

HITACHI

# Yutaki S Yutaki SCombi

Split air-to-water heat pump

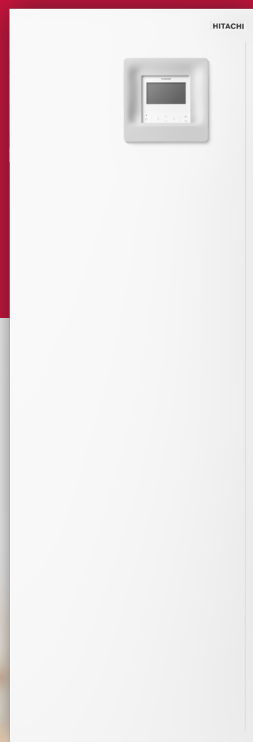


R32  
REFRIGERANT

R410A  
REFRIGERANT

The best solution for Heating, Cooling, & Domestic Hot water

Cooling & Heating





## INDEX

Discover the new generation of Yutaki S and Yutaki SCombi heat pumps. With their new design, high performances and best controls it is the perfect solution for all your projects!

- 
- 04 Air-to-water heat pumps
  - 04 Yutaki S & Yutaki SCombi line-up
  - 05 Yutaki applications
  - 06 Features & benefits
  - 08 Controls and connectivity
  - 10 Accessories and online tools
  - 12 Technical data
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# Air-to-water heat pump

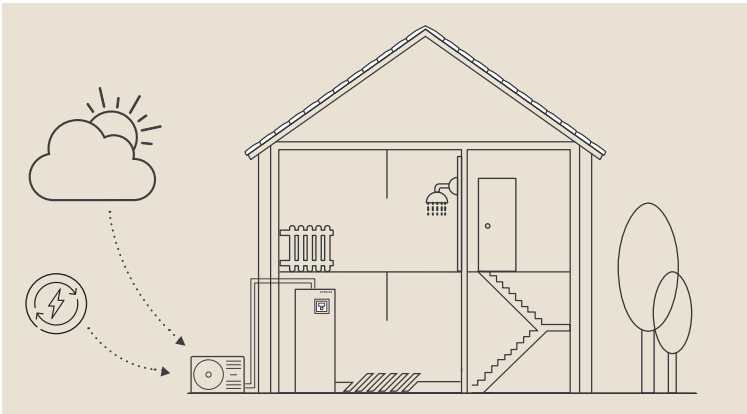
Renewable energy solution

Using renewable energy like air, Hitachi Yutaki air source heat pumps are generating high energy savings having low impact on environment.

Our products are the best support to the green transition and directly contribute to a sustainable and low carbon energy future. Among the best heating systems that suit for all kind of houses, air-to-water heat pumps are able to collect an important amount of energy using only few quantity of electricity.



<sup>(1)</sup> Keymark certification under process



**+ ENERGY SAVINGS:**  
Hitachi air source heat pumps transform energy from outside air, providing perfect comfort at home and reducing energy consumption.

## NEW YUTAKI S & SCOMBI LINE-UP

| Model         | kW | 4.3 | 6 | 8 | 11 | 14 | 16 | 20 | 24 |
|---------------|----|-----|---|---|----|----|----|----|----|
| Yutaki S      |    | ●   | ● | ● | ●  | ●  | ●  | ●  | ●  |
| Yutaki SCombi |    | ●   | ● | ● | ●  | ●  | ●  |    |    |

### OUTDOOR UNITS



**+ WIDE CAPACITY RANGE:**  
Among the widest ranges on the market from 4.3 to 24kW!

### INDOOR UNITS



# Yutaki applications

Ideal solution for house renovation or new house building



## VERSATILITY & HIGH EFFICIENCY

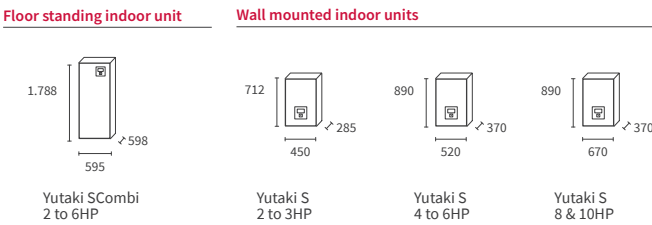
Yutaki S and Yutaki SCombi meet all your needs for Heating, Cooling or Domestic Hot Water with:

- External tank for wall mounted indoor units
- Integrated tank for floor standing units.

Yutaki can be connected to all kind of emitters such as underfloor heating, radiators or fancoils. Combination with other systems like boiler, solar panels or swimming pool is also easy to do as all controls are embedded in standard in Hitachi Yutaki.

