



United Technologies

turn to the experts



30AWH

Heat Pumps

AQUASNAP^{PLUS}
Reversible



**COMPACT
RELIABLE
EFFICIENT**

The AquaSnap PLUS reversible heat pumps were designed and tested to address the specific needs of residential and light commercial buildings.

The 30AW boasts impressive energy efficiency and can be easily matched with the wide range of Carrier terminal fan coil units.

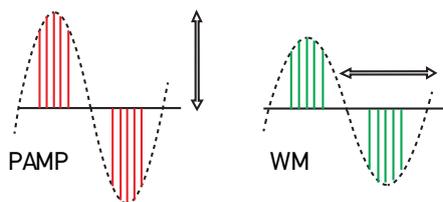
INVERTER Technology

Carrier DC inverters deliver improved reliability and optimised energy-efficiency from 20 up to 120% of nominal capacity.

Carrier's exclusive hybrid DC inverter technology, used in the AquaSnap PLUS heat pump, combines two distinct electronic management logics (PAM and PWM) to optimise compressor operation in all operating conditions.

Pulse Amplitude Modulation (PAM) of the direct current drives the compressor at maximum load conditions (start-up and peak load conditions), increasing voltage at fixed frequency. The compressor works at high speed to rapidly achieve the desired temperature.

Pulse Width Modulation (PWM) of the direct current drives the compressor at part load conditions, adjusting frequency at fixed voltage. The compressor speed is fine-tuned and the system provides high-level comfort without temperature fluctuations.



Maximum power at high speed and unmatched efficiency at low and medium speed.

More than an heat pump

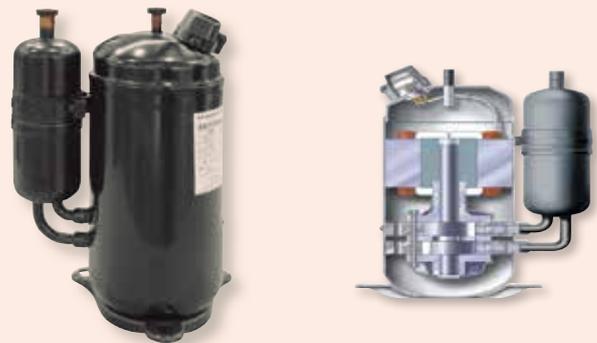
AquaSnap PLUS heat pumps offer the ideal solution for a wide range of applications in a new building, a refurbishment project or integrated with existing equipment.

Inverter with hydronic module (pump, flow switch, expansion vessel, safety valve) ready for connection with the heating and cooling system, without needed additional equipment.

The AquaSnap PLUS reversible heat pump and chiller offers an exceptionally high energy efficiency ratio both in cooling and heating.

KEY FEATURES

- Five sizes, with or without hydronic kit in two versions.
- Non-ozone depleting refrigerant R410A.
- DC Inverter twin rotary compressors, low noise fan and microprocessor control.



- Variable speed fans, with an innovative patented fan blade shape ensure improved air distribution at exceptionally low noise levels.
- Output to link and integrate the unit with existing heat sources or a back-up heating source (single or dual-energy approach) for increased savings and optimum comfort all year round.

30AWH



60°C



EUROVENT CERTIFIED PERFORMANCE

Each unit is subjected to a series of checks at various stages of the line production.

CARRIER participates in the ECP programme for LCP/HP and Aquasnap Plus 30AW is a Eurovent Certified unit.

- The AquaSnap PLUS heat pump systems can be used with a wide choice of Carrier terminal fan coil units - cassettes, low, medium and high-pressure satellite units, console units, underceiling units and high-wall units.



Cassette



Console/Underceiling



Satellite



Ducted



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USER INTERFACES



33AW-CS Programmable thermostat

The new Comfort™ series user interface has a large display to show all system settings and operating parameters plus extended features like schedule timer, silent mode and pre-set operating programs.

Auto-diagnosis and automatic configuration programs guide the technicians during commissioning and servicing.



33AW-RC Remote controller

User-friendly remote controller to manage the main unit functions: cooling, heating and Eco mode. Small and unobtrusive LEDs indicate the unit status. LEDs are also used to signal possible faults during the autodiagnosis tests.

