



XP Energy™ 38AW-R / 80AW-RA (all-in-one indoor unit)

XP Energy™ 38AW-R/ 80AW-R (wall-hung indoor unit)

For residential and light commercial applications

AIR-TO-WATER HEAT PUMP RANGE

WITH R32 REFRIGERANT



SPLIT AIR-TO-WATER HEAT PUMP RANGE - R32 - 38AW-R / 80AW-RA; 80AW-R

XP ENERGY 38AW-R / 80AW-RA; 80AW-R

THE NEW RANGE OF SPLIT AIR-TO-WATER HEAT PUMP CONSISTS OF AN OUTDOOR UNIT THAT CAN BE MATCHED WITH EITHER ALL-IN-ONE OR WALL-HUNG INDOOR UNIT, DEPENDING ON YOUR INSTALLATION NEEDS.

XP Energy split heat pumps are designed to provide heating, cooling and domestic hot water. Outdoor unit is available in 10 power sizes which offer a wide choice of single-phase models from 4 to 16 kW and three-phase models from 12 to 16 kW.

These Outdoor units can be combined with various versions of Indoor unit either wall-hung (with or without back-up heater) or all-in-one (with 190L or 240L DHW tank plus different back-up heater configurations).



Year-round comfort

XP Energy split heat pumps can be used at a wide range of outside air temperatures. In heating mode, they can operate **from -25°C** outdoor air temperature, in cooling mode **up to +43°C** and for domestic hot water from -5°C to + 43°C outdoor air temperature.



Efficient performance

All sizes of XP Energy split heat pumps offer **energy class A+++** for heating (air 7°C, water 35°C)* or A+ for domestic hot water production** and can reach a leaving water temperature of up to 65°C.



Low noise operation

The product's design optimization for low noise levels means that the unit's standard sound power level starts from **56 dB(A) (outdoor unit) and 38 dB(A) (indoor unit) with a silent mode that can be activated by the user.**



Compact Design

The XP Energy system includes a compact indoor unit (**only 270 mm depth for wall-hung or 600x600mm footprint for all-in-one**), which offers an effective solution either as renovation or new build.



R32 refrigerant

Refrigerant R32 (GWP=675*)** helps to reduce environmental impact in residential and light commercial applications.****



Wide range

Large choice of single-phase models from 4 to 16 kW **and three-phase models** from 12 to 16 kW.



* The energy efficiency class range of this product category is from A+++ up to D

** The energy efficiency class range of this product category is from A+ up to F

*** According to Regulation (EU) 2024/573

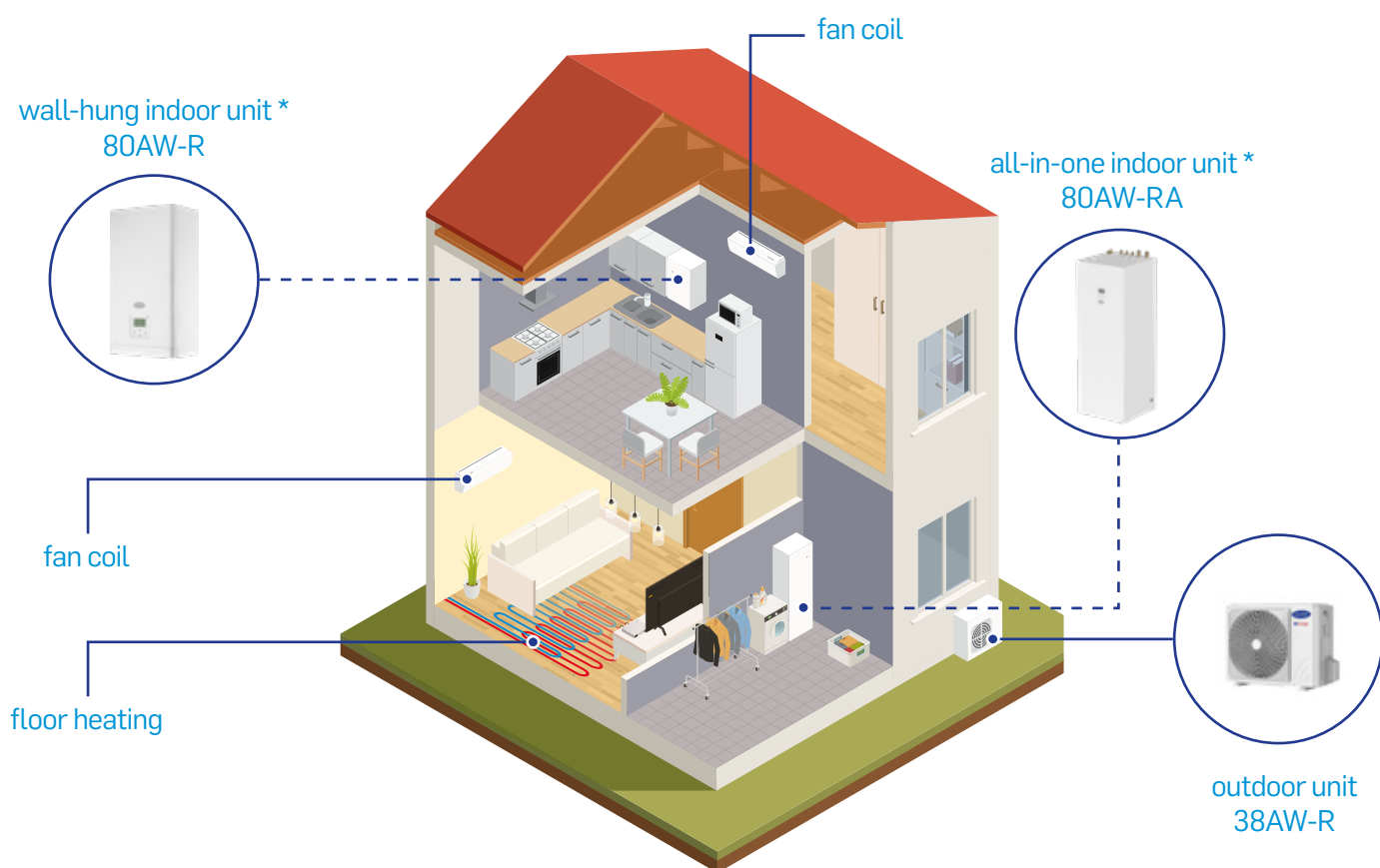
**** Compared to HVAC equipment utilizing refrigerants with higher GWP

SPLIT AIR-TO-WATER HEAT PUMP RANGE - R32 - 38AW-R / 80AW-RA; 80AW-R

HOW DOES XP ENERGY WORK?

