



AQUASNAP[®]

30RB/R0

AIR-COOLED LIQUID CHILLERS AND HEAT PUMPS 40-160 kW

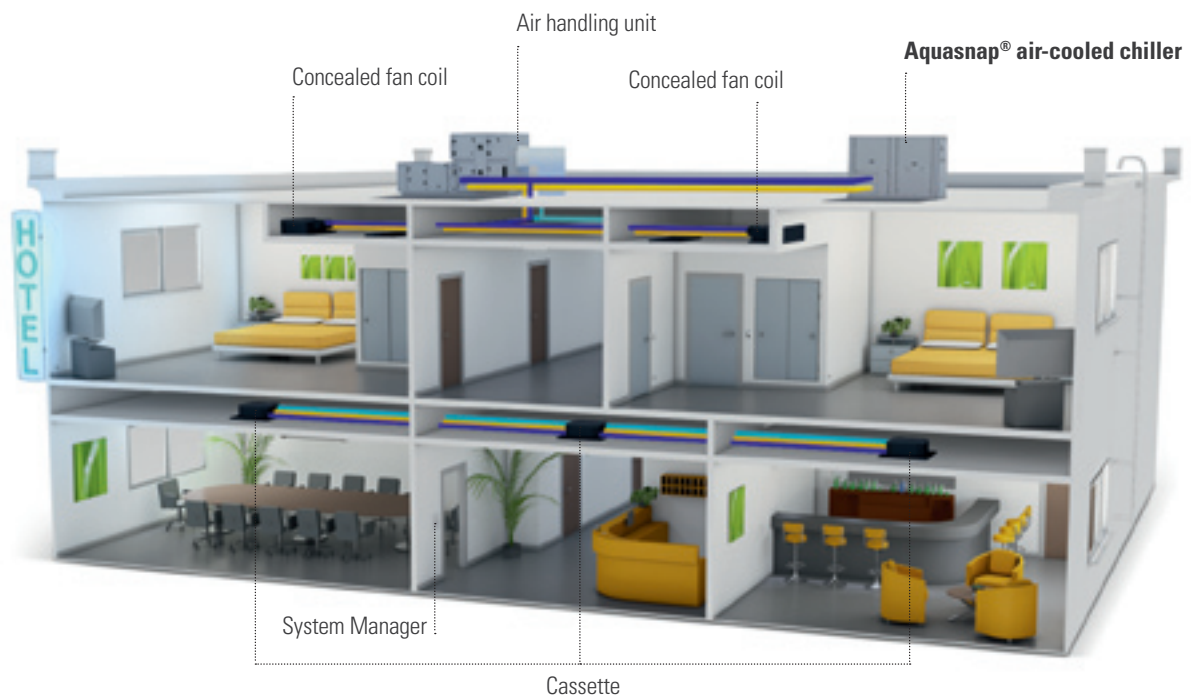


Reduce your energy bill – increase your confidence

The larger picture

Carrier's mission is to make the world a better place to live in by creating a more comfortable, productive and healthy environment, regardless of climatic conditions. That is why we design and develop completely integrated climate control systems and equipment for various applications. From chillers and heat pumps to air handling units, terminals, control and monitoring solutions, you can choose from our wide range of products to create a system tailored to your specific needs.

For a complete overview of Carrier's products and services, please visit www.carrier.com or contact your local representative.



Intended for outdoor installation and operation, the Aquasnap[®] air-cooled chiller is the ideal choice for larger offices, hotels and shopping centres.

Your peace of mind – our first concern

Becoming our customers' first choice for air conditioning, heating and refrigeration solutions everywhere around the world takes more than design and manufacturing excellence. Carrier has been at the forefront of climate control systems for more than 100 years. Thanks to our vast experience and expertise, we can service your complete heating, ventilation, air conditioning, cooling and refrigeration infrastructure with the assurance of

the highest quality standard. Backed by a worldwide sales and after-sales organisation, Carrier's service and maintenance capabilities are designed to add maximum value by ensuring optimum availability and reliability of your heating, ventilation, air conditioning, cooling and refrigeration equipment. Carrier products are manufactured in over 80 plants worldwide. Qualified Carrier support is available in over 140 countries.