**+ COMPACT DIMENSIONS:**  
Yutaki SCombi cabinet is less than 600x600!

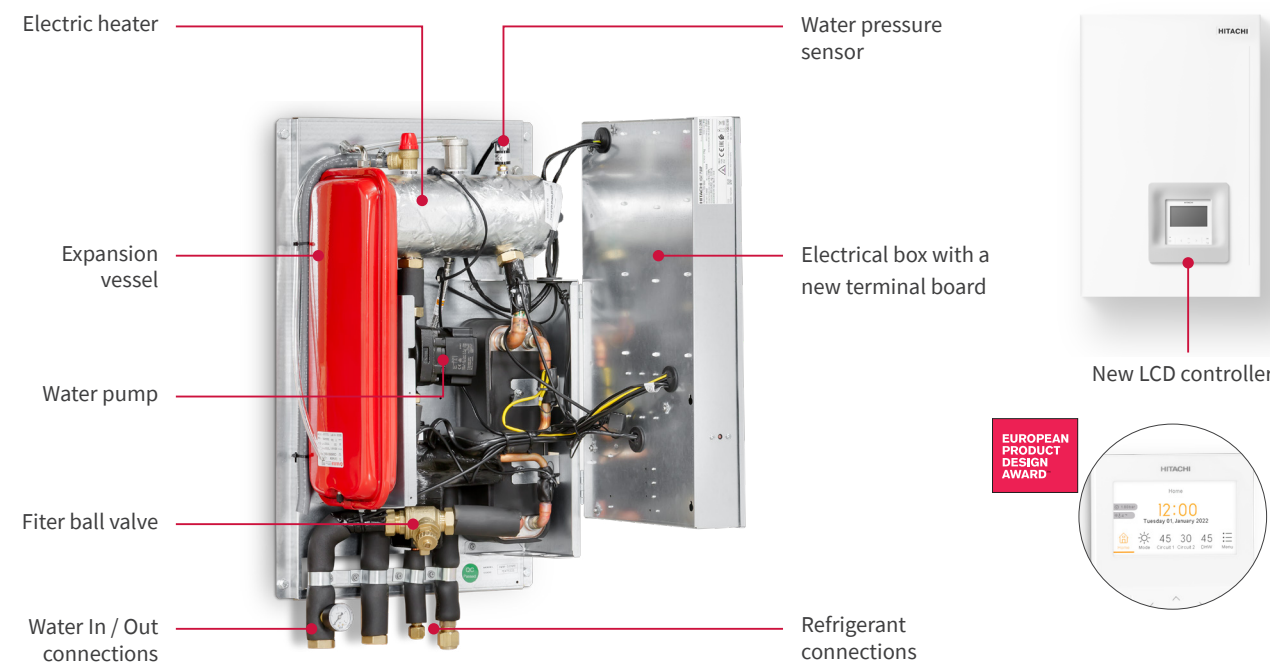
**+ NEW INTEGRATED TANK:**  
Yutaki SCombi integrates a new 220L stainless steel tank



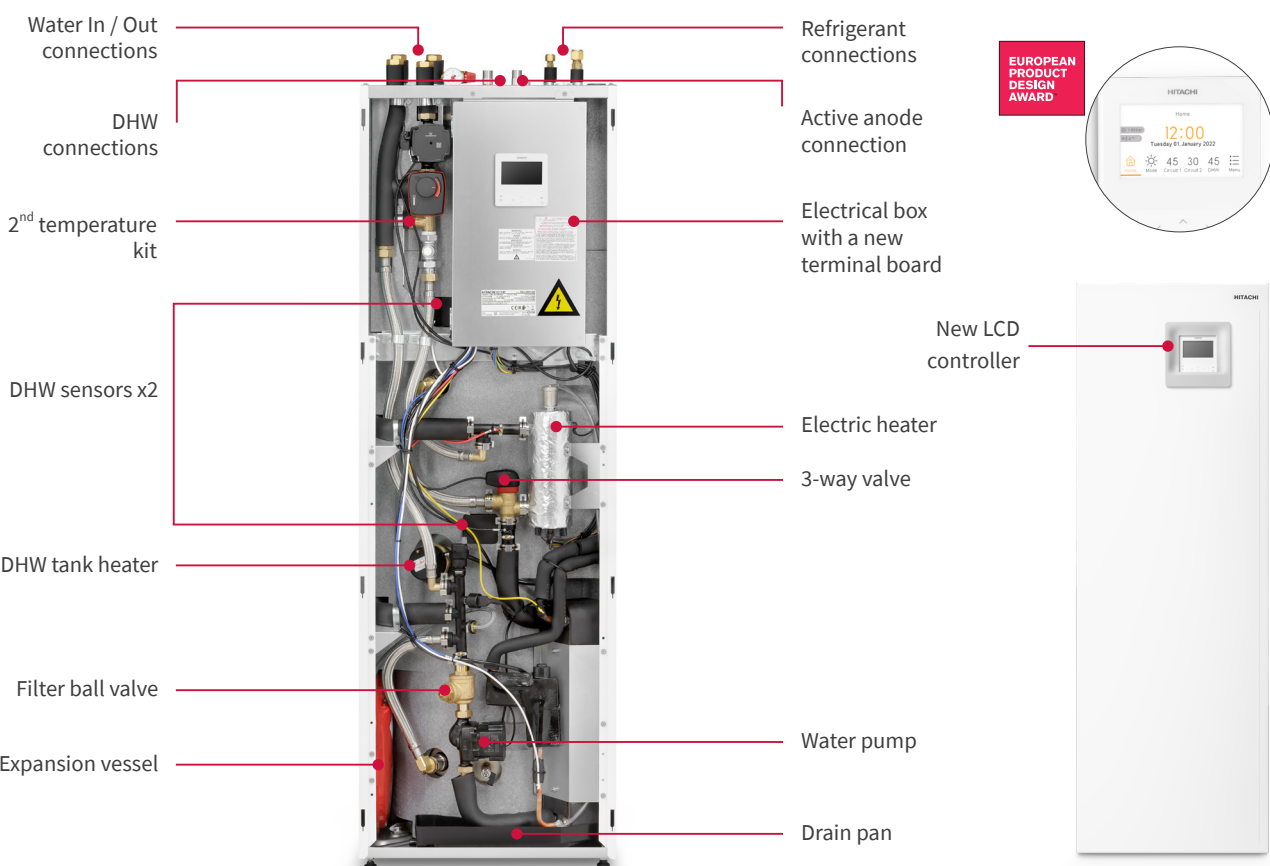
# Features & benefits

New indoor unit design, more functionalities

## YUTAKI S : A WIDE RANGE FROM 4.3 TO 24KW



## YUTAKI SCOMBI : MOST COMPACT ALL-IN-ONE MODEL OF THE MARKET



## BEST PERFORMANCES FOR A HIGH LEVEL OF COMFORT

### Best performances for a high level of comfort

The most efficient range all year long, whatever the function is

- Seasonal efficiency up to A+++
- Best efficiency: COP 5.25 and EER 5.4
- 60°C down to -10°C outside

