



AquaSnap® 30AWH-P  
For residential and light commercial applications

# MONOBLOC AIR-TO-WATER HEAT PUMP

WITH R290 REFRIGERANT



## MONOBLOC AIR-TO-WATER HEAT PUMP - R290 - 30AWH-P

## AquaSnap 30AWH-P

THE NEW 30AWH-P MONOBLOC AIR-TO-WATER HEAT PUMPS WITH R290 NATURAL REFRIGERANT RESULT FROM A SUCCESSFUL COMBINATION OF INNOVATION AND ENVIRONMENTAL STEWARDSHIP FOR A HIGH LEVEL OF COMFORT ALL YEAR ROUND.

Designed for heating and cooling applications, these heat pumps are suitable for both new housing and renovations, for residential and light commercial applications.

Delivering high performance, the 30AWH-P range is compatible with low to medium temperature emitters (underfloor heating, fan coil units, hydronic cassettes, radiators, mixed installations, etc.), and with high temperature emitters for renovation applications (boiler replacements).

The monobloc 30AWH-P heat pump is designed for outdoor installation in an open area. Each unit is produced and tested at our Carrier plants located in Europe and delivered ready for operation.



**ONE RANGE,  
MANY APPLICATIONS**



Individual  
Housing



Collective  
Housing



Light  
Commercial

## MONOBLOC AIR-TO-WATER HEAT PUMP - R290 - 30AWH-P

## WHY CHOOSE AquaSnap 30AWH-P?

### BENEFITS FOR END USERS



#### Natural refrigerant

R290 natural refrigerant helps to minimize environmental impact (GWP100 = 0,02\*), in residential and light commercial applications.



#### Compact Design

Compact footprint facilitates installation, even in small spaces.



#### Low-noise operation

With design optimization for low noise levels, the 30AWH-P features quiet operation, with ErP rated sound power levels starting from 49dB(A), and a night mode can be activated by the user.



#### High LWT

#### (Leaving Water Temperature)

Reaching up to 75°C LWT, the 30AWH-P can supply more domestic hot water, that in addition can be stored at a higher temperature for anti-legionella protection.



#### High energy efficiency

SCOP up to 4,82  
SEER up to 5,34  
Energy class A+++ (35°C)\*\*  
or A++ (55°C)\*\*



#### Certified performance

New 30AWH-P can satisfy local incentive requirements\*\*\*.

### BENEFITS FOR INSTALLERS



#### Wide range

The 30AWH-P range of reversible heat pumps comprises 6 single-phase models and 2 three-phase models, from 4 kW to 14 kW, to meet different requirements.



#### Safety

Low refrigerant charge and the hermetically sealed coolant circuit help minimize the potential for leaks. In addition, an external gas separator installed on the leaving water pipe further prevents any potential gas leakage from being released into the house.



#### Easy handling and transportation

Due to compact dimensions and reduced weight, heat pump handling and transportation are easier.



#### Easy installation

Optimized layout and structure for easy connection and easy access to components.

\* based on Regulation (EU) 2024/573

\*\* the range of efficiency classes between A+++ and D

\*\*\*depends on local market regulation

## MONOBLOC AIR-TO-WATER HEAT PUMP - R290 - 30AWH-P

## INNOVATION AND ENVIRONMENTAL STEWARDSHIP

Carrier develops innovative products with the goal to help our customers avoid more than 1 gigaton of greenhouse gas emissions by 2030.

We understand the challenges of climate change and we are committed to providing customers with increasingly more holistic energy and climate solutions. Our innovative products help customers meet their energy and carbon reduction goals, while we shift to [more renewable energy sources](#) through electrification and to [refrigerants with lower global warming potential](#).

The deployment of Carrier heat pumps to reduce carbon emissions and energy consumption is just one example.



