PROVEN PERFORMANCE
OR HIGH EFFICIENCY?

AQUAFORCE®, BECAUSE YOU SHOULD NOT HAVE TO CHOOSE.

Air and water-cooled screw units
252 kW - 1750 kW
30XA & 30XW
Carrier solutions based on experience and expertise

Carrier Heritage
Since Willis Carrier developed the world’s first modern air conditioning system in 1902, Carrier teams have been designing solutions tailored to each customer’s requirements. Over time, Carrier has been recognized as a pioneer in the design and manufacture of heating, ventilation and air conditioning (HVAC) solutions with sustainable performance, and equally important, for its commitment to first class service.

Carrier Commitment

- **Quality**
  Carrier quality and reliability are incorporated and guaranteed in all products and systems. Products undergo extensive tests before they are shipped to the customer and are also certified by internal organizations to ensure the highest levels of safety and quality.

- **Sustainability**
  Carrier continuously works to improve the environmental performance of its products and services, operations and its culture to help lead the way to environmental sustainability. Sustainability is one of the issues that affects the real-estate value of modern buildings.

- **Performance**
  Carrier strives for continuous growth to reinforce its leadership position, continuously improving the productivity of its assets and resources.

- **Service Excellence**
  The Carrier Service delivery model maintains a reputation for high customer satisfaction and delivers service excellence with strong communication channels, the top technicians in the industry, continuous improvement of contracts and a highly experienced management team.

- **Innovation**
  Carrier is a company of ideas, committed to research and development, whose founder still inspires the company to reach the next innovative, powerful and marketable idea. AdvanTE3C, a global group of Experts in Efficiency and Environment, supports customers around the world in developing strategic, energy-efficient and custom-engineered building solutions.

- **Expertise**
  Carrier delivers global solutions across the broadest range of air conditioning, ventilation and heating applications. With a proven track record of leadership and industry expertise, Carrier provides a portfolio of market-leading products and services.

**PROVEN PERFORMANCE**
The performance of AquaForce, tried and trusted

- **Thousands of installations**
  The AquaForce range is the result of several years of research and now counts thousands of installations worldwide. It operates in extreme climate conditions (from -22°C to +55°C) and offers among the best levels of energy efficiency and environmental performance in our industry.

- **Robustness and reliability**
  The reliability of the AquaForce system is the result of intensive research, combined with the highest quality standards (vibration tests based on military standards). The AquaForce range equipped with twin screw compressors delivers guaranteed long-term optimised performance.

- **Carrier Service**
  In order to ensure that the customer’s equipment provides optimum performance and a long operating life, the Carrier Service team takes care of integration, optimization and supervision of the plant within its operating environment.

**HIGH EFFICIENCY**
The AquaForce range, highly efficient in all conditions

- **Energy Efficiency**
  With an average Energy Efficiency Ratio (EER) of 3.15, the AquaForce system is a reference in energy efficiency. The AquaForce system, with its electronic expansion device, has a considerably increased cooling capacity, which contributes to optimized energy efficiency of the chiller at full and part load conditions.

- **Low CO₂ impact**
  The AquaForce chiller is cost effective to operate and environmentally responsible, with lower CO₂ emissions compared to other chillers of the similar capacity. With the Novation® Microchannel, the refrigerant charge can be reduced by up to 50% compared to traditional coils with copper tubes and aluminum fins (Cu/Al coils)*.

- **Advanced control**
  The new generation Touch Pilot™ control is now integrated in the AquaForce range. It sets a new standard for chiller and heat pump operation, with its precise resource control, rapid response times, interactive and self-explanatory user interface and web-server capability and data management and storage.

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*Source: Carrier estimates based on testing by Carrier Laboratory.
**Source: Carrier estimates based on the example of the energy consumption of a 300A unit in an office building in London. The heat load is 850 kW. The study compares the energy consumption of products in energy class A, B and C over 10 years.

---

**HigH EFFiCiENCy & Class C**
Class C: EER 2.7 to 2.8

**Class B**
Class B: EER 2.9 to 3.1

**Class A**
Class A: EER >3.1

---

**REDED EnErgy conSUmPtion**

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<td>Class A</td>
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*A MWh is a metric tonne of oil, which is equivalent to the energy released by burning a metric tonne of oil.