### Exclusive European-designed unit

Better support installers in their work

- Optimized integration into the house
- Reduced installation footprint
- Easy to get familiar with the LCD controller

### R32 refrigerant models

Switch to low GWP refrigerant is well underway at JCH

- Environmentally friendly
- More efficient
- In line with FGas target

### Plug & Play units

Make installation easy and quick for all installers

- Connections aligned on the top
- Easy access to all components
- Exclusive functionalities on the LCD controller (Wizard, Live view, Commissioning menu)

### Keymark certified

100% of the range HP Keymark certified

- Unique European certification
- Highest level of quality and performances guaranteed

### Connected solution

Take the control of Yutaki from anywhere!

- Remote control
- Remote maintenance



# Controls & connectivity

Newest LCD controller generation

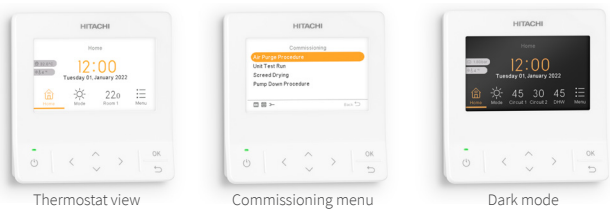


NEW



Outstanding design  
and user experience.

With a sleek, award-winning design, our new advanced color controller offers elegance and ease-of-use. New Yutaki S & SCombi LCD controller can be detached from indoor units and be used as a wired room thermostat.



## INTUITIVE AND VISUAL INTERFACE WITH EXCLUSIVE FUNCTIONALITIES

LCD controller can operate as both unit controller and wired thermostat.

- All controls embedded in the LCD controller of Yutaki: second circuit, boiler combination, swimming pool operation, electric heater, etc.
- Configuration of the unit is done in few clicks through the LCD controller!

① **WIZARD:** An intuitive 10-question configuration assistant to get your installation up and running in just 2 minutes. Simple, fast, and always closest to your needs. Answering a short series of questions, unit is configured and ready to operate.

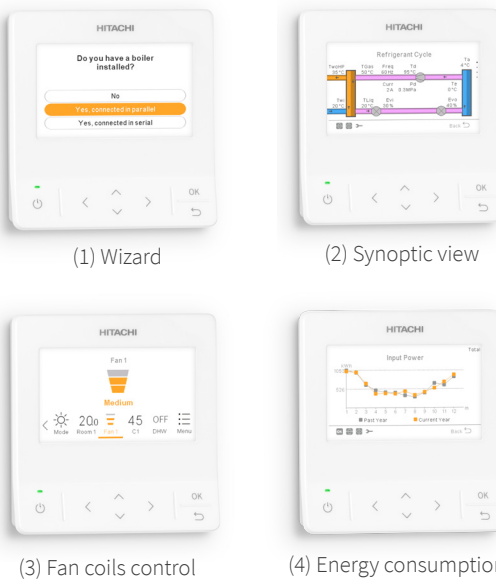
② **SYNOPTIC VIEW:** Sytem status can be checked easily directly on the LCD controller with the synoptic view showing unit's live operation information: 23 operating data registered every 5 min.

③ **FAN COILS CONTROL:** No more dedicated thermostat for fan coils is needed. With Yutaki, LCD controller can directly manage the fan coils speed and mode.

④ **ENERGY CONSUMPTION:** Check and compare directly in Yutaki LCD controller, energy data (input power or capacity) for space heating, cooling, DHW, swimming pool or total of the installation.

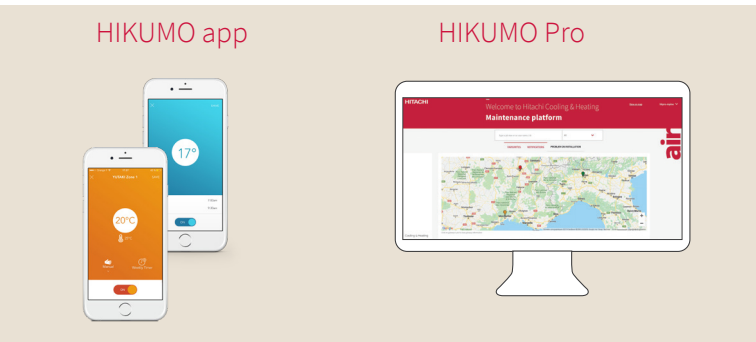


+ **MULTILINGUAL INTERFACE:**  
26 languages available!



## CONTROL YOUR YUTAKI HEAT PUMP REMOTELY

### HIKUMO & HIKUMO Pro applications



Control your Yutaki heat pump remotely with HIKUMO application:

- Set temperature for heating, cooling, domestic hot water and swimming pool
- Activate Holiday mode or Weekly timer in few seconds
- Be notified in case of alarm on your system

Going even further with Hitachi remote maintenance system for Installers HIKUMO Pro:

- Check live operational datas of all connected heat pumps
- Alarm notification by email
- Troubleshooting guide available in few clicks

Communication interfaces for HIKUMO app and HIKUMO Pro



Home Automation gateway

ATW-TAG-02

+



HiBox

AHP-SMB-01

## ROOM THERMOSTATS & CASCADE CONTROLLER

New Yutaki S and Yutaki SCombi are still compatible with our range of thermostat.

