

Carrier

A World of Comfort



A Quick Reference Guide to
Sustainable Building Solutions for
North America Commercial HVAC



A World of Comfort

As a global leader in intelligent climate and energy solutions, Carrier innovates best-in-class products and services to help shape a better future for people and our planet. Carrier Commercial HVAC solutions provide innovative heating, cooling and building automation solutions and services to help you enhance building health, performance, energy efficiency and sustainability.

Chillers

Air-Cooled



AquaSnap® 30RC Scroll Chiller

10 to 60 Tons (60 Hz)
R-32 or R-410 Refrigerant
Exceeds ASHRAE 90.1-2022
MCHX or AICu Condenser Coils
Variable Speed Condenser Fans



AquaSnap® 30RC Scroll Chiller

60 to 250 Tons (60 Hz)
R-32 or R-410 Refrigerant
Exceeds ASHRAE 90.1-2022
DX or BPHE Evaporator
MCHX or AICu Condenser Coils
Variable Speed Condenser Fans
Desuperheater



AquaForce® 30XV Screw Chiller

140 to 500 Tons (50 and 60 Hz)
R-513A Refrigerant
Exceeds ASHRAE 90.1-2022
MCHX or AICu Condenser Coils
Variable Speed Compressor and Fans

Chillers (continued)



AquaForce® 30HX Screw Chiller

75 to 265 Tons
R-513A Refrigerant
Heat Recovery Option
ASHRAE 90.1 Compliant
Dual Independent Refrigerant Circuits



The AquaEdge® 23XRV is the world's leading efficiency screw chiller,

42%
better than the industry standard.**



AquaSnap® 30MP Scroll Chillers and 30MPQ Water Source Heat Pumps

17 to 80 Tons
R-32 Refrigerant
ASHRAE 90.1 Compliant, AHRI Certified*
Heat Pump Option
Heating Capacity: 283 to 1,100 MBH
Modular Design for Easy Installation
Up to 640 Tons Manifold



AquaEdge® 17DA Open-Drive Centrifugal Chillers

3,000 to 5,500 Tons
Motor or Steam Turbine Driven
R-513A Refrigerant
ASME Certified



Modular Waterside Economizer – 09FC

60 to 500 Tons (50 and 60 Hz)
Meets Requirements of ASHRAE 90.1-2022 toward incorporating waterside economizer

Water-Cooled



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

350 to 1,150 Tons
R-1233zd(E) Refrigerant
Exceeds ASHRAE 90.1/FEMP
Heat Recovery, Free Cooling and Comfort Cooling



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

300 to 550 Tons
R-513A Refrigerant
ASHRAE 90.1 Compliant, AHRI Certified
ASME Certified

Air Handling Units

Central Station Air Handlers



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

400 to 8,500 cfm
ASHRAE 62.1 Compliant
AHRI Certified



AquaEdge® 19XR/XRV Two-Stage Constant- or Variable-Speed Centrifugal Chillers

600 to 3,400 Tons
R-513A or R-515B Refrigerant
ASHRAE 90.1 Compliant, AHRI Certified
Wide Operating Envelope



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

150 to 700 Tons
R-513A, R-515B or R-1234ze(E) Refrigerant
Exceeds ASHRAE 90.1
AHRI, ASME and SME Certified
Wide Operating Envelope



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

175 to 550 Tons
R-134A or R-513A Refrigerant
Exceeds ASHRAE 90.1
AHRI Certified*
Wide Operating Envelope



Carrier Custom AHU 39CC

10,000 cfm and Above
Custom Air-Handling Equipment for Commercial, Industrial and Healthcare Applications
IBC Seismic Compliant



*AHRI certified for units within the scope of the AHRI 550/590 certification program.

**Among electric-driven, water-cooled chillers as mentioned by Integrated Part Load Value conditions based on ASHRAE 90.1 2010 minimum requirement.

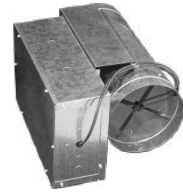
Air Terminals

Overhead



Axis™ 35E Single Duct VAV Terminals

40 to 7,000 cfm
AHRI Certified



Axis™ 35J Single Duct Retrofit Terminals

40 to 3,700 cfm
AHRI Certified



Axis™ 35K Bypass Terminals

110 to 4,400 cfm
AHRI Certified

Fan Coils (continued)



AirStream™ 42D Ducted

600 to 3,000 cfm
AHRI Certified
ETL Listed



AirStream™ 42S Stack

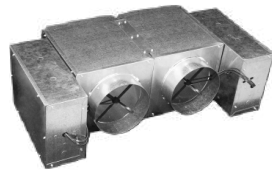
300 to 2,000 cfm
AHRI Certified
ETL Listed