XP Energy is an air-to-water split heat pump that utilizes thermal energy from the air, a renewable and free source, by extracting it through the outdoor unit, and transferring it through the indoor unit to provide year-round comfort, producing heating, cooling, and domestic hot water.

Thermal energy from the air is transferred via an inverter compressor and the refrigerant gas to the water for DHW use, as well as the circuit water (for heating or cooling via various heat emitters for example underfloor heating system, fan coil units and radiators, etc..).



* Depending on customer's and location requirements, you can select between a wall hung or an all-in-one indoor unit. Only one of them is needed to be matched with outdoor unit to offer domestic comfort.
 — Choose between wall hung or all-in-one floor standing indoor unit.

**ONE RANGE,
MANY APPLICATIONS**



Individual
Housing



Collective
Housing



Light
Commercial

SPLIT AIR-TO-WATER HEAT PUMP RANGE - R32 - 38AW-R / 80AW-RA; 80AW-R

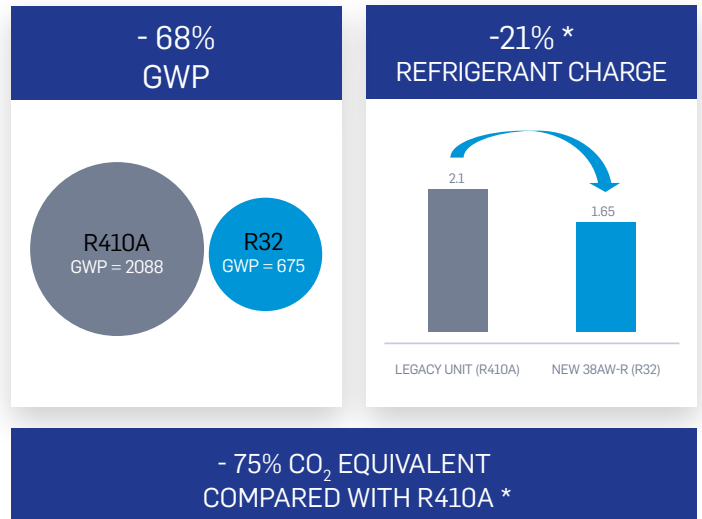
CHOOSING R32 MEANS:

HELPING TO REDUCE ENVIRONMENTAL IMPACT

Carrier has opted for R32 refrigerant to replace R410A refrigerant in commercial chillers and heat pumps using scroll technology. This choice has now been extended to air-to-water heat pumps using twin rotary compressors. In both cases, R32 was chosen for its lower environmental impact, high energy efficiency, wide availability and ease of use.

R32 refrigerant helps the new XP Energy split air-to-water heat pumps operate more sustainably thanks to lower Global Warming Potential (GWP) and the lower charge volume means reduced CO₂ emissions, compared to HVAC equipment utilizing refrigerants with higher GWP.

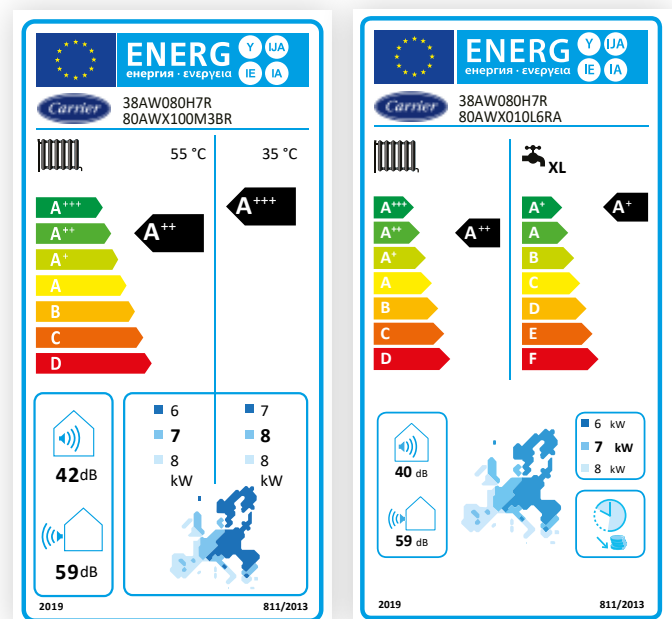
With a zero ozone depletion potential (ODP), R32 offers an excellent solution for heat pumps.



*comparison made on 8kW model

EFFICIENCY TO ENHANCE ENERGY SAVING

All sizes of XP Energy offer **energy class A+++** for heating (air 7°C, water 35°C)* or A+ for domestic hot water production** and can reach a leaving water temperature of up to 65°C. XP Energy is also a **flexible choice**, since the unit can adapt to a variety of applications, both residential and light commercial.



* The energy efficiency class range of this product category is from A+++ up to D

** The energy efficiency class range of this product category is from A+ up to F

SPLIT AIR-TO-WATER HEAT PUMP RANGE - R32 - 38AW-R / 80AW-RA; 80AW-R

LOW NOISE OPERATION

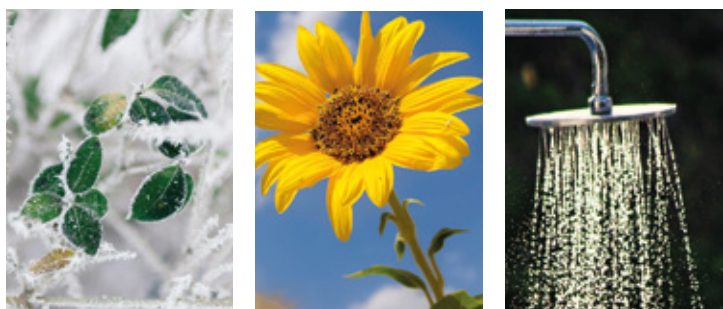
The low noise level is achieved thanks to the product's design and can be reduced by up to 39 dB(A)* when the user activates Silent Mode.