Energy-efficient climate control

“When choosing the right heating and air conditioning system for their building projects, I know that our customers need a solution which is reliable and reduces energy usage. We have developed the Aquasnap® air-cooled chiller to do just that, and more. Leveraging Carrier’s expertise in engineering and design, this durable air-cooled chiller and heat pump is a great fit for anyone who values reliability and cost effectiveness. In addition, this compact unit installs easily and quickly into most building layouts, making it the ideal choice for retrofit or new building designs.”

Philippe Rigal, Aquasnap® chiller engineering project leader, Carrier France.

Aquasnap® series – heating and cooling solutions you can count on

Reduce your energy consumption

Design can greatly influence energy efficiency. That is a fact. Building on our long experience, we have arranged the Aquasnap® air-cooled chiller’s internal components to maximise its efficiency and help you cut costs in the long run.

Carrier offers you the option of installing an inverter on the water pump to adapt the flow to the building’s demand. The unit measures the water temperature and pressure, enabling you to monitor and continuously optimise energy consumption. The end result of this variable water flow? More energy savings.



The Aquasnap® series are available in several capacities to meet all your needs.

Performance you can rely on

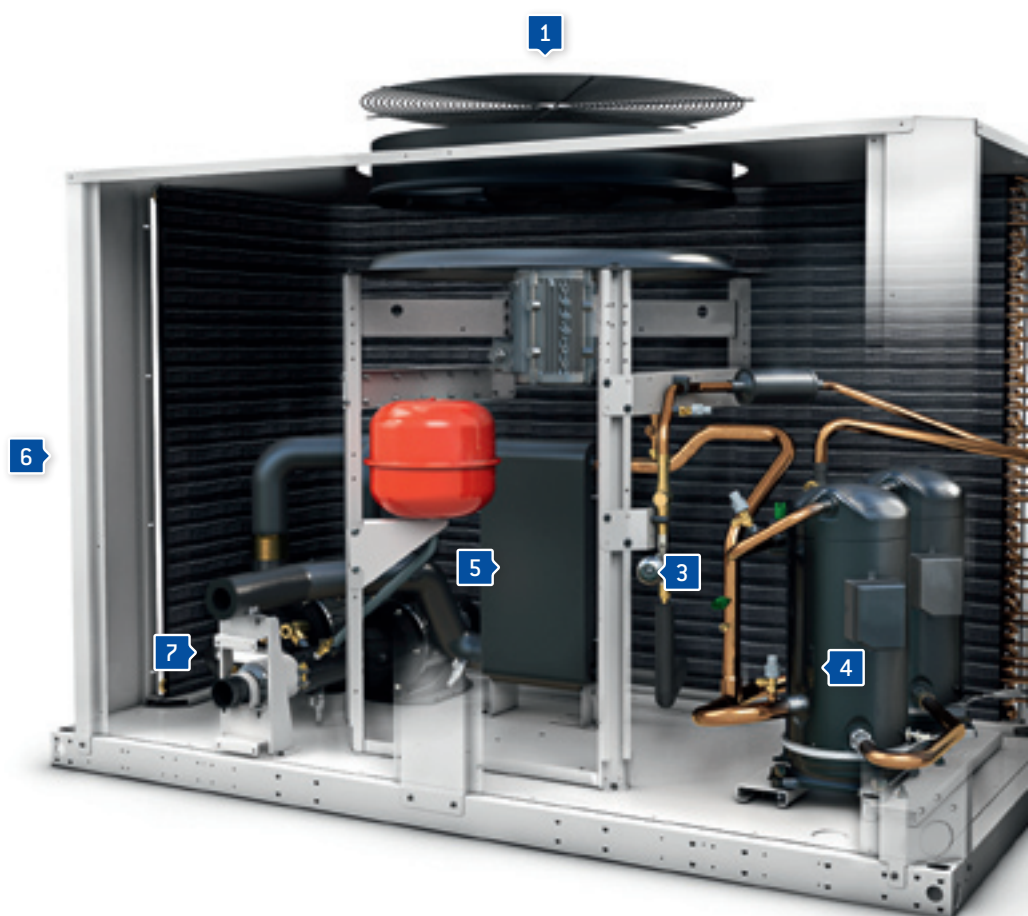
Reliability was a top priority in the design of the Aquasnap® chiller, which passed a severe vibration test that reflects the most extreme transportation conditions. The chiller’s refrigerant circuit is completely sealed, minimising the risk of leakage. Nearly all refrigerant pipes have brazed connections that are far more secure than mechanical connections.