Hydronic Cassette Fan Coil Units



AirStream™ 42WKN Hydronic Cassette

Fan Coil Units
0.75 to 3 Tons
ETL Listed



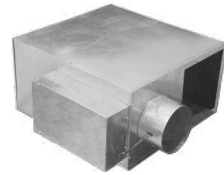
Axis™ 35L/N Dual Duct VAV Terminals

40 to 7,000 cfm
Side-by-Side or Mixing Design
AHRI Certified



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

45F: 205 to 3,600 cfm
45N: 50 to 3,700 cfm
AHRI Certified



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

100 to 3,900 cfm
AHRI Certified

Induction Chilled Water



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

Unit Ventilators



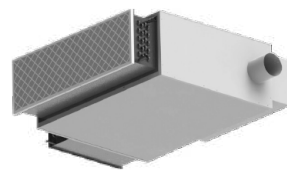
AirStream™ 40UV/UH Unit Ventilators

750 to 1,500 cfm
AHRI Certified
ETL Listed



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

170 to 1,970 cfm
AHRI Certified



45Q DOAS Terminals

150 to 1,625 cfm
ECM Motor
Sensible Cooling
AHRI Certified



The extensive Axis air terminal product offering provides the ideal amount of design flexibility to minimize installation tasks, lower maintenance costs and supply the consistent comfort that Carrier customers deserve.

Split Systems

Ductless Systems, Single Zone



MP High Wall Systems

0.5 to 1.5 Tons
Up to 35.1 SEER2/30.0 HSPF2
ASHRAE 90.1 Compliant, AHRI Certified



37MA'A Heat Pumps

0.5 to 3 Tons

45MAHA High Wall
45MBCAQ/45MCCAQ Cassette
45MBDAQ Ducted
45MBFA/45MCFA Floor Consoles

Up to 27.3 SEER2/13.8 HSPF2
ASHRAE 90.1 Compliant, AHRI Certified



MH High Wall Systems

0.75 to 3 Tons
Up to 21.5 SEER2/10.8 HSPF2
ASHRAE 90.1 Compliant, AHRI Certified

Fan Coils



AirStream™ 42B Belt Drives

600 to 4,000 cfm
ETL Listed



AirStream™ 42C Horizontal

200 to 1,200 cfm
AHRI Certified
ETL Listed



AirStream™ 42V Vertical

200 to 1,200 cfm
AHRI Certified
ETL Listed

Split Systems (continued)

Ductless Systems,
Multi-Zone



37MGR/H Systems

Up to 6 Zones
1.5 to 6 Tons
Up to 23.8 SEER/10.5 HSPF
ASHRAE 90.1 Compliant, AHRI Certified

Ductless Systems,
Light Commercial



RAV[®]BAT

1.5 to 4 Tons

RAV[®]BKR2 High Wall
RAV[®]BUT Cassette
RAV[®]BBT Ducted
RAV[®]BCT Underceiling

Up to 25.2 SEER2/11.3 HSPF2
ASHRAE 90.1 Compliant, AHRI Certified



MBR Ducted Systems

3 to 5 Tons
Up to 20.2 SEER2/10.8 HSPF2
ASHRAE 90.1 Compliant, AHRI Certified

Split Systems (continued)

Condensing Units,
Air-Cooled



Performance[™] 24ACB

1.5 to 5 Tons
R-410A Refrigerant
AHRI Certified



Gemini[®] Select 38RCD/S Condensing Unit

25 to 150 Tons
R-32 Refrigerant
Variable Speed Fans
Digital Compressor
MCHX or AICu Condenser Coils



Gemini[®] 38AXZ

6 to 20 Tons
R-454B Refrigerant
ASHRAE 90.1 Compliant, AHRI Certified

Carrier Variable
Refrigerant Flow Systems



37VMH-1P Heat Pumps

3 to 5 Tons
Up to 20 SEER2/Up to 10.1 HSPF

38VMH Heat Pumps

6 to 36 Tons
Up to 23.60 IEER/Up to 4.29 COP



38VMR Heat Recovery

6 to 28 Tons
Up to 21.9 IEER/Up to 28.5 SCHE

40VM Indoor Units

0.6 to 8 Tons
ASHRAE 90.1 Compliant, AHRI Certified

45VM Indoor Units

0.6 to 4.5 Tons
ASHRAE 90.1 Compliant, AHRI Certified

Toshiba Carrier Variable
Refrigerant Flow Systems



MCY8 Heat Pumps

3 to 5 Tons
Up to 20.25 SEER2/Up to 10.9 HSPF2

MMYH-U Heat Pumps

6 to 40 Tons
Up to 24.2 IEER/Up to 4.74 COP

MMYH-U Elite Heat Heat Pumps

6 to 30 Tons
Up to 24.4 IEER/Up to 4.52 COP

Air-Cooled
Condensers



Gemini[®] Select 09RC Condenser

20 to 230 Tons
Multiple Refrigerant Options
Variable Speed Fans
MCHX or AICu Condenser Coils