*sound pressure of 4 kW size outdoor unit in Silent Mode 2, measured at 1m distance in front of the unit and (1m + unit height) / 2m above the floor (under the condition of air +7°C, water 35°C)

YEAR-ROUND COMFORT

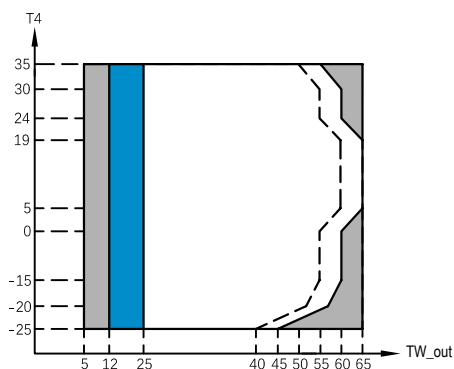
The XP Energy heat pump range can be used at a wide range of outdoor air temperatures.

As shown in the graphs, in heating mode it can operate from -25°C outdoor air temperature, in cooling mode up to +43°C and for domestic hot water from -5°C to +43°C outdoor air temperature.



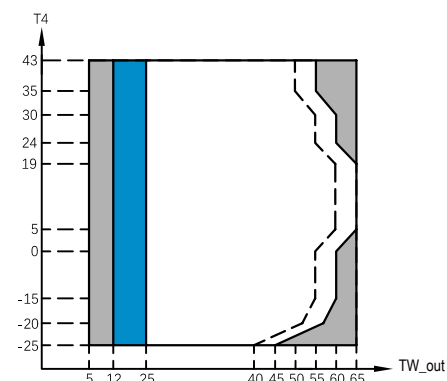
HEATING MODE

The maximum water flow temperature (Tw_out) that the heat pump can reach at different outdoor temperatures (T4) is listed below:

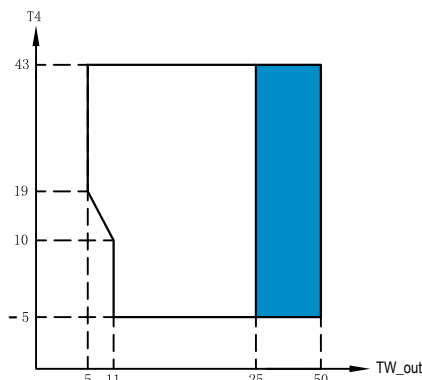


DHW MODE

The maximum water flow temperature (Tw_out) that the heat pump can reach at different outdoor temperatures (T4) is listed below:



COOLING MODE



Operating limits

- Operating range only with gas boiler or electric resistance
- Operating range via heat pump with possible limitation and protection
- Maximum water inlet temperature line for heat pump operation

Tw_out: water flow temperature

T4: outdoor air temperature

SPLIT AIR-TO-WATER HEAT PUMP RANGE - R32 - 38AW-R / 80AW-RA; 80AW-R

KEY FEATURES

OUTDOOR UNITS

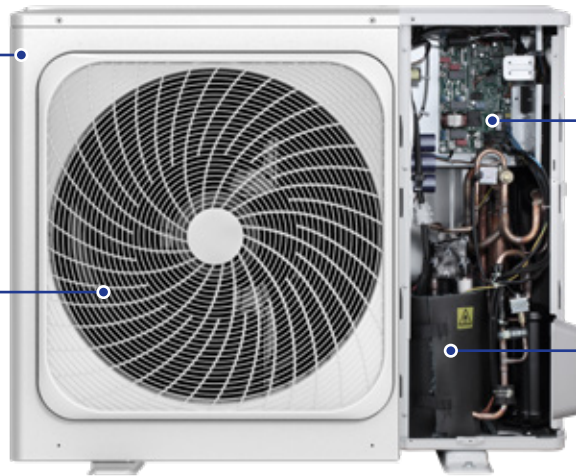
Same features both for 4-6 kW and 8-16 kW models

HEAT EXCHANGER BATTERY

With large surface and aluminum fins plus blue coating treatment as standard to improve the resistance of the coils to corrosive agents

INVERTER CONTROL BOARD

Maximises power under critical load conditions and offers stability and efficiency at partial loads



FAN

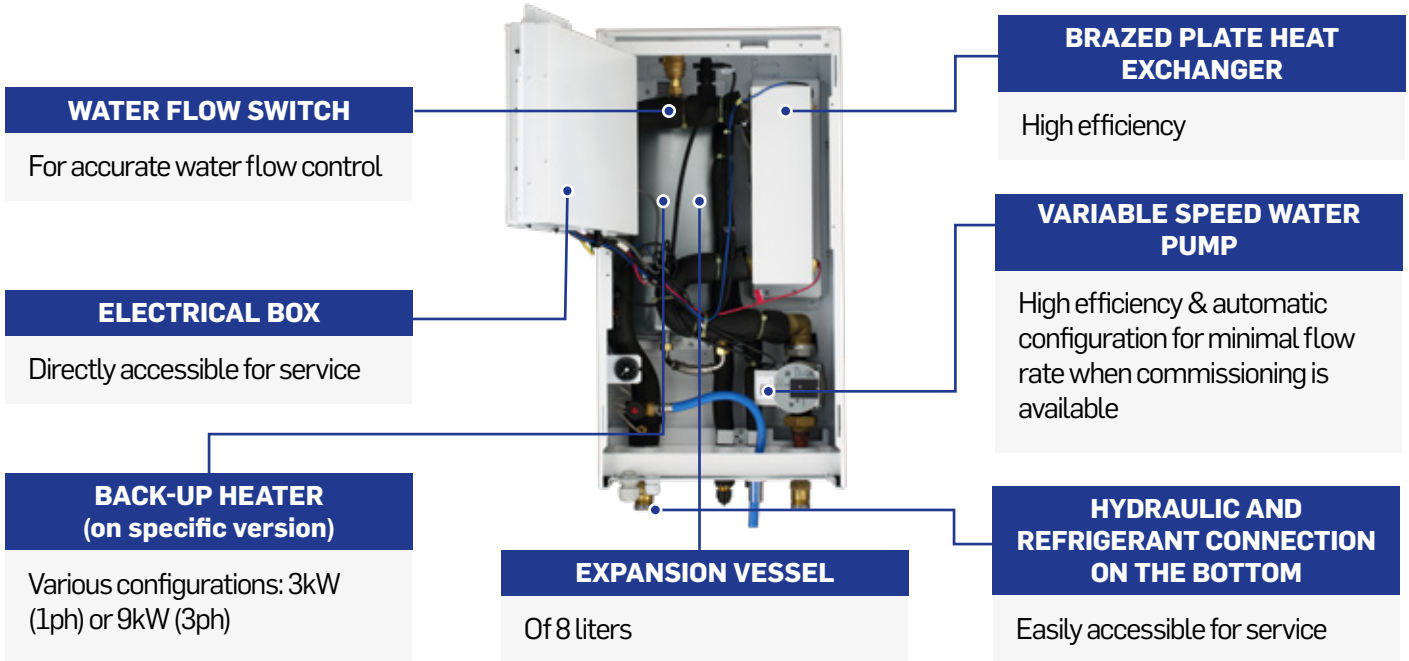
Special design of the blade and its edge optimises the flow surface, improving efficiency and reducing fan noise

