

A World of Comfort

Quick Reference Guide to Commercial Systems and Services



turn to the experts 



A World of Comfort

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Health care, airports, entertainment, lodging, office buildings, education and manufacturing — the world's buildings come in every conceivable shape and size, each with very specific business, architectural and comfort needs. Carrier has brought its expertise and ingenuity to projects as diverse as ancient libraries — where thousands of rare, antique books will be preserved for future generations — and modern, super-size retail marts where families can shop for household goods.

Carrier provides the industry's broadest range of market-leading products that condition interior environments of commercial, medical, government and public buildings. Carrier commercial systems yield the latest technological advances in electronic controls and air management for individualised temperature and comfort selections. The result: quiet, smooth operation and the highest possible efficiency under all operating conditions.

Carrier understands the unique demands of hospitality, health care and assisted living facilities, as well as other institutional applications. With Carrier heating and cooling units, guests and residents can enjoy the ultimate in temperature- and humidity-controlled comfort with extremely low sound levels and user-friendly controls. We assist customers with site evaluation, equipment delivery, installation, maintenance and service.

Now operating in more than 170 countries worldwide, Carrier delivers and maintains the industry's broadest selection of quiet, compact, energy-efficient and environmentally sound heating and cooling systems.

As the world's largest provider of heating, cooling and refrigeration systems, we believe market leadership obligates environmental leadership. Focused on reducing the impact of manufacturing operations across the globe, Carrier has set the industry standard for environmentally sound business practices and a commitment to sustainability across the products, production, people and processes.

By the end of 2006, Carrier had reduced energy use by 54 percent and water use by 77 percent since 1997, normalised for revenues. The company has also reduced air emissions by 72 percent since 1999, normalised for revenues.



turn to the experts

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Expert Installations

Chances are Willis Carrier had no idea just how much he would impact the world when he developed the first air conditioning system in 1902. While he may not have foreseen the effects of his work, few innovations have changed the landscape of modern life as dramatically as Carrier's climate control technology.

Today, the air conditioner has been cited as one of the landmark inventions of the 20th century. Just as Willis Carrier's brainchild addressed some of the most pressing needs of his day, modern-day Carrier remains at the forefront of innovation, bringing customers the next generation in climate control for office, education, retail and more. Where we work, how we live: Carrier products are the enabling technology behind today's lifestyle and tomorrow's possibilities, every day, every hour, everywhere we go.

Healthcare

Equipment – Carrier 23XRV Evergreen® Chillers, Carrier Comfort Network® (CCN) Controls System

Overview – Nemours Children's Clinic in Jacksonville, Florida is an eleven-story outpatient clinic dedicated to the specialised care of infants, children and adolescents with cancer, neurological and genetic conditions, hearing anomalies and other acute, often life-threatening illnesses. Nemours sought to replace two aging chillers with new units, with three objectives in mind: to ensure a comfortable facility atmosphere for patients and their families; to provide significant energy savings; and to enable remote monitoring of the chillers by facilities personnel.



Nemours Children's Clinic
Jacksonville, FL

Education

Equipment – Variable Speed Chilled Water Pumps, Fan Coil Valves, Communicating Controls System

Overview – Creighton University, founded in Omaha Nebraska in 1878, faces the same economic challenges as any university with a growing campus and higher energy costs. One key differentiator for Creighton is that its campus chilled water loop is operated by an outside utility. Under the utility contract, Creighton must maintain return chilled water temperatures within 14°F of their



Creighton University
Omaha, NE

entering temperature or pay a financial penalty to the utility provider. Carrier Commercial Service responded with a design-build solution that modernised 14 separate chilled water control stations. Selected fan coil units were equipped with new valves and networked to a DDC controls system.

Lodging

Equipment – Carrier 23XRV Evergreen® Chillers

Overview – The seventeen-story Crowne Plaza hotel contains 408 guest rooms and suites, and more than 43,000 square feet of meeting space, including many conference rooms and two ballrooms. The building faced rising energy costs exacerbated by the use of aging, inefficient chillers. A complicating factor was that the mechanical equipment room was in close proximity to accommodations, requiring that the solution use the quietest equipment available. To satisfy fluctuating internal load and noise restrictions and improve energy efficiency, two 23XRV Evergreen® variable-speed water-cooled screw chillers were installed.