Furthermore, the electronic expansion valve ensures that the unit operates with the ideal refrigerant flow and that it delivers optimum performance, even in extreme conditions.

To make the compressor operate within the ideal operating range, the Pro-Dialog+ control system constantly checks and analyses all compressor operating parameters, such as pressure, temperature and number of start-ups.

State-of-the-art integrated design

The Aquasnap® air-cooled chiller arrives at your jobsite fully assembled, tested, charged and all set to facilitate installation. With the integrated hydronic module, you don't need to plan for additional space to install the water pump, valves and hydronic accessories. Just bolt the unit down, connect it up and you are ready to go. Maintenance is equally simple, saving you time and energy.



With a heart for the environment

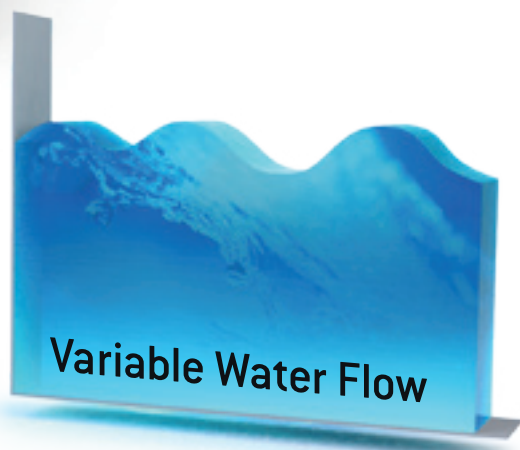
Carrier makes great efforts to reduce the negative effects associated with the manufacturing and operation of climate control systems. Aquasnap® units use **Puron® refrigerant R-410A** with zero ozone depletion that is more environmentally sound than other refrigerants. In addition, the new Aquasnap® air-cooled chillers require a lower refrigerant charge than their predecessors. The units are Eurovent-certified **Class C**, consume less energy and generate less CO₂ emissions than the previous generation, and were developed to contribute to the objectives of the European Energy Performance of Buildings Directive (EPBD). The Carrier factory where the units are manufactured is ISO 14001-certified and uses only green electricity.



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- 1 Low noise fan
- 2 Pro-Dialog+ digital control system
- 3 Electronic expansion valve
- 4 High-efficiency scroll compressors
- 5 Evaporator
- 6 Condenser coil
- 7 Hydronic module with variable speed water pump (optional)



Reduced energy costs

- ▶ With an **EER*** up to 2.9 and an **ESEER**** up to 4.2, the Aquasnap® chiller offers some of the best efficiencies on the market.
- ▶ In its heat pump version, the Aquasnap® unit offers a **competitive solution** against traditional heating systems.
- ▶ The **electronic expansion valve** optimises chiller performance, allowing for efficient control of the unit and consistent energy savings.
- ▶ Variable Water Flow (optional): Carrier's **variable speed water pumps** mirror the water demand, leading to a substantial reduction in energy waste and driving down your energy costs.

Optimum availability

- ▶ An auto-adaptive control system ensures intelligent control of the **compressor's** start-up sequence to prolong its lifetime.
- ▶ Simply remove the **front panels** to get direct access to all components and facilitate maintenance.
- ▶ Before shipment, the complete unit is **thoroughly tested** at the factory.

Maximum flexibility

- ▶ The Aquasnap® air-cooled chiller performs reliably within a **wide operating range**, regardless of season or climate and even in extreme conditions (-20°C up to +48°C). Coil defrost cycles take place only when absolutely required. The unit is suitable for floor cooling/heating applications.
- ▶ Thanks to its **low profile** – less than 1.33 m in height – and **small footprint**, the Aquasnap® air-cooled chiller can be installed virtually anywhere.
- ▶ The **hydronic module** with single or dual pump and expansion tank is completely integrated. This makes installation faster to complete and reflects the Aquasnap® chiller's flexibility.
- ▶ The sophisticated **Pro-Dialog+ digital control system** lets you make precise adjustments to all chiller components in order to maximise energy savings and obtain ideal comfort conditions at all times. To simplify the display and control of the unit's operating parameters, it has been redesigned with the help of specialists in ergonomics. What's more, the system stores all operating data, making diagnostics fast and efficient.