TWIN ROTARY COMPRESSOR

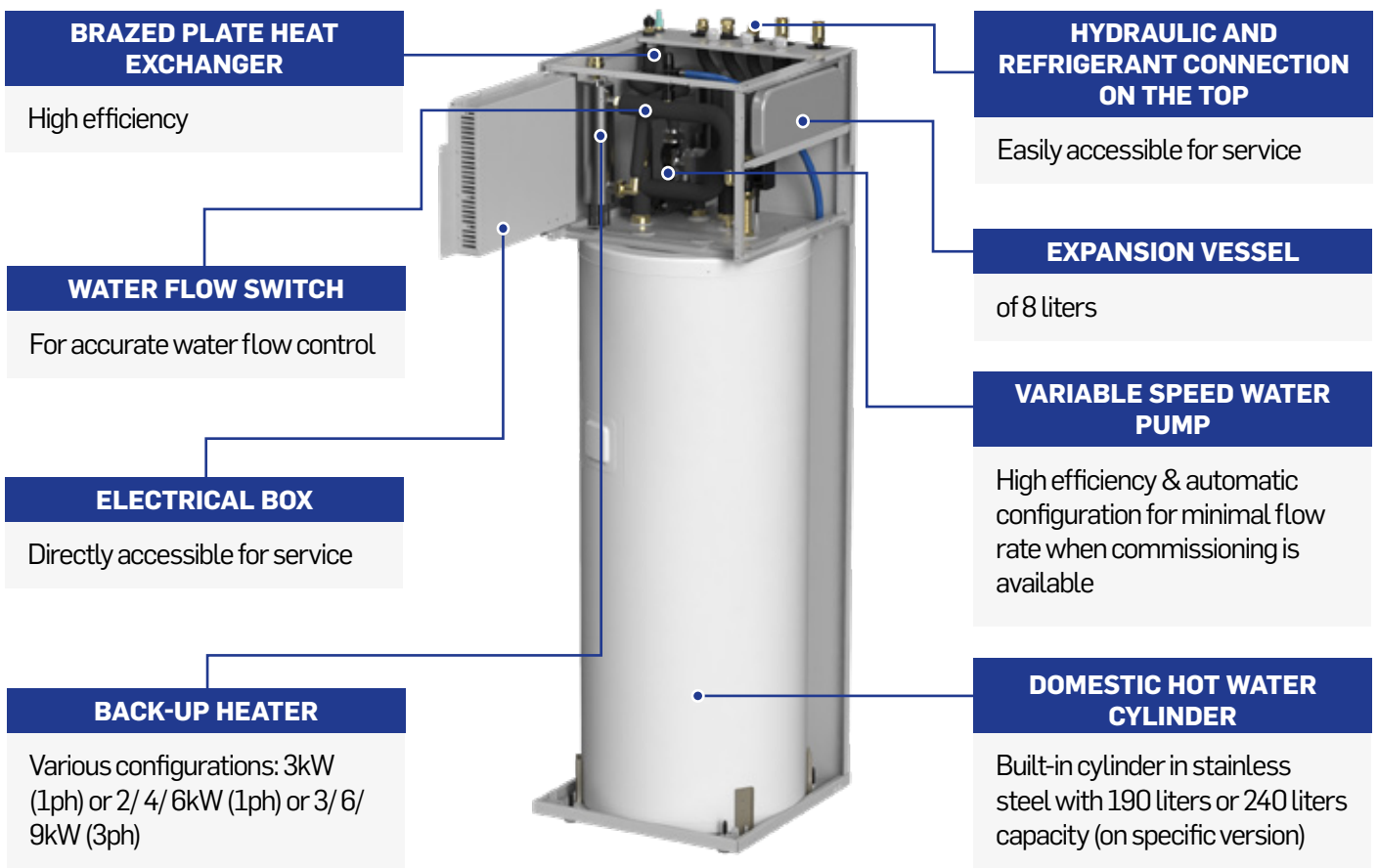
The Inverter System design including the twin DC rotary compressor, fan motor and pump offers precise control of the motor speed for the right power to match the actual load and save energy

SPLIT AIR-TO-WATER HEAT PUMP RANGE - R32 - 38AW-R / 80AW-RA; 80AW-R

WALL-HUNG INDOOR UNIT



ALL-IN-ONE INDOOR UNIT



SPLIT AIR-TO-WATER HEAT PUMP RANGE - R32 - 38AW-R / 80AW-RA; 80AW-R



SPLIT AIR-TO-WATER HEAT PUMP RANGE - R32 - 38AW-R / 80AW-RA; 80AW-R

Carrier Comfort Management T300

Carrier Comfort Management T300, the new remote control of XP Energy heat pumps, allows to manage the home comfort in heating, cooling and domestic hot water in an intuitive way, via only one device.