Crowne Plaza Hotel
Cherry Hill, NJ

Office Buildings

Equipment – 19XRV Evergreen® Centrifugal Chillers

Overview – Pioneer Plaza in Honolulu, Hawaii, is dedicated to providing their tenants with a comfortable environment. The Plaza's original chillers were becoming unreliable and with ever-increasing energy rates, it was time to replace them. The 19XRV's were selected due to their efficiency, reliability, size, weight, low sound levels and R-134a refrigerant.

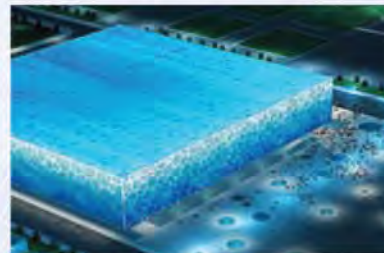


Pioneer Plaza
Honolulu, HI

Sporting Venues

Equipment – 19XR Centrifugal Chillers, 39CBF Air Handling Units, 42CE Fan Coil Units, Carrier Comfort Network (CCN) Controls System

Overview – Never in the history of the HVAC industry has there been such a dramatic confluence of technological innovation, energy efficiency, ozone protection strategies and environmental stewardship as can currently be witnessed at the 2008 Beijing Olympic Games. Carrier is supplying a full line of non-ozone-



depleting products to Olympic venues and facilities, ranging from AquaSnap® air-cooled scroll chillers with Puron® refrigerant to large centrifugal chillers to air handling units, fan coil units and Carrier Comfort Network® (CCN) system control products.

National Swimming Center
"The Water Cube" Beijing, China

Chillers

Air-Cooled



**30RA AquaSnap®
Scroll Chillers**
10 to 55 Tons
R-22
Cat. 523-074



**30RB AquaSnap®
Scroll Chillers**
60 to 390 Tons
R-410A Puron® Refrigerant
Cat. 523-077



**30XA AquaForce®
Screw Liquid Chillers**
80 to 500 Tons
R-134a
Cat. 04-52300001-01



Water-Cooled



**19XR, XRV Evergreen®
Constant or Variable-Speed
Centrifugal Chillers**
200 to 3,000 Tons
R-134a
Cat. 04-521900001-01



**23XRV Evergreen® Variable-
Speed Screw Chillers with
Foxfire™ Technology**
300 to 550 Tons
R-134a
Cat. 522-310



**30HX Evergreen®
Screw Chillers**
75 to 265 Tons
R-134a
Cat. 523-076



**30HK, HL, HW Reciprocating
Liquid Chillers**
15 to 60 Tons
R-22
Cat. 04-52300002-01



**17DA Open-Drive
Centrifugal Chillers**
3,000 to 5,500 Tons
R-134a
Cat. 05-20-0305-01

Carrier to Supply Chillers to Combat Climate Change

Carrier Corporation has agreed to supply energy-efficient, environmentally sound chillers to cities participating in the Clinton Climate Initiative (CCI). The CCI, a project of the William J. Clinton Foundation, is a cooperative effort involving 40 of the world's largest cities, the C40 Large Cities Climate Leadership Group, whose goal is to lessen the severity of climate change by replacing existing inefficient, polluting cooling equipment with efficient, non-ozone-depleting chillers. Discounts and financing assistance will enable the C40 cities and their private building owners to cut energy usage and emissions, striking a blow against climate change.



Distributed Power Generation



Microsteam® Power System
275 kWe
Steam power
Cat. 05-810-003-25

"Cat." refers to the Carrier product data or Carrier marketing brochure catalog number. To access product data or brochures, go to: www.commercial.carrier.com. Under "Literature," click on "Search by Form/Catalog #." Enter the catalog number into the appropriate input field, then click on "Search."

Air-Handling Units

Central Station Air Handlers



39L
1,800 to 15,000 cfm
Cat. 04-52390001-01

39M Aero™
1,500 to 30,500 cfm
Cat. 04-52390006-01

39R Aero™
26,000 to 60,000 cfm
Cat. 04-52390004-01



39S
400 to 8,500 cfm
Cat. 04-52390007-01

40RM,RMQ,RMS Gemini™
Packaged Air-Handling Units
6 to 30 Tons
R-22
Cat. 04-52400001-01

Racan-Carrier
Custom Air Handlers
Call 514-324-5050 for
more information.

