



AQUASNAP[®]

30RB/RO

AIR-COOLED LIQUID CHILLERS AND HEAT PUMPS 17-33 kW

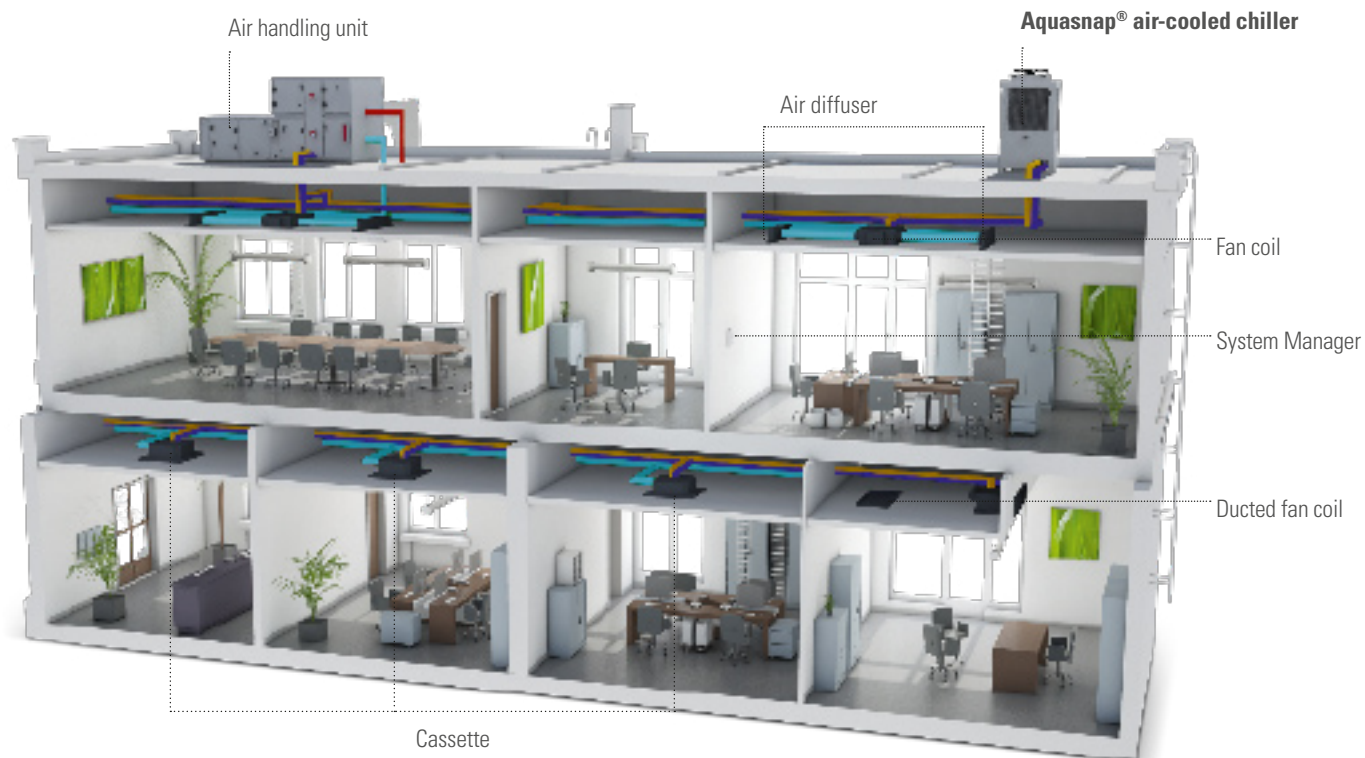


Fast installation – enhanced performance

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 smaller offices, hotels and shops.

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.



Fast to install, easy to maintain

"It goes without saying that all installers want to offer their customers a comfortable environment in which to work, live or rest. But they also want a chiller that ensures fast installation and easy maintenance. We have specially developed the Aquasnap® range to meet these needs. These air-cooled chillers and heat pumps combine easy system installation and service with energy-efficient operation, saving installers time and their customers money. They allow installers to keep their labour costs under control and provide end users with a comfortable indoor climate all year round."

Paolo Cavalleri, Aquasnap® chiller engineering project leader, Carrier Italy.

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

✓ A plug-and-play solution

With its complete factory wiring, easy handling features, factory-installed options and intuitive interface, setting up the Aquasnap® air-cooled chiller is fast and straightforward. Thanks to its low profile and small footprint, it can be installed virtually anywhere, making it the ideal choice for smaller offices, hotels and shops.

To ensure the highest reliability at start-up and in operation, a factory run test is performed on each unit. You will not waste any time on component selection either, as the hydronic module can be optionally pre-installed.



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

🔧 Maintenance made simple

Fast installation is one thing, but continuous maintenance is another. Carrier design experts have made sure that maintaining the Aquasnap® air-cooled chiller is as simple as installing it.