Carrier Comfort Management T300 works as main thermostat, gateway and system manager (for full electric and hybrid systems).



Easy to use as thermostat for end user

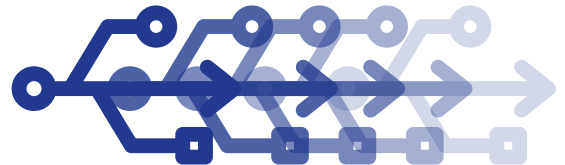
Self explicative icons

Quick installation

USB FUNCTION

Easily transfer parameters setting between different wire controllers.

Convenient program upgrade with one key and save the time of on-site installation.



ONBOARD CONTROL AS STANDARD

The onboard wired control is supplied as standard with each heat pump split system indoor unit.

It is easy to navigate and enables you to activate all the available functions, including "Antifreeze" and "Holiday", and set a weekly program for home comfort management.

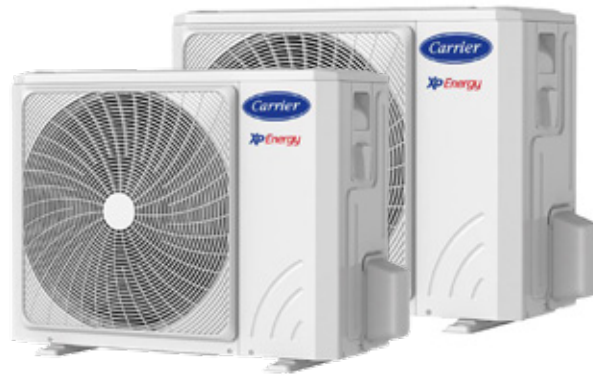
The large backlit display features intuitive icons that simplify reading, which is also made easier thanks to the multi-language menu.



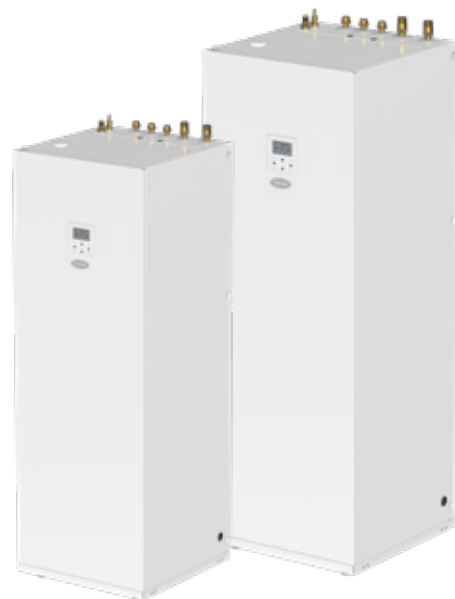
SPLIT AIR-TO-WATER HEAT PUMP RANGE - R32 - 38AW-R / 80AW-RA; 80AW-R

WIDE RANGE OFFER**OUTDOOR UNIT (ODU):**

10 power models in 2 chassis dimensions

**WALL-HUNG INDOOR UNIT**

7 models with or without back-up heater in the same dimension

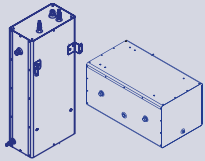
**ALL-IN-ONE INDOOR UNIT**

6 models with various back-up heater configuration in 2 DHW tank dimensions

SPLIT AIR-TO-WATER HEAT PUMP RANGE - R32 - 38AW-R / 80AW-RA; 80AW-R

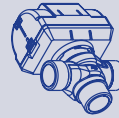
ACCESSORIES

INERTIAL BUFFER TANK



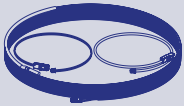
50 litres buffer tank suitable for vertical or horizontal installation, inside or outside the building

1" AND 1" 1/4 DIVERTER VALVE



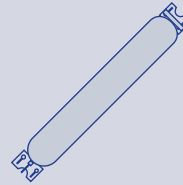
Available with or without temperature sensor for DHW tank

TEMPERATURE SENSOR



Allows to manage temperature operation for the balancing of tanks or the 2 zone flow temperature or the solar temperature

DHW EXPANSION VESSEL KIT (ONLY FOR ALL-IN-ONE VERSION)

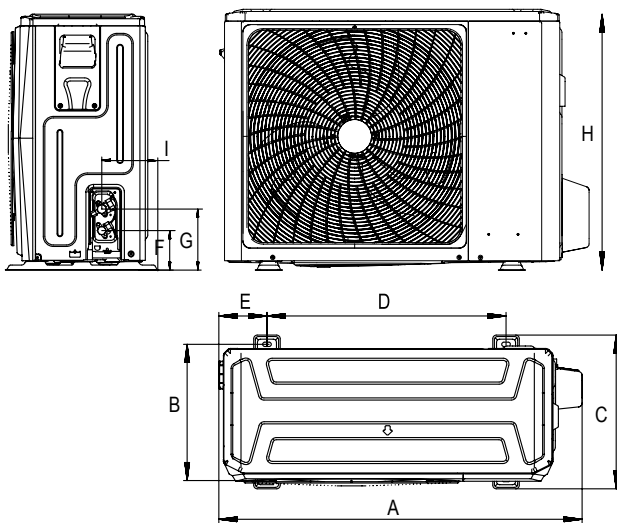


Kit expansion vessel for domestic hot water includes 8-litre expansion vessel, connection piping, safety valve and support to be installed on the back of the all-in-one indoor unit.

