

HITACHI

# Residential heating and DHW

HITACHI

2020



Cooling & Heating

## Johnson Controls Hitachi Air Conditioning Conditioning Europe SAS

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### Residential heating and DHW

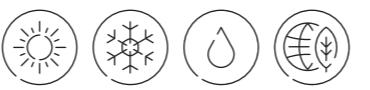
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The Yutaki range of monobloc and split heat pumps now integrate R32 refrigerant for improved performance on small capacities designed for the new build market. The ranges designed for renovation maintain R410A refrigerant.



# Air to water heat pump





# Quick selection table



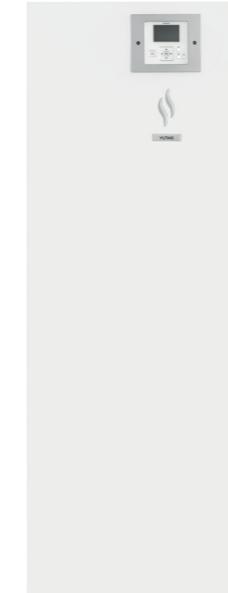
Yutaki S 80 Combi



Yutaki M



Yutaki S Combi Lite



	Yutaki S	Yutaki S Combi	Yutaki S Combi Solar	Yutaki S80	Yutaki S80 Combi	Yutaki M	Yutaki S Combi Lite
Air to water heat pumps							
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Range	RWM- 2~3.0NRE RWM- 4~10.0NE	RWD- 2~3.0NRWE RWD- 4~6.0NWE	RWD- 2~3.0RWSE-260S RWD- 4~6.0NWSE-260S	RWH- 4~6.0(V)NFE	RWH- 4~6.0(V)NFE	RASM- 2~3.0VRE RASM- 4~6.0(V)NE	RWD- 2~2.5.0NWLE- 200S
Applications	Low-temperature radiators, underfloor heating cooling, fan coil, DHW and pool heating. Ideal for new builds and replacing wall-mounted boilers.	Low-temperature radiators, underfloor heating cooling, fan coil, integrated DHW and pool heating. Ideal for installations with little indoor space thanks to the integrated DHW tank.	Low-temperature radiators, underfloor heating cooling, fan coil, solar powered DHW and pool heating. Ideal for installations with little indoor space thanks to the integrated DHW tank and its integrated solar powered heating coil.	Low and/or high-temperature radiators, underfloor heating, fan coil (heating only) and pool heating. Ideal for installations requiring high temperatures, e.g. replacing fuel oil boilers.	Low and/or high-temperature radiators, underfloor heating, fan coil (heating only) and pool heating. Ideal for installations requiring high temperatures, e.g. replacing fuel oil boilers. Ideal for installations with little indoor space thanks to the integrated DHW tank.	Low-temperature radiators, underfloor heating cooling, fan coil, DHW and pool heating. Compact unit, ideal for installations with little indoor space.	Low-temperature radiators, underfloor heating cooling, fan coil, integrated DHW and pool heating. Ideal for installations with little indoor space thanks to the integrated DHW tank.
Heating capacity (kW)	4.3 - 24	4.3 - 16	4.3 - 16	4.3 - 17.8	4.3 - 17.8	4.3 - 16	4 - 6
COP 7 °C ext/30 - 35 °C water	<b>5.25</b>	<b>5.25</b>	<b>5.25</b>	<b>5</b>	<b>5</b>	<b>5.25</b>	<b>4.7</b>
Cooling capacity (kW)	4 - 17.5	4-10.5	4 - 10.5	-	-	4 - 10.5	5.5 - 6.6
EER 35 °C ext/7 - 12 °C water	4	3.54	4	-	-	4	3.15
Water output temperature °C	60	60	60	80	80	60	55
Heating operating range °C	-25/+25	-25/+25	-25/+25	-25/+25	-25/+25	-25/+25	-15/+25
Cooling operating range °C	+10/+46	+10/+46	+10/+45	-	-	+10/+46	+10/+43
Temperature range for DHW output °C	-	-	+30/+60	+30/+75	-	+30/+60	+30/+55
Compressor	Scroll DC Inverter	DC Inverter Rotary 2 cylinders	Scroll DC Inverter	Scroll DC Inverter	Scroll DC Inverter	Scroll DC Inverter	DC Inverter Rotary 2 cylinders
Energy class water at 35°C	A+++	A+++	A+++	A+++	A+++	A+++	A+++

## Yutaki 2/2.5/3HP R32 : Diameters of refrigerant pipes

Outdoor unit	Refrigerant pipes	Indoor unit					
Dimensions of pipes connection	Between the outdoor and indoor unit	Dimensions of pipes connection					
Model	Length of pipes	Gas pipe	Fluid pipe	Gas pipe	Fluid pipe	Gas pipe	Fluid pipe
2 HP	3-50 m	Ø12.7 (1/2")	Ø6.35 (1/4")	Ø12.7 (1/2")	Ø6.35 (1/4")	Ø15.88 (5/8") (*)	Ø6.35 (1/4")
2.5 HP	3-50 m						Ø9.52 (3/8") (*)
3 HP	3-27 m	Ø15.88 (5/8") (*)	Ø9.52 (3/8") (*)	Ø15.88 (5/8")	Ø6.35 (1/4")	Ø15.88 (5/8")	Ø9.52 (3/8") (*)
	27-50 m	Ø15.88 (5/8")	Ø9.52 (3/8")	Ø15.88 (5/8")	Ø9.52 (3/8")	Ø15.88 (5/8")	Ø9.52 (3/8") (*)

\*For models 2/2, 5/3 HP, indoor units and outdoor units have different diameters of refrigerant gas pipes and refrigerant fluid pipes. Adapters are therefore required for refrigerant pipes. These pipe adapters are supplied with the outdoor unit.

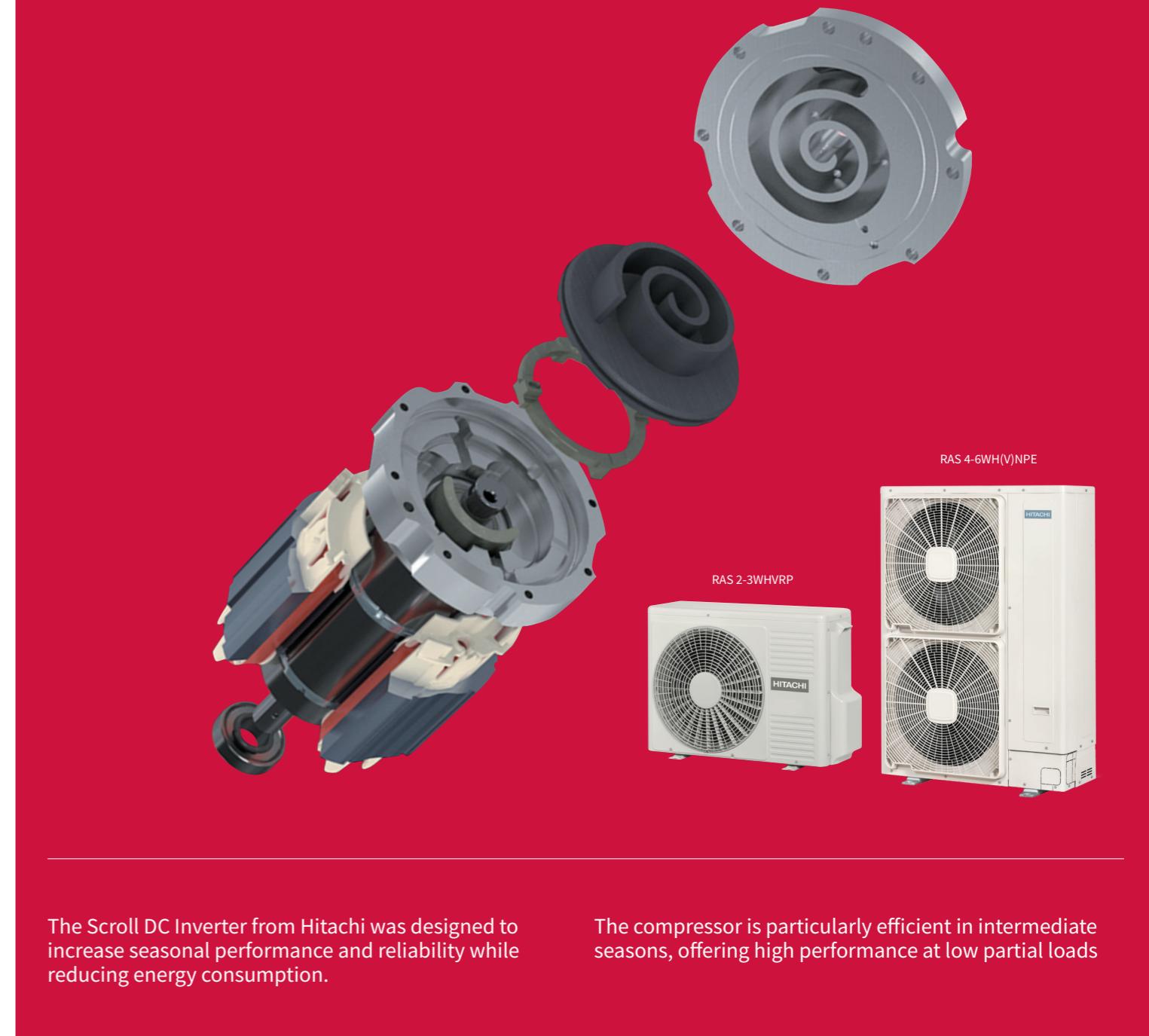
Pipe adapter		
Model	Gas pipe	Fluid pipe
2 HP	Ø15.88 → Ø12.7	-
2.5 HP	Ø15.88 → Ø12.7	Ø9.52 → Ø6.35
3 HP	-	Ø9.52 → Ø6.35 (x2)

# Air to water heat pumps range

Fluid	R32			R410A						
Capacity (kW)	4.3	6.0	8.0	4.3	6.0	11.0	14.0	16.0	20.0	24.0
<b>Yutaki S</b> Heating cooling	RWM-2.0NRE (Single)	RWM-2.5NRE (Single)	RWM-3.0NRE (Single)			RWM-4.0NE (Single/Three)	RWM-5.0NE (Single/Three)	RWM-6.0NE (Single/Three)	RWM-8.0NE (Three)	RWM-10.0NE (Three)
P. 46										
<b>Yutaki S Combi 200L/260L</b> Heating cooling DHW	RWD-2.0NRWE-(200/260)S (Single)	RWD-2.5NRWE-(200/260)S (Single)	RWD-3.0NRWE-(200/260)S (Single)			RWD-4.0NWE-(200/260)S (Single/Three)	RWD-5.0NWE-(200/260)S (Single/Three)	RWD-6.0NWE-(200/260)S (Single/Three)		
P. 52										
<b>Yutaki S Combi Solar 260L</b> Heating cooling Solar powered DHW	RWD-2.0NRWSE-260S (Single)	RWD-2.5NRWSE-260S (Single)	RWD-3.0NRWSE-260S (Single)			RWD-4.0NWSE-260S (Single/Three)	RWD-5.0NWSE-260S (Single/Three)	RWD-6.0NWSE-260S (Single/Three)		
P. 54										
<b>Yutaki S 80</b> Heating						RWH-4.0(V)NFE (Single/Three)	RWH-5.0(V)NFE (Single/Three)	RWH-6.0(V)NFE (Single/Three)		
P. 60										
<b>Yutaki S 80 Combi 200 L/260 L</b> Heating DHW						RWH-4.0(V)NFWE + DHWS (200/260) S-2.7H2E (Single/Three)	RWH-5.0(V)NFWE + DHWS (200/260) S-2.7H2E (Single/Three)	RWH-6.0(V)NFWE + DHWS (200/260) S-2.7H2E (Single/Three)		
P. 62										
<b>Yutaki outdoor units</b> Applicable to all models except Combi Lite	RAS-2WH-VRP (Single) Size 2.0 - 3.0 	RAS-2.5WH-VRP (Single)	RAS-3WH-VRP (Single)			RAS-4WH(V)NPE (Single/Three)	RAS-5WH(V)NPE (Single/Three)	RAS-6WH(V)NPE (Single/Three)	RAS-8WHNPE (Three)	RAS-10WHNPE (Three)
<b>Yutaki S Combi Lite 200L</b> Heating cooling DHW				RWD-2.0NWLE-200S (Single)	RWD-2.5NWLE-200S (Single)					
P. 68										
<b>Outdoor units Yutaki S Combi Lite</b> Unit compatible exclusively with Yutaki S Combi Lite				RAS-2.0WHVN (Single)	RAS-2.5WHVN (Single)					
<b>Yutaki M</b> Heating cooling DHW	RASM-2VRE (Single) Size 2.0 - 3.0 	RASM-3VRE (Single)			RASM-4(V)NE (Single/Three)	RASM-5(V)NE (Single/Three)	RASM-6(V)NE (Single/Three)			
P. 72										

(V) = single

## Maximum reliability



# The high performance Yutaki range

"Your needs change,  
Yutaki adapts"

The day-to-day needs of your customers change: heating, cooling in summer, domestic hot water all year round... but many will also want to connect their installations to solar panels and heat their pool. It's therefore important to have a tailor-made system to meet all these needs. The Yutaki range is therefore compatible with all types of water heat emitters: radiators, underfloor heating/cooling and fan coils. You can also have different heating zones, with radiators upstairs and underfloor heating downstairs.



The Yutaki range of monobloc and split heat pumps now integrate R32 refrigerant for improved performance on small capacities designed for the new build market. The ranges designed for renovation maintain R410A refrigerant.



High performance reflected by its energy class

The Yutaki range offers reduced energy consumption, higher cost savings and less environmental impact thanks to its A+++ energy class as standard on all its equipment.

The widest range of capacities on the market

Maximum reliability

The Scroll DC Inverter from Hitachi was designed to increase seasonal performance and reliability while reducing energy consumption. The compressor is particularly efficient in intermediate seasons, offering high performance at low partial loads



## Yutaki S and S Combi

Discover all the benefits of Yutaki S and S COMBI which combine performance, savings, design and ease-of-use.

①

### Low consumption pump

The low consumption pump adapts its flow to the heating requirements within the residence, offering up to 60% savings compared to a standard pump.

②

### A solution adapted to your needs

Even if additional capacity is required, three-stage electrical heating elements ensure that comfort is maintained for heating and domestic hot water.

③

### Reversible for all year round comfort

You will appreciate the dual function keeping you warm in the winter and cool in the summer (underfloor heating or fan coils only).

### ④ Integrated Domestic Hot Water

(Yutaki S COMBI model)

The stainless steel tank (200L or 260L) can provide domestic hot water for a family of up to 6 people. The tank features dual protection for outstanding durability: passivation film + magnesium anode treatment.

### ⑤ Healthy water

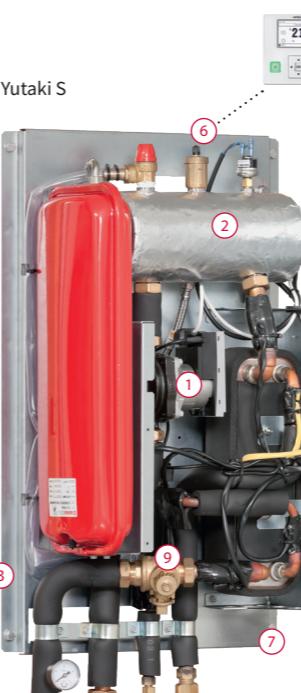
With its anti-legionella function, the domestic hot water tank (200L or 260L) prevents the buildup of bacteria, even when not in use for long periods.

## A concentrate of technology



### Wizard

A 10-question user-friendly configuration assistant: your installation is configured in only 2 minutes. Simple, quick and always closer to requirements.



⑥

### Simplified control by Hitachi

Hitachi believe in simplicity! You will appreciate the:

- user-friendly interface.
- weekly programming.
- setting your ambient and domestic hot water temperatures.
- second heating zone control option.
- pool heating control.
- lower electrical consumption in standby mode.
- control over the relief of your boiler.
- control interface with ambient remote option (wired).

⑦

### Energy savings with Inverter technology

The compressor developed and made by Hitachi integrates Inverter technology. This enables the heat pump to modulate its operating capacity precisely to the heating needs in the residence. The Inverter technology reduces consumption by 30% compared to a standard compressor, cutting your electricity bill.

⑧

### High quality DHW tank insulation

NEOPOR technology offers insulating properties which clearly exceed other insulation methods. Ecological and efficient, Neopor requires less thickness (5mm) for improved performance and minimum energy losses.

### ⑨ Easy cleaning

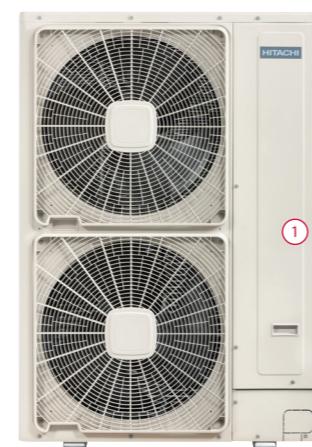
The filter valve allows quick cleaning without draining the installation.

## Yutaki S 80 and S80 Combi

Ideal for renovation

An exclusive twin stage compression system

① A first compression stage, in the outdoor unit as standard throughout the whole Yutaki R410A range (except Combi Lite).



5.00  
HIGH COP  
i.e. 1kW consumed  
=5.00kW of heating

80°C

Yutaki S80  
11.5kW - 16kW  
② A second compression stage for very low temperatures, in the hydraulic module.



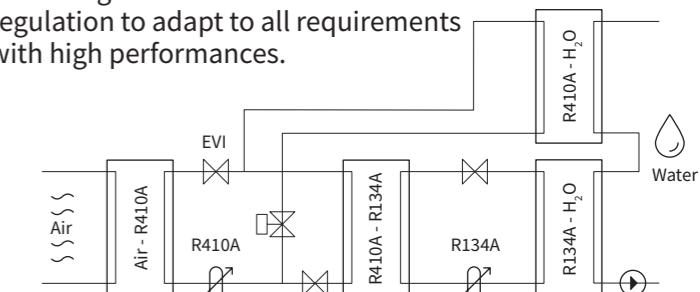
### Comfort assured even at very low temperatures

Your heat pump heats up single-storey as well as multi-storey residences. Down to outside temperatures of -15°C, it ensures constant heating capacity while supplying water at 80°C to your radiators, without the need for the back up heating element.

### Smart Cascade regulation

The Yutaki S80 range features a Smart Cascade cycle. This concept, exclusive to Hitachi, intelligently optimizes the heat pump performances. Based on a range of parameters, the regulation decides whether one or two compressors should operate. This provides considerable energy savings and high annual performances.

4 exchangers and Smart Cascade regulation to adapt to all requirements with high performances.



\* 7°C ext/35°C water.

# List of accessories and compatibilities

	Description	Yutaki S	Yutaki S Combi	Yutaki S Combi Solar	Yutaki S80	Yutaki S80 Combi	Yutaki M	Yutaki S Combi Lite	YUTAMPO R32	Price € pre-tax
PC-ARFH1E	Wired controller	●	●	●	●	●	●			
PC-ARFLE	Wired controller with 15m extension							●		
ATW-FCP-01	Cover	●	●	●	●	●		●		
ATW-HCD-01	HLINK adapter for wireless thermostats and Modbus/KNX type centralized devices							●	●	
ATW-ITS-01	Wired ambient sensor	●	●	●	●	●	●	●		
ATW-RTU-04	On/off thermostat	●	●	●	●	●	●	●	●	
ATW-RTU-07	Ambient compensation wireless thermostat - 1st circuit	●	●	●	●	●	●	●	●	
ATW-RTU-06	Ambient compensation wireless thermostat - 2nd circuit	●	●	●	●	●	●	●	●	
ATW-AOS-02	4-port auxiliary output box	●	●	●	●	●	●	●		
AHP-SMB-01	Hi Box: domestic box Hi Kumo and Hi Kumo PRO	●	●	●	●	●	●	●	●	●
1811527	SOMFY home automation box	●	●	●	●	●	●	●	●	
ATW-TAG-02	Hi Kumo/Hi Kumo PRO/Somfy communication gateway	●	●	●	●	●	●	●	●	
ATW-KNX-02	KNX communication interface	●	●	●	●	●	●	●	●	
ATW-MBS-02	Modbus communication interface	●	●	●	●	●	●	●	●	
AEM-EM-2105	Single-phase use metering/Schneider (not commercialized by Hitachi)	●	●	●	●	●	●	●		
A9MEM3210	Single-phase use metering/Schneider (not commercialized by Hitachi)	●	●	●	●	●	●			
ATW-CKS-01	Yutaki S mini 2/2,5/3 HP* reversible kit	*								
ATW-CKS-02	Yutaki S medium 4/5/6 HP* reversible kit	*								
ATW-CKS-03	Yutaki S power 8/10 HP* reversible kit	*								
ATW-CKM-01	Yutaki M reversible kit						*			
ATW-CKSC-01	Yutaki S Combi 2 - 6 HP reversible kit		●	●						

# Tools for your projects

## Hi-Toolkit for Home

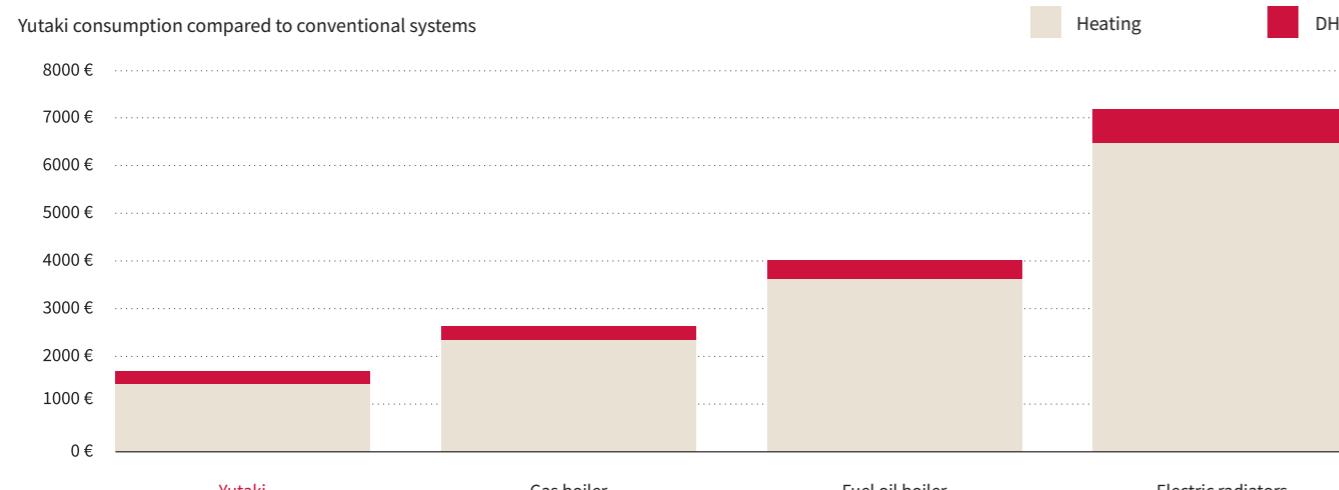
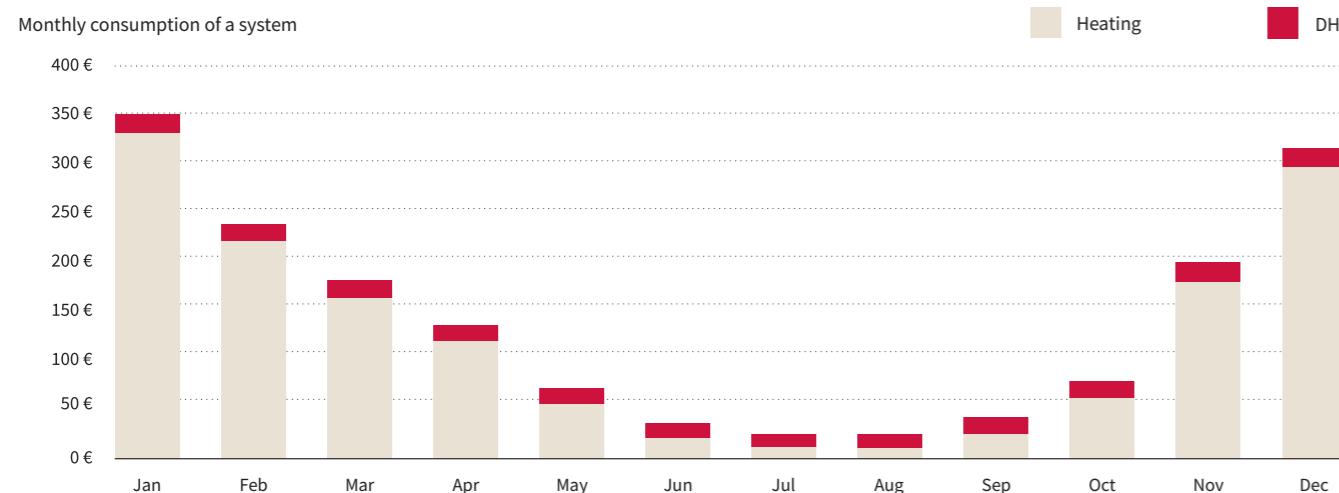
Evaluates the potential energy savings when installing Yutaki equipment.

Hi-Toolkit for Home, the air source heat pump selection and simulation software.

This software can be used to quickly and easily select all equipment in Hitachi's Yutaki Air source heat pump range by generating a detailed report with information on the selected device.

It has a complete database of the main cities and their temperatures so that you can make an annual energy simulation for the 8760 hours of the year. Once the simulation is complete, the software also compares the energy consumption and CO<sub>2</sub> emissions with other conventional heating equipment so that you can evaluate the potential energy savings when installing Yutaki air source heat pump equipment.

The website can be found at:  
[www.hitachi-hitoolkit.com/heating](http://www.hitachi-hitoolkit.com/heating)



## Your hydraulic configuration is only a few clicks away

Yutaki Applications, the free online tool for making simplified hydraulic configurations of the entire Yutaki range.

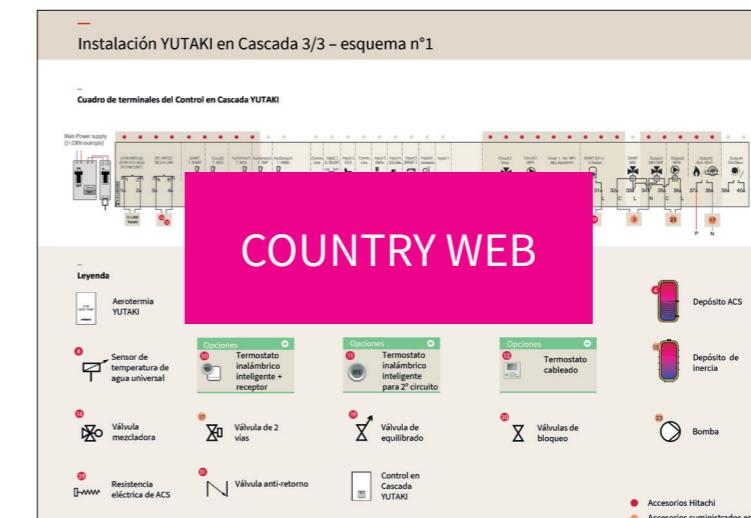
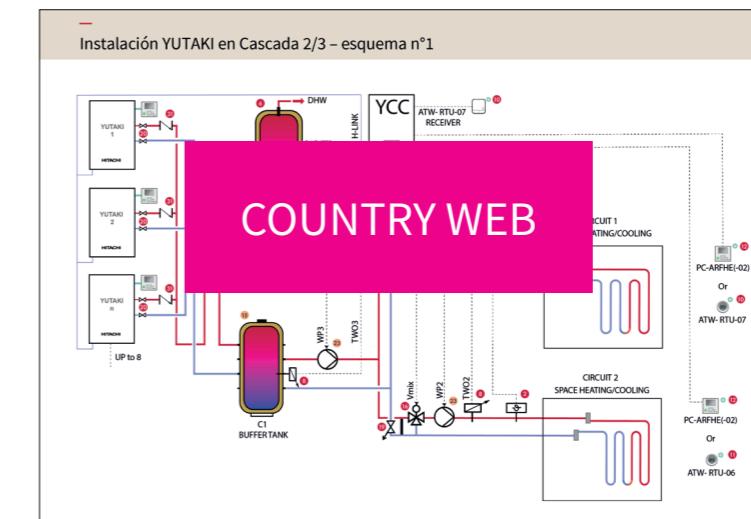
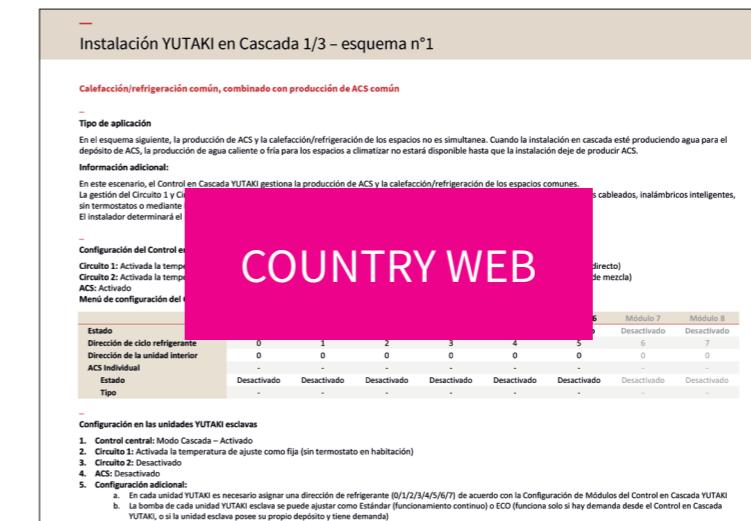
You can configure the main elements in the installation in just a few simple steps with basic questions.

It also simplifies installation work by indicating the location of all the sensors, pump and every other element of the installation on the electric switchboard terminal.

The website can be found at:  
[www.yutaki-applications.com/](http://www.yutaki-applications.com/)

## Hydraulic configurations

Get in touch with your usual Hitachi contact for more detailed hydraulic configurations or any special configurations your installation requires.





# Hi Kumo PRO

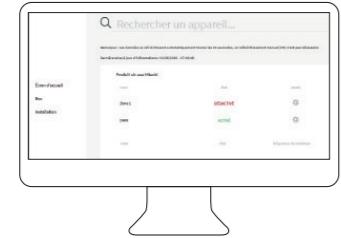
The remote maintenance solution for the entire residential and small commercial range.

## Why choose Hi Kumo PRO?

Based on the Hi Kumo solution, Hi Kumo PRO goes even further. It enables your installer or maintenance company to offer your client a service with high added value: remote maintenance. Access to operating data is just a few clicks away on an online platform in the event of a breakdown or malfunction. No more lost time and repeated call outs. The problem can be identified remotely, very quickly and perhaps even before your client is affected. This means productivity gains for you and satisfied customers!

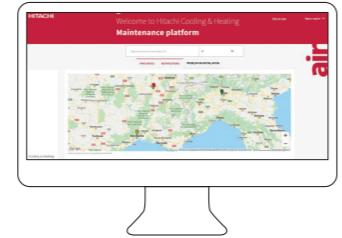
## Functions

Quick troubleshooting to optimize interventions thanks to an easy user-friendly interface.



