HITACHI

Yutaki S
Yutaki SCombi

Split air-to-water heat pump

R32 REFRIGERANT

R410A REFRIGERANT

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

Cooling & Heating

INDEX

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

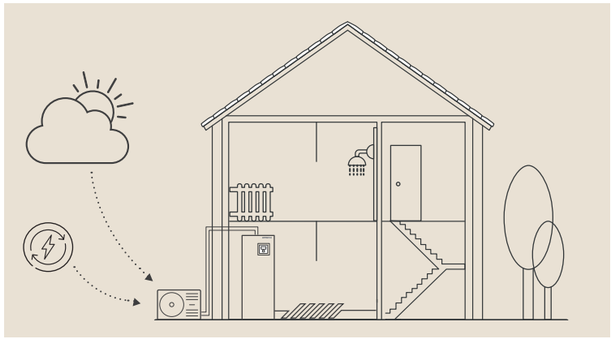
Air-to-water heat pump

Renewable energy solution

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

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

(1) Keymark certification under process



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

NEW YUTAKI S & SCOMBI LINE-UP

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

OUTDOOR UNITS

RAS-2~3WHVRP1 RAS-4~10WH(V)NPE

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

INDOOR UNITS

Yutaki S

Yutaki SCombi

Yutaki applications

Ideal solution for house renovation or new house building

VERSATILITY & HIGH EFFICIENCY

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

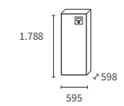
- External tank for wall mounted indoor units
- Integrated tank for floor standing units.

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

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

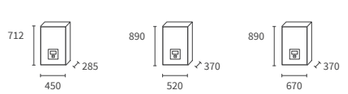
+ NEW INTEGRATED TANK:
Yutaki SCombi integrates a new 220L stainless steel tank

