

Willis Carrier was the company's earliest sustainability leader. Utilizing precise cooling processes, his invention would enable countless industries to avoid waste and preserve resources for future generations.

Willis Carrier a sustaining vision

One hundred and sixteen years ago, a humble but determined engineer solved one of mankind's most elusive challenges by controlling the indoor environment. A leading engineer of his day, Carrier would file more than 80 patents over the course of his career. His genius would enable incredible advancements in healthcare, manufacturing processes, research, building capacities, food preservation, transportation, art and historical conservation, general productivity, indoor comfort and much more.

Carrier's foresight changed the world forever and paved the way for over a century of once-impossible innovations. Yet, in addition to being an accomplished inventor, he was also an avid outdoorsman. Carrier recognized the power and beauty of the natural environment. This appreciation of our world and its resources continues to guide Carrier today.

Harnessing the same vision and determination Willis did so many years ago, the men and women of Carrier work every day to accomplish more with less and preserve resources for future generations. We have a unique willingness to develop new technology, the confidence to revise proven designs and the ability to deliver results with every new installation.

Above all, we will never rest on our accomplishments, but instead consistently look for ways to improve — our products, our environment and our world.

Willis wouldn't have it any other way.

The Future of the World Depends on Our Ability... to Sustain It.

The word "improve" represents Carrier's belief in continuous improvement of our products and services, our customers' experience and our environmental impact.



Whether it's reducing our greenhouse gas impact, leading the phase-out of ozone-depleting refrigerants or introducing many of the world's most energy-efficient building solutions, at Carrier, we incorporate sustainability into all that we do. To us, it's only natural.



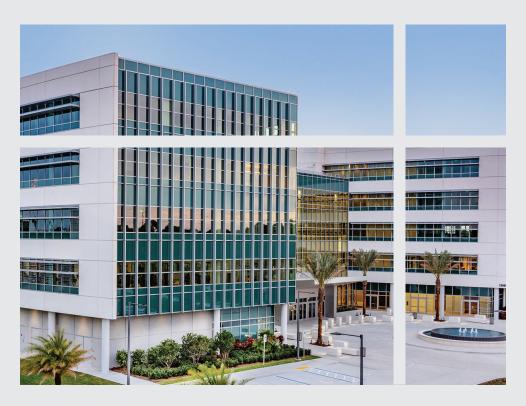
1-800-CARRIER carrier.com/commercial

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Cat. no. 04-811-51009

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





A World of Comfort

A Quick Reference Guide to Sustainable Building Solutions

A World of Comfort

Founded by the inventor of modern air conditioning, Carrier is a world leader in high-technology heating and air-conditioning solutions.

Carrier experts provide sustainable solutions, integrating energy-efficient products, building controls and energy services for commercial customers.

chillers

Air-Cooled



AquaSnap® 30RA Scroll Chillers

10 to 150 Tons (50 & 60Hz) HFC Puron® Refrigerant (R-410A) ASHRAE 90.1 Compliant, AHRI Certified



AquaSnap® 30RB Scroll Chillers

60 to 300 Tons HFC Puron® Refrigerant (R-410A) ASHRAE 90.1 Compliant, AHRI Certified **Heat Recovery Option**



AquaForce® 30XA Screw Chillers

80 to 500 Tons HFC-134a Exceeds ASHRAE 90.1-2016, **AHRI Certified**



AquaSnap® 30RAP with Greenspeed® Intelligence Scroll Chillers

10 to 60 Tons (50 & 60 Hz) Exceeds ASHRAE 90.1-2016 Variable-Speed Condenser Fans



AquaSnap® 30RB with Greenspeed® Intelligence Scroll Chillers

80 to 390 Tons HFC Puron® Refrigerant (R-410A) ASHRAE 90.1-2016 Compliant. **AHRI Certified** Variable-Speed Condenser Fans

Heat Recovery Option



AquaForce® 30XV with Greenspeed® Intelligence Screw Chillers

140 to 500 Tons (50 & 60Hz) HFC-134a Exceeds ASHRAE 90.1-2016. **AHRI Certified** Variable-Speed Compressor and Condenser Fans



AquaForce® 30XV Screw Chillers with Waterside Economizer

140 to 500 Tons (50 & 60Hz) HFC-134a Meets Requirements of ASHRAE 90.1-2016 **Toward Incorporating Waterside Economizer** Water-Cooled