### Real-time access to machine operating data\*

- Operating status/mode
- Current temperature setting
- Gas/backflow/evaporation temperatures
- Compressor current/frequency
- Water flow and temperatures
- Pump speed
- V3V position



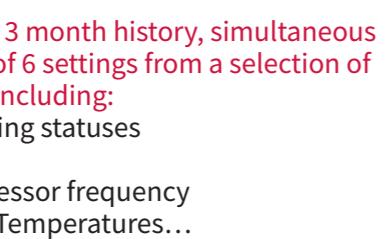
### Access to the entire installation base:

- Card or listing display
- Favorite installations option



### Alarm information and troubleshooting assistance:

- Automatic email notification
- Online access to its description and troubleshooting assistance
- Download the troubleshooting guide and send it live to the technician on site

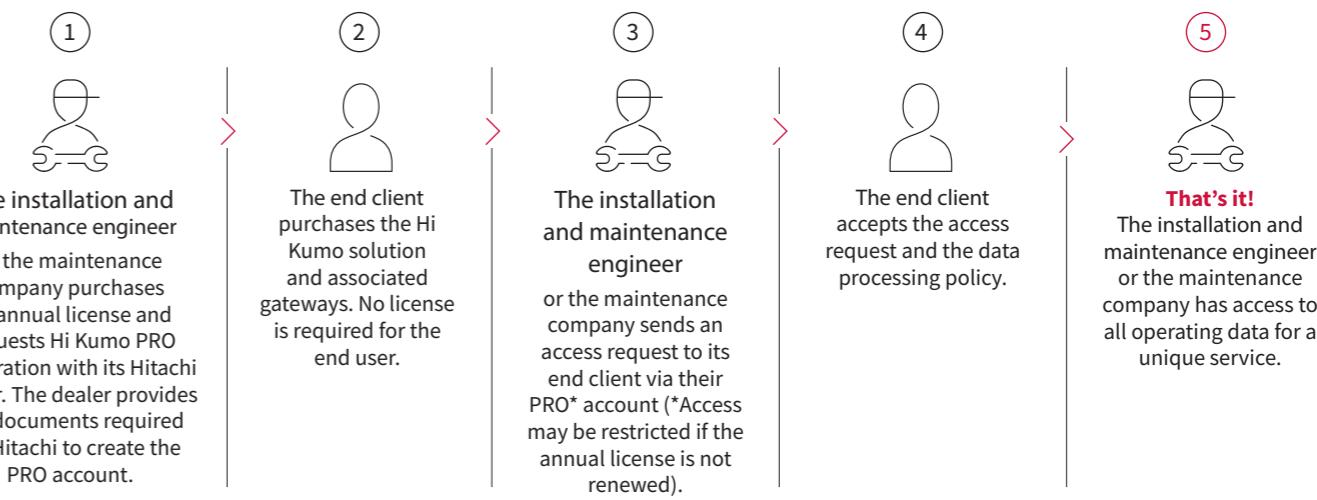


- Access a 3 month history, simultaneous display of 6 settings from a selection of over 80 including:**
- Operating statuses
  - Alarms
  - Compressor frequency
  - Flows/Temperatures...



### Gateway status, restart and update.

## How do I benefit from the Hi Kumo PRO service?



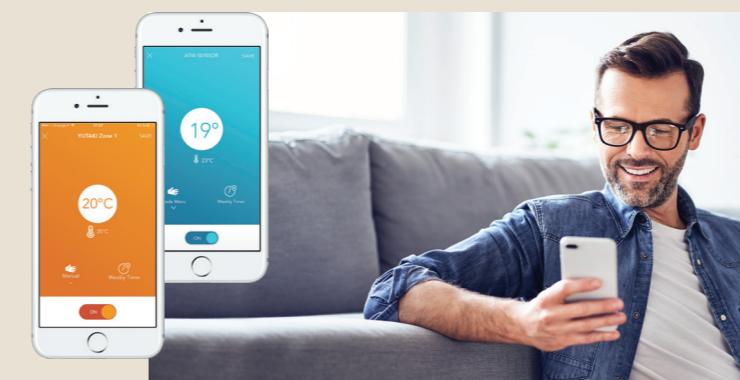
### AIR - WATER Heat Pump communication gateways (from 2016) + DHW

- AHP-SMB-01 Hi-Box Gateway
- + ATW-TAG-02 Hi Kumo Gateway\*\*
- + Annual license (for the maintenance company). Ask your Hitachi dealer
- \*\*1 gateway max/Hi Box



## Even more services for the end client with

Control all your new Hitachi residential equipment remotely with a single application.



The Hi Kumo allows you to control the entire Hitachi heat pump range remotely, including Air - Air or Air - Water or Thermodynamic Tank. It provides the end user with genuine comfort through a simple and user-friendly application. Do you think you might have forgotten to switch off the air-conditioning before going out? Do you want to cool down or warm up the place before coming home? It couldn't be easier with the Hi Kumo application!



**Hi Kumo  
iOS and Android application**

## Functions

### Air - Water Heat Pump + TWH

- On/Off
- Temperature management
- Ventilation speed
- Swing direction selection
- Weekly programming
- Fault code display



### AIR - WATER Heat Pump + DHW range compatibility gateway

- AHP-SMB-01 Hi-Box Gateway
- + ATW-TAG-02 Hi Kumo Gateway\*\*
- + ATW-HCD-01 Hlink adapter
- For DHW Yutampo R32 and S COMBI LITE
- \*1 gateway max/Hi - Box



## Tahoma® by Somfy

The entire Hitachi residential range is now compatible with Tahoma® by Somfy.



### Somfy® home automation box

1811527  
Pre-tax price:

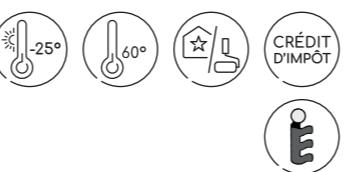


Communication interface for the Yutaki S, S Combi, S80, M and Yutampo R32 Air to Water heat pumps

ATW-TAG-02  
Pre-tax price:

# Yutaki S

Compact all-in-one system:  
cooling and heating



## Meets all requirements

Wide range of capacities from 4.3 kW to 24.00 kW heating and 4.00 kW to 17.50 kW cooling. The 11 to 24 kW models have a three-phase power supply.

## Smaller size

Its compact design and easy installation make it ideal for smaller spaces. The 4.30 to 8.00 kW models can even fit in a kitchen unit.

## One of best performance on the market\*

The Yutaki S range has amongst the highest COP.

It has the highest energy class A++, which means reduced energy consumption and higher cost savings.

## Controller included as standard

A user-friendly interface which can manage 2 zones, including an ambient sensor. To be used remotely as a modulative thermostat.

## Exclusive design for working under the most extreme of conditions

Its wide operating range enables the equipment to work under extreme outdoor conditions: -25 °C to 46 °C.

## Reduced consumption

A water output temperature up to 60°C even at -5°C outside, without the need for an additional electrical heating element, for high cost savings.

## Controls and controllers

**Wired controller**  
PC-ARFH1E

**Wireless controller**  
ATW-RTU-07

Pre-tax price: P.  
Included

**Others\*:**  
- 2nd zone kit with a 3-way valve and wall mounted circulator ATW-2TK-07

- Hi-Box AHP-SMB-01: € 215  
- Hi Kumo gateway for Hi-Box ATW-TAG-02

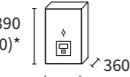
\* All prices are pre-tax

## Indoor units

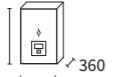
**Yutaki S Mini**  
1.85 kW~ 11.00 kW



**Yutaki S Medium**  
4.30 kW~ 17.80 kW



**Yutaki S Big**  
9.00 kW~ 32.00 kW



## Outdoor units

**RWM-2.0NRE**



**RWM-4.0NE**



**RWM-5.0NE**



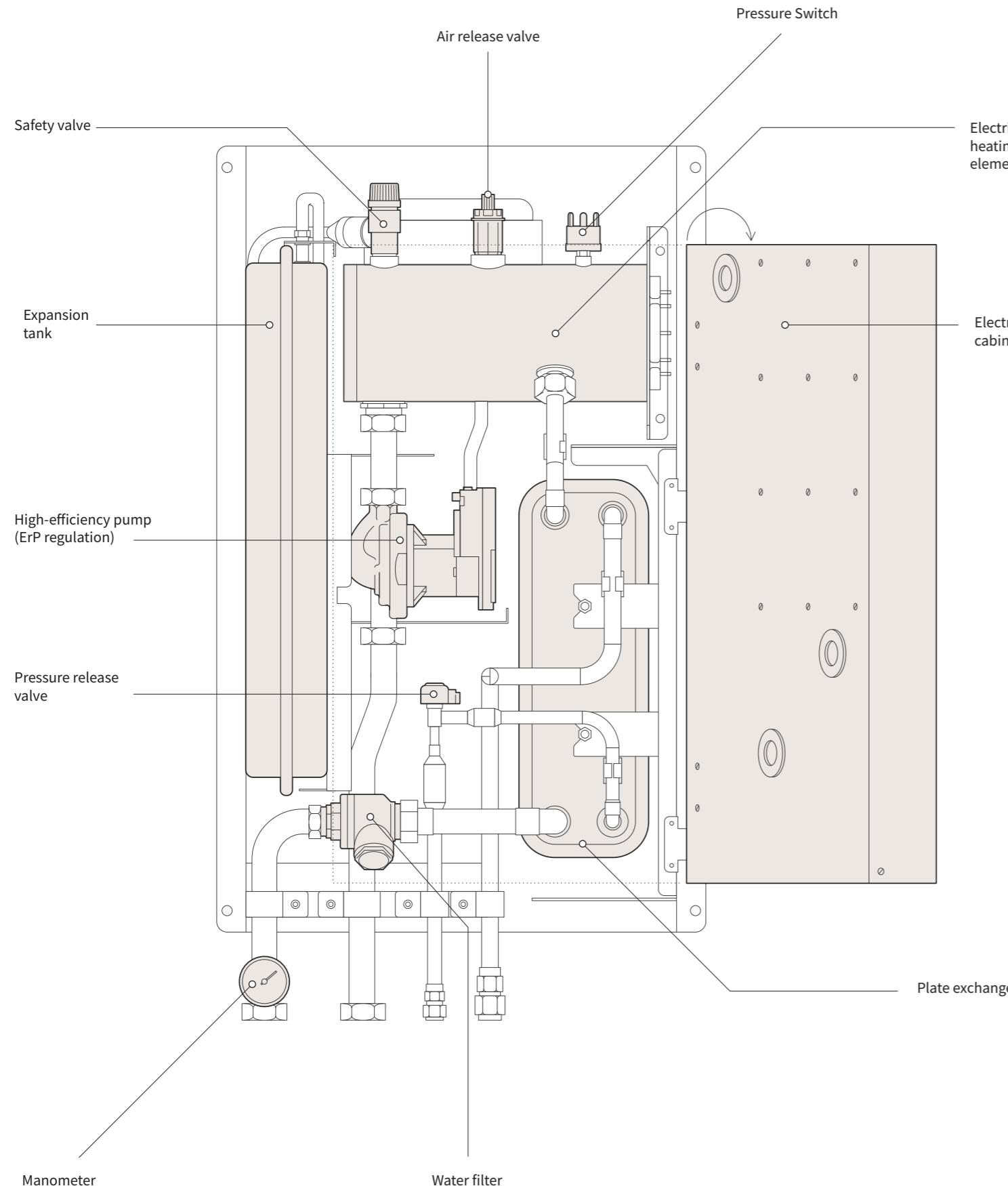
**RWM-6.0NE**



## Yutaki S

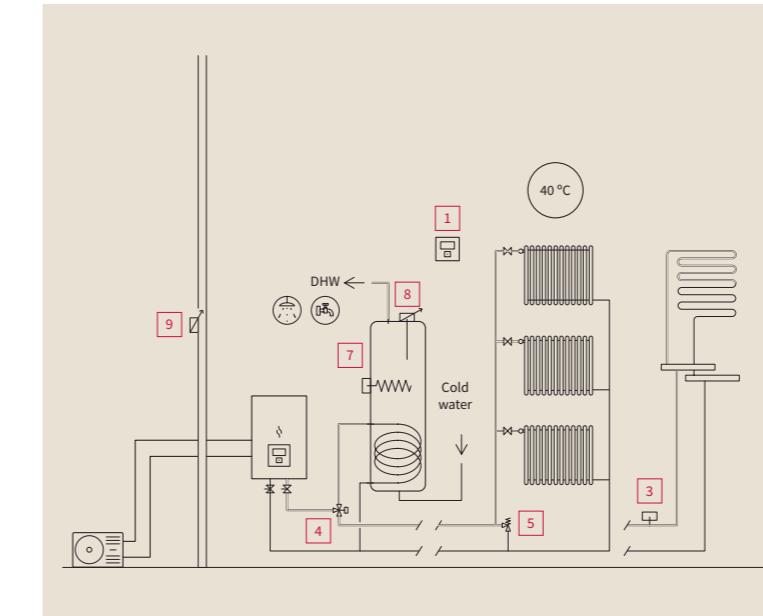
Model	R32			R410A								
	YUTAKI S 4.3KW	YUTAKI S 6KW	YUTAKI S 8KW	YUTAKI S 11KW	YUTAKI S 14KW	YUTAKI S 16KW	YUTAKI S 20KW	YUTAKI S 24KW				
<b>Heating performances</b>												
Min/nom./max capacity heating (7°C ext/35°C water)	kW	1.85/4.3/6.5	1.85/6/8.6	2.1/8/11	4.3/11/15.2	4.8/14/16.7	5.5/16/17.8	9/20/25.5				
Nom./max capacity heating (-7°C ext/35°C water)	kW	4.5/5.3	5.3/6.2	5.8/7.5	9.7/10.6	11.5/12	12/13	16.5/21				
Nom./max capacity heating (-7°C ext/45°C water)	kW	/5	/5.8	/6.67	10/10	11/11.6	11.5/12.5	15/16.6				
Nom./max capacity heating (-7°C ext/55°C water)	kW	4/4.2	4.7/5	5/5.5	8.7/9.7	9.7/11.2	10.5/12	12.5/14.5				
Power consumption heating (7°C ext/35°C water)	kW	0.77	1.21	1.6	2.2	2.9	3.5	4.65				
COP (7°C ext/35°C water) acc. to EN14511		5.25	4.8	4.6	5	4.71	4.57	5.59				
SCOP medium climate 35°C/55°C acc. to EN14825		4.6/3.4	4.5/3.25	4.5/3.2	4.8/3.5	4.48/3.43	3.9/3.23	3.88/3.13				
Seasonal energy efficiency heating $\eta_s$ (35°C) Single/Three <sup>(i)</sup>	%	183	179	175	189/188	176/176	153/154	-152				
Seasonal energy efficiency heating $\eta_s$ (55°C) Single/Three <sup>(i)</sup>	%	135	132	125	137/137	134/135	126/127	-118				
Energy class 35°C/55°C		A+++/A++			A+++/A++							
Water output temperature range (heating mode)	°C	20/60 °C			20/60 °C							
Max. water output temperature	°C	60°C down to -5 °C ext			60°C down to -10 °C ext							
<b>Cooling Performances (option)</b>												
Nom./max capacity cooling (35°C ext/7°C water)(reversible)	kW	4/6	5.3/6	6.5/7	7.2/11.8	9.5/12.6	10.5/13.7	14/16.4				
Power consumption cooling (35°C ext/7°C water)	kW	1.17	1.54	2.14	2.18	2.95	3.72	4.48				
EER (reversible model)		4	3.6	3.35	3.54	3.54	3.31	2.81				
Reversible seasonal energy efficiency $\eta_s$ (35°C) Single/Three <sup>(i)</sup>	%	188	182	178	191/191	178/178	155/155	-154				
Reversible seasonal energy efficiency $\eta_s$ (55°C) Single/Three <sup>(i)</sup>	%	138	134	127	138/139	136/136	128/128	-124				
<b>Hydraulic modules</b>												
Backup electrical heating element as standard/three-stage	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)	9 (3+3+3)				
Weight	kg	35	36	37	46	48	48	60				
Dimensions (HxWxD)	mm	712 x 450 x 275			890 x 520 x 360							
Sound pressure level	dB(A)	37			39	47			Included			
Controller		Included			Included							
<b>Hydraulic specifications</b>												
Expansion tank	inch	6			1/1.89/2.9	1.1/2.41/3	1.2/2.75/3	2/3.44/4.5				
Water flow (min/nom/max)	m³/h	0.5/0.77/1.9	0.6/1.03/2	0.6/1.29/2.1	1.1/1.4	1.2/1.4			2.2/4.13/4.6			
Heating hydraulic connections (male-male valves supplied)	inch	1"			1" 1/4							
Minimum water volume for the installation	L	28			38	46	55	76	79			
<b>Electrical specifications</b>												
Electrical power		230V/1Ph/50Hz			230V/1Ph/50Hz or 400V/3Ph/50Hz							
SINGLE-PHASE 230V	A	14.6			30.5	-			-			
Max. current with additional heating element		3 x 2.5/14			3 x 6/28	-			-			
THREE-PHASE 400V	A	28.9			45.5	-			-			
Max. current with additional heating element		3 x 6/28			3 x 10/30	-			-			
Cable diameter (mm²)/max. length (m)		-			10.3	15.3			15.3			
Max. current with additional heating element+tank heating element/Yutaki S Option		-			5 x 2.5/20	5 x 4/20			5 x 4/20			
Cable diameter (mm²)/max. length (m)		-			25.4	30.4			30.4			
Max. current with additional heating element		-			5 x 6/20	5 x 10/20			5 x 10/20			
<b>Premium outdoor units</b>												
Pressure level at 1m/Acoustic pressure heating mode	dB(A)	46/61	47/63	54/64	49/64	50/65	50/67	59/73	60/74			
Airflow	m³/h	2436			4800	5400	6000	7620	8040			
Dimensions (H x W x D)	mm	629 x 799 x 300			1380 x 950 x 370							
Weight	kg	45			103	137			60/74			
Operating ranges Cooling/Heating/DHW	°C	+10~+46BS // -20~-25BS // -20~-35										

# Internal design

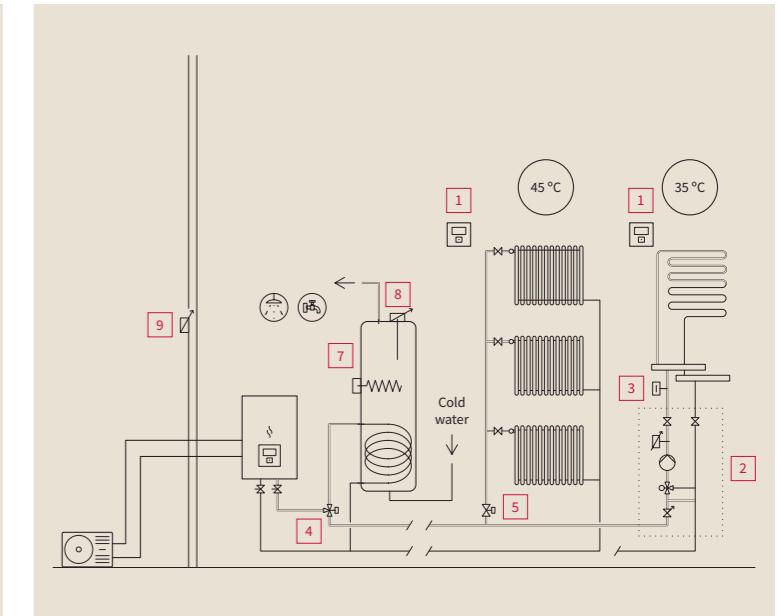


# Hydraulic configurations

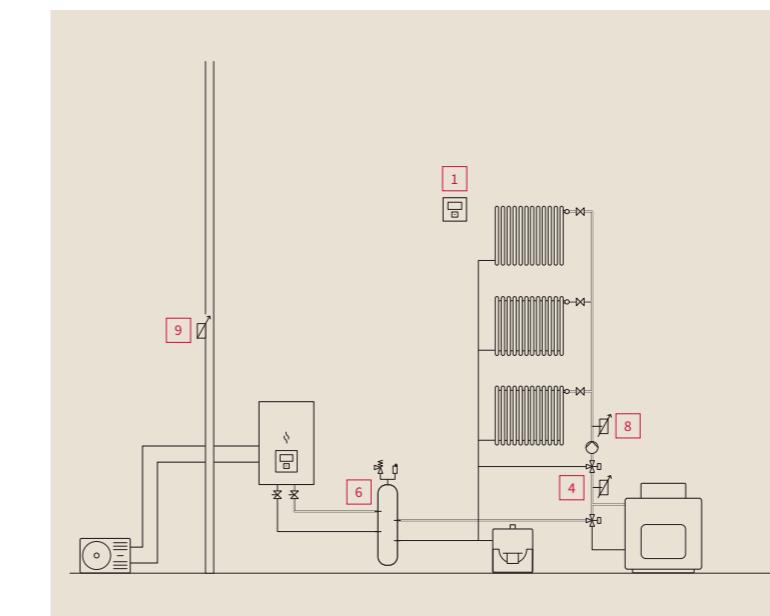
## Yutaki S



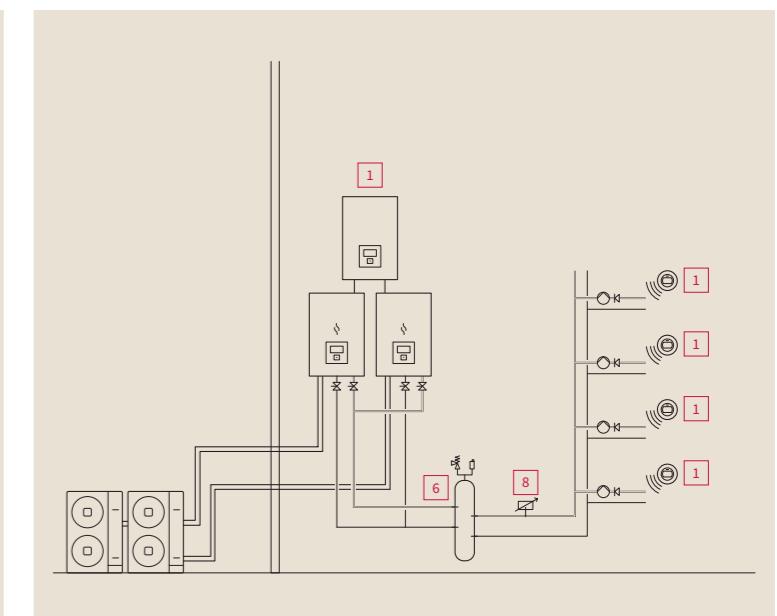
Individual  
1 zone radiators or underfloor heating  
with or without DHW



Individual  
2 zones with radiator circuits and  
underfloor heating with or without  
DHW



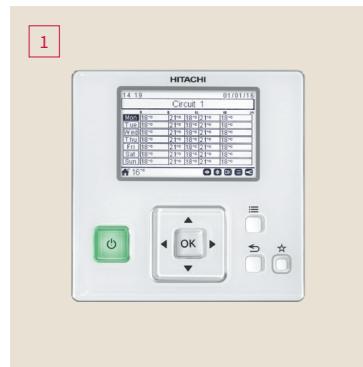
Individual  
Relief boiler 1 radiator circuit



Collective  
Cascade: individual central heating  
application

# Hydraulic accessories and regulators Yutaki S

Yutaki S



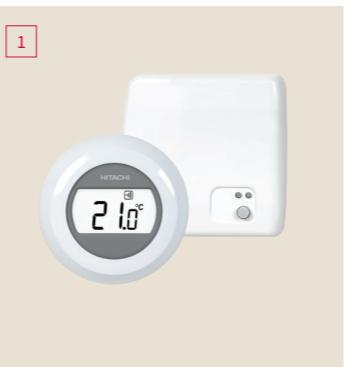
**Wired controller**  
PC-ARFH1E  
Included



**Cover**  
To be used if remote ambient controller.  
ATW-FCP-01



**Wired ambient sensor**  
ATW-ITS-01



**Wireless on/off ambient thermostat**  
ATW-RTU-04

Pre-tax price: €

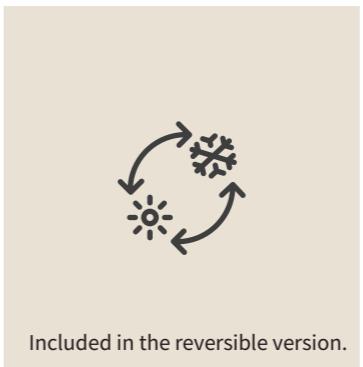
Pre-tax price: €

Pre-tax price: €

Pre-tax price: €



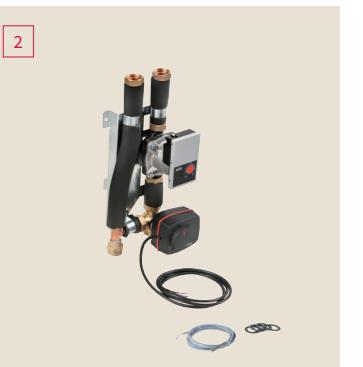
**Meter by use (RT2012)**  
Schneider®  
Not commercialized by Hitachi



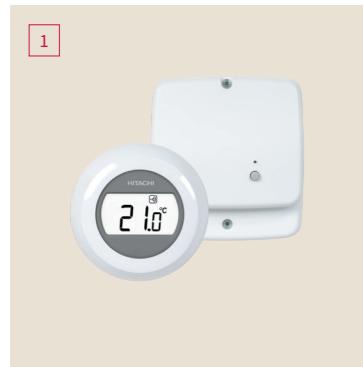
**Reversible kit**  
Equipment required for operating in cooling  
ATW-CKS-01 (Yutaki S Mini 2/2.5/3HP)  
Pre-tax price: € 170,00  
ATW-CKS-02 (Yutaki S Medium 4/5/6HP)  
ATW-CKS-03 (Yutaki S Power 8/10HP)  
Pre-tax price: €



**Cascade control cabinet**  
Cascade management of up to 8 Yutaki in the same range and with the same capacity (single/three-phase).  
ATW-YCC-01



**2nd zone kit with a 3-way valve and wall mounted circulator**  
This accessory is essential when 2 separate temperature levels need to be maintained.  
ATW-2TK-07  
Pre-tax price: €



**Ambient compensation wireless controller**  
1<sup>st</sup> circuit  
ATW-RTU-07



**Ambient compensation wireless controller**  
2<sup>nd</sup> circuit  
ATW-RTU-06



**Auxiliary outputs box**  
4 ports available: operation, alarm, cooling, thermo-OFF.  
ATW-AOS-02



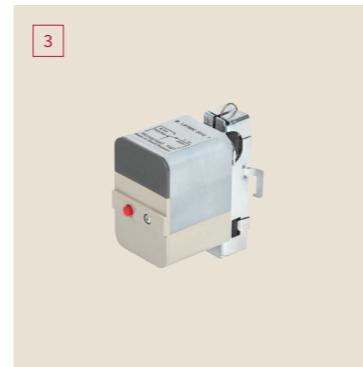
**Hi-Box: Hi Kumo home automation box**  
AHP-SMB-01

Pre-tax price: €

Pre-tax price: €

Pre-tax price: €

Pre-tax price: €



**Safety aquastat maxi floor**  
This accessory is essential when the heat emitter is the underfloor type (DTU 65-14).  
ATW-AQT-01



**3-way valve**  
DHW and pool applications.  
ATW-3WV-01



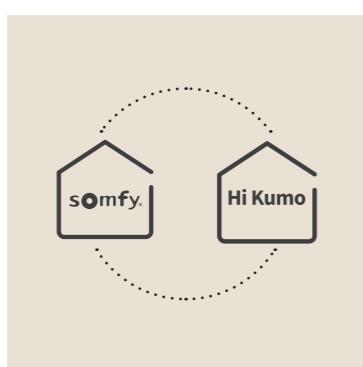
**Differential pressure overflow valve**  
This accessory ensures constant flow to the Heat Pump condenser.  
ATW-DPOV-01



**Hydraulic separator cylinder for Heat Pump**  
This accessory hydraulically separates the network of emitters and boiler from that of the Heat Pump.  
ATW-HSK-01



**Somfy® home automation box**  
1811527



**Somfy®/Hi Kumo Gateway**  
Communication gateway. Somfy® or Hi Kumo environment integration.  
ATW-TAG-02



**KNX® communication interface**  
Communication gateway. KNX® environment integration.  
ATW-KNX-02



**Modbus communication interface**  
Communication gateway. Modbus® environment integration.  
ATW-MBS-02

Pre-tax price: €

Pre-tax price: €

Pre-tax price: €

Pre-tax price: €



**Domestic Hot Water storage tank**  
Stainless steel tank  
200 L: DHWT-200S-3.0H2  
(HxD) 1270x595 mm  
Pre-tax price: € 2,400,00  
300 L: DHWT-300S-3.0H2E  
(HxD) 1750x595 mm  
Pre-tax price: €



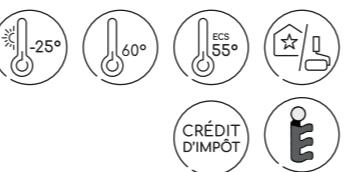
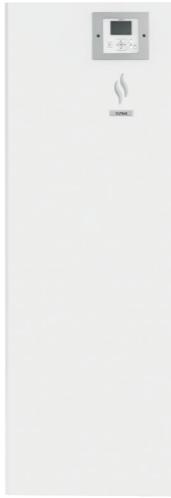
**Universal sensor**  
Hot water, hydraulic separator, 2<sup>nd</sup> circuit, pool, solar. (Required if the tank is not a Hitachi DHWT)  
ATW-WTS-02Y



**Outdoor ambient temperature sensor**  
ATW-2OS-02

# Yutaki S Combi

Stainless steel tank: DHW, heating and cooling



## Wide range of capacities

The Yutaki S Combi range is ideal for all types of installations thanks to its large range of capacities.

4.30kW - 16.00 kW heating and 4.00 kW - 10.50 kW cooling.

## Space-saving with no noise issues

The Yutaki S Combi can be installed in the kitchen thanks to its small size and low noise level.

The integrated DHW tank in the indoor unit means it takes up to 70% less space compared to a separate tank.

## Choose your DHW volume

The Yutaki S Combi range can integrate 2 different sizes of tank: 200 and 260 L.

The 2<sup>nd</sup> zone kit can also be integrated in the indoor unit (200 L model).

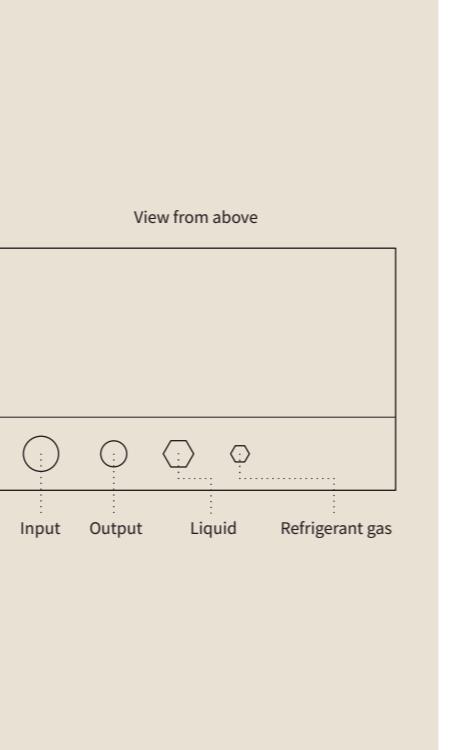
## Easy installation and maintenance

When compared to a system with a separate tank, the Yutaki S Combi can be installed more quickly and more cost effectively:

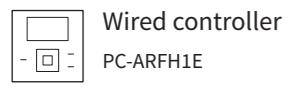
- All the water and refrigerant connections are aligned in the upper part.
- Most components can be accessed from the front.
- Easy access to information from the LCD remote control without needing to open the indoor unit.

## Stainless steel tank with integrated heating element

The Yutaki S Combi range has an additional electrical heating element. The BOOST DHW function can be activated in an emergency from a single button.