Floor standing indoor unit



Yutaki SCombi
2 to 6HP

Wall mounted indoor units



Yutaki S
2 to 3HP

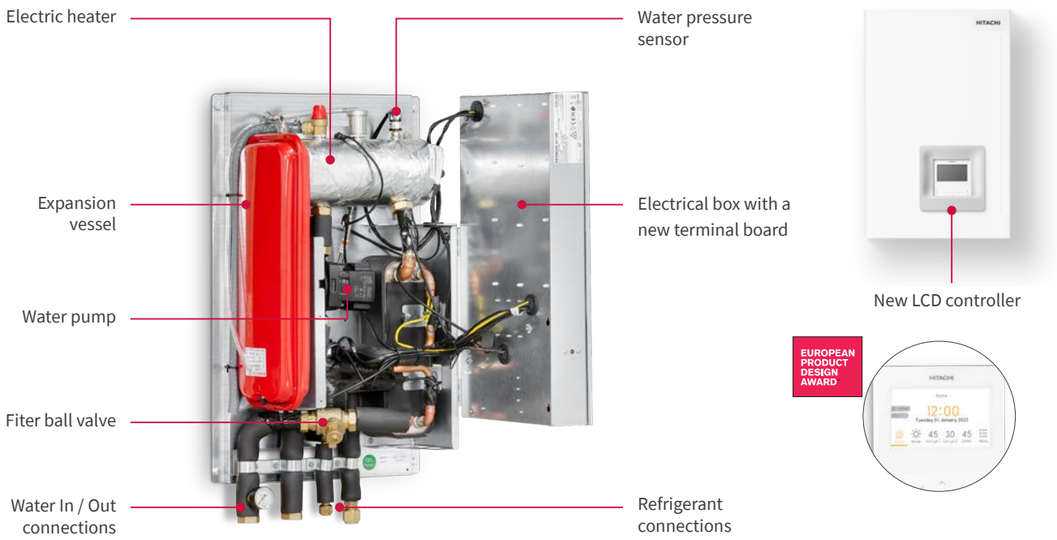
Yutaki S
4 to 6HP

Yutaki S
8 & 10HP

Features & benefits

New indoor unit design, more functionalities

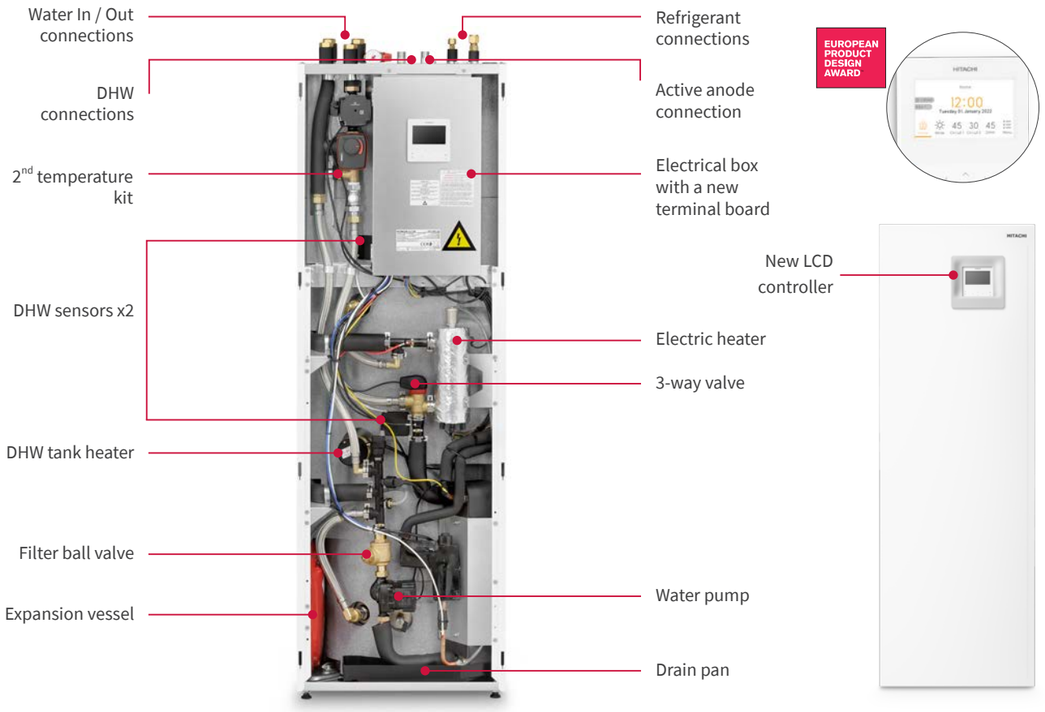
YUTAKI S : A WIDE RANGE FROM 4.3 TO 24KW



New LCD controller

EUROPEAN PRODUCT DESIGN AWARD

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



EUROPEAN PRODUCT DESIGN AWARD

BEST PERFORMANCES FOR A HIGH LEVEL OF COMFORT

Best performances for a high level of comfort

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

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

Exclusive European-designed unit

Better support installers in their work

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

R32 regriferant models

Switch to low GWP refrigerant is well underway at JCH

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

Plug & Play units

Make installation easy and quick for all installers

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

Keymark certified

100% of the range HP Keymark certified

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

Connected solution

Take the control of Yutaki from anywhere!

- Remote control
- Remote maintenance

Controls & connectivity

Newest LCD controller generation

NEW

EUROPEAN PRODUCT DESIGN AWARD

Outstanding design and user experience.

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


Thermostat view


Commissioning menu


Dark mode

INTUITIVE AND VISUAL INTERFACE WITH EXCLUSIVE FUNCTIONALITIES

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

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

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

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

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

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

+ MULTILINGUAL INTERFACE: 26 languages available!


(1) Wizard


(2) Synoptic view


(3) Fan coils control


(4) Energy consumption

CONTROL YOUR YUTAKI HEAT PUMP REMOTELY

HIKUMO & HIKUMO Pro applications

HIKUMO app

Control your Yutaki heat pump remotely with HIKUMO application:

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

HIKUMO Pro

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

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

Communication interfaces for HIKUMO app and HIKUMO Pro

Home Automation gateway
ATW-TAG-02

+

HiBox
AHP-SMB-01

ROOM THERMOSTATS & CASCADE CONTROLLER

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

Intelligent wireless thermostat
(ATW-RTU-07)

Intelligent wireless thermostat (Circuit 2)
(ATW-RTU-06)

Wired thermostat
(PC-ARFH2E)

Cascade controller
(ATW-YCC-03)