Intelligent wireless thermostat

(ATW-RTU-07)

Intelligent wireless thermostat (Circuit 2)

(ATW-RTU-06)

Wired thermostat

(PC-ARFH2E)



Cascade controller

(ATW-YCC-03)

NEW



New cascade controller available for the new generation of Yutaki S and Yutaki SCombi. One central controller to coordinate Yutaki operation installed in cascade:

- Control up to 8 Yutaki in cascade
- Heating, Cooling and DHW
- Exclusive functions: rotary control, alarm control, intelligent defrost

# Accessories & online tools

## ACCESSORIES



Cooling kit Yutaki S  
ATW-CKS-01/02/03



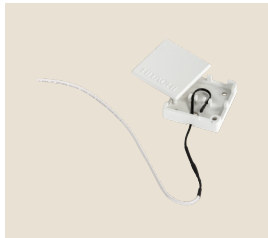
Cooling kit Yutaki SC  
ATW-CKSC-02



Cooling kit Yutaki SC  
(drain pump inc)  
ATW-CKSC-03



2<sup>nd</sup> outdoor temp. sensor  
ATW-2OS-02



Indoor wired sensor  
ATW-ITS-01



Univ. water temp sensor  
ATW-WTS-02Y



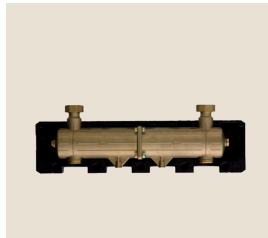
Active anode  
ATW-CP-05



2<sup>nd</sup> temp. kit (wall)  
ATW-2TK-07



2<sup>nd</sup> temp. kit (integrated)  
ATW-2TK-08



Hydraulic separator  
ATW-HSK-01



DHW Tanks  
DHWT-200/300S-3.0H2E



AquaStat  
ATW-AQT-01



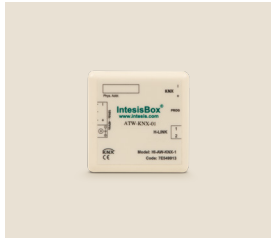
3-way valve  
ATW-3WV-01



Water check valve  
ATW-WCV-01



Diff. pressure valve  
ATW-DPOV-01



KNX gateway  
ATW-KNX-02



Modbus gateway  
ATW-MBS-02  
HCA16MB



Auxiliary output signal box  
ATW-AOS-02

Accessories dedicated to protect outdoor units from severe climate conditions are available:

- Snow protections
- Air flow guide
- Wind protections
- Drain pan heater.

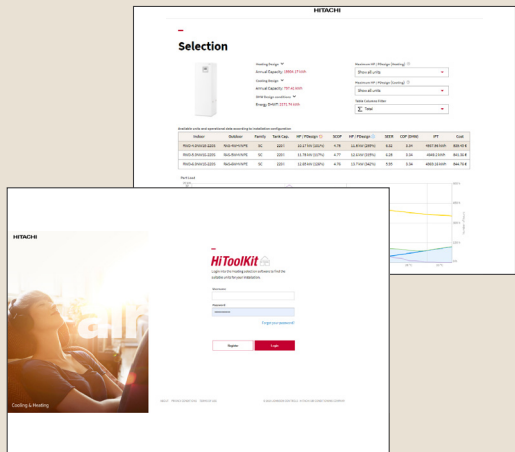
## HITOOLKIT FOR HOME



The best selection software to help installers to make the most relevant proposal to customers.

- Easy to use and modern interface
- Wide range of functionalities:
  - Selection according to heating and cooling needs
  - Accessories' automatic selection
  - Installation cost
  - Complete report etc.
- Cascade configuration with all Yutaki available, with cascade controller option

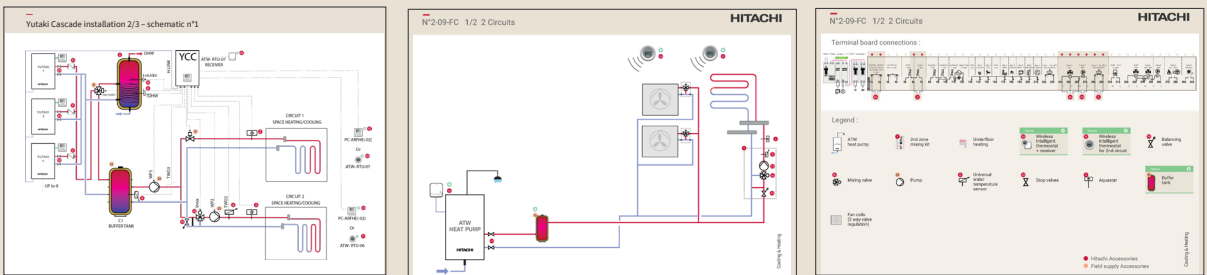
Use this link:  
<https://www.hitachi-hitoolkit.com/yutaki/login>



## YUTAKI APPLICATIONS

Exclusive online schematic library for Yutaki air-to-water heat pumps.