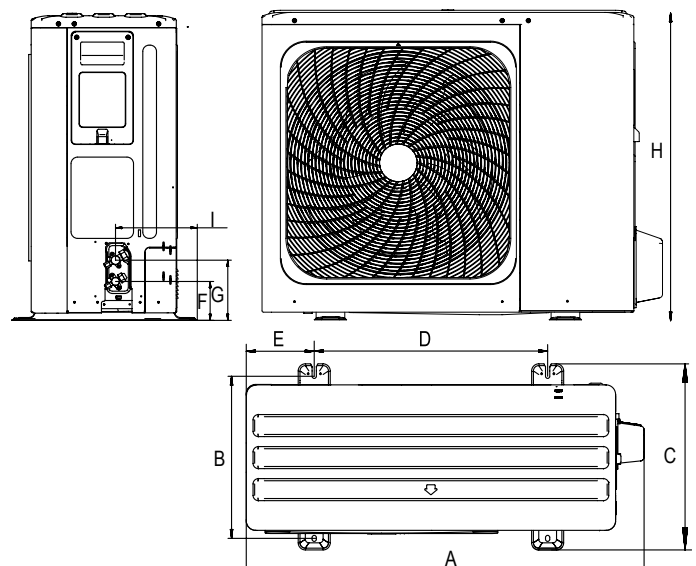
DIMENSION

OUTDOOR UNITS

4-6 KW



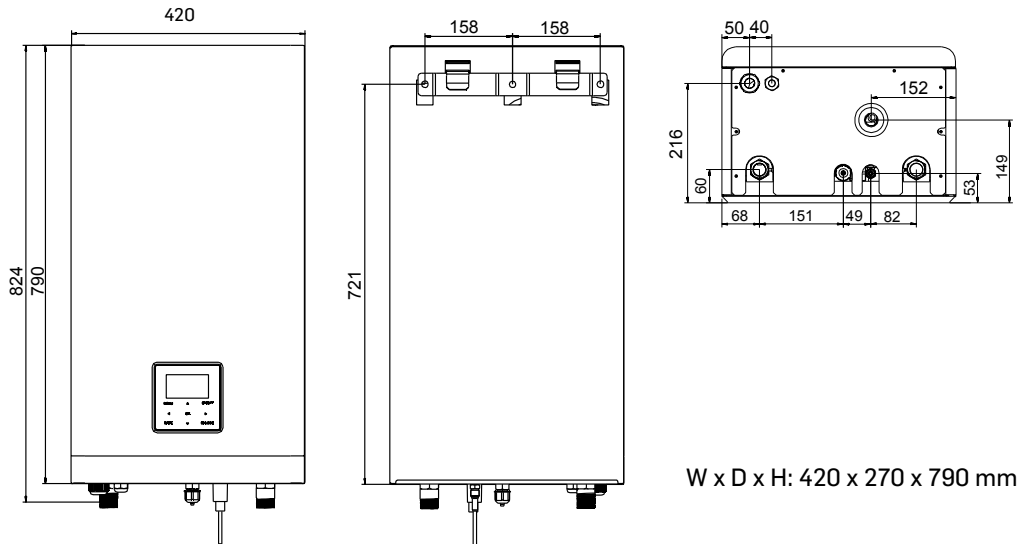
8-16 KW



Model	u.o.m.	A	B	C	D	E	F	G	H	K
4-6 kW	mm	1008	375	426	663	134	110	170	712	160
8-10-12-14-16 kW	mm	456	456	523	656	191	110	170	865	230

SPLIT AIR-TO-WATER HEAT PUMP RANGE - R32 - 38AW-R / 80AW-RA; 80AW-R

WALL-HUNG INDOOR UNIT

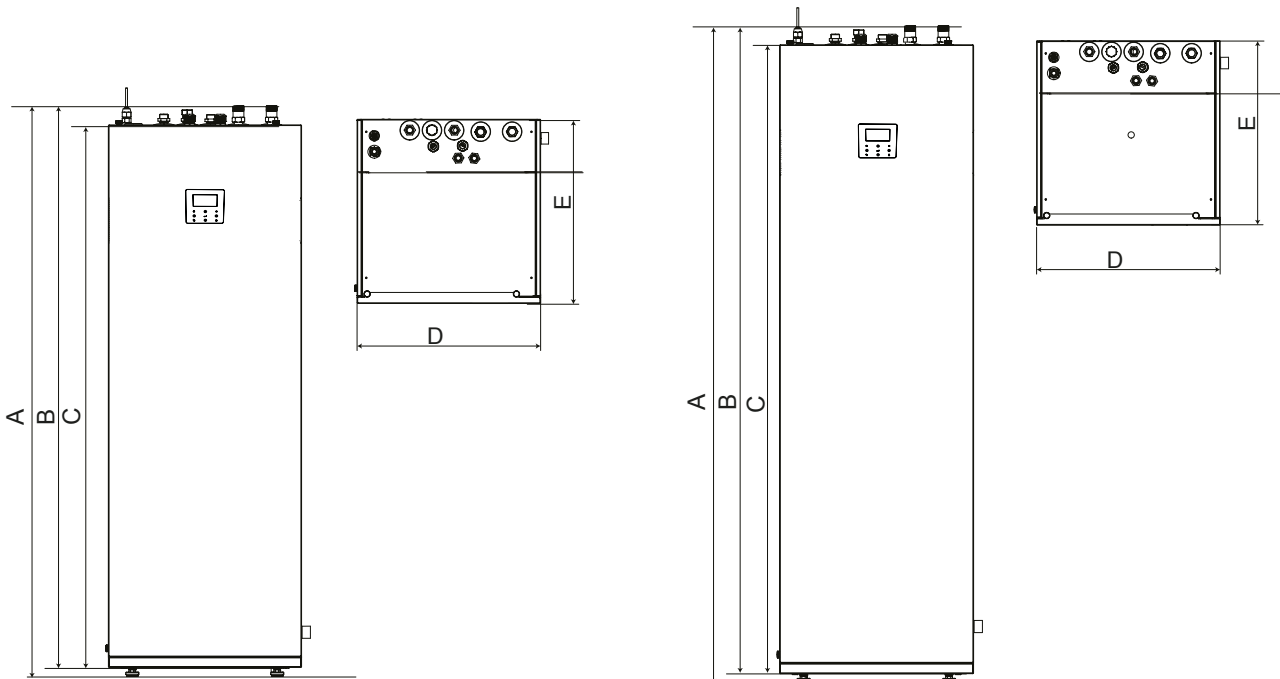


W x D x H: 420 x 270 x 790 mm

ALL-IN-ONE INDOOR UNIT

M VERSION with 190-litre DHW tank

L VERSION with 240-litre DHW tank



Model	u.o.m.	A	B	C	D	E
M version	mm	1775	1748	1682	600	600
L version	mm	2034	2007	1942	600	600