UTC: Taking the LEED® on Sustainability

United Technologies Corporation (UTC), the parent company of Carrier Corporation, believes that a commitment to sustainable practices and environmentally sound commerce is more than just responsible corporate citizenship—it's good business.

That's why UTC has begun using the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED®) standards in the design of all new UTC properties. LEED® codes stipulate the use of good energy design and sustainable materials, and LEED® buildings typically cost far less to operate than conventional architecture, resulting in reduced energy consumption and related emission of climate-changing gases.



UTC's longstanding commitment to the environment has been recognised repeatedly by the international business community. The company was recently named for the fourth consecutive year to the World Economic Forum's Global 100 list. Global 100 companies are notable for their record of identifying and effectively managing environmental and other factors that impact business, as evidenced by environmental initiatives such as UTC's commitment to the LEED® program.

Air Terminals



35BF Axis™ Diffusers for Variable Volume Systems
50 to 325 cfm
Cat. 524-538



35E Axis™ Single Duct VAV Terminals
45 to 7,100 cfm
Cat. 04-52350001-01



35J Axis™ Retrofit Terminals
45 to 3,700 cfm
Cat. 04-52350002-01
35K Axis™ Bypass Terminals
200 to 4,400 cfm
Cat. 523-525



35L,N Axis™ Dual Duct VAV Terminals
50 to 7,100 cfm
Cat. 04-52350004-01



36CB Chilled-Beams Water-Controlled Terminals
Active and Passive Models
4' to 12' Lengths



36S Axis™ Water Control Induction Air Terminals
20 to 130 cfm
Cat. 523-605



36R,TE Axis™ Bypass Control Induction Air Terminals
20 to 130 cfm
Cat. 523-603



37HS Axis™ Moduline® VAV Air Terminals
100 to 400 cfm
Cat. 523-708



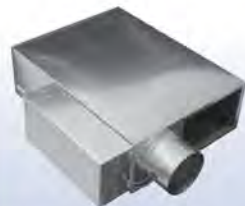
42KC Axis™ Underfloor Perimeter Fan Coil Units
325 to 2,800 cfm
Cat. 524-538



45K/N Axis™ Quiet Series/Parallel Flow Fan-Powered Units for VAV Systems
90 to 3,300 cfm
Cat. 04-52450001-01



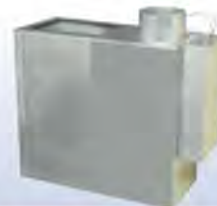
45J/M Axis™ Series/Parallel Flow Fan-Powered Terminal Units for VAV Systems
90 to 3,900 cfm
Cat. 04-52450002-01



45Q,R Axis™ Low Profile Fan-Powered Units for VAV Systems
100 to 2,000 cfm
Cat. 524-536



45UC Axis™ Underfloor Series Fan-Powered Units
280 to 1,200 cfm
Cat. 524-538



45XC Axis™ Fan-Powered Zone Mixing Units
50 to 6,200 cfm
Cat. 524-538

Split Systems

Duct-Free Split Systems



38HDF/38HDV with 40QNC
Cooling Only
3/4 to 3 Tons
R-410A Puron® Refrigerant
Cat. 02-40QN002-25

38QRF/38QRV with 40QNC
Heat Pump Systems
3/4 to 3 Tons
R-410A Puron® Refrigerant
Cat. 02-40QN002-25

Condensing Units, Air-Cooled



38AH
20 to 130 Tons
R-22
Cat. 523-80044

38AKS Gemini™
25 to 40 Tons
R-22
Cat. 523-80137

38ARZ Gemini™
6 to 10 Tons
R-22
Cat. 04-52380002-01

38ARD,ARS Gemini™
10 Tons
R-22
Cat. 04-52380002-01

38AKS,ARD Gemini™
12-1/2 to 20 Tons
R-22
Cat. 04-52380002-01

Heat Pump Systems



38AQ,ARQ,AQS/40RMQ
Gemini™
6 to 25 Tons
R-22
Cat. 04-52380001-01

A central tenet of Carrier's business is to preserve the environment and protect our finite natural resources. We know that heating, cooling, ventilation and refrigeration are much more than issues of comfort and process. We recognise the urgent need to maintain a responsible balance between the comfort and preservation we provide today and the world we will live in tomorrow.