- Answering fewer than 10 questions, a simple hydraulic schematic is generated
- Numerous information on hydraulic installation, electrical connections to Yutaki terminal board and accessories needed for the installation (Hitachi / field supply)
- Single or cascade installations



Use this link:  
[www.yutaki-applications.com](http://www.yutaki-applications.com)

Technical data

Yutaki S

| Model                                                    |    | R32                        |                 |                 |
|----------------------------------------------------------|----|----------------------------|-----------------|-----------------|
|                                                          |    | YUTAKI S<br>4.3kW          | YUTAKI S<br>6kW | YUTAKI S<br>8kW |
| Heating performances (preliminary data)                  |    |                            |                 |                 |
| Min./nom./max. heating capacity (A7/W35)                 | kW | 1.85 / 4.3 / 6.5           | 1.85 / 6 / 8.6  | 2.1 / 8 / 11    |
| Nom./max. heating capacity (A-7/W35)                     | kW | 4.5 / 5.3                  | 5.3 / 6.2       | 5.8 / 7.5       |
| Nom./max. heating capacity (A-7/W45)                     | kW | - / 5                      | - / 5.8         | - / 6.67        |
| Nom./max. heating capacity (A-7/W55)                     | kW | 4 / 4.2                    | 4.7 / 5         | 5 / 5.5         |
| Nom. power input (A7/W35)                                | kW | 0.82                       | 1.25            | 1.74            |
| COP (A7/W35) according to EN14511                        | -  | 5.25                       | 4.8             | 4.6             |
| SCOP average climate 35°C / 55°C according to EN14825    | -  | 4.6 / 3.4                  | 4.5 / 3.25      | 4.5 / 3.2       |
| Seasonal heating energy efficiency ηs (35°C) 1~/3~       | %  | 181                        | 177             | 177             |
| Seasonal heating energy efficiency ηs (55°C) 1~/3~       | %  | 133                        | 127             | 125             |
| Energy class 35°C / 55°C                                 | -  | A+++/A++                   |                 |                 |
| Water outlet temperature range (heating mode)            | °C | 20/60°C                    |                 |                 |
| Max. water temperature outlet in thermodynamic mode only | °C | 60°C down to -5 °C outside |                 |                 |

|                                                                   |    |       |         |         |
|-------------------------------------------------------------------|----|-------|---------|---------|
| Cooling performances (optional) <small>(preliminary data)</small> |    |       |         |         |
| Nom./max. cooling capacity (A35/W7)                               | kW | 4 / 5 | 5.3 / 6 | 6.5 / 7 |
| Nom. power input (A35/W7)                                         | kW | 1     | 1.47    | 1.94    |
| EER                                                               | -  | 4     | 3.6     | 3.35    |

| INDOOR UNITS              |       | RWM-2.0R1E      | RWM-2.5R1E | RWM-3.0R1E |
|---------------------------|-------|-----------------|------------|------------|
| Electric heater / 3 steps | kW    | 3 (1+1+1)       | 3 (1+1+1)  | 3 (1+1+1)  |
| Net weight                | kg    | 35              | 36         | 37         |
| Dimensions (H x L x D)    | mm    | 712 x 450 x 285 |            |            |
| Sound power               | dB(A) | 37              |            |            |

| Hydraulic data                              |        |              |            |              |
|---------------------------------------------|--------|--------------|------------|--------------|
| Expansion vessel                            | L      | 6            |            |              |
| Water flow (min./nom./max.)                 | m³/h   | 0.5/0.77/1.9 | 0.6/1.03/2 | 0.6/1.29/2.1 |
| Shutdown valves (male/male valves supplied) | inches | 1"           |            |              |
| Min. installation water volume              | L      | 28           |            |              |

| Electrical data |                                                             |                                        |              |   |   |
|-----------------|-------------------------------------------------------------|----------------------------------------|--------------|---|---|
| Power supply    | -                                                           | 230V / 1Ph / 50Hz or 400V / 3Ph / 50Hz |              |   |   |
| 1~ 230V         | Max. current with electric heater                           | A                                      | 14.9         |   |   |
|                 | Cable width (mm²) / max. length (m) <sup>(1)</sup>          | -                                      | 3 x 2.5 / 14 |   |   |
|                 | Max. current with electric heater + tank/ Yutaki S Optional | A                                      | 29.3         |   |   |
|                 | Cable width (mm²) / max. length (m) <sup>(1)</sup>          | -                                      | 3 x 6 / 28   |   |   |
| 3~400V          | Max. current with electric heater                           | -                                      | 5.3          |   |   |
|                 | Cable width (mm²) / max. length (m) <sup>(1)</sup>          | -                                      | -            | - | - |
|                 | Max. current with electric heater + tank/ Yutaki S Optional | -                                      | 19.7         |   |   |
|                 | Cable width (mm²) / max. length (m) <sup>(1)</sup>          | -                                      | -            | - | - |
|                 |                                                             |                                        |              |   |   |

| OUTDOOR UNITS                                                  |       | RAS-2WHVRP1                       | RAS-2.5WHVRP1 | RAS-3WHVRP1 |
|----------------------------------------------------------------|-------|-----------------------------------|---------------|-------------|
| Sound pressure level at 1m / Sound power level in Heating mode | dB(A) | 46 / 61                           | 47 / 63       | 54 / 64     |
| Air flow rate                                                  | m³/h  | 2436                              |               | 2682        |
| Dimensions (H x L x D)                                         | mm    | 629 x 799 x 300                   |               |             |
| Net weight                                                     | kg    | 45                                |               | 44          |
| Operating ranges in Cooling / Heating / DHW                    | °C    | +10~+46DB // -20~+25DB // -20~+35 |               |             |