Perfect integration

- ▶ With its **high-efficiency scroll compressor** and low-noise **shrouded axial fan**, this unit keeps noise to a minimum. To reduce noise levels even more, we can offer you an additional low noise option.
- ▶ The Aquasnap® air-cooled chiller can be easily integrated into your existing Building Management System (BMS). Control options are compatible with the most common **communication protocols** such as JBUS, BACnet and LON.
- ▶ Adding **options** does not increase the unit's dimensions.

* Energy Efficiency Ratio

** European Seasonal Energy Efficiency Ratio

Aquasnap® air-cooled chiller 30RBS: cooling only standard efficiency

Aquasnap® air-cooled chiller 30RQS: reversible standard efficiency

30RBS – Standard range		39	40	45	50	60	70	80	–	90	100	120	140	160
Nominal cooling capacity 30RBS*	kW	38.2	38.9	43.3	51.9	57.3	66.0	78.8	–	89.4	99.9	117.0	134.3	157.1
Energy Efficiency Ratio (EER) 30RBS	kW/kW	2.84	2.91	2.71	2.71	2.76	2.74	2.71	–	2.81	2.78	2.71	2.74	2.71
EUROVENT class, cooling 30RBS		C	B	C	C	C	C	C	–	C	C	C	C	C
European Seasonal Energy Efficiency Ratio (ESEER) 30RBS		4.00	3.22	4.00	4.02	4.08	4.00	4.05	–	4.22	4.20	4.12	4.14	4.13
30RQS – Standard range		39	40	45	50	60	70	78	80	90	100	120	140	160
Nominal cooling capacity 30RQS*	kW	37.9	39.0	44.2	50.7	58.4	65.1	73.4	76.5	86.7	99.3	112.4	132.5	146.9
Energy Efficiency Ratio (EER) 30RQS	kW/kW	2.89	2.97	2.82	2.72	2.82	2.79	2.60	2.82	2.78	2.78	2.71	2.78	2.60
EUROVENT class, cooling 30RQS		C	B	C	C	C	C	D	C	C	C	C	C	D
European Seasonal Energy Efficiency Ratio (ESEER) 30RQS		4.05	3.25	4.10	4.02	4.10	4.05	3.89	4.10	4.20	4.20	4.12	4.14	3.90
Heating capacity 30RQS*	kW	41.0	40.8	46.4	52.9	61.4	67.5	77.2	77.5	91.8	100.0	114.6	140.8	154.4
Coefficient of performance (COP) 30RQS*	kW/kW	3.01	3.15	3.08	3.01	3.02	3.04	2.99	3.06	3.06	3.10	3.10	3.12	2.99
EUROVENT class, heating 30RQS		B	B	B	B	B	B	C	B	B	B	B	B	C
Length	mm	2071	1293	2071	2071	2071	2071	2071	2071	2071	2071	2071	2071	2071
Width	mm	1081	1081	1081	1081	1081	1081	1081	2278	2278	2278	2278	2278	2278
Height	mm	1329	1329	1329	1329	1329	1329	1329	1329	1329	1329	1329	1329	1329
Operating weight (with single pump hydraulic module)	kg	488	488	496	519	545	531	562	867	867	877	912	1021	1085
Sound power level Lw	dB(A)	80	80	81	81	81	87	87	84	84	84	84	90	90

* At Eurovent standard conditions (fan coil)

Cooling mode: evaporator inlet/outlet temperatures = 12/7°C, outside air temperature = 35°C

Heating mode: condenser inlet/outlet temperatures = 40/45°C, outside air temperature = 7/6°C (wet-bulb/dry-bulb)



Preliminary data

Options & accessories

Options	30RBS	30RQS
Hydronic module with single or dual pump low pressure	X	X
Hydronic module with single or dual pump high pressure	X	X
Hydronic module with single or dual inverter-driven pump	X	X
Softstarter on compressor (40 to 80 kW)	X	X
Low ambient operation (-20°C)	X	–
Partial heat recovery	a.s.	a.s.
Ductable fans	a.s.	a.s.

a.s.: available soon



CARRIER participates in the Eurovent certification programme for liquid chilling packages; the certified data for the certified models is listed in the Eurovent directory available from www.eurovent-certification.com

WWW.CARRIER.COM



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Manufacturer reserves the right to discontinue, or change at any time specifications or designs without notice and without incurring obligations.

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