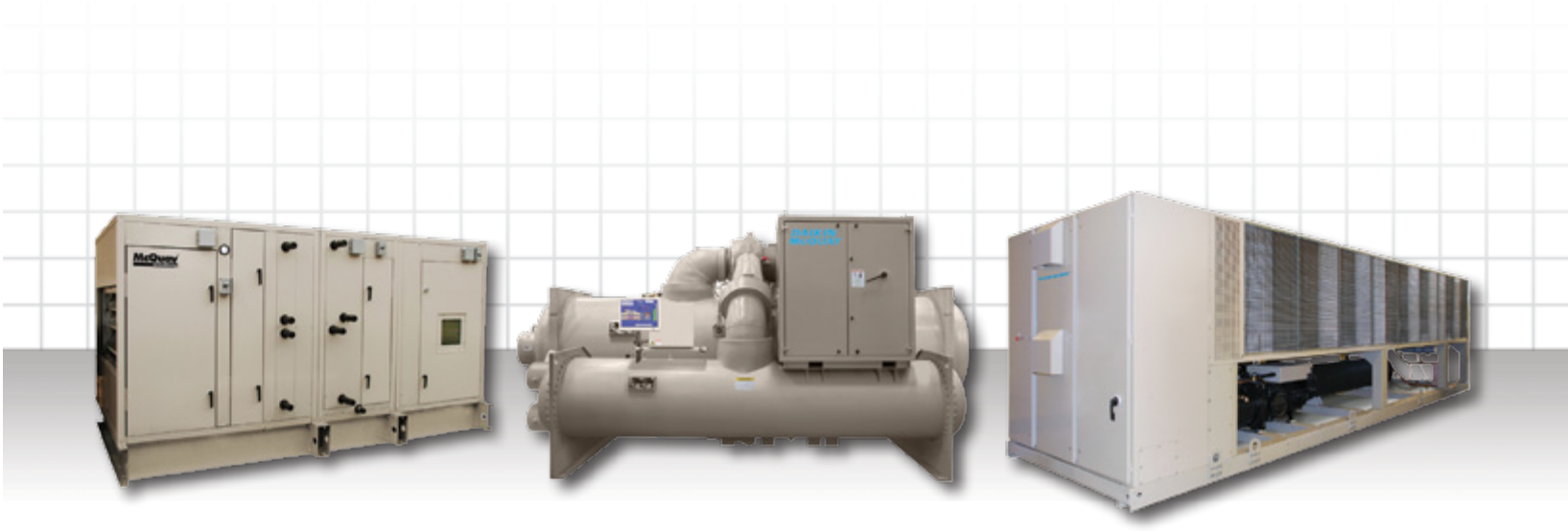
2011 McQuay All Products Catalog

McQuay International
a member of DAIKIN group



McQuay All Products Catalog 2011

Commercial, Industrial and Institutional HVAC

A/SP 31-29 (01/11)

Engineered for flexibility and performance™

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Welcome to McQuay International's 2011 All Products Catalog

Use this document as your quick reference to locate and understand the specifications, features and benefits of all McQuay heating, ventilation and air conditioning (HVAC) products, systems and services.

For the most current and detailed product information, or to locate your local McQuay representative, visit www.mcquay.com or call 1-800-432-1342. You can also subscribe at www.mcquay.com to receive e-mail notification of new product announcements, design tools, application information and engineering newsletters.

A World Leader In HVAC

As part of Daikin Industries, a Fortune 1000 company, McQuay International is the second largest air conditioning, heating, ventilating and refrigeration company in the world. Combining advanced technologies and R&D capabilities, we are creating innovative products, systems and services that benefit the industry and the lives of our customers.

And with more than six million square feet of manufacturing space and 5,000 dedicated employees in 75 countries on six continents, McQuay is uniquely positioned to make sure our products and services are always within our customers' reach.

For more information on Daikin products and services, visit www.daikinac.com.

Daikin Industries World Headquarters, Osaka, Japan

McQuay Facilities

North America

World Headquarters– Minneapolis, Minnesota

Auburn, New York

Faribault, Minnesota

Owatonna, Minnesota

Phoenix, Arizona

Staunton, Virginia

San Luis Potosi, Mexico

Asia

Shenzhen, China

Suzhou, China

Wuhan, China

Kuala Lumpur, Malaysia

Europe

Cecchina, Italy

Cramlington, United Kingdom

World Class Applied Development Center

The Daikin and McQuay Applied Development Center supports product development, testing and verification of a full range of Daikin and McQuay commercial heating, ventilation, air conditioning and refrigeration (HVACR) systems for worldwide markets. The state-of-the-art center includes the latest technological advancements in the HVACR industry.

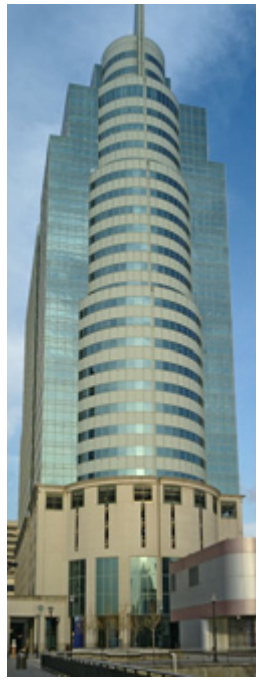
Applied Development Center–Interior, Plymouth, MN

The Applied Development Center, located at McQuay's Minneapolis headquarters, allows the expertise of each company to be leveraged in a combined facility to accelerate the development of innovative, environmentally responsible products, systems and services that benefit the industry and the lives of our customers. It is also an exciting and concrete example of Daikin's commitment to growth in the commercial HVAC market in North America.

Applied Development Center–Exterior, Plymouth, MN LEED® Gold Certified

Daikin McQuay Solutions Plaza

Located across from Manhattan, the Daikin McQuay Solutions Plaza is a unique showcase where the latest innovations from Daikin and McQuay are available for viewing hands-on. Interactive, full size displays bring our HVAC technology to life. The Solutions Plaza is also an education site hosting opportunities to learn the latest industry trends and earn continuing education credits. System experts from Daikin and McQuay will be available from this office to consult with building owners, architects, engineers and contractors to select and design comfortable, efficient solutions to their biggest challenges.



McQuay GreenWay™ HVAC System Solutions

Designing Green is Gold

Designing Green, or high performance buildings, is about creating properties that are desirable to own and occupy.

- Higher premium rentals and lower operating costs add to an owner's bottom line
- Tenants benefit from a comfortable environment that encourages higher productivity

The Community Library and Recreation Center in Queen Creek, Arizona, has an energy efficient McQuay Modular Central Plant that contributed points toward LEED® Gold certification for the building.

A Whole System Approach

Each building element - such as lights, building envelope, landscaping, and HVAC - must be considered as part of the whole that makes up a sustainable building. The same is true for HVAC systems. Individual units must be designed to work together as a whole to achieve optimum operating efficiency and IAQ. This whole system approach lowers the cost to build and operate a sustainable building.

McQuay Can Help

McQuay is your source for HVAC products, systems expertise and tools required for high performance buildings and Leadership in Energy and Environmental Design (LEED®) certified projects.

Systems Expertise—Our representatives are knowledgeable, experienced engineers. They help you explore all HVAC system alternatives—from large central chilled water plants to geothermal heat pump systems—to optimize operating efficiency and IAQ within your budget.

System Design Tools—McQuay offers a variety of tools to help you in the design of high performance HVAC systems:

- Software Analysis Tools including EnergyAnalyzer™, EnergyAnalyzer II and Acoustic Analyzer™
- Application Guides provide detailed design and application information for a variety of HVAC systems, refrigerants, piping and acoustics
- Engineering System Solutions Newsletters provide a focused look at specific design and industry issues

Products Engineered for Flexibility and Performance—McQuay products give you the flexibility to match your application requirements and achieve optimal energy efficiency and superior IAQ. Our products offer:

- The widest variety of factory engineered and installed options that help you achieve performance requirements at lower installed costs
- Non-ozone depleting HFC refrigerants
- Easy integration with the building automation system of your choice using our MicroTech® controllers with the Open Choices™ feature for open, standard protocol communication
- Serviceable designs that encourage regular maintenance for peak performance over the life of your equipment

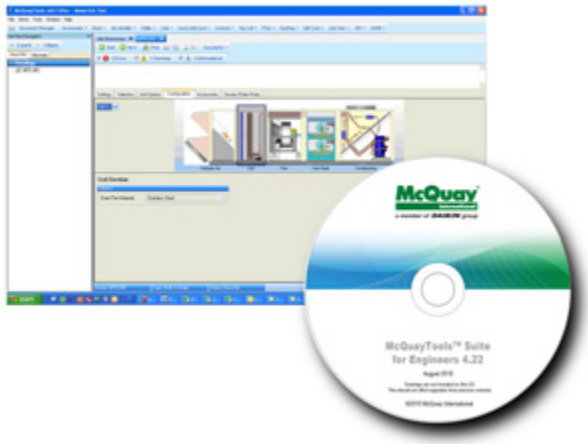
For More Information

Contact your local McQuay representative for help in optimizing the operating efficiency and IAQ of your HVAC system within your budget. To access our design tools and information on high performance HVAC design, visit our GreenWay HVAC System Solutions Resource Center under Design Tools at www.mcquay.com.

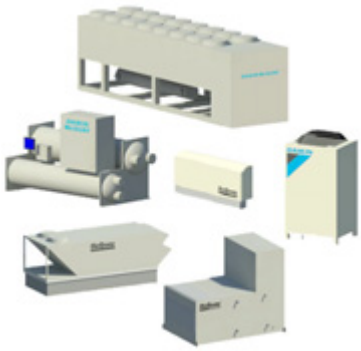
Software Tools That Make Your Job Easier

Designing and specifying the ideal HVAC system can be a time- and cost-intensive process. That's why we developed these user-friendly Windows® - based software programs; McQuayTools™, EnergyAnalyzer II, and Acoustic Analyzer™. For more information about McQuay software for engineers, contact your local McQuay sales representative.

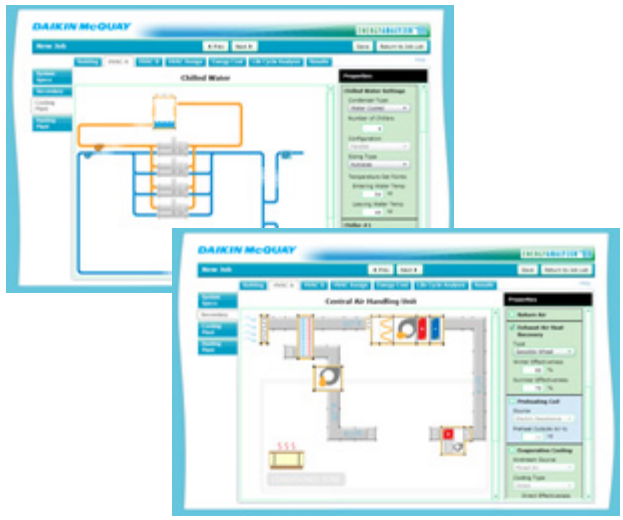
McQuayTools™ for Engineers - This web-enabled selection software program makes it easy to choose from a variety of sizes and product options to design the HVAC system that fits your requirements. McQuayTools™ for Engineers is available from your local McQuay representative.



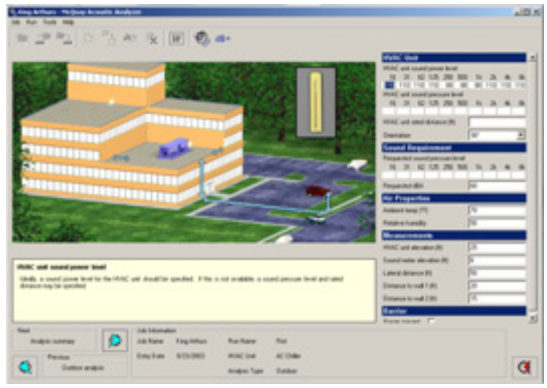
Building Information Modeling (BIM) - Daikin and McQuay have developed the most comprehensive library of manufacturer-created Autodesk® Revit® object models and content for our HVAC products. Our library of object models and content continues to grow and can be found at www.mcquay.com. Autodesk Seek is a leading provider of BIM object models and content, with advanced search capabilities that help you select the right object models for your BIM design project. McQuay object models and content are also available on the Autodesk Seek website.



EnergyAnalyzer II - A user friendly front end to EnergyPlus™, the premier energy simulation program developed by Lawrence Berkley National Laboratory for the U.S. Department of Energy. This new web-based energy analysis program provides an easy-to-use method of estimating energy consumption, operating costs and life cycle analysis between two HVAC systems so the best financial decision can be made.



Acoustic Analyzer™ - Lets you estimate the sound of HVAC equipment in a space or at the property line using your design conditions. This software can help you determine if your equipment selection will meet specifications. View a demonstration of this software at www.mcquay.com.



Aftermarket and Parts Solutions

Whether you are installing, maintaining, or servicing an HVAC or refrigeration system, McQuay offers a complete line of quality parts and supplies to keep your system operating at peak efficiency. McQuay aftermarket and parts equipment are available through an extensive network of distributors throughout North America. McQuay distributors have the equipment experience and knowledge to get the job done fast and right. To locate a McQuay parts distributor with local inventory near you, visit www.mcquay.com.

New Dayton Parts Warehouse, Dayton, Ohio
156,000 square feet and 18 shipping bays.

McQuay operates a large stocked warehouse supporting your critical parts needs with an extensive variety of OEM parts. The warehouse performs same-day shipments on over 94% of stocked parts with emergency shipments available when you need them. The Parts Warehouse is an ISO 14001 certified facility, for effectively implementing an environmental management system.

Because they are designed and/or specified by the original equipment manufacturer (OEM), McQuay quality parts are designed and specified to enhance the performance of your HVAC system and increase the operating life of your investment. Overall maintenance costs are reduced, improving your bottom line.

Look to McQuay for these OEM Parts

- McQuay HVAC products
- AAF® HVAC products
- ClimateControl® HVAC products
- AAF®-HermanNelson® classroom unit ventilators
- Remington® air conditioning products
- Singer® packaged terminal air conditioners
- Westinghouse® commercial air conditioning products

Equipment Upgrades and Modernization

Optimize your existing equipment by field installing McQuay options to improve performance and energy efficiency.

