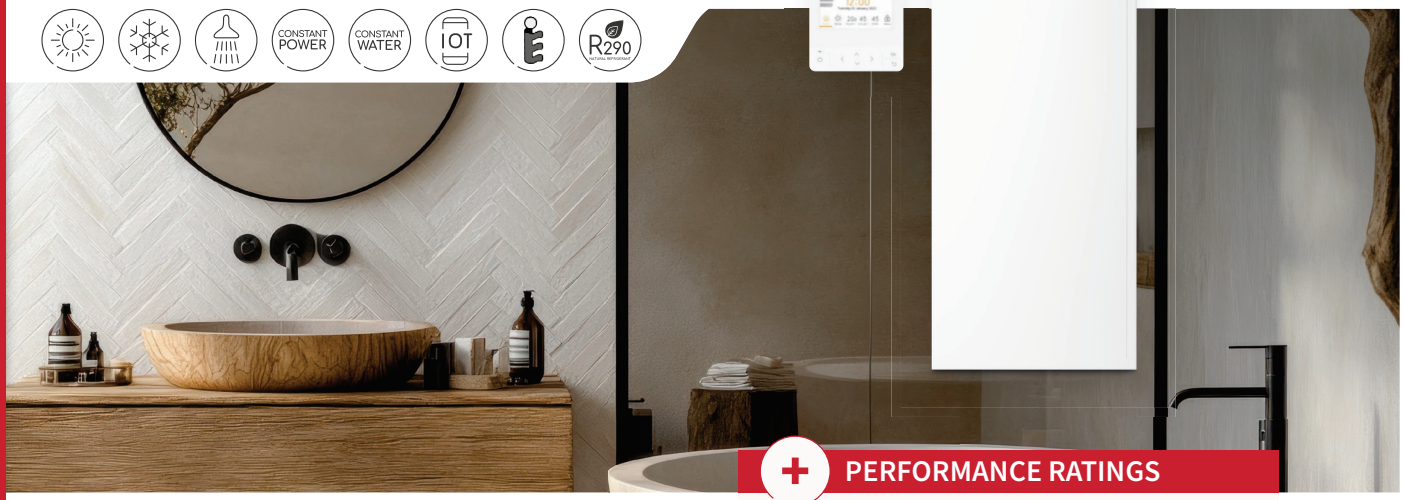
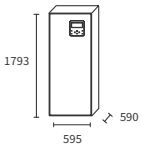
air H$_2$O 800 H Combi

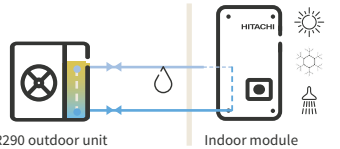
Split hydraulic Air/Water heat pump, 75°C, with integrated DHW 4 to 14 kW (R290)



Indoor units



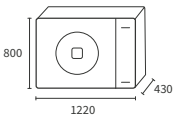
HWD-W2E-220S



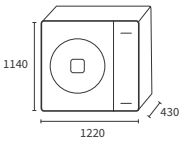
R290 outdoor unit
R290 / H2O heat exchanger

Indoor module
With hydraulic components

Outdoor units



RASM-2VTW2E
RASM-3VTW2E
RASM-3.5VTW2E



RASM-4(V)TW2E
RASM-5(V)TW2E
RASM-6(V)TW2E

PERFORMANCE RATINGS

- The AirH2O 800 H Combi range offers exceptional performance for **new and renovation** projects and combines DHW with its **integrated 220L stainless steel tank.**
- Its **Constant Power** technology enables it to maintain its power rating throughout the year in 100% thermodynamic mode.
- Its **Constant Water** technology enables it to reach and maintain a constant water outlet temperature from **75°C.**

PRACTICAL FOR PROFESSIONALS

- **Fully-inclusive management:** All standard options (2 zones, boiler backup, smart grid ready, solar thermal, fan coil units).
- **Integrated disconnection:** 15-liter bottle and secondary pump included, saving space and up to 3 hours of labor.
- **100% plug and play:** No refrigerant handling and no opening of the outdoor unit for installation or commissioning.
- **CSNET Home PRO includes the following as standard:** View the status of your devices remotely and adjust their settings in real time.
- **NFC function:** Create / copy / paste / duplicate a configuration directly from your smartphone.

EASY TO CONTROL

- **Controller:** A modern, stylish LCD screen combined with ease of use for both home users and professionals.
- **CSNet Home included as standard**: Control your comfort from a distance at no extra charge.