Throughout our history, we have demonstrated this commitment by creating environmentally sound products that consume less energy and incorporate innovative materials that minimise the impact we have on our planet. This operating philosophy is your assurance that, while Carrier products deliver unmatched comfort and safely transport and preserve our global food supply today, our company is hard at work protecting the outdoor environment for generations to come.



Carrier's leadership with non-ozone-depleting systems is unmatched in the industry. With ozone depletion occurring at alarming rates and the corresponding negative health and environmental effects impacting our planet, vigilance to ozone protection remains as important as ever. Carrier's newest chillers also deliver industry-leading energy efficiency with zero compromise on ozone protection — another industry first.

Fan Coils



42B AirStream™ Belt Drive
600 to 4,000 cfm
R-22
Cat. 524-236

42C, V AirStream™ Horizontal/Vertical
200 to 1,200 cfm
R-22
Cat. 524-234

42D AirStream™ Ducted
600 to 2,000 cfm
R-22
Cat. 524-234

42S AirStream™ Stack
300 to 1,200 cfm
R-22
Cat. 524-234

Hydronic Cassette Fan Coil Units



42WKN Airstream™ Hydronic Cassette Fan Coil Unit
350 to 1,160 cfm
R-22

Unit Ventilators



40UV, UH AirStream™ Unit Ventilators
500 to 2,000 cfm
R-22 or R-410A Puron® Refrigerant
Cat. 04-52400002-01

Cased Evaporator Coils



28CB/LA Cased Evaporator Coil
7-1/2 and 10 Tons
R-22
Cat. 522-846

For many Carrier customers, our expert distributors are our service ambassadors as well as the public face of the company and the Carrier brand. The core strength of our distribution organisation is an experienced and dedicated presence in their local markets. Our trust in the unique knowledge and superior customer responsiveness of local distributors dates

back to the 1930s, when the earliest distributorships were established. As our global customer base continues to expand, Carrier distributors will remain on the front lines, establishing and sustaining strong relationships that begin with product design, selection

and purchase — and continue through installation, operation, maintenance and warranty, covering every stage of a product's life cycle.



Packaged Products

Single-Zone Rooftop Units



48/50PG,PM Centurion® with ComfortLink™

2 to 25 Tons
R-410A Puron® Refrigerant
Cat. 48PG-5PD
50PG-5PD



48/50PG Centurion® with EnergyX™ Energy Recovery System

2 to 25 Tons
R-410A Puron® Refrigerant
Cat. 48PG-5PD
50PG-5PD

Novation™ Heat Exchanger Technology

Another industry first for Carrier, Novation™ microchannel coils come standard on Centurion® 48/50PM 18 to 25 Ton rooftop units, enabling the chiller to operate with up to 57% less refrigerant and achieve world-class efficiency while enjoying the protection of an industry-exclusive three-year coil warranty.



Novation technology is also standard on Weathermaker® with R-410A Puron® refrigerant large rooftop units and all AquaSnap® and AquaForce® air-cooled chillers from 60 to 500 Tons.