- Variable frequency drives
- Digital and analog controls
- High efficiency motors
- Remote user interface panels
- Enhanced surge protection
- Remanufactured compressors
- Condenser enhancement kit
- Centrifugal chiller refrigerant oil separator
- Oil-free, magnetic bearing centrifugal chiller compressors
- McQuay PureCharge™

With the new McQuay Parts and Aftermarket Products Catalog you can search 15 categories and over 4,200 products to easily find the parts you need. Use the online version on the Parts & Upgrades Page of www.mcquay.com.

Operator Training

Once you have made the investment in efficient, flexible HVAC equipment, taking care of your investment should be a top priority. McQuay International offers customer training classes to learn first hand, from the manufacturer, what it takes to get the most out of your new mechanical systems. Training courses provide both classroom and hands-on learning experiences. Class topics include operation, repair and maintenance of the following unit types:

- Air-cooled chillers
- Controls
- Magnetic bearing compressor chillers
- Rooftop systems
- Self-contained systems
- Terminal units
- Water-cooled chillers

For large groups, McQuay Service Training will come to your site and customize a training session specifically for the application.

To see the complete schedule of classes and to enroll online, visit the Training page on www.mcquay.com.

McQuay Service Solutions

Capital Budgeting

Enhance your HVAC assets with strategic planning to offset future energy costs and aging infrastructure.

Planned Maintenance

Protect your valuable assets with a results-oriented maintenance strategy designed to meet your specific business requirements and objectives.

Emergency Repairs

We offer emergency repair services 24 hours, 7 days a week on McQuay and other HVAC equipment.

Equipment Upgrades

Our technicians can optimize your older chiller by adding digital controls and variable frequency drives to improve its energy efficiency.

Equipment Replacements

If you're looking to replace equipment, we can do fully engineered, turnkey equipment replacements. A newer, more efficient model can pay for itself in a short time based on energy savings alone.

Training for Maintenance Staff

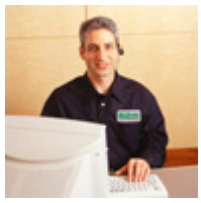
Reduce your maintenance costs by learning how to perform routine maintenance and troubleshooting tasks. McQuay offers both classroom service training and on-site training.

Complete Building HVAC Service

Our account representatives and factory trained technicians can provide quick response and proactive solutions for any building requirement.

We offer complete building services for all brands and types of HVAC systems:

- Centrifugal chillers
- Screw chillers
- Scroll chillers
- Absorption chillers
- Cooling towers
- Boilers
- Packaged rooftop units
- Air handling equipment
- Exhaust/make-up air systems
- Pumping systems
- Water treatment
- Split DX systems
- Building controls
- And more



D-Net® Performance Services for Quicker Response and Enhanced Support

McQuay's maintenance and service offerings now include enhanced options for D-Net® Performance Services capabilities. As an innovative, web-based offering D-Net facilitates remote diagnostics, service, and performance monitoring. This capability enables McQuay Service to flag maintenance proactively, evaluate and/or resolve issues quickly, and provide regular, documented communication to facilitate not only service and maintenance decisions, but also decisions about equipment upgrades or replacement.

Open Choices™ for the Life of Your HVAC Equipment

To maximize the return on your building investment, you want the flexibility to choose products, systems and services that best meet your requirements. Your building's assets and expenses need to be managed efficiently to give you flexibility for the life of your building. Open, standard protocols give you choices and supplier independence.

Our Open Choices feature for communication protocols provides the owner long-term choices for:

- Building automation system integration
- Equipment adds or replacements
- Service support

Easy Integration into Your Building Automation System

McQuay provides superior value in HVAC equipment, automation protocol expertise, proven technical support capabilities from our Controls Customer Support Center (1-866-4MCQUAY), and easy integration with your building automation system (BAS).

- Testing and validation of network communications with BAS suppliers
- Integration support for job site needs during the life of McQuay HVAC equipment
- Comprehensive documentation available on www.mcquay.com
- Network communication designed for strict compliance with BACnet® and LonWorks® protocols

SIEMENS
t.a.c
ALERTON
Delta controls
novar
Honeywell
KMC CONTROLS
TRIDIUM
AUTOMATEDLOGIC CORPORATION

LONMARK PARTNER
BACnet International

McQuay MicroTech® Controls with our Open Choices™ Feature

The complete line of MicroTech controls, with our Open Choices feature, provide flexibility and advanced capability to facilitate building automation system integration.

MicroTech III controls are available for McQuay Applied Air systems (Rooftop, Self-Contained, and Maverick II™), Air-Cooled Chillers (Pathfinder™ and Model AGZD) and Water Source Heat Pumps. MicroTech E is offered on the new Magnitude™ Magnetic Bearing Centrifugal Chiller. All McQuay controls offer:

- Optional factory-programmed and tested communication modules that plug into our unit controllers to allow network communications
- LONMARK® 3.4 certified and BACnet conformance tested
- Communication modules can be changed or upgraded to migrate with your BAS technology

System Integration Benefits

For MicroTech III Applied Air and Pathfinder Chiller Units

- Reduced startup and commissioning time using network parameters that are set at the unit controller keypad display
- Simple programming because the unit controller detects and displays only the properties specific to the communication module protocol
- LEDs clearly identify communication status between unit controller and the BAS
- Eliminates the expense of additional software tools

For MicroTech III WSHP Units

- Simplified ordering, servicing and replacement since a single MicroTech III unit controller is compatible with all communication protocols
- Unit controller monitors WSHP unit status information such as water and air temperatures and notifies your BAS of alarm conditions

For MicroTech E Magnitude Chiller Units

- Network integration parameters are set at the unit controller interface, without the need for an expensive gateway panel
- Easily view or modify system settings using the operator touch screen panel
- A single BACnet communication module for MS/TP, IP, or Ethernet facilitates selection and promotes flexibility to change the protocol in the field

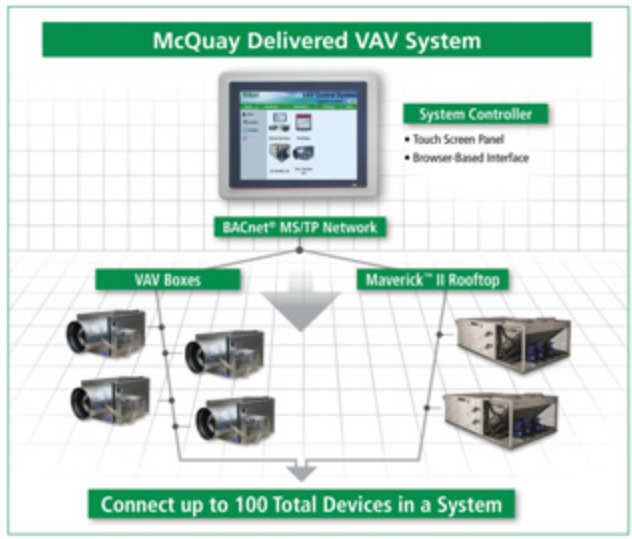
Open Choice Options for Integrating McQuay Unit Controllers into a BAS

Unit	Controller	LONMARK Certified	BACnet MS/TP	BACnet IP	BACnet Ethernet	Modbus®
Applied Rooftop/Self-Contained	MicroTech III	3.4	Yes	Yes	No	No
Maverick II™ Rooftop	MicroTech III	3.4	Yes	Yes	No	No
Maverick I™ Rooftop	Maverick I	3.4	Yes	Yes	Yes	No
Water Source Heat Pumps	MicroTech III	3.4	Yes	No	No	No
Pathfinder™/ AGZ Chillers	MicroTech III	3.4	Yes	Yes	No	Yes
Magnitude™ (WME) Chiller	MicroTech E	3.4	Yes	Yes	Yes	Yes
Chiller*	MicroTech III	3.3	Yes	Yes	Yes	Yes
Unit Ventilator	MicroTech II	3.3	Yes	No	No	No

*MicroTech III available for centrifugal, screw, and global chiller unit controllers (models WSC, WDC, WPV, HSC, HDC, TSC, WMC, WCC, AGZ, WGZ, AGS, WGS, TGZ)

Variable Air Volume made simple, efficient and easy to install

Variable air volume, or VAV, systems have always been the gold standard of comfort and efficiency. Now McQuay offers a complete HVAC VAV system that is as simple and easy to install and provides the optimal performance building owners and occupants have come to expect.



Installation as easy as plug and play

With the Delivered VAV system, field start-up of an entire small building* can typically be completed in hours compared to days. Here's why:

- Configuration files are created for your system and preloaded into the system controller
- Application data is loaded and tested at the factory for the VAV box and air handling unit controllers
- After the system is installed the Delivered VAV System components automatically communicate with one another
- Commissioning process is automated thanks to the start-up wizard and easy-to-use touch screen controller

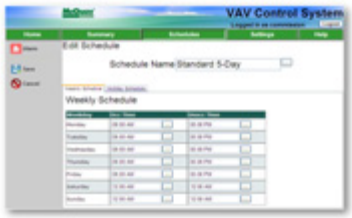
*VAV system consisting of two 50-ton rooftops and 20 to 40 boxes

Home Screen

Startup Wizard

System Summary

Scheduling Screen



Easy to Use Interface

The web based interface simplifies scheduling and monitoring. The startup wizard provides step-by-step instructions, automating the commissioning process. The System Controller compares the installed equipment to the original order, allowing you to take care of exceptions and insure proper installation of all system components.

Powerful Applications

The McQuay Delivered VAV system includes control and monitoring applications. These programs help make your building system as comfortable and efficient as possible.

- Scheduling – use default occupancy schedule or enter custom seven-day schedules and holidays
- System Summary – spreadsheet-style information pages detail each setpoint, mode of operation and status for all equipment
- Remote Monitoring – connect to local network to view current status from any computer using a web browser
- Alarm Management – receive notification when an alarm occurs via email or text message to a cell phone
- Data Logs – continuous logging of data points to analyze potential problems

Control Panel

McQuay's VAV System Controller gives building owners access to manage their building's HVAC system. The operator can make schedule changes, adjust setpoints and manage alarms to ensure the comfort of the occupants through the local touch screen interface. Operators can also use a computer with a standard web browser when the panel is connected to the building's local network. This unit is compatible with McQuay rooftops using MicroTech® III controls and McQuay's BACnet® VAV actuator.

BACnet VAV Actuator

The new BACnet VAV Actuator provides high performance direct digital control (DDC) of pressure-independent, variable-air-volume zone-level routines.

Room Temperature Sensor

McQuay Room Temperature Sensors offer a wide range of features and functionality that works in concert with the McQuay Delivered VAV System to deliver exceptional occupant comfort in even the most demanding application environments. These room sensors are for use with McQuay BACnet VAV Actuator controllers. The room temperature sensor includes an RJ11 port, used to balance the terminal unit. The modern design complements any décor and allows Timed Override by building occupants.

Terminal Units

Single Duct: The MQTHI5 is our high performance single duct air terminal product line. This series is available in a wide range of sizes with available capacities from 80 to 8000 CFM. The MQTHI5 air terminal is supplied with a round inlet collar on unit sizes 6"-16" and rectangular inlets on sizes 20" and 24". Outlets are rectangular with slip and drive connections. Units include an external 20-gauge control mounting panel. Control panel covers are included on all units.

Series and Parallel Fan: Basic units include inlet velocity sensor, 1" dual density fiberglass insulation, flanged discharge, SCR fan speed control, 20 ga. primary air valve, 22 ga. casing, 18 ga. discharge, bottom motor access panel, and control enclosure/mounting plate.

- Series Fan: MQFCI6 series fan powered terminal units provide a constant volume of airflow via the fan
- Parallel Fan: MQFVI5 parallel fan-powered terminal units provide a variable volume of airflow as the fan cycles in heat mode or unoccupied operation
- All boxes are available with hot water or electric heat

Self-Contained Air Conditioning Systems—Type SWP and SWT

- **Pre-engineered flexibility to design systems without compromise**
- **Low installation and operating costs**
- **Plenum fans allow quieter operation**
- **R-410A refrigerant allows higher efficiency (SWP only)**
- **Modular construction from 12 to 130 tons**
- **Controls flexibility—MicroTech® III controls with our Open Choices™ feature for easy integration with the BAS of your choice**

For more detail, refer to Catalogs 860 and 865. For the most current information, refer to www.mcquay.com.