Compatible controls and accessories

Controls and connectivity

Wired remote control
Model: **PC-ARFH3E**
Included

Wireless remote control for ambient compensation 1st circuit.
Model: **ATW-RTU-07**

Front cover˚ AirH2O 800 H & H COMBI
Use if moving the remote control in the environment.
Model: **ATW-FCP-03**

Black wired remote control
Model: **PC-ARFH3EB**
Option

Hydraulic accessories

2-zone integrated kit
Essential accessory when two distinct temperature levels must be maintained.
Model: **ATW-2TK-08**

Universal sensor DHW, hydraulic decoupling, Circuit 2, swimming pool, solar (required if the tank is not a Hitachi DHWT).
Model: **ATW-WTS-02Y**

Options

Reversible kit AirH2O 800 H COMBI equipment required for cooling mode operation.
Model: **ATW-CKSC-02**

airH2O 800 H COMBI

R290 REFRIGERANT

Model	Unit	4 kW	6 kW	8 kW	10 kW	12 kW	14 kW
Performance, heating							
Min./rated/max. heating capacity (7°C outside./35°C water)	kW	2/4/6	2.4/6/8	2.4/8/10	4.5/10/12	4.5/12/14	4.5/14/16
Capacity/max. heating (-7°C outside / 35°C water)	kW	4 / 4.5	6 / 6	8 / 8	10 / 10	12 / 12	13 / 13.5
Capacity/max. heating (-7°C outside / 55°C water)	kW	4 / 4.5	6 / 6	7.5 / 7.5	10 / 10	12 / 12	13 / 13
Heat pump (7°C outside/35°C water) in accordance with EN14511	-	4.7	4.84	4.62	4.53	4.21	4.2
SCOP average climate 35°C/55°C in accordance with EN14825	-	4.5 / 3.25	4.67 / 3.37	4.67 / 3.44	4.53 / 3.65	4.53 / 3.55	4.54 / 3.35
Seasonal heating energy efficiency ηs (35°C) Single/Tri [1]	%	177	184		178		179
Seasonal heating energy efficiency ηs (55°C) Single/Tri [1]	%	127	132	135	143	139	131
Energy rating 35°C/55°C	-	A+++/A++					
Temperature range of water outlet (heating mode)	°C	20/75°C					
Max. temperature at the water outlet in thermodynamic-only mode	°C	75°C up to -5°C outside					
DHW performance							
DHW heat pump (220L) in accordance with EN16147	-		3.19			3	
Seasonal energy efficiency nwh 220L L cycle	%		130			123	
DHW energy rating	-	A+					
Temperature range of water outlet (DHW mode)	°C	30/70°C					
Vmax at 40°c acc to EN16147	L	288					
Performance in Cooling mode (optional)							
Capacity/max. cooling mode (35°C outside/7°C water) (reversible)	kW	4 / 4.5	6 / 6.5	7 / 7.5	10 / 10	11 / 11	12 / 12
Absorbed capacity cooling (35°C ext/7°C water)	kW	-					
EER (reversible model)	-	2.78	2.91	2.84	3.13	2.94	2.66

Hydraulic modules			HWD-W2E-220S
Auxiliary electric resistance heating as standard / Three-stage		kW	6 (2 + 2 + 2)
DHW auxiliary electric resistance as standard		kW	2.7
Net weight (220L)		kg	113
Dimensions (HxLxD)		mm	1793 x 595 x 590
Sound pressure level		dB(A)	30
Volume of DHW tank/Material of DHW tank		L	220 L / Stainless steel
Remote control		-	included PC-ARFH3E
Hydraulic features			
Expansion vessel		L	6
Water flow rate (min/nom/max)		m^3/h	0.6/0.7/2 | 0.6/1/2 | 0.6/1.4/2 | 0.6/1.7/3 | 0.6/2.1/3 | 0.6/2.4/3
Hydraulic connections for heating		inches	1"
Hydraulic connections for DHW		inches	3/4"
Bottle volume from disconnection		L	15
Min. system water capacity		L	13 | 45
Electrical features			
Power supply		-	230V/1Ph/50 Hz | 230V / 1Ph / 50Hz or 400V / 3Ph / 50Hz
SINGLE-PHASE 230V	Intensity max with auxiliary resistance + resistance tank H COMBI	A	38.7
	Cable section (mm^2) / max. length (m) [2]	-	3 x 10/30
3-PHASE 400V compressor	Intensity max with auxiliary resistance + resistance tank H COMBI	A	18
	Cable section (mm^2) / max. length (m) [2]	-	5 x4 / 20