AquaEdge® 19DV Advanced Two-Stage Compression with Ceramic Bearing and Greenspeed® Intelligence

350 to 800 Tons HFO-1233zd(E) Exceeds ASHRAE 90.1/FEMP Heat Recovery, Free Cooling & **Comfort Cooling**



AquaEdge® 19XR(V) Constant- or Variable-Speed Centrifugal Chillers Single-Stage

200 to 1,600 Tons HFC-134a or HFC/HFO-513A ASHRAE 90.1 Compliant, AHRI Certified **ASME Certified**



AquaEdge® 19XR(V) Constant- or Variable-Speed Centrifugal Chillers Two-Stage

600 to 3,400 Tons HFC-134a or HFC/HFO-513A ASHRAE 90.1 Compliant, AHRI Certified Wide Operating Envelope



AquaEdge® 19MV Advanced Two-Stage Compression with Magnetic Bearing and Greenspeed® Intelligence

300 to 700 Tons HFC-134a or HFC/HFO-513A Exceeds ASHRAE 90.1 AHRI Certified, ASME Certified, Wide Operating Envelope



AquaEdge® 23XRV Variable-Speed Screw Chillers with Greenspeed® Intelligence

175 to 300 Tons HFC-134a Exceeds ASHRAE 90.1, AHRI Certified Wide Operating Envelope



The AquaEdge® 23XRV is the world's leading efficiency screw chiller, 42% better than industry standard.**



AquaEdge® 23XRV Variable-Speed Screw Chillers with Greenspeed® Intelligence

250 to 550 Tons HFC-134a Exceeds ASHRAE 90.1, AHRI Certified* Wide Operating Envelope



AquaForce® 30XW Screw Chillers

150 to 400 Tons HFC-134a ASHRAE 90.1 Compliant[†], AHRI Certified **Heat Recovery Option**



AquaForce® 30HX Screw Chillers

75 to 265 Tons HFC-134a ASHRAE 90.1 Compliant, AHRI Certified* **Heat Recovery Option Dual, Independent Refrigerant Circuits**



AquaSnap® 30MP Scroll Chillers

16 to 71 Tons HFC Puron® Refrigerant (R-410A) ASHRAE 90.1 Compliant, AHRI Certified* **Heat Recovery Option** Modular Design for Easy Installation



AquaEdge® 17DA Open-Drive Centrifugal Chillers

3,000 to 5,500 Tons Motor or Steam Turbine Driven HFC-134a **ASME Certified**



Aero® 39M

1,500 to 60,500 cfm ASHRAE 62.1 Compliant, AHRI Certified



Aero® 39L

1,800 to 15,000 cfm ASHRAE 62.1 Compliant, AHRI Certified



Aero® 39S

Overhead

400 to 8,500 cfm ASHRAE 62.1 Compliant, AHRI Certified





Carrier Custom AHU 39CC

10,000 cfm and above Custom air-handling equipment for commercial, industrial and health care applications.

Carrier OptiClean™ Dual-Mode Air Scrubber & Negative Air Machine FN1AAF

600 to 1,500 cfm 99.97% efficient, long-life HEPA filter removes particles as small as 0.3 microns.



Axis[™] 35E Single Duct VAV Terminals

23 to 7,100 cfm AHRI Certified



Axis[™] 35J Single Duct Retrofit Terminals 23 to 3,700 cfm AHRI Certified

Axis[™] 35K Bypass Terminals 45 to 4,400 cfm AHRI Certified



Axis™ 35L/N Dual Duct VAV Terminals

50 to 7,100 cfm Side-by-Side or Mixing Design AHRI Certified



Axis[™] 45K/N Series/Parallel Quiet Flow Fan-Powered Terminal Units for VAV Systems

90 to 3,900 cfm AHRI Certified



Axis[™] 45J/M Series/Parallel Standard Flow Fan-Powered Terminal Units for VAV Systems

90 to 3,900 cfm AHRI Certified



Axis[™] 45Q/R Series/Parallel Low-Profile Fan-Powered Terminal Units for VAV Systems