Model SWP—12 to 130 tons

Performance complies with ASHRAE Standard 90.1-2007

- Many selections surpass a 14 EER
- Water and airside economizer capability
- Fan flexibility to comply with bhp/cfm
- Variable Frequency Drive (VFD) fan control to satisfy VAV requirements

Model SWT— 15 to 40 tons

Ideal for retrofit and replacement (Model SWT)

- Three separate sections can each negotiate 3' framed doorways - refrigeration system remains intact
- Integral waterside economizer
- Lower installation costs

LONMARK 3.4

Available LONMARK certified

BACnet International

Features

Up to six row copper tube, aluminum fin evaporator coils

- Provide excellent full- and part-load temperature and humidity control
- Effectively handle lower discharge air temperature designs that can reduce first cost and operating costs
- Optional stainless steel drain pan and coil casing

Serviceable design

- Hinged access doors
- Reduces maintenance and service expense
- Easily accessed MicroTech III and VFD controls with user-friendly interfaces
- Cleanable condensers and economizer coils

Gasketed frame channel

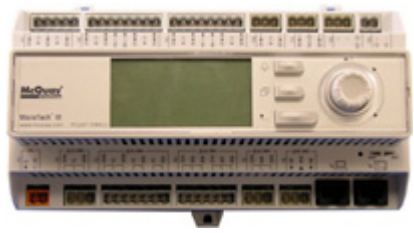
- Eliminates metal-to-metal contact between paneling and framework
- Minimizes cabinet condensate and corrosion
- Facilitates top and side component removal
- Promotes long life

Rugged cabinet enclosure

- Rigid thermally efficient (R-13) injected foam panels are strong and light weight
- G-90 galvanized or painted finish
- Promotes longer unit life
- Leakage of only 0.5 cfm/ft^2 at 5" cabinet pressure (typically less than 1%)

Water-cooled condenser

- Mechanically cleanable, all copper and brass construction
- Simple to clean



MicroTech III control system

- Open Choices feature provides easy integration into the BAS of your choice
- LonWorks or BACnet communication option
- Industry leading user interface
- Factory installed and tested for faster, lower cost, field commissioning

Self-Contained Air Conditioning System Model SWP—20 to 125 Tons

Designed for:

- Variable air volume
- Constant air volume
- Water economy cycle
- Air economy cycle
- Make-up air
- Optimal air temperature (low cfm/ton)

Custom designed acoustical discharge plenum (not shown)

- Multiple plenum heights
- Multiple duct opening location and size options
- Available 2" foam panels or 1.5 lb density glass fiber insulation, perforated steel liner to reduce noise

SWSI air foil plenum fan

- Excellent acoustics
- Improves efficiency
- Reduces turbulance and rumble associated with elbows and transitions

Engineered flexibility

- Flexibility for energy and cost saving low cfm/ton systems
- Dual refrigeration circuits (for superior IEER and cost) or independent refrigeration circuits (for superior redundancy)

Scroll compressors

- Up to eight, for quiet, efficient operation
- Custom selections tailored to specific customer needs
- High EERs/low operating costs

Features and Options

Waterside economizer

- Effectively uses low cooling tower water temperatures to offload compressor operation
- Airside economizer also available where installation parameters permit

Multiple filter options

- Longer lasting 4" filters (30%, 65% and 85% efficiency) available
- Side access doors or face loading
- Improve indoor air quality
- Optional microbial resistant filters
- Pre-filter option

Cost saving electrical design

- Branch short circuit protection for added reliability
- Single point power with optional factory disconnect switch
- All control devices and safeties factory installed

Individual short circuit protection on each motor load

- Isolates the trip to a select motor for easier diagnosis and efficient operations

Variable frequency drive (VFD)

- Manages fan speed for VAV control
- Dramatically reduces energy costs
- Reduces fan noise

Distributor tubes sheathed in plastic

- Attention to quality improves longevity

Double-sloped steel drain pan

- Eliminates standing water
- Reduces bacterial growth
- Serviceable
- Optional stainless steel construction

Shell and tube condensers

- Mechanically cleanable

SWP—Physical Data

Tons	Cabinet Size	1 Compressor Per Circuit	2 Compressors Per Circuit	Max Fan Diameter	Cabinet Height	Cabinet Width	DX Area
012	Small	—	6.0 / 6.0	24.5	80	84	17.2
018		—	6.0 / 10.0	24.5	80	84	17.2
023		—	6.0 / 15.0	24.5	80	84	17.2/25.2
028		—	10.0 / 15.0	24.5	80	84	17.2/25.2
033		—	15.0 / 15.0	24.5	80	84	17.2/25.2
035		—	7.0/7.0 / 15.0	24.5	80	84	17.2/25.2
039	Small/ Tall	10.0 / 10.0 / 15.0	—	27.0	84	84	25.2/29.8
040		—	2 × 10.0 / 15.0	27.0	84	84	25.2/29.8
044		10.0 / 15.0 / 15.0	—	27.0	84	84	25.2/29.8
045		—	2 × 10.0 / 2 × 10.0	27.0	84	84	25.2/29.8
050		15.0 / 15.0 / 15.0	—	27.0	84	84	29.8
051		—	2 × 11.0 / 2 × 11.0	27.0	84	84	29.8
044	Medium	10.0 / 15.0 / 15.0	—	36.5	96	102	40.8
045		—	2 × 10.0 / 2 × 10.0	36.5	96	102	40.8
050		15.0 / 15.0 / 15.0	—	36.5	96	102	40.8/45.2
051		—	2 × 11.0 / 2 × 11.0	36.5	96	102	40.8/45.2
056		13.0 / 13.0 / 13.0 / 13.0	—	36.5	96	102	40.8/45.2
057		—	2 × 13.0 / 2 × 13.0	36.5	96	102	40.8/45.2
062		13.0 / 13.0 / 15.0 / 15.0	—	36.5	96	102	40.8/45.2
063		—	2 × 13.0 / 2 × 15.0	36.5	96	102	40.8/45.2
065		15.0 / 15.0 / 15.0 / 15.0	—	36.5	96	102	40.8/45.2
066		—	2 × 15.0 / 2 × 15.0	36.5	96	102	40.8/45.2
062	Large	13.0 / 13.0 / 15.0 / 15.0	—	36.5	96	126	52.5
063		—	2 × 13.0 / 2 × 15.0	36.5	96	126	52.5
065		15.0 / 15.0 / 15.0 / 15.0	—	36.5	96	126	52.5
066		—	2 × 15.0 / 2 × 15.0	36.5	96	126	52.5
073		10.0 / 10.0 / 10.0 / 10.0 / 13.0 / 13.0	—	36.5	96	126	52.5
080		10.0 / 10.0 / 13.0 / 13.0 / 13.0 / 13.0	—	36.5	96	126	52.5
088		13.0 / 13.0 / 13.0 / 13.0 / 13.0 / 13.0	—	36.5	96	126	52.5
065	Large/ Tall	15.0 / 15.0 / 15.0 / 15.0	—	44.0	112	126	60.9
066		—	2 × 15.0 / 2 × 15.0	44.0	112	126	60.9
073		10.0 / 10.0 / 10.0 / 10.0 / 13.0 / 13.0	—	44.0	112	126	60.9
080		10.0 / 10.0 / 13.0 / 13.0 / 13.0 / 13.0	—	44.0	112	126	60.9
088		13.0 / 13.0 / 13.0 / 13.0 / 13.0 / 13.0	—	44.0	112	126	60.9
099		15.0 / 15.0 / 15.0 / 15.0 / 15.0 / 15.0	—	44.0	112	126	60.9/71.3
105		13.0 / 13.0 / 13.0 / 13.0 / 13.0 / 13.0 / 13.0 / 13.0	—	44.0	112	126	60.9/71.3
120		13.0 / 13.0 / 13.0 / 13.0 / 15.0 / 15.0 / 15.0 / 15.0	—	44.0	112	126	60.9/71.3
130		15.0 / 15.0 / 15.0 / 15.0 / 15.0 / 15.0 / 15.0 / 15.0	—	44.0	112	126	60.9/71.3

Indicates unit tonnages available in Small/Tall or Medium cabinet sizes

Indicates unit tonnages available in Medium, Large or Large/Tall cabinet sizes

Indicates unit tonnages available in Large or Large/Tall cabinet sizes

Notes:
1 Waterside working pressure is 180 or 450 psig
2 6 compressor units have 6-row coils, all others are 5-row coils
3 Small electric heat option is 34 kW and 208/230 Volt medium cabinet
4 Large and 460/575 Volt medium cabinet electric heat option is 68 kW
5 Filter face area is approximately the same as the DX coil area

SWT—Physical Data

Data	SWT model size				
	018C	023C	028C	035C	040C
Compressor					
Quantity	3, 4	3, 4	4	4	4
Evaporator coil					
Face area (ft²)	11.8	15.3	18.9	23.3	26.3
Rows	4, 6	4, 6	4, 6	4, 6	4, 6
FPI	12	12	12	12	12
Waterside economizer coil					
Face area (ft²)	11.8	15.3	18.9	23.3	26.3
Rows	4	4	4	4	4
FPI	12	12	12	12	12
Maximum working pressure (psig)	400	400	400	400	400
Hot water heating coil					
Face area (ft²)	9.3	12.8	16.3	20.2	23.8
Rows	1, 2	1, 2	1, 2	1, 2	1, 2
FPI	12	12	12	12	12
Electric heat					
kW	34	34	34	34	34
Filters					
(Quantity) size 4" depth filter	(3) 20 × 20 (2) 25 × 20 (4) 16 × 25	(3) 20 × 20 (2) 25 × 20 (4) 16 × 25	(3) 20 × 20 (2) 25 × 20 (4) 16 × 25	(5) 20 × 20 (5) 25 × 20	(5) 20 × 20 (5) 25 × 20
Evaporator fan[1]					
Quantity	1	1	1	2	2
Size	15	18	18	15	15
Minimum horsepower	5	7.5	10	10	15
Maximum horsepower	10	15	20	20	25
Minimum design cfm, CV	2950	3825	4725	5825	6575
Minimum design cfm, VAV	4720	6120	7560	9320	10,520
Maximum design cfm	7080	9180	11,340	13,980	15,780
Condensers					
Waterside working pressure (psig)	400	400	400	400	400
Minimum entering temperature (°F) mechanical cooling	55	55	55	55	55
Minimum gpm	25	41	53	66	69
Maximum gpm	88	108	125	159	166

1. Standard fan TSP limit is 5.5 inches of water. Consult your local McQuay Sales Representative for applications beyond this range.

SWT—Dimensional Data

Basic unit	018C	023C	028C	035C	040C
Depth[1, 2]	52.00	52.00	52.00	52.00	52.00
Length[1, 2]	84.00	84.00	84.00	100.00	100.00
Height[1, 2]	112.75	112.75	112.75	112.75	112.75

1. Dimensions do not include lifting lugs, handle, latch, or fastener extensions.
2. For shipping dimensions add 4" (102mm) to depth, 8" (204mm) to length, and 4" (102mm) to height.

Products Summary

Applications

Maverick™ I Commercial Rooftop Systems	Maverick™ II Commercial Rooftop Systems	RoofPak™ Applied Rooftop Systems
• Maverick I rooftop systems are ideal for standard commercial HVAC applications where installed cost is a primary concern. EERs as high as 11.3 set them apart from most competitive systems. • CV only • Up to 2 inches ESP • Gas or electric heat options • Single-wall construction • PPC control option • See page 22 for product information	• Maverick II rooftop systems are ideal for standard commercial HVAC applications with higher capacity requirements VAV control needs or 100% Outside Air applications • CV or VAV • Up to 2.5 inches ESP and 5 inches TSP • Gas, electric or hot water heat options • Double-wall construction • Modulating HGRH • Energy recovery • See page 29 for product information	• Roofpak applied rooftop systems are ideal when job requirements call for additional capabilities such as make-up air, advanced filtration, energy recovery, evaporative condensers, RAF, ultra-quiet operation, higher capacities and precise ventilation control. • Gas, electric, hot water and steam heat with valve or face & bypass control • R-410A or R-407C refrigerant • Up to 6.5 inches TSP • Single-wall or R 6.5 double-wall construction • See page 37 for product information

100% Outdoor Air Systems

Maverick II and RoofPak rooftop systems are ideal for 100% make up air applications. Units can be equipped with 100° temperature-rise furnaces for cold-weather climates and modulating hot gas reheat to increase occupant comfort and avoid over-cooling.

Rooftop Systems Features and Benefits

Features and options comparison

	Maverick™ I	Maverick™ II	RoofPak™
			
Feature/Option	**3 to 25 Tons**	**15 to 75 tons**	**15 to 140 tons**
Total static pressure range	0–1.75	0–4.0	0–6.5
Insulation	R3	R4	R6
Exhaust fan option	Yes	Yes	Yes
DDC control with Lon or BACnet	Yes	Yes	Yes
LonMark certified, BACnet MS/TP, BACnet/IP	Yes	Yes	Yes
Stainless steel furnace	Yes	Yes	Yes
Hinged access doors	Yes	Yes	Yes
Smoke detectors	Yes	Yes	Yes
Constant air volume	Yes	Yes	Yes
Variable air volume	–	Yes	Yes
Hinged access doors, both sides, all sections	–	Yes	Yes, one-point latch
100% outdoor air	–	Yes	Yes
Modulating hot gas reheat dehumidification	–	Yes	Yes
Double wall construction	–	Yes	Yes
Airfoil DWI or SWSU fans	–	Yes	Yes
Internal-spring isolated fans	–	Yes	Yes
Exhaust fans with static pressure control	–	Yes	Yes
Hot water heat	–	Yes	Yes
Modulating furnace	–	33–100%	5–100%
Prefilters plus MERV 11	–	Yes	Yes
Prefilters plus MERV 14	–	–	Yes
More than 2 furnace sizes per unit	–	–	Yes
Steam heat or face and bypass	–	–	Yes
True hospital/lab final filters	–	–	Yes
Two-inch-seismic-spring isolated fans	–	–	Yes
Return fan	–	–	Yes
Energy recovery wheels	–	Yes	Yes
Certified precise ventilation control	–	–	Yes
IBC Certification	–	–	Yes
Horizontal discharge, horizontal return	Yes	–	Yes
Top discharge	–	–	Yes
UV lights	–	–	Yes
Evaporative condensers	–	–	Yes
Non-chemical water treatment	–	–	Yes
Blow-through DX	–	–	Yes
Sound attenuators	–	–	Yes
Blank/humidifier sections	–	–	Yes
Blenders	–	–	Yes
Split units	–	–	Yes
Lights	–	–	Yes

Maverick™ I Packaged Singlezone Cooling Units—3 to 25 Tons

- Ideal for new, retrofit, or replacement applications on low rise buildings
- Lower installation costs and interior space savings
- Standard low-leak dampers for superior resistance to air leakage and reduced energy costs
- Scroll compressors for efficient cooling operation and dependability
- Two-circuit refrigerant design for high reliability
- Easy access to mechanical components which promotes routine maintenance and can reduce service costs
- Non-corrosive, double-sloped drain pans per ASHRAE Standard 62.1-2004 for good indoor air quality
- Totally enclosed condenser fan motors for reliable operation
- Optional DDC controls
- Optional LonWorks or BACnet for integration into a building automation system
- R-410A refrigerant

For more detail, refer to Catalog 253.

For the most current information, refer to www.mcquay.com.

Maverick I Arrangements

Capacity range—3 to 5 tons

Capacity range—6 to 12 tons

Capacity range—15 to 25 tons

Features and Options

Removable Filters

The filter rack has a slide out tray making filter replacement easy.

1/4 Turn Hinged Door Access

Hinged access doors with ¼ turn latches provide easy access for service and maintenance of the unit.

Externally Mounted Gauge Ports

Exterior mounted refrigerant gauge ports provide quick connection points for service technicians and the ports provide accurate readings without having to remove condenser access panels.

Removable Drain Pan

The drain pan is double-pitched for great indoor air quality (IAQ) and has slide out accessibility for cleaning, further increasing the IAQ of the system.