Packaged Products

Packaged
Roof Top Units



WeatherMaster[®] with EcoBlue[™] Technology 48GE, 50GE, 50GEQ

3 to 25 Tons
High-Efficiency R-454B Refrigerant
Exceeds ASHRAE 90.1
IECC Compliant
AHRI Certified



WeatherMaker[®] with EcoBlue[™] Technology 48FE, 50FE, 50FEQ

3 to 27.5 Tons
3 to 25 Tons
Standard Efficiency R-454B Refrigerant
Meets ASHRAE 90.1
IECC Compliant
AHRI Certified



MMYF-1P Heat Recovery

6 to 12 Tons
Up to 24.5 IEER

MMYF-U Heat Recovery

6 to 42 Tons
Up to 26.5 IEER/Up to 35.0 SCHE

MMYF-U Elite Heat Heat Recovery

6 to 30 Tons
Up to 26.5 IEER/Up to 35.0 SCHE



MM-UP Indoor Units

0.6 to 10 Tons
ASHRAE 90.1 Compliant, AHRI Certified

MM-UB Indoor Units

0.6 to 5 Tons
ASHRAE 90.1 Compliant, AHRI Certified



40QQ VRF Rooftop Unit

3 to 5 Tons
ASHRAE 90.1 Compliant, AHRI Certified

45QQ VRF Rooftop Unit

3 to 5 Tons
ASHRAE 90.1 Compliant, AHRI Certified

Applied
Roof Top Units



WeatherMaster[®] 48V/50V Series Compact Chassis

27.5 to 50 Tons
R-454B Refrigerant
Carrier SmartVu[™] Control and
Greenspeed[®] Intelligence
ECM Fan Array
Lead Variable Speed Compressor
Fits Select Carrier and Competitor
27.5 to 50 Ton Roof Curbs



WeatherMaster[®] 48V/50V Series Standard Chassis

27.5 to 100 Tons
R-454B Refrigerant
Carrier SmartVu[™] Control and
Greenspeed[®] Intelligence
ECM Fan Array
Lead Variable Speed Compressor
Fits Select Carrier 30 to 100 Ton Roof Curbs



WeatherMaker[®] 48K/50K Series

20 to 60 Tons
R-454B Refrigerant
Carrier SmartVu[™] Control
Optional Greenspeed[®] Intelligence
and Lead Digital Compressor
Fits Select Carrier 20 to 60 Ton Roof Curbs

Packaged Products (continued)

Small Packaged Products



Performance™ 48NG

High Efficiency
2 to 5 Tons
Packaged Cooling with Electric Heat or Gas Heat
R-454B Refrigerant

Comfort™ 50NL

Base Efficiency
2 to 5 Tons
Packaged Cooling with Electric Heat
R-454B Refrigerant

Comfort™ 50NT

Base Efficiency
2 to 5 Tons
Packaged Heat Pump
R-454B Refrigerant

Performance™ 50NR, 48NR

High Efficiency
2 to 5 Tons
Packaged Heat Pump or Hybrid Heat Dual Fuel Heat Pump
R-454B Refrigerant

Comfort™ 48NL

Base Efficiency
2 to 5 Tons
Packaged Cooling with Gas Heat
R-454B Refrigerant

Comfort™ 48NT

Base Efficiency
2 to 5 Tons
Hybrid Heat Dual Fuel Heat Pump
R-454B Refrigerant



Comfort™ 50ZP

Packaged Air Conditioner

Comfort™ 50ZH

Packaged Heat Pump



Indoor Self-Contained Systems



Omnizone™ 50BV

30 to 60 Tons
R-454B Refrigerant

Water Source and Geothermal Heat Pumps



Aquazone™ 50WC Compact Horizontal/Vertical Units

0.5 to 6 Tons, Single Stage
R-454B Refrigerant
ASHRAE 90.1 Compliant, AHRI Certified

Aquazone™ 50WD Horizontal/Vertical Units

0.5 to 1.5 Tons, Single Stage
2 to 6 Tons, Two Stage
R-454B Refrigerant
Exceeds ASHRAE 90.1
AHRI Certified

Aquazone™ 50WT Horizontal/Vertical Units

2 to 6 Tons, Two Stage
R-454B Refrigerant
Exceeds ASHRAE 90.1
AHRI Certified

Water Source and Geothermal Heat Pumps (continued)



Aquazone™ 50PSW Water-to-Water Units

3 to 35 Tons
R-454B Refrigerant
ASHRAE 90.1 Compliant



Aquazone™ 50HQP Horizontal Large Capacity

6 to 20 Tons
R-454B Refrigerant
AHRI Certified up to 120 Size

Aquazone™ 50VQP Vertical Large Capacity

6 to 30 Tons
R-454B Refrigerant
AHRI Certified up to 120 Size



Aquazone™ 50PEC Console Units

0.75 to 1.5 Tons
R-454B Refrigerant
ASHRAE 90.1 Compliant, AHRI Certified

Dedicated Outdoor Air Products



62H Air Source Heat Pump DOAS Units

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



62L Dedicated Outdoor Air Units

40 to 140 Tons
Air-Cooled, Air Source and Water Source Heat Pump
Optional Integrated ERV
Up to 1,600 MBH Gas Heat