100 to 2,000 cfm AHRI Certified



45Q DOAS Terminals

90 to 1,550 cfm ECM Motor Sensible Cooling AHRI Certified



AirStream[™] 42B Belt Drives

600 to 4,000 cfm ETL Listed IBC Seismic Compliant



AirStream™ 42C Horizontal

200 to 1,200 cfm AHRI Certified ETL Listed IBC Seismic Compliant



AirStream™ 42V Vertical

200 to 1,200 cfm AHRI Certified ETL Listed



AirStream™ 42D Ducted

600 to 3,000 cfm AHRI Certified ETL Listed IBC Seismic Compliant



AirStream[™] 42S Stack

300 to 2,000 cfm AHRI Certified ETL Listed



AirStream[™] 42WKN Hydronic Cassette Fan Coil Units

0.75 to 3 Tons ETL Listed

Induction Mater



ActivAIR™36IB Induction Beams

70 to 1,285 cfm Active Models Sensible and Latent Cooling Capability



WeatherMaster® 36S Induction Air Terminals

20 to 130 cfm 2 or 4 Pipe Designs





AirStream[™] 40UV, UH Unit Ventilators

500 to 2,000 cfm AHRI Certified ETL Listed





MP High Wall Systems

0.75 to 1 Ton Up to 42.0 SEER/15.0 HSPF ASHRAE 90.1 Compliant, AHRI Certified



38MA*R Heat Pumps 0.75 to 3 Tons 40MAQ High Wall 40MBCQ Cassette

40MBDQ Ducted 40MBFQ Floor Consoles Up to 25.0 SEER/12.0 HSPF ASHRAE 90.1 Compliant, AHRI Certified



MH High Wall Systems

0.75 to 2 Tons Up to 17.5 SEER/9.0 HSPF ASHRAE 90.1 Compliant, AHRI Certified





MGR Systems

Up to 23.8 SEER/10.5 HSPF

ASHRAE 90.1 Compliant, AHRI Certified

Up to 5 Zones

1.5 to 4 Tons



RAV*AT

1.5 to 3.5 Tons **RAV*KRT High Wall RAV*UT Cassette** RAV*BT Ducted **RAV*CT Underceiling** Up to 21.0 SEER/11.9 HSPF ASHRAE 90.1 Compliant, AHRI Certified



MBR Ducted Systems

3 to 5 Tons Up to 17.4 SEER/10.5 HSPF ASHRAE 90.1 Compliant, AHRI Certified



24AHA4 Cooling Only 25HHA Heat Pumps 1.5 to 5 Tons MK*B High Wall MK*C Cassette MK*F Underceiling 14.0 SEER/8.2 HSPF ASHRAE 90.1 Compliant, AHRI Certified





38VMH-1P Heat Pumps 3 to 5 Tons Up to 19.2 SEER/Up to 10.0 HSPF 38VMH Heat Pumps 6 to 36 Tons

Up to 23.6 IEER/Up to 4.29 COP



38VMR Heat Recovery 6 to 28 Tons Up to 24.6 IEER/Up to 30.0 SCHE **40VM Indoor Units** 0.6 to 8 Tons ASHRAE 90.1 Compliant, AHRI Certified

Toshiba Carrier Variable Refrigerant Flow Systems



MCY7 Heat Pumps 3 to 5 Tons Up to 22.7 SEER/Up to 11.5 HSPF

MMYH Heat Pumps 6 to 38 Tons Up to 29.0 IEER/Up to 4.5 COP

MMYF-1P Heat Recovery 6 and 12 Tons Up to 26.6 IEER/Up to 31.3 SCHE **MMYF Heat Recovery**

Up to 28.3 IEER/Up to 34.9 SCHE

MM-AP Indoor Units 0.6 to 8 Tons ASHRAE 90.1 Compliant, AHRI Certified





Performance™ 24ACB

1.5 to 5 Tons HFC Puron® Refrigerant (R-410A) **AHRI Certified**



Gemini® Select 38APD/S

25 to 130 Tons HFC Puron® Refrigerant (R-410A) Exceeds ASHRAE 90.1, AHRI Rated



Gemini® 38AUZ/D

6 to 20 Tons HFC Puron® Refrigerant (R-410A) ASHRAE 90.1 Compliant, AHRI Certified, ENERGY STAR®



Gemini® 40RUA/Q/S 6 to 30 Tons



Gemini® 38AUQ

Systems

Pump :

6 to 20 Tons HFC Puron® Refrigerant (R-410A) ASHRAE 90.1 Compliant, **AHRI Certified**



Outdoor Air-Cooled Condensers 09AZ

90 to 200 Tons HFC-134a



Indoor Air-Cooled Condensers 09XC

5 to 20 Tons HFC Puron® Refrigerant (R-410A)