Maverick™ I Packaged Singlezone Cooling Units—3 to 25 Tons

1. DDC controller

- Open Choices™ integration with BACnet® or LonWorks® communications

2. External refrigerant gauge ports

- Easy access for service
- Allows inspection of refrigerant system performance with all panels installed on the air handling sections

3. Slide-out fan

- For easy access and serviceability

4. Polymer, double sloped drain pan

- Prevents corrosion
- Avoids standing water for high IAQ
- Sloped per ASHRAE Standard 62.1-2004

5. Gas heat

- Dual combustion blower for maximum efficiency at low fire

6. Hinged access doors

- Provides easy access to system components for maintenance and servicability
- 1/4 turn latch

7. Thermostatic expansion valves

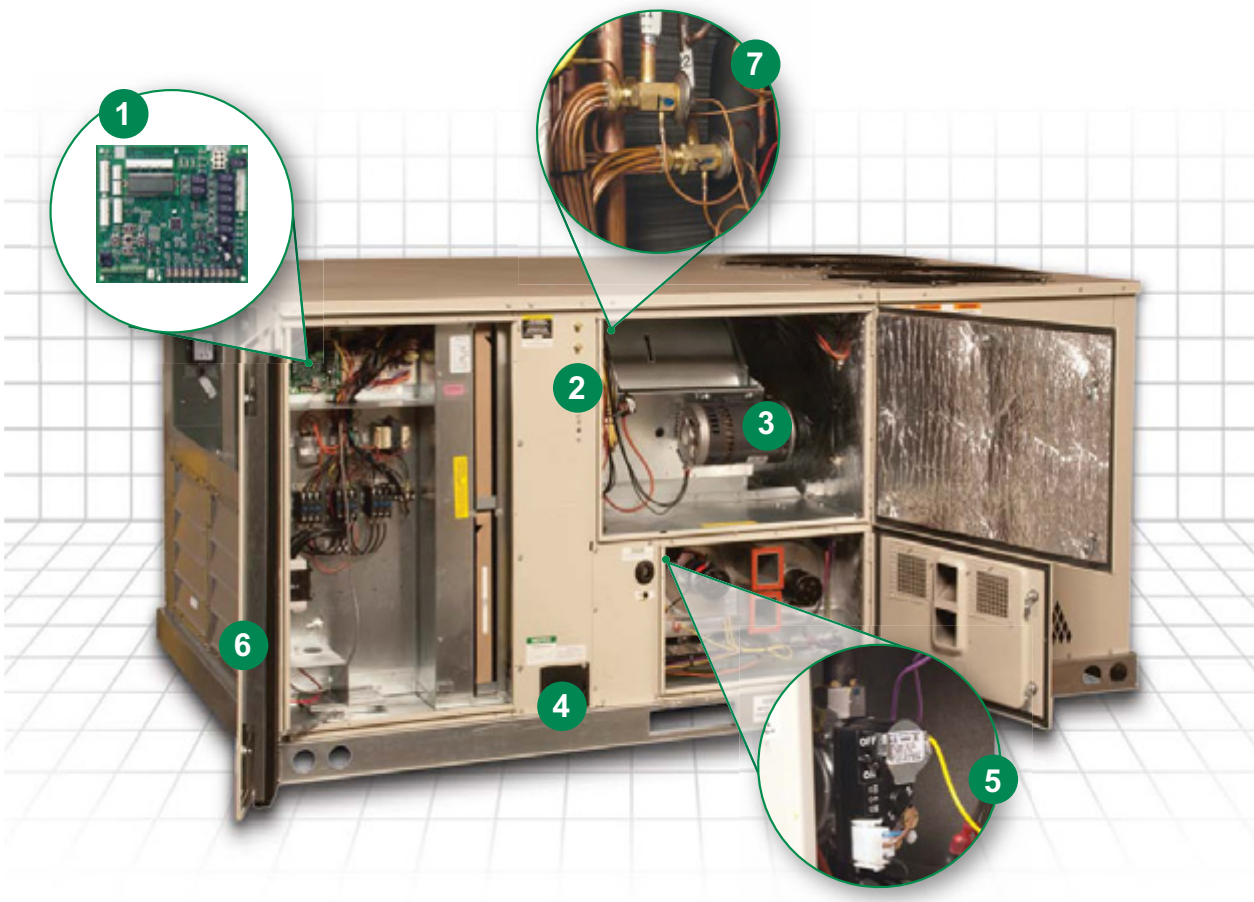
- Improves temperature control
- Increases efficiency

8. Totally enclosed condenser fan motors

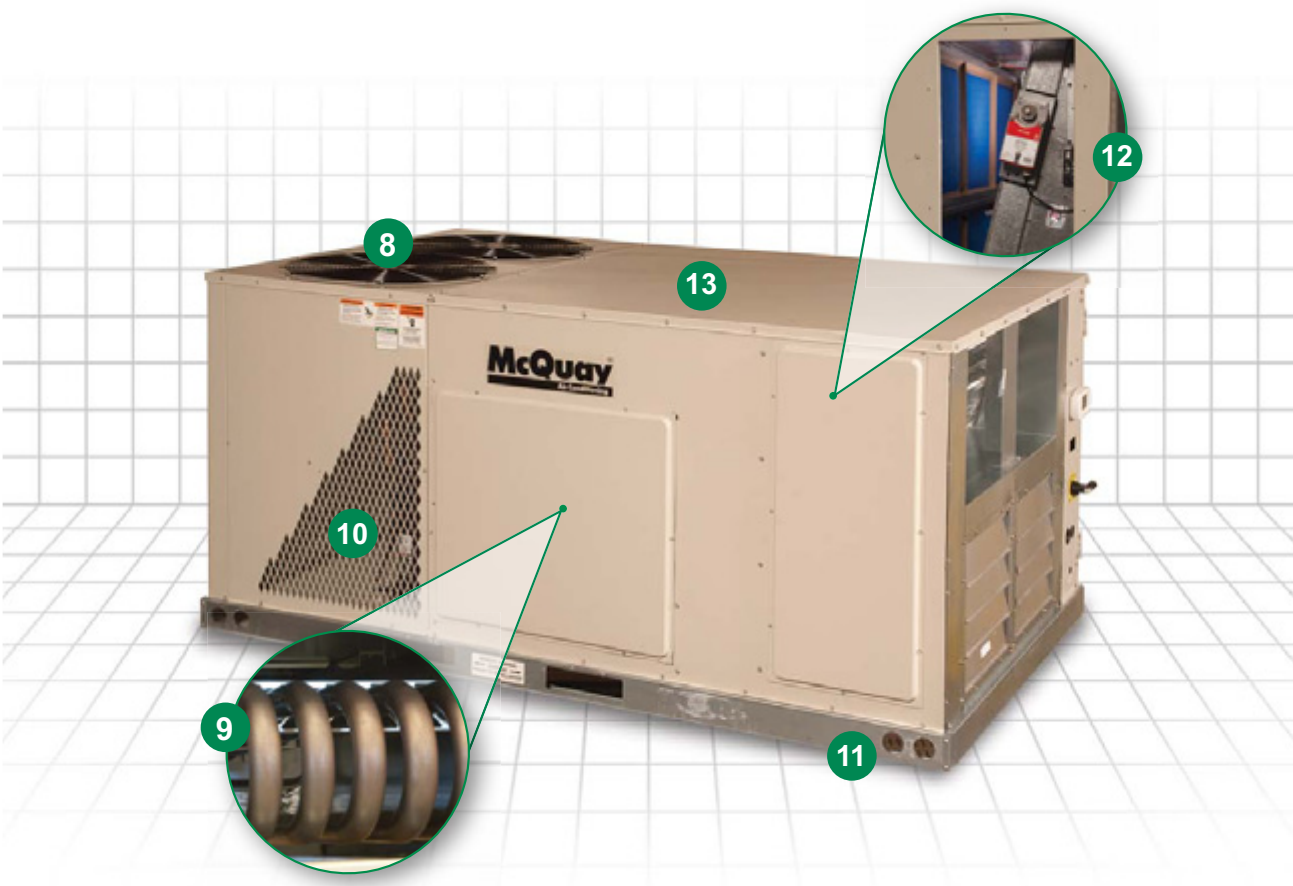
- Prevent electrical damage from rain and condensation

9. Tubular heat exchanger

- Precise t-stat control for reduced design, installation and life cycle costs
- Aluminized steel or optional stainless steel design



Features and Options



10. Scroll compressors

- Provide maximum dependability, efficiency and quiet operation

11. Full perimeter, forkable base rail

- Allows easy maneuvering and installation

12. Economizer

- Provides free cooling when outdoor conditions are suitable
- Provides fresh air to meet code requirements
- Integrated economizer operating with mechanical cooling
- Optional demand control ventilation for increased system efficiency

13. Durable construction

- Powder paint exterior cabinet panels pass 1000-hour ASTM B 117 Salt Spray Test for durability
- 18 gauge sheet metal for durability and low leakage rates
- 3/4-inch, foil face insulation with mechanical fasteners helps prevent insulation damage and fibers in the airstream

14. Energy recovery wheel

- Recovers both heat and moisture energy
- Factory-installed and tested prior to shipment
- Available in 100% outdoor air (OA) or economizer configurations, both with exhaust fans
- AHRI-certified and UL- recognized wheel

Physical Data—MPS 003 through 006

Model	MPS			
	3 ton	4 ton	5 ton	6 ton
Cooling performance[1]				
Gross cooling BTU [kW]	36,800 [10.78]	50,000 [14.65]	61,000 [17.87]	76,000 [22.27]
EER/IEER[2]	13 / 11.4	13 / 11.4	13 / 11.1	N/A / 11.5
Nominal airflow/AHRI airflow (cfm) [L/s]	1200 [566]	1600 [755]	2000 [944]	2400/2400 [1133/1133]
Net cooling BTU [kw]	35,400 [10.37]	48,000 [14.06]	59,000 [17.29]	73,000 [21.39]
Net sensible BTU [kW]	26,200 [7.68]	35,600 [10.43]	42,000 [12.31]	53,900 [15.79]
Net latent BTU [kW]	9200 [2.7]	12,400 [3.63]	17,000 [4.98]	19,100 [5.6]
Net system power kW	3.1	4.19	5.32	6.31
Compressor(s)				
Type/number	Scroll/1	Scroll/1	Scroll/1	Scroll/1
Gas heating performance[3]				
Steady stage efficiency %	81	81	81	81
Number of stages	1	1	1	2
Gas connection size	1/2"	1/2"	1/2"	1/2"
Heating input (BtuH)	80,000/120,000	80,000/135,000	100,000/135,000	75,000/150,000
Heating output (BtuH)	64,800/97,200	64,800/109,400	81,000/109,400	60,750/121,500
Temperature rise °F	30 - 80	30 - 80	25 - 70	30 - 60
Sound[4]				
Outdoor rating (dB)	78	78	83	88
Outdoor coil				
Fin type	Louvered	Louvered	Louvered	Louvered
Tube type	Rifled	Rifled	Rifled	Rifled
Tube size OD (in.) [mm]	3/8 [9.5]	3/8 [9.5]	3/8 [9.5]	3/8 [9.5]
Face area (sq. ft) [sq. m]	16.91 [1.57]	16.56 [1.54]	16.56 [1.54]	13.5 [1.25]
Rows (FPI) [fpcm]	1/22 [9]	2/22 [9]	2/22 [9]	1 / 22 [9]
Indoor coil				
Fin type	Corrugated	Corrugated	Corrugated	Louvered
Tube type	Rifled	Rifled	Rifled	Rifled
Tube size OD (in.) [mm]	3/8 [9.5]	3/8 [9.5]	3/8 [9.5]	0.375 [9.5]
Face area (sq. ft) [sq. m]	5.17 [0.48]	5.17 [0.48]	5.17 [0.48]	13.5 [1.25]
Rows (FPI) [fpcm]	2/17 [7]	3/15 [6]	3/16 [6]	2 / 18 [7]
Refrigerant control	TX valves	TX valves	TX valves	Capillary tube
Drain connection (in.) [mm]	3/4 [19.00]	3/4 [19.0]	1 [19.05]	1 [25.4]
Condenser fan				
Type	Propeller	Propeller	Propeller	Propeller
No. used/diameter (in.) [mm]	1/24 [609.6]	1/24 [609.6]	1/24 [609.6]	2/24 [609.6]
Drive type/No. of speeds	Direct/1	Direct/1	Direct/1	Direct/1
CFM [L/s]	3680 [1737]	3680 [1737]	3680 [1737]	8000 [3775]
Motor hp	1/3	1/3	1/3	2 at 1/3 HP
Motor rpm	1075	1075	1075	1075
Indoor fan				
Type	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal
No. used/diameter (in.) [mm]	1/10x10 [254x254]	1/10x10 [254x254]	1/10x10 [254x254]	1/11x12 [279x305]
No. motors	1	1	1	1
Motor hp	1/2	1/2 - 3/4	3/4 - 1	1 1/2
Motor rpm	1075	1075	1725	1725
Motor frame size	48	48	56	56
Filter				
Fin type	Disposable	Disposable	Disposable	Disposable
Furnished	Yes	Yes	Yes	Yes
(No.) size (in.) [mm]	(2) 1x16x24 [25x406x635]	(2) 1x16x24 [25x406x635]	(2) 1x16x24 [25x406x635]	(6) 2x18x18 [51x457x457]
Refrigerant				
Charge oz. [g]	96 [2722]	165 [4678]	160 [4536]	190.9 [5412]
Weight				
Net weight lbs. [kg]	543 [246]	580 [263]	597 [271]	965 [438]
Shipping weight lbs. [kg]	550 [249]	587 [266]	604 [274]	1002 [455]

1. Cooling Performance is rated at 95° F ambient, 80° F entering dry bulb, 67° F entering wet bulb. Gross capacity does not include the effect of fan motor heat. AHRI capacity is net and includes the effect of fan motor heat. Units are suitable for operation to 20% of nominal cfm. Units are certified in accordance with the Unitary Air Conditioner Equipment certification program, which is based on AHRI Standard 210/240 or 360.
2. EER and/or IEER are rated at AHRI conditions and in accordance with DOE test procedures.
3. Heating Performance limit settings and rating data were established and approved under laboratory test conditions using ANSI standards.
4. Ratings shown are for elevations up to 2000 feet. For elevations above 2000 feet, ratings should be reduced at the rate of 4% for each 1000 feet above sea level. Outdoor Sound Rating shown is tested in accordance with AHRI Standard 270.