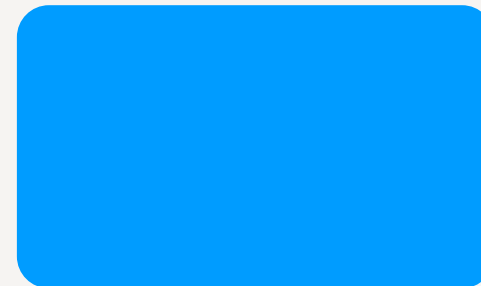
62W Water Source Heat Pump DOAS Units

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



62X Air-Cooled DOAS Units

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



Commercial Controls

The right control solution for every building



Building Automation System for buildings any size

ClimaVision



Light Commercial Control System for buildings under 50,000 ft²

connect



Wi-Fi Thermostats for buildings under 5,000 ft²

Commercial Controls (continued)

Integration Modules/Routers



Expand your control system easily using i-Vu[®] Routers and Links. The i-Vu[®] Router provides BACnet routing capabilities between an Ethernet backbone (BACnet/IP) and a subnet of Carrier controllers (MS/TP or CCN).

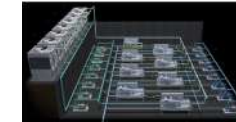
i-Vu[®] links allow you to integrate other manufacturers equipment into the Carrier i-Vu[®] system. Support for BACnet, Modbus and LonWorks protocols are standard, making it easy to tie in equipment such as VFDs, boilers and lighting.



Plant Control and Optimization



The Carrier ChillerVu[™] Plant Control System delivers total plant room automation for improved energy efficiency. The ChillerVu[™] Plant Control System can be combined with the ChillerVu[™] Chilled Water System Optimizer to further reduce system energy consumption while ensuring occupant comfort, improving reliability and minimizing system downtime.



- Advanced Sequencing
- Pre-configured Plant Room Graphics
- Pre-configured Energy Dashboards
- Water System Optimization via Intelligent Setpoint Reset

iVu

The i-Vu[®] Building Automation System enables system optimization and energy efficiency by monitoring and measuring equipment and overall building performance.

Building Automation Systems



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 Appliance
- i-Vu[®] Web-Based Software for On-Premise Server
- i-Vu[®] Web-Based Software via Carrier Cloud Server
- i-Vu[®] Touch Local User Interfaces



Sensors

Sensors are the eyes and ears of the control system, allowing controllers to match comfort and indoor air quality requirements with equipment operation.

Carrier offers the following sensors in hardwired and communicating options:

- Temperature
- CO
- Humidity
- Motion
- Light Level
- Particulate Matter
- Volatile Organic Compounds (VOCs)
- Energy Metering



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.

Application-Specific Controllers

Carrier has application-specific i-Vu[®] controllers available for all of your system needs. All controllers come with pre-engineered 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 used on HVAC equipment and other building systems so that the i-Vu[®] system can monitor and control them. All controllers speak native BACnet and include built-in graphics, trends and alarms for use with our i-Vu[®] user interfaces.

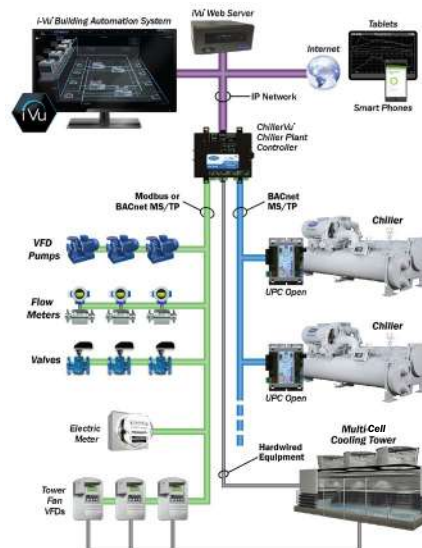
Typical Applications:

- Air Handlers
- Chiller Plants
- Meters
- Fans
- Lights
- Custom Applications



i-Vu[®] System Architectures

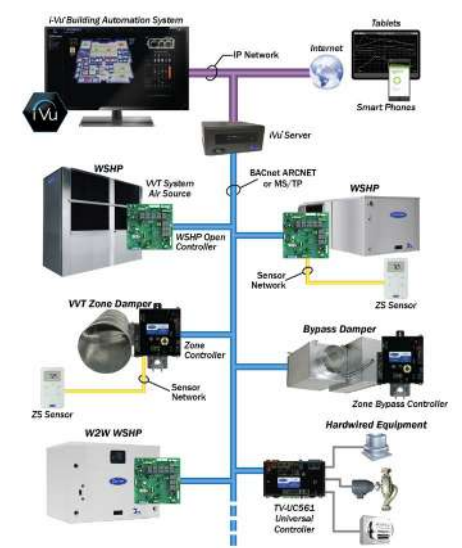
Water-Cooled Chillers



Packaged Rooftops



Water Source Heat Pumps



ClimaVision

ClimaVision is an affordable, easy-to-use HVAC automation system for light commercial buildings — controllable from anywhere.