Gemini® Select 09DP

18 to 130 Tons HFC Puron® Refrigerant (R-410A)

Applied Rooftop Units

WeatherExpert® 48LC, 50LC

6 to 23 Tons (VAV available 6 to 23 Tons) Ultra High Efficiency HFC Puron® Refrigerant (R-410A) Exceeds ASHRAE 90.1 IECC Compliant, AHRI Certified



WeatherExpert® with EcoBlue[™] Technology 48JC, 50JC

3 to 5 Tons



WeatherMaster® 48HC, 50HC 3 to 5 Tons (Select Models)

WeatherMaster® 50HCQ 6 to 10 Tons

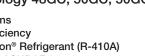
High Efficiency HFC Puron® Refrigerant (R-410A) Exceeds ASHRAE 90.1 IECC Compliant, AHRI Certified





WeatherMaster® with EcoBlue™ Technology 48GC, 50GC, 50GCQ

3 to 5 Tons High Efficiency HFC Puron® Refrigerant (R-410A) Exceeds ASHRAE 90.1 IECC Compliant, AHRI Certified





WeatherMaker® 48TC, 50TC 7.5 to 27.5 Tons

WeatherMaker® 50TCQ

7.5 to 20 Tons Standard Efficiency HFC Puron® Refrigerant (R-410A) **ASHRAE 90.1 Compliant** IECC Compliant, AHRI Certified



WeatherMaker® with EcoBlue™ Technology 48FC, 50FC, 50FCQ

3 to 6 Tons Standard Efficiency HFC Puron® Refrigerant (R-410A) ASHRAE 90.1 Compliant IECC Compliant, AHRI Certified



WeatherExpert® 48/50N Series

75 to 150 Tons HFC Puron® Refrigerant (R-410A) **ASHRAE 90.1 Compliant IECC Compliant**



WeatherMaster® 48/50P Series

30 to 100 Tons HFC Puron® Refrigerant (R-410A) ASHRAE 90.1 Compliant IECC Compliant, AHRI Certified Optional Greenspeed® Intelligence



WeatherMaker® 48/50A Series

20 to 60 Tons HFC Puron® Refrigerant (R-410A) **ASHRAE 90.1 Compliant** IECC Compliant, AHRI Certified Optional Greenspeed® Intelligence



Performance[™] 50VG, 48VG High Efficiency 2 to 5 Tons Packaged Cooling with Electric Heat or Gas Heat

Performance[™] 50VR, 48VR High Efficiency 2 to 5 Tons Packaged Heat Pump or Hybrid Heat Dual Fuel Heat Pump HFC Puron® Refrigerant (R-410A)

HFC Puron® Refrigerant (R-410A)



Comfort[™] 50VL Base Efficiency 2 to 5 Tons Packaged Cooling with Electric Heat HFC Puron® Refrigerant (R-410A)

Comfort™ 48VL Base Efficiency 2 to 5 Tons Packaged Cooling with Gas Heat HFC Puron® Refrigerant (R-410A)

Comfort[™] 50VT Base Efficiency 2 to 5 Tons Packaged Heat Pump HFC Puron® Refrigerant (R-410A)

Comfort[™] 48VT Base Efficiency 2 to 5 Tons Hybrid Heat Dual Fuel Heat Pump HFC Puron® Refrigerant (R-410A)

packaged products (continued)



Comfort[™] 50ZP Packaged Air Conditioner

Comfort[™] 50ZH Packaged Heat Pump



Omnizone[™] 50XC Water-Cooled/Air-Cooled/ Remote Air-Cooled

5 to 20 Tons HFC Puron® Refrigerant (R-410A) **AHRI Certified**



Omnizone[™] 50BV

18 to 60 Tons HFC Puron® Refrigerant (R-410A) ASHRAE 90.1 Compliant

water source and geothermal heat pumps

Indoor \$

· Self-Contained Systems



Aquazone™ 50PCH, 50PCV **Compact Units**

0.5 to 6 Tons HFC Puron® Refrigerant (R-410A) ASHRAE 90.1 Compliant



Aquazone™ 50PSH, PSV Horizontal/Vertical Upflow

0.5 to 6 Tons HFC Puron® Refrigerant (R-410A) Exceeds ASHRAE 90.1, AHRI Certified