Physical Data—MPS 007 through 010

Model	MPS		
	7 1/2 ton	8 ton	10 ton
Cooling performance[1]			
Gross cooling BTU [kW]	88,000 [25.78]	101,000 [29.59]	123,000 [36.04]
EER/IEER[2]	11.2 / 11.8	11.2 / 12.0	11.2 / 12.0
Nominal airflow /AHRI airflow (cfm) [L/s]	2800/2975 [1321/1404]	3200/3200 [1510/1510]	4000/3750 [1888/1770]
Net cooling BTU [kw]	85,000 [24.9]	97,000 [28.42]	118,000 [34.57]
Net sensible BTU [kW]	66,100 [19.37]	74,000 [21.68]	88,800 [26.02]
Net latent BTU [kW]	18,900 [5.54]	23,000 [6.74]	29,200 [8.56]
Net system power kW	7.53	8.59	10.49
Compressor(s)			
Type/number	Scroll/1	Scroll/2	Scroll/2
Gas heating performance[3]			
Steady stage efficiency %	81	81	81
No. stages	2	2	2
Gas connection size	1/2" / 3/4"	1/2" / 3/4"	1/2" / 3/4"
Heating input (BtuH)	112,500 / 225,000	112,500/225,000	112,500 / 225,000
Heating output (BtuH)	91,125 / 182,250	91,125/182,250	91,125 / 182,250
Temperature rise °F	25 - 70	40 - 70	15 - 55
Sound[4]			
Outdoor rating (dB)	88	88	88
Outdoor coil			
Fin type	Louvered	Louvered	Louvered
Tube type	Rifled	Rifled	Rifled
Tube size OD (in.) [mm]	0.375 [9.5]	0.375 [9.5]	0.375 [9.5]
Face area (sq. ft) [sq. m]	27 [2.51]	27 [2.51]	27 [2.51]
Rows (FPI) [fpcm]	1/22 [9]	2/18 [7]	2/22 [9]
Indoor coil			
Fin type	Louvered	Louvered	Louvered
Tube type	Rifled	Rifled	Rifled
Tube size OD (in.) [mm]	0.375 [9.5]	0.375 [9.5]	0.375 [9.5]
Face area (sq. ft) [sq. m]	13.5 [1.25]	13.5 [1.25]	13.5 [1.25]
Rows (FPI) [fpcm]	2/18 [7]	2/18 [7]	3/18 [7]
Refrigerant control		TX valves	TX valves
Drain connection (in.) [mm]	1/1 [25.4]	1/1 [25.4]	1/1 [25.4]
Condenser fan			
Type	Propeller	Propeller	Propeller
No. used/diameter (in.) [mm]	2/24 [609.6]	2/24 [609.6]	2/24 [609.6]
Drive type/No. of speeds	Direct/1	Direct/1	Direct/1
CFM [L/s]	8000 [3775]	8000 [3775]	8000 [3775]
Motor hp	2 at 1/3 HP	2 at 1/3 HP	2 at 1/3 HP
Motor rpm	1075	1075	1075
Indoor fan			
Type	FC Centrifugal	FC Centrifugal	FC Centrifugal
No. used/diameter (in.) [mm]	1/15x15 [381x381]	15x15 [381x381]	15x15 [381x381]
No. motors	1	1	1
Motor hp	2 - 3	2 - 3	2 - 3
Motor rpm	1725	1725	1725
Motor frame size	56	56	56
Filter			
Fin type	Disposable	Disposable	Disposable
Furnished	Yes	Yes	Yes
(No.) size (in.) [mm]	(6) 2x18x18 [51x457x457]	(6) 2x18x18 [51x457x457]	(6) 2x18x18 [51x457x457]
Refrigerant			
Charge oz. [g]	190.9 [5412]	154.4/166.6 [4377/4723]	172.8/180.8 [4899/5126]
Weight			
Net weight lbs. [kg]	965 [438]	1095 [497]	1156 [524]
Shipping weight lbs. [kg]	1002 [455]	1132 [513]	1193 [541]

1. Cooling Performance is rated at 95° F ambient, 80° F entering dry bulb, 67° F entering wet bulb. Gross capacity does not include the effect of fan motor heat. AHRI capacity is net and includes the effect of fan motor heat. Units are suitable for operation to 20% of nominal cfm. Units are certified in accordance with the Unitary Air Conditioner Equipment certification program, which is based on AHRI Standard 210/240 or 360.
2. EER and/or IEER are rated at AHRI conditions and in accordance with DOE test procedures.
3. Heating Performance limit settings and rating data were established and approved under laboratory test conditions using ANSI standards.
4. Ratings shown are for elevations up to 2000 feet. For elevations above 2000 feet, ratings should be reduced at the rate of 4% for each 1000 feet above sea level. Outdoor Sound Rating shown is tested in accordance with AHRI Standard 270.

Physical Data—MPS 012 through 025

Model	MPS			
	12 ton	15 ton	20 ton	25 ton
Cooling performance[1]				
Gross cooling BTU [kW]	156,000 [45.71]	188,000 [55.08]	244,000 [71.49]	312,000 [91.42]
EER/IEER[2]	11 / 11.4	11.1 / 12.4	11.1 / 11.4	10 / 10.1
Nominal airflow/AHRI airflow (cfm) [L/s]	5000/4400 [2360/2076]	6000/5900 [2831/2784]	8000/7725 [3775/3645]	10000/9475 [4719/4471]
Net cooling BTU [kw]	148,000 [43.36]	182,000 [53.33]	234,000 [68.56]	294,000 [86.14]
Net sensible BTU [kW]	107,600 [31.53]	135,700 [39.76]	171,600 [50.28]	214,100 [62.73]
Net latent BTU [kW]	40,400 [11.84]	46,300 [13.57]	62,400 [18.28]	79,900 [23.41]
Net system power kW	13.39	16.35	21.04	29.39
Compressor(s)				
Type/number	Scroll/2	Scroll/2	Scroll/2	Scroll/2
Gas heating performance[3]				
Steady stage efficiency %	81	81	81	81
No. stages	2	2	2	2
Gas connection size	1/2" / 3/4"	3/4"	3/4"	3/4"
Heating input (BtuH)	150,000 / 252,000	250,000 / 350,000	300,000 / 400,000	300,000 / 400,000
Heating output (BtuH)	121,500 / 204,000	203,000 / 284,000	243,000 / 324,000	243,000 / 324,000
Temperature rise °F	15 - 55	15 - 60	15 - 55	10 - 45
Sound[4]				
Outdoor rating (dB)	88	91	91	92
Outdoor coil				
Fin type	Louvered	Louvered	Louvered	Louvered
Tube type	Microchannel	Rifled	Rifled	Rifled
Tube size OD (in.) [mm]	1 [25.4]	0.375 [9.5]	0.375 [9.5]	0.375 [9.5]
Face area (sq. ft) [sq. m]	27 [2.51]	53.3 [4.95]	53.3 [4.95]	53.3 [4.95]
Rows (FPI) [fpcm]	2 / 20 [8]	1/22 [9]	2/22 [9]	2/22 [9]
Indoor coil				
Fin type	Louvered	Louvered	Louvered	Louvered
Tube type	Rifled	Rifled	Rifled	Rifled
Tube size OD (in.) [mm]	0.375 [9.5]	0.375 [9.5]	0.375 [9.5]	0.375 [9.5]
Face area (sq. ft) [sq. m]	13.5 [1.25]	26.67 [2.48]	26.67 [2.48]	26.67 [2.48]
Rows (FPI) [fpcm]	4 / 15 [6]	2/18 [7]	3/13 [5]	4/15 [6]
Refrigerant control	TX valves	TX valves	TX valves	TX valves
Drain connection (in.) [mm]	1 [25.4]	1 [25.4]	1 [25.4]	1 [25.4]
Condenser fan				
Type	Propeller	Propeller	Propeller	Propeller
No. used/diameter (in.) [mm]	2/24 [609.6]	4/24 [609.6]	6/24 [609.6]	6/24 [609.6]
Drive type/No. of speeds	Direct/1	Direct/1	Direct/1	Direct/1
CFM [L/s]	8000 [3775]	16,000 [7550]	19,800 [9344]	19,800 [9344]
Motor hp	2 at 1/2 HP	4 at 1/3 HP	6 at 1/3 HP	6 at 1/3 HP
Motor rpm	1075	1075	1075	1075
Motor frame size	56/184	56/184	184/213	213/215
Indoor fan				
Type	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal
No. used/diameter (in.) [mm]	1/15x15 [381x381]	2/18x9 [457x229]	2/18x9 [457x229]	2/18x9 [457x229]
No. motors	1	1	1	1
Motor hp	3, 5	3, 5	5, 7-1/2	7-1/2, 10
Motor rpm	1725	1725	1725	1725
Filter				
Fin type	Disposable	Disposable	Disposable	Disposable
Furnished	Yes	Yes	Yes	Yes
(No.) size (in.) [mm]	(6) 2x18x18 [51x457x457]	(8) 2x25x20 [51x635x508]	(8) 2x25x20 [51x635x508]	(8) 2x25x20 [51x635x508]
Refrigerant				
Charge oz. [g]	159.2/156 [4513/4423]	205/211 [5812/5982]	402/331 [11397/9384]	339/357 [9611/10121]
Weight				
Net weight lbs. [kg]	1230 [558]	2000 [907]	2341 [1062]	2433 [1104]
Shipping weight lbs. [kg]	1267 [575]	2100 [953]	2441 [1107]	2533 [1149]

1. Cooling Performance is rated at 95° F ambient, 80° F entering dry bulb, 67° F entering wet bulb. Gross capacity does not include the effect of fan motor heat. AHRI capacity is net and includes the effect of fan motor heat. Units are suitable for operation to 20% of nominal cfm. Units are certified in accordance with the Unitary Air Conditioner Equipment certification program, which is based on AHRI Standard 210/240 or 360.
2. EER and/or IEER are rated at AHRI conditions and in accordance with DOE test procedures.
3. Heating Performance limit settings and rating data were established and approved under laboratory test conditions using ANSI standards.
4. Ratings shown are for elevations up to 2000 feet. For elevations above 2000 feet, ratings should be reduced at the rate of 4% for each 1000 feet above sea level. Outdoor Sound Rating shown is tested in accordance with AHRI Standard 270.

Maverick™ II Packaged Singlezone Cooling Units—15 to 75 Tons

- VAV or constant volume operation
- R-410A (an HFC refrigerant with no phase-out schedule)
- EER per ASHRAE 90.1-2007
- Double wall construction
- Low leak damper
- AF fans for efficient operation
- Stainless steel drain pan
- Building pressure control option for exhaust fan
- Controls flexibility—MicroTech® III controls with our Open Choices™ feature for easy integration with the BAS of your choice
- Optional hot gas reheat for dehumidification control

For more detail, refer to Catalog 250.

For the most current information, refer to www.mcquay.com.

Maverick II Arrangements

Capacity range—15 to 75 tons

LONMARK 3.4

Available LONMARK certified

BACnet International

Maverick™ II Packaged Singlezone Cooling Units—15 to 75 Tons

Low leak outside air dampers

- 4 cfm/ft^2 leakage rate to meet ASHRAE Standard 90.1-2004
- Double-wall blades
- Blade edge and jamb seals

2"/4" combination filter rack

- Provides more flexibility to meet building filtration requirements
- 2" MERV 6 filters shipped with unit, owner preference at building occupancy

Durable construction

- Pre-painted exterior cabinet panels pass 750-hour ASTM B 117 Salt Spray Test for durability
- Double-wall construction protects insulation and provides wipe-clean surface

Exhaust fans with building pressure control

- Provide better building operations, higher customer satisfaction

Optional energy recovery wheel

- Meets ASHRAE Standard 90.1-2007
- Factory installed
- Single point power

Hinged access doors

- On both sides of unit for easy access to all components
- Easy open, quarter-turn latches
- Double-wall construction protects insulation during maintenance

MicroTech® III unit controller

- Open Choices™ feature provides interoperability with BACnet or LonWorks communications for easy integration into your building automation system of choice
- Outdoor air and humidity control logic maintains minimum fresh air intake and optimum humidity levels

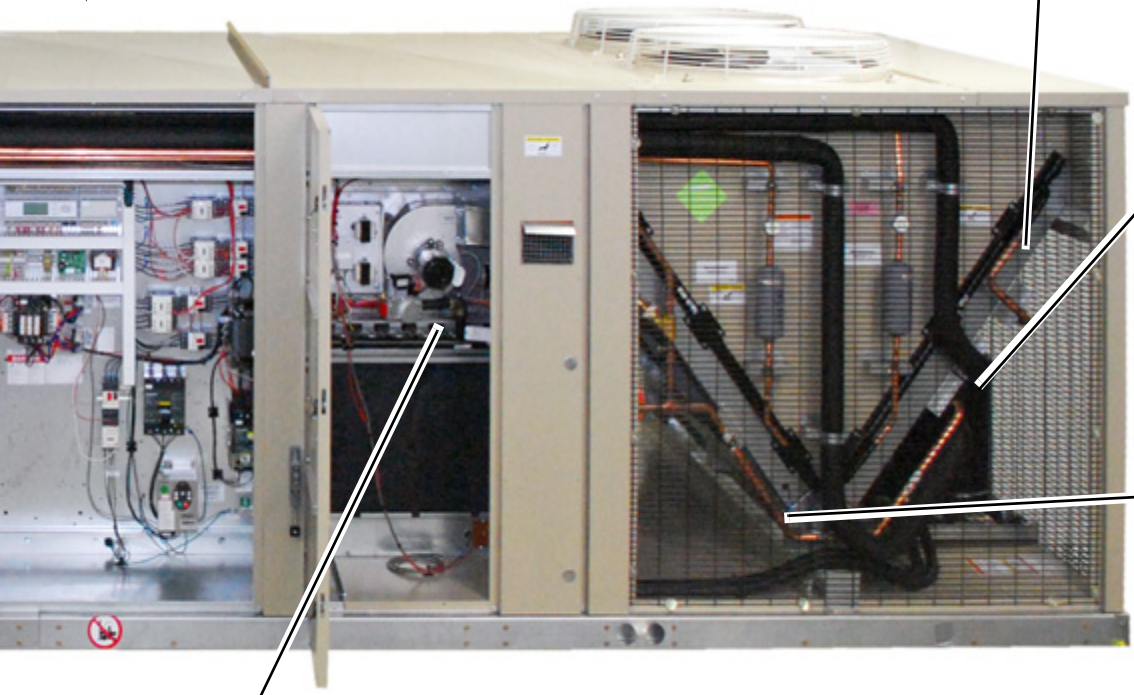
Features

Airfoil plenum fan

- Energy efficient and quiet
- 1" seismic spring isolators for superior vibration control
- Premium efficiency motor is standard
- Vibration transmissionibility of less than 5%