## Controls and controllers



Wired controller  
PC-ARFH1E  
Pre-tax price:  
Included



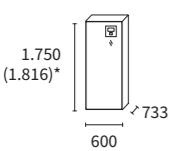
Wireless controller  
ATW-RTU-07  
Pre-tax price:

### Others\*:

- 2nd zone kit with a 3-way valve and wall mounted circulator ATW-2TK-07
- Integrable separator collection for the 200 L version (2 circuits) ATW-2TK-06

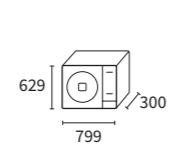
\* All prices are pre-tax

### Indoor units



RWD-2.0NRWE  
RWD-2.5NRWE  
RWD-3.0NRWE

### Outdoor units



RAS-2WHVRP  
RAS-2.5WHVRP  
RAS-3WHVRP

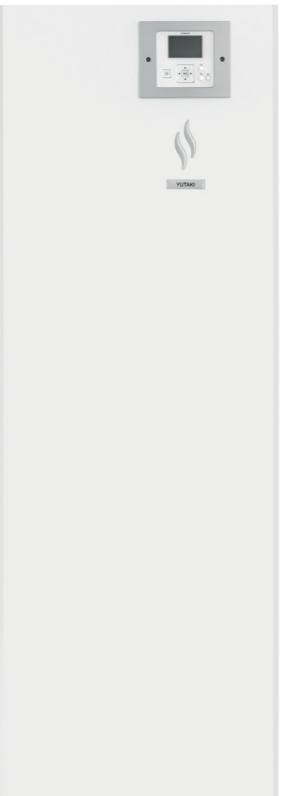
RAS-4WH(V)NPE  
RAS-5WH(V)NPE  
RAS-6WH(V)NPE

## Yutaki S Combi

Model	R32			R410A				
	YUTAKI S COMBI 4.3kW	YUTAKI S COMBI 6kW	YUTAKI S COMBI 8kW	YUTAKI S COMBI 11kW	YUTAKI S COMBI 14kW	YUTAKI S COMBI 16kW		
<b>Heating performances</b>								
Min/nom./max capacity heating (7°C ext/35°C water)	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 capacity heating (-7°C ext/35°C water)	kW	4.5/5.3	5.3/6.2	5.8/7.5	9.7/10.6	11.5/12		
Nom./max capacity heating (-7°C ext/45°C water)	kW	/5	/5.8	/6.67	10/10	11/11.6		
Nom./max capacity heating (-7°C ext/55°C water)	kW	4/4.2	4.7/5	5/5.5	8.7/9.7	9.7/11.2		
Power consumption heating (7°C ext/35°C water)	kW	0.77	1.21	1.6	2.2	2.97		
COP (7°C ext/35°C water) acc. to EN14511		5.25	4.8	4.6	5	4.57		
SCOP medium climate 35°C/55°C acc. to EN14825		4.6/3.4	4.5/3.25	4.5/3.2	4.8/3.5	4.48/3.43		
Seasonal energy efficiency heating ηs (35°C) Single/Three <sup>(i)</sup>	%	183	179	175	189/188	176/176		
Seasonal energy efficiency heating ηs (55°C) Single/Three <sup>(i)</sup>	%	135	132	125	137/137	134/135		
Energy class 35°C/55°C		A+++/A++			A+++/A++	A++/A++		
Water output temperature range (heating mode)	°C	20/60 °C			20/60 °C	60°C down to -10 °C ext		
Max. water output temperature	°C	60°C down to -5 °C ext			60°C down to -10 °C ext	60°C down to -10 °C ext		
<b>DHW performances</b>								
COP DHW (200/260L)		3.3/3.4			3.25/3.35			
Seasonal energy efficiency nwh (200L cycle L/260L cycle XL)	%	132/136			130/134			
DHW energy class		A+			A+	30/55 °C		
Water output temperature range (DHW mode)	°C	30/55 °C			30/55 °C			
<b>Cooling Performances (option)</b>								
Nom./max capacity cooling (35°C ext/7°C water)(reversible)	kW	4/6	5.3/6	6.5/7	7.2/11.8	9.5/12.6		
Power consumption cooling (35°C ext/7°C water)	kW	1.17	1.54	2.14	2.18	2.95		
EER (reversible model)		4	3.6	3.35	3.54	3.31		
Reversible seasonal energy efficiency ηs (35°C) Single/Three <sup>(i)</sup>	%	188	182	178	191/191	178/178		
Reversible seasonal energy efficiency ηs (55°C) Single/Three <sup>(i)</sup>	%	138	134	127	138/139	136/136		
RWD-2.0NRWE-(200/260S)		RWD-2.5NRWE-(200/260S)		RWD-3.0NRWE-(200/260S)		RWD-4.0NWE-(200/260S)		
Additional electrical heating element as standard/three-stage		3 (1+1+1)		3 (1+1+1)		6 (2+2+2)		
DHW additional electrical heating element as standard		3		3		3		
Weight (200L/260L)	kg	120/135		120/135		120/130		
Dimensions (HxWxD)	mm	1750 x 600 x 733		1750 x 600 x 733		1750 x 600 x 733		
Sound pressure level	dB(A)	37		39		200 or 260 L/Stainless steel		
DHW tank volume/DHW tank material	L	200 or 260 L/Stainless steel		Included		Included		
<b>Hydraulic specifications</b>								
Expansion tank	L	6		6		6		
Water flow (min/nom/max)	m <sup>3</sup> /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	
Hydraulic connections Heating (Male/male valves supplied)	inch	1"		1" 1/4"		3/4"		
Hydraulic connections DHW	inch	3/4"		3/4"		3/4"		
Minimum water volume for the installation	L	28		46		55		
<b>Electrical specifications</b>								
Electrical power		230V/1Ph/50Hz		230V/1Ph/50Hz or 400V/3Ph/50Hz		44.8		
SINGLE-PHASE 230V	A	27.1		3 x 6/28		3 x 10/30		
THREE-PHASE 400V		-		-		14		
		-		-		5 x 2.5/16		
RAS-2WHVRP		RAS-2.5WHVRP		RAS-3WHVRP		RAS-4WH(V)NPE		
Pressure level at 1m/Acoustic pressure heating mode	dB(A)	46/61	47/63	54/67	49/64	50/65	50/67	
Airflow	m <sup>3</sup> /h	2436		629 x 799 x 300		4800		
Dimensions (H x W x D)	mm	629 x 799 x 300		1380 x 950 x 370		103		
Weight	kg	45	44	+10 ~ +46 // -20 ~ +25 // -20 ~ +35	+10 ~ +46 // -25 ~ +25 // -25 ~ +35			
Operating ranges Cooling/Heating/DHW	°C							
<b>Refrigerant specifications</b>								
Refrigerant pipe diameter (Liq/gas)	inch	1/4" - 1/2"*		1/4" - 5/8" 3 - 27m 3/8" 5/8" 27 - 50m*		3/8" 5/8"		
Min max length/Max height difference	m	3 - 50/20		5 - 75/20		3.3 for 15m/60		
Initial charge of pre-charged refrigerant/Additional charge	kg/g/m	1.2 for 10m/15	1.3 for 10m/15	1.3 for 10m/32	3.4 for 15m/60		R410A	
Refrigerant		R32		SCROLL		SCROLL		
Compressor		ROTARY						
<b>Electrical specifications</b>								

# Yutaki S Combi Solar

Stainless steel tank: Solar DHW, heating and cooling



## Yutaki S Combi Solar

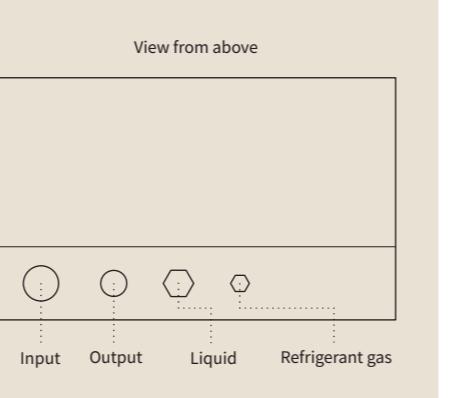
Model	R32			R410A		
	YUTAKI S COMBI SOLAR 4.3KW	YUTAKI S COMBI SOLAR 6KW	YUTAKI S COMBI SOLAR 8KW	YUTAKI S COMBI SOLAR 11KW	YUTAKI S COMBI SOLAR 14KW	YUTAKI S COMBI SOLAR 16KW
<b>Heating performances</b>						
Min/nom./max capacity heating (7°C ext/35°C water)	kW	1.85/4.3/6.5	1.85/6/8.6	2.1/8/11	4.3/11/15.2	4.8/14/16.7
Nom./max capacity heating (-7°C ext/35°C water)	kW	4.5/5.3	5.3/6.2	5.8/7.5	9.7/10.6	11.5/12
Nom./max capacity heating (-7°C ext/45°C water)	kW	/5	/5.8	/6.67	10/10	11/11.6
Nom./max capacity heating (-7°C ext/55°C water)	kW	4/4.2	4.7/5	5/5.5	8.7/9.7	9.7/11.2
Power consumption heating (7°C ext/35°C water)	kW	0.77	1.21	1.6	2.2	2.97
COP (7°C ext/35°C water) acc. to EN14511		5.25	4.8	4.6	5	4.57
SCOP medium climate 35°C/55°C acc. to EN14825		4.6/3.4	4.5/3.25	4.5/3.2	4.8/3.5	4.48/3.43
Seasonal energy efficiency heating $\eta_s$ (35°C) Single/Three <sup>(i)</sup>	%	183	179	175	189/188	176/176
Seasonal energy efficiency heating $\eta_s$ (55°C) Single/Three <sup>(i)</sup>	%	135	132	125	137/137	134/135
Energy class 35°C/55°C		A+++/A++				
Water output temperature range (heating mode)	°C	20/60 °C				
Max. water output temperature	°C	60°C down to -5 °C ext				
<b>DHW performances</b>						
COP DHW (200/260L)		3.4				
Seasonal energy efficiency nwh (200L cycle L/260L cycle XL)	%	136				
DHW energy class		A+				
Water output temperature range (DHW mode)	°C	30/55 °C				
<b>Cooling Performances (option)</b>						
Nom./max capacity cooling (35°C ext/7°C water)(reversible)	kW	4/6	5.3/6	6.5/7	7.2/11.8	9.5/12.6
Power consumption cooling (35°C ext/7°C water)	kW	1.17	1.54	2.14	2.18	2.95
EER (reversible model)		4	3.6	3.35	3.54	3.22
Reversible seasonal energy efficiency $\eta_s$ (35°C) Single/Three <sup>(i)</sup>	%	188	182	178	191/191	178/178
Reversible seasonal energy efficiency $\eta_s$ (55°C) Single/Three <sup>(i)</sup>	%	138	134	127	138/139	136/136
	RWD-2.0NRWE-260S	RWD-2.5NRWE-260S	RWD-3.0NRWE-260S	RWD-4.0NRWE-260S	RWD-5.0NRWE-260S	RWD-6.0NRWE-260S
<b>Hydraulic modules</b>						
Additional electrical heating element as standard/three-stage	kW	3 (1+1+1)	3 (1+1+1)	3 (1+1+1)	6 (2+2+2)	6 (2+2+2)
DHW additional electrical heating element as standard	kW	3	3	3	3	3
Weight (200L/260L)	kg	135	135	136	135	135
Dimensions (HxWxD)	mm	1750 x 600 x 733			1750 x 600 x 733	
Sound pressure level	dB(A)	37			39	
DHW tank volume/DHW tank material	L	260 L/Stainless steel			260 L/Stainless steel	
Controller		Included			Included	
<b>Hydraulic specifications</b>						
Expansion tank	L	6			6	
Water flow (min/nom/max)	m³/h	0.5/0.77/1.9	0.6/1.03/2.1	0.6/1.29/2.1	1/1.89/2.7	1.1/2.41/2.8
Hydraulic connections Heating (Male/male valves supplied)	inch	1"			1" 1/4	
Hydraulic connections DHW	inch	3/4"			3/4"	
Solar hydraulic connections (G Male)	inch	1/2"			1/2"	
Minimum water volume for the installation	L	28			38	46
<b>Electrical specifications</b>						
Electrical power		230V/1Ph/50Hz			230V/1Ph/50Hz or 400V/3Ph/50Hz	
SINGLE-PHASE 230V	A	27.1			44.8	
		3 x 6/28			3 x 10/30	
THREE-PHASE 400V		-			24.7	
		-			5 x 6/20	
<b>Premium outdoor units</b>						
Pressure level at 1m/Acoustic pressure heating mode	dB(A)	46/61	47/63	54/67	49/64	50/65
Airflow	m³/h	2436			4800	5400
Dimensions (H x W x D)	mm	629 x 799 x 300			1380 x 950 x 370	6000
Weight	kg	45		44	103	
Operating ranges Cooling/Heating/DHW	°C	+10~+46 / -20~+25 / -20~+35			+10~+46 / -25~+25 / -25~+35	
<b>Refrigerant specifications</b>						
Refrigerant pipe diameter (Liq/gas)	inch	1/4" - 1/2"*		1/4" - 5/8" 3 - 27m* 3/8" 5/8" 27 - 50m"	3/8" 5/8"	
Min max length/Max height difference	m	3 - 50/20			5 - 75/20	
Initial charge of pre-charged refrigerant/Additional charge	kg/g/m	1.2 for 10m/15	1.3 for 10m/15	1.3 for 10m/32	3.3 for 15m/60	3.4 for 15m/60
Refrigerant		R32			R410A	
Compressor		SCROLL			SCROLL	
<b>Electrical specifications</b>						
Electrical power		230V/1Ph/50Hz			230V/1Ph/50Hz or 400V/3Ph/50Hz	
SINGLE-PHASE 230V	A	10.4	12.9	15.8	30.5	
		3 x 2.5/28	3 x 2.5/24	3 x 4/21	3 x 6/30	
THREE-PHASE 400V	A	-	-	-	14	16
		-	-	-	5 x 2.5/16	5 x 2.5/16
Int/Ext wiring section (shielded)	mm²	2 x 0.75			2 x 0.75	

### Indoor units

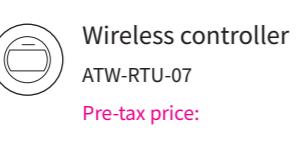
- S COMBI SOLAR solution (260L): Heat Pump/ Solar double exchanger.
- Best performances on the market.
- Ultra quiet modules: 37dB(A)\*.

### Outdoor units

- Compatible premium outdoor units YUTAKI S/S COMBI/S80 and S80 COMBI.
- Low sound levels.
- Lighter and more compact.



### Controls and controllers



Indoor units

RWD-2.0NRWE  
RWD-2.5NRWE  
RWD-3.0NRWE

Outdoor units

629 [1.750]  
799 [1.816]  
300 [733]  
950 [1.380]  
370

#### Others\*:

- 2nd zone kit with a 3-way valve and wall mounted circulator ATW-2TK-07
- Hi-Box AHP-SMB-01
- Hi Kumo gateway for Hi-Box ATW-TAG-02

\* All prices are pre-tax

RWD-4.0NRWE  
RWD-5.0NRWE  
RWD-6.0NRWE

RAS-2WHVRP  
RAS-2.5WHVRP  
RAS-3WHVRP

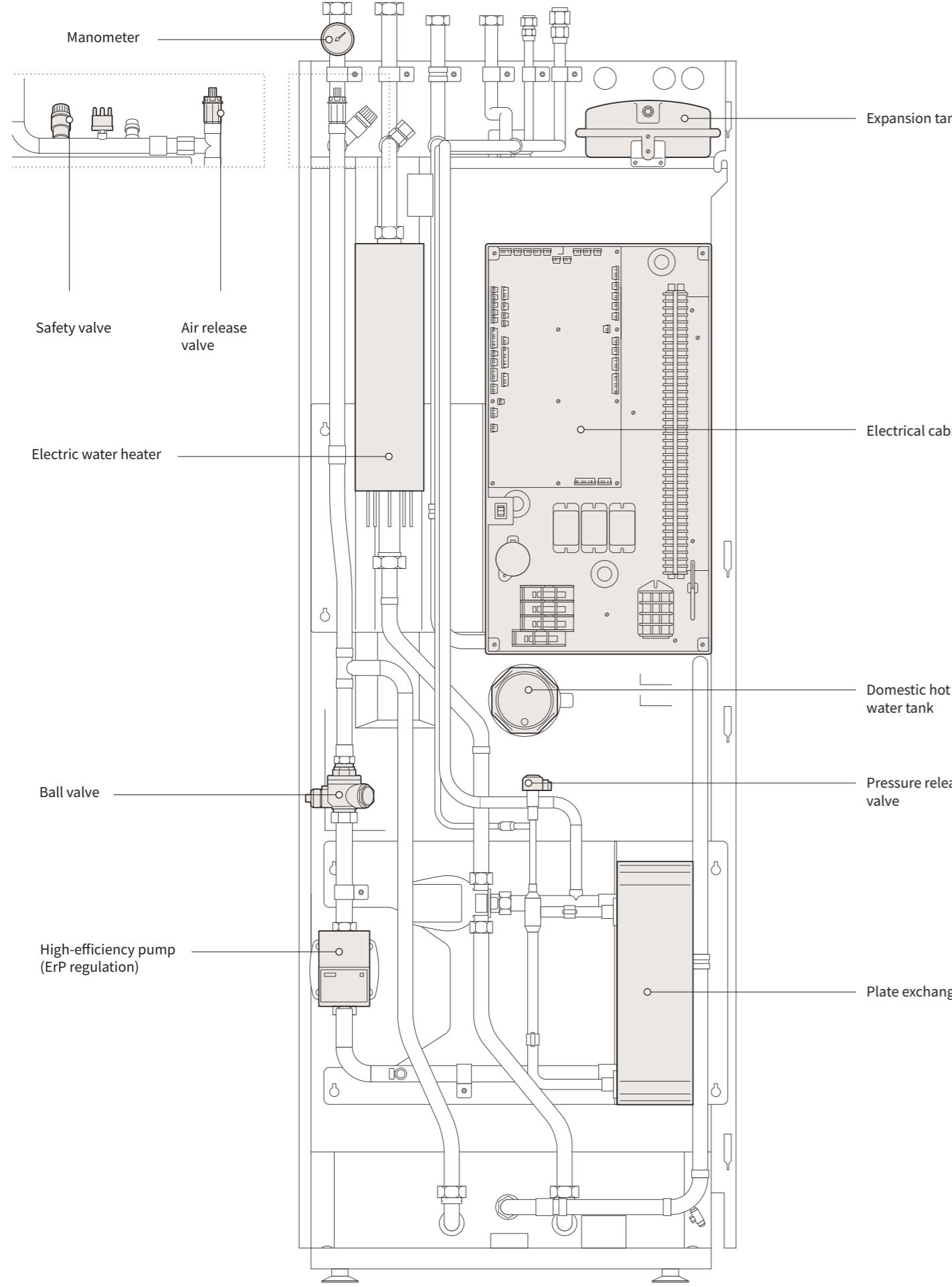
RAS-4WH(V)NPE  
RAS-5WH(V)NPE  
RAS-6WH(V)NPE

<sup>(i)</sup> Seasonal energy efficiency with integrated controller. (V) = single.

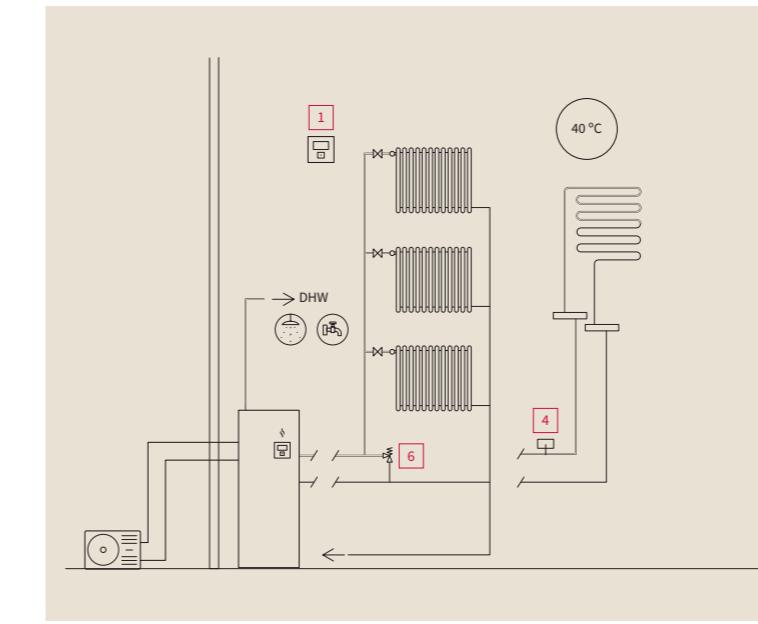
\* For the 2/2.5/3HP models with R32, indoor units and outdoor units have different diameters of refrigerant gas pipes and refrigerant fluid pipes. Adapters are therefore supplied with the outdoor unit.

\* with connections.

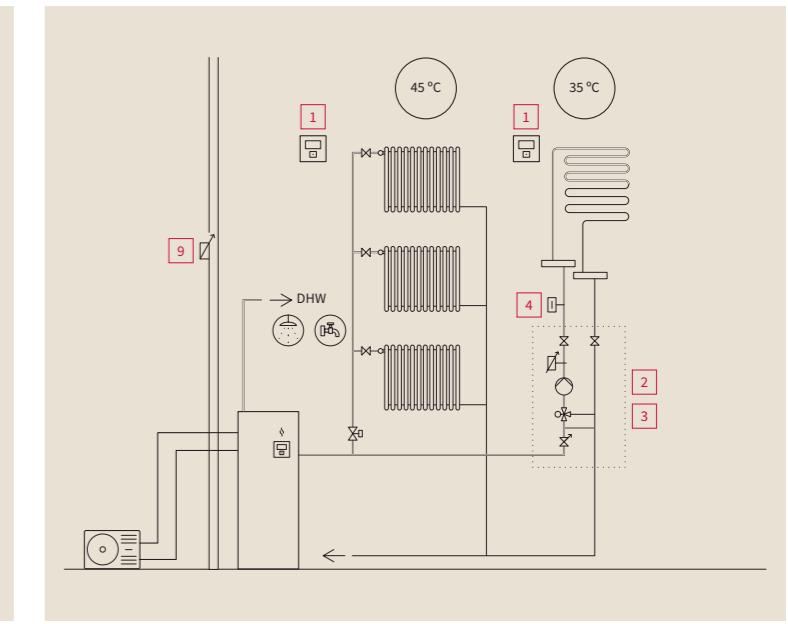
# Internal design



# Hydraulic configurations Yutaki S Combi

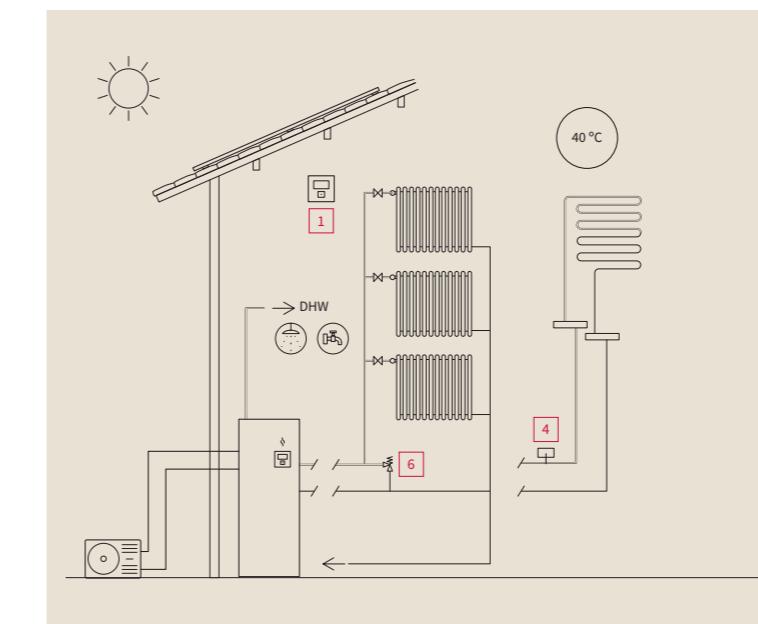


Heating 1 radiator circuit or underfloor heating + DHW

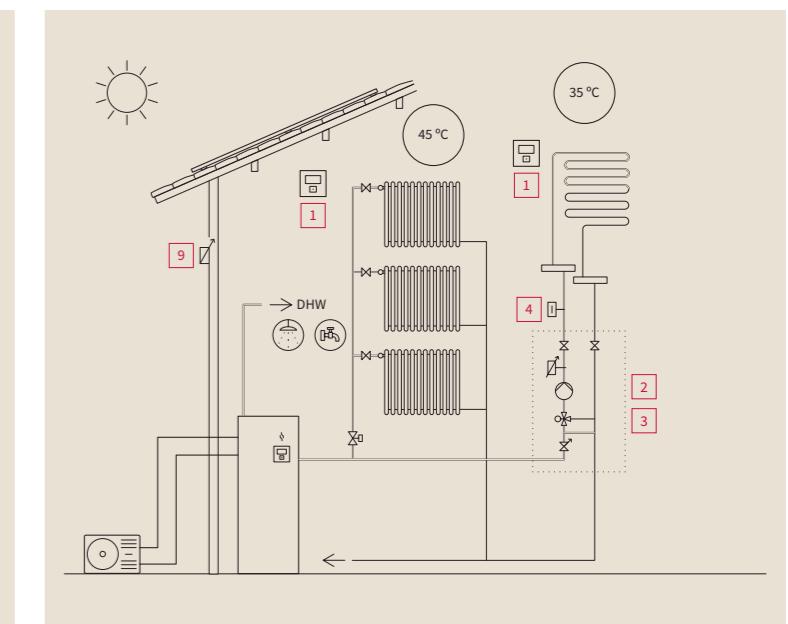


Heating 2 zones with radiator circuits and underfloor heating + DHW

# Yutaki S Combi Solar

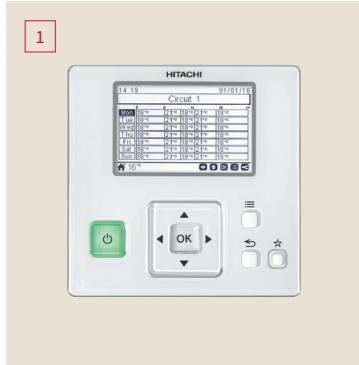


Heating 1 radiator circuit or underfloor heating + DHW



Heating 1 radiator circuit and underfloor heating + DHW

# Hydraulic accessories and regulators Yutaki S Combi & Yutaki S Combi Solar



**Wired controller**  
PC-ARFH1E  
Included



**Cover**  
To be used if remote ambient controller.  
ATW-FCP-01



**Wired ambient sensor**  
ATW-ITS-01



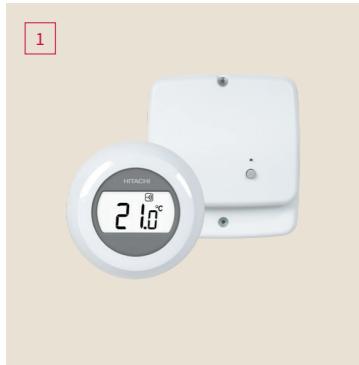
**Wireless on/off ambient thermostat**  
ATW-RTU-04

Pre-tax price: €

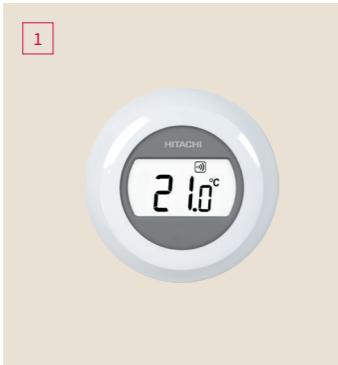
Pre-tax price: €

Pre-tax price: €

Pre-tax price: €



**Ambient compensation wireless controller**  
1<sup>st</sup> circuit  
ATW-RTU-07



**Ambient compensation wireless controller**  
2<sup>nd</sup> circuit  
ATW-RTU-06



**Auxiliary outputs box**  
4 ports available: operation, alarm, cooling, thermo-OFF.  
ATW-AOS-02



**Hi - Box: Hi Kumo and Hi Kumo PRO home automation box**  
AHP-SMB-01

Pre-tax price: €

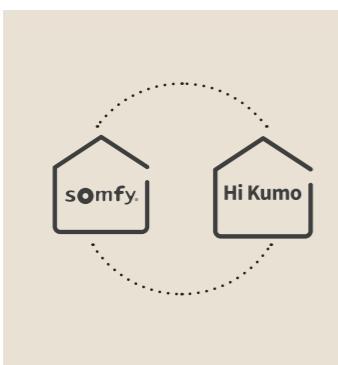
Pre-tax price: €

Pre-tax price: €

Pre-tax price: €



**Somfy® home automation box**  
1811527



**Somfy®/Hi Kumo Gateway**  
Communication gateway. Somfy® or Hi Kumo environment integration.  
ATW-TAG-02



**KNX® communication interface**  
Communication gateway. KNX® environment integration.  
ATW-KNX-02



**Modbus communication interface**  
Communication gateway. Modbus® environment integration.  
ATW-MBS-02

Pre-tax price: €

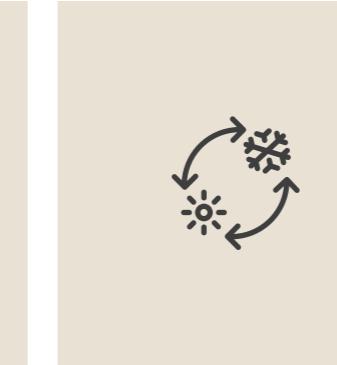
Pre-tax price: €

Pre-tax price: €

Pre-tax price: €



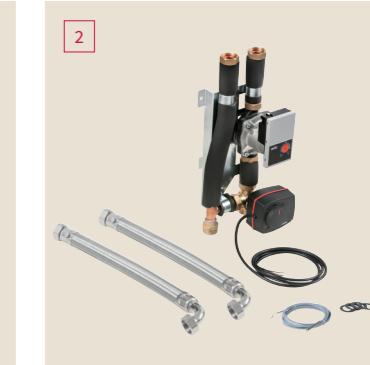
**Meter by use (RT2012)**  
Schneider®  
Not commercialized by Hitachi  
AEM-EM-2105 (single-phase)  
A9MEM3210 (three-phase)



**Reversible kit**  
Equipment required for operating in cooling (included in the reversible version).  
ATW-CKSC-01



**Cascade control cabinet**  
Cascade management of up to 8 Yutaki in the same range and with the same capacity (single/three-phase).  
ATW-YCC-01

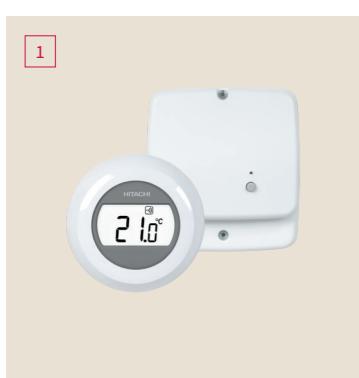


**2nd integrable zones kit**  
(200L tank only)  
ATW-2TK-06

Pre-tax price: €

Pre-tax price: €

Pre-tax price: €



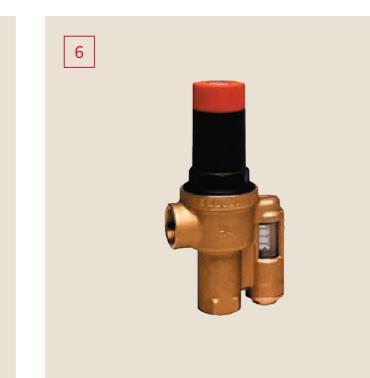
**2nd zone kit with a 3-way valve and wall mounted circulator**  
This accessory is essential when 2 separate temperature levels need to be maintained.  
ATW-2TK-07



**Safety aquastat maxi floor**  
This accessory is essential when the heat emitter is the underfloor type (DTU 65-14).  
ATW-AQT-01



**3-way valve**  
DHW and pool applications.  
ATW-3WV-01



**Differential pressure overflow valve**  
This accessory ensures constant flow to the Heat Pump condenser.  
ATW-DPOV-01



**Hydraulic separator cylinder for Heat pump**  
This accessory hydraulically separates the network of emitters and boiler from that of the Heat Pump.  
ATW-HSK-01



**Universal sensor**  
Hot water, hydraulic separator, 2<sup>nd</sup> circuit, pool, solar. (Required if the tank is not a Hitachi DHWT)  
ATW-WTS-02Y



**Outdoor ambient temperature sensor**  
ATW-2OS-02

Pre-tax price: €

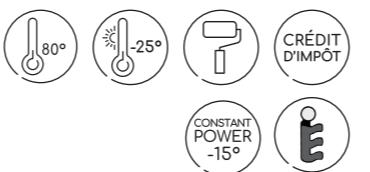
Pre-tax price: €

Pre-tax price: €

Pre-tax price: €

# Yutaki S80

Up to 80°C start temperature without electric heating element



## Smart Cascade regulation

The Yutaki S80 range features a Smart Cascade cycle, (unique on the market), which automatically adjusts Heat Pump operation based on heating requirements. This way, when heating requirements are less (water temperature until 53°C), the Heat Pump only uses the R410A refrigerant. When the requirement increases (water temperature up to 80°C), the second cycle of R134A refrigerant is activated. This way, consumption is reduced to a minimum and comfort is always guaranteed. (Fig. 1)

## Modularity to adapt to each client's needs

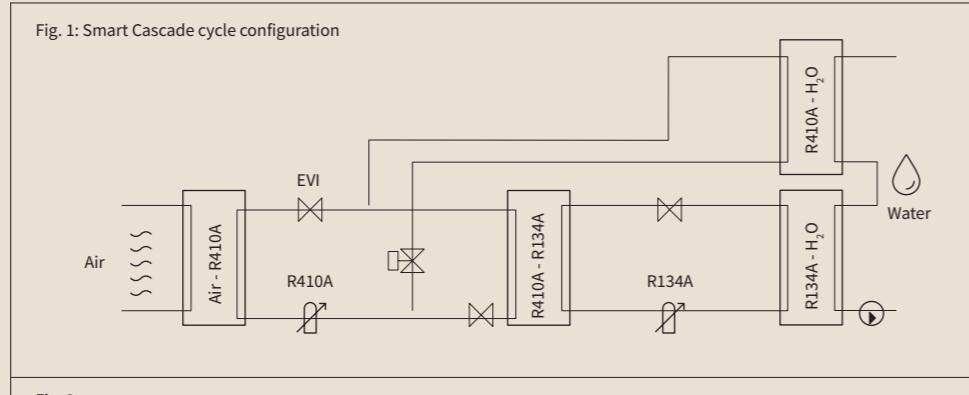
To meet all market requirements, the Yutaki S80 can add a separate tank of up to 3000L to meet domestic hot water requirements in multi-residence accommodation.