48/50TC Weathermaster® with Puron® Refrigerant

3 to 10 Tons
R-410A Puron® Refrigerant
Cat. 48TC-01PD
50TC-01PD



48/50HJ,HE Weathermaster®

2 to 25 Tons
R-22
Cat. 48H-1PD
50H-T-10PD



48/50HJ,HE Weathermaster® with Factory Installed 62AQ Energy\$Recycler™

2 to 12-1/2 Tons
R-22
Cat. 48H-1PD
50H-T-10PD



48/50TM Weathermaker®

6 to 25 Tons
R-22
Cat. 524-80041
525-00061



48TF Weathermaker®

6 to 12-1/2 Tons
R-22
Cat. 524-80032

50TFF Weathermaker®

6 to 12-1/2 Tons
R-22
Cat. 525-00044



48TJ Weathermaker®

15 to 25 Tons
R-22
Cat. 524-80032

50TJ Weathermaker®

15 to 25 Tons
R-22
Cat. 525-00044

Constant Volume/VAV Rooftop Units



48/50A Series Weathermaker® with Puron® Refrigerant

27 to 60 Tons
R-410A Puron® Refrigerant
Cat. 04-52480014-01



48/50A Series Weathermaker®

20 to 60 Tons
R-22
Cat. 04-52480006-01
04-52480009-01



48/50Z Series Weathermaster®

30 to 105 Tons
R-22
Cat. 524-80035

Packaged Products

Commercial Packaged Products



**50XL Infinity™ 15 Series
Packaged Air Conditioner**
2 to 5 Tons
R-410A Puron® Refrigerant
Cat. 50XL-3PD

**48XL Infinity™ 15 Series
Packaged Air Conditioner
and Gas Furnace System**
2 to 5 Tons
R-410A Puron® Refrigerant
Cat. 48XL-4PD



**50XT Infinity™ 15 Series
Packaged Heat Pump**
2 to 5 Tons
R-410A Puron® Refrigerant
Cat. 50XT-3PD

**48XT Infinity™ 15 Series
Packaged Dual Fuel
HYBRID HEAT® Dual Fuel
System**
2 to 5 Tons
R-410A Puron® Refrigerant
Cat. 48XT-3PD



**50VL Performance™
14 Series
Packaged Air Conditioner**
1-1/2 to 5 Tons
R-410A Puron® Refrigerant
Cat. 50VL-03PD

**48VL Performance™
14 Series
Packaged Air Conditioner
and Gas Furnace System**
1-1/2 to 5 Tons
R-410A Puron® Refrigerant
Cat. 48VL-03PD

**50VT Performance™
14 Series
Packaged Heat Pump**
2 to 5 Tons
R-410A Puron® Refrigerant

**48VT Performance™
14 Series
Packaged Dual Fuel HYBRID
HEAT® Dual Fuel System**
2 to 5 Tons
R-410A Puron® Refrigerant



**50ES Comfort™
13 Series
Packaged Air Conditioner**
1-1/2 to 5 Tons
R-410A Puron® Refrigerant
Cat. 50ES-1PD

**48ES Comfort™
13 Series
Packaged Air Conditioner
and Gas Furnace System**
1-1/2 to 5 Tons
R-410A Puron® Refrigerant
Cat. 48ES-1PD

**50EZ Comfort™
13 Series
Packaged Heat Pump**
2 to 5 Tons
R-410A Puron® Refrigerant
Cat. 50EZ-1PD

**48EZ Comfort™
13 Series
Packaged Dual Fuel
HYBRID HEAT®
Dual Fuel System**
2 to 5 Tons
R-410A Puron® Refrigerant
Cat. 48EZ-1PD

**50SD Comfort™
13 Series
Packaged Air Conditioner**
1-1/2 to 5 Tons
R-22
Cat. 50SD-7PD

**48SD Comfort™
13 Series
Packaged Air Conditioner
and Gas Furnace System**
1-1/2 to 5 Tons
R-22
Cat. 48SD-6PD

**50SZ Comfort™
13 Series
Packaged Heat Pump**
2 to 5 Tons
R-22
Cat. 50SZ-05PD

**48SZ Comfort™
13 Series
Packaged Dual Fuel
HYBRID HEAT®
Dual Fuel System**
2 to 5 Tons
R-22
Cat. 48SZ-1PD



**50ZPA Base
Packaged Air
Conditioner**
2 to 5 Tons
R-22
Cat. 50ZPA-05PD

**50ZHA Base
Heat Pump**
2 to 5 Tons
R-22
Cat. 50ZHA-4PD

As the world leader in heating, ventilation and air conditioning, Carrier is devoted to the advancement and application of HVAC and refrigeration technologies. More than 2,000 scientists, engineers and technicians at research and design centers worldwide work to apply the latest technological innovations to the practical needs of millions of customers.