NEW

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

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

Accessories & online tools

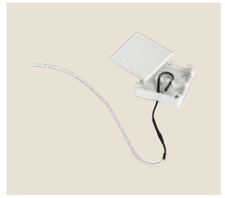
ACCESSORIES

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

Cooling kit Yutaki SC
ATW-CKSC-02

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

2nd outdoor temp. sensor
ATW-2OS-02

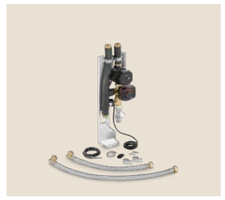


Indoor wired sensor
ATW-ITS-01

Univ.water temp sensor
ATW-WTS-02Y

Active anode
ATW-CP-05

2nd temp. kit (wall)
ATW-2TK-07



2nd temp. kit (integrated)
ATW-2TK-08

Hydraulic separator
ATW-HSK-01

DHW Tanks
DHWT-200/300S-3.0H2E

Aquastat
ATW-AQT-01

3-way valve
ATW-3WV-01

Water check valve
ATW-WCV-01

Diff. pressure valve
ATW-DPOV-01

KNX gateway
ATW-KNX-02

Modbus gateway
ATW-MBS-02
HCA16MB

Auxiliary output signal box
ATW-AOS-02

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

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

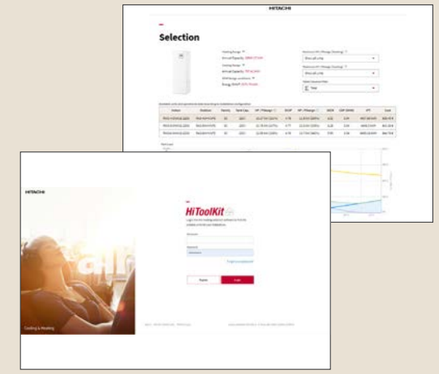
HITOOLKIT FOR HOME

Hi-ToolKit for home

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

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

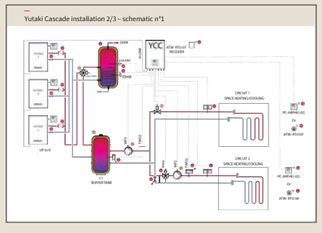
Use this link:
https://www.hitachi-hitoolkit.com/yutaki/login