Aguazone[™] 50PTH, PTV Horizontal/Vertical Upflow

2 to 6 Tons HFC Puron® Refrigerant (R-410A) Exceeds ASHRAE 90.1, AHRI Certified



Aquazone™ 50PSW Water-to-Water Units

3 to 35 Tons HFC Puron® Refrigerant (R-410A) **ASHRAE 90.1 Compliant**

Aquazone[™] 50PEC Console

HFC Puron® Refrigerant (R-410A)

ASHRAE 90.1 Compliant, AHRI Certified

Units

0.75 to 1.5 Tons



Aquazone[™] 50HQP **Horizontal Large Capacity**

6 to 20 Tons HFC Puron® Refrigerant (R-410A) ASHRAE 90.1 Compliant, AHRI Certified



Aquazone™ 50VQP **Vertical Large Capacity**

air products

6 to 30 Tons HFC Puron® Refrigerant (R-410A) Standard and Extended Range Models ASHRAE 90.1 Compliant, AHRI Certified

dedicated outdoor





62X Air-Cooled DOAS Units

3 to 55 Tons Optional Integrated ERV Up to 1,200 MBH Gas Heat Available Liquid Subcooling Reheat Package

energy recovery

EnergyX® System Energy Recovery Ventilators (ERV) WeatherMaster® Rooftops



User Interfaces

The i-Vu® Building Automation System has a variety of user interfaces to make it easy for facility managers to monitor and control all of their building systems.

- i-Vu® web appliances
- i-Vu® web-based software for PC
- i-Vu® Touch local user interfaces



Application-Specific Controllers

Carrier has application-specific i-Vu® controllers available for all of your system needs. All controllers come with preengineered and pre-programmed control algorithms, making equipment easy to configure, commission and operate. All controllers speak native BACnet® and include built-in graphics, trends and alarms for use with our i-Vu® user interfaces.

- VVT and VAV zoning
- Rooftop Units, Air-Handling Units and Water Source Heat Pumps
- Fan Coils and Unit Ventilators
- Air- and Water-Cooled Chillers
- Chiller Plants



Programmable Controllers

Our general purpose i-Vu® controllers are and control them. All controllers speak trends and alarms for use with our i-Vu® user interfaces.

Typical Applications:

- Air Handlers
- Chiller Plants
- Meters

- Custom Control Sequences

used on HVAC equipment and other building systems so that the i-Vu® system can monitor native BACnet® and include built-in graphics,

- Fans
- Lights

improve

The i-Vu® Open Control System enables system optimization and energy efficiency by monitoring and measuring equipment and overall building performance.



Integration Modules/Routers

Expand your control system easily using Carrier i-Vu® routers and i-Vu® links. The i-Vu® router provides BACnet® routing capabilities between its control system's Ethernet backbone (BACnet/IP), and a subnetwork of Carrier controllers, (MS/TP, Arcnet or CCN).

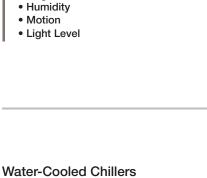
Carrier i-Vu® link allows you to integrate other manufacturers' equipment into the Carrier control system. Support for BACnet®, Modbus® and LonWorks® protocols is standard, making it easy to tie in equipment such as VFDs, boilers and lighting.



Plant Control and Optimization

The Carrier® ChillerVu™ plant control system combines application-specific hardware and proprietary software to deliver total plant room automation and improved energy efficiency. Combining the ChillerVu™ plant control system with the ChillerVu™ chilled water system optimizer product results in complete chilled water system energy optimization, reducing overall system energy consumption, while ensuring occupant comfort, improving system reliability and minimizing system downtime.

- Advanced sequencing
- Preconfigured plant room graphics
- Preconfigured energy dashboards
- Water system optimization via intelligent setpoint reset



Sensors are the eyes and ears of the

control system, allowing controllers to

requirements with equipment operation.

match comfort and indoor air quality

Carrier offers the following options:

Wired/Communicating

Temperature

• CO.

commercial controls



VVT® Zone Dampers

For variable volume/variable temperature systems, the VVT® system includes a selection of round and rectangular dampers. The factory-integrated VVT® zone controller maintains space temperature by modulating the supply airflow, while a separate bypass damper is used to modulate system pressure.