| Refrigerant data                                     |            |                  |                  |                                            |  |
|------------------------------------------------------|------------|------------------|------------------|--------------------------------------------|--|
| Piping diameter (Liquid - Gas)                       | inches     | 1/4" - 1/2"      |                  | 1/4" - 5/8" 3 to 27m* 3/8" 5/8" 27 to 50m* |  |
| Min./max. piping length / Height difference          | m          | 3 - 50 / 20      |                  | 3-40 / 20                                  |  |
| Refrigerant charge / Additional refri. charge needed | kg / g / m | 1.2 for 10m / 15 | 1.3 for 10m / 15 | 1.3 for 10m / 30                           |  |
| Refrigerant                                          | -          | R32              |                  |                                            |  |
| Compressor                                           | -          | SCROLL           |                  | ROTARY                                     |  |

| Electrical data                 |                                                    |                   |              |              |            |
|---------------------------------|----------------------------------------------------|-------------------|--------------|--------------|------------|
| Power supply                    | -                                                  | 230V / 1Ph / 50Hz |              |              |            |
| 1~230V                          | Max. current                                       | A                 | 10.4         | 12.9         | 15.8       |
|                                 | Cable width (mm²) / max. length (m) <sup>(1)</sup> | -                 | 3 x 2.5 / 28 | 3 x 2.5 / 24 | 3 x 4 / 21 |
| 3~400V                          | Max. current                                       | A                 | -            | -            | -          |
|                                 | Cable width (mm²) / max. length (m) <sup>(1)</sup> | -                 | -            | -            | -          |
| Transmitting cables (protected) | mm²                                                | 2 x 0.75          |              |              |            |

| R410A                       |                  |                  |                  |                  |
|-----------------------------|------------------|------------------|------------------|------------------|
| YUTAKI S<br>11kW            | YUTAKI S<br>14kW | YUTAKI S<br>16kW | YUTAKI S<br>20kW | YUTAKI S<br>24kW |
| 4.3 / 11 / 15.2             | 4.8 / 14 / 16.7  | 5.5 / 16 / 17.8  | 9 / 20 / 25.5    | 10 / 24 / 32     |
| 9.7 / 10.6                  | 11.5 / 12        | 12 / 13          | 14.2 / 17.9      | 16.5 / 21        |
| 10 / 10                     | 11 / 11.6        | 11.5 / 12.5      | 15 / 16.6        | 16.5 / 18.5      |
| 8.7 / 9.7                   | 9.7 / 11.2       | 10.5 / 12        | 12.5 / 14.5      | 15.5 / 17.3      |
| 2.2                         | 2.97             | 3.5              | 4.65             | 5.59             |
| 5                           | 4.71             | 4.57             | 4.3              | 4.29             |
| 4.75 / 3.48                 | 4.45 / 3.4       | 3.9 / 3.20       | 3.83 / 3.08      | 3.6 / 2.98       |
| 187 / 186                   | 175 / 174        | 153 / 152        | - / 150          | - / 141          |
| 136 / 135                   | 133 / 133        | 125 / 125        | - / 120          | - / 116          |
| A+++/A++                    |                  | A++/A++          | A++/A+           | A+/A+            |
| 20/60°C                     |                  |                  |                  |                  |
| 60°C down to -10 °C outside |                  |                  |                  |                  |

|                 |            |                 |           |             |
|-----------------|------------|-----------------|-----------|-------------|
| 7.2 / 11.8      | 9.5 / 12.6 | 10.5 / 13.7     | 14 / 16.4 | 17.5 / 20.6 |
| 2.18            | 2.95       | 3.72            | 4.48      | 4.08        |
| 3.54            | 3.54       | 3.31            | 3.12      | 2.81        |
| 6 (2+2+2)       | 6 (2+2+2)  | 6 (2+2+2)       | 9 (3+3+3) | 9 (3+3+3)   |
| 46              | 48         | 48              | 60        | 62          |
| 890 x 520 x 370 |            | 890 x 670 x 370 |           |             |
| 39              |            | 47              |           |             |

|            |            |            |            |
|------------|------------|------------|------------|
| 6          |            | 10         |            |
| 1/1.89/2.9 | 1.1/2.41/3 | 1.2/2.75/3 | 2/3.44/4.5 |
| 1" 1/4     |            | 1" 1/4     |            |
| 38         | 46         | 55         | 76         |
|            |            | 79         |            |

|                                        |                   |
|----------------------------------------|-------------------|
| 230V / 1Ph / 50Hz or 400V / 3Ph / 50Hz | 400V / 3Ph / 50Hz |
| 30.5                                   | -                 |
| 3 x 6 / 28                             | -                 |
| 45.5                                   | -                 |
| 3 x 10 / 30                            | -                 |
| 10.3                                   | 15.3              |
| 5 x 2.5 / 20                           | 5 x 2.5 / 20      |
| 25.4                                   | 30.4              |
| 5 x 6 / 20                             | 5 x 6 / 20        |

| RAS-4WH(V)NPE                     | RAS-5WH(V)NPE | RAS-6WH(V)NPE | RAS-8WHNPE | RAS-10WHNPE |
|-----------------------------------|---------------|---------------|------------|-------------|
| 49 / 64                           | 50 / 65       | 50 / 67       | 59 / 73    | 60 / 74     |
| 4800                              | 5400          | 6000          | 7620       | 8040        |
| 1380 x 950 x 370                  |               |               |            |             |
| 103                               |               |               | 137        | 139         |
| +10~+46dB // -25~+25DB // -25~+35 |               |               |            |             |

|                  |                  |                |                   |
|------------------|------------------|----------------|-------------------|
| 3/8" 5/8"        |                  | 3/8" 1"        | 1/2" 1"           |
| 5 - 75 / 20      |                  | 5 - 70 / 20    |                   |
| 3.3 for 15m / 60 | 3.4 for 15m / 60 | 5 for 15m / 65 | 5.3 for 15m / 120 |
| R410A SCROLL     |                  |                |                   |

|                                        |                   |
|----------------------------------------|-------------------|
| 230V / 1Ph / 50Hz or 400V / 3Ph / 50Hz | 400V / 3Ph / 50Hz |
| 30.5                                   | -                 |
| 3 x 6 / 30                             | -                 |
| 14                                     | 16                |
| 5 x 2.5 / 16                           | 5 x 2.5 / 16      |
| 2 x 0.75                               |                   |
| 5 x 6 / 26                             |                   |