Hassle-Free Installation and Service

- Designed for Mechanical Contractors
- Wireless Controllers
- Pre-packaged Control Sequences
- Remote Monitoring and Maintenance

Light Commercial Control System



Web and Mobile User Interfaces

The ClimaVision web and mobile user interfaces offer portfolio-wide insight into building performance.

About — Suite of Apps

Carrier Abound provides digitally connected lifecycle solutions and services for diverse building portfolios. The solutions and services enable building management to see deeply and broadly across their assets; prioritize and act on real-time insights; and refine, adapt and scale on a continual basis to improve energy efficiency and asset performance, enhance occupant comfort and productivity and streamline compliance reporting.



A Suite of Award-Winning Solutions That Drive Outcomes



Healthy Air

- Live and historical reporting of IAQ metrics with floorplan visualization
- Benchmark thresholds vs. WELL Standard
- Alert management
- BMS and IoT sensor integration
- Enables 35% more productivity for occupants by establishing healthy spaces practices



Predictive Insights

- Leverage AI for predictive maintenance of airside RTU, air handler, VAV and chiller systems
- Reduce operational costs of HVAC assets
- Enables energy savings up to 15%



Central Control Unit (CCU)

The CCU is a removable wall-mounted tablet and on-site user interface for building management.



HyperStat

The HyperStat is an all-in-one thermostat, humidistat and IAQ sensing station designed with eight onboard sensors for occupancy, temperature, humidity, VOCs, light, sound, CO₂ and PM2.5.



Smart Node

The Smart Node is a revolutionary equipment controller with flexible software-defined configurations that can control a range of single- and dual-stage equipment across all ClimaVision application solutions.

Smart Thermostats



Connect BACnet Thermostats

- **Multiple Models Available:** Choose from Plus or Pro Models, available in black or white
- **Color Capacitive Touchscreen:** 4.3" full color LCD swipe and scroll screen that's easy to navigate and view from any angle (Pro Models), or a fixed segment display (Plus Models)
- **BACnet:** Easy integration with i-Vu[®] Building Automation System or any BACnet BMS. Connect Stat is BTL certified.
- **Sensors:** Onboard Temperature and Humidity
- **Direct Wi-Fi Access:** Easily connect to your building's network
- **Commissioning:** Simple Bluetooth connectivity
- **Applications:** Supports up to 4 heating and 3 cooling stages with various new or existing HVAC equipment with 24 VAC control
- **7-Day Scheduling:** Precisely adjust optimum comfort setpoint to achieve energy savings
- **Demand Response Ready:** For participation in local demand response programs and can support Title 24 and Open ADR 2.0b
- **Over-the-Air Software Updates:** Directly Sent Over-the-Air Wi-Fi Network Without Having to Manually Check for Updates

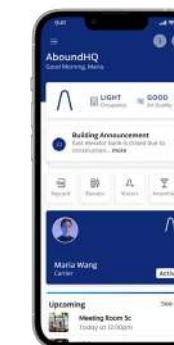


Connect Wi-Fi thermostats offer control of a building's HVAC system via the Connect mobile app and any BACnet-compliant building management system.



Net Zero Management

- Track and analyze energy use and benchmark across other buildings
- Make energy and emissions data readily accessible to key stakeholders
- Proactively Identifies Conservation Measures
- Reduces Risk of Noncompliance
- Increases Productivity



Occupant Assistant

- Enable mobile credentialing for frictionless access to buildings
- Allow mobile room booking
- Monitor and visualize occupant space utilization
- Connect with occupants for alarm notification, events, etc.
- Provides Increased Productivity by Enabling Occupants with Building and Space Engagement



Carrier Commercial Services

A wide array of lifecycle solutions to fit your needs



With Carrier, you are not just getting the most innovative equipment in the industry, but a trusted partner delivering expertise, service and greater peace of mind throughout the entire lifecycle of your HVAC system.

Our comprehensive portfolio of solutions range from predictive maintenance, flexible service agreements, repairs, upgrades, OEM spare parts and rentals, as well as building and energy management systems. And with our BluEdge service agreements, all powered by digital connectivity through Abound™ HVAC Performance, you get continuous monitoring and actionable insights to ensure your equipment's peak performance and longevity for years to come.