Microchannel condenser coils

- Proven technology from the automotive industry
- Suited for R-410A
- All aluminum design
- No corrosion between fins, tubes and header
- LEED® credit for enhanced refrigeration management



Scroll compressors

- Provide maximum dependability, efficiency and quiet operation

R-410A refrigerant

- No ozone depletion potential or phase-out date
- EER per ASHRAE 90.1 2007
- Dual refrigerant circuits provide redundancy for high unit reliability

Gas heat

- Tubular heat exchanger
- Aluminized steel or optional stainless steel tubes
- Staged or modulating control

Optional electric heat

- 4-stage control
- Operational safeties
- High-limit temperature switch
- Single point power connection

Optional hot water heat

- Low and high capacity options
- DDC control ready with 0–10 volt wiring harness for water control valve
- Vestibule for field installed control valve package

Features and Options

Outside air dampers

- Low leakage - 4 cfm/ft^2 for ASHRAE 90.1-2004
- Double-wall blade
- Blade edge and jamb seals

Energy recovery wheel

- Increases air conditioning capacity by approximately 25%
- Recovers sensible and latent energy by 70-75%
- Single point power connection
- Factory installed package with controls and optional bypass dampers

Fan

- AF, SWSI
- Fixed pitch sheave
- Class II construction
- Concentric locking bearing
- Standard 1" seismic spring isolation

Exhaust air

- Direct drive prop exhaust
- 80 - 100% supply airflow
- Staged on OA position control
- Building pressure control via VFD application

Physical Data—MPS 015 through 025

Model	015	017	020	025
Cooling Performance				
Gross cooling capacity (tons)	16.0	18.;5	21.7	25.3
Nominal airflow (cfm)	6000	7000	8000	10,000
EER	11.0–11.1	11.0–11.2	10.0	10.0
IEER	11.2–11.5	11.2–12.0	11.0–11.2	11.0–11.2
Gas Heating Performance				
Low heat MBH (input/output)[1]	240/192	240/192	240/192	240/192
Number of stages (low heat)	2	2	2	2
Turndown (low heat)[2]	4:1	4:1	4:1	4:1
Gas connection pipe size/qty (low heat)	3/4"/1	3/4"/1	3/4"/1	3/4"/1
High heat MBH (input/output)[1]	480/384	480/384	480/384	480/384
Number of stages (high heat)	4	4	4	4
Gas connection pipe size/qty (high heat)	3/4"/2	3/4"/2	3/4"/2	3/4"/2
Turndown (high heat)[2]	8:1	8:1	8:1	8:1
Steady state efficiency	80%	80%	80%	80%
Hot Water Heating Performance				
Face area (sq ft)	12.2	12.2	12.25	12.25
Rows/FPI (low heat)	1/11	1/11	1/14	1/14
Coil model (low heat)	5WB	5WB	5WB	5WB
Connection sizes/type (low heat)[2]	ODM Sweat	ODM Sweat	ODM Sweat	ODM Sweat
Rows/FPI (high heat)	2/12	2/12	2/9	2/9
Coil model (high heat)	5WB	5WB	5WS	5WS
Connection sizes/type (high heat)[2]	ODM Sweat	ODM Sweat	ODM Sweat	ODM Sweat
Electric Heating Performance				
Number of stages	4	4	4	4
kW (low/medium/high heat)	18/36/54	18/36/54	36/54/72	36/54/72
Compressors				
Type/number	Scroll/2	Scroll/2	Scroll/3	Scroll/3
Number of stages	2	2	5	5
Refrigerant	R-410A	R-410A	R-410A	R-410A
Charge (lbs)	Ckt1 - 9.0/Ckt2 - 9.0	Ckt1 - 9.0/Ckt2 - 10.0	Ckt1 - 10.5/Ckt2 - 8.0	Ckt1 - 11.0/Ckt2 - 12.5
Evaporator Coils				
Rows	4	4	4	4
FPI	14	14	13	13
Face area (sq ft)	18.2	18.2	18.2	18.2
Capacity control	TXV	TXV	TXV	TXV
Hot Gas Reheat				
Coil type	Microchannel	Microchannel	Microchannel	Microchannel
Control type	Modulating	Modulating	Modulating	Modulating
Face area (sq ft)	14.1	14.1	14.1	14.1
Condenser Coils				
Fin type	Enhanced	Enhanced	Enhanced	Enhanced
FPI	18	18	18	18
Face area (sq ft)	18.1	18.1	18.1	18.1
Outdoor Fans				
Type	Propeller	Propeller	Propeller	Propeller
Number - diameter	2 - 26"	2 - 26"	2 - 26"	2 - 26"
Drive type/number of speeds	Direct/1	Direct/1	Direct/1	Direct/1
Indoor Fans				
Type	AF - SWSI	AF - SWSI	AF - SWSI	AF - SWSI
Number - diameter	1 - 18"	1 - 18"	1 - 20"	1 - 22"
Drive type	Fixed sheave	Fixed sheave	Fixed sheave	Fixed sheave
Isolation	1" spring	1" spring	1" spring	1" spring
Number of motors	1	1	1	1
Motor hp range	1.5 - 10	1.5 - 10	2 - 15	2 - 15
Motor nominal rpm	1800	1800	1800	1800
Motor efficiency	Premium	Premium	Premium	Premium
Filters				
Type	2", MERV 7			
Area (sq ft)	24	24	24	24
Qty. - size	6 - 24" x 24"	6 - 24" x 24"	6 - 24" x 24"	6 - 24" x 24"
Total Unit Weight				
Weight (lbs)	Cooling / Heating	Cooling / Heating	Cooling / Heating	Cooling / Heating
	2650 / 2850	2700 / 2900	2955 / 3155	3055 / 3255
Curb				
Height	14" / 24"	14" / 24"	14" / 24"	14" / 24"
Weight (lbs)	341 / 501	341 / 501	341 / 501	341 / 501

1. Piping connections are given with a male outside diameter dimension, brazed connection.
2. Modulating burner only.
3. Base unit weight includes Economizer, VFDs, and the smallest supply fan available. Heating units include maximum gas heat.

Physical Data—MPS 030 through 050

Model	030	035	040	050
Cooling Performance				
Gross cooling capacity (tons)	30.0	34.0	40.0	50.0
Nominal airflow (cfm)	12,000	14,000	16,000	20,000
EER	10.2–10.4	9.9–10.1	10.0–10.3	9.8–10.2
IEER	12.2–13.1	11.4–12.3	11.8–13.2	11.6–12.3
Gas Heating Performance				
Low heat MBH (input/output)[1]	300/240	300/240	400/320	400/320
Number of stages (low heat)	2	2	2	2
Turndown (low heat)[2]	4:1	4:1	4:1	4:1
Gas connection pipe size/qty (low heat)	3/4"/1	3/4"/1	3/4"/1	3/4"/1
High heat MBH (input/output)[1]	600/480	600/480	800/640	800/640
Number of stages (high heat)	4	4	4	4
Gas connection pipe size/qty (high heat)	3/4"/2	3/4"/2	3/4"/2	3/4"/2
Turndown (high heat)[2]	8:1	8:1	8:1	8:1
Steady state efficiency	80%	80%	80%	80%
Hot Water Heating Performance				
Face area (sq ft)	19.25	19.25	19.25	19.25
Rows/FPI (low heat)	1/12	1/12	1/11	1/11
Coil model (low heat)	5WB	5WB	5WH	5WH
Connection sizes/type (low heat)[2]	ODM Sweat	ODM Sweat	ODM Sweat	ODM Sweat
Rows/FPI (high heat)	2/10	2/10	2/13	2/13
Coil model (high heat)	5WS	5WS	5WS	5WS
Connection sizes/type (high heat)[2]	ODM Sweat	ODM Sweat	ODM Sweat	ODM Sweat
Electric Heating Performance				
Number of stages	4	4	4	4
kW (low/medium/high heat)	54/72/90	54/72/90	72/90/108	72/90/108
Compressors				
Type/number	Scroll/3	Scroll/3	Scroll/4	Scroll/4
Number of stages	5	5	5	5
Refrigerant	R-410A	R-410A	R-410A	R-410A
Charge (lbs)	Ckt1 - 19/Ckt2 - 10.2	Ckt1 - 19/Ckt2 - 10.5	Ckt1 - 21.5/Ckt2 - 12.5	Ckt1 - 21.5 Ckt2 - 22
Evaporator Coils				
Rows	4	4	4	4
FPI	12	12	12	12
Face area (sq ft)	25.4	25.4	29.4	35.7
Capacity control	TXV	TXV	TXV	TXV
Hot Gas Reheat Coils				
Coil type	Microchannel	Microchannel	Microchannel	Microchannel
Control type	Modulating	Modulating	Modulating	Modulating
Face area (sq ft)	19.9	19.9	26.8	26.8
Condenser Coils				
Fin type	Enhanced	Enhanced	Enhanced	Enhanced
FPI	18	18	18	18
Face area (sq ft)	13.4/27.5	13.4/27.5	13.4/27.5	27.5 (x 2)
Outdoor Fans				
Type	Propeller	Propeller	Propeller	Propeller
Number - diameter	3 - 26"	3 - 26"	4 - 26"	4 - 26"
Drive type/number of speeds	Direct/1	Direct/1	Direct/1	Direct/1
Indoor Fans				
Type	AF - SWSI	AF - SWSI	AF - SWSI	AF - SWSI
Number - diameter	1 - 24"	1 - 24"	1 - 30"	1 - 30"
Drive type	Fixed sheave	Fixed sheave	Fixed sheave	Fixed sheave
Isolation	1" spring	1" spring	1" spring	1" spring
Number of motors	1	1	1	1
Motor hp range	5 - 20	5 - 20	7-1/2 - 30	7-1/2 - 30
Motor nominal rpm	1800	1800	1800	1800
Motor efficiency	Premium	Premium	Premium	Premium
Filters				
Type	2", MERV 6			
Area (sq ft)	32	32	36	44
Qty. - size	8 - 24" x 24"	8 – 24" x 24"	12 – 18" x 24"	8 – 24" x 24"/4 – 18" x 24"
Total Unit Weight				
Weight (lbs)	Cooling / Heating	Cooling / Heating	Cooling / Heating	Cooling / Heating
	3660 / 3810	3660 / 3930	4685 / 5035	4985 / 5335
Curb				
Height	14" / 24"	14" / 24"	14" / 24"	14" / 24"
Weight (lbs)	341 / 501	341 / 501	481 / 708	481 / 708

1. Piping connections are given with a male outside diameter dimension, brazed connection.
2. Modulating burner only.
3. Base unit weight includes Economizer, VFDs, and the smallest supply fan available. Heating units include maximum gas heat.

Physical Data—MPS 062 through 075

Model		062	070	075
Cooling Performance				
Nominal gross cooling capacity (tons)		62.0	70.0	75.0
Nominal airflow (cfm)		24,000	26,000	28,000
EER (standard coil/large coil)		10.0–10.3	9.7	9.3
IEER		12.4–12.7	13.0–13.6	12.2–12.9
Gas Heating Performance				
Low heat MBH (input/output)[1]		500/400	500/400	500/400
Gas connection pipe size/qty (low heat)		1"/1	1"/1	1"/1
Medium heat MBH (input/output)[1]		600/480	600/480	800/640
Gas connection pipe size/qty (medium heat)		1 1/4"/1	1 1/4"/1	1 1/4"/1
High heat MBH (input/output)[1]		980/790	980/790	980/790
Gas connection pipe size/qty (high heat)		1 1/4"/1	1 1/4"/1	1 1/4"/1
Number of stages - all furnaces (high heat)		Mod	Mod	Mod
Turndown - all furnaces (high heat)[2]		3:1	3:1	3:1
Steady state efficiency - all furnaces		80%	80%	80%
Hot Water Heating Performance				
Face area (sq ft)		29.7	29.7	29.7
Type–rows (standard / high capacity)		5WH–1 / 5WS–2	5WH–1 / 5WS–2	5WH–1 / 5WS–2
FPI		9	9	9
Electric Heating Performance				
Number of stages		4	4	4
kW (low/medium/high heat)		100/120/160	100/120/160	100/120/160
Compressors				
Type/number		Scroll/4	Scroll/6	Scroll/6
Number of stages		4	6	6
Refrigerant		R-410A	R-410A	R-410A
Charge (lbs)		Ckt1 - 33/Ckt2 - 33	Ckt1 - 36/Ckt2 - 36	Ckt1 - 36/Ckt2 - 36
Evaporator Coils				
Rows		5	5	5
FPI		10	10	10
Face area (sq ft)		39.5 or 47.1	47.1	47.1
Capacity control		TXV	TXV	TXV
Condenser Coils				
Fin type		Enhanced	Enhanced	Enhanced
FPI		18	18	18
Face area (sq ft)		32.1 × 2	37.3 × 2	37.3 × 2
Outdoor Fans				
Type		Propeller	Propeller	Propeller
Number - diameter		6 - 26"	6 - 26"	8 - 26"
Drive type/number of speeds		Direct/1	Direct/1	Direct/1
Indoor Fans				
SWSI AF		1 - 44"		
DWDI AF		1 - 30" or 1 - 33"		
Drive type		Fixed sheave		
Isolation		2" spring		
Number of motors		1		
Motor hp range		5 - 40		
Motor nominal rpm		1800		
Motor efficiency		Premium		
Filters				
Qty. - type / sq. ft.	Merv 6 angular	(7) 16 × 20 and (21) 16 × 25 / 73 sq. ft.		
	6" Merv 11 or 12" Merv 14	(4) 12 × 24 and (8) 24 × 24 / 40 sq. ft. standard air flow (8) 12 × 24 and (8) 24 × 24 / 48 sq. ft. high air flow		

1. Heating output is for standard conditions at sea level.
2. Modulating burner only.

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RoofPak™ Packaged Singlezone Heating and Cooling Units—15 to 140 Tons

- Flexible, modular construction with walk-in access
- 100% make-up air, dehumidification, VAV, or constant volume operation
- Multiple factory-integrated options for customized flexibility
- Blow-through or draw-through cooling coil and filter configurations
- Controls flexibility—MicroTech® III controls with our Open Choices™ feature for easy integration with the BAS of your choice
- Heavy duty construction and independent certification (optional) confirm the McQuay RoofPak complies with IBC seismic requirements
- R-410A refrigerant

For more detail, refer to Catalogs 214, 219, and 220.