SPLIT AIR-TO-WATER HEAT PUMP RANGE - R32 - 38AW-R / 80AW-RA; 80AW-R

THE RANGE
SET WALL-HUNG VERSION: WITHOUT BACK-UP HEATER

SET	OUTDOOR UNIT	WALL-HUNG INDOOR UNIT	POWER CAPACITY
SET XP ENERGY 4 KW M	38AW040H7R	80AWX060M0BR	4kW (1ph)
SET XP ENERGY 6 KW M	38AW060H7R		6kW (1ph)
SET XP ENERGY 8 KW M	38AW080H7R	80AWX100M0BR	8kW (1ph)
SET XP ENERGY 10 KW M	38AW100H7R		10kW (1ph)
SET XP ENERGY 12 KW M	38AW120H7R	80AWX160M0BR	12kW (1ph)
SET XP ENERGY 14 KW M	38AW140H7R		14kW (1ph)
SET XP ENERGY 16 KW M	38AW160H7R		16kW (1ph)
SET XP ENERGY 12 KW T	38AW120H9R		12kW (3ph)
SET XP ENERGY 14 KW T	38AW140H9R		14kW (3ph)
SET XP ENERGY 16 KW T	38AW160H9R		16kW (3ph)

SET WALL-HUNG VERSION: WITH BACK-UP HEATER

SET	OUTDOOR UNIT	WALL-HUNG INDOOR UNIT	POWER CAPACITY
SET XP ENERGY 4 KW M BH	38AW040H7R	80AWX060M3BR (1)	4kW (1ph)
SET XP ENERGY 6 KW M BH	38AW060H7R		6kW (1ph)
SET XP ENERGY 8 KW M BH	38AW080H7R	80AWX100M3BR (1)	8kW (1ph)
SET XP ENERGY 10 KW M BH	38AW100H7R		10kW (1ph)
SET XP ENERGY 12 KW M BH	38AW120H7R	80AWX160M3BR (2)	12kW (1ph)
SET XP ENERGY 14 KW M BH	38AW140H7R		14kW (1ph)
SET XP ENERGY 16 KW M BH	38AW160H7R		16kW (1ph)
SET XP ENERGY 12 KW T BH	38AW120H9R		12kW (3ph)
SET XP ENERGY 14 KW T BH	38AW140H9R		14kW (3ph)
SET XP ENERGY 16 KW T BH	38AW160H9R		16kW (3ph)

SET ALL-IN-ONE VERSION: WITH INDOOR UNIT M (190L DHW tank)

SET	OUTDOOR UNIT	ALL-IN-ONE INDOOR UNIT	POWER CAPACITY
SET XP ENERGY 4M AIO M31	38AW040H7R	80AWX010M3RA (3)	4kW (1ph)
SET XP ENERGY 6M AIO M31	38AW060H7R		6kW (1ph)
SET XP ENERGY 8M AIO M31	38AW080H7R		8kW (1ph)
SET XP ENERGY 10M AIO M31	38AW100H7R		10kW (1ph)
SET XP ENERGY 4M AIO M61	38AW040H7R	80AWX010M6RA (4)	4kW (1ph)
SET XP ENERGY 6M AIO M61	38AW060H7R		6kW (1ph)
SET XP ENERGY 8M AIO M61	38AW080H7R		8kW (1ph)
SET XP ENERGY 10M AIO M61	38AW100H7R		10kW (1ph)

SET ALL-IN-ONE VERSION: WITH INDOOR UNIT L (240L DHW tank)

SET	OUTDOOR UNIT	ALL-IN-ONE INDOOR UNIT	POWER CAPACITY
SET XP ENERGY 4M AIO L31	38AW040H7R	80AWX010L3RA (3)	4kW (1ph)
SET XP ENERGY 6M AIO L31	38AW060H7R		6kW (1ph)
SET XP ENERGY 8M AIO L31	38AW080H7R		8kW (1ph)
SET XP ENERGY 10M AIO L31	38AW100H7R		10kW (1ph)
SET XP ENERGY 4M AIO L61	38AW040H7R	80AWX010L6RA (4)	4kW (1ph)
SET XP ENERGY 6M AIO L61	38AW060H7R		6kW (1ph)
SET XP ENERGY 8M AIO L61	38AW080H7R		8kW (1ph)
SET XP ENERGY 10M AIO L61	38AW100H7R		10kW (1ph)
SET XP ENERGY 12M AIO L61	38AW120H7R	80AWX016L6RA (4)	12kW (1ph)
SET XP ENERGY 14M AIO L61	38AW140H7R		14kW (1ph)
SET XP ENERGY 16M AIO L61	38AW160H7R		16kW (1ph)
SET XP ENERGY 12T AIO L93	38AW120H9R		12kW (3ph)
SET XP ENERGY 14T AIO L93	38AW140H9R		14kW (3ph)
SET XP ENERGY 16T AIO L93	38AW160H9R		16kW (3ph)

(1) Included 3kW (1ph) back-up heater.

(2) Included 9kW (3ph) back-up heater.

(3) including 3kW (1ph) back-up heater.

(4) including 6kW (1ph) back-up heater. Defaulted setting is 4kW, convertible on-site to either 2kW or 6kW.

(5) including 9kW (3ph) back-up heater. Defaulted setting is 9kW, convertible on-site to either 3kW or 6kW.