## Constant heating all year round down to -25°C

This equipment heats water up to 80°C using renewable energy, including extreme temperatures down to -25°C.

## Easy installation and maintenance

Its design means easy access to water and refrigerant connections and they are located in the upper part of the indoor unit.



## Controls and controllers

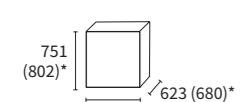
**Wired controller**  
PC-ARFH1E  
**Pre-tax price:**  
Not included

**Wireless controller**  
ATW-RTU-07  
**Pre-tax price:**

**Others\*:**  
- 2nd zone kit with a 3-way valve and wall mounted circulator ATW-2TK-07  
- Hi-Box AHP-SMB-01  
- Hi Kumo gateway for Hi-Box ATW -TAG-02

\* All prices are pre-tax

### Indoor units



RWH-4.0VNFE  
RWH-5.0VNFE  
RWH-6.0VNFE

### Outdoor units



RAS-4WH(V)NPE  
RAS-5WH(V)NPE  
RAS-6WH(V)NPE

# Yutaki S80

FLUIDE R410A + R134A

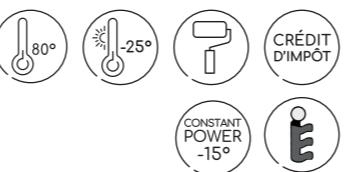
Model	YUTAKI S80 11KW		YUTAKI S80 14KW		YUTAKI S80 16KW	
<b>Heating performances</b>						
Min/nom./max capacity heating (7°C ext/35°C water)	kW	11/15.2		14/16.7		16/17.8
Nom./max capacity heating (-7°C ext/35°C water)	kW	9.7/10.6		11.5/12.2		12.1/13
Nom./max capacity heating (-7°C ext/45°C water)	kW	11/12.5		14/14.5		16/16
Nom./max capacity heating (-7°C ext/55°C water)	kW	11/12.5		14/14.5		16/16
Power consumption heating (7°C ext/35°C water)	kW	2.2		2.97		3.5
COP (7°C ext/35°C water) acc. to EN14511		5		4.71		4.57
SCOP medium climate 35°C/55°C acc. to EN14825		4.75/3.63		4.43/3.35		3.88/3.23
Seasonal energy efficiency heating ηs (35°C) Single/Three <sup>(1)</sup>	%	189/188		177/176		155/154
Seasonal energy efficiency heating ηs (55°C) Single/Three <sup>(1)</sup>	%	138/137		135/135		127/127
Energy class 35°C/55°C		A+++/A++		A++/A++		A++/A++
Water output temperature range (heating mode)	°C	20/80 °C		80°C down to -20 °C ext		
Max. water output temperature	°C					
<b>Hydraulic modules</b>						
Weight	kg	135/137		139/146		139/146
Dimensions (HxWxD)	mm			751 x 600 x 623		
Sound pressure level	dB(A)	57		57		58
Controller				Not included		
<b>Hydraulic specifications</b>						
Expansion tank	L			12		
Water flow (min/nom/max)	m³/h	1/1.89/2.5		1.1/2.41/3.2		1.3/2.75/3.2
Heating hydraulic connections (male-male valves supplied)	inch			1" 1/4		
Minimum water volume for the installation	L	40		50		50
<b>Refrigerant specifications</b>						
Fluid				R134A		
Initial refrigerant charge pre-charged	kg			1.9 kg for 15m		
Compressor				SCROLL		
<b>Electrical specifications</b>						
Electrical power				230V/1Ph/50Hz or 400V/3Ph/50Hz		
SINGLE-PHASE 230V	Max. current	A	24	28		31
	Cable diameter (mm²)/max. length (m)			3 x 6		
THREE-PHASE 400V	Max. current	A	10	10		10
	Cable diameter (mm²)/max. length (m)			5 x 2.5		
<b>Premium outdoor units</b>						
Pressure level at 1m/Acoustic pressure heating mode	dB(A)	49/61		50/63		50/64
Airflow	m³/h	4800		5400		6000
Dimensions (H x W x D)	mm			1380 x 950 x 370		
Weight	kg			103		
Operating ranges Heating/DHW	°C			-25/+25 // -25/+35		
<b>Refrigerant specifications</b>						
Refrigerant pipe diameter (Liq/gas)	inch			3/8" 5/8"		
Min max length/Max height difference	m			5 - 75/20		
Initial charge of pre-charged refrigerant/Additional charge	kg/g/m	3.3 for 15m/60		3.4 for 15m/60		
Refrigerant				R410A		
Compressor				SCROLL		
<b>Electrical specifications</b>						
Electrical power				230V/1Ph/50Hz or 400V/3Ph/50Hz		
SINGLE-PHASE 230V	Max. current	A		30.5		
	Cable diameter (mm²)/max. length (m)			3 x 6/30		
THREE-PHASE 400V	Max. current	A	14			16
	Cable diameter (mm²)/max. length (m)			5 x 2.5/16		5 x 2.5/16
Int/Ext wiring section (shielded)	mm²			2 x 0.75		

<sup>(1)</sup> Seasonal energy efficiency with integrated controller(V) = single.

\* For the 2/2.5/3HP models with R32, indoor units and outdoor units have different diameters of refrigerant gas pipes and refrigerant fluid pipes. Adapters are therefore supplied with the outdoor unit.

# Yutaki S80 Combi

Up to 80°C start temperature without electric heating element for heating and DHW



Yutaki S80 Combi

## Smart Cascade regulation

The Yutaki S80 range features a Smart Cascade cycle, (unique on the market), which automatically adjusts Heat Pump operation based on heating requirements. This way, when heating requirements are less (water temperature until 53°C), the Heat Pump only uses the R410A refrigerant. When the requirement increases (water temperature up to 80°C), the second cycle of R134A refrigerant is activated. This way, consumption is reduced to a minimum and comfort is always guaranteed. (Fig. 1)

## Constant heating all year round down to -25°C

This equipment heats water up to 80°C using renewable energy, including extreme temperatures down to -25°C.

## Easy installation and maintenance

Its design means easy access to water and refrigerant connections and they are located in the upper part of the indoor unit.

Fig. 1: Smart Cascade cycle configuration

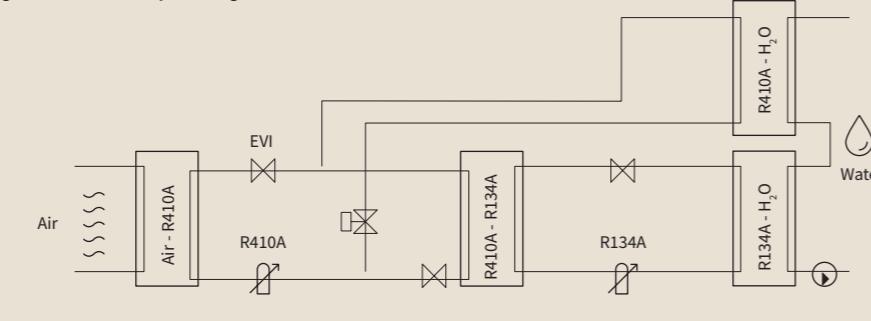


Fig. 2



## Controls and controllers

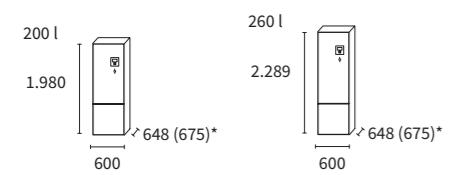
**Wired controller**  
PC-ARFH1E  
**Pre-tax price:**  
Included

**Wireless controller**  
ATW-RTU-07  
**Pre-tax price:**

- Others\***:
- 2nd zone kit with a 3-way valve and wall mounted circulator ATW-2TK-07
  - Hi-Box AHP-SMB-01
  - Hi Kumo gateway for Hi-Box ATW -TAG-02

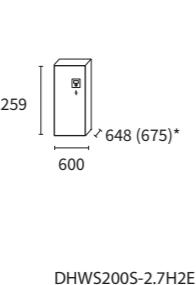
\* All prices are pre-tax

## Indoor units



RWH-4.0(V)NFWE  
RWH-5.0(V)NFWE  
RWH-6.0(V)NFWE

## Outdoor units



DHWS200S-2.7H2E

## Indoor units



RAS-4WH(V)NPE  
RAS-5WH(V)NPE  
RAS-6WH(V)NPE

\* with connections.

## Yutaki S80 Combi

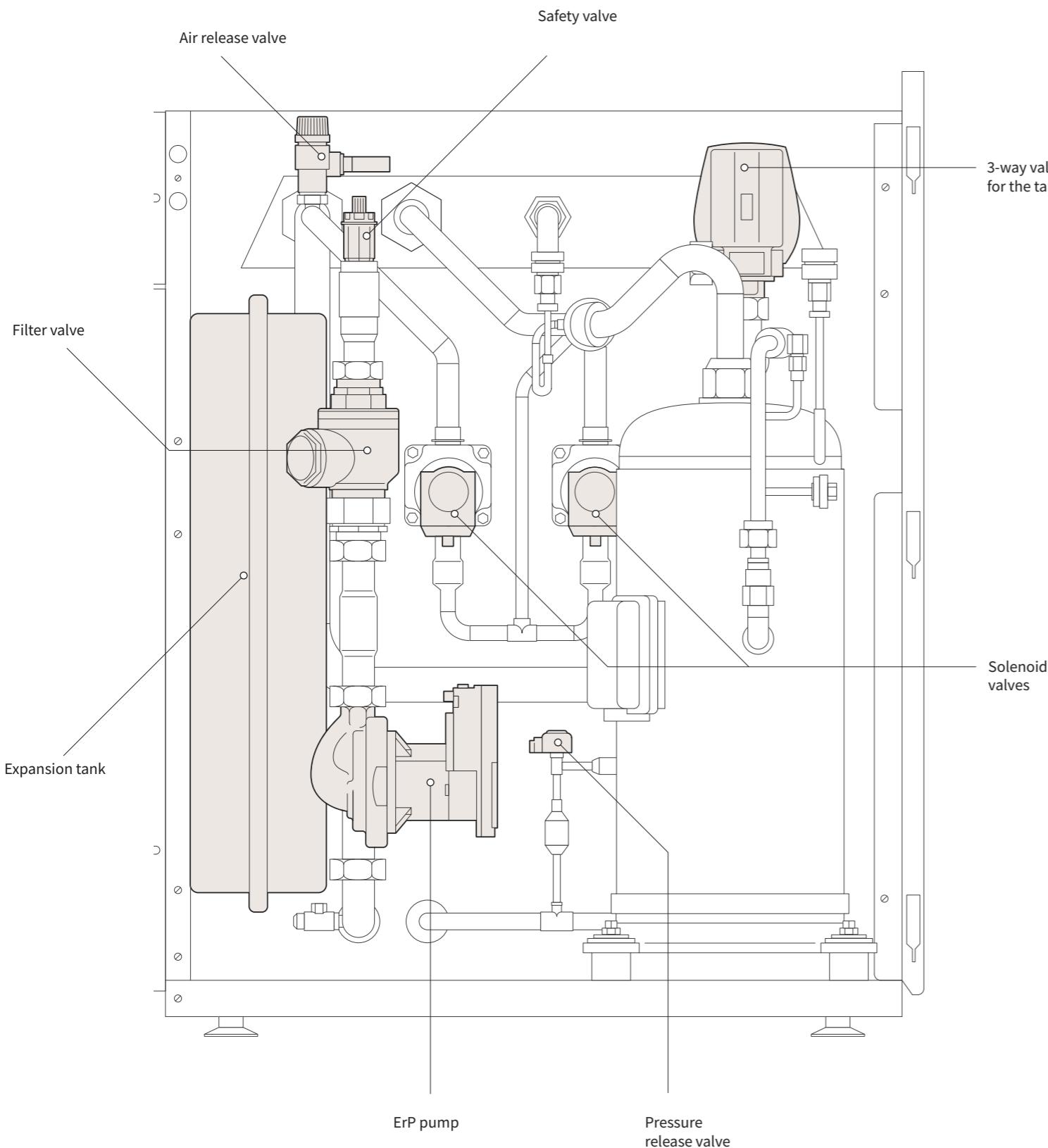
Model	R410A + R134A		
	YUTAKI S80 COMBI 11KW	YUTAKI S80 COMBI 14KW	YUTAKI S80 COMBI 16KW
<b>Heating performances</b>			
Min./nom./max capacity heating (7°C ext/35°C water)	kW	11/15.2	14/16.7
Nom./max capacity heating (-7°C ext/35°C water)	kW	9.7/10.6	11.5/12.2
Nom./max capacity heating (-7°C ext/55°C water)	kW	11/12.5	14/14.5
Power consumption heating (7°C ext/35°C water)	kW	2.2	2.97
COP (7°C ext/35°C water) acc. to EN14511		5	4.71
SCOP medium climate 35°C/55°C acc. to EN14825		4.75/3.63	4.43/3.35
Seasonal energy efficiency heating ηs (35°C) Single/Three <sup>(1)</sup>	%	189/188	177/176
Seasonal energy efficiency heating ηs (55°C) Single/Three <sup>(1)</sup>	%	138/137	135/135
Energy class 35°C/55°C		A++/A++	A++/A++
Water output temperature range (heating mode)	°C	20/80 °C	16/17.8
Max. water output temperature	°C	80°C down to -20 °C ext	12/13
<b>DHW performances</b>			
Seasonal energy efficiency nwh (200L cycle L/260L cycle XL)	%	130/134	30/75 °C
DHW energy class		A+	RWH-4.0VNFWE + DWHS(200/260)S-2.7H2E
Water output temperature range (DHW mode)	°C	139/146	RWH-5.0VNFWE + DWHS(200/260)S-2.7H2E
<b>Hydraulic modules</b>			
Single/Three-phase hydraulic module weight	kg	135/137	139/146
DHW tank weight (200L/260L)	kg	62/81	1980 x 600 x 648 // 2289 x 600 x 648
Dimensions (HxWxD) with integrated DHW tank 200L/260L	mm	57	200 or 260 L/Stainless steel
Sound pressure level	dB(A)		Included
DHW tank volume/DHW tank material	L		
Controller			
<b>Hydraulic specifications</b>			
Expansion tank	L	12	1.2/2.75/3.2
Water flow (min/nom/max)	m³/h	1/1.89/2.5	1.1/2.41/3.2
Hydraulic connections Heating (Male/male valves supplied)	inch	1"1/4 female	3/4" male
Hydraulic connections DHW	inch		
Minimum water volume for the installation	L	40	50
<b>Refrigerant specifications</b>			
Fluid		R134A	
Initial refrigerant charge pre-charged	kg	1.9 kg for 15m	SCROLL
Compressor			
<b>Electrical specifications</b>			
Electrical power		230V/1Ph/50Hz or 400V/3Ph/50Hz	
SINGLE-PHASE 230V	Max. current	A	30.5
	Cable diameter (mm²)/max. length (m)		3 x 6/30
THREE-PHASE 400V	Max. current	A	14
	Cable diameter (mm²)/max. length (m)	5 x 2.5/16	5 x 2.5/16
<b>Premium outdoor units</b>			
Pressure level at 1m/Acoustic pressure heating mode		49/61	50/63
Airflow	m³/h	4800	5400
Dimensions (H x W x D)	mm	1380 x 950 x 370	103
Weight	kg		-25~+25 // -25~+35
Operating ranges Heating/DHW	°C		
<b>Refrigerant specifications</b>			
Refrigerant pipe diameter (Liq/gas)	inch	3/8" 5/8"	
Min max length/Max height difference	m	5 - 75/20	
Initial charge of pre-charged refrigerant/Additional charge	kg/g/m	3.3 for 15m/60	3.4 for 15m/60
Refrigerant		R410A	
Compressor		SCROLL	
<b>Electrical specifications</b>			
Electrical power		230V/1Ph/50Hz or 400V/3Ph/50Hz	
SINGLE-PHASE 230V	Max. current	A	30.5
	Cable diameter (mm²)/max. length (m)		3 x 6/30
THREE-PHASE 400V	Max. current	A	14
	Cable diameter (mm²)/max. length (m)	5 x 2.5/16	5 x 2.5/16
Int/Ext wiring section (shielded)	mm²	2 x 0.75	

<sup>(1)</sup> Seasonal energy efficiency with integrated controller(V) = single.

\* For the 2/2.5/3HP models with R32, indoor units and outdoor units have different diameters of refrigerant gas pipes and refrigerant fluid pipes. Adapters are therefore supplied with the outdoor unit.

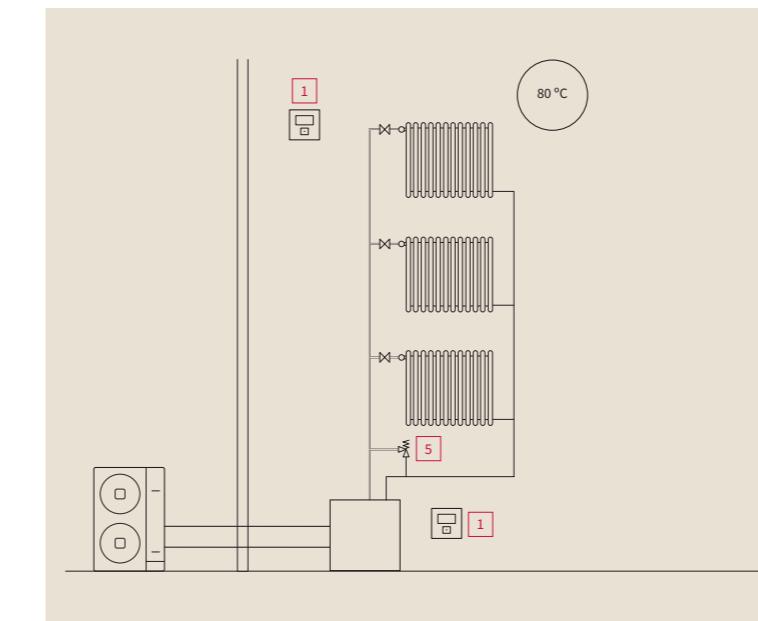
# Internal design

Yutaki S80 &amp; S80 Combi

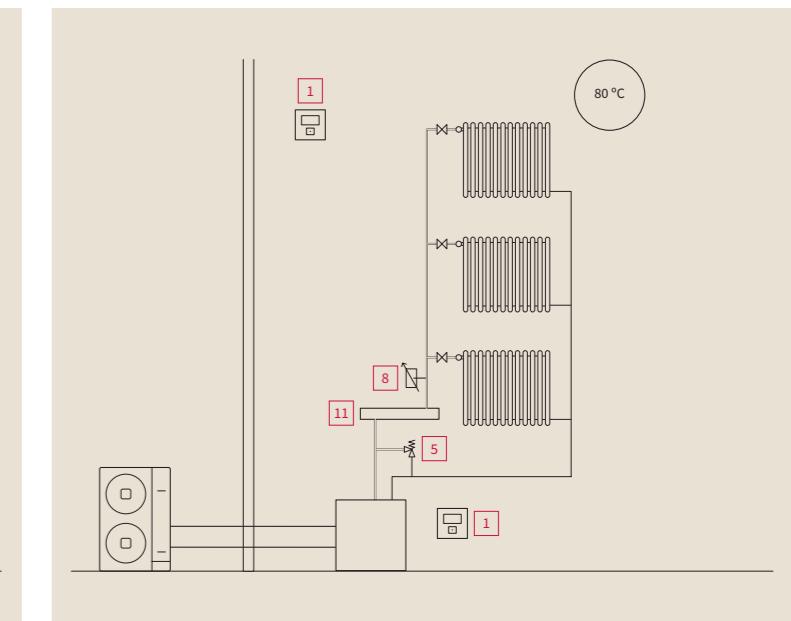


# Hydraulic configurations

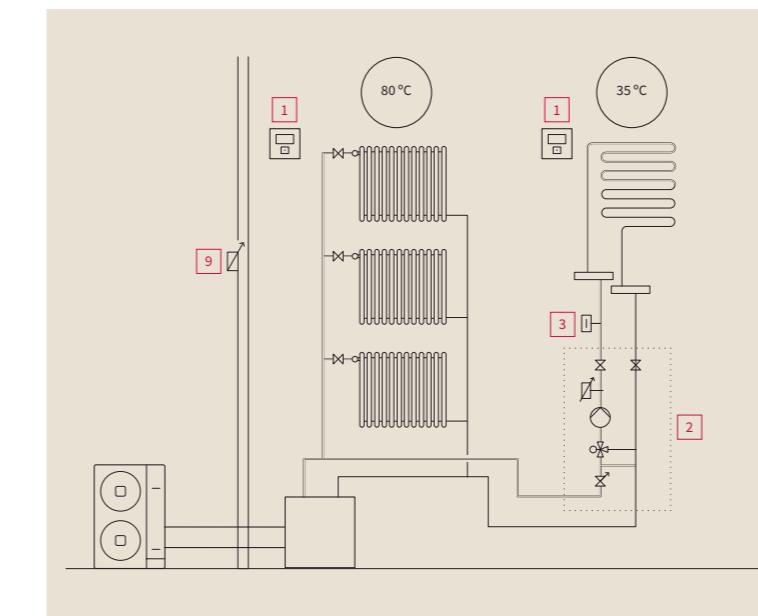
## Yutaki S80 and S80 Combi



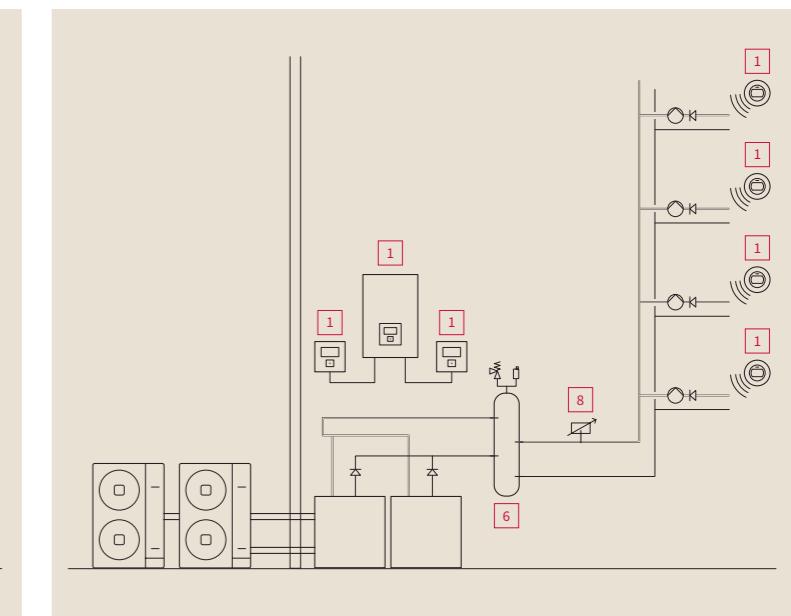
Boiler replacement  
Heating 1 circuit



Boiler replacement  
Heating 1 circuit



Boiler replacement  
Heating 2 circuits



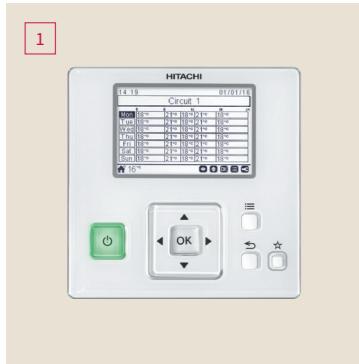
Boiler replacement  
Cascade: individual central heating application

Its flexible design enables a variety of installation and pipe connection options.

- Hydraulic module
- Hydraulic module + Hitachi domestic hot water tank, integrated.
- Hydraulic module + Hitachi domestic hot water tank, lateral.
- Hydraulic module + domestic hot water tank from other manufacturers.

1 See P. 66 for the accessories.

# Hydraulic accessories and regulators Yutaki S80 & S80 Combi



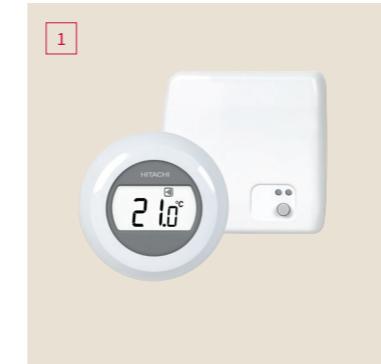
**Wired controller**  
PC-ARFH1E  
Heating only version not included  
S80 Combi version included



**Cover**  
To be used if remote ambient controller.  
ATW-FCP-01



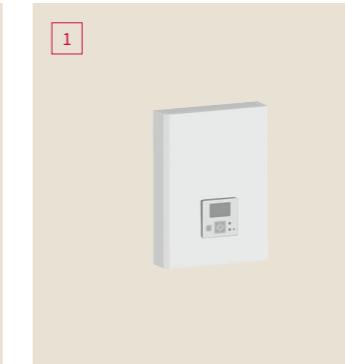
**Wired ambient sensor**  
ATW-ITS-01



**Wireless on/off ambient thermostat**  
ATW-RTU-04



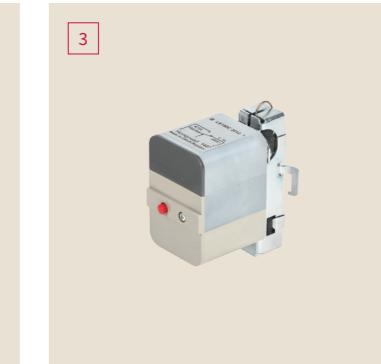
**Meter by use (RT2012)**  
Schneider®  
Not commercialized by Hitachi  
AEM-EM-2105 (single-phase)  
A9MEM3210 (three-phase)



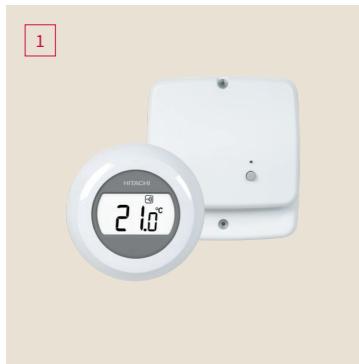
**Cascade control cabinet**  
Cascade management of up to 8 Yutaki in the same range and with the same capacity (single/three-phase).  
ATW-YCC-01



**2nd zone kit with a 3-way valve and wall mounted circulator**  
This accessory is essential when 2 separate temperature levels need to be maintained.  
ATW-2TK-07



**Safety aquastat maxi floor**  
This accessory is essential when the heat emitter is the underfloor type (DTU 65-14).  
ATW-AQT-01



**Ambient compensation wireless controller**  
1<sup>st</sup> circuit  
ATW-RTU-07



**Ambient compensation wireless controller**  
2<sup>nd</sup> circuit  
ATW-RTU-06



**Auxiliary outputs box**  
4 ports available: operation, alarm, cooling, thermo-OFF.  
ATW-AOS-02



**Hi - Box: Hi Kumo and Hi Kumo PRO home automation box**  
AHP-SMB-01



**3-way valve**  
DHW and pool applications.  
ATW-3WV-01



**Differential pressure overflow valve**  
This accessory ensures constant flow to the Heat Pump condenser.  
ATW-DPOV-01



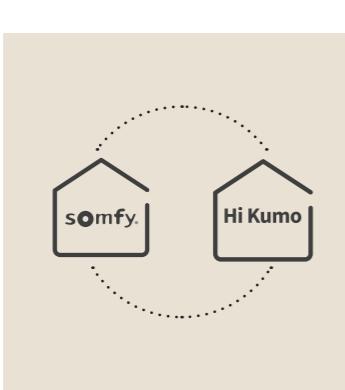
**Hydraulic separator cylinder for Heat Pump**  
This accessory hydraulically separates the network of emitters and boiler from that of the Heat Pump.  
ATW-HSK-01



**Domestic Hot Water storage tank**  
Stainless steel tank  
200 L: DHWT-200S-3.0H2  
(HxD) 1270 x 595 mm  
Pre-tax price: €  
300 L: DHWT-300S-3.0H2E  
(HxD) 1750 x 595 mm  
Pre-tax price: €



**Somfy® home automation box**  
1811527



**Somfy®/Hi Kumo Gateway**  
Communication gateway. Somfy® or Hi Kumo environment integration.  
ATW-TAG-02



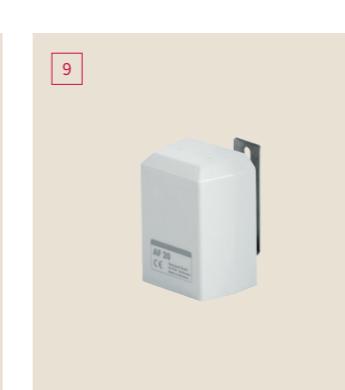
**KNX® communication interface**  
Communication gateway. KNX® environment integration.  
ATW-KNX-02



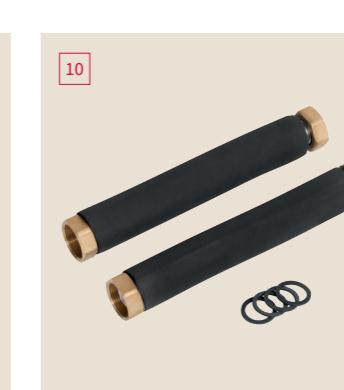
**Modbus communication interface**  
Communication gateway. Modbus® environment integration.  
ATW-MBS-02



**Universal sensor**  
Hot water, hydraulic separator, 2<sup>nd</sup> circuit, pool, solar. (Required if the tank is not a Hitachi DHWT)  
ATW-WTS-02Y



**Outdoor ambient temperature sensor**  
ATW-2OS-02



**Flexible water hose**  
ATW-FWP-03



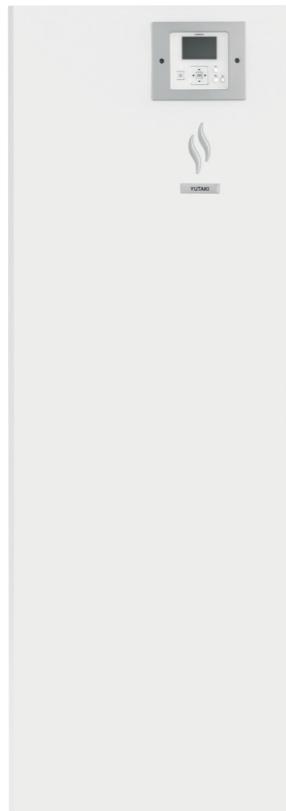
**Kit for installation with separate tank**  
Kit for installing the DHW tank next to the indoor unit.  
ATW-FWP-02

Pre-tax price: €

# Yutaki S Combi Lite

Dual service Heat Pump in new builds: DHW, heating and cooling

Yutaki S Combi Lite



## Yutaki S Combi Lite

### Indoor units

- Heat Pump Air - Water dual services.
- 200 L capacity.
- Available in 2 and 2.5 HP.
- Additional 3 kW heating element in the circuit (1 stage).
- Simplified electronic card.
- 1.5 kW additional electric tank heating element.

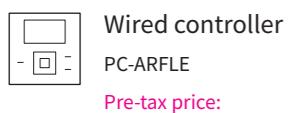
### Outdoor units

- A Hitachi DC Inverter compressor, guaranteeing operation down to -15°C.
- 20 m refrigerant length, offering a range of installation options.

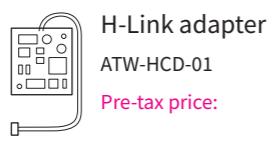
### Controller

- 2 circuits.
- 3 configurable inputs.
- 4 configurable outputs.
- 1 configurable sensor.