## MONOBLOC AIR-TO-WATER HEAT PUMP - R290 - 30AWH-P

## R290 NATURAL REFRIGERANT

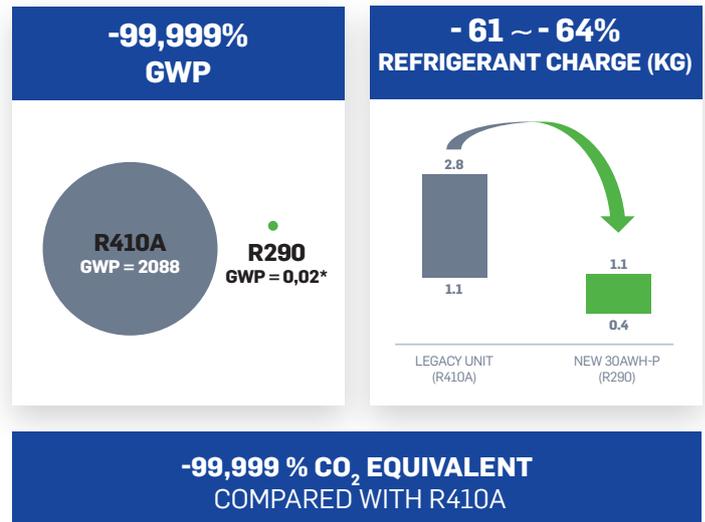


### MINIMIZING ENVIRONMENTAL IMPACT

For the innovative heat pump range AquaSnap 30AWH-P, Carrier has selected R290 natural refrigerant (Propane), featuring an extremely low Global Warming Potential (GWP100 = 0,02).

With a zero ozone depletion potential (ODP) and a significantly lower refrigerant charge, compared with traditional refrigerants, R290 natural refrigerant represents an environmentally sustainable choice, reducing equivalent emissions of CO<sub>2</sub> by 99,999 %.

All parts containing greenhouse gas are hermetically sealed, which helps to minimize the potential for leaks and does not require opening to make the system ready for operation.



### ENERGY SAVINGS DUE TO INCREASED ENERGY EFFICIENCY

SCOP  
up to  
**4,82**

SEER  
up to  
**5,34**

AquaSnap 30AWH-P units improve energy efficiency when compared with standard refrigerant such as R410A. Due to this increased efficiency, the heat pump reduces the amount of energy needed for cooling and heating requirements.

## DESIGNED AND MADE IN EUROPE

Each unit in the AquaSnap 30AWH-P range, designed and manufactured in Europe at our Carrier plants, is tested over several steps along the production line before packaging, for top level quality.



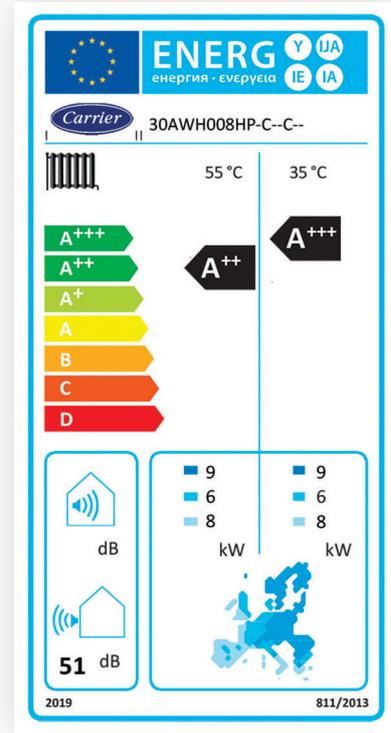
\* based on Regulation (EU) 2024/573

## MONOBLOC AIR-TO-WATER HEAT PUMP - R290 - 30AWH-P

## AN ENERGY-VALUABLE SOLUTION

All sizes of the 30AWH-P range feature the **A+++ energy class for heating (OAT 7°C; LWT 35°C)\*** or **A++ (OAT 7°C; LWT 55°C)\***, offering high heating power with low energy consumption.

\* the range of efficiency classes between D and A+++



## LOW-NOISE OPERATION

Carrier has carefully designed this innovative range to offer a low-noise solution without compromising its high performance under standard operational conditions.

The 30AWH-P features **ErP rated sound power level starting at 49dB(A)**, and a night mode that can be activated by user.



From a distance of 5m, the 30AWH-P features a low sound pressure level starting at just 24dB(A)\* on the smallest size thanks to the acoustic insulation on the metal panels around the hydraulic and refrigerant modules.

\*measured from a distance of 5 m (OAT +7° C, LWT +47/55° C), according to the EN 12102-1 European Standard at ErP conditions.



Noise level chart showing examples of sounds with dB levels ranging from 0 to 140 decibels.