Yutaki SCombi

| Model                                                    | R32                    |                            |                      | R410A                 |                             |                       |
|----------------------------------------------------------|------------------------|----------------------------|----------------------|-----------------------|-----------------------------|-----------------------|
|                                                          | YUTAKI SCOMBI<br>4.3kW | YUTAKI SCOMBI<br>6kW       | YUTAKI SCombi<br>8kW | YUTAKI SCOMBI<br>11kW | YUTAKI SCOMBI<br>14kW       | YUTAKI SCOMBI<br>16kW |
| Heating performances <small>(preliminary data)</small>   |                        |                            |                      |                       |                             |                       |
| Min./nom./max. heating capacity (A7/W35)                 | kW                     | 1.85 / 4.3 / 6.5           | 1.85 / 6 / 8.6       | 2.1 / 8 / 11          | 4.3 / 11 / 15.2             | 4.8 / 14 / 16.7       |
| Nom./max. heating capacity (A-7/W35)                     | kW                     | 4.5 / 5.3                  | 5.3 / 6.2            | 5.8 / 7.5             | 9.7 / 10.6                  | 11.5 / 12             |
| Nom./max. heating capacity (A-7/W45)                     | kW                     | - / 5                      | - / 5.8              | - / 6.67              | 10 / 10                     | 11 / 11.6             |
| Nom./max. heating capacity (A-7/W55)                     | kW                     | 4 / 4.2                    | 4.7 / 5              | 5 / 5.5               | 8.7 / 9.7                   | 9.7 / 11.2            |
| Nom. power input (A7/W35)                                | kW                     | 0.82                       | 1.25                 | 1.74                  | 2.2                         | 2.97                  |
| COP (A7/W35) according to EN14511                        | -                      | 5.25                       | 4.8                  | 4.6                   | 5                           | 4.71                  |
| SCOP average climate 35°C / 55°C according to EN14825    | -                      | 4.6 / 3.4                  | 4.5 / 3.25           | 4.5 / 3.2             | 4.8 / 3.5                   | 4.48 / 3.43           |
| Seasonal heating energy efficiency ηs (35°C) 1~/3~       | %                      | 181                        | 177                  | 177                   | 187 / 186                   | 175 / 174             |
| Seasonal heating energy efficiency ηs (55°C) 1~/3~       | %                      | 133                        | 127                  | 125                   | 136 / 135                   | 133 / 133             |
| Energy class 35°C / 55°C                                 | -                      | A+++ / A++                 |                      |                       | A+++ / A++                  |                       |
| Water outlet temperature range (heating mode)            | °C                     | 20 / 60°C                  |                      |                       | 20 / 60°C                   |                       |
| Max. water temperature outlet in thermodynamic mode only | °C                     | 60°C down to -5 °C outside |                      |                       | 60°C down to -10 °C outside |                       |

|                                                       |       |           |  |           |  |
|-------------------------------------------------------|-------|-----------|--|-----------|--|
| DHW performances <small>(preliminary data)</small>    |       |           |  |           |  |
| DHW COP (220L) according to EN16147                   | -     | 3.2       |  | 3.1       |  |
| Seasonal energy efficiency η <sub>wh</sub> (L cycle ) | %     | 130       |  | 127       |  |
| Energy class                                          | -     | A+        |  | A+        |  |
| Heat up time                                          | h:min | 1:55      |  | 1:05      |  |
| Stand-by power input (Pes)                            | W     | 30        |  | 34        |  |
| Max. volume of usable hot water (Vmax)                | L     | 288       |  | 288       |  |
| Temperature range of water outlet (DHW mode)          | °C    | 30 / 55°C |  | 30 / 55°C |  |

|                                                                   |    |       |         |         |            |            |             |
|-------------------------------------------------------------------|----|-------|---------|---------|------------|------------|-------------|
| Cooling performances (optional) <small>(preliminary data)</small> |    |       |         |         |            |            |             |
| Nom./max. cooling capacity (A35/W7)                               | kW | 4 / 5 | 5.3 / 6 | 6.5 / 7 | 7.2 / 11.8 | 9.5 / 12.6 | 10.5 / 13.7 |
| Nom. power input (A35/W7)                                         | kW | 1     | 1.47    | 1.94    | 2.18       | 2.95       | 3.72        |
| EER                                                               | -  | 4     | 3.6     | 3.35    | 3.54       | 3.54       | 3.31        |