### Compatible controls and accessories



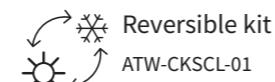
Wired controller  
PC-ARFLE  
Pre-tax price:



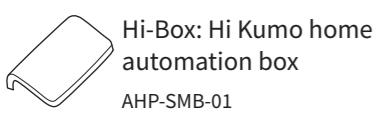
H-Link adapter  
ATW-HCD-01  
Pre-tax price:



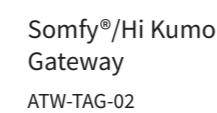
Cover  
ATW-FCP-01  
Pre-tax price:



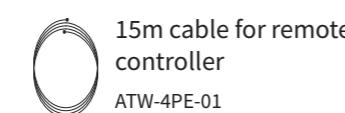
Reversible kit  
ATW-CKSCL-01  
Pre-tax price:



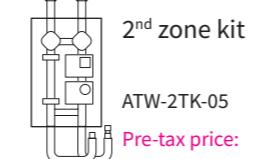
Hi-Box: Hi Kumo home automation box  
AHP-SMB-01  
Pre-tax price:



Somfy®/Hi Kumo Gateway  
ATW-TAG-02  
Pre-tax price:



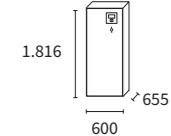
15m cable for remote controller  
ATW-4PE-01  
Pre-tax price:



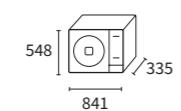
2<sup>nd</sup> zone kit  
ATW-2TK-05  
Pre-tax price:

### Indoor units

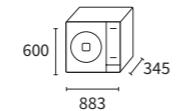
### Outdoor units



RWD-2.0NWLE-2005  
RWD-2.5NWLE-2005



RAS-2.0WHVN



RAS-2.5WHVN

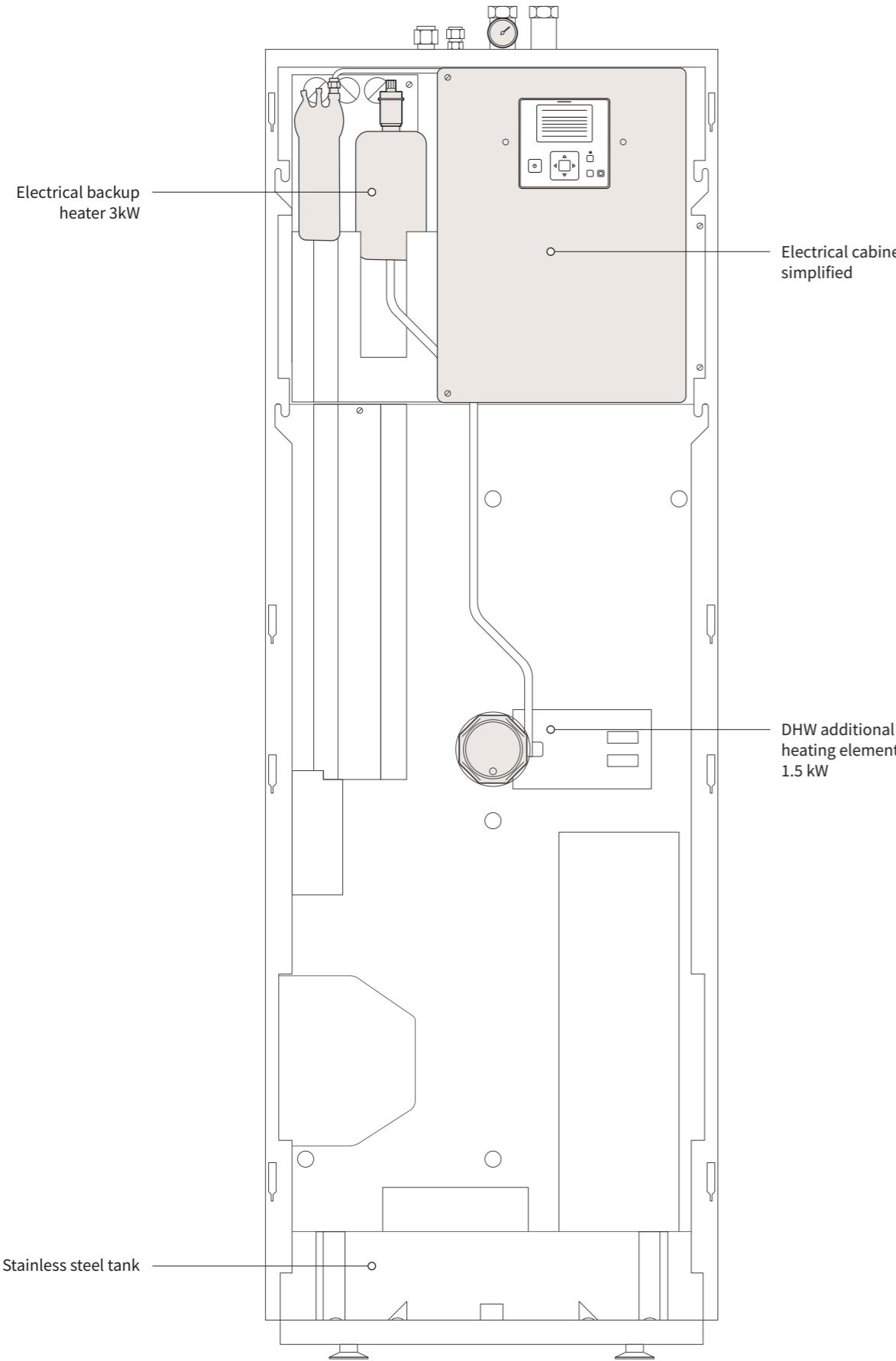
\* with connections.

FLUIDE R410A			
Model	YUTAKI S COMBI LITE 4kW		YUTAKI S COMBI LITE 6kW
<b>Heating performances</b>			
Min/nom./max capacity heating (7°C ext/35°C water)	kW	4/5.7	6/8
Nom./max capacity heating (-7°C ext/35°C water)	kW	3.55/4	4.55/5.3
Nom./max capacity heating (-7°C ext/55°C water)	kW	3.05/3.2	4/4
Power consumption heating (7°C ext/35°C water)	kW	1.39	1.71
COP (7°C ext/35°C water) acc. to EN14511		4.7	4.5
SCOP medium climate 35°C/55°C acc. to EN14825		4.25/3	4.21/3.2
Seasonal energy efficiency heating ηs (35°C) Single/Three <sup>(1)</sup>	%	167	165
Seasonal energy efficiency heating ηs (55°C) Single/Three <sup>(1)</sup>	%	117	125
Energy class 35°C/55°C		A++/A+	A++/A++
Water output temperature range (heating mode)	°C	20/55 °C	
Max. water output temperature	°C	55°C down to -10 °C ext	
<b>DHW performances</b>			
COP DHW 200L		3.3	
Seasonal energy efficiency nwh 200L cycle L	%	125	
DHW energy class		A+	
Water output temperature range (DHW mode)	°C	30/55 °C	
<b>Cooling Performances (option)</b>			
Nom. capacity cooling (35°C ext/7°C water)(reversible)	kW	3.8	5
Power consumption cooling (35°C ext/7°C water)	kW	-	-
EER (reversible model)		3.12	3.15
Reversible seasonal energy efficiency ηs (35°C) <sup>(1)</sup>	%	168	166
Reversible seasonal energy efficiency ηs (55°C) <sup>(1)</sup>	%	117	125
<b>Hydraulic modules</b>	RWD-2.0NWLE-2005		RWD-2.5NWLE-2005
Additional electrical heating element as standard	kW	3	3
DHW additional electrical heating element as standard	kW		
Weight 200L	kg	1.5	
Dimensions (HxWxD)	mm	99	
Sound pressure level	dB(A)	1816 x 600 x 655	
DHW tank volume/DHW tank material	L	37	
Controller		200 L/Stainless steel	
		Included	
<b>Hydraulic specifications</b>			
Expansion tank	L	6	
Water flow (min/nom/max)	m <sup>3</sup> /h	0.5/0.77/1.8	
Hydraulic connections Heating (Male/male valves supplied)	inch	1"	
Hydraulic connections DHW	inch	3/4"	
Minimum water volume for the installation	L	28	
<b>Electrical specifications</b>			
Electrical power		230V/1Ph/50Hz	
SINGLE-PHASE 230V	Max. current A	19.4	
	Cable diameter (mm <sup>2</sup> )/max. length (m)	3 x 6/30	
<b>Premium outdoor units</b>	RAS-2.0WHVN		RAS-2.5WHVN
Pressure level at 1m/Acoustic pressure heating mode	dB(A)	/63	/63
Airflow	m <sup>3</sup> /h	2436	
Dimensions (H x W x D)	mm	548 x 841 x 335	600 x 883 x 345
Weight	kg	33	41
Operating ranges Cooling/Heating/DHW	°C	+10~+43 // -15~+25 // -15~+35	
<b>Refrigerant specifications</b>			
Refrigerant pipe diameter (Liq/gas)	inch	1/4" 3/8"	1/4" 1/2"
Min max length/Max height difference	m	5 - 20/10	
Initial refrigerant charge pre-charged	kg	1.2 for 20m	1.3 for 20m
Refrigerant		R410A	
Compressor		ROTARY	
<b>Electrical specifications</b>			
Electrical power		230V/1Ph/50Hz	
SINGLE-PHASE 230V	Max. current A	14.1	
	Cable diameter (mm <sup>2</sup> )/max. length (m)	3 x 2.5/24	
Int/Ext wiring section (shielded)	mm <sup>2</sup>	2 x 0.75	

<sup>(1)</sup> Seasonal energy efficiency with integrated controller. (V) = single.

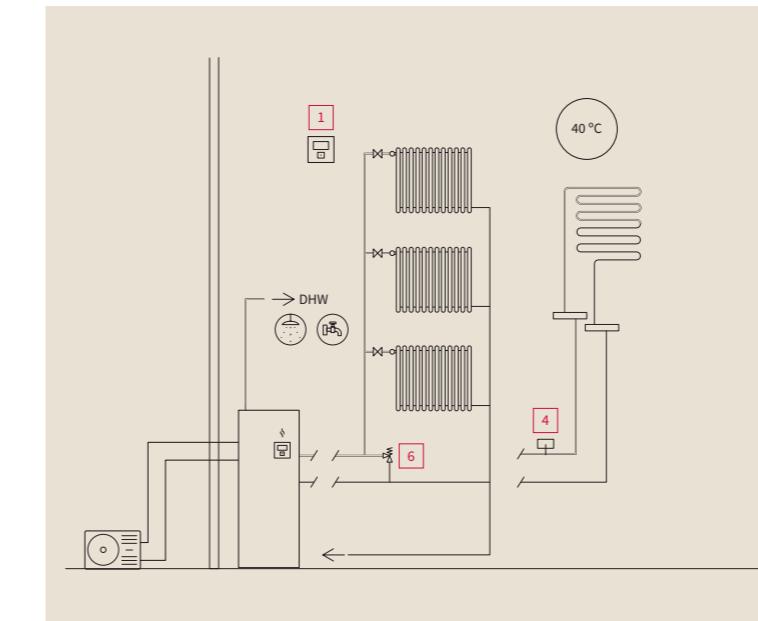
# Internal design

Yutaki S Combi Lite

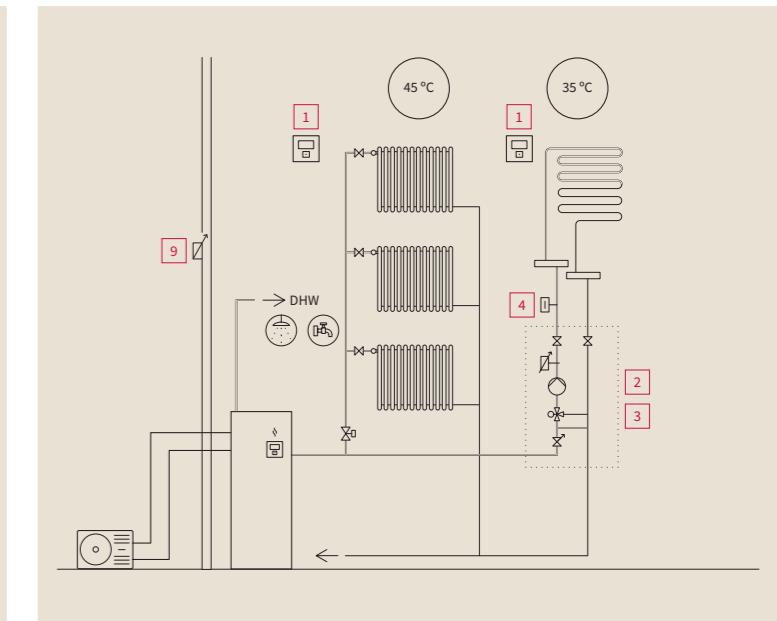


# Hydraulic configurations

## Yutaki S Combi Lite



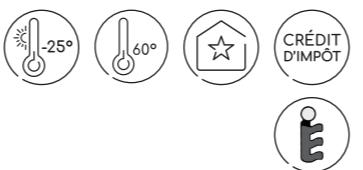
Heating 1 radiator circuit or underfloor heating + DHW



Heating 2 zones with radiator circuits and underfloor heating + DHW

# Yutaki M

Without refrigerant connections:  
heating, cooling and DHW



## Ideal for small spaces

The monobloc heating solution is ideal for small spaces because it comprises a single unit installed outside. Your interior therefore remains unchanged.

## Easy installation

Installing a monobloc unit is quick and economical because all components are connected and there are no refrigerants connections.

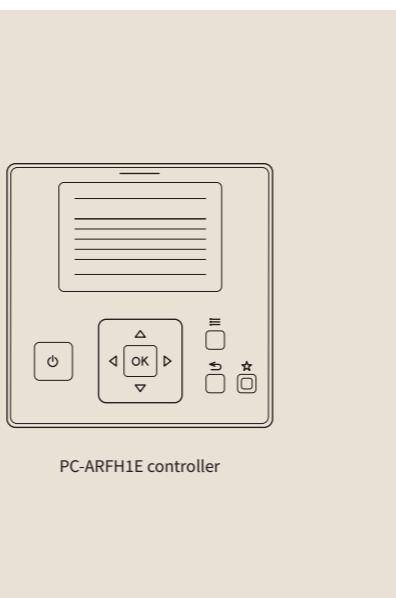
## Cooling and heating in the same system all year round

By combining the Yutaki M monobloc with the reversible kit, the accessory for inverting heat pump operation, maximum comfort is guaranteed all year round. The installation provides heating in winter and cooling in summer.

## Easy, smart control

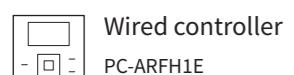
The LCD controller can plan daily and weekly programs, manage water production temperature, operating modes etc. (Fig. 1)

Fig. 1



PC-ARFH1E controller

## Controls and controllers

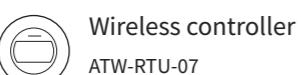


Wired controller

PC-ARFH1E

Pre-tax price:

Not included



Wireless controller

ATW-RTU-07

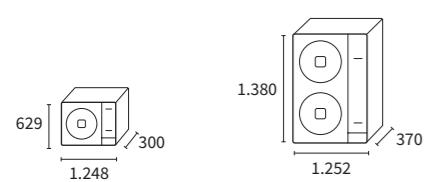
Pre-tax price:

## Others\*:

- 2nd zone kit with a 3-way valve and wall mounted circulator ATW-2TK-07
- Hi-Box AHP-SMB-01
- Hi Kumo gateway for Hi-Box ATW-TAG-02

\* All prices are pre-tax

## Outdoor units

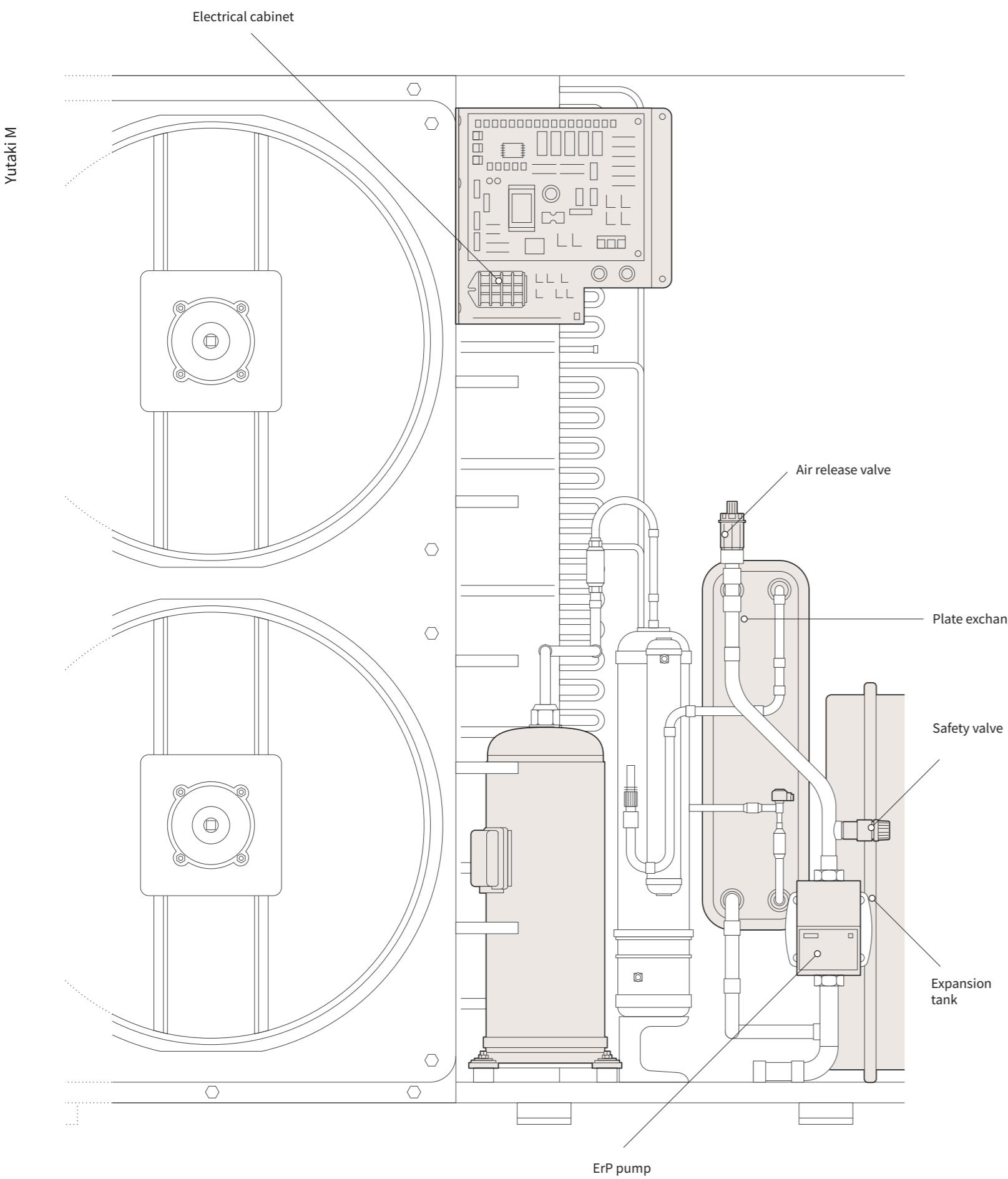
RASM-2VRE  
RASM-3VRERASM-4(V)NE  
RASM-5(V)NE  
RASM-6(V)NE

## Yutaki M

Model	R32			R410A		
	YUTAKI M 4.3KW	YUTAKI M 8KW	YUTAKI M 11KW	YUTAKI M 14KW	YUTAKI M 16KW	
<b>Heating performances</b>						
Min/nom./max capacity heating (7°C ext/35°C water)	kW	1.85/4.3/6.5	2.1/8/11	11/15.2	14/16.7	16.0/17.8
Nom./max capacity heating (-7°C ext/35°C water)	kW	4.5/5.3	5.8/7.5	9.7/10.6	11.5/12	12/13
Nom./max capacity heating (-7°C ext/45°C water)	kW	/5	/6.67	10/10.3	11/11.6	11.5/12.5
Nom./max capacity heating (-7°C ext/55°C water)	kW	4/4.2	5/5.5	8.7/9.8	9.7/11.2	10.5/12
Power consumption heating (7°C ext/35°C water)	kW	1	1.94	2.2	2.97	3.5
COP (7°C ext/35°C water) acc. to EN14511		5.25	4.6	5	4.71	4.57
SCOP medium climate 35°C/55°C acc. to EN14825		4.73/3.48	4.55/3.25	4.8/3.5	4.48/3.43	3.9/3.23
Seasonal energy efficiency heating $\eta_s$ (35°C) Single/Three <sup>(i)</sup>	%	181	177	187/186	175/174	153/152
Seasonal energy efficiency heating $\eta_s$ (55°C) Single/Three <sup>(i)</sup>	%	133	125	136/135	133/133	125/125
Energy class 35°C/55°C		A+++/A+++		A+++/A++		A++/A++
Water output temperature range (heating mode)	°C	20/60 °C		20/60 °C		60°C down to -10 °C ext
Max. water output temperature	°C	60°C down to -5 °C ext				
<b>DHW performances</b>						
Nom./max capacity cooling (35°C ext/7°C water)(reversible)	kW	4/5	6.5/7	7.2/11.8	9.5/12.6	10.5/13.7
Power consumption cooling (35°C ext/7°C water)	kW	0.8	1.7	2.18	2.95	3.72
EER (reversible model)		4	3.35	3.3	3.22	2.82
Reversible seasonal energy efficiency $\eta_s$ (35°C) Single/Three <sup>(i)</sup>	%	186	179	189	176	153
Reversible seasonal energy efficiency $\eta_s$ (55°C) Single/Three <sup>(i)</sup>	%	136	127	137	134	126
<b>Monobloc unit</b>						
Heating additional electrical heating element (option)	kW	6 (2 + 2 + 2)	6 (2 + 2 + 2)	6 (2 + 2 + 2)	6 (2 + 2 + 2)	6 (2 + 2 + 2)
Weight	kg	76	78	131	133	133
Dimensions (HxWxD)	mm	704 x 1248 x 300		1380 x 1252/370		
Sound pressure level/sound power	dB(A)	46/61	54/67	-/64	-/65	-/67
Airflow	m³/h	2682	4800	4800	5400	6000
Operating ranges Cooling/Heating/DHW	°C	+10~+46 // -20~+25 // -20~+35	Not included	+10~+46 // -25~+25 // -20~+35		
Controller				Not included		
<b>Hydraulic specifications</b>						
Expansion tank	L	6		6		
Water flow (min/nom/max)	m³/h	0.5/0.77/1.9	0.6/1.29/2.1	1/1.89/2.8	1.1/2.41/3	1.2/2.75/3
Heating hydraulic connections (male-male valves supplied)	inch	1"		1" 1/4		
Minimum water volume for the installation	L	28		38	46	55
<b>Electrical specifications</b>						
Electrical power		230V/1Ph/50Hz			230V/1Ph/50Hz or 400V/3Ph/50Hz	
SINGLE-PHASE 230V	A	10.6	16	30.8	30.8	30.8
		3 x 2.5/14	3 x 4/16	3 x 6/		
	A	23.1	28.5	43.3	43.3	43.3
		3 x 6/28		3 x 10		
THREE-PHASE 400V	A	-	-	14.3	14.3	16.3
		-		5 x 6		
	A	-	-	26.8	26.8	28.8
		-		5 x 10		
<b>Refrigerant specifications</b>						
Initial refrigerant charge pre-charged	kg	1.2		2.8	3.1	3.1
Refrigerant		R32			R410A	
Compressor		SCROLL	ROTARY	SCROLL	SCROLL	SCROLL

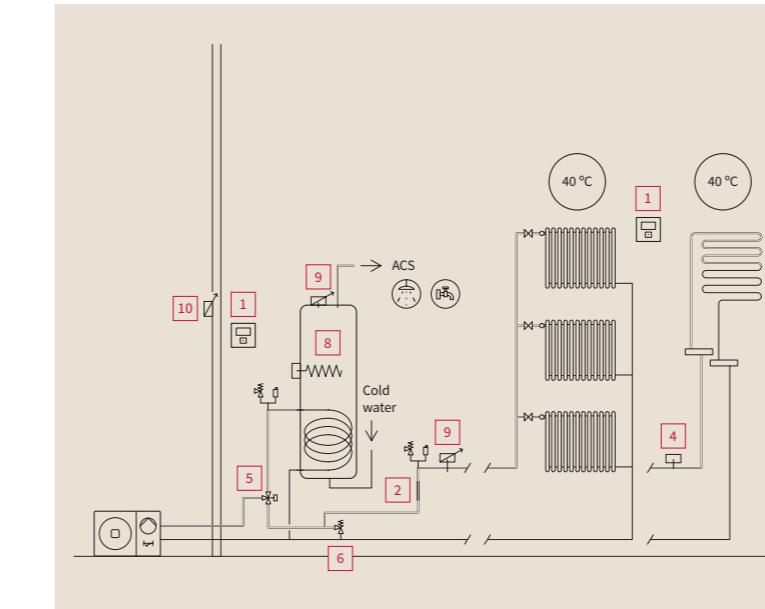
<sup>(i)</sup> Seasonal energy efficiency with integrated controller(V) = single.

# Internal design

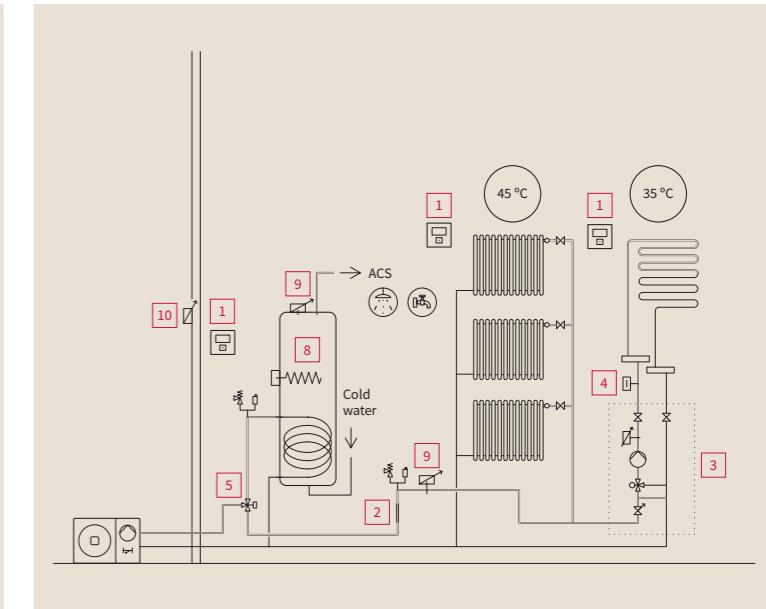


# Hydraulic configurations

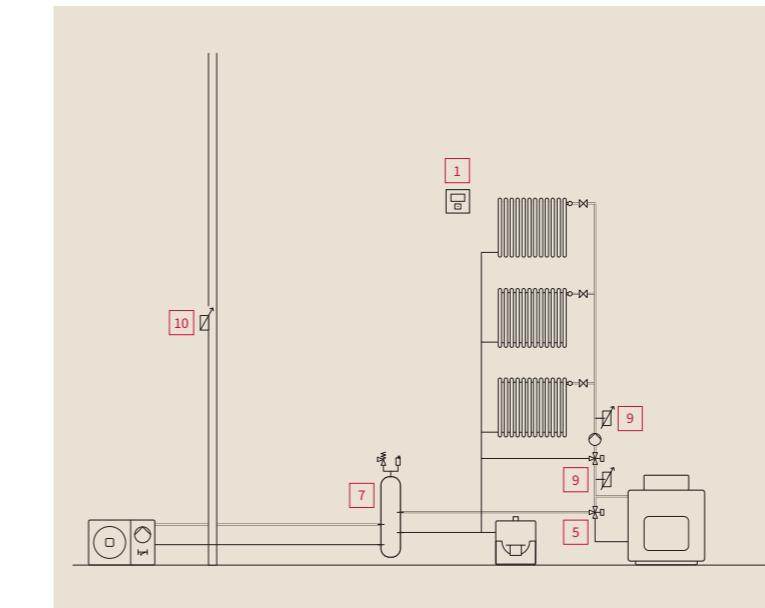
## Yutaki M



## Application for new build and renovation



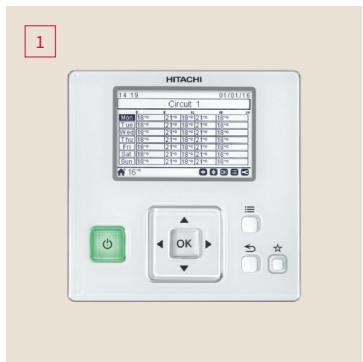
## Application for new build and renovation



## Application for renovation

**1** See P. 76 for the accesso

# Hydraulic accessories and regulators Yutaki M



Wired controller  
PC-ARFH1E



Wired ambient sensor  
ATW-ITS-01



Wireless on/off ambient  
thermostat  
ATW-RTU-04



Ambient compensation  
wireless controller  
1<sup>st</sup> circuit  
ATW-RTU-07

Pre-tax price: €

Pre-tax price: €

Pre-tax price: €

Pre-tax price: €



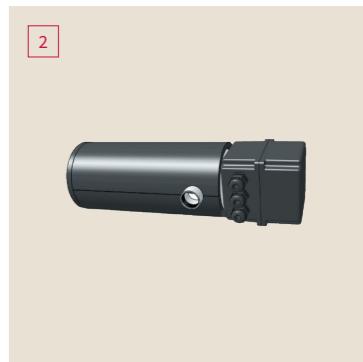
Reversible kit  
Equipment required for operating in  
cooling (included in the reversible  
version).  
ATW-CKM-01



Cascade control cabinet  
Cascade management of up to 8  
Yutaki in the same range and with the  
same capacity (single/three-phase).  
ATW-YCC-01



Control cabinet  
Contains electrical connections and  
the controller. Controller PC-ARFHE  
optional.  
ATW-YMM-01



Electrical backup heater  
WEH-6



Ambient compensation  
wireless controller  
2<sup>nd</sup> circuit  
ATW-RTU-06



Auxiliary outputs box  
4 ports available: operation, alarm,  
cooling, thermo-OFF.  
ATW-AOS-02



Hi - Box: Hi Kumo and  
Hi Kumo PRO home  
automation box  
AHP-SMB-01



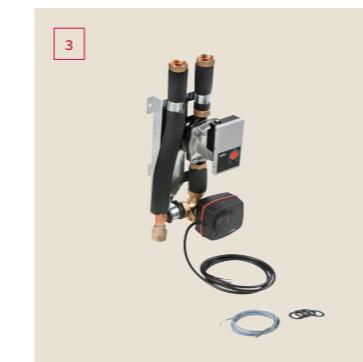
Somfy® home  
automation box  
1811527

Pre-tax price: €

Pre-tax price: €

Pre-tax price: €

Pre-tax price: €



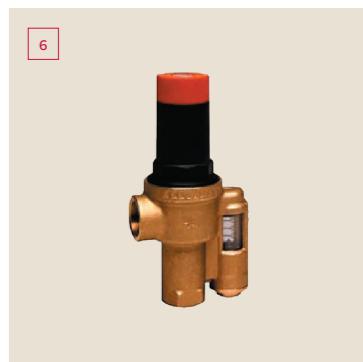
2nd zone kit with a 3-way  
valve and wall mounted  
circulator  
This accessory is essential when 2  
separate temperature levels need to  
be maintained.  
ATW-2TK-07  
Pre-tax price: €



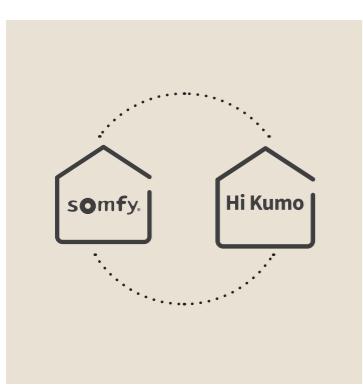
Safety aquastat maxi  
floor  
This accessory is essential when the  
heat emitter is the underfloor type  
(DTU 65-14).  
ATW-AQT-01



3-way valve  
DHW and pool applications.  
ATW-3WV-01



Differential pressure  
overflow valve  
This accessory ensures constant flow  
to the Heat Pump condenser.  
ATW-DPOV-01



SOMFY®/Hi Kumo  
GATEWAY

COMMUNICATION GATEWAY. SOMFY® OR  
HI KUMO ENVIRONMENT INTEGRATION.  
ATW-TAG-02



KNX® communication  
interface

Communication gateway. KNX®  
environment integration.  
ATW-KNX-02



Modbus communication  
interface

Communication gateway. Modbus®  
environment integration.  
ATW-MBS-02



Meter by use (RT2012)  
Schneider®

Not commercialized by Hitachi  
AEM-EM-2105 (single-phase)  
A9MEM3210 (three-phase)

Pre-tax price: €

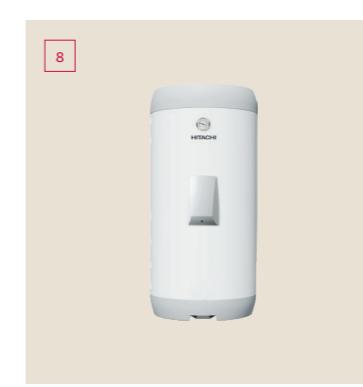
Pre-tax price: €

Pre-tax price: €



Hydraulic separator  
cylinder for Heat Pump

This accessory hydraulically separates  
the network of emitters and boiler  
from that of the Heat Pump.  
ATW-HSK-01



Domestic Hot Water  
storage tank

Stainless steel tank  
200 L: DHWT-200S-3.0H2  
(HxD) 1270x595 mm  
Pre-tax price: €



Universal sensor

Hot water, hydraulic separator, 2<sup>nd</sup>  
circuit, pool, solar. (Required if the  
tank is not a Hitachi DHWT)  
ATW-WTS-02Y



Outdoor ambient  
temperature sensor

ATW-2OS-02

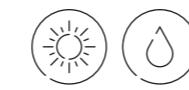
The SPLIT thermodynamic centralized or individual storage solutions guarantee energy savings and comfort, while respecting the environment.