Outdoor units (for Hydrosplit or Monobloc versions)			RASM-2VTW2E	RASM-3VTW2E	RASM-3.5VTW2E	RASM-4(V)TW2E	RASM-5(V)TW2E	RASM-6(V)TW2E
Pressure level at 5m / Sound power in hot mode [3]		dB(A)	29 / 55	29 / 56	29 / 57	27 / 53	28 / 53	
Dimensions (HxLxD)		mm		800 x 1220 x 430			1140 x 1220 x 430	
Net weight		kg	113					
Operating ranges in Cooling/Heating/DHW mode		°C	'+10~+46 // -25~+25 // -25~+43					
Hydraulic features								
Diameter of the hydraulic connections (female / female)		inches	1"					
Refrigerant / Refrigerant charge		- / kg		R290 / 0.9			R290 / 1.2	
Compressor		-	ROTARY DC INVERTER					
Electrical features								
Power supply		-		230V/1Ph/50 Hz			230V / 1Ph / 50Hz or 400V / 3Ph / 50Hz	
SINGLE-PHASE 230V	Max. current	A	14.2	17.7	20.7		29.2	
	Cable section (mm^2) / max. length (m) [2]	-	3 x 2.5/28	3 x 4/24	3 x 6/21		3 x 6/30	
3-PHASE 400V	Max. current	A		-			16.7	
	Cable section (mm^2) / max. length (m) [2]	-		-			5 x 4/16	
Indoor/Outdoor connection (protected)		mm^2	2 x 0.75					

Retail price per unit excluding taxes

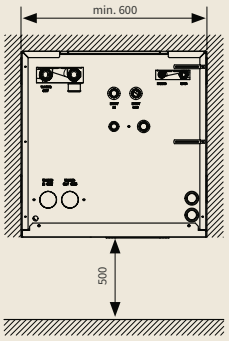
Hydraulic modules (Remote control included)	HWD-W2E-220S					
Premium outdoor units Single-phase units	RASM-2VTW2E	RASM-3VTW2E	RASM-3.5VTW2E	RASM-4VTW2E	RASM-5VTW2E	RASM-6VTW2E
Premium outdoor units Three-phase	-			RASM-4TW2E	RASM-5TW2E	RASM-6TW2E
Price for the whole set Single-phase Hydraulic module + outdoor unit						
Price for the whole set Three-phase Hydraulic module + outdoor unit	-					
Reversible kit (Optional)	ATW-CKSC-02					

(V) = Single
[1] Seasonal energy efficiency without regulation, Keymark certification, in accordance with Regulation (EU) No. 813/2013 of the Commission of August 2, 2013, and standard EN14825.
[2] Sections given for reference purposes only. Compliant with the applicable electrical standards.
[3] Pressure to 5m in night mode - In accordance with EN12102-1 / ErP

Prepare your construction site airH2O 800 H Combi

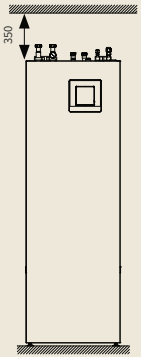
1. How much space do I need for my hydraulic module?

Models 4 to 14 kW



View from above
Units in mm

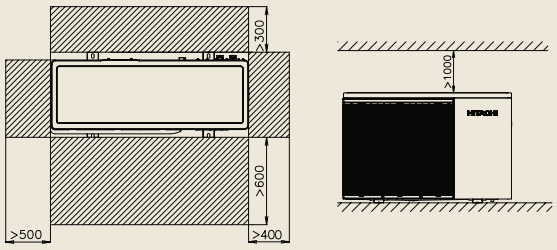
Models 4 to 14 kW



View from front
Units in mm

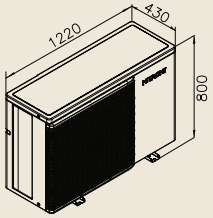
2. How much space do I need for my outdoor unit?

Models 4 to 14 kW

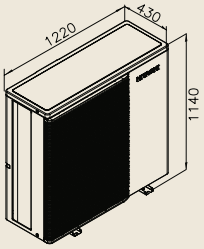


Units in mm

Models 4 to 8 kW



Models 10 to 14 kW

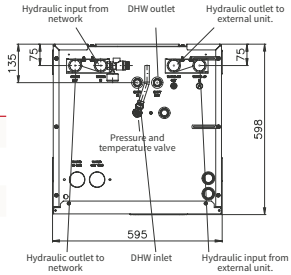


Units in mm

Regarding the installation rules for R290 units, please consult the documentation and comply with local regulations in force.

3. Which hydraulic connections are needed?

Hydraulic features	Unit	4 to 14 kW
Diameters of hydraulic connections on the module side (valves supplied male/male)	inches	G 1" (female)
Diameters of hydraulic connections on the external unit side (male/male valves supplied)	inches	1" (female)
Heating diameters (male/male valves supplied)	inches	G 1" (female)
DHW diameters	inches	G 3/4" (male)



4. Which electrical connection should I provide?

Please note that these sections and guards are provided for intensities with electrical resistances. If you have a remote DHW tank with a heating element and do not wish to use a backup heater, please refer to the technical catalog. Data provided as a guide, please refer to the applicable electrical standard.