| INDOOR UNITS               |       | RWD-2.0RW1E-220S | RWD-2.5RW1E-220S | RWD-3.0RW1E-220S | RWD-4.0NW1E-220S | RWD-5.0NW1E-220S | RWD-6.0NW1E-220S |
|----------------------------|-------|------------------|------------------|------------------|------------------|------------------|------------------|
| Electric heater / 3 steps  | kW    | 3 (1+1+1)        | 3 (1+1+1)        | 3 (1+1+1)        | 6 (2+2+2)        | 6 (2+2+2)        | 6 (2+2+2)        |
| Tank's heater              | kW    | 2.7              | 2.7              | 2.7              | 2.7              | 2.7              | 2.7              |
| Net weight                 | kg    | 120              | 120              | 121              | 124              | 126              | 126              |
| Dimensions (H x L x D)     | mm    | 1788 x 595 x 598 |                  |                  | 1788 x 595 x 598 |                  |                  |
| Sound power                | dB(A) | 37               |                  |                  | 39               |                  |                  |
| DHW tank volume / material | L     | 220 / Duplex     |                  |                  | 220 / Duplex     |                  |                  |

| Hydraulic data                              |        |                  |                |                  |                |                  |                  |
|---------------------------------------------|--------|------------------|----------------|------------------|----------------|------------------|------------------|
| Expansion vessel                            | L      | 6                |                |                  | 6              |                  |                  |
| Water flow (min./nom./max.)                 | m³/h   | 0.5 / 0.77 / 1.9 | 0.6 / 1.03 / 2 | 0.6 / 1.29 / 2.1 | 1 / 1.89 / 2.7 | 1.1 / 2.41 / 2.8 | 1.2 / 2.75 / 2.8 |
| Shutdown valves (male/male valves supplied) | inches | 1"               |                |                  | 1" 1/4         |                  |                  |
| Connections for DHW                         | inches | 3/4"             |                |                  | 3/4"           |                  |                  |
| Min. installation water volume              | L      | 28               |                |                  | 38             | 46               | 55               |

| Electrical data |                                                    |                                        |            |   |   |
|-----------------|----------------------------------------------------|----------------------------------------|------------|---|---|
| Power supply    | -                                                  | 230V / 1Ph / 50Hz or 400V / 3Ph / 50Hz |            |   |   |
| 1~ 230V         | Max. current with electric heater + tank heater    | A                                      | 27.1       |   |   |
|                 | Cable width (mm²) / max. length (m) <sup>(1)</sup> | -                                      | 3 x 6 / 28 |   |   |
|                 | Max. current with electric heater + tank heater    | -                                      | -          | - | - |
| 1~ 400V         | Cable width (mm²) / max. length (m) <sup>(1)</sup> | -                                      | -          | - | - |
|                 |                                                    |                                        |            |   |   |

| OUTDOOR UNITS                                                  |       | RAS-2WHVRP1                   | RAS-2.5WHVRP1 | RAS-3WHVRP1 | RAS-4WH(V)NPE                 | RAS-5WH(V)NPE | RAS-6WH(V)NPE |
|----------------------------------------------------------------|-------|-------------------------------|---------------|-------------|-------------------------------|---------------|---------------|
| Sound pressure level at 1m / sound power level in Heating mode | dB(A) | 46 / 61                       | 47 / 63       | 54 / 67     | 49 / 64                       | 50 / 65       | 50 / 67       |
| Air flow rate                                                  | m³/h  | 2436                          |               | 2682        | 4800                          | 5400          | 6000          |
| Dimensions (H x L x D)                                         | mm    | 629 x 799 x 300               |               |             | 1380 x 950 x 370              |               |               |
| Net weight                                                     | kg    | 45                            |               | 44          | 103                           |               |               |
| Operating ranges in Cooling / Heating / DHW                    | °C    | +10~+46 // -20~+25 // -20~+35 |               |             | +10~+46 // -25~+25 // -25~+35 |               |               |

| Refrigerant data                                     |            |                  |                  |                                                      |                  |
|------------------------------------------------------|------------|------------------|------------------|------------------------------------------------------|------------------|
| Piping diameter (Liquid - Gas)                       | inches     | 1/4" - 1/2"      |                  | 1/4" - 5/8" 3 to 27m* 3/8" 5/8" 27 to 50m* 3-40 / 20 |                  |
| Min./max. piping length / Height difference          | m          | 3 - 50 / 20      |                  | 5 - 75 / 20                                          |                  |
| Refrigerant charge / Additional refri. charge needed | kg / g / m | 1.2 for 10m / 15 | 1.3 for 10m / 15 | 1.3 for 10m / 30                                     | 3.3 for 15m / 60 |
| Refrigerant                                          | -          | R32              |                  |                                                      | 4                |
| Compressor                                           | -          | SCROLL           |                  | ROTARY                                               |                  |

| Electrical data                 |                                                    |                   |              |              |                                        |            |
|---------------------------------|----------------------------------------------------|-------------------|--------------|--------------|----------------------------------------|------------|
| Power supply                    |                                                    | 230V / 1Ph / 50Hz |              |              | 230V / 1Ph / 50Hz or 400V / 3Ph / 50Hz |            |
| 1~ 230V                         | Max. current                                       | A                 | 10.4         | 12.9         | 15.8                                   | 30.5       |
|                                 | Cable width (mm²) / max. length (m) <sup>(1)</sup> | -                 | 3 x 2.5 / 28 | 3 x 2.5 / 24 | 3 x 4 / 21                             | 3 x 6 / 30 |
| 3~ 400V                         | Max. current                                       | A                 | -            | -            | -                                      | 14         |
|                                 | Cable width (mm²) / max. length (m) <sup>(1)</sup> | -                 | -            | -            | -                                      | 16         |
| Transmitting cables (protected) |                                                    | mm²               | 2 x 0.75     |              | 5 x 2.5 / 16                           |            |
|                                 |                                                    |                   |              |              | 2 x 0.75                               |            |
|                                 |                                                    |                   |              |              | 5 x 2.5 / 16                           |            |

1



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