To simplify the display and control of the unit's operating parameters, the new Pro-Dialog+ user interface has been redesigned with the help of specialists in ergonomics. The interface can be mounted on the unit itself or at a remote location. To get direct access to all components, all you need to do is remove the front panels. Furthermore, the system stores all operating data, making diagnostics fast and efficient.

The new all-in-one standard

Widely renowned for its reliability, the Aquasnap® series has already set the standard for chillers and heat pumps. The Aquasnap® air-cooled chiller builds on this heritage with an even stronger commitment to performance and energy efficiency. Many of its high-quality components were redesigned for better integration and to further reduce the unit's footprint.



◆ 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 A**, 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).

A

Eurovent Class A



2



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



✘ Maximum flexibility

- ▶ The sophisticated **Pro-Dialog+ digital control system** lets you make precision adjustments to all chiller components in order to maximise energy savings and obtain ideal comfort conditions at all times. To make operation easy and intuitive, its graphical user interface has been redesigned with the help of specialists in ergonomics.
- ▶ The Aquasnap® air-cooled chiller performs reliably within a **wide operating range**, regardless of season or climate and even in extreme conditions (-15°C up to +48°C). Coil defrost cycles take place only when absolutely required.
- ▶ Variable Water Flow (optional): the **variable speed water pumps** are monitored by an auto-adaptive algorithm that adapts the water flow to the system's demand.

🕒 Optimum availability

- ▶ An auto-adaptive control system ensures intelligent control of the **compressor's** start-up sequence to prolong its lifetime.
- ▶ All **internal components** must pass a rigorous qualification process.
- ▶ The **refrigerant circuit** is completely sealed, minimising the risk of leakage. Nearly all refrigerant pipes have brazed connections that are far more reliable than mechanical connections.
- ▶ Before shipment, the complete unit is **thoroughly tested** at the factory.

🔌 Perfect integration

- ▶ The **hydronic module** with pump and expansion tank is completely integrated. This makes installation faster to complete and saves space.
- ▶ With its **high-efficiency scroll compressor** and low-noise **axial fan**, this unit keeps noise to a minimum.
- ▶ 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.

📊 Reduced energy costs

- ▶ The **thermostatic expansion valve** optimises chiller performance, allowing for efficient control of the unit and consistent energy savings.
- ▶ With an **EER*** up to 3.4 and an **ESEER**** up to 3.8, the Aquasnap® chiller offers some of the best efficiencies on the market.
- ▶ In its heat pump version, the Aquasnap® unit offers a **competitive solution** in comparison to traditional heating systems. Its COP can reach up to 3.3.

* Energy Efficiency Ratio

** European Seasonal Energy Efficiency Ratio

Aquasnap® air-cooled chiller 30RB: cooling only high efficiency

Aquasnap® air-cooled chiller 30RQ: reversible high efficiency

Standard range		30RB				30RQ			
		17	21	26	33	17	21	26	33
Nominal cooling capacity*	kW	16.5	21.6	27.6	33.6	16.1	20.4	27.0	33.0
Energy Efficiency Ratio (EER)*	kW/kW	3.15	3.25	3.24	3.45	3.28	3.24	3.13	3.36
EUROVENT class, cooling*		A	A	A	A	A	A	A	A
European Seasonal Energy Efficiency Ratio (ESEER)		3.61	3.64	3.64	3.84	3.76	3.60	3.51	3.76
Heating capacity*	kW	–	–	–	–	16.8	21.4	29.6	33.0
Coefficient of performance (COP)*	kW/kW	–	–	–	–	3.24	3.35	3.27	3.26
EUROVENT class, heating*		–	–	–	–	A	A	A	A
Nominal cooling capacity**	kW	–	–	–	–	22.5	27.7	34.7	44.1
Energy efficiency ratio (EER)**	kW/kW	–	–	–	–	4.27	4.00	3.84	4.25
EUROVENT class, cooling**		–	–	–	–	A	A	A	A
Heating capacity**	kW	–	–	–	–	17.4	22	30.7	34.3
Coefficient of performance (COP)**	kW/kW	–	–	–	–	4.10	4.10	4.10	4.10
EUROVENT class, heating**		–	–	–	–	A	A	A	A
Length	mm	522	522	824	824	522	522	824	824
Width	mm	1136	1136	1002	1002	1136	1136	1002	1002
Height	mm	1580	1580	1790	1790	1580	1580	1790	1790
Operating weight (with single pump hydraulic module)	kg	189	208	255	280	206	223	280	295
Sound power level Lw	dB(A)	72	74	78	78	72	74	78	78

* 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)

** At Eurovent cooling-heating floor conditions

Cooling mode: evaporator inlet/outlet temperatures = 23/18°C, outside air temperature = 35°C

Heating mode: condenser inlet/outlet temperatures = 30/35°C, outside air temperature = 7/6°C (wet-bulb/dry-bulb)

Options & accessories

Options	30RB	30RQ
Hydronic module with single pump	X	X
Hydronic module with single inverter-driven pump	a.s.	a.s.
Water filling system	X	X
Partial heat recovery	–	a.s.
Ductable fans	a.s.	a.s.
400-3-50 power supply without neutral	X	X

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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