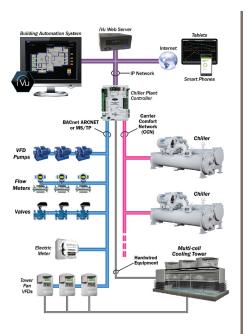




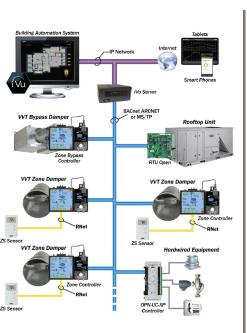
Edge® Pro and Comfort™ Pro Thermostats

- Controls up to 3 stages heat and 2 stages cool
- Compatible with gas/electric heat fan coils and heat pumps
- 7-day programmable
- Humidity control capable
- · Separate heating and cooling setpoints
- Auto-changeover
- Energy-saving smart fan
- Large backlit displays
- No batteries required
- Flexible mounting options

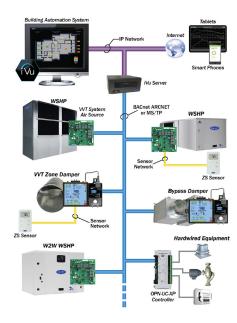
Sensors



Packaged Rooftops



Water Source Heat Pumps



The following are trademarks or registered trademarks of their respective companies: USGBC and LEED from U.S. Green Building Council; ASHRAE and BACnet from American Society of Heating, Refrigerating and Air-Conditioning Engineers Inc.; Modbus from Schneider Automation Inc.; LonWorks from Echelon Corporation; IACET from International Association for Continuing Education and Training; and UL from Underwriters Laboratories Inc.



interactive software tools

Carrier University[™]

Leaders in HVAC Engineering Software

HVAC Analysis Tools. With its eDesign Suite software, Carrier has been an industry leader in providing HVAC engineering analysis tools since 1981. The flagship software tool in the eDesign Suite is the Hourly Analysis Program (HAP), a multifunctional tool that combines features for peak load estimating, system design, whole building energy modeling, LEED® analysis and energy modeling for schematic design. Other eDesign Suite tools include System Design Load, a dedicated peak load and system design tool; Block Load, a peak load and system design tool streamlined for speed; Building System Optimizer, a tool for rapid energy modeling; Engineering Economic Analysis, a lifecycle costing tool; and Refrigerant Piping Design. eDesign Suite programs are licensed to users through local Carrier sales offices or Carrier distributorships. The software is continually updated to keep pace with the demands of our ever-changing industry. Further information on software features and license costs can be found at carrier.com/commercial/en/us/software.

Product Selection Tools. Carrier also offers the Carrier Electronic Catalog (E-CAT), a fully integrated suite of tools for selecting, configuring and generating thermal, electrical and acoustical performance data for Carrier commercial HVAC products. Tools in this suite cover rooftop units, split systems, dedicated outdoor air (DOAS) units, self-contained units, fan coils, unit ventilators, water source heat pumps, induction terminals and air terminals. These tools are continually updated to keep pace with new product introductions. The software is available through the HVACPartners.com customer portal.

Software Support and Training. All Carrier eDesign Suite and E-CAT software is backed by free support for licensed users. In addition, for-fee software training is offered in cities across the U.S. and Canada every year. Training covers peak load estimating and system design, whole building energy modeling, applying HAP to the LEED analysis, and Advanced Modeling Techniques. Support and training are provided by a dedicated team of HVAC engineers, part of Carrier University™, who have decades of experience as consulting engineers, application engineers and HVAC sales engineers.

eDesign Suite HVAC Analysis Software Tools

- Hourly Analysis Program (peak loads, system design, energy modeling)
- System Design Load (peak loads, system design)
- Block Load (peak loads, system design)
- Building System Optimizer (rapid energy modeling)
- Engineering Economic Analysis (lifecycle costing)
- Refrigerant Piping Design

Hourly Analysis Program (HAP) Capabilities

- Peak load estimating
- System design
- Whole building energy modeling
- LEED Optimize Energy Performance analysis
- Energy modeling for schematic design

E-CAT Product Selection Tool Capabilities

- Equipment selection per operating requirements
- Product configuration of options and accessories
 Thermal, electrical and acoustical
- performance data
- Certified drawings

eDesign Suite Software Training

- Peak load estimating and system design
- Whole building energy modeling
- Advanced Modeling Techniques
- HAP for LEED Optimize Energy Performance analysis

To learn more, visit us at carrier.com/commercial

Learn from the Experts

Training Legacy: In the early 20th century, Willis Carrier began his legacy of heating, ventilation and air-conditioning (HVAC) innovation—and Carrier has trained the industry ever since. Carrier University™ is the premier learning organization in the HVAC industry.