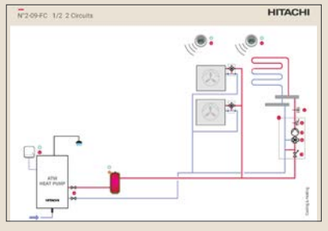


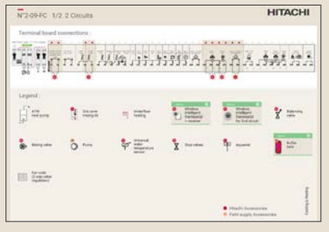
YUTAKI APPLICATIONS

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

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







Use this link:
www.yutaki-applications.com

Technical data

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
Heating performances (preliminary data)										
Min./nom./max. heating capacity (A7/W35)		kW	1.85 / 4.3 / 6.5	1.85 / 6 / 8.6	2.1 / 8 / 11	4.3 / 11 / 15.2	4.8 / 14 / 16.7	5.5 / 16 / 17.8	9 / 20 / 25.5	10 / 24 / 32
Nom./max. heating capacity (A-7/W35)		kW	4.5 / 5.3	5.3 / 6.2	5.8 / 7.5	9.7 / 10.6	11.5 / 12	12 / 13	14.2 / 17.9	16.5 / 21
Nom./max. heating capacity (A-7/W45)		kW	- / 5	- / 5.8	- / 6.67	10 / 10	11 / 11.6	11.5 / 12.5	15 / 16.6	16.5 / 18.5
Nom./max. heating capacity (A-7/W55)		kW	4 / 4.2	4.7 / 5	5 / 5.5	8.7 / 9.7	9.7 / 11.2	10.5 / 12	12.5 / 14.5	15.5 / 17.3
Nom. power input (A7/W35)		kW	0.82	1.25	1.74	2.2	2.97	3.5	4.65	5.59
COP (A7/W35) according to EN14511		-	5.25	4.8	4.6	5	4.71	4.57	4.3	4.29
SCOP average climate 35°C / 55°C according to EN14825		-	4.6 / 3.4	4.5 / 3.25	4.5 / 3.2	4.75 / 3.48	4.45 / 3.4	3.9 / 3.20	3.83 / 3.08	3.6 / 2.98
Seasonal heating energy efficiency ηs (35°C) 1~/3~		%	181	177	177	187 / 186	175 / 174	153 / 152	- / 150	- / 141
Seasonal heating energy efficiency ηs (55°C) 1~/3~		%	133	127	125	136 / 135	133 / 133	125 / 125	- / 120	- / 116
Energy class 35°C / 55°C		-	A+++/A++			A+++/A++		A++/A++	A++/A+	A+/A+
Water outlet temperature range (heating mode)		°C	20/60°C			20/60°C				
Max. water temperature outlet in thermodynamic mode only		°C	60°C down to -5 °C outside			60°C down to -10 °C outside				
Cooling performances (optional) (preliminary data)										
Nom./max. cooling capacity (A35/W7)		kW	4 / 5	5.3 / 6	6.5 / 7	7.2 / 11.8	9.5 / 12.6	10.5 / 13.7	14 / 16.4	17.5 / 20.6
Nom. power input (A35/W7)		kW	1	1.47	1.94	2.18	2.95	3.72	4.48	4.08
EER		-	4	3.6	3.35	3.54	3.54	3.31	3.12	2.81
INDOOR UNITS			RWM-2.0R1E	RWM-2.5R1E	RWM-3.0R1E	RWM4.0N1E	RWM5.0N1E	RWM6.0N1E	RWM8.0N1E	RWM10.0N1E
Electric heater / 3 steps		kW	3 (1+1+1)	3 (1+1+1)	3 (1+1+1)	6 (2+2+2)	6 (2+2+2)	6 (2+2+2)	9 (3+3+3)	9 (3+3+3)
Net weight		kg	35	36	37	46	48	48	60	62
Dimensions (H x L x D)		mm	712 x 450 x 285			890 x 520 x 370			890 x 670 x 370	
Sound power		dB(A)	37			39			47	
Hydraulic data										
Expansion vessel		L	6			6			10	