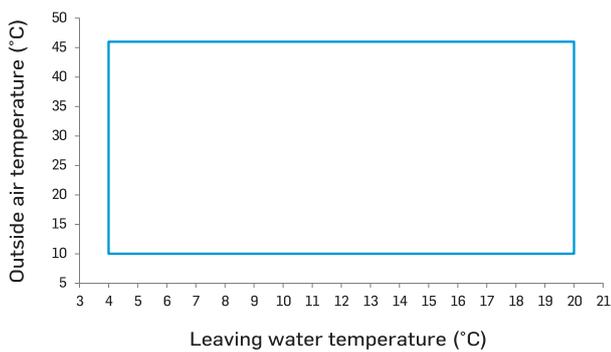
## MONOBLOC AIR-TO-WATER HEAT PUMP - R290 - 30AWH-P

## YEAR ROUND COMFORT

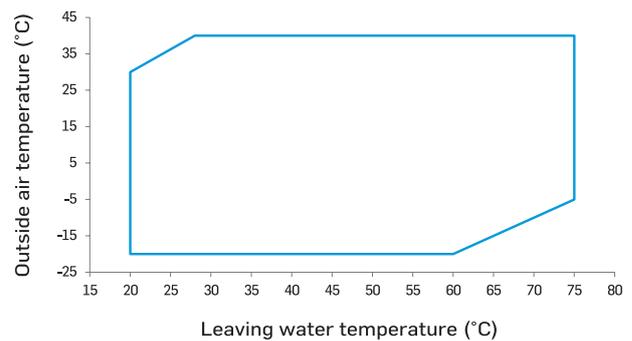
The AquaSnap 30AWH-P heat pump range can be used in a wide range of outdoor air temperatures, representing a sound solution for different climates.

As the graphs below show, in heating mode it can operate at an **outdoor air temperature from  $-20^{\circ}\text{C}$** . In cooling mode, it operates at **up to  $+46^{\circ}\text{C}$** , whilst delivering water at a stable temperature for cooling, heating and domestic hot water (DHW) production.

### COOLING MODE



### HEATING AND DHW MODE



## MONOBLOC AIR-TO-WATER HEAT PUMP - R290 - 30AWH-P

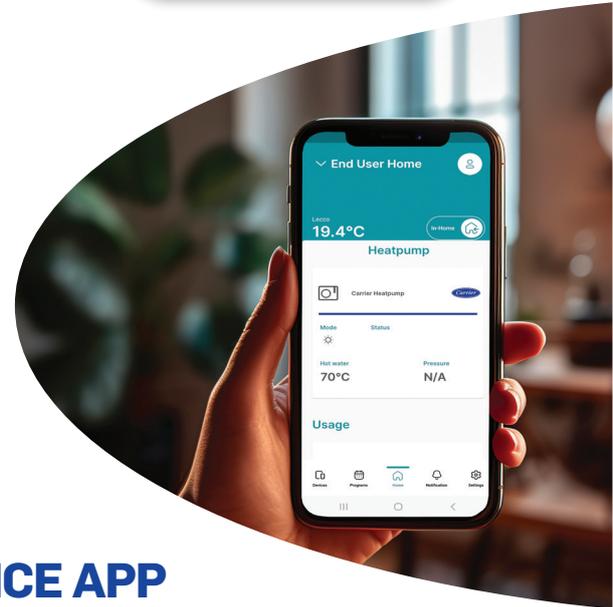
## WUI MULTI-FUNCTION WIRED CONTROLLER



- Included inside the unit for immediate start-up and use of the unit
- Intuitive icons to help avoid language barriers
- Occupancy mode (Home, Sleep, Away)
- Easy temperature control to set either air temperature or water temperature depending on system configuration
- Weekly timer function
- Two levels of access: end-user and technician
- **Manages cascade system with up to 4 units**

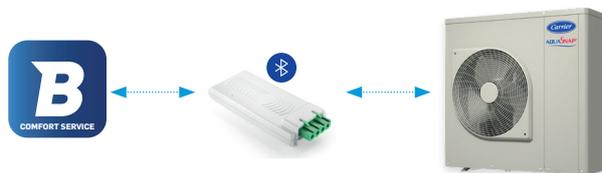
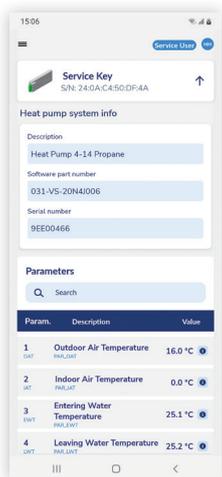
## CARRIER COMFORT MANAGEMENT T300