In addition, the French RT2012 energy regulations impose the implementation of renewable energy-based low-consumption systems in new builds and renovations.



# — Domestic hot water





## Quick selection table

Yutampo R32



Yutampo R32



CETD SPLIT

Application

Residential

Capacity (kW)

3.5

Capacities (liters)

190  
270

COP

3.2\*

\* preliminary data

# Yutampo R32

The most economic solution to produce hot water

Yutampo R32



## Yutampo R32

### Maximum comfort, minimum consumption

The Yutampo R32 thermodynamic water heater provides domestic hot water for a family of six, using the renewable energy contained in the air outside.

This means **70% energy savings** compared with a standard water heater.

### Made-to-measure tank

The Yutampo R32 comes with two models offering capacities of 190 and 270 liters, adapted to the requirements of every household. Only 60 cm wide, the thermodynamic tank is as compact as a standard kitchen unit.

### Fast water heating

Thanks to its heating power, the YUTAMPO R32 is one of the fastest water heaters on the market,

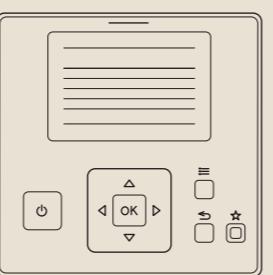
requiring only 3 hours and 15 minutes to heat the water in the entire tank to an ultra-precise temperature, even during winter at temperatures as low as -15°C.

### Improved durability and water purity

The storage tank is made of very high quality food-grade stainless steel. It provides greater resistance to high temperatures and corrosion. Its anti-bacteria function also rules out any risk of the development of impurities.

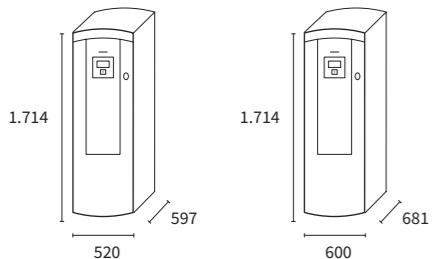
### Remote control

The tank can be remotely controlled with Hi Kumo App, from your smartphone. The tank can also be connected to KNX for integration with different domestic automation systems.



Controller inspired by the Yutaki range

### Indoor units



TAW-190RHC

### Outdoor units



TAW-270RHC

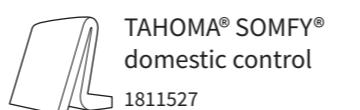
RAW-35RHC

Tank	Unit	VERSION 190L	VERSION 270L
COP according to EN16147 (190L profil L / 270L profil XL)*		3,12	3,22
Seasonal energetic efficiency nwh (190L profil L / 270L profil XL)*		125	127
Energy efficiency class*		A	A
Water temperature without / with backup electric heater	°C	55 / 75	
Heating time according EN16147*	h:min	1h40	1h43
Water volume available at 40°C according to EN16147*	L	256	356
Tank		TAW-190RHC	TAW-270RHC
Volume	L	190	270
DHW connections	Pouce	3/4" M	1/4" - 3/8"
Refrigerant Flare connections	Pouce		
Tank material		Acier Inox	
Electrical backup heater	kW	1,5	
Tank dimensions (HxDxW)	mm	1714x520x597	1714x600x681
Weight	kg	54	65
Pes*	W	24,9	20
Outdoor Unit		RAW-35RHC	
Working range	°C	-15~+37	
Average heating capacity returned	kW	3,5	
Min. length/max. length/Max. height difference	m	5 - 20 / 10	
Max Intensity	A	7,9	
Sound pressure at 1m / Sound Power	dB(A)	- / 63	
Dimensions (HxDxW)	mm	548x841x335	
Weight	kg	32,5	
Refrigerant quantity	kg	1	
Refrigerant		R32	
Electrical connections		3 possibilities	
Supply		Par la ballon From the tank	Par le groupe From the outdoor unit
Max Intensity	A	7,4	7,9
CABLE SECTION (MM <sup>2</sup> ) / MAX LENGTH		3 x 1,5	3 x 1,5
Indoor/Outdoor connection	mm <sup>2</sup>	2 x 0,75	2 x 0,75
Common ballon + groupe Common tank + outdoor unit		15,4	3 x 4

\* Preliminary data

### Domestic hot water

### Compatible controls and accessories



TAHOMA® SOMFY®  
domestic control

1811527

Price pre-tax:

SOMFY® / Hi Kumo  
gateway

ATW-TAG-02

Price pre-tax:



KNX communication  
interface

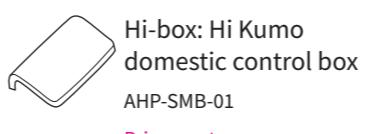
ATW-KNX-02

Price pre-tax: €



Adaptateur  
H-Link  
ATW-HCD-01

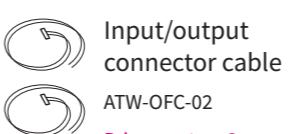
Prix HT : €



Hi-box: Hi Kumo  
domestic control box

AHP-SMB-01

Price pre-tax:



Input/output  
connector cable

ATW-OFC-02

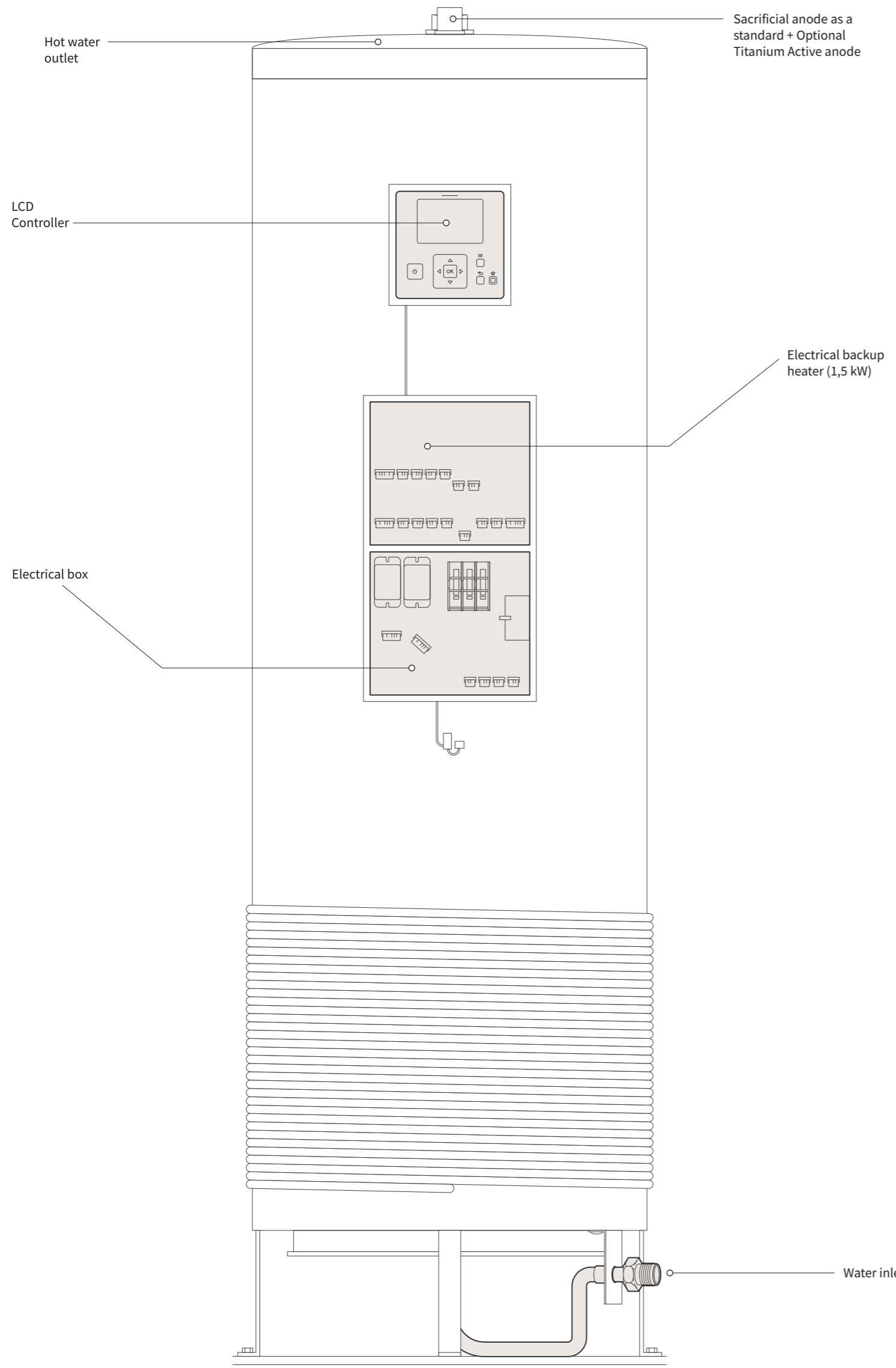
Price pre-tax: €



Active Anode  
ATW-CP-05

Prix HT : €

# Internal Design



The 1st Multi-splits R32 thermodynamic water heater.  
Water heater/Heating/Air-conditioning.  
Ideal for both houses and apartments, the Triple C solution can reach a comfortable heating and cooling temperature in just a few minutes and covers an entire family's hot water requirements. Discreetly installed, it offers genuine space savings with convectors or radiators no longer needed on the walls. It supplies quiet and gentle heating and cooling.



# Triple C R32

Multi-split thermodynamic water heater



Wall



Consoles



Cassettes

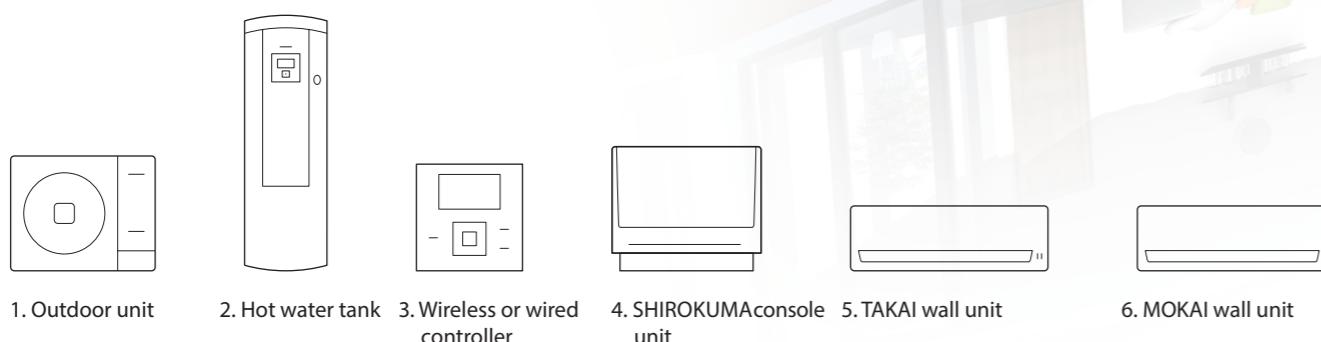


Ducted





# Multi-split thermodynamic water heater



1. Outdoor unit

2. Hot water tank

3. Wireless or wired controller

4. SHIROKUMA console unit

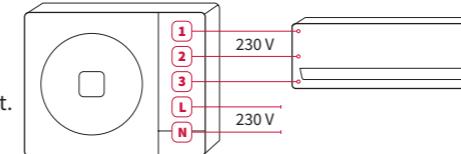
5. TAKAI wall unit

6. MOKAI wall unit

## Please note

The supplied capacity of each indoor unit depends on the outdoor unit, the selected combination, pipe length and outdoor temperature. The pipe length used to determine the values above is 10 m. Total capacity cannot exceed the unit capacity: please refer to the combination table. For more information on selecting, please refer to our technical documentation or use the Hi-ToolKit software.

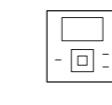
Indoor units are powered with 220-230 V from the outdoor unit.



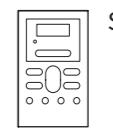
## Compatible controls and accessories



Wireless weekly controller  
Standard on Wall units, Consoles or Cassettes. Option on Ducted units.



Programmable wired controller  
SPX-WKT3



Simplified wired controller

Price (pre-tax):

## Performances

A market leader  
- Efficient heating: high capacities down to -7 °C for maximum comfort.  
- Quiet outdoor units.

## Design

The Triple C range offers a multitude of combinations  
- Combine a Takai wall unit and Shirokuma console for harmonious design.  
- Install ducted units for complete discretion.  
- Ducted: Up to 150 Pa available pressure for more flexible installation.  
- Use Cassettes to save floorspace.

## Hitachi exclusive

Vector control  
- This Hitachi-patented system optimizes outdoor unit compressor operation for unmatched performance.

Hibernate  
- Intelligent outdoor unit control reduces their consumption by over 70% in standby mode.

# Multi-split thermodynamic water heater R32



**NEW**

Available in June 2020



**Yutampo R32** (Preliminary data)

Tank	Unit	TAW-190RHC	TAW-270RHC
Capacity	L	190	270
DHW connections	inch	3/4 M	270
FLARE refrigerant connections	inch	1/4 - 3/8	
Tank		STAINLESS STEEL	
Electrical heating element	W	1500	
DHW temperature without additional source (with additional source)	°C	55 (75)	
Available or supplied heating time (15°C - 55°C)	h	2h10	2h55
Available or supplied water volume (at 40°C)	L	256	356
PES	W	24.9	20.0
Tank dimensions (H x Ø x D)	mm	1620 x 520 x 594	1620 x 600 x 674
Weight	kg	49	54
Seasonal energy efficiency nwh (190L cycle L/270L cycle XL)**	%	125	125
Outdoor unit	Unit	RAM-53NYP3E	RAM-70NYP4E
Number of connectable units (min - max)		1/2	2/3
Capacity Cooling (min-max)	kW	5.30 (1.50 - 6.60)	7.00 (2.40 - 8.80)
Capacity Heating (min-max)	kW	6.80 (1.50 - 7.20)	8.50 (2.60 - 9.50)
Capacity at full charge at -7°C <sup>(1)</sup>	kW	5.50	6.50
Absorbed nom. capacity Cooling (min-max)	kW	1.29 (0.20 - 1.68)	1.89 (0.46 - 3.20)
Absorbed nom. capacity Heating (min-max)	kW	1.61 (0.20 - 2.01)	2.02 (0.48 - 3.12)
EER/COP		4.10/4.20	3.70/4.20
SEER/SCOP (medium climate)		8.50/4.60	8.10/4.60
Seasonal energy class (Cooling/Heating)		A+++/A++	A++/A++
Sound level Cooling (pressure)	dB(A)	50	53
Sound pressure	dB(A)	50/61	57/66
Air flow (Cooling/Heating)	m³/h	2160/2160	2700/2700
Dimensions (H x W x D)	mm	800 x 850 x 298	800 x 850 x 298
Weight	kg	54	58
Electrical power		220-230V	
Maximum current	A	8	10
Cable diameter (EN 60 335 - 1)	mm²	2.50 x 2+T	
Indoor/outdoor wiring section	mm²	1.50 x 3+T	
Pipe diameter (Liq/gas)	inch	(1/4 x 3/3/8 x 3)	(1/4 x 4/3/8 x 3 + 1/2 x 1)
Initial refrigerant charge	kg	2.05	2.40
Pre-charged for	m	30	35
Minimum length	m		3
Maximum length/Additional refrigerant	m/g/m	60/20	75/15
Maximum height difference	m		20
Guaranteed performances Cooling/Heating	°C	+46°C/-10 °C	R32
Refrigerant			
Compressor			TWIN ROTARY
* Provisional data			
Price	Ref.	Pre-tax price	
Yutampo R32 190L tank	TAW-190RHC		
Yutampo R32 270L tank	TAW-270RHC		
5.3kW outdoor unit	RAM-53NYP3E		
6.8kW outdoor unit	RAM-70NYP4E		
8.5kW outdoor unit	RAM-90NYP5E		

\*\* Acc. to standards 1647. Energy efficiency.

<sup>(1)</sup> Data includes defrosting. For the data corresponding to your project, use our technical catalogs or the Hi-ToolKit for business software.

Control & controllers	Ref.	Pre-tax price
SOMFY™ home automation box	1811527	
Hi-Box: Hi Kumo home automation box	AHP-SMB-01	
SOMFY®/Hi Kumo Gateway	ATW-TAG-02	
H-Link adapter	ATW-HCD-01	
KNX COMMUNICATION INTERFACE	ATW-KNX-02	
15 m cable for remote controller	ATW-4PE-01	
Connector cable configurable input/outputs	ATW-OFC-01	
Front cover	ATW-FCP-02	
MODBUS adapter	ATW-MBS-02	

## Stainless steel water tanks

- Compact (L520 x H1714 x P597mm).
- Refrigerant connections at the front.
- Grab handles.
- Refrigerant connections up to 20 m.
- Highest energy class (A).
- High-speed heating time: 2 hours 10 mins (190 L) and 2 hours 55 mins (270 L).
- DHW boost function for special requirements.
- Silent: split technology ensures installation within the heated area without noise pollution.

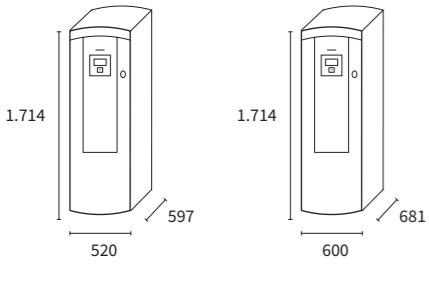
Applicable only on tank + unit combinations:

- RAM-53NYP3E + TAW-190RHC
- RAM-53NYP3E + TAW-270RHC
- RAM-70NYP4E + TAW-190RHC
- RAM-70NYP4E + TAW-270RHC
- RAM-90NYP5E + TAW-190RHC
- RAM-90NYP5E + TAW-270RHC (Indoor units excluded from these devices).

## Multi-split outdoor units

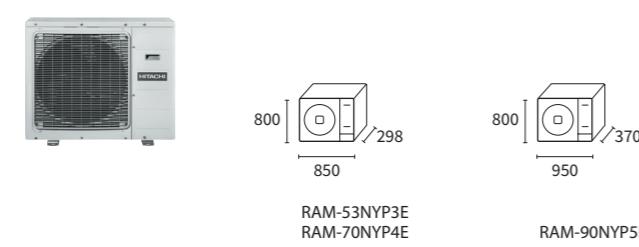
- Up to 11.5 kW of available capacity for heating.
- Excellent max capacity at -7°C equivalent to 7.8 kW.
- Able to connect a tank with a minimum of 1 indoor unit. Up to 4 possible.
- 3 groups available : 6,8kW, 8,5kW, 10,0kW.

### Indoor units



TAW-190RHC

### Outdoor units



TAW-270RHC

## Compatible indoor units

	<b>Takai wall</b> RAK-18QXE RAK-25-50RXE		<b>Shirokuma console</b> RAK-15QPE RAK-18-50RPE		<b>Mokai wall</b> RAK-15QPE RAK-18-50RPE		<b>Light commercial cassette</b> RAI-25-60RPE		<b>R32 Duct</b> RAD-18QPE RAD-25-60RPE

# Multi-splits

Indoor units

Takai wall



## Takai wall range

Perfectly suited to all installation types, with special models available for smaller surface areas. The size 18 model can be switched to reduce the capacity (1.8 kW > 1.2 kW\* cooling and 2.5 kW > 1.8 kW\* heating).

## Motion sensor

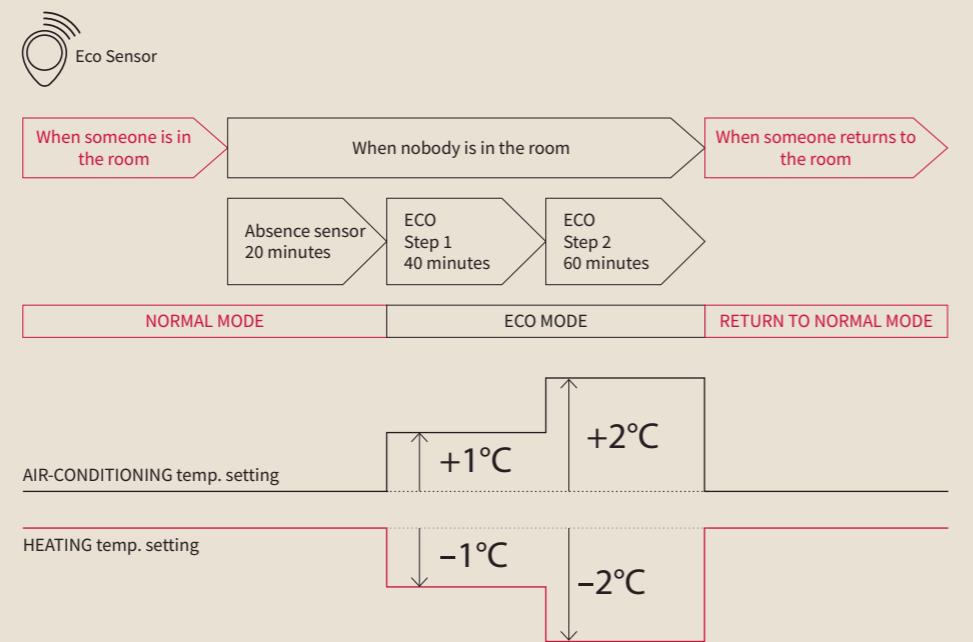
It adjusts indoor unit operation depending on whether anyone is in the room. See Eco Sensor illustration opposite.

## Ultra-efficient filtration

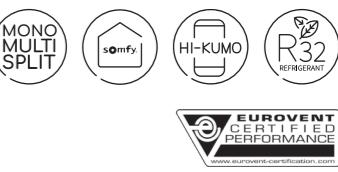
STAINLESS pre-filters and Active Carbon filters as standard.

## Extra quiet units

20 dB(A) for size 25.

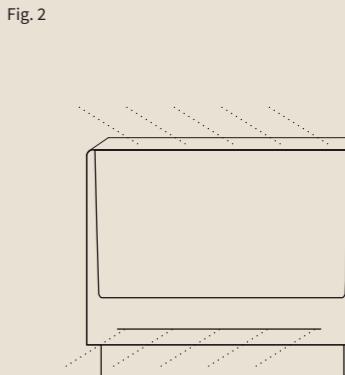
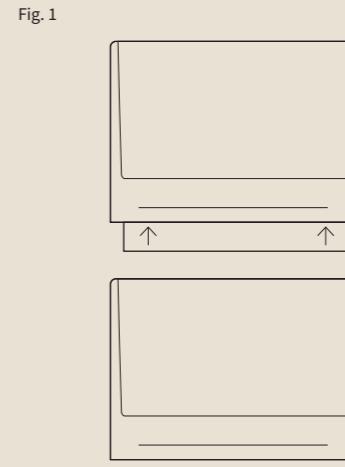


# Shirokuma console



## Removable base

The Shirokuma console's removable base means it can be installed in all surroundings. Installation is also simplified. (Fig. 1)

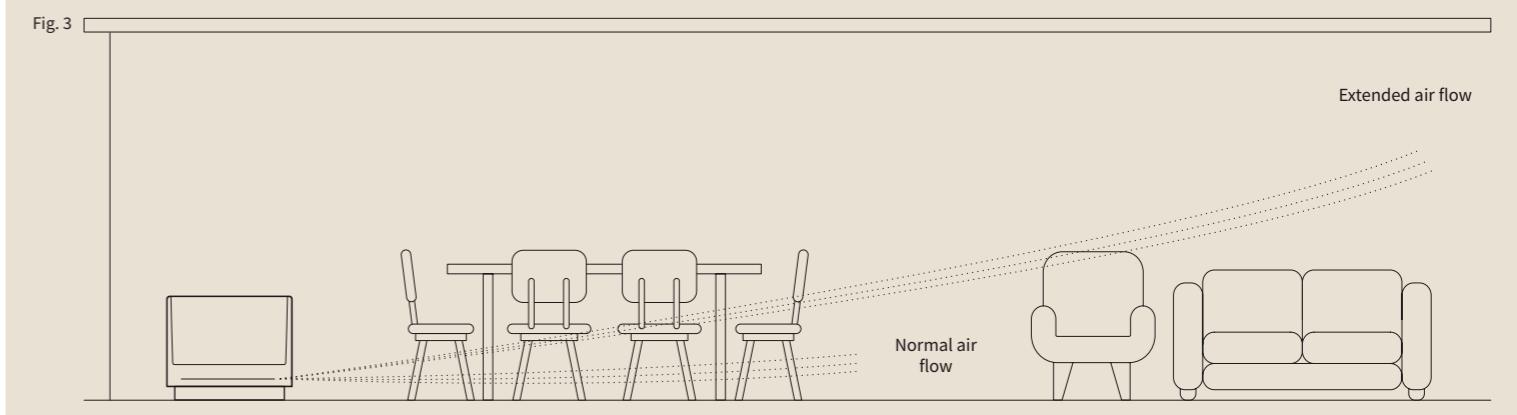


## Comparison in heating mode

The Shirokuma console ensures better air delivery than a standard console. This way, comfort is improved. (Fig. 2)

## 'Extended' function

In large volumes (long rooms), this function can increase air delivery range and therefore achieve better mixing. (Fig. 3)



Indoor units	RAK-18QXE	RAK-25RXE	RAK-35RXE	RAK-50RXE	
Capacity Cooling (min-max)	kW	1.80 (1.00 - 2.50)	2.50 (0.90 - 3.10)	3.50 (0.90 - 4.00)	5.00 (1.90 - 5.20)
Capacity Heating (min-max)	kW	2.50 (1.10 - 3.20)	3.20 (0.90 - 4.20)	4.00 (0.90 - 4.80)	5.80 (2.20 - 7.00)
Sound pressure Cooling (Very low - Low - Medium - High) <sup>(2)</sup>	dB(A)	20/25/30/36	20/27/35/43	22/29/37/45	25/31/39/47
Sound pressure	dB(A)	49	58	60	
Air flow Cooling (Very low - Low - Medium - High)	m³/h	300/330/430/500	300/330/510/600	320/340/520/660	350/400/580/720
Dehumidification	l/h	1.2	1.4	1.6	2.0
Dimensions (H x W x D)	mm		295 x 900 x 210		
Pipe diameter (Liq/gas)	inch		1/4 - 3/8		
Weight	kg		11.0		
Electrical power	V		220 - 230V		
Cable diameter (EN 60 335-1)	mm²		3 x 1.50+T		3 x 2.50+T
Wireless			controller included		
Indoor unit price	(pre-tax)				

<sup>(2)</sup> Sound pressure measurements were taken at 1 meter from the unit free field (refer to the technical catalog).

Indoor units	Unit	RAF-25RXE	RAF-35RXE	RAF-50RXE
Capacity Cooling (min-max)	kW	2.50 (0.90 - 3.10)	3.50 (0.90 - 4.00)	5.00 (0.90 - 5.20)
Capacity Heating (min-max)	kW	3.40 (0.90 - 4.40)	4.50 (0.90 - 5.00)	6.00 (0.90 - 8.10)
Sound pressure Cooling (Very low - Low - Medium - High) <sup>(2)</sup>	dB(A)	20/26/31/38	20/26/31/39	22/29/36/43
Sound pressure	dB(A)	52	56	
Air flow Cooling (Very low - Low - Medium - High)	m³/h	270/390/510/630	270/390/510/660	300/450/540/720
Dehumidification	l/h	1.4	1.9	2.8
Dimensions (H x W x D)	mm		590 x 750 x 215	
Condensate pipe diameter (out)	mm		16	
Pipe diameter (Liq/gas)	inch		1/4 - 3/8	
Weight	kg		15	
Electrical power	V		220 - 230V	
Cable diameter (EN 60 335-1)	mm²		3 x 1.50+T	
Wireless			weekly controller RAR-6NE1 (included)	
Indoor unit price	(pre-tax)			

<sup>(2)</sup> Sound pressure measurements were taken at 1 meter from the unit free field (refer to the technical catalog).



### The Mokai Wall range

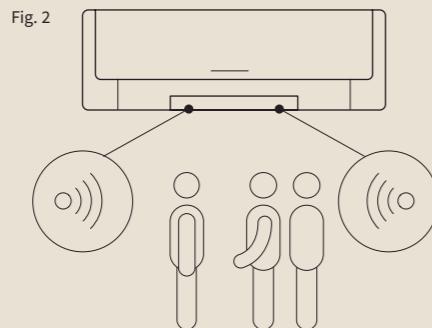
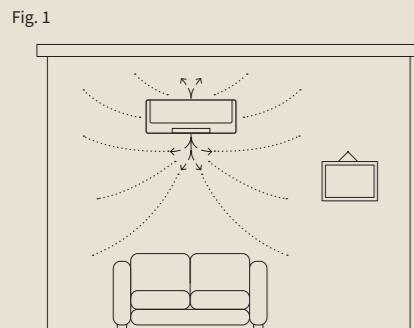
Perfectly suited to all installation types, with special models available for smaller surface areas. The size 15 model can be switched to reduce the capacity (1.5 kW > 1 kW\* cooling and 2 kW > 1.5 kW\* heating).

### Ultra compact

With an overall width of only 78 cm, it is the most compact unit on the market. It will blend in perfectly with your interior and can simply be installed above a door. (Fig.3)

### 4 Way Swing

Thanks to the vertical and horizontal flap movement, air distribution is more regular, making the room more comfortable. (Fig. 1)



### Motion sensor

Technology saving you money thanks to the motion sensor which continuously analyses if anybody is in the room. If nobody is detected after 20 min, the temperature setting is moved by one degree and by a further degree after 40 min. (Fig. 2)



Indoor units	Unit	RAK-15QPE	RAK-18RPE	RAK-25RPE	RAK-35RPE	RAK-42RPE	RAK-50RPE	RAK-60RPE
Capacity Cooling (min-max)	kW	1.50 (0.90 - 2.00)	2.00 (0.90 - 2.50)	2.50 (0.90 - 3.10)	3.50 (0.90 - 4.00)	4.20 (1.70 - 5.00)	5.00 (1.90 - 5.20)	6.00 (1.20 - 6.50)
Capacity Heating (min-max)	kW	2.00 (1.00 - 2.50)	2.50 (0.90 - 3.20)	3.40 (0.90 - 4.40)	4.20 (0.90 - 5.00)	5.40 (1.70 - 6.00)	6.00 (2.20 - 7.30)	7.00 (1.20 - 8.00)
Sound pressure Cooling (Very low - Low - Medium - High) <sup>[2]</sup>	dB(A)	20/24/30/34	21/24/33/37	22/24/33/40	25/26/36/43	25/28/39/46	25/28/39/46	30/33/42/48
Air flow Cooling (Very low - Low - Medium - High)	m <sup>3</sup> /h	312/350/400 420	312/350/400 440	333/370/430 510	353/420/485 680	353/410/540 720	310/410/570/ 720	360/505/590/660
Dehumidification	l/h	1.20	1.20	1.40	1.60	1.80	2.00	2.8
Dimensions (H x W x D)	mm	280 x 780 x 230		1/4 - 3/8		1/4 - 1/2		300 x 900 x 230
Pipe diameter (Liq/gas)	inch	1/4 - 3/8		1/4 - 1/2		1.4		1.8
Weight	kg	8.5		11.5		2.8		3.8
Electrical power	V	220 - 230V		220-230V		285 x 570 x 570		29/35/39/43
Cable diameter (EN 60 335 - 1)	mm <sup>2</sup>	3 x 1.50+T		3 x 2.50+T		30 x 620 x 620		30/36/40/44
Wireless		controller weekly RAR-6NE1 (included)		Not supplied (SPX-RCKA2/ SPX-RCDB/SPX- WKT3)		P-AP56NAMS		390/540/630/720

<sup>[2]</sup> Sound pressure measurements were taken at 1 meter from the unit free field (refer to the technical catalog).