Carrier Commercial Service Offerings also include:

- **Preventive and Predictive Maintenance** with BluEdge service agreements and maintenance offerings such as coil cleaning, tube brushing, filter changes and more
- **Building Management Solutions** with Carrier i-Vu® controls system
- **Equipment Replacement Solutions** for end of life retrofits or replacement parts
- **Modernization, Retrofits and Optimization** with Variable Frequency Drive upgrades, energy audits and more



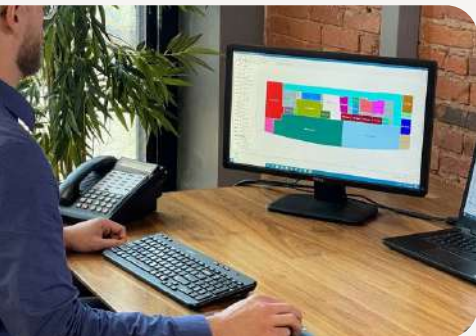
Carrier.com/Service
800-379-6484





Interactive Software Tools

Leaders in HVAC Engineering Software



HVAC Analysis Tools

Carrier's industry-leading eDesign Suite is a collection of software programs created specifically for the HVAC system designer. With tools including the Hourly Analysis Program (HAP), the eDesign Suite covers peak load estimating, system design, whole building energy modeling, energy modeling for schematic design, estimating lifecycle costs, refrigerant piping design and more. Programs are licensed to users on a yearly subscription basis and software is continually updated. Learn more at carrier.com/commercial/en/us/software/hvac-system-design.

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 a wide range of Carrier commercial HVAC products. 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, along with free software training virtually and in cities across the U.S. and Canada. Provided by a dedicated team of experienced engineers, HVAC Training covers peak load estimating and system design, whole building energy modeling and advanced modeling techniques.



eDesign Suite HVAC Analysis Software Tools

- Hourly Analysis Program (load calculation, system sizing, system design, energy modeling)
- System Design Load (load calculation, system design)
- Block Load (sizing calculations, design submittals)
- 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
- Energy modeling for schematic design
- Visual 3D building modeling

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

Carrier Commercial Service Agreements



BluEdge is a best-in-class lifecycle solution including customizable plans to ensure your equipment's peak performance and longevity is backed by unmatched expertise and the latest technology for years to come.

The BluEdge Difference

Continuous Monitoring → Comprehensive Coverage

Tiers	Core	Enhance	Elite
Services	Solution for customers with IoT-enabled equipment that collects real-time data and provides insights reducing downtime and minimizing operational disruption.	A customized service plan by Carrier certified technicians including asset inspections and maintenance.	The ultimate worry-free program powered by predictive analytics and OEM expertise to minimize operational disruption.
About HVAC Performance ¹	✓	✓	✓
Command Center Monitoring	✓	✓	✓
Operational Inspection – Periodic/Predictive	✗	✓	✓
Maintenance – Planned/Predictive	✗	✓	✓
Unscheduled Repair	✗	✗	✓
Energy Reporting by Abound	+	+	+
Additional Services	+	+	+

More about additional services offered:

- Assessments – building, energy, air quality & more
- Carrier technician at your disposal
- Asset upgrade analysis & reports
- Annual consult service
- Emergency repair service
- Site specific analysis & reports (water, oil sampling etc.)
- Remote and on-site vibration analysis

¹For Core customers, any site visits for maintenance or repair services will be billed separately. Not all features are supported across all product types and all regions. Pricing and features vary by country and region. Please contact your local Carrier office for more details.

✓ Included + Add-On ✗ Not Included

About HVAC Performance*

About HVAC Performance is our digital connectivity platform that spans all three service agreement tiers and is part of the broader Abound suite of solutions. It gives you the benefit of continuous monitoring, data-driven predictive insights and reports to see issues before they arise.

More about About HVAC Performance*:

- Real-Time Data Visibility
- Alarm Monitoring and Notifications
- On-Demand Health and Performance Reports
- Maintenance and Repair Insights
- Access to Customer Portal

*Available for existing customers with equipment that can be IoT enabled.



Carrier Rental Systems

Carrier Rental Systems is the leading provider of cooling, heating, dehumidification and power generation rental equipment and is dedicated to providing engineered turnkey solutions for temporary HVAC-related requirements. With the most progressively trained service technicians in the industry and extensive experience in integrating rental equipment effectively, the Carrier Rental Systems team has a variety of solutions that fit into a broad range of places and spaces. Carrier delivers an immediate response for emergency or planned HVAC needs nationwide and ensures that it is maintained appropriately for the duration of the project.