Carrier Comfort Management T300 is an advanced room control, featuring a stylish and modern design, that thanks to the built-in Gateway allows the remote management of home comfort via Carrier Comfort Management App. Besides managing up to 3 zones via expansion PCB, the T300 advanced control can operate as a true System Manager for the heating and cooling generation system (intuitive management of the heat pump and full-electric system operation, as well as hybrid distribution). The screen graphics of Carrier Comfort Management T300 are easy to read and contain self-explanatory icons allowing an intuitive use.

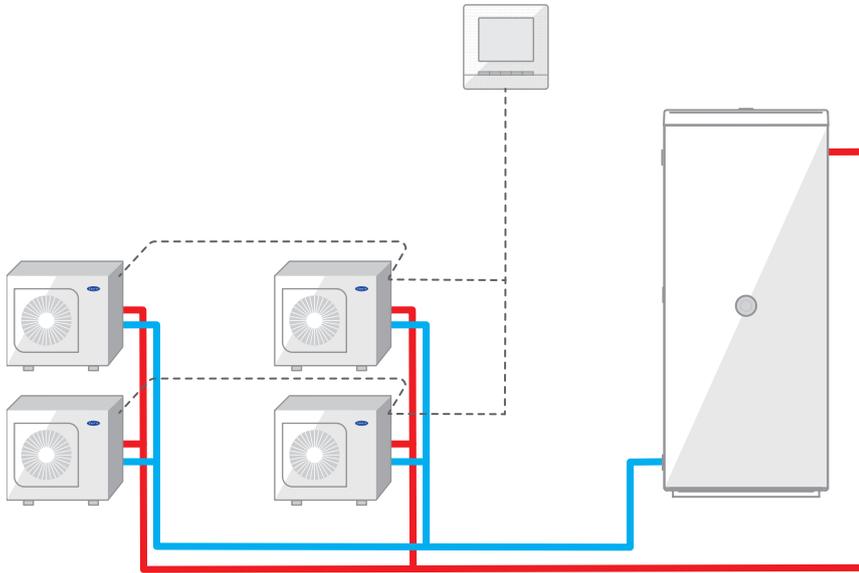


## BluEdge™ COMFORT SERVICE APP

Service technicians can do commissioning, diagnostics and troubleshooting easily and intuitively using the BluEdge Comfort Service App, which is an additional benefit of the AquaSnap 30AWH-P.