Packaged Products

Packaged Terminal Air Conditioners (PTAC) and Heat Pumps



52F Solid Side

8K to 12K Btuh
R-22
Cat. 02-RACBR06-25

52C,P

7K to 15K Btuh
R-22
Cat. 592-085

Water Source and Geothermal Heat Pumps



50RHR,RVR Aquazone™

Horizontal/Vertical
High Efficiency
1/2 to 5 Tons
R-22
Cat. 525-00026

50RHS,RVS,RDS

Aquazone™ Horizontal/
Vertical/Downflow
Premium Efficiency
1-1/2 to 6 Tons
R-22
Cat. 04-52500018-01



50RTG Aquazone™ Rooftop Units

3 to 20 Tons
R-22
Cat. 525-00047

50RWS Aquazone™ Water-to-Water Units

3 to 10 Tons
R-22
Cat. 04-52500011-01

50PSW Aquazone™ Water-to-Water Units

30 Tons
R-410A Puron® Refrigerant
Cat. 04-52500020-01

50HQL Aquazone™ Horizontal Large Capacity

6 to 10 Tons
R-22
Cat. 04-52500019-01

50VQL Aquazone™ Vertical Large Capacity

6-1/2 to 25 Tons
R-22
Cat. 04-52500019-01



50KQL Aquazone™ Console Units

1/2 to 1-1/2 Tons
R-22
Cat. 525-00060

50RHC,RVC Aquazone™ Horizontal/Vertical, Standard Efficiency

1/2 to 5 Tons
R-22
Cat. 04-52500003-01

50PSH,PSV,PSD Aquazone™ Horizontal/Vertical Upflow; Vertical Downflow

1-1/2 to 6 Tons
R-410A Puron® Refrigerant
Cat. 04-52500017-01

50PTH,PTV,PTD Aquazone™ Horizontal/Vertical Upflow; Vertical Downflow

2 to 5-1/2 Tons
R-410A Puron® Refrigerant
Cat. 04-52500016-01

Heat Pump Rooftop Units



50EJQ,EWQ with Optional Electric Heat

20 and 25 Tons
R-22
Cat. 525-072

50HJQ,HEQ Weathermaster®

2 to 10 Tons
R-22
Cat. 50H-T-10PD

50TFQ Weathermaker®

6 to 10 Tons
R-22
Cat. 50H-T-10PD

50HJQ High Efficiency Weathermaster®

12-1/2 to 15 Tons
R-22
Cat. 50H-T-10PD

Packaged Products

Indoor Self-Contained Systems



Metro
Member of the
Omnizone™ family
R-410A Puron® Refrigerant



50BR,BZ Omnizone™
Vertical Air- and Water-Cooled
5 to 20 Tons
R-22
Cat. 525-00056



50BV Omnizone™
20 to 60 Tons
R-22
20 to 30 Tons
R-410A Puron® Refrigerant
Cat. 04-52500001



50BY Omnizone™
Vertical Air-Cooled
5 to 20 Tons
R-22
Cat. 525-00058



50XJ Omnizone™ VAV
Systems Water-Cooled
60 to 100 Tons
R-22
Cat. 04-52500013-01

Carrier invests hundreds of millions of dollars every year in the core technologies, affecting comfort, efficiency and the environment.

Carrier has partnered with New York State's Center of Excellence in Environmental and Energy Systems to create a world-class laboratory to study the effects of indoor air quality in buildings.



Condensers, Air-Cooled



09AW,AZ Direct Drive
1 to 20 Tons
R-134a
Cat. 520-921

09AZ
90 to 200 Tons
R-134a
Cat. 520-925



09BY Belt Drive Condensers
5 to 20 Tons
R-22
Cat. 520-908



09DE,DK
15 to 90 Tons
R-22
Cat. 520-927

Indoor Air Quality Products



62AQ Energy Recovery Devices
600 to 3,000 cfm
Cat. 526-210



62E Energy Recovery Ventilators
200 to 30,000 cfm
Cat. 04-52620001-01

Our environmental leadership has earned awards from the governments of many countries and numerous U.S. states and municipalities. In 2003, the U.S. Environmental Protection Agency named Carrier a Climate Leader for the reduction of energy intensity in our manufacturing operations. Since

1997, Carrier has doubled the size of its business while holding energy use flat. Carrier is the only air conditioning systems manufacturer to be named an EPA Climate Leader.



The Carrier Commercial Controls System



Operator Interfaces

The Carrier controls system has a variety of user interfaces to make it easy for facility managers to monitor and control all of their HVAC and non-HVAC equipment.

