | 8                         | 8                                   |
|                                      | initial pressure<br>(gas side)         | MPa         | 0,1                       | 0,1                       | 0,1                                 |
| Safety valve                         |  | MPa         | 0,3                       | 0,3                       | 0,3                                 |
| Nominal flow                         |  | m³/h        | 0,36                      | 0,36                      | 0,6                                 |
| Internal volume of the system, total |  | ı           | 5                         | 5                         | 5                                   |
| Power supply                         | voltage/number<br>of phases/ frequency | V/Ph/<br>Hz | 230/1/50                  | 400/3/50                  | 400/3/50                            |
|                                      | maximum running current (MCA)          | А           | 14,30                     | 14,00                     | 14,00                               |
| Additional electric heater           | electric power                         | kW          | 3                         | 3/6/9                     | 3/6/9                               |
|                                      | capacity levels                        |             | 1                         | 3                         | 3                                   |
| Sound power level                    |  | dB(A)       | 38                        | 41                        | 42                                  |
| Sound pressure level                 |  | dB(A)       | 28                        | 29                        | 31                                  |
| Leaving water<br>temperature (LWT)   | heating                                | °C          | 25÷65                     | 25÷65                     | 25÷65                               |
|                                      | DHW                                    | °C          | 25÷60                     | 25÷60                     | 35÷60                               |
|                                      | cooling                                | °C          | 5÷25                      | 5÷25                      | 5÷25                                |
| Room temperature range               |  | °C          | 5÷35                      | 0÷35                      | 0÷35                                |
| Connection                           | Water side<br>external thread          | cal         | R1"                       | R1"                       | R1"                                 |
| Liquid pipe                          |  | mm          | 6,35                      | 9,52                      | 9,52                                |
| Gas pipe                             |  | mm          | 15,9                      | 15,9                      | 15,9                                |
| Dimensions                           | of the unit (W/H/L)                    | mm          | 270/790/420               | 270/790/420               | 270/790/420                         |
|                                      | of the packaging (W/H/L)               | mm          | 355/985/515               | 355/985/515               | 355/985/515                         |
| Weight                               | net/with packaging                     | kg          | 37/43                     | 38/44                     | 39/45                               |