Carrier Service Rentals:

- Equipment Delay Support
- Planned Maintenance or Shutdown
- Contingency Planning
- Emergency Response
- Supplemental Heating and Cooling Needs



Carrier.com/Rentals
800-586-8336



Air Cooled Skid Mounted



Air Cooled Trailer Mounted



Water Cooled (Containerized)



Industrial

Chillers

- Air-Cooled Chillers: 10 to 500 Tons
- Water-Cooled Chillers: 150 to 1,000 Tons
- Low Temperature Chillers: 30 to 1,100 HP
- Explosion-Proof Units
- Screw, Reciprocating, Centrifugal and Industrial Chillers to -40°F
- Pumps, Transformers and Flexible Hoses
- Tanks and Heat Exchangers



Ultra Portable



Small Skid Mounted



Large Skid Mounted



Industrial

Air Conditioners

- 5 to 80 Tons
- Reheat Available
- Industrial/High Static Units
- Explosion-Proof Units



Compact



Cold Storage



Vertical



High Volume

Air Handlers

- 6,000 to 70,000 cfm
- High Static Units Available
- Hot Water/Steam Coils Available
- Cold Storage Units with Automatic Defrost

Spot Coolers

Spot Coolers offer convenience and efficiency through portable HVAC solutions. Our team helps facility managers keep their operations moving forward when faced with heating and cooling failures, planning for scheduled outages or simply needing supplemental capacity. Spot Coolers experts deliver and install trusted units such as portable air conditioners, electric heaters, dehumidifiers and more when and where you need them. All units fit through standard commercial doors and are available 24/7 with lift-gate equipped box-truck delivery from our nationwide locations.



What we offer:

- 1 to 12 Ton Air-Cooled, Water-Cooled, Heat Pump Portable AC
- 1.5-60kw Electric Heat
- Custom Solutions
- Dehumidifiers
- Rentals and Sales
- Negative Air Machines
- All Units Stored Indoors



The Spot Coolers Difference:

- Intelligent Design and Smart Engineering That Create efficiency and Cut Costs
- High-Quality Standards Backed by Industry-Leader Carrier
- Minimal Maintenance Requirements
- Little or No Installation Costs — Just Plug In and Go
- Easy Portability



Spot-Coolers.com
800-367-8675
spotcoolers@carrier.com



Expert Installations

Case Study: Wake Tech East Central Energy Plant

Two 500 Ton AquaEdge® 19DV water-cooled centrifugal chillers with VFDs double as both a chiller and heat pump to meet the changing demands of the Wake Tech East's campus, contributing to an innovative, low-carbon solution and achieving several sustainability awards.



Photo: Keith Isaacs
Architect: HH Architecture



Photo: Courtesy Wake Tech Community College

A Showcase for Teaching Innovative HVAC System Design and Sustainable Practices

The new Renewable Energy Learning Center at Wake Tech East's campus not only supplies heating and cooling to the campus, it serves as an immersive educational experience for its students.

Housed beyond its glass-walled classroom is an advanced central plant that reflects the most innovative, hands-on strategies for experiencing and learning sustainable HVAC and energy practices.

The selection of two AquaEdge® 19DV centrifugal heat pump chillers were integral to help Wake Tech meet its sustainable, energy and growth goals.

Project Objectives

From its inception, it was clear that the design and operating criteria for Wake Tech's new central energy plant would need to incorporate an innovative integration of leading-edge energy and HVAC equipment technologies. The final solution would have to maximize efficiency and also meet the demand for decarbonized heating and cooling.

Unlike typical central plants that distribute hot water from boilers and chilled water from chillers independently, Wake Tech's facility called for an integrated central heat pump plant with a common set of water source heat pumps to provide the distribution of hot and chilled water to the entire campus.

The plant's systems would have to execute strategies that would achieve a notably high degree of sustainability and energy efficiency. And, as additional campus buildings were going to be phased in, system expandability was a critical requirement.

With Wake Tech's enviable reputation of providing education and training in the very latest technologies and protocols, the facility would also need to serve as a "hands-on" classroom to build talent capable of excelling in high-tech fields and advanced sustainability practices.

Project Solution

To help Wake Tech East's central energy plant achieve its operational, energy efficiency and sustainability goals, Carrier recommended installing two 500-ton AquaEdge® 19DV centrifugal chillers to serve as both chiller and heat pump.

The system design consists of three main water loops: chilled water, hot water and heat source/sink water — all served by the two 19DVs and a modular heat pump for base loading. The primary means of heat rejection and absorption is via a geothermal bore field tied to the heat source/sink water loop.

The advanced geothermal system includes 297 closed-loop wells, each 500 feet deep. This system is designed to consume one-third less energy and produce 50% fewer carbon emissions compared to conventional boiler/chiller configurations.*

For future build-outs, the system has been designed to be expandable and flexible.



Carrier University

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, servicing practices, sustainability, sales and marketing service 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 many of our courses eligible for continuing education credit. Carrier University is also a U.S. Green Building Council Approved Education Provider. Our IACET-accredited courses qualify for American Institute of Architects (AIA) credits.