Water flow (min./nom./max.)		m³/h	0.5/0.77/1.9	0.6/1.03/2	0.6/1.29/2.1	1/1.89/2.9	1.1/2.41/3	1.2/2.75/3	2/3.44/4.5	2.2/4.13/4.6
Shutdown valves (male/male valves supplied)		inches	1"			1" 1/4			1" 1/4	
Min. installation water volume		L	28			38	46	55	76	79
Electrical data										
Power supply		-	230V / 1Ph / 50Hz or 400V / 3Ph / 50Hz			230V / 1Ph / 50Hz or 400V / 3Ph / 50Hz			400V / 3Ph / 50Hz	
1~ 230V	Max. current with electric heater	A	14.9			30.5			-	
	Cable width (mm²) / max. length (m) (1)	-	3 x 2.5 / 14			3 x 6 / 28			-	
	Max. current with electric heater + tank/ Yutaki S Optional	A	29.3			45.5			-	
3~400V	Max. current with electric heater	A	5.3			10.3			15.3	
	Cable width (mm²) / max. length (m) (1)	-	-	-	-	5 x 2.5 / 20			5 x 2.5 / 20	
	Max. current with electric heater + tank/ Yutaki S Optional	A	19.7			25.4			30.4	
	Cable width (mm²) / max. length (m) (1)	-	-	-	-	5 x 6 / 20			5 x 6 / 20	
OUTDOOR UNITS			RAS-2WHVRP1	RAS-2.5WHVRP1	RAS-3WHVRP1	RAS-4WH(V)NPE	RAS-5WH(V)NPE	RAS-6WH(V)NPE	RAS-8WHNPE	RAS-10WHNPE
Sound pressure level at 1m / Sound power level in Heating mode		dB(A)	46 / 61	47 / 63	54 / 64	49 / 64	50 / 65	50 / 67	59 / 73	60 / 74
Air flow rate		m³/h	2436		2682	4800	5400	6000	7620	8040
Dimensions (H x L x D)		mm	629 x 799 x 300			1380 x 950 x 370				
Net weight		kg	45		44	103			137	139
Operating ranges in Cooling / Heating / DHW		°C	+10~+46DB // -20~+25DB // -20~+35			+10~+46DB // -25~+25DB // -25~+35				
Refrigerant data										
Piping diameter (Liquid - Gas)		inches	1/4" - 1/2"*		1/4" - 5/8" 3 to 27m* 3/8" 5/8" 27 to 50m*	3/8" 5/8"			3/8" 1"	1/2" 1"
Min./max. piping length		m	3 - 50		3 - 40	5 - 75			5 - 70	
Height diff. between OU & IU – (Higher OU / Lower OU)		m	30 / 20		30 / 20	30 / 20			30 / 20	
Refrigerant charge / Additional refri. charge needeed		kg / g / m	1.2 for 10m / 15	1.3 for 10m / 15	1.3 for 10m / 30	3.3 for 15m / 60	3.4 for 15m / 60		5 for 15m / 65	5.3 for 15m / 120
Refrigerant		-	R32			R410A				
Compressor		-	SCROLL		ROTARY	SCROLL				
Electrical data										
Power supply		-	230V / 1Ph / 50Hz			230V / 1Ph / 50Hz or 400V / 3Ph / 50Hz			400V / 3Ph / 50Hz	
1~230V	Max. current	A	10.4	12.9	15.8	30.5			-	-
	Cable width (mm²) / max. length (m) (1)	-	3 x 2.5 / 28	3 x 2.5 / 24	3 x 4 / 21	3 x 6 / 30			-	-
3~400V	Max. current	A	-	-	-	14	16		24	24
	Cable width (mm²) / max. length (m) (1)	-	-	-	-	5 x 2.5 / 16	5 x 2.5 / 16		5 x 6 / 26	
Transmitting cables (protected)		mm²	2 x 0.75			2 x 0.75				