Relevant Courses: Carrier University offers comprehensive HVAC training in a wide range of areas including technical skills, HVAC system design, sustainability, sales and marketing skills and controls.

Immediate Applications: Carrier University has training courses for dealers, distributors, technicians, designers, contractors, consulting engineers, and sales and service personnel.

Industry Credibility: Our commitment to quality training has continued throughout our history and today Carrier University is an IACET®-accredited provider, which makes our courses eligible for continuing education credit. Carrier University is also a U.S. Green Building Council Approved Education Provider and AIA (American Institute of Architects).

Delivery Options: Carrier University delivers courses through traditional classroom settings, self-study training programs, remote training sessions, and online, web-based systems. Carrier University provides self-study training as well as training programs that may also be used to instruct others. Carrier University's literature programs include books, PowerPoint presentations and narrated self-study programs. We also have a growing library of online, web-based training.

Broad Curriculum Offering

- Equipment technical training
- HVAC systems design
- Controls and systems monitoring
- Residential, commercial

Local, Central, Virtual

- Traditional classroom
- Online learning
- Self-directed programs
- Remote, on-site training
- Custom courses

To learn more, visit us at carrier.com/carrieruniversity



Carrier Commercial HVAC Mobile Apps



Carrier Rooftops app

The first of its kind in the industry, the Carrier Rooftops app enables you to perform on-the-spot selection of light commercial rooftop units for replacement or new construction.

- Provides contact information for your local sales office
- Provides roof-curb adapter info on replacement jobs
- · Provides cloud-based data updates to keep app current



Carrier Chillers app

Enables customers to perform on-the-spot selection of water- or air-cooled chillers for replacement or new construction projects.

- Displays product information including options and accessories
- Provides contact information for your local sales office
- Sends a detailed product page through email
- Provides cloud-based data updates to keep app current

information at the click of a button



EXchange

EXchange is an electronic newsletter offering timely, informative and interesting news about Carrier eDesign Suite software. Delivered quarterly, each issue provides a wealth of information including technical articles, news about new software releases and software in development, training schedules and registration, and answers to frequently asked software questions.



Engineering Newsletter

The Carrier Engineering Newsletter is a quarterly communication providing helpful, topical information concerning industry news and HVAC design trends and solutions.



HVAClips

HVAClips is a monthly newsletter for the consulting/specifying engineer. The publication provides an information-rich conduit for new product releases, case studies, training schedules, and updates to Carrier commercial products.

To find current and past issues, or to subscribe to Carrier's e-newsletters for up-to-date information on a range of topics, go to: carrier.com/commercial/en/us/literature/newsletters.

Carrier apps are free and available for download at the Apple App Store for the iPad® tablet and iPhone®, and from Google Play for Android™ smartphones. Links to downloads are also available at carrier.com/commercial.

Leaders in HVAC Building Solutions

Partnering with Carrier Commercial Service brings with it the security of knowing that every facet of your investment is being carefully monitored, analyzed, maintained and documented. This practice initiates with your very first contact with us and will endure over the entire lifetime of your facility. Carrier Commercial Service provides BluEdge™, a new best-in-class service and aftermarket offering exclusively for customers and partners across the Carrier enterprise (HVAC, Refrigeration, Fire & Security). Central to BluEdge is a progressive, tiered service model. Customers of any size can enjoy the confidence delivered by best-in-class support from BluEdge.





Operate, Service and Protect

- · Start-up service
- Extended warranty protection
- · BluEdge service agreements
- · BluEdge Digital service
- Predictive maintenance
- · Refrigerant management
- · Repairs and emergency service
- · Consulting engineering

Retrofits, Upgrades and Optimization

- Equipment overhaul and modernization
- Turnkey replacement solutions
- Equipment optimization
- · Energy savings solutions
- · Building management solutions
- Engineered services

Visit us at carrier.com/service or call 800-379-6484

Leaders in Temporary HVAC Solutions

Ensure that everyone stays cool with Carrier Rentals temporary cooling solutions. With immediate 24-hour availability of chillers, air conditioning units, boilers, pumps, dehumidification, and other HVAC equipment, you can be sure to get the right systems to keep your business running. Carrier Rental Systems provides detailed site evaluations for critical areas of your facility. A pre-designed response plan allows for "peace of mind" so that in case of an emergency, where time is of the essence, all pre-set-up work has been completed and the equipment is mobilized as designed. Carrier Rental Systems' factory-trained experts deliver turnkey temperature control, dehumidification and power solutions along with 24-hour customer care.