# **Outdoor** units

| MODEL                               |  |             | AHA-06RA1                  | AHA-08RA1                  | AHA-10RA1                  | AHA-12RA3                  | AHA-14RA3                  | AHA-16RA3                  |
|-------------------------------------|--|-------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| Heating<br>A7W35 ΔT=5,<br>R.H. 85%  | nominal heating capacity                                       | kW          | 6,29                       | 8,38                       | 10,16                      | 12,22                      | 14,65                      | 16,16                      |
|                                     | power input  | kW          | 1,26                       | 1,62                       | 2,06                       | 2,46                       | 3,12                       | 3,6                        |
|                                     | COP  | W/W         | 5,08                       | 5,25                       | 5,16                       | 5                          | 4,75                       | 4,55                       |
| Heating<br>A0W35 ΔT=5, R.H.<br>85%  | nominal heating capacity                                       | kW          | 5,83                       | 7,75                       | 8,74                       | 9,28                       | 9,62                       | 11,01                      |
|                                     | power input  | kW          | 1,49                       | 2                          | 2,37                       | 2,48                       | 2,75                       | 3,08                       |
|                                     | COP  | W/W         | 3,95                       | 3,92                       | 3,97                       | 3,78                       | 3,54                       | 3,63                       |
| Heating<br>A-7W35 ΔT=5,<br>R.H. 85% | nominal heating capacity                                       | kW          | 6,19                       | 7,17                       | 8,29                       | 10,1                       | 12,12                      | 13,43                      |
|                                     | power input  | kW          | 2,03                       | 2,2                        | 2,74                       | 3,36                       | 4,33                       | 4,98                       |
|                                     | COP  | W/W         | 3,1                        | 3,28                       | 3,28                       | 3,03                       | 2,83                       | 2,73                       |
| Cooling<br>A35W18 ΔT=5              | nominal cooling capacity                                       | kW          | 7,31                       | 10,21                      | 11,00                      | 14,53                      | 15,30                      | 16,50                      |
|                                     | power input  | kW          | 1,76                       | 2,31                       | 2,62                       | 4,56                       | 4,88                       | 5,60                       |
|                                     | EER  | W/W         | 4,15                       | 4,43                       | 4,21                       | 3,19                       | 3,13                       | 2,94                       |
| Cooling<br>A35W7 ΔT=5               | nominal cooling capacity                                       | kW          | 5,84                       | 7,39                       | 8,13                       | 9,89                       | 10,40                      | 11,40                      |
|                                     | power input  | kW          | 1,90                       | 2,25                       | 2,48                       | 4,52                       | 4,81                       | 5,42                       |
|                                     | EER  | W/W         | 3,07                       | 3,28                       | 3,12                       | 2,19                       | 2,16                       | 2,11                       |
| Seasonal energy efficiency rating   | TWW 35°C   | klasa       | A+++                       | A+++                       | A+++                       | A+++                       | A+++                       | A+++                       |
|                                     | TWW 55°C   | klasa       | A++                        | A++                        | A++                        | A++                        | A++                        | A++                        |
| SCOP                                | TWW 35°C   |             | 4,96                       | 5,22                       | 5,20                       | 4,82                       | 4,71                       | 4,63                       |
|                                     | TWW 55°C   |             | 3,53                       | 3,37                       | 3,50                       | 3,46                       | 3,48                       | 3,43                       |
| Power supply                        | voltage/number<br>of phases/ frequency                         | V/Ph/<br>Hz | 230/1/50                   | 230/1/50                   | 230/1/50                   | 400/3/50                   | 400/3/50                   | 400/3/50                   |
| .,,                                 | maximum running current (MCA)                                  | Α           | 18                         | 19                         | 19                         | 14                         | 14                         | 14                         |
| Sound level                         | sound pressure *1)<br>(1 m)                                    | dB          | 44                         | 45                         | 48                         | 49                         | 50                         | 54                         |
| Outdoor air<br>temperature<br>range | heating  | °C          | -25÷35                     | -25÷35                     | -25÷35                     | -25÷35                     | -25÷35                     | -25÷35                     |
|                                     | DHW  | °C          | -25÷43                     | -25÷43                     | -25÷43                     | -25÷43                     | -25÷43                     | -25÷43                     |
|                                     | cooling  | °C          | 10 ÷ 48                    | 10 ÷ 48                    | 10 ÷ 48                    | 10 ÷ 48                    | 10 ÷ 48                    | 10 ÷ 48                    |
| Compressor type                     |  |             | twin rotary<br>DC inwerter |
| Cooling<br>system                   | pipe diameter liquid/gas                                       | mm          | 9,52/15,9                  | 9,52/15,9                  | 9,52/15,9                  | 9,52/15,9                  | 9,52/15,9                  | 9,52/15,9                  |
|                                     | permissible system<br>length/ permissible<br>height difference | m           | 30/20                      | 30/20                      | 30/20                      | 30/20                      | 30/20                      | 30/20                      |
|                                     | connection method  |             | kielich                    | kielich                    | kielich                    | kielich                    | kielich                    | kielich                    |
| Additional                          | length without charge  | m           | 15                         | 15                         | 15                         | 15                         | 15                         | 15                         |
| refrigerant                         | charge   | g/m         | 38                         | 38                         | 38                         | 38                         | 38                         | 38                         |
| Refrigerant                         | GWP/refrigerant amount   | kg          | 675/1,25                   | 675/1,65                   | 675/1,65                   | 675/1,84                   | 675/1,84                   | 675/1,84                   |
|                                     | of the unit (W/H/L)  | mm          | 350/700/900                | 395/810/980                | 395/810/980                | 420/870/1005               | 420/870/1005               | 420/870/100                |
| Dimensions                          | of the packaging (W/H/L)                                       | mm          | 430/770/1020               | 495/895/1105               | 495/895/1105               | 530/880/1085               | 530/880/1085               | 530/880/108                |
| Weight                              | net/with packaging   | kg          | 37/40                      | 51/55                      | 65/69                      | 100/112                    | 100/112                    | 100/112                    |

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