PHYSICAL DATA

				004	006	008	012	015	012-3Ph	015-3Ph
COOLING										
Full load performances*	C1	Nominal capacity	kW	3.33	4.73	5.84	10.24	13.04	10.20	13.00
	C2	Nominal capacity	kW	4.93	7.04	7.84	13.54	16.04	13.50	16.00
Seasonal Efficiency*		ESEER	kW/kW	4.36	4.51	4.15	4.22	4.31	4.40	4.31
HEATING										
Full load performances*	H1	Capacity (nom/max)	kW	4.07/4.73	5.76/6.14	7.16/8.00	11.86/13.45	14.46/16.25	12.0/15.0	15.0/17.41
	H2	Capacity (nom/max)	kW	3.87/4.50	5.76/6.04	7.36/7.92	12.91/12.95	13.96/15.92	11.2/14.5	14.5/16.52
	H3	Capacity (nom)	kW	4.27	5.43	7.25	10.89	12.36	11.43	12.17
Seasonal Efficiency**		ηs/SCOP/ENERGY CLASS (Average) - 30°/35° C	% / - / -	146/3,73/ A+	141/3,60/ A+	118/3,03/ A	125/3,19/ A+	141/3,61/ A+	148/3,78/ A+	144/3,68/ A+
		ηs/SCOP/ENERGY CLASS (Average) - 47°/55° C	% / - / -	138/3,53/ A++	132/3,37/ A++	111/2,84/ A+	115/2,95/ A+	127/3,25/ A++	136/3,47/ A++	130/3,33/ A++
		ηs/SCOP/ENERGY CLASS (Warm) - 30°/35° C	% / - / -	201/5,09/ A+++	194/4,92/ A+++	163/4,14/ A++	171/4,36/ A++	194/4,93/ A+++	203/5,16/ A+++	198/5,03/ A+++
		ηs/SCOP/ENERGY CLASS (Warm) - 47°/55° C	% / - / -	190/4,82/ A+++	181/4,60/ A+++	152/3,88/ A++	158/4,03/ A+++	175/4,44/ A+++	187/4,74/ A+++	179/4,55/ A+++
Sound Pressure Level at 4m (H3)			dB(A)	42	42	44	47	48	48	48
Operating weight †										
Operating weight, unit with/without hydronic module			kg	57/54	61/58	69/66	104/101	112/109	116/113	116/113
Refrigerant				R-410A						
Compressor				DC twin-rotary with PMV expansion valve						
Fans				Propeller fans						
Quantity/diameter			mm	1/495	1/495	1/495	2/495	2/495	2/495	2/495
Dimensions										
Length			mm	908	908	908	908	908	908	908
Depth			mm	350	350	350	350	350	350	350
Height			mm	821	821	821	1363	1363	1363	1363

ELECTRICAL DATA

				004	006	008	012	015	012-3Ph	015-3Ph
Power supply	V-ph-Hz			230-1-50	230-1-50	230-1-50	230-1-50	230-1-50	400-3-50	400-3-50
Voltage range	V			198-264	198-264	198-264	198-264	198-264	376-424	376-424
Full load current	A			7.2	11	14	23	20	16	16
Fuse rating	A			10	16	16	25	25	20	20

C1 Cooling mode conditions: Evaporator water entering/leaving temperature 12°C/7°C, outside air temperature 35°C, evaporator fouling factor 0 m2 K/W

C2 Cooling mode conditions: Evaporator water entering/leaving temperature 23°C/18°C, outside air temperature 35°C, evaporator fouling factor 0 m2 K/W

H1 Heating mode conditions: Water heat exchanger water entering/leaving temperature 30°C/35°C, outside air temperature 7°C db/6°C wb, evaporator fouling factor 0 m2 K/W.

H2 Heating mode conditions: Water heat exchanger water entering/leaving temperature 40°C/45°C, outside air temperature 7°C db/6°C wb, evaporator fouling factor 0 m2 K/W.

H3 Heating mode conditions: Water heat exchanger water entering/leaving temperature 47°C/55°C, outside air temperature 7°C db/6°C wb, evaporator fouling factor 0 m2 K/W.

* In accordance with standard EN14511-3:2013

** In accordance with standard EN14825:2013

† Weight shown is a guideline only.

(1) In dB ref 20µPa, (A) weighting. Declared dualnumber noise emission values in accordance with ISO 4871 (with an associated uncertainty of +/-3dB(A)). For information, calculated from the sound power level Lw(A).



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