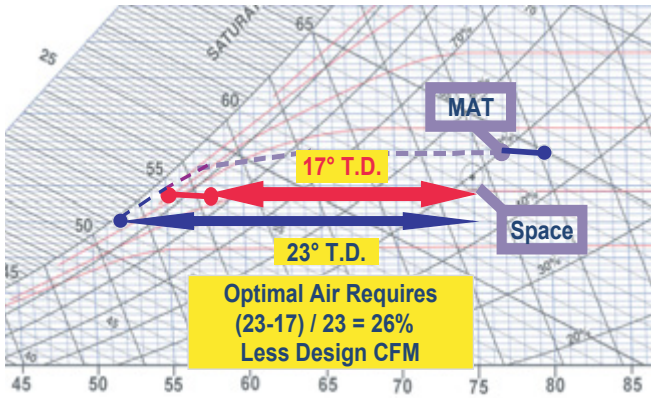
For the most current information, refer to www.mcquay.com.

Air-Cooled Condenser Arrangements

Model RPS/RFS/RCS—15 to 140 tons, air-cooled blow-through and draw-through configurations

Model RDT—45 to 140 tons, air-cooled draw-through configuration

Blow-Through Optimal Air vs. Standard Draw-Through



McQuay blow-through coils and fan flexibility reliably allow cost saving "optimal air" design

LONMARK 3.4

Available LONMARK certified

BACnet International

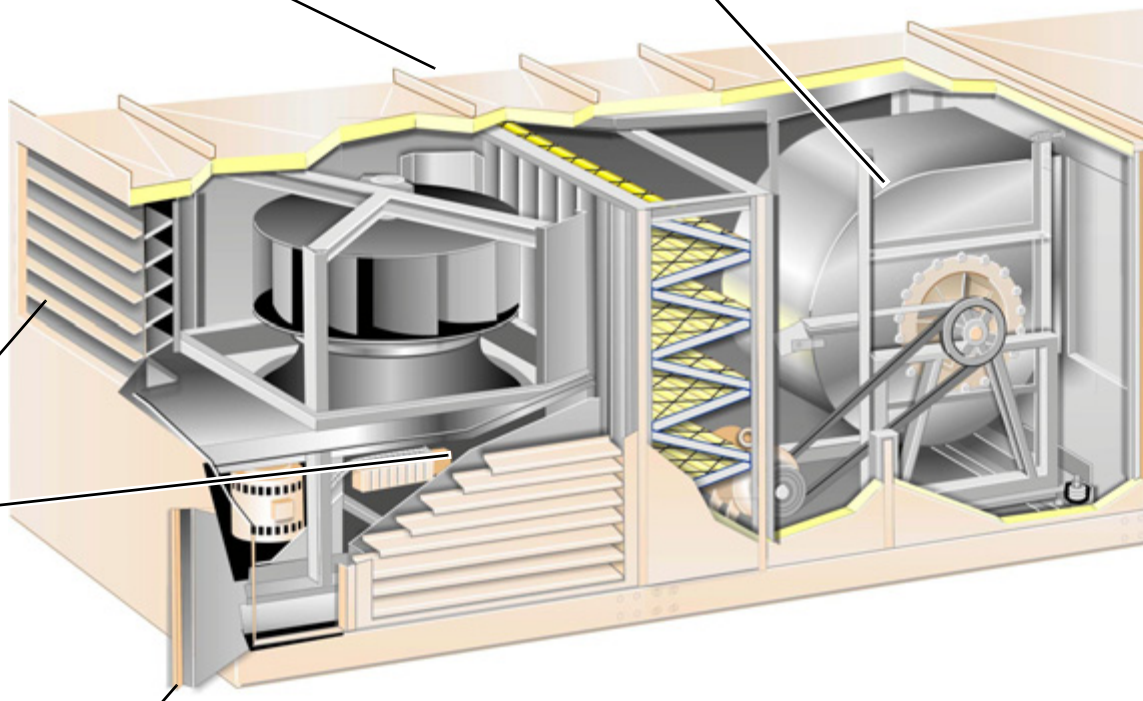
RoofPak™ Models RPS and RDT Singlezone Heating and Cooling Units—15 to 140 Tons

Durable construction

- Pre-painted exterior cabinet panels pass ASTM B 117 Salt Spray Test for durability
- Capped seams prevent water leaks into the cabinet
- Cross-broken top panels eliminate standing water
- Double-wall construction protects R-6.5 insulation and provides wipe clean surface
- Stainless steel, sloped drain pans eliminate standing water

Airfoil fans

- More energy efficient and quieter than forward curved fans
- Double width, double inlet (DWDI) or single width, single inlet (SWSI) plenum fans



Economizer

- Outside air enters from both sides, improving mixing for better temperature control
- Patented DesignFlow™ Precision Outdoor Air Control System accurately measures and maintains minimum outdoor air intake
- Patented UltraSeal™ low leak dampers minimize air leakage, reducing energy costs

Hinged access doors

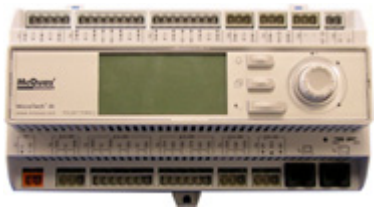
- On both sides of every section for easy access to all components
- Single lever latch and door holders provide easy entry and support routine maintenance
- Double-wall construction protects insulation during maintenance

Blank sections

- Available throughout unit to factory-mount air blenders, carbon or charcoal filters, sound attenuators (shown), humidifiers, or other specialty equipment
- Allow customization for maximum system performance and efficiency
- Reduce design and installation costs

Features and Options

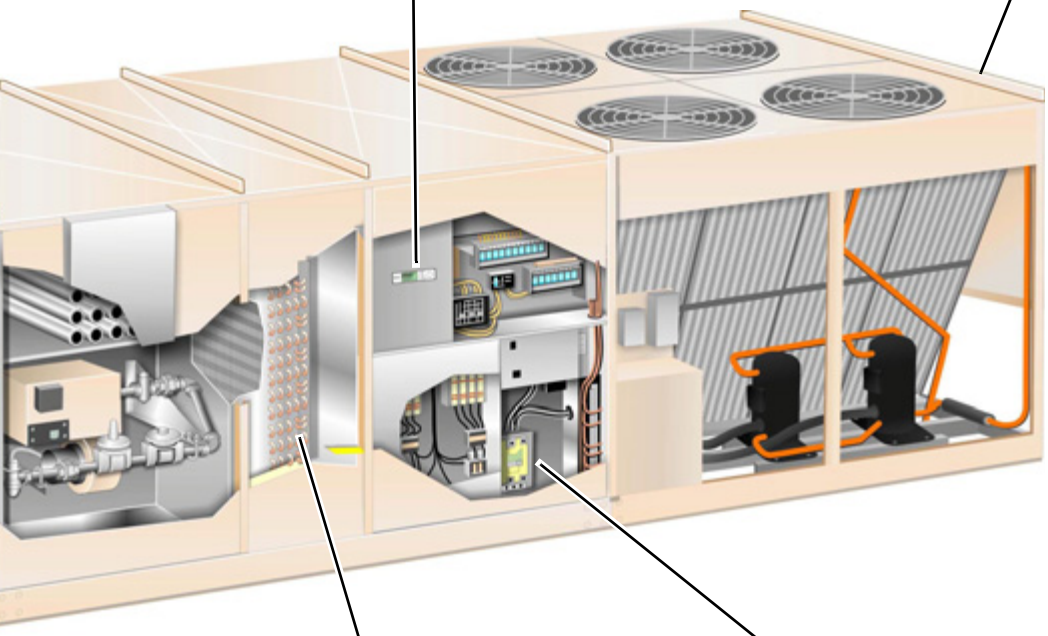
MicroTech III control system



- Factory-installed and tested to minimize costly field commissioning
- Open Choices feature for easy integration with the BAS of your choice using open, standard protocols such as BACnet® or LonWorks®
- Easily accessed for system diagnostics and adjustments via a keypad/display on unit
- Minimum outdoor air and humidity control logic for fresh air intake and optimum humidity levels
- Optionally add a remote keypad and display that is identical to the unit mounted user interface

High efficiency condensing section

- Open air design for unrestricted airflow and access to compressors and refrigerant piping
- Up to 6 steps of compressor capacity control, with hot gas bypass on each circuit, provides a stable discharge temperature and humidity control
- Two refrigerant circuits and multiple scroll compressors offer unsurpassed reliability



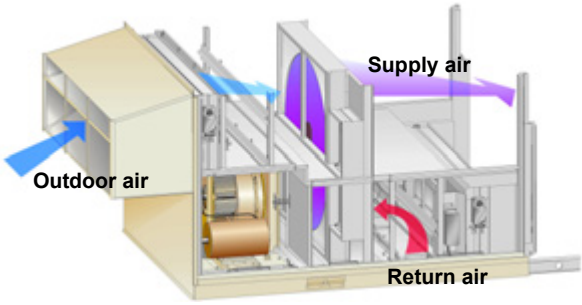
Blow-through or draw-through cooling coils

- Customize your unit to fit the application and building load
- Blow-through arrangements provides greater sensible heat ratios and a colder unit leaving air temperature per ton
- Draw-through arrangement provides more dehumidification per ton

Factory-mounted variable frequency drives

- Control fan motor speed for lower fan operating costs and sound levels in VAV systems
- Four brands offered including the McQuay MD2 which is specially designed for HVAC and McQuay applications

Features and Options



Optional energy recovery wheel

- Recovers approximately 75% of the energy from exhaust air stream
- Reduces mechanical refrigeration, heating, and humidifying capacities, offsetting the initial cost of the energy recovery wheel
- Cuts winter humidification energy costs up to 60%
- Provides 100% more summer energy recovery than sensible-only energy recovery devices
- Helps provide a comfortable and affordable indoor environment
- Satisfies ASHRAE Standard 90.1 requirements for energy recovery on applications involving more than 70% minimum outdoor air and 5000 total cfm

Quiet condenser option

With this option, sound power at the unit is reduced by an average of 7 dB when compared to standard units.

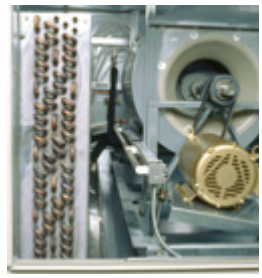
- Quiet condensers are specially engineered to reduce radiated noise and improve condenser fan efficiency
- Aerodynamic, airfoil, sickle-shaped blades and bell mouth orifices improve fan efficiency
- Each fan includes seven blades complete with serrated trailing edges and special blade tip to break up turbulence and reduce noise
- Individual compressor sound blankets are provided to reduce noise

Return or exhaust fans

- Customize the unit to fit the application and return duct pressure drop
- Return fans provide better building pressure and ventilation control as return duct pressure drop increases
- Exhaust fans can save energy as return duct pressure drop requirements decrease

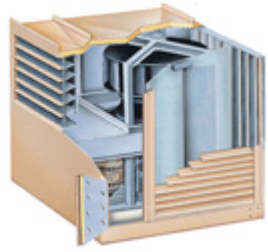
SuperMod™ high turndown gas burners

- Full 20:1 turndown and multiple sizes enable precise temperature control for reduced design, installation, and life cycle costs
- Maintains comfortable tenant environment in VAV, 100% makeup air, and dehumidification applications



Optional UVGI lights

- Improve IAQ by destroying microorganisms on coil and drain pan surfaces
- Includes door interlocks to prevent eye contact with the UV-C ultraviolet light
- Satisfy GSA requirement for UVGI lights downstream of all cooling coils



DesignFlow™ precision ventilation air control system

- Accurately measures and maintains minimum ventilation air intake to satisfy IAQ standards