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 training programs that may also be used to instruct others.



Carrier University Training Center featuring a hands-on product laboratory

Broad Curriculum Offering

- Equipment technical training
- HVAC systems design
- Controls and systems monitoring
- Commercial Service

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

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.



HVAClips

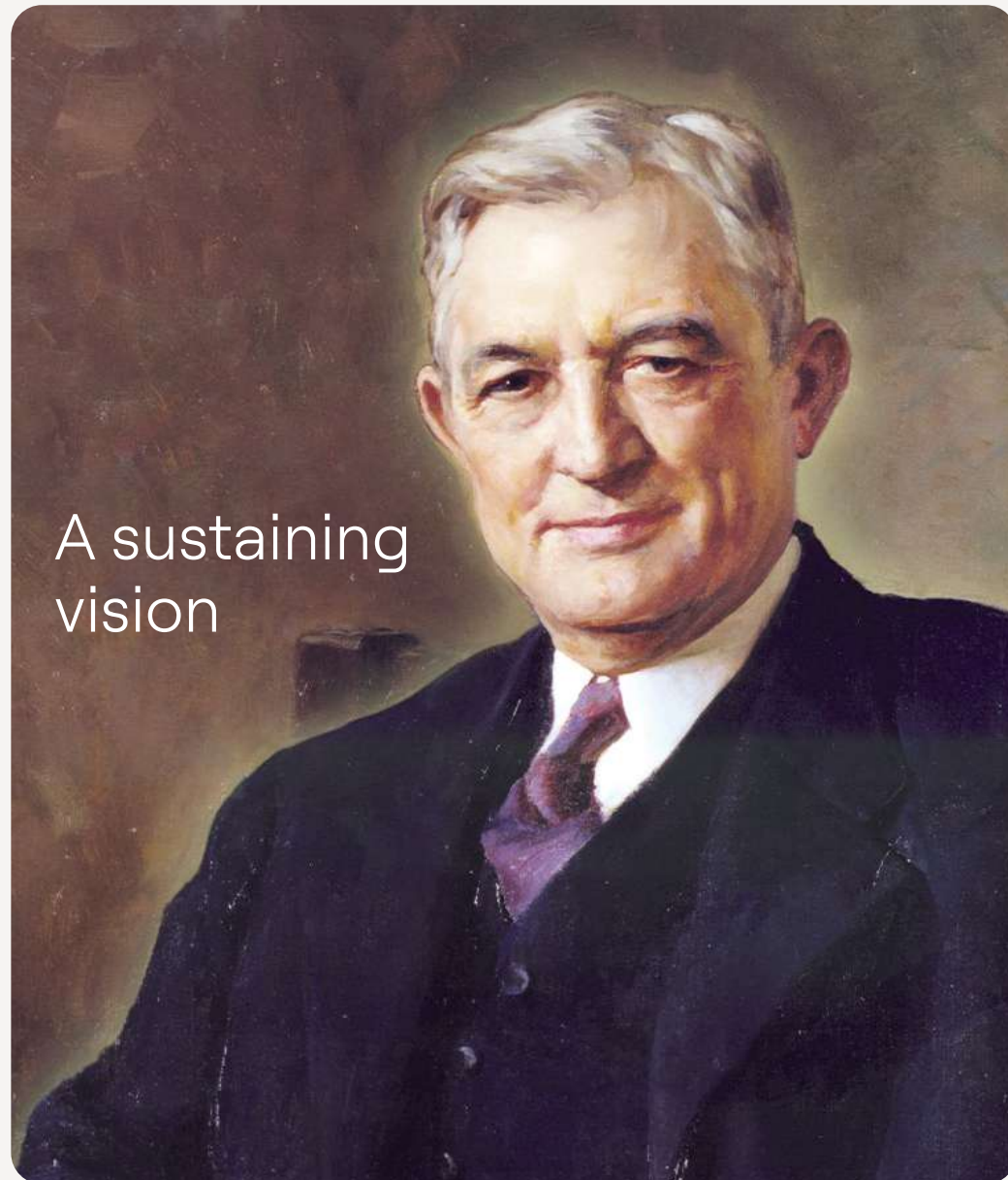
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*Source: Skanska — April 26, 2024: Skanska completes geothermal central energy plant at Wake Tech Community College, <https://www.usa.skanska.com/who-we-are/media/press-releases/280522/Skanska-completes-geothermal-central-energy-plant-at-Wake-Tech-Community-College->



Willis Carrier



A sustaining
vision

In 1902, Willis Carrier submitted his design for the first modern air-conditioning system, accomplishing a feat that was once thought to be impossible – control of the indoor environment.

His invention would give rise to a world-leading heating, air-conditioning and refrigeration company and create an entire industry essential to global productivity and personal comfort.





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Carrier.com/Commercial

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