## MONOBLOC AIR-TO-WATER HEAT PUMP - R290 - 30AWH-P

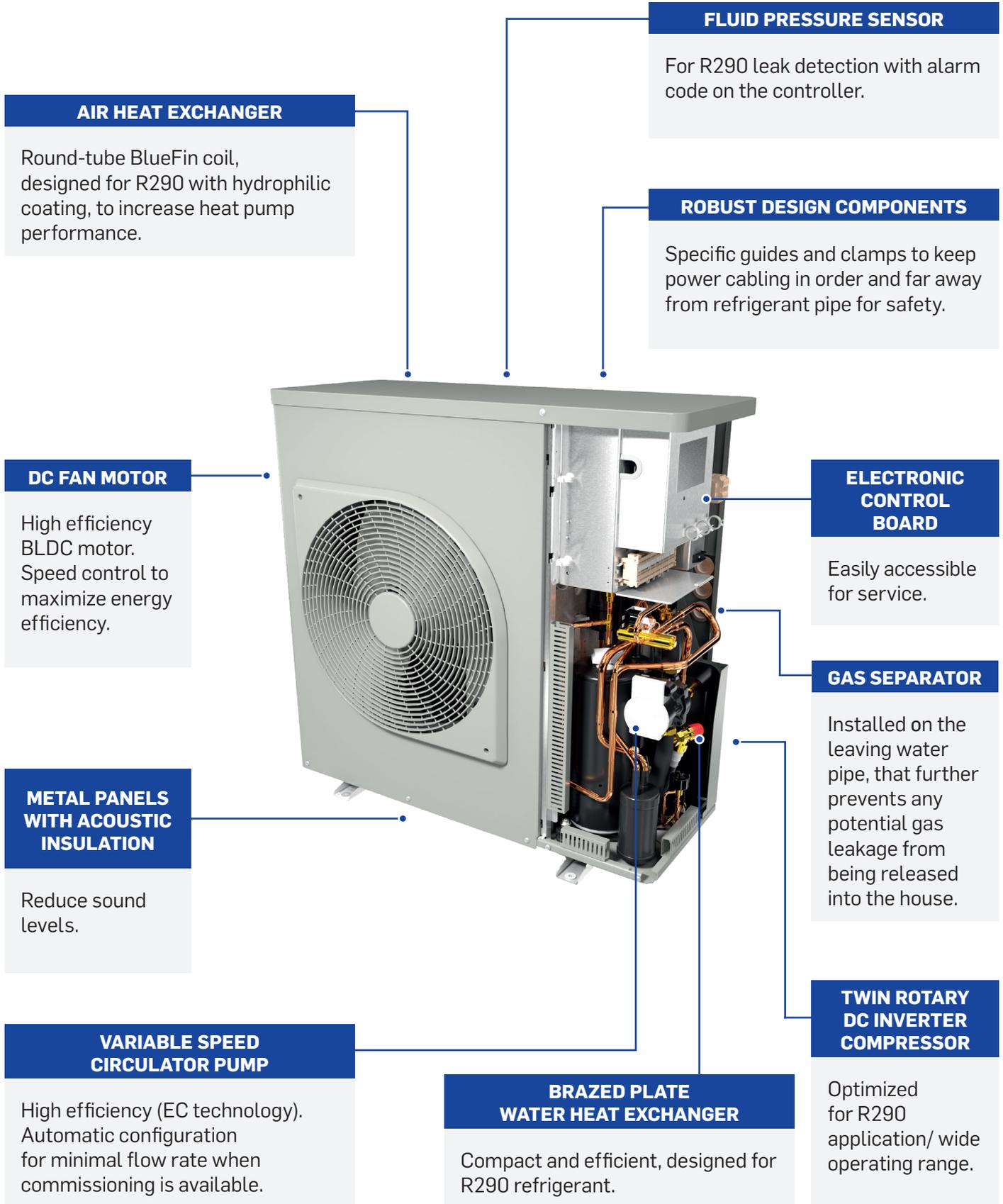
**AquaSnap 30AWH-P IN CASCADE**

AquaSnap 30AWH-P can be cascaded with up to 4 units for heating and cooling requirements in light commercial applications. Each of the units can individually meet the requirements of the space in which it is installed.



MONOBLOC AIR-TO-WATER HEAT PUMP - R290 - 30AWH-P

**KEY FEATURES**



## MONOBLOC AIR-TO-WATER HEAT PUMP - R290 - 30AWH-P

## IDEAL FOR RENOVATION AND NEW HOUSING

## SPACE-SAVING AND LIGHTWEIGHT SOLUTION

Compact size and reduced weight are among the most distinguishing features of AquaSnap 30AWH-P on the market.

In particular, due to its **width of only 946 mm** and its **weight starting from just 79,3 kg**, AquaSnap 30AWH-P can also be installed in small spaces.

## COMPACT FOOTPRINT



## LEAVING WATER TEMPERATURE UP TO 75°C

With a high leaving water temperature of up to 75°C, AquaSnap 30AWH-P is **suitable for the replacement of oil and gas boilers**.

In addition, it can deliver more hot water and **helps to avoid the need for direct electric immersion to sterilize the water**, protecting from legionella.

## DIFFERENT TERMINAL UNITS

The range has been designed to deliver high performance, suitable for low to medium temperature emitters (floor heating, fan coil units, hydronic cassettes, radiators, mixed installations, etc.) up to high-temperature emitters for renovation applications (boiler replacement).

## TERMINAL UNITS

Suitable for low, medium and high temperatures.



fan coils



floor heating

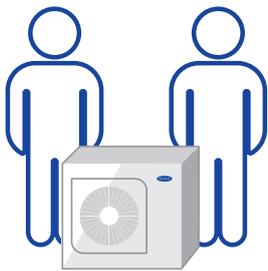


radiators

## MONOBLOC AIR-TO-WATER HEAT PUMP - R290 - 30AWH-P

## EASY HANDLING AND TRANSPORTATION

Compact size and reduced weight\* translate into easier handling and transportation for the installer.