SPLIT AIR-TO-WATER HEAT PUMP RANGE - R32 - 38AW-R / 80AW-RA; 80AW-R

TECHNICAL DATA

U.M.	4kW (1ph)	6kW (1ph)	8kW (1ph)	10kW (1ph)	12kW (1ph)	14kW (1ph)	16kW (1ph)	12kW (3ph)	14kW (3ph)	16kW (3ph)	
PERFORMANCE DATA*											
PERFORMANCE IN HEATING [A7/ W35] (1)											
Nominal capacity	kW	4,25	6,20	8,30	10,00	12,10	14,50	16,00	12,10	14,50	16,00
COP	kW/kW	5,20	5,00	5,20	5,00	4,95	4,70	4,50	4,95	4,70	4,50
SCOP **	kW/kW	4,85	4,95	5,22	5,20	4,81	4,72	4,62	4,81	4,72	4,62
ηs **	%	191	195	206	205	189	186	182	189	186	182
Energy class	D → A+++ ****	A+++	A+++	A+++	A+++	A+++	A+++	A+++	A+++	A+++	A+++
PERFORMANCE IN HEATING [A7/ W45] (2)											
Nominal capacity	kW	4,35	6,35	8,20	10,00	12,30	14,20	16,00	12,30	14,20	16,00
COP	kW/kW	3,80	3,75	3,95	3,80	3,80	3,65	3,60	3,80	3,65	3,60
PERFORMANCE IN HEATING [A7/ W55] (3)											
Nominal capacity	kW	4,40	6,00	7,50	9,50	12,00	13,80	16,00	12,00	13,80	16,00
COP	kW/kW	2,95	3,00	3,18	3,10	3,10	3,00	2,90	3,10	3,00	2,90
SCOP **	kW/kW	3,31	3,52	3,37	3,47	3,45	3,47	3,4	3,45	3,47	3,4
ηs **	%	130	138	132	137	135	136	133	135	136	133
Energy class	D → A+++ ****	A++	A++	A++	A++	A++	A++	A++	A++	A++	A++
PERFORMANCE IN COOLING [A35/ W18] (4)											
Nominal capacity	kW	4,50	6,55	8,40	10,00	12,00	13,50	14,20	12,00	13,50	14,20
EER	kW/kW	5,55	4,90	5,05	4,80	4,00	3,61	3,61	4,00	3,61	3,61
PERFORMANCE IN COOLING [A35/ W7] (5)											
Nominal capacity	kW	4,70	7,00	7,40	8,20	11,60	12,70	14,00	11,60	12,70	14,00
EER	kW/kW	3,45	3,00	3,38	3,30	2,75	2,55	2,45	2,75	2,55	2,45
SEER	kW/kW	4,99	5,34	5,83	5,98	4,89	4,86	4,69	4,89	4,86	4,69
ηs	%	196	210	229	235	192	191	184	192	191	184
PERFORMANCE IN DOMESTIC HOT WATER***											
COP _{dhw} (M version / L version)	kW/kW	3,10 / 3,34	3,10 / 3,34	3,02 / 3,36	3,02 / 3,36	n.a. / 3,00	n.a. / 3,00	n.a. / 3,00	n.a. / 3,00	n.a. / 3,00	n.a. / 3,00
DHW seasonal energy efficiency (M version / L version)	%	127 / 136	127 / 136	125 / 137	125 / 137	n.a. / 123	n.a. / 123	n.a. / 123	n.a. / 123	n.a. / 123	n.a. / 123
Load profile (M version / L version)		L / XL	L / XL	L / XL	L / XL	n.a. / XL	n.a. / XL	n.a. / XL	n.a. / XL	n.a. / XL	n.a. / XL
DHW energy class	F → A+*****	A+	A+	A+	A+	A+	A+	A+	A+	A+	A+
V _{max} @ 40°C (M version/ L version)	L	200 / 275	200 / 275	200 / 275	200 / 275	n.a. / 280	n.a. / 280	n.a. / 280	n.a. / 280	n.a. / 280	n.a. / 280
DHW tank volume (M version / L version)	L	190 / 240	190 / 240	190 / 240	190 / 240	n.a. / 240	n.a. / 240	n.a. / 240	n.a. / 240	n.a. / 240	n.a. / 240
DHW tank material		Stainless steel									
SOUND LEVELS											
Sound power - Outdoor unit (6)	dB(A)	56	58	59	60	64	65	68	64	65	68
Sound power - Indoor unit wall-hung (6)	dB(A)	38	38	42	42	43	43	43	43	43	43
Sound power - Indoor unit all-in-one (6)	dB(A)	38	38	40	40	42	44	44	42	44	44
Sound pressure - Outdoor unit (7)	dB(A)	44	45	46	49	50	51	54	50	51	55
Sound pressure - Indoor unit wall-hung (7)	dB(A)	28	28	30	30	32	32	32	32	32	32
Sound pressure - Indoor unit all-in-one (7)	dB(A)	22	24	22	22	24	25	24	24	25	24
NET WEIGHT											
Outdoor unit	kg	58	58	75	75	111	111	111	126	126	126
Indoor unit wall-hung	kg	37	37	37	37	51	51	51	51	51	51
Indoor unit all-in-one	kg	157	157	157	157	159	159	159	159	159	159
Compressor type		DC Twin rotary									
Refrigerant		R32 (GWP = 675)									
Refrigerant charge	kg	1,50	1,50	1,65	1,65	1,84	1,84	1,84	1,84	1,84	1,84

(1) Outside air temperature 7°C DB; water inlet/outlet 30/35°C

(2) Outside air temperature 7°C DB; water inlet/outlet 40/45°C

(3) Outside air temperature 7°C DB; water inlet/outlet 47/55°C

(4) Outside air temperature 35°C; water inlet/outlet 23/18°C

(5) Outside air temperature 35°C; water inlet/outlet 12/7°C

(6) Declared value in compliance with the EN 12102-1 standard

(7) Measured at a position 1m in front of the unit and (1+unit height)/2m above the floor in semi-anechoic chamber

* Performance data are related to the combination of outdoor units and indoor units (either wall-hung or all-in-one), in accordance with EN 14511 standard

** In accordance with EN 14825 standard. Average climate

*** Performance data are related only for all-in-one version, in accordance with EN 16147: 2017 standard at average climate.

**** The energy efficiency class range of this product category is from D up to A+++

***** The energy efficiency class range of this product category is from F to A+

Note: All-in-One version M is not available for the power size 12kW (1ph & 3ph) ÷ 16kW (1ph & 3ph)



www.carrier.com

01/2025

B-RLC-038_38AW-R / 80AW-RA/ 80AW-R-EN

Carrier is committed to continuously improving its products to ensure the highest quality and reliability standards, and to meet local regulations and market requirements. All features and specifications are subject to change without prior notice.



©2025 Carrier. All Rights Reserved.

All trademarks and service marks referred herein are property of their respective owners.

Photo credit: Adobestock