(1) Data given for reference purposes only. Compliant with the applicable electrical standards. (V) = mono. * 2/2.5/3HP R32 models have different diameters for the cooling gas pipes, cooler connection groups, and indoor units. For that reason, use the adapters provided with the outdoor unit.

Yutaki SCombi

Model			R32			R410A		
			YUTAKI SCOMBI 4.3kW	YUTAKI SCOMBI 6kW	YUTAKI SCombi 8kW	YUTAKI SCOMBI 11kW	YUTAKI SCOMBI 14kW	YUTAKI SCOMBI 16kW
Heating performances (preliminary data)								
Min./nom./max. heating capacity (A7/W35)		kW	1.85 / 4.3 / 6.5	1.85 / 6 / 8.6	2.1 / 8 / 11	4.3 / 11 / 15.2	4.8 / 14 / 16.7	5.5 / 16 / 17.8
Nom./max. heating capacity (A-7/W35)		kW	4.5 / 5.3	5.3 / 6.2	5.8 / 7.5	9.7 / 10.6	11.5 / 12	12 / 13
Nom./max. heating capacity (A-7/W45)		kW	- / 5	- / 5.8	- / 6.67	10 / 10	11 / 11.6	11.5 / 12.5
Nom./max. heating capacity (A-7/W55)		kW	4 / 4.2	4.7 / 5	5 / 5.5	8.7 / 9.7	9.7 / 11.2	10.5 /12
Nom. power input (A7/W35)		kW	0.82	1.25	1.74	2.2	2.97	3.5
COP (A7/W35) according to EN14511		-	5.25	4.8	4.6	5	4.71	4.57
SCOP average climate 35°C / 55°C according to EN14825		-	4.6 / 3.4	4.5 / 3.25	4.5 / 3.2	4.8 / 3.5	4.48 / 3.43	3.9 / 3.23
Seasonal heating energy efficiency ηs (35°C) 1~/3~		%	181	177	177	187 / 186	175 / 174	153 / 152
Seasonal heating energy efficiency ηs (55°C) 1~/3~		%	133	127	125	136 / 135	133 / 133	125 / 125
Energy class 35°C / 55°C		-	A+++ / A++			A+++ / A++		A++ / A++
Water outlet temperature range (heating mode)		°C	20 / 60°C			20 / 60°C		
Max. water temperature outlet in thermodynamic mode only		°C	60°C down to -5 °C outside			60°C down to -10 °C outside		
DHW performances (preliminary data)								
DHW COP (220L) according to EN16147		-	3.2			3.1		
Seasonal energy efficiency η_{wh} (L cycle)		%	130			127		
Energy class		-	A+			A+		
Heat up time		h:min	1:55			1:05		
Stand-by power input (Pes)		W	30			34		
Max. volume of usable hot water (Vmax)		L	288			288		
Temperature range of water outlet (DHW mode)		°C	30 / 55°C			30 / 55°C		
Cooling performances (optional) (preliminary data)								
Nom./max. cooling capacity (A35/W7)		kW	4 / 5	5.3 / 6	6.5 / 7	7.2 / 11.8	9.5 / 12.6	10.5 / 13.7
Nom. power input (A35/W7)		kW	1	1.47	1.94	2.18	2.95	3.72
EER		-	4	3.6	3.35	3.54	3.54	3.31
INDOOR UNITS			RWD-2.0RW1E-220S	RWD-2.5RW1E-220S	RWD-3.0RW1E-220S	RWD-4.0NW1E-220S	RWD-5.0NW1E-220S	RWD-6.0NW1E-220S
Electric heater / 3 steps		kW	3 (1+1+1)	3 (1+1+1)	3 (1+1+1)	6 (2+2+2)	6 (2+2+2)	6 (2+2+2)
Tank's heater		kW	2.7	2.7	2.7	2.7	2.7	2.7
Net weight		kg	120	120	121	124	126	126
Dimensions (H x L x D)		mm	1788 x 595 x 598			1788 x 595 x 598		
Sound power		dB(A)	37			39		
DHW tank volume / material		L	220 / Duplex			220 / Duplex		
Hydraulic data								
Expansion vessel		L	6			6		
Water flow (min./nom./max.)		m³/h	0.5 / 0.77 / 1.9	0.6 / 1.03 / 2	0.6 / 1.29 / 2.1	1 / 1.89 / 2.7	1.1 / 2.41 / 2.8	1.2 / 2.75 / 2.8
Shutdown valves (male/male valves supplied)		inches	1"			1" 1/4		
Connections for DHW		inches	3/4"			3/4"		
Min. installation water volume		L	28			38	46	55
Electrical data								
Power supply		-	230V / 1Ph / 50Hz or 400V / 3Ph / 50Hz			230V / 1Ph / 50Hz or 400V / 3Ph / 50Hz		
1~ 230V	Max. current with electric heater + tank heater	A	27.1			44.8		
	Cable width (mm²) / max. length (m)(1)	-	3 x 6 / 28			3 x 10 / 30		
1~ 400V	Max. current with electric heater + tank heater	-	-	-	-	24.7		
	Cable width (mm²) / max. length (m)(1)	-	-	-	-	5 x 6 / 20		
OUTDOOR UNITS			RAS-2WHVRP1	RAS-2.5WHVRP1	RAS-3WHVRP1	RAS-4WH(V)NPE	RAS-5WH(V)NPE	RAS-6WH(V)NPE
Sound pressure level at 1m / sound power level in Heating mode		dB(A)	46 / 61	47 / 63	54 / 67	49 / 64	50 / 65	50 / 67
Air flow rate		m³/h	2436		2682	4800	5400	6000
Dimensions (H x L x D)		mm	629 x 799 x 300			1380 x 950 x 370		
Net weight		kg	45		44	103		
Operating ranges in Cooling / Heating / DHW		°C	+10~+46 // -20~+25 // -20~+35			+10~+46 // -25~+25 // -25~+35		
Refrigerant data								
Piping diameter (Liquid - Gas)		inches	1/4" - 1/2"*		1/4" - 5/8" 3 to 27m* 3/8" 5/8" 27 to 50m*	3/8" 5/8"		
Min./max. piping length		m	3 - 50		3-40	5 - 75		
Height diff. between OU & IU – (Higher OU / Lower OU)		m	30 / 20		30 / 20	30 / 20		
Refrigerant charge / Additional refri. charge needeed		kg / g / m	1.2 for 10m / 15	1.3 for 10m / 15	1.3 for 10m / 30	3.3 for 15m / 60	3.4 for 15m / 60	
Refrigerant			R32			R410A		
Compressor			SCROLL		ROTARY	SCROLL		
Electrical data								
Power supply			230V / 1Ph / 50Hz			230V / 1Ph / 50Hz or 400V / 3Ph / 50Hz		
1~230V	Max. current	A	10.4	12.9	15.8	30.5		
	Cable width (mm²) / max. length (m)(1)	-	3 x 2.5 / 28	3 x 2.5 / 24	3 x 4 / 21	3 x 6 / 30		
3~ 400V	Max. current	A	-	-	-	14	16	
	Cable width (mm²) / max. length (m)(1)	-	-	-	-	5 x 2.5 / 16	5 x 2.5 / 16	
Transmitting cables (protected)		mm²	2 x 0.75			2 x 0.75		

(1) Data given for reference purposes only. Compliant with the applicable electrical standards. (V) = mono. * 2/2.5/3HP R32 models have different diameters for the cooling gas pipes, cooler connection groups, and indoor units. For that reason, use the adapters provided with the outdoor unit.

Notes

air

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