Weight starting from



## EASY INSTALLATION AND SERVICING

Optimized layout and structure for easy connection & easy access to components.

## SAFETY

Low refrigerant charge and its hermetically sealed refrigerant circuit help minimize the potential for leaks. No need to open the refrigerant circuit to put the system into operation.

Robust component design helps to avoid any potential risks of refrigerant leaks.

Pressure sensor that detects any refrigerant leakage, whilst displaying the alarm code on the wired controller.

Gas separator installed on the leaving water pipe that further prevents any potential gas leakage from being released into the house.



\* compared to Carrier portfolio of A2W monobloc heat pumps in R32

## MONOBLOC AIR-TO-WATER HEAT PUMP - R290 - 30AWH-P

## ACCESSORIES TO MEET DIFFERENT NEEDS

## ANTI-FREEZE VALVE



Anti-freeze valve is designed to discharge the water preventing ice formation in the heat pump circuit due to unexpected electrical power outage

## SENSOR



Outdoor ambient temperature sensor to better read the outdoor air temperature

## Y SHAPE FILTER



Y-water filter to trap any impurities in the water circuit which may damage the heat exchanger

## 1" AND 1" 1/4 DIVERTER VALVE



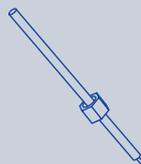
Available with or without temperature sensor for DHW tank

## ANTI-VIBRATION KIT



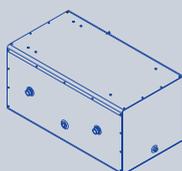
Anti-vibration kit installed under the unit to reduce transmission of vibrations

## PRIMARY/SECONDARY SENSOR FOR CASCADE SYSTEM



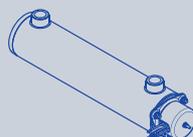
Supplementary water outlet temperature sensor kit for primary/secondary operation of up to 4 units connected in cascade system

## INERTIAL BUFFER TANK



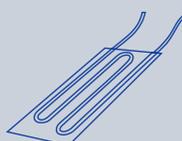
50 litres and 100 litres buffer tanks suitable for horizontal installation underneath the heat pump.

## BACK-UP HEATER



External electric back-up heater (configurable for 2, 4 or 6 kW) to provide supplementary heating capacity for cold climate.

## DRAIN PAN HEATER



Electric heater to prevent condensate freezing (base panel and drain duct) for cold climate.

## EXPANSION VESSEL



External expansion vessel to maintain the right level of pressure in the heating system.