	Power supply				Bus
Outdoor units	**Intensity 230 / 400 V**	**Protection 230 / 400 V**	**Cable section 230 / 400 V**	**Max. cable length 230 / 400 V**	
	Max A	**A/curve**	**mm²**	**m**	
RASM-2VTW2E	14.2/-	16 / - / D / -	3G2.5 / -	30/-	Liycy shielded cable 2 x 0.75 mm²
RASM-3VTW2E	17.7/-	20 / - / D / -	3G4 / -		
RASM-3.5VTW2E	20.7/-	25 / - / D / -	3G6 / -		
RASM-4VTW2E/TW2E	29.2 / 16.7	32 / 20 / D	3G6/5G4	30 / 16	
RASM-5VTW2E/TW2E					
RASM-6VTW2E/TW2E					

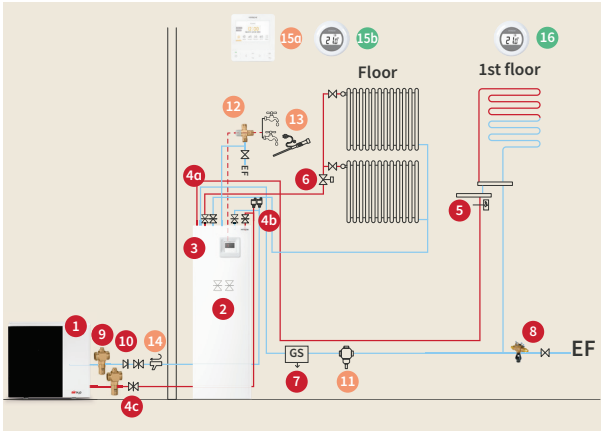
Hydraulic modules	**Intensity 230 / 400 V**	**Protection 230 / 400 V**	**Cable section 230 / 400 V**	**Max. cable length 230 / 400 V**
	Max A	**A/curve**	**mm²**	**m**
HWD-W2E-220S	38.7 / 18	32 / 16 / C	3G6/5G4	28 / 20

Hydraulic setups
airH2O 800 H Combi

Your diagrams in just a few clicks
at yutaki-applications.com

Provide high-temperature antifreeze valves and filter screens.

2 control zones - radiators and floors disconnected (included) (reversible)



1	Outdoor unit	**Mandatory**	Hitachi supplied
2	Hydraulic module (expansion tank and decoupling bottle included)	**Mandatory**	Hitachi supplied
3	Integrated 2-zone kit with mixing valve, balancing valve, circulator, universal temperature sensor	**Mandatory**	Hitachi option (ATW-2TK-08)
4a	Heating isolation valves for zone 1 and hydraulic connections module	**Mandatory**	Hitachi supplied (to be provided on site for 2nd zone)
4b	DHW isolation valves	**Mandatory**	Not supplied
4c	Isolation valves for hydraulic connections	**Mandatory**	Not supplied
5	Safety aquastat for underfloor heating	**Mandatory**	Hitachi option (ATW-AQT-01)
6	Motorized valve	**Mandatory (if refresh)**	Not supplied
7	DNW safety unit	**Mandatory**	Not supplied
8	Disconnector	**Mandatory**	Not supplied
9	Anti-freeze valves	**Mandatory**	Not supplied
10	R290 safety valve	**Mandatory**	Hitachi supplied
11	Dirt separator	**Recommended (Required if floor)**	Not supplied
12	Thermostatic mixer	**Recommended**	Not supplied
13	Active Titanium Anode	**Recommended**	Option (ATW-CP-05)
14	Magnetic filter for heat exchanger	**Recommended**	Not supplied
15a	Wired compensation thermostat zone 1: Offset PC-ARFH3E	**Recommended**	Hitachi supplied (with module)
15b	Wireless compensation thermostat zone 1	**Option**	Hitachi option (ATW-RTU-07)
16	Compensation thermostat zone 2	**Option**	Hitachi option ATW-RTU-06 if RTU-07 zone 1

- Caution: ensure that the heat pump circulator can handle network load losses and manage the nominal flow required by the heat pump. Also ensure that the included secondary pump is sufficient for the network.
- Ensure the minimum volume required by the heat pump is sufficient, otherwise add a buffer volume.
- Always flush the heating system before connecting and filling it permanently. Use a compatible inhibitor product, in accordance with the manufacturer's recommendations.
- Check that the expansion tank included in the machine is sufficient for the overall volume of the installation.
- **Diagram for information purposes only. Installation will be carried out in compliance with applicable legislation (DTU, professional standards).**