Indoor unit price (pre-tax)

### Cassette 600 x 600



Indoor unit price (pre-tax)

### Condensate pump included

The Light commercial includes its own condensate pump for immediate elimination. This means no other elements need to be added to the installation. (Fig. 1)

### Improved comfort

This equipment can be used to select the location where the temperature setting should be measured (on the controller, the recirculation or with the average of both values). This feature ensures superior comfort levels in the room.

### Individual louver control

The cassette's 4 louvers can be configured separately with the SPX-WKT3 so that each one operates in a certain way: by delivering air directly towards the user, directing it to the ceiling, floor etc. This means comfort is guaranteed. (Fig. 2)

### Motion sensor

Air-conditioning with no wasted consumption thanks to the motion sensor which gradually reduces equipment energy consumption when the room is empty and switches on again when movement of people is detected.

Fig. 1

Length of flow pipe:  
(A + B + C) up to 1 100 mm

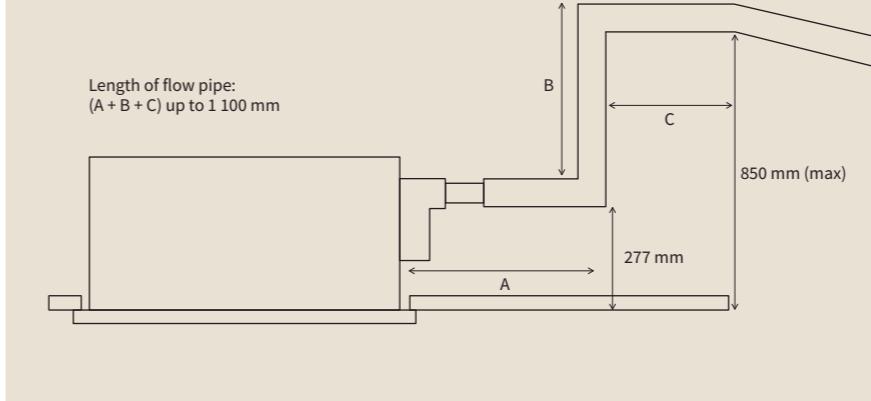
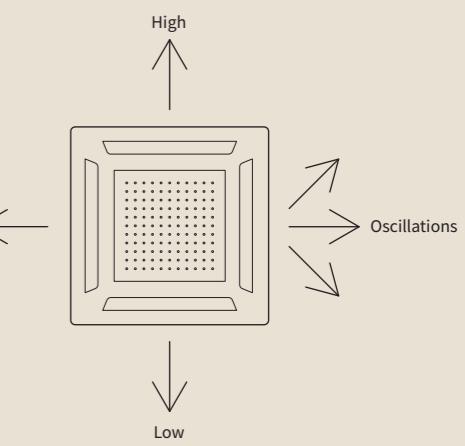


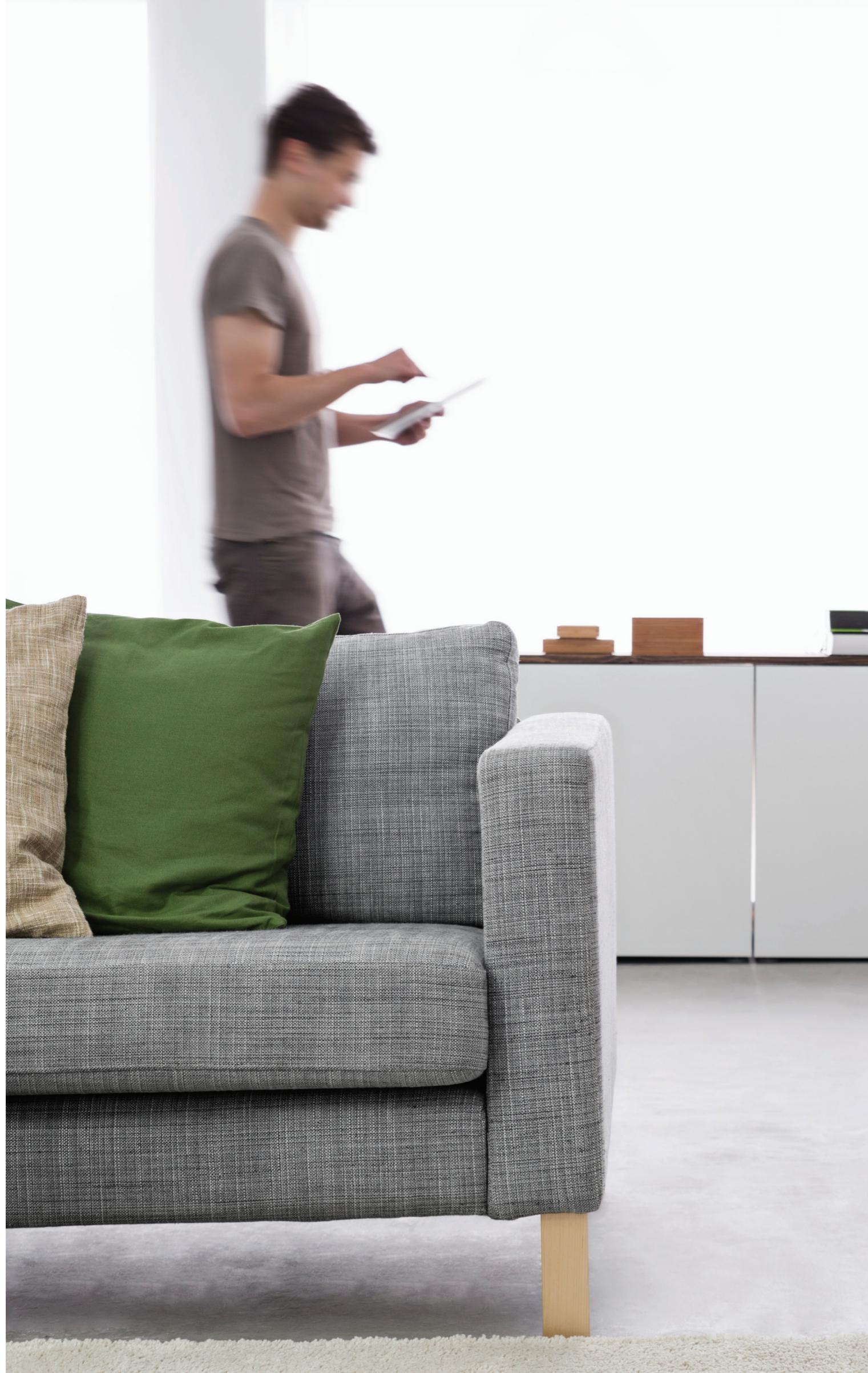
Fig. 2



### Indoor units

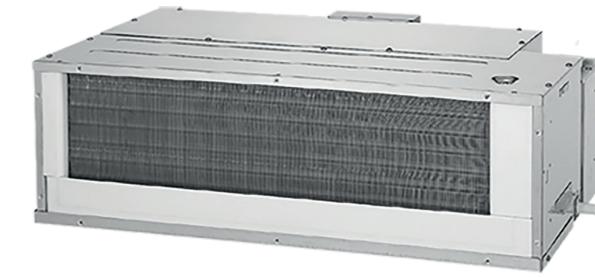
	Unit	RAI-25RPE	RAI-35RPE	RAI-50RPE	RAI-60RPE
Capacity Cooling (min-max)	kW	2.50 (0.90 - 3.00)	3.50 (0.90 - 4.00)	5.00 (1.20 - 5.80)	6.00 (1.20 - 6.50)
Capacity Heating (min-max)	kW	3.50 (0.90 - 5.00)	4.80 (0.90 - 6.60)	6.00 (1.20 - 6.80)	7.00 (1.20 - 8.00)
Sound pressure Cooling (Very low - Low - Medium - High) <sup>[2]</sup>	dB(A)	27/31/35/38	27/33/37/40	29/35/39/43	30/36/40/44
Sound pressure Heating (Very low - Low - Medium - High) <sup>[2]</sup>	dB(A)	28/32/36/39	28/34/38/41	56	56
Sound pressure	dB(A)	54	56		
Air flow Cooling (Very low - Low - Medium - High) <sup>[2]</sup>	m <sup>3</sup> /h	360/505/590/660		390/540/630/720	
Dehumidification	l/h	1.4	1.8	2.8	3.8
Dimensions (H x W x D)	mm	285 x 570 x 570		30 x 620 x 620	
Dimensions panel (H x W x D)	mm	32		yes	
Condensate pipe diameter (out)	mm				
Condensate pump					
Pipe diameter (Liq/gas)	Inch	1/4 - 3/8		1/4 - 1/2	1/4 - 1/2
Case weight	kg	17		2.8	
Panel weight	kg			P-AP56NAMS	
Reference of panel					
Electrical power	V	220-230V		OPTION (SPX-RCKA3/SPX-RCDB/SPX-WKT3)	
Cable diameter (EN 60 335-1)	mm <sup>2</sup>	1.5 x 3+T			
Controller					

<sup>[2]</sup> Sound pressure measurements were taken at 1 meter from the unit free field (refer to the technical catalog).



Multi-splits indoor units

## R32 Ducted



## The ducted indoor units RAD-18QPE /RAD-25~60RPE

They now feature static pressure control available via 2 modes:

- Standard: 0 - 40 Pa.
- High: 40 - 70 Pa.

## Installation in new builds with a VMC HYGRO B

Hitachi were validated with the CSTB and obtained the ducted ATEC so this solution can

now be installed in new builds with a VMC HYGRO B ventilation system.

## Airzone compatibility

With a single ducted unit, users can control up to 6 rooms individually using Airzone's motorized plenums which fit directly to the Hitachi units. This compatibility means you can use the full Airzone ambient control range.

(See P. <?>).

## Plenums (optional)

- Air delivery plenum 2 x D200 (without filter holder).
- Air delivery plenum 2 x D200 (with filter holder).

## Remote sensor (optional)

For maximum residential comfort

- Reference: SPX-RTH1
- Price (pre-tax):

Indoor units	Unit	RAD-18QPE	RAD-25RPE	RAD-35RPE	RAD-50RPE	RAD-60RPE
Capacity Cooling (min-max)	kW	1.80 (0.90 - 2.50)	2.50 (0.90 - 3.00)	3.50 (0.90 - 4.00)	5.00 (1.20 - 5.80)	6.00 (1.20 - 6.50)
Capacity Heating (min-max)	kW	2.50 (0.90 - 3.20)	3.50 (0.90 - 5.50)	4.80 (0.90 - 6.60)	6.00 (1.20 - 6.80)	7.00 (1.20 - 8.00)
Sound pressure Cooling (Very low - Low - Medium - High) <sup>(2)</sup>	dB(A)		30/33/37/41			29/32/35/39
Sound pressure Heating (Very low - Low - Medium - High) <sup>(2)</sup>	dB(A)	330/390/450/510		30/34/38/42		29/32/35/40
Sound pressure <sup>(2)</sup>	dB(A)		57			53
Air flow Cooling (Very low - Low - Medium - High)	m <sup>3</sup> /h		330/390/450/510			350/540/800/1140
Static pressure (Low - Medium - High)	Pa		*/*70			50/100/150
Dehumidification	l/h	1.4		1.6	2.8	2.8
Dimensions (H x W x D)	mm		235 x 750 x 400			270 x 900 x 720
Condensate pipe diameter (out)	mm			16		
Condensate pump				YES		
Pipe diameter (Liq/gas)	Inch		1/4 - 3/8			1/4 - 1/2
Weight	kg		16			35
Electrical power	V				220-230V	
Cable diameter (EN 60 335-1)	mm <sup>2</sup>		1.50 x 3+T			2.50 x 3+T
Controller				Not supplied (SPX-RCKA1/SPX-RCDB/SPX-WKT3)		

Indoor unit price	(pre-tax)						
(2) Sound pressure measurements were taken at 1 meter from the unit free field (refer to the technical catalog).							

Reference	Description	Length	Height	Depth	Compatibility	Number of connections
PIM1SOURADNH	PLENUM ISOLATED M1 2XD200 AIR DELIVERY	720	200	300+50	RAD-18QPE*/RAD-25-35RPE	2 x 200
PIM1REPRADNH	PLENUM ISOLATED M1 2XD200 RETURN	655	205	200+50	RAD-18QPE/RAD-25-35RPE	2 x 200
PIM1REPRADNF	PLENUM ISOLATED M1 FilterHolder 2XD200 RETURN	655	205	200+50	RAD-18QPE / RAD-25-35RPE	2 x 200
PIM1SOURADDH	PLENUM ISOLATED M1 3XD200 AIR DELIVERY	810	225	250+50	RAD-50-60RPE/RAD-70PPD	3 x 200
PIM1REPRADDH	PLENUM ISOLATED M1 2XD200 RETURN	820	225	200+50	RAD-50-60RPE/RAD-70PPD	2 x 200

\* Available in multi only

# Indoor unit combinations

## Multi-splits

Multi-splits indoor units

COOLING MODE										HEATING MODE									
RAM - 53NYP3E		Unit capacity (kW)	Total capacity (kW)	Total abs. capacity (W)	EER	Unit capacity (kW)	Total capacity (kW)	Total abs. capacity (W)	COP										
1 unit*	15	1.50	1.50 (1.00 - 1.60)	430 (200 - 480)	3.49	2.00	2.00 (1.10 - 2.20)	560 (320 - 850)	3.57										
	18	1.80	1.80 (1.50 - 2.00)	495 (280 - 500)	3.64	2.50	2.50 (1.80 - 3.50)	720 (320 - 1130)	3.47										
	25	2.50	2.50 (1.50 - 2.80)	700 (280 - 720)	3.57	3.40	3.40 (1.80 - 4.70)	980 (320 - 1480)	3.47										
	35	3.50	3.50 (1.50 - 3.90)	1030 (280 - 1130)	3.40	4.30	4.30 (1.80 - 5.80)	1150 (320 - 1950)	3.74										
	42	4.20	4.20 (1.50 - 5.60)	1450 (280 - 1800)	2.90	6.50	6.50 (1.80 - 7.20)	1800 (320 - 2010)	3.61										
	50	5.00	5.00 (1.50 - 5.60)	1480 (280 - 1800)	3.38	6.50	6.50 (1.80 - 7.20)	1880 (320 - 2530)	3.46										
	60	6.00	5.30 (1.50 - 6.60)	1481 (280 - 1930)	3.58	7.30	6.80 (1.80 - 7.80)	1880 (320 - 2530)	3.62										
2 units	15+ 15	1.50+ 1.50	3.00 (1.50 - 3.50)	870 (380 - 980)	3.45	2.00+ 2.00	4.00 (2.20 - 4.70)	1080 (200 - 1100)	3.70										
	15+ 18	1.50+ 1.80	3.30 (1.50 - 3.50)	950 (380 - 1000)	3.47	2.00+ 2.50	4.50 (2.20 - 5.20)	1200 (200 - 1300)	3.75										
	15+ 25	1.50+ 2.50	4.00 (1.50 - 4.00)	1300 (380 - 1300)	3.08	2.00+ 3.40	5.40 (2.20 - 6.40)	1450 (200 - 1780)	3.72										
	15+ 35	1.50+ 3.50	5.00 (1.50 - 5.20)	1450 (380 - 1450)	3.45	2.00+ 4.30	6.30 (2.20 - 7.20)	1660 (200 - 2010)	3.80										
	15 + 42 <sup>(i)</sup>	1.39+ 3.91	5.30 (1.50 - 5.90)	1580 (380 - 2380)	3.35	1.60+ 5.20	6.80 (2.20 - 7.20)	1680 (320 - 2010)	4.05										
	15 + 50 <sup>(i)</sup>	1.22+ 4.08	5.30 (1.50 - 6.30)	1700 (380 - 2380)	3.12	1.60+ 5.20	6.80 (2.20 - 7.20)	1770 (320 - 2010)	3.84										
	15 + 60 <sup>(i)</sup>	1.06+ 4.24	5.30 (1.50 - 6.30)	1700 (380 - 2380)	3.12	1.51+ 5.29	6.80 (2.20 - 7.20)	1950 (320 - 2010)	3.49										
	18+ 18	1.80+ 1.80	3.60 (1.50 - 5.90)	1020 (380 - 1020)	3.53	2.50+ 2.50	5.00 (2.20 - 6.40)	1380 (320 - 2010)	3.62										
	18+ 25	1.80+ 2.50	4.30 (1.50 - 5.90)	1200 (380 - 1360)	3.58	2.50+ 3.40	5.90 (2.20 - 7.20)	1580 (320 - 2010)	3.73										
	18+ 35	1.80+ 3.50	5.30 (1.50 - 5.90)	1290 (380 - 1950)	4.11	2.50+ 4.30	6.80 (2.20 - 7.20)	1650 (320 - 2010)	4.12										
	18+ 42 <sup>(i)</sup>	1.80+ 5.00	5.30 (1.50 - 5.90)	1620 (380 - 2820)	3.27	1.89+ 4.91	6.80 (2.20 - 9.50)	1700 (430 - 2600)	4.00										
	18+ 50 <sup>(i)</sup>	1.80+ 5.00	5.30 (1.50 - 5.90)	1800 (380 - 2820)	2.94	1.89+ 4.91	6.80 (2.20 - 9.50)	2100 (430 - 2600)	3.24										
	18+ 60 <sup>(i)</sup>	1.80+ 6.00	5.30 (1.50 - 5.90)	1800 (380 - 2820)	2.94	1.79+ 5.01	6.80 (2.20 - 9.50)	2100 (430 - 2600)	3.24										
	25 + 25	2.50+ 2.50	5.00 (2.00 - 5.50)	1480 (380 - 1720)	3.38	3.40+ 3.40	6.80 (2.20 - 9.50)	1770 (430 - 2010)	3.84										
	25 + 35	2.50+ 3.50	5.30 (2.00 - 6.60)	1640 (380 - 2380)	3.23	3.00+ 3.80	6.80 (2.20 - 9.50)	1880 (430 - 2010)	3.62										
	25 + 42 <sup>(i)</sup>	1.98+ 3.32	5.30 (2.00 - 7.20)	1640 (380 - 2820)	3.23	2.34+ 4.46	6.80 (2.20 - 9.50)	2000 (430 - 2600)	3.40										
	25 + 50 <sup>(i)</sup>	1.77+ 3.53	5.30 (2.00 - 7.20)	1610 (380 - 2820)	3.29	2.34+ 4.46	6.80 (2.20 - 9.50)	2100 (430 - 2600)	3.24										
	25 + 60 <sup>(i)</sup>	1.56+ 3.74	5.30 (2.00 - 7.50)	1800 (380 - 2820)	2.94	2.22+ 4.58	6.80 (2.20 - 9.50)	1880 (430 - 2600)	3.62										
	35 + 35	2.65+ 2.65	5.30 (2.00 - 7.50)	1800 (380 - 2820)	2.94	3.40+ 3.40	6.80 (2.20 - 9.50)	1880 (430 - 3120)	3.62										
	35 + 42 <sup>(i)</sup>	2.41+ 2.89	5.30 (2.00 - 7.50)	1800 (380 - 2820)	2.94	2.71+ 4.09	6.80 (2.20 - 9.50)	1880 (430 - 2600)	3										



# Indoor unit combinations

## Multi-splits

RAM - 70NYP4E	COOLING MODE				HEATING MODE			
	Unit capacity (kW)	Total capacity (kW)	Total abs. capacity (W)	EER	Unit capacity (kW)	Total capacity (kW)	Total abs. capacity (W)	COP
15 + 15 + 15	1.50 + 1.50 + 1.50	4.50 (2.20 - 5.00)	1400 (420 - 1680)	3.21	2.00 + 2.00 + 2.00	6.00 (2.40 - 6.50)	1650 (430 - 1800)	3.64
15 + 15 + 18	1.50 + 1.50 + 1.80	4.80 (2.20 - 5.50)	1480 (420 - 1880)	3.24	2.00 + 2.00 + 2.50	6.50 (2.40 - 7.00)	1750 (430 - 2100)	3.71
15 + 15 + 25	1.50 + 1.50 + 2.50	5.50 (2.20 - 6.00)	1680 (420 - 2280)	3.27	2.00 + 2.00 + 3.40	7.40 (2.20 - 9.30)	2010 (430 - 2200)	3.68
15 + 15 + 35	1.50 + 1.50 + 3.50	6.50 (2.20 - 7.00)	2010 (420 - 2480)	3.23	2.00 + 2.00 + 4.30	8.30 (2.40 - 9.50)	2260 (430 - 2500)	3.67
15 + 15 + 42	1.46 + 1.46 + 4.08	7.00 (2.20 - 7.50)	2100 (420 - 2890)	3.33	1.62 + 1.62 + 5.26	8.50 (2.40 - 9.50)	2300 (430 - 2600)	3.70
15 + 15 + 50	1.31 + 1.31 + 4.38	7.00 (2.20 - 7.50)	2100 (420 - 2890)	3.33	1.62 + 1.62 + 5.26	8.50 (2.40 - 9.50)	2300 (430 - 2600)	3.70
15 + 15 + 60	1.17 + 1.17 + 4.67	7.00 (2.20 - 8.00)	2100 (420 - 2960)	3.33	1.53 + 1.38 + 5.59	8.50 (2.40 - 9.50)	2260 (430 - 2600)	3.76
15 + 18 + 18	1.50 + 1.80 + 1.80	5.10 (2.20 - 5.60)	1550 (420 - 2280)	3.29	2.00 + 2.50 + 2.50	7.00 (2.20 - 9.30)	1900 (430 - 2400)	3.68
15 + 18 + 25	1.50 + 1.80 + 2.50	5.80 (2.20 - 6.30)	1800 (420 - 2480)	3.22	2.00 + 2.50 + 3.40	7.90 (2.40 - 9.50)	2150 (430 - 2600)	3.67
15 + 18 + 35	1.50 + 1.80 + 3.50	6.80 (2.20 - 7.50)	2100 (420 - 2480)	3.24	1.93 + 2.41 + 4.15	8.50 (2.40 - 9.50)	2290 (430 - 2600)	3.71
15 + 18 + 42	1.40 + 1.68 + 3.92	7.00 (2.20 - 7.50)	2100 (420 - 2890)	3.33	1.55 + 1.93 + 5.02	8.50 (2.40 - 9.50)	2290 (430 - 2600)	3.71
15 + 18 + 50	1.27 + 1.52 + 4.22	7.00 (2.20 - 7.50)	2100 (420 - 2890)	3.33	1.55 + 1.93 + 5.02	8.50 (2.40 - 9.50)	2290 (430 - 2600)	3.71
15 + 18 + 60	1.13 + 1.35 + 4.52	7.00 (2.20 - 8.00)	2100 (420 - 2960)	3.33	1.44 + 1.80 + 5.26	8.50 (2.40 - 9.50)	2260 (430 - 2600)	3.76
15 + 25 + 25	1.50 + 2.50 + 2.50	6.50 (2.20 - 7.00)	2020 (420 - 2480)	3.22	1.93 + 3.28 + 3.28	8.50 (2.40 - 9.50)	2290 (430 - 2600)	3.71
15 + 25 + 35	1.40 + 2.33 + 3.27	7.00 (2.20 - 7.80)	2100 (420 - 2890)	3.33	1.75 + 2.98 + 3.77	8.50 (2.40 - 9.50)	2290 (430 - 2600)	3.71
15 + 25 + 42	1.28 + 2.13 + 3.59	7.00 (2.20 - 8.00)	2100 (420 - 2960)	3.33	1.43 + 2.43 + 4.64	8.50 (2.40 - 9.50)	2310 (430 - 2600)	3.68
15 + 25 + 50	1.17 + 1.94 + 3.89	7.00 (2.20 - 8.00)	2100 (420 - 2960)	3.33	1.43 + 2.43 + 4.64	8.50 (2.40 - 9.50)	2310 (430 - 2600)	3.68
15 + 25 + 60	1.05 + 1.75 + 4.20	7.00 (2.20 - 8.00)	2100 (420 - 2960)	3.33	1.34 + 2.28 + 4.89	8.50 (2.40 - 9.50)	2260 (430 - 2600)	3.76
15 + 35 + 35	1.24 + 2.88 + 2.88	7.00 (2.20 - 8.00)	2100 (420 - 2890)	3.33	1.60 + 3.45 + 3.45	8.50 (2.40 - 9.50)	2260 (430 - 2600)	3.76
15 + 35 + 42	1.14 + 2.66 + 3.20	7.00 (2.20 - 8.00)	2100 (420 - 2960)	3.33	1.33 + 2.86 + 4.32	8.50 (2.40 - 9.50)	2260 (430 - 2600)	3.76
15 + 35 + 50	1.05 + 2.45 + 3.50	7.00 (2.20 - 8.00)	2100 (420 - 2960)	3.33	1.33 + 2.86 + 4.32	8.50 (2.40 - 9.50)	2260 (430 - 2600)	3.76
15 + 35 + 60	0.95 + 2.23 + 3.82	7.00 (2.20 - 8.00)	2100 (420 - 2960)	3.33	1.25 + 2.69 + 4.56	8.50 (2.40 - 9.50)	2260 (430 - 2600)	3.76
15 + 42 + 42	1.06 + 2.97 + 2.97	7.00 (2.20 - 8.00)	2100 (420 - 2960)	3.33	1.13 + 3.68 + 3.68	8.50 (2.40 - 9.50)	2260 (430 - 2600)	3.76
15 + 42 + 50	0.98 + 2.75 + 3.27	7.00 (2.20 - 8.00)	2100 (420 - 2960)	3.33	1.13 + 3.68 + 3.68	8.50 (2.40 - 9.50)	2260 (430 - 2600)	3.76
15 + 50 + 50	0.91 + 3.04 + 3.04	7.00 (2.20 - 8.00)	2100 (420 - 2960)	3.33	1.13 + 3.68 + 3.68	8.50 (2.40 - 9.50)	2260 (430 - 2600)	3.76
18 + 18 + 18	1.80 + 1.80 + 1.80	5.40 (2.20 - 5.90)	1450 (420 - 2190)	3.72	2.50 + 2.50 + 2.50	7.50 (2.40 - 9.50)	2050 (430 - 2600)	3.66
18 + 18 + 25	1.80 + 1.80 + 2.50	6.10 (2.20 - 6.70)	1720 (420 - 2480)	3.55	2.50 + 2.50 + 3.40	8.40 (2.40 - 9.50)	2290 (430 - 2600)	3.67
18 + 18 + 35	1.77 + 1.77 + 3.45	7.00 (2.20 - 7.80)	2080 (420 - 2890)	3.37	2.28 + 2.28 + 3.93	8.50 (2.40 - 9.50)	2290 (430 - 2600)	3.71
18 + 18 + 42	1.62 + 1.62 + 3.77	7.00 (2.20 - 8.00)	2080 (420 - 2890)	3.37	1.85 + 1.85 + 4.80	8.50 (2.40 - 9.50)	2280 (430 - 2600)	3.73
18 + 18 + 50	1.47 + 1.47 + 4.07	7.00 (2.20 - 8.00)	2080 (420 - 2890)	3.37	1.85 + 1.85 + 4.80	8.50 (2.40 - 9.50)	2280 (430 - 2600)	3.73
18 + 18 + 60	1.35 + 1.35 + 4.40	7.00 (2.20 - 8.00)	2100 (420 - 2960)	3.33	1.73 + 1.73 + 5.04	8.50 (2.40 - 9.50)	2320 (430 - 2600)	3.66
18 + 25 + 25	1.80 + 2.50 + 2.50	6.8 (2.20 - 7.50)	2080 (420 - 2780)	3.27	2.28 + 3.11 + 3.11	8.50 (2.40 - 9.50)	2290 (430 - 2600)	3.71
18 + 25 + 35	1.62 + 2.24 + 3.14	7.00 (2.20 - 8.00)	2080 (420 - 2890)	3.37	2.08 + 2.83 + 3.58	8.50 (2.40 - 9.50)	2290 (430 - 2600)	3.71
18 + 25 + 42	1.48 + 2.06 + 3.46	7.00 (2.20 - 8.00)	2080 (420 - 2770)	3.37	1.71 + 2.33 + 4.46	8.50 (2.40 - 9.50)	2280 (430 - 2600)	3.73
18 + 25 + 50	1.35 + 1.88 + 3.76	7.00 (2.20 - 8.00)	2080 (420 - 2770)	3.37	1.71 + 2.33 + 4.46	8.50 (2.40 - 9.50)	2280 (430 - 2600)	3.73
18 + 25 + 60	1.25 + 1.70 + 4.15	7.00 (2.20 - 8.00)	2080 (420 - 2960)	3.37	1.61 + 2.19 + 4.70	8.50 (2.40 - 9.50)	2320 (430 - 2600)	3.66
18 + 35 + 35	1.43 + 2.78 + 2.78	7.00 (2.20 - 8.00)	2080 (420 - 2960)	3.37	1.91 + 3.29 + 3.29	8.50 (2.40 - 9.50)	2290 (430 - 2600)	3.71
18 + 35 + 42	1.33 + 2.58 + 3.09	7.00 (2.20 - 8.00)	2080 (420 - 2960)	3.37	1.60 + 2.75 + 4.15	8.50 (2.40 - 9.50)	2280 (430 - 2600)	3.73
18 + 35 + 50	1.22 + 2.38 + 3.40	7.00 (2.20 - 8.00)	2080 (420 - 2960)	3.37	1.60 + 2.75 + 4.15	8.50 (2.40 - 9.50)	2280 (430 - 2600)	3.73
18 + 42 + 42	1.24 + 2.88 + 2.88	7.00 (2.20 - 8.00)	2080 (420 - 2960)	3.37	1.60 + 2.75 + 4.15	8.50 (2.40 - 9.50)	2280 (430 - 2600)	3.73
18 + 42 + 50	1.15 + 2.67 + 3.18	7.00 (2.20 - 8.00)	2080 (420 - 2960)	3.37	1.60 + 2.75 + 4.15	8.50 (2.40 - 9.50)	2280 (430 - 2600)	3.73
25 + 25 + 25	2.33 + 2.33 + 2.33	7.00 (2.20 - 7.80)	2080 (420 - 2890)	3.37	2.83 + 2.83 + 2.83	8.50 (2.40 - 9.50)	2290 (430 - 2600)	3.71
25 + 25 + 35	2.06 + 2.06 + 2.88	7.00 (2.20 - 8.00)	2080 (420 - 2960)	3.37	2.60 + 2.60 + 3.29	8.50 (2.40 - 9.50)	2290 (430 - 2600)	3.71
25 + 25 + 42	1.90 + 1.90 + 3.20	7.00 (2.20 - 8.00)	2080 (420 - 2960)	3.37	2.17 + 2.17 + 4.15	8.50 (2.40 - 9.50)	2280 (430 - 2600)	3.73
25 + 25 + 50	1.75 + 1.75 + 3.50	7.00 (2.20 - 8.00)	2080 (420 - 2960)	3.37	2.17 + 2.17 + 4.15	8.50 (2.40 - 9.50)	2280 (430 - 2600)	3.73



# Indoor unit combinations

## Multi-splits

Multi-splits indoor units

RAM - 90NYP5E	COOLING MODE				HEATING MODE			
	Unit capacity (kW)	Total capacity (kW)	Total abs. capacity (W)	EER	Unit capacity (kW)	Total capacity (kW)	Total abs. capacity (W)	COP
1 units*	15	1.50	1.50 (1.00 - 1.60)	420 (320 - 480)	3.57	2.00	2.00 (1.50 - 2.20)	620 (360 - 850) 3.23
	18	2.00	1.80 (1.70 - 2.00)	500 (320 - 610)	3.60	2.50	2.50 (2.00 - 3.00)	780 (360 - 920) 3.21
	25	2.50	2.50 (1.70 - 2.80)	700 (320 - 860)	3.57	3.40	3.40 (2.00 - 4.00)	1140 (360 - 1340) 2.98
	35	3.50	3.50 (1.70 - 3.90)	1040 (320 - 1270)	3.37	4.30	4.30 (2.00 - 5.20)	1420 (360 - 1720) 3.03
	42	4.20	4.20 (1.70 - 4.20)	1250 (320 - 1270)	3.36	5.20	4.30 (2.00 - 6.50)	1420 (360 - 1720) 3.66
	50	5.00	5.00 (1.70 - 5.50)	1540 (320 - 1860)	3.25	6.50	6.50 (2.00 - 7.30)	2300 (360 - 2580) 2.83
	60	6.00	6.00 (1.70 - 6.60)	1630 (320 - 1860)	3.68	7.50	7.50 (2.00 - 8.20)	2300 (360 - 2950) 3.26