## MONOBLOC AIR-TO-WATER HEAT PUMP - R290 - 30AWH-P

## TECHNICAL DATA

30AWH 04P-14P		004P (1Ph)	006P (1Ph)	008P (1Ph)	010P (1Ph)	012P (1Ph)	014P (1Ph)	012P(*) (3Ph)	014P(*) (3Ph)		
<b>Heating</b>											
<b>Nominal performances</b> <sup>(1)</sup>	HA1	Nominal capacity	kW	3,95	5,80	7,60	9,60	11,40	13,80	11,40	13,80
		COP	kW/kW	4,90	4,90	4,80	4,35	4,55	4,30	4,65	4,40
	HA2	Nominal capacity	kW	3,85	5,50	7,80	9,50	10,80	13,60	10,80	13,60
		COP	kW/kW	3,65	3,65	3,75	3,55	3,65	3,40	3,75	3,50
	HA3	Nominal capacity	kW	3,75	5,25	7,55	9,40	10,95	13,25	10,95	13,25
		COP	kW/kW	2,95	2,95	3,15	2,95	3,10	2,90	3,15	2,95
<b>Seasonal efficiency</b> <sup>(2)</sup>		SCOP	kWh/kWh	4,70	4,82	4,69	4,69	4,74	4,74	4,74	4,74
		$\eta_s$ heat	%	185	190	185	185	187	187	187	187
	HA1	P <sub>rated</sub>	kW	4	5	6	6	9	9	9	9
		Annual Energy consumption	KWh	1666	2092	2829	2829	4068	4068	4068	4068
		Energy class	D → A+++ <sup>(**)</sup>	A+++	A+++	A+++	A+++	A+++	A+++	A+++	A+++
	HA3	SCOP	kWh/kWh	3,34	3,34	3,34	3,34	3,35	3,35	3,35	3,35
		$\eta_s$ heat	%	131	131	131	131	131	131	131	131
		P <sub>rated</sub>	kW	3	5	6	6	9	9	9	9
		Annual Energy consumption	KWh	2138	3010	3989	3989	5743	5743	5743	5743
		Energy class	D → A+++ <sup>(**)</sup>	A++	A++	A++	A++	A++	A++	A++	A++
	<b>Cooling</b>										
	<b>Nominal performances</b> <sup>(1)</sup>	CA1	Nominal capacity	kW	3,35	4,60	6,50	7,40	9,70	10,70	9,70
EER			kW/kW	3,15	3,15	3,05	2,90	3,05	2,95	3,10	3,00
CA2		Nominal capacity	kW	4,00	6,15	8,00	8,90	12,00	14,50	12,00	14,50
		EER	kW/kW	4,15	3,90	4,00	3,70	4,30	3,70	4,35	3,75
<b>Seasonal efficiency</b>		SEER <sub>12/7 °C</sub> Comfort low temp,	kWh/kWh	4,93	5,34	5,27	5,14	5,33	5,16	5,33	5,16
		$\eta_s$ cool	%	194	211	208	203	210	203	210	203
<b>Sound levels</b>											
Standard unit											
		Sound power level, ErP C condition A7/W55 <sup>(3)</sup>	dB(A)	49	50	51	51	54	54	54	54
		Sound pressure level at 5 m, ErP C condition A7/W55 <sup>(4)</sup>	dB(A)	23,5	24,5	25,5	25,5	28	28	28	28
<b>Dimensions</b>											
		Length	mm	946	946	946	946	946	946	946	946
		Width without gas separator	mm	430	430	430	430	430	430	430	430
		Width including gas separator	mm	560	560	560	560	560	560	560	560
		Height	mm	927	927	927	927	1375	1375	1375	1375
<b>Net weight</b>											
		Standard unit without gas separator <sup>(5)</sup>	kg	78	84	91	93	126	126	128	128
		Standard unit with gas separator	kg	79,3	85,3	92,3	94,3	127,3	127,3	129,3	129,3
		Compressors	Rotary compressor	1	1	1	1	1	1	1	1
<b>Refrigerant</b>											
		Charge <sup>(5)</sup>	kg	0,39	0,58	0,76	0,76	1,07	1,07	1,07	1,07

(\*) Available from 2025

(\*\*) The efficiency class of this product family ranges from D to A+++

(1) In accordance with EN 14511-3:2022 standard

(2) In accordance with EN 14825:2022 standard. Average climate

 C1 Cooling mode conditions : evaporator water entering/leaving temperature 12°C/7°C, outside air temperature 35°C, evaporator fouling factor 0m<sup>2</sup> K/W

 C2 Cooling mode conditions : evaporator water entering/leaving temperature 23°C/18°C, outside air temperature 35°C, evaporator fouling factor 0m<sup>2</sup> K/W

 H1 Heating mode conditions : Water heat exchanger water entering/leaving temperature 30°C/35°C, fouling factor 0m<sup>2</sup> K/W. Outside air temperature 7°C db / 6°C wb

 H2 Heating mode conditions : Water heat exchanger water entering/leaving temperature 40°C/45°C, fouling factor 0m<sup>2</sup> K/W. Outside air temperature 7°C db / 6°C wb

 H3 Heating mode conditions : Water heat exchanger water entering/leaving temperature 47°C/55°C, fouling factor 0m<sup>2</sup> K/W. Outside air temperature 7°C db / 6°C wb

 (3) In dB ref=10<sup>-12</sup> W, (A) weighting. Declared dualnumber noise emission values in accordance with EN 12102-1 at ErP conditions (with an associated uncertainty of +/-2dB(A)), as required by Ecodesign regulation. Measured in accordance with ISO 9614-1.