- Web based
 - i-Vü®
- PC based
 - ComfortVIEW™
- Hand-held or local devices
 - Navigator™
 - System Pilot
 - Touch Pilot™



ComfortLink™ Controls by Carrier

Carrier equipment comes factory equipped with communicating controls.

- Ready for connection to the controls system
- Contains proven built-in routines for managing performance, comfort and indoor air quality



Programmable Controllers

General purpose controllers are used on non-Carrier HVAC equipment and other building components so that the Carrier controls system can monitor, communicate with and control them.

- Comfort Controller
 - Air handlers
 - Pumps and towers
 - Loadshed
 - Custom sequences
- Universal Controller
 - Pumps
 - Fans
 - Lights



Application Controllers

Carrier airside HVAC equipment is controlled via specialised controllers that are pre-engineered and programmed to make it easy to configure, start up and run equipment.

- ComfortID™
 - VAV boxes
 - Fan terminals
 - Fan coils
- PremierLink™
 - Rooftop unit
- VVT®
 - Zone variable volume variable temperature



Network Devices

Network devices are used to add functionality to the base controls system and to the network itself.

- TeLink
 - Modem access and alarm annunciation
- Network bridge
- Data collection
- Ethernet router



Interoperability

Interoperability devices provide open protocol services for individual Carrier products or on a system-wide basis.

- i-Vü® Link
 - BACnet®/Modbus/LON Translator for entire controls system
- LON Translator
 - Translates native equipment protocol to LON protocol
- BACnet®/Modbus Translator
 - Translates native equipment protocol to BACnet® or Modbus protocol



System Managers

System managers optimise the operation of multiple HVAC units connected to the controls system.

- Chillervisor
 - Optimises the operation of a multiple-chiller plant
- Chiller System Interface
 - Used with Chillervisor and non-Carrier chillers to optimise operation



Sensors

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

- Carrier offers a full line of space, duct and outdoor temperature and humidity sensors, as well as space CO₂ sensors to enhance the control capabilities of the commercial controls system

The 3V® Light Commercial Controls System



User Interfaces

The Pilots serve as the user interface and configuration tools for all Carrier communicating devices in the 3V® system. The System Pilot is the commissioning tool for these same devices. The Pilots also serve to change set points, cause occupancy overrides and program system devices.



Programmable Controllers

The 3V® system incorporates a Universal Controller for non-Carrier or non-HVAC system control, such as lighting, pumps and fans using closed-loop direct digital controls. 3V® uses applications-specific controllers for Carrier rooftop units, air handlers, dampers and other air terminal devices.



Zone Damper

For variable volume/variable temperature systems, the 3V® 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.



Thermostats

Carrier offers a full line of space, duct and outdoor temperature and humidity sensors to enhance the control capabilities of the 3V® system and occupancy comfort.

Non-Communicating Thermostats



Corporate Thermostat

Carrier's seven-day Commercial Programmable Thermostat is a wall-mounted, low-voltage thermostat that maintains room temperature by controlling the operation of an HVAC (heating, cooling and ventilation) system. Separate heating and cooling set points and auto-changeover capability allow occupied and unoccupied programming for energy savings. The thermostat allows up to four time/temperature settings to be programmed in 24-hour intervals. The thermostat stores schedules for seven independent days and batteries are not required. In the event of power interruption, the internal memory stores comfort schedules for an unlimited time. The clock will continue to run for 72 hours.



Debonair® Thermostat

This thermostat is ideal for traditional two-stage heat, two-stage cool and single speed fan control. The thermostat is offered in programmable and non-programmable versions. The thermostat line offers dual setpoints, auto changeover, remote contact input and light activation. The programmable version offers up to four time/temperature settings in a 24-hour period.



Debonair® Fan Coil Thermostat

This thermostat is ideal for low-voltage control of two-pipe or four-pipe fan coils with multispeed fan control. Multispeed fan control can sequence up to three fan speeds. This line of thermostats is offered in programmable and non-programmable versions.

We serve our markets with comprehensive end-to-end system solutions that deliver peace of mind and a higher quality of life. Our pioneering work in electronics and computer software has led to intelligent systems that integrate and manage a building's HVAC system more easily, efficiently and reliably than ever before.





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