Why Rent?

- · Equipment failure
- Planned shutdowns
- New construction projects
- Supplement existing equipment
- · Special events and projects

Services Provided

- Application engineering
- Contingency planning
- Emergency response
- Installation and teardown
- · Turnkey support

Visit us at carrier.com/rentals or call 800-586-8336

Spot Coolers

Since 1985, Spot Coolers has been a leader in helping facility managers keep their operations moving forward when faced with heating and cooling failures, planning for scheduled outages or simply needing supplemental capacity. Our passionate experts focus solely on portable solutions across various industries: from corporate offices and manufacturing facilities to school campuses and medical complexes.

What We Offer

- Versatile machines that create efficiency and cut cost
- Little to no installation just plug in and go
- 1 12 ton air-cooled, watercooled, heat pump, portable AC
- 1.5 60kw electric heat
- Dehumidifiers
- Air scrubbers/negative air machines
- Custom solutions
- Rentals and sales
- All units stored indoors

Visit us at spot-coolers.com or call 800-367-8675

expert installations

San Bernardino City Unified School District (K-12 Education) San Bernardino, CA



e: Deliver a high degree of indoor air quality (IAQ) and promote a healthier and safer environment for each student, faculty and staff member who would be entering each building and space.

Solution: OptiClean™ air scrubber units delivered a "plug-and-play" IAQ solution, air changes per hour exceeded MERV 13. quiet operation and procurement utilized California Multiple Awards Schedules (CMAS), which allowed the district to use a pre-purchase contract to expedite approvals and ensure best pricing.

ent: 3,723 Carrier OptiClean air scrubber units. Available in 500 and 1,500 CFM, and horizontal or vertical configuration.

evolv1 (Office Building) Waterloo, ON, Canada



allenge: Create a unique, modern, comfortable and energy-efficient urban office environment to be constructed in accordance with LEED Platinum® principles and achieve a zero carbon, net positive energy output. Also integrate all building systems and manage them through a single web-based user interface.

Solution: Carrier i-Vu® Pro 7.0 building automation system (BAS) capabilities seamlessly connect all systems and building components and controls with a single user interface.

nt: Carrier i-Vu Pro 7.0 BAS, two i-Vu XT routers, two MPC controllers and expanders, 44 open app controllers, 13 open UCXP controllers with expanders, approximately 200 different sensors throughout the various systems.

7th Street Public Market (Retail) Charlotte, NC



ge: Replace outdated and inefficient single-zone HVAC system with with a more efficient and versatile multi-zone system.

plution: High degree of flexibility, high efficiency, reduced operating costs and smaller footprint for outdoor variable refrigerant flow (VRF) units.

nt: Two Toshiba Carrier VRF heat pumps, six vertical air-handling units.

University Hospitals Ashtabula Health Center (Healthcare/Mixed Use) Ashtabula, OH



ge: Transform an open-plan retail space within a mall with legacy chiller and cooling towers into a modern healthcare facility with precise comfort cooling control

Solution: Specified high-efficiency gas heat and electric cooling units with variable air volume (VAV) boxes with reheat capability to provide precise year-round comfort to individual office areas.

nt: Three Carrier 48A WeatherMaker® rooftop units; 39 Carrier 35E Axis™ VAV boxes; Carrier i-Vu® building automation system (BAS).

The Verizon Hotel of Basking Ridge (Lodging) Basking Ridge, NJ



allenge: Address inadequate comfort cooling from two existing air-cooled chillers, reduce escalating service costs and implement solution without facility usage interruption.

olution: Provided high-efficiency chillers that wirelessly stream operating data to the cloud to ensure optimal performance and uptime.

ent: Two Carrier 30XV AguaForce® air-cooled, variable speed screw chillers; Carrier SMART Service.

University of Alabama in Huntsville (Higher Education)

Huntsville, AL **LEED Certified**



hallenge: Deliver an energy-efficient HVAC solution for a new building to support sustainability goals and provide a comfortable indoor environment for students and administrators.

olution: Installed two heat recovery chillers to provide simultaneous heating (condenser water pumped into pre-existing hot water loop) and cooling to multiple campus buildings connected to the central plant.

Equipment: Two Carrier 30XW AquaForce® heat recovery chillers.

15

14