RAM - 90NYP5E	COOLING MODE				HEATING MODE			
	Unit capacity (kW)	Total capacity (kW)	Total abs. capacity (W)	EER	Unit capacity (kW)	Total capacity (kW)	Total abs. capacity (W)	COP
2 units	15 + 15	1.50 + 1.50	3.00 (2.40 - 3.50)	850 (500 - 1020)	3.53	2.00 + 2.00	4.00 (2.70 - 4.50)	950 (500 - 1140) 4.21
	15 + 18	1.50 + 1.80	3.30 (2.40 - 3.80)	950 (500 - 1140)	3.47	2.00 + 2.50	4.50 (2.70 - 5.00)	1180 (500 - 1416) 3.81
	15 + 25	1.50 + 2.50	4.00 (2.40 - 4.50)	1250 (500 - 1500)	3.20	2.00 + 3.40	5.40 (2.70 - 5.90)	1320 (500 - 1584) 4.09
	15 + 35	1.50 + 3.50	5.00 (2.40 - 5.50)	1550 (500 - 1860)	3.23	2.00 + 4.30	6.30 (2.70 - 6.80)	1550 (500 - 1860) 4.06
	15 + 42	1.50 + 4.20	5.70 (2.40 - 7.00)	1600 (500 - 1860)	3.56	2.00 + 5.20	7.20 (2.70 - 8.0)	1850 (500 - 2560) 3.89
	15 + 50	1.50 + 5.00	6.50 (2.40 - 7.00)	2100 (500 - 2520)	3.10	2.00 + 6.50	8.50 (2.70 - 9.00)	2300 (500 - 2760) 3.70
	15 + 60	1.50 + 6.00	7.50 (2.40 - 7.00)	2100 (500 - 2520)	3.57	2.00 + 7.50	9.50 (2.70 - 10.0)	2300 (500 - 2760) 4.13
	18 + 18	1.80 + 1.80	3.60 (2.40 - 4.00)	970 (500 - 860)	3.71	2.50 + 2.50	5.00 (2.70 - 6.90)	1240 (500 - 1710) 4.03
	18 + 25	1.80 + 2.50	4.30 (2.40 - 4.70)	1000 (500 - 1190)	4.30	2.50 + 3.40	5.90 (2.70 - 7.70)	1530 (500 - 1990) 3.86
	18 + 35	1.80 + 3.50	5.30 (2.40 - 5.80)	1590 (500 - 1900)	3.33	2.50 + 4.30	6.80 (2.70 - 8.50)	1870 (500 - 2320) 3.64
	18 + 42	1.80 + 4.20	6.00 (2.40 - 5.80)	1850 (500 - 1900)	3.24	2.50 + 5.20	7.70 (2.70 - 10.0)	2200 (500 - 2880) 3.50
	18 + 50	1.80 + 5.00	6.80 (2.40 - 7.50)	2370 (450 - 2970)	2.87	2.50 + 6.50	9.00 (2.70 - 10.0)	2470 (500 - 2880) 3.64
	18 + 60	1.80 + 6.00	7.80 (2.40 - 8.50)	2370 (450 - 3120)	3.29	2.50 + 7.50	10.00 (2.70 - 10.0)	2470 (500 - 2880) 4.05
	25 + 25	2.50 + 2.50	5.00 (2.40 - 5.50)	1370 (500 - 1640)	3.65	3.40 + 3.40	6.80 (2.70 - 8.50)	1920 (500 - 2250) 3.54
	25 + 35	2.50 + 3.50	6.00 (2.40 - 6.60)	2000 (500 - 2400)	3.00	3.40 + 4.30	7.70 (2.70 - 9.20)	2280 (500 - 2590) 3.38
	25 + 42	2.50 + 4.20	6.70 (2.40 - 6.60)	2000 (500 - 3470)	3.35	3.40 + 5.20	8.60 (2.70 - 9.20)	2400 (500 - 3110) 3.58
	25 + 50	2.50 + 5.00	7.50 (2.40 - 7.00)	2580 (500 - 3470)	2.91	3.40 + 6.50	9.90 (2.70 - 10.50)	2720 (500 - 3110) 3.64
	25 + 60	2.50 + 6.00	8.50 (2.40 - 8.80)	2580 (500 - 3470)	3.29	3.12 + 6.88	10.00 (2.70 - 11.00)	2720 (500 - 3110) 3.68
	35 + 35	3.50 + 3.50	7.00 (2.40 - 7.70)	2490 (450 - 2990)	2.81	4.30 + 4.30	8.60 (2.70 - 10.00)	2460 (500 - 2860) 3.50
	35 + 42	3.50 + 4.20	7.70 (2.40 - 7.70)	2490 (500 - 2990)	3.09	4.30 + 5.20	9.50 (2.70 - 11.00)	2680 (500 - 3320) 3.54
	35 + 50	3.50 + 5.00	8.50 (2.40 - 8.80)	2900 (500 - 3270)	2.93	3.98 + 6.02	10.00 (2.70 - 11.00)	2940 (500 - 3320) 3.40
	35 + 60	3.13 + 5.37	8.50 (2.40 - 9.10)	2900 (500 - 3270)	2.93	3.64 + 6.36	10.00 (2.70 - 11.40)	2940 (500 - 3320) 3.40
	42 + 42	4.20 + 4.20	8.40 (2.40 - 8.80)	2490 (450 - 3270)	3.37	4.30 + 4.30	8.60 (2.70 - 11.00)	2460 (500 - 3200) 3.50
	42 + 50	3.88 + 4.62	8.50 (2.40 - 8.80)	2900 (450 - 3270)	2.93	4.30 + 5.20	9.50 (2.70 - 11.00)	2940 (500 - 3200) 3.23
	42 + 60	3.50 + 5.00	8.50 (2.40 - 9.10)	2900 (450 - 3420)	2.93	3.98 + 6.02	10.00 (2.70 - 11.40)	2940 (500 - 3200) 3.40
	50 + 50	4.25 + 4.25	8.50 (2.40 - 9.20)	2900 (450 - 3460)	2.93	5.00 + 5.00	10.00 (2.70 - 11.40)	2940 (500 - 3200) 3.40
	50 + 60	3.86 + 4.64	8.50 (2.40 - 9.60)	2900 (450 - 3570)	2.93	4.44 + 5.56	10.00 (2.70 - 11.60)	2940 (500 - 3200) 3.40
	60 + 60	4.25 + 4.25	8.50 (2.40 - 9.90)	2900 (450 - 3870)	2.93	5.00 + 5.00	10.00 (2.70 - 12.10)	2940 (500 - 3200) 3.40

\* For information: these are performances when a single unit is in operation. However, a minimum of 2 units must be connected to the outdoor unit.

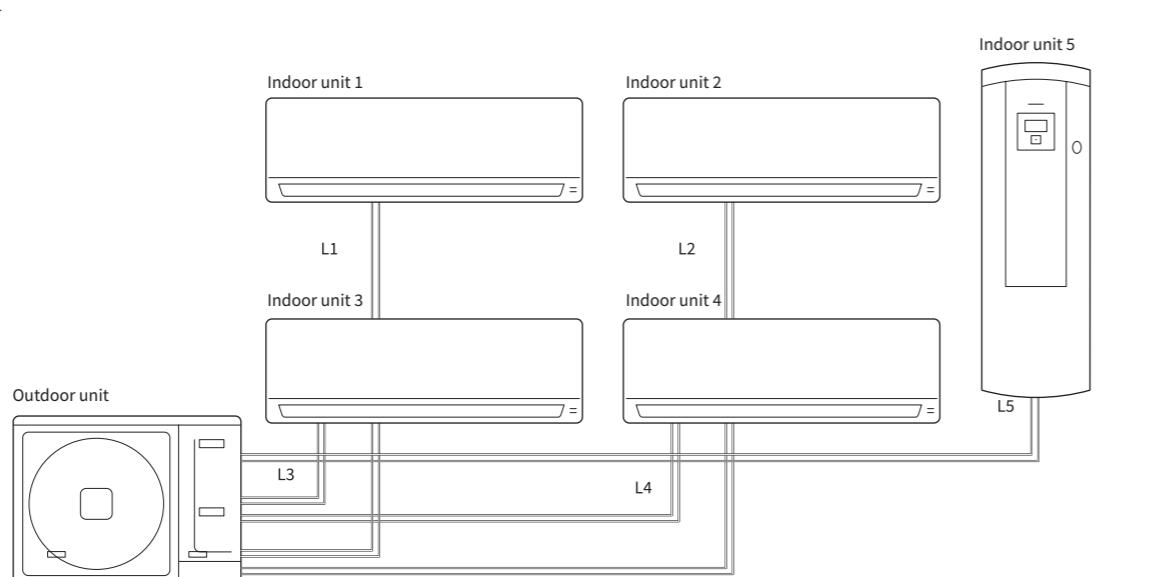
RAM - 90NYP5E + RAK - 25RPE + RAK - 25RPE + RAK - 35RPE.

L1 + L2 + L3 + L4 + L5 = Maximum 75 m  
L1 < 25 m ; L2 < 25 m ; L3 < 25 m ;

L4 < 25 m ; L5 < 25 m  
Maximum height between the highest indoor unit and the lowest indoor unit: 5 m.  
Pre-charged for 30 m.

An additional 15 g/m required beyond 30 m.

Always connect the most powerful indoor unit to the lowest connector. Connector 3 is designed for indoor units 18, 25 or 35. Otherwise, a 3/8 to 1/2 adapter is required. Connectors 4 and 5 are designed for indoor units 50 or 60. Otherwise, a 1/2 to 3/8 adapter is required.



RAM - 90NYP5E	COOLING MODE				HEATING MODE			
	Unit capacity (kW)	Total capacity (kW)	Total abs. capacity (W)	EER	Unit capacity (kW)	Total capacity (kW)	Total abs. capacity (W)	COP
15 + 18 + 25	1.50 + 1.80 + 2.50	5.80 (2.70 - 6.30)	1350 (510 - 1620)	4.30	2.00 + 2.50 + 3.40	7.90 (2.90 - 8.40)	2130 (520 - 2616)	3.71
15 + 18 + 35	1.50 + 1.80 + 3.50	6.80 (2.70 - 7.30)	1850 (510 - 2844)	3.68	2.00 + 2.50 + 4.30	8.80 (2.90 - 9.30)	2350 (520 - 1848)	



# Indoor unit combinations

Multi-splits indoor units

## Multi-splits

RAM - 90NYP5E	COOLING MODE				HEATING MODE			
	Unit capacity (kW)	Total capacity (kW)	Total abs. capacity (W)	EER	Unit capacity (kW)	Total capacity (kW)	Total abs. capacity (W)	COP
15 + 15 + 42 + 42	1.12 + 1.12 + 3.13 + 3.13	8.50 (2.90 - 8.50)	2600 (550 - 3120)	3.27	1.59 + 1.59 + 3.41 + 3.41	10.00 (3.00 - 11.30)	2890 (540 - 3360)	3.46
15 + 15 + 42 + 50	1.05 + 1.05 + 2.93 + 3.48	8.50 (2.90 - 8.50)	2600 (550 - 3120)	3.27	1.48 + 1.48 + 3.19 + 3.85	10.00 (3.00 - 11.30)	2890 (540 - 3360)	3.46
15 + 15 + 42 + 60	0.97 + 0.97 + 2.70 + 3.86	8.50 (2.9 - 8.50)	2600 (550 - 3120)	3.27	1.35 + 1.35 + 2.91 + 4.39	10.00 (3.00 - 11.30)	2890 (540 - 3360)	3.46
15 + 15 + 50 + 50	0.98 + 0.98 + 3.27 + 3.27	8.50 (2.50 - 8.50)	2600 (550 - 3120)	3.27	1.39 + 1.39 + 3.61 + 3.61	10.00 (3.00 - 11.50)	2890 (540 - 3360)	3.46
15 + 15 + 50 + 60	0.91 + 0.91 + 3.04 + 3.64	8.50 (2.50 - 8.50)	2600 (550 - 3120)	3.27	1.27 + 1.27 + 3.31 + 4.14	10.00 (3.00 - 11.50)	2890 (540 - 3360)	3.46
15 + 15 + 60 + 60	0.85 + 0.85 + 3.40 + 3.40	8.50 (2.50 - 8.50)	2600 (550 - 3120)	3.27	1.27 + 1.27 + 3.31 + 4.14	10.00 (3.00 - 11.50)	2890 (540 - 3360)	3.46
15 + 18 + 18 + 18	1.50 + 1.80 + 1.80 + 1.80	6.90 (2.50 - 7.40)	2140 (550 - 2244)	3.22	2.00 + 2.50 + 2.50 + 2.50	9.50 (3.00 - 10.0)	2750 (540 - 3144)	3.45
15 + 18 + 18 + 25	1.50 + 1.80 + 1.80 + 2.50	7.60 (2.50 - 8.10)	2140 (550 - 2568)	3.55	1.92 + 2.40 + 2.40 + 3.27	10.00 (3.00 - 10.90)	2750 (540 - 3468)	3.64
15 + 18 + 18 + 35	1.48 + 1.78 + 1.78 + 3.46	8.50 (2.50 - 8.50)	2140 (550 - 3060)	3.97	1.77 + 2.21 + 2.21 + 3.81	10.00 (3.00 - 11.50)	2750 (540 - 3360)	3.64
15 + 18 + 18 + 42	1.37 + 1.65 + 1.65 + 3.84	8.50 (2.50 - 8.50)	2550 (550 - 3120)	3.33	1.64 + 2.05 + 2.05 + 4.26	10.00 (3.00 - 11.50)	2890 (540 - 3360)	3.46
15 + 18 + 18 + 50	1.26 + 1.51 + 1.51 + 4.21	8.50 (2.50 - 8.50)	2600 (550 - 3120)	3.27	1.48 + 1.85 + 1.85 + 4.81	10.00 (3.00 - 11.50)	2890 (540 - 3360)	3.46
15 + 18 + 18 + 60	1.15 + 1.38 + 1.38 + 4.59	8.50 (2.50 - 8.50)	2600 (550 - 3120)	3.27	1.38 + 1.72 + 1.72 + 5.17	10.00 (3.00 - 11.50)	2890 (540 - 3360)	3.46
15 + 18 + 25 + 25	1.50 + 1.80 + 2.50 + 2.50	8.30 (2.50 - 8.3)	2740 (550 - 3288)	3.03	1.77 + 2.21 + 3.01 + 3.01	10.00 (3.00 - 11.50)	2890 (540 - 3360)	3.46
15 + 18 + 25 + 35	1.37 + 1.65 + 2.28 + 3.20	8.50 (2.50 - 8.50)	2600 (550 - 3120)	3.27	1.64 + 2.05 + 2.79 + 3.52	10.00 (3.00 - 11.50)	2890 (540 - 3360)	3.46
15 + 18 + 25 + 42	1.28 + 1.53 + 2.13 + 3.57	8.50 (2.50 - 8.50)	2600 (550 - 3120)	3.27	1.53 + 1.91 + 2.60 + 3.97	10.00 (3.00 - 11.50)	2890 (540 - 3360)	3.46
15 + 18 + 25 + 50	1.18 + 1.42 + 1.97 + 3.94	8.50 (2.50 - 8.50)	2600 (550 - 3120)	3.27	1.39 + 1.74 + 2.36 + 4.51	10.00 (3.00 - 11.50)	2890 (540 - 3360)	3.46
15 + 18 + 25 + 60	1.08 + 1.30 + 1.80 + 4.32	8.50 (2.50 - 8.50)	2600 (550 - 3120)	3.27	1.30 + 1.62 + 2.21 + 4.87	10.00 (3.00 - 11.50)	2890 (540 - 3360)	3.46
15 + 18 + 35 + 35	1.24 + 1.49 + 2.89 + 2.89	8.50 (2.50 - 8.50)	2600 (550 - 3120)	3.27	1.53 + 1.91 + 3.28 + 3.28	10.00 (3.00 - 11.50)	2890 (540 - 3360)	3.46
15 + 18 + 35 + 42	1.16 + 1.39 + 2.70 + 3.25	8.50 (2.50 - 8.50)	2600 (550 - 3120)	3.27	1.43 + 1.79 + 3.07 + 3.71	10.00 (3.00 - 11.50)	2890 (540 - 3360)	3.46
15 + 18 + 35 + 50	1.08 + 1.30 + 2.52 + 3.60	8.50 (2.50 - 8.50)	2600 (550 - 3120)	3.27	1.31 + 1.63 + 2.81 + 4.25	10.00 (3.00 - 11.50)	2890 (540 - 3360)	3.46
15 + 18 + 35 + 60	1.00 + 1.20 + 2.32 + 3.98	8.50 (2.50 - 8.50)	2600 (550 - 3120)	3.27	1.23 + 1.53 + 2.64 + 4.60	10.00 (3.00 - 11.30)	2890 (540 - 3360)	3.46
15 + 18 + 42 + 42	1.09 + 1.31 + 3.05 + 3.05	8.50 (2.50 - 8.50)	2600 (550 - 3120)	3.27	1.53 + 1.91 + 3.28 + 3.28	10.00 (3.00 - 10.50)	2800 (540 - 3360)	3.57
15 + 18 + 42 + 50	1.02 + 1.22 + 2.86 + 3.40	8.50 (2.50 - 8.50)	2600 (550 - 3120)	3.27	1.43 + 1.79 + 3.07 + 3.71	10.00 (3.00 - 10.50)	2800 (540 - 3360)	3.57
15 + 18 + 42 + 60	0.94 + 1.13 + 2.64 + 3.78	8.50 (2.50 - 8.50)	2600 (550 - 3120)	3.27	1.31 + 1.63 + 2.81 + 4.25	10.00 (3.00 - 10.50)	2800 (540 - 3360)	3.57
15 + 18 + 50 + 50	0.96 + 1.15 + 3.20 + 3.20	8.50 (2.50 - 8.50)	2600 (550 - 3120)	3.27	1.34 + 1.68 + 3.49 + 3.49	10.00 (3.00 - 10.50)	#N/A	#N/A
15 + 18 + 50 + 60	0.89 + 1.07 + 2.97 + 3.57	8.50 (2.50 - 8.50)	2600 (550 - 3120)	3.27	1.23 + 1.54 + 3.21 + 4.01	10.00 (3.00 - 10.50)	2800 (540 - 3360)	3.57
15 + 18 + 60 + 60	0.83 + 1.00 + 3.33 + 3.33	8.50 (2.50 - 8.50)	2600 (550 - 3120)	3.27	1.14 + 1.43 + 3.71 + 3.71	10.00 (3.00 - 10.50)	2800 (540 - 3360)	3.57
15 + 25 + 25 + 25	1.42 + 2.36 + 2.36 + 2.36	8.50 (2.50 - 8.50)	2600 (550 - 3132)	3.27	1.64 + 2.79 + 2.79 + 2.79	10.00 (3.00 - 11.50)	2890 (540 - 3360)	3.46
15 + 25 + 25 + 35	1.28 + 2.13 + 2.13 + 2.98	8.50 (2.50 - 8.50)	2600 (550 - 3120)	3.27	1.53 + 2.60 + 2.60 + 3.28	10.00 (3.00 - 11.50)	2890 (540 - 3360)	3.46
15 + 25 + 25 + 42	1.19 + 1.99 + 1.99 + 3.34	8.50 (2.50 - 8.50)	2600 (550 - 3120)	3.27	1.43 + 2.43 + 2.43 + 3.71	10.00 (3.00 - 11.50)	2890 (540 - 3360)	3.46
15 + 25 + 25 + 50	1.11 + 1.85 + 1.85 + 3.70	8.50 TBA	2600 (550 - 3120)	3.27	1.31 + 2.22 + 2.22 + 4.25	10.00 (3.00 - 11.50)	2890 (540 - 3360)	3.46
15 + 25 + 25 + 60	1.02 + 1.70 + 1.70 + 4.08	8.50 (2.50 - 8.50)	2600 (550 - 3120)	3.27	1.23 + 2.09 + 2.09 + 4.60	10.00 (3.00 - 11.50)	2890 (540 - 3360)	3.46
15 + 25 + 35 + 35	1.16 + 1.93 + 2.70 + 2.70	8.50 (2.50 - 8.50)	2600 (550 - 3120)	3.27	1.43 + 2.43 + 3.07 + 3.07	10.00 (3.00 - 11.50)	2890 (540 - 3360)	3.46
15 + 25 + 35 + 42	1.09 + 1.82 + 2.54 + 3.05	8.50 (2.50 - 8.50)	2600 (550 - 3120)	3.27	1.34 + 2.28 + 2.89 + 3.49	10.00 (3.00 - 11.50)	2890 (540 - 3360)	3.46
15 + 25 + 35 + 50	1.02 + 1.70 + 2.38 + 3.40	8.50 (2.50 - 8.50)	2600 (550 - 3120)	3.27	1.23 + 2.10 + 2.65 + 4.01	10.00 (3.00 - 11.50)	2890 (540 - 3360)	3.46
15 + 25 + 35 + 60	0.94 + 1.57 + 2.20 + 3.78	8.50 (2.50 - 8.50)	2600 (550 - 3120)	3.27	1.16 + 1.98 + 2.50 + 4.36	10.00 (3.00 - 11.50)	2890 (540 - 3360)	3.46
15 + 25 + 42 + 42	1.03 + 1.71 + 2.88 + 2.88	8.50 (2.50 - 8.50)	2600 (550 - 3120)	3.27	1.27 + 2.15 + 3.29 + 3.29	10.00 (3.00 - 11.50)	2890 (540 - 3360)	3.46
15 + 25 + 42 + 50	0.97 + 1.61 + 2.70 + 3.22	8.50 (2.50 - 8.50)	2600 (550 - 3120)	3.27	1.17 + 1.99 + 3.04 + 3.80	10.00 (3.00 - 11.50)	2890 (540 - 3360)	3.46
15 + 25 + 42 + 60	0.90 + 1.50 + 2.51 + 3.59	8.50 (2.50 - 8.50)	2600 (550 - 3120)	3.27	1.10 + 1.88 + 2.87 + 4.14	10.00 (3.00 - 11.50)	2890 (540 - 3360)	3.46
15 + 25 + 50 + 50	0.91 + 1.52 + 3.04 + 3.04	8.50 (2.50 - 8.50)	2600 (550 - 3120)	3.27	1.09 + 1.85 + 3.53 + 3.53	10.00 (3.00 - 11.50)	2890 (540 - 3360)	3.46
15 + 25 + 50 + 60	0.85 + 1.42 + 2.83 + 3.40	8.50 (2						

# Additional notes for technical tables

## Units of the Yutaki air source heat pump range

The nominal heating and cooling capacities are based on standard EN 14511:

- Cooling: water inlet temperature 12°C, outlet at 7°C and outside temperature 35°C DB.
- Heating: water inlet temperature 30°C, outlet at 35°C and outside temperature 7°C DB, 7°C WB.
- Pipe length: 7.5 meters; Height of pipes: 0 meters.

The heating capacity and performance match each other with integrated values (with the defrost correction factor included).

The acoustic data are based on the following conditions:

- Outdoor ambient temperature (DB/WB): 7/6°C.
- Water input/output temperature: 30/35°C.
- Unit's distance from measuring point: 1 meter from the unit's front surface and 1.5 meters from ground level.

The acoustic pressure level has been measured in an anechoic chamber, so reflected sound must be taken into account when installing the unit.

The acoustic power level has been measured in a reverberant room in accordance with standard EN12102.

The environmental conditions used are those specified in Standard EN14511 for performance tests.

The SCOP seasonal performance values in heating are calculated in accordance with ERP Directive 2009/125/EC, and more specifically with Regulation 813/2013 (LOT 1) according to UNE Standard EN 14825.

The seasonal performance value in domestic hot water production is calculated in accordance with ERP Directive 2009/125/EC, and more specifically with Regulation 814/2013 (LOT 2) according to UNE Standard EN 16147.

You can find all the documentation on energy efficiency and download the energy labels (LOT 1 and LOT 2) at: <https://erpactive.chauffage.hitachi.fr/es/>

## Units of the domestic 1x1 range

(cooling capacity < 12kW)

The nominal heating and cooling capacity is the combined capacity of the HITACHI standard Split system, and is based on Standard ISO 5151:

- Cooling: indoor temperature 27°C DB, 19°C WB, outside temperature 35°C DB.
- Heating: indoor temperature 20°C DB, outside temperature 7°C DB, 6°C WB.
- Pipe length: 5 meters; Height of pipes: 0 meters.

The acoustic pressure level in indoor units is based on the following conditions:

- Wall-mounted units: 0.8 meters below the center height of the indoor unit and 1 meter from the discharge grille.
- Console units: half the height of the unit and 1 meter from the discharge grille.
- Ducts: 0.8 meters below the center height of the indoor unit and 1.5 meters from the discharge grille.
- Cassette: 0.8 meters below the center height of the indoor unit and 1.5 meters from the discharge grille.

The above data have been measured in an anechoic chamber. Take into account the reflected sound of the specific location.

The acoustic pressure level in outdoor units is based on the following conditions:

- 1 meter from the unit's front surface and 1 meter from ground level.

The SEER/SCOP seasonal performance values in cooling and heating are calculated in accordance with ERP Directive 2009/125/EC, and more specifically with Regulation 2281/2016 (LOT 21) according to UNE Standard EN 14825.

You can find all the documentation on energy efficiency and download the energy labels (LOT 10) at: <https://erpactive.chauffage.hitachi.fr/es/>

## Units of the commercial 1x1 range and VRF Systems

(cooling capacity > 12kW)

The nominal cooling and heating capacity is the combined capacity of the outdoor unit and the indoor units, and is based on Standard EN14511, under the following operating conditions:

- Cooling: indoor temperature 27°C DB, 19°C WB, outside temperature 35°C DB.
- Heating: indoor temperature 20°C DB, outside temperature 7°C DB, 6°C WB.
- Pipe length: 7.5 meters; Height of pipes: 0 meters.

The acoustic pressure level in indoor units is based on the following conditions:

- Wall-mounted units: 1 m below the unit and 1.5 m from the discharge outlet.
- Console units: 1 m from ground level and 1 m from the front of the unit.
- Ducts: 1.5 m below the unit (with no ceiling below it) with the suction duct 1 m away and the discharge duct 2 m away.
- Cassette: 1.5 m below the unit.
- Ceiling: 1 m below the unit and 1 m from the discharge outlet.

The above data have been measured in an anechoic chamber. Take into account the reflected sound of the specific location.

The acoustic pressure level in outdoor units is based on the following conditions:

- The measurement point is 1.5 meters from the ground and 1 meter from the front surface of the unit.
- Units working at their nominal supply voltage.

The acoustic pressure level has been measured in an anechoic chamber, so reflected sound must be taken into account when installing the unit.

The acoustic power level has been measured in a reverberant room in accordance with standard EN12102. The environmental conditions used are those specified in Standard EN14511 for performance tests.

The SEER/SCOP seasonal performance values in cooling and heating are calculated in accordance with ERP Directive 2009/125/EC, and more specifically with Regulation 2281/2016 (LOT 21) according to UNE Standard EN 14825, and calculated with RCI-FSN4 model cassette units

You can find all the documentation on energy efficiency (LOT 21) at: <https://erpactive.chauffage.hitachi.fr/es/>  
Download the energy label (LOT 10) from the website: <https://erpactive.chauffage.hitachi.fr/es/>

## Indoor units

The nominal cooling and heating capacity is the combined capacity of the outdoor unit and the indoor units, and is based on Standard EN14511, under the following operating conditions:

- Cooling: indoor temperature 27°C DB, 19°C WB, outside temperature 35°C DB.
- Heating: indoor temperature 20°C DB, outside temperature 7°C DB, 6°C WB.
- Pipe length: 7.5 meters; Height of pipes: 0 meters.

The cooling and heating capacity of indoor units is different in the VRF IVX and VRF Set Free systems.

For the VRF IVX system, the nominal capacity shown in the tables below relates to combinations of an indoor unit with an outdoor unit of the VRF IVX Premium series or IVX Comfort series [RAS-(2-6)HVNPI(E), RAS-(4-12)H(V)NP(1)(E), RAS-(3-6)H(V)NC1(E) and RAS-(4-12)H(V)NC(1)(E)], as long as this combination is permitted.

The acoustic pressure level has been measured in an anechoic chamber, under the following conditions:

- RCI (M) and RCD indoor units: 1.5 m below the unit.
- RPI (M) indoor units: 1.5 meters below the unit (with no ceiling below the unit) with the suction duct 1 m away and the discharge duct 2 m away.
- RPC and RPK indoor units: 1 m below the unit, 1 m from the discharge outlet.
- RPF (I) indoor units: 1 m from ground level, 1 m from the front of the unit.

The acoustic power level has been measured in a reverberant room in accordance with standard EN12102. The environmental conditions used are those specified in Standard EN14511 for performance tests.

## Dx-Kit

The nominal cooling and heating capacity is the combined capacity of the outdoor unit and the relevant DX interface (EXV-0E2), and is based on Standard EN14511, under the following operating conditions:

- Cooling: indoor temperature 27°C DB, 19°C WB, outside temperature 35°C DB.
- Heating: indoor temperature 20°C DB, outside temperature 7°C DB, 6°C WB.
- Pipe length: 7.5 meters; Height of pipes: 0 meters.

The acoustic pressure level in outdoor units is based on the following conditions:

- The measurement point is 1.5 meters from the ground and 1 meter from the front surface of the unit.
- Units working at their nominal supply voltage.

The acoustic pressure level has been measured in an anechoic chamber, so reflected sound must be taken into account when installing the unit.

The acoustic power level has been measured in a reverberant room in accordance with standard EN12102. The environmental conditions used are those specified in Standard EN14511 for performance tests.

Outdoor units of the "RAS-XH (V)NP(1)E" series have been designed for specific applications requiring the combination of a Series 2 DX Interface and do not have Eurovent certification. They may vary depending on each specific application.

## Hydraulic mode

The nominal heating and cooling capacities are based on Standard EN 14511 and the data is represented in integrated values (including the defrost correction factor).

The acoustic data are based on the following conditions:

- Outdoor ambient temperature (DB/WB): 7/6°C.
- Water input/output temperature: 30/35°C.
- Unit's distance from the measuring point: 1 meter from the front of the unit and 1.5 meters from ground level.

The measurements have been made in a reverberant room in accordance with Standard EN12102. The environmental conditions used are those specified in Standard EN14511 for performance tests.

## Units of the air renewal range – KPI and active KPI

The sound-pressure level has been measured in an anechoic chamber, with the measuring point located 1.5 m below the unit, with no ceiling above it and using a soundproof duct. Suction duct 1 m away and discharge duct 2 m away.

Reflected sound must be considered when installing the unit. The sound-pressure level measured in the installation may be higher than specified.

In the case of KPI-X4E units with a direct expansion unit, the nominal cooling and heating capacity is the combined capacity of the outdoor unit and the indoor units, and is based on Standard EN14511 under the following operating conditions:

- Cooling: indoor temperature 27°C DB, 19°C WB, outside temperature 35°C DB.
- Heating: indoor temperature 20°C DB, outside temperature 7°C DB, 6°C WB.
- Pipe length: 7.5 meters; Height of pipes: 0 meters.
- Active KPI unit operating at its nominal air flow.

## Units of the Chiller range

The capacity data are based on European Standard EN14511 in the following conditions:

Operating conditions in cooling mode:

- Cold water inlet/outlet temperature: 12/7°C.
- Condenser inlet air temperature: 35°C.

Operating conditions in heating mode:

- Hot water input/output temperature: 40/45°C.
- Condenser inlet air temperature: 6°C (WB).

All sound pressure level data are measured at a height of 1.5 m, and at 1 m from the front panel of the unit.

The low-water-temperature option requires Glycol (antifreeze mixture of ethylene glycol or propylene glycol).

Powers and performances are shown with no pump.

Seasonal energy performances (SCOP) are shown in accordance with European Standard EN14825.

For more information, see the technical manuals of each range at <https://www.hitachiaircon.es/recursos>