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***Source: Carrier estimates based on testing by Carrier Laboratory.*
Air-cooled liquid chillers

30XA

**NOVATION® MICROCHANNEL**
- Latest generation of Carrier Microchannel Heat Exchangers (MCHE) with new aluminium alloy
- Up to 50% refrigerant charge reduction vs. standard Cu/Al coils
- Better thermal performance, better efficiency and lower air pressure drop vs. Cu/Al coils
- Enviro-Shield® and Super Enviro-Shield® coatings, as options, for mild and severe corrosive environments

**Technical Insight**

- High efficiency flooded technology
- High efficiency fluidod technology
- High efficiency flooded technology
- High efficiency fluidod technology
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- High efficiency fluidod technology

**Key Benefits**
- High performance and full efficiency at full and partial load, reaching the class A energy efficiency
- Advanced control: precise capacity matching of building load, easy management, increased computing capabilities, web-server connectivity and enhanced system integration
- Adaptability: wide operating envelope from -22°C up to 55°C and robust core technology suitable for various applications and installation in different climates
- High reliability: resulting from intensive research, combined with the highest quality standards

From design to delivery at your site, the AquaForce delivers guaranteed long-term optimised performance.

**Options**

- **Low and Medium Temperature Brine Solution**
- **Evaporative Process Chiller**
- **Higher Efficiency Single-Pump Modular**
- **Higher Pressure Single-Pump Modular**
- **Higher Pressure Two-Stage Modulation**
- **Carrier Connect Link**

**Standards**

- **SEER**
- **Seasonal Energy Efficiency Ratio**
- **Nominal Capacity**
- **Sound Power Level**

**Physical Data**

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**Economizer**

- **Economizer**
- **Economizer**
- **Economizer**
- **Economizer**
- **Economizer**

**Carrier HVAC Europe only.**

* Non-exhaustive list of options available during 2015. Contact your Carrier representative for further information.
** Carrier HVAC Europe only.
### Technical Insight

**Water-cooled liquid chillers**

**30XW/30XW-P**

**AQUAFORCE CHILLERS**
- Compact sizes (only 900 mm wide) for handling and installation flexibility
- Easy access to critical components for facilitation of maintenance

**SHELL AND TUBE HEAT EXCHANGER**
- High efficiency flooded technology

**SCREW COMPRESSOR**
- Carrier 06T screw model
- High efficiency motor
- Variable slide valve for capacity control

**TOUCH PILOT™ CONTROL**
- 5” user-friendly touch screen
- All main parameters displayed on one screen
- Direct access to the unit’s technical drawings and main service documents
- Easy remote monitoring via the internet
- Easy and secure access to unit parameters

### Physical data

#### 30XW

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#### OPTIONS*

- Low and medium temperature brine solution
- Light brine solution, down to -3°C
- Master/Slave Operation
- Single Power Connection Point
- Evaporator pump and dual pumps electrical power / control circuit
- Condenser pump electrical power / control circuit
- Service Valve Set
- Evaporator and condenser with one pass
- 21 Bar evaporator and condenser
- Reversed evaporator and condenser water connections

---

*C: Cooling mode conditions: Evaporator Water heat exchanger, entering/leaving temperature 12°C/7°C, fouling factor 0 m² K/W.
*H2: Heating mode conditions: Condenser Water heat exchanger, entering/leaving temperature 40°C/45°C, fouling factor 0 m² K/W.
**H2 EER kW/kW: High efficiency flooded motor.
**H2 NOMINAL CAPACITY kW: High efficiency flooded motor.
**FULL LOAD PERFORMANCE *: High efficiency flooded motor.
**HEATING **: High efficiency flooded motor.

---

**Key benefits**

- **Flexibility**: one product family that can satisfy the different requirements of every sector in the market - heating, air conditioning and industry
- **Compactness**: reduced size (1m wide) offering more handling and installation flexibility and facilitating maintenance by allowing fast and easy access to critical components
- **Efficiency**: the AquaForce chiller is more affordable to operate and environmentally responsible, contributing to the reduction of building energy consumption and CO₂ emissions
- **Reliability**: the AquaForce chillers undergo extensive testing in Carrier’s laboratories.

---

**Eurovent certified values**

Carrier Service
beyond your expectations

Carrier teams are committed to ensuring your peace of mind while supporting your business objectives throughout the lifecycle of your equipment.

To meet your expectations, Carrier Service offers:

- **Proximity & Responsiveness**
  Carrier expert technicians are there to take action, quickly. The company’s comprehensive and highly efficient maintenance processes mean your equipment works at peak performance level. If necessary, you can rely on Carrier Rental Systems and readily available spare parts to avoid extended downtime.

- **Expertise & Consultancy**
  Carrier has experienced teams, an extensive network of branches, top grade logistics and powerful information systems. These industry-leading resources come together to deliver a best-in-class service. Your Carrier experts will help you to find the right balance between enhancing energy efficiency and maximising your investments.

- **Proactivity**
  As your preferred partner, Carrier designs tailored maintenance programmes to meet your goals and optimise your business performance.

Carrier proposes an advanced monitoring service offer based on secure connectivity: it allows you to monitor your equipment in real time and receive recommendations from Carrier experts.

Presence in more than 60 countries

24/7 availability

More than 110 years of experience

www.carrier.com