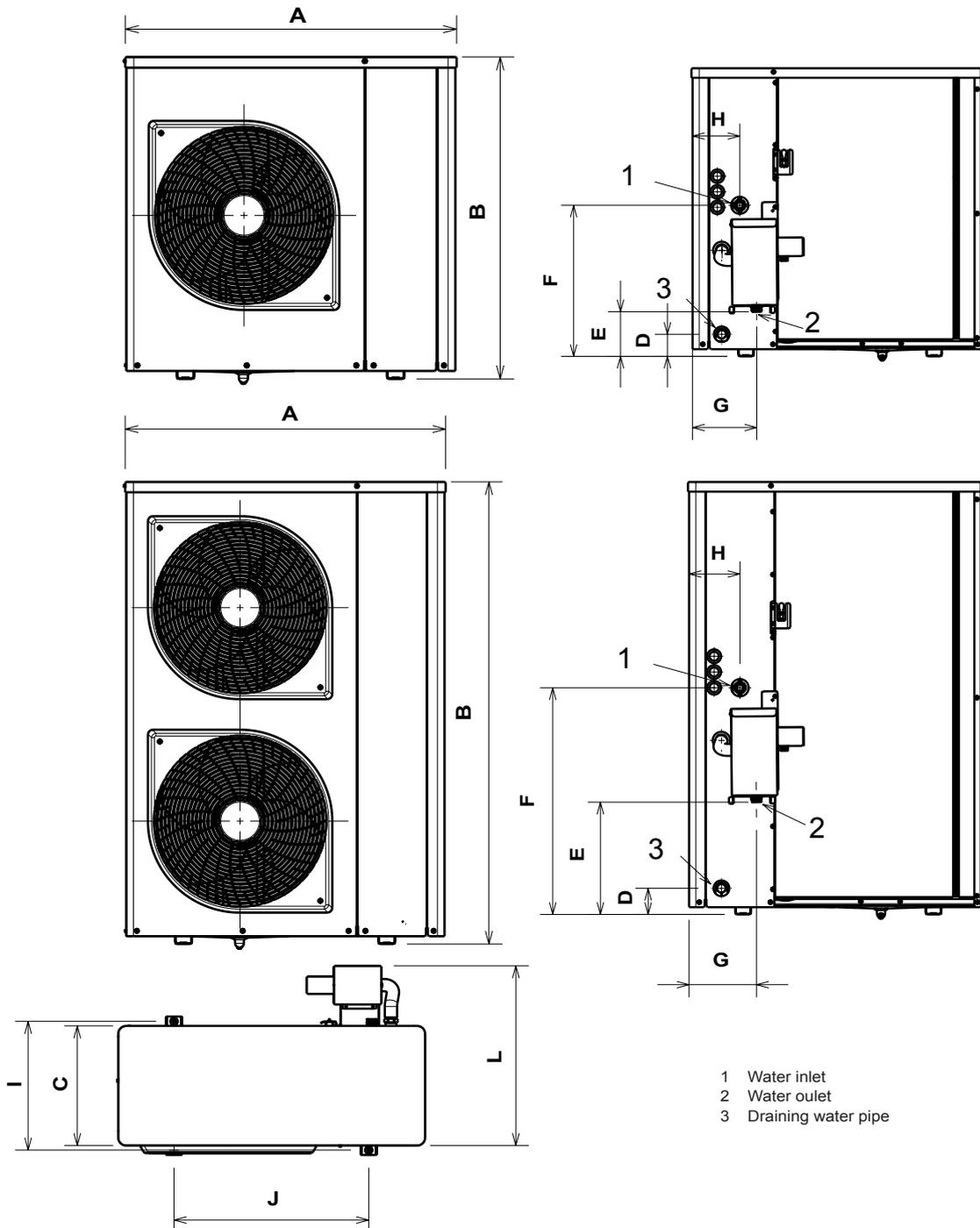
(4) In dB ref 20 µPa, (A) weighting. Declared dualnumber noise emission values in accordance with EN 12102-1 at ErP conditions (with an associated uncertainty of +/-2dB(A)).

For information, calculated from the sound power level Lw(A).

(5) Values are guidelines only. Refer to the unit nameplate.

MONOBLOC AIR-TO-WATER HEAT PUMP - R290 - 30AWH-P

**DIMENSIONS**



30AWH-P	A	B	C	D	E	F	G	H	I	J	L
004	946	927	372	71	143	485	201	150	400	600	560
006	946	927	372	71	143	485	201	150	400	600	560
008	946	927	372	71	143	485	201	150	400	600	560
010	946	927	372	71	143	485	201	150	400	600	560
012	946	1375	372	83	357	720	210	160	400	600	560
014	946	1375	372	83	357	720	210	160	400	600	560

Note : Dimensions are given in mm



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10/2024  
B-RLC-030\_30AWHP-EN

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