Physical Data—RPS 015D through 042D

Data		Unit size						
		015D	020D	025D	030D	035D	040D	042D
Compressor	Quantity—hp	2—7	1—10, 2—4.5	1—11.5, 2—5.5	1—13, 2—6	4—7.5	4—8.5	4—8.5
	Capacity control	100-50-0	100-78-22-0	100-78-22-0	100-78-22-0	100-75-50-25-0	100-75-50-25-0	100-75-50-25-0
Condenser fans	Qty—diameter (in)	2—26	2—26	2—26	4—26	4—26	4—26	4—26
Condenser fan motors	Qty—hp	2—1.0	2—1.0	2—1.0	4—1.0	4—1.0	4—1.0	4—1.0
Supply fans	Type	Forward curved LP				Forward curved LP/MP		
	Qty—diameter (in)	2—15×6	2—15×6	2—15×6	2—15×6	1—24	1—24	1—24
	Qty—diameter (in)	2—15×15	2—15×15	2—15×15	2—15×15	—	—	—
	Airflow range (cfm)	4000–12000	4000–12000	5400–16000	5400–16000	5400–17550	5400–17550	5400–17550
	Motor hp range	1–20	1–20	1–20	1–20	1–25	1–25	1–25
	Type	DWDI airfoil						
	Qty—diameter (in)	1—20	1—20	1—20	1—20	1—24	1—24	1—24
	Airflow range (cfm)	4000–10000	4000–12000	5400–16000	5400–16000	5400–17550	5400–17550	5400–17550
	Motor hp range	1–20	1–20	1–20	1–20	1–25	1–25	1–25
Return fans	Type	Forward curved						
	Diameter (in)	2—15×15	2—15×15	2—15×15	2—15×15	—	—	—
	Airflow range (cfm)	4000–10000	4000–12000	5400–16000	5400–16000	—	—	—
	Motor hp range	1–10	1–10	1–10	1–10	—	—	—
	Type	SWSI airfoil						
	Qty—diameter (in)	1—30	1—30	1—30	1—30	1—30, 1—40	1—30, 1—40	1—30, 1—40
	Airflow range (cfm)	4000–10000	4000–12000	5400–16000	5400–16000	5400–17550	5400–17550	5400–17550
	Motor hp range	1–10	1–10	1–10	1–10	1–10	1–10	1–10
Evaporator coils	Rows	3, 4, 5	3, 4, 5	3, 4, 5	3, 4, 5	3, 4, 5	3, 4, 5	3, 4, 5
	FPI	8, 10, 12	8, 10, 12	8, 10, 12	8, 10, 12	8, 10, 12	8, 10, 12	8, 10, 12
	F.A., small (sq ft)	18.5	18.5	27.0	27.0	27.0	27.0	27.0
Hot water coils	Type—rows	5WH—1	5WH—1	5WH—1	5WH—1	5WH—1	5WH—1	5WH—1
	Type—rows	5WS—2	5WS—2	5WS—2	5WS—2	5WS—2	5WS—2	5WS—2
	FPI	9	9	9	9	9	9	9
	Face area (sq ft)	20.3	20.3	20.3	20.3	20.3	20.3	20.3
Steam coils	Type—rows	5JA—1	5JA—1	5JA—1	5JA—1	5JA—1	5JA—1	5JA—1
	FPI	6, 12	6, 12	6, 12	6, 12	6, 12	6, 12	6, 12
	Face area (sq ft)	20.3	20.3	20.3	20.3	20.3	20.3	20.3
Gas furnace[1]	Input (MBh)	250, 312, 400, 500, 625, 800, 812, 988, 1000, 1250						
	Nominal output (MBh)	200, 250, 320, 400, 500, 640, 650, 790, 800, 1000						
Electric heat[2]	Nominal output (kW)	20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 220, 240						
Panel filters	Type	85% or 30% pleated						
	Area (sq ft)	50.0	50.0	50.0	50.0	50.0	50.0	50.0
	Qty—size (in)	10—16×20×2 10—16×25×2	10—16×20×2 10—16×25×2	10—16×20×2 10—16×25×2	10—16×20×2 10—16×25×2	10—16×20×2 10—16×25×2	10—16×20×2 10—16×25×2	10—16×20×2 10—16×25×2
Prefilters (for cartridge filters)	Type	Prefilter, standard flow						
	Area (sq ft)	24.0	24.0	24.0	24.0	24.0	24.0	24.0
	Qty—size (in)	4—24×24×2 4—12×24×2	4—24×24×2 4—12×24×2	4—24×24×2 4—12×24×2	4—24×24×2 4—12×24×2	4—24×24×2 4—12×24×2	4—24×24×2 4—12×24×2	4—24×24×2 4—12×24×2
Cartridge filters	Type	65% or 95%, standard flow						
	Area (sq ft)	24.0	24.0	24.0	24.0	24.0	24.0	24.0
	Qty—size (in)	4—24×24×12 4—12×24×12	4—24×24×12 4—12×24×12	4—24×24×12 4—12×24×12	4—24×24×12 4—12×24×12	4—24×24×12 4—12×24×12	4—24×24×12 4—12×24×12	4—24×24×12 4—12×24×12

1. Gas furnace size availability is limited by minimum airflow.
2. 460-volt capacities are shown. Electric heat availability is limited by minimum airflow.

Physical Data—RPS/RFS/RCS/RDT 045D through 079D

Data		Unit size							
		045D	050D	060D	062D	068D	070D	075D	079D
Compressor	Quantity—hp	4—10	4—11.5	4—13	4—13	4—15	6—10	6—11.5	6—13
	Capacity control	100-75-50-25-0					100-83-67-50-33-17-0		
Condenser fans	Qty—diameter (in)	4—26	4—26	4—26	6—26	6—26	6—26	8—26	8—26
Condenser fan motors	Qty—hp	4—1.0	4—1.0	4—1.0	6—1.0	6—1.0	6—1.0	8—1.0	8—1.0
RPS supply fans	Type	Forward curve, LP/MP							
	Qty—diameter (in)	1— 27	1— 27	1—27	1—27	1—27	1—27	8—26	8—26
	Motor hp range	3–50	3–50	3–50	3–50	3–50	3–50	8—1.0	8—1.0
	Type	DWDI airfoil							
	Qty—diameter (in)	1—27,30	1—27,30	1—27,30	1—30, 33	1—30, 33	1—30, 33	8—26	8—26
	Motor hp range	3–50	3–50	3–50	3–50	3–50	3–50	8—1.0	8—1.0
RDT supply fans	Type	SWSI airfoil							
	Qty—diameter (in)	1—40,44	1—40,44	1—40,44	1—40,44	1—40,44	1—40,44	8—26	8—26
	Motor hp range	3–50	3–50	3–50	3–50	3–50	3–50	8—1.0	8—1.0
Return fans	Type	SWSI airfoil							
	Qty—diameter (in)	1—40	1—40	1—40	1—40	1—40	1—40	1—40	1—40
	Motor hp range	2–30	2–30	2–30	2–30	2–30	2–30	2–30	2–30
Exhaust fans	Type	Propeller							
	Diameter (in)	36	36	36	36	36	36	36	36
	Quantity	1 or 2 per unit	1 or 2 per unit	1 or 2 per unit	1 or 2 per unit	1 or 2 per unit	1 or 2 per unit	1 or 2 per unit	1 or 2 per unit
	Motor hp	5 each	5 each	5 each	5 each	5 each	5 each	5 each	5 each
Evaporator coils	Rows	3, 4, 5	3, 4, 5	3, 4, 5	3, 4, 5	3, 4, 5	3, 4, 5	3, 4, 5	3, 4, 5
	FPI	8, 10, 12	8, 10, 12	8, 10, 12	8, 10, 12	8, 10, 12	8, 10, 12	8, 10, 12	8, 10, 12
	F.A., small (sq ft)	39.5	39.5	39.5	39.5	39.5	39.5	39.5	39.5
	F.A., large (sq ft)	47.1	47.1	47.1	47.1	47.1	47.1	47.1	47.1
Hot Water coils	Type—rows	5WH—1 5WS—2	5WH—1 5WS—2	5WH—1 5WS—2	5WH—1 5WS—2	5WH—1 5WS—2	5WH—1 5WS—2	5WH—1 5WS—2	5WH—1 5WS—2
	FPI	9	9	9	9	9	9	9	9
	Face area (sq ft)	29.7	29.7	29.7	29.7	29.7	29.7	29.7	29.7
Steam coils	Type—rows	5JA—1, 2	5JA—1, 2	5JA—1, 2	5JA—1, 2	5JA—1, 2	5JA—1, 2	5JA—1, 2	5JA—1, 2
	FPI	6, 12	6, 12	6, 12	6, 12	6, 12	6, 12	6, 12	6, 12
	Face area (sq ft)	29.7	29.7	29.7	29.7	29.7	29.7	29.7	29.7
Gas furnace[1]	Input (MBh)	250, 312, 400, 500, 625, 800, 812, 988, 1000, 1250							
	Nom. output (MBh)	200, 250, 320, 400, 500, 640, 650, 790, 800, 1000							
Electric heat[2]	Nom. output (kW)	40, 60, 80, 100, 120, 160, 200, 240							
Panel filters	Type	30% pleated							
	Area (sq ft)	73.9	73.9	73.9	73.9	73.9	73.9	73.9	73.9
	Qty—size (in)	7—16×20×2 21—16×25×2	7—16×20×2 21—16×25×2	7—16×20×2 21—16×25×2	7—16×20×2 21—16×25×2	7—16×20×2 21—16×25×2	7—16×20×2 21—16×25×2	7—16×20×2 21—16×25×2	7—16×20×2 21—16×25×2
Prefilters (for cartridge filters)	Type	Prefilter, standard flow							
	Area (sq ft)	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
	Qty—size (in)	4—12×24×2 8—24×24×2	4—12×24×2 8—24×24×2	4—12×24×2 8—24×24×2	4—12×24×2 8—24×24×2	4—12×24×2 8—24×24×2	4—12×24×2 8—24×24×2	4—12×24×2 8—24×24×2	4—12×24×2 8—24×24×2
	Type	Prefilter, medium flow							
	Area (sq ft)	48.0	48.0	48.0	48.0	48.0	48.0	48.0	48.0
	Qty—size (in)	8—12×24×2 8—24×24×2	8—12×24×2 8—24×24×2	8—12×24×2 8—24×24×2	8—12×24×2 8—24×24×2	8—12×24×2 8—24×24×2	8—12×24×2 8—24×24×2	8—12×24×2 8—24×24×2	8—12×24×2 8—24×24×2
Cartridge filters	Type	65% or 95%, standard flow							
	Area (sq ft)	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
	Qty—size (in)	4—12×24×12 8—24×24×12	4—12×24×12 8—24×24×12	4—12×24×12 8—24×24×12	4—12×24×12 8—24×24×12	8—12×24×12 8—24×24×12	8—12×24×12 8—24×24×12	8—12×24×12 8—24×24×12	8—12×24×12 8—24×24×12
	Type	65% or 95%, medium flow							
	Area (sq ft)	48.0	48.0	48.0	48.0	48.0	48.0	48.0	48.0
	Qty—size (in)	8—12×24×12 8—24×24×12	8—12×24×12 8—24×24×12	8—12×24×12 8—24×24×12	8—12×24×12 8—24×24×12	8—12×24×12 8—24×24×12	8—12×24×12 8—24×24×12	8—12×24×12 8—24×24×12	8—12×24×12 8—24×24×12

1. Gas furnace size availability is limited by minimum airflow (RFS/RPS only).
2. 460-volt capacities are shown. Electric heat availability is limited by minimum airflow (RFS/RPS only).

Physical Data—RPS/RFS/RCS/RDT 080D through 105D

Data		Unit size				
		080D	085D	090D	100D	105D
Compressor	Quantity—hp	6—11.5	6—13	6—13	3—13 3—15	6—15
	Capacity control	100-83-67-50-33-17-0			100-83-67-49-33-16-0	100-84-67-50-33-17-0
Condenser fans	Qty—diameter (in)	6—26	6—26	8—26	9—26	8—26
Condenser fan motors	Qty—hp	6—1.0	6—1.0	8—1.0	9—1.0	8—1.0
Supply fans	Type	DWDI airfoil				
	Qty—diameter (in)	1—33, 36	1—33, 36	1—33, 36	1—36, 40	1—36, 40
	Motor hp range	5–75	5–75	5–75	5–75	5–75
Return fans	Type	SWSI airfoil				
	Qty—diameter (in)	1—44.5	1—44.5	1—44.5	1—44.5	1—44.5
	Motor hp range	5–60	5–60	5–60	5–60	5–60
Exhaust fans	Type	Propeller				
	Diameter (in)	36	36	36	36	36
	Quantity	1–3 per unit	1–3 per unit	1–3 per unit	1–3 per unit	1–3 per unit
	Motor hp	5 each	5 each	5 each	5 each	5 each
Evaporator coils	Rows	3, 4, 5	3, 4, 5	3, 4, 5	3, 4, 5	3, 4, 5
	FPI	8, 10, 12	8, 10, 12	8, 10, 12	8, 10, 12	8, 10, 12
	F.A., small (sq ft)	53.9	53.9	53.9	60.8	60.8
	F.A., large (sq ft)	60.8	60.8	60.8	76.0	76.0
Hot Water coils	Type—rows	5WH—1 5WS—2	5WH—1 5WS—2	5WH—1 5WS—2	5WH—1 5WS—2	5WH—1 5WS—2
	FPI	9	9	9	9	9
	Face area (sq ft)	42.2	42.2	42.2	42.2	42.2
Steam coils	Type—rows	5JA—1, 2	5JA—1, 2	5JA—1, 2	5JA—1, 2	5JA—1, 2
	FPI	6, 12	6, 12	6, 12	6, 12	6, 12
	Face area (sq ft)	42.2	42.2	42.2	42.2	42.2
Gas furnace[1]	Input (MBh)	625, 800, 812, 988, 1000, 1250, 1375, 1750, 1875, 2500				
	Nom. output (MBh)	500, 640, 650, 790, 800, 1000, 1100, 1400, 1500, 2000				
Electric heat[2]	Nom. output (kW)	80, 100, 120, 160, 200, 240, 280, 320				
Panel filters	Type	85% or 30% pleated				
	Area (sq ft)	116.1	116.1	116.1	116.1	116.1
	Qty—size (in)	11—16×20×2 33—16×25×2	11—16×20×2 33—16×25×2	11—16×20×2 33—16×25×2	11—16×20×2 33—16×25×2	11—16×20×2 33—16×25×2
Prefilters (for cartridge filters)	Type	Prefilter, standard flow		Prefilter, medium flow		
	Area (sq ft)	56.0	56.0	56.0	64.0	64.0
	Qty—size (in)	4—12×24×2 12—24×24×2	4—12×24×2 12—24×24×2	4—12×24×2 12—24×24×2	16—24×24×2	16—24×24×2
	Type	Prefilter, medium flow		Prefilter, high flow		
	Area (sq ft)	64.0	64.0	64.0	80.0	80.0
	Qty—size (in)	16—24×24×2	16—24×24×2	16—24×24×2	8—12×24×2 16—24×24×2	8—12×24×2 16—24×24×2
Cartridge filters	Type	65% or 95% standard flow		65% or 95% medium flow		
	Area (sq ft)	56.0	56.0	56.0	64.0	64.0
	Qty—size (in)	4—12×24×12 12—24×24×12	4—12×24×12 12—24×24×12	4—12×24×12 12—24×24×12	16—24×24×12	16—24×24×12
	Type	65% or 95% medium flow		65% or 95% high flow		
	Area (sq ft)	64.0	64.0	56.0	80.0	80.0
	Qty—size (in)	16—24×24×12	16—24×24×12	16—24×24×12	8—12×24×12 16—24×24×12	8—12×24×12 16—24×24×12

1. Gas furnace size availability is limited by minimum airflow (RFS/RPS only).
2. 460-volt capacities are shown. Electric heat availability is limited by minimum airflow (RFS/RPS only).

Physical Data—RPS/RFS/RCS/RDT 110D through 140D

Data		Unit size				
		110D	120D	125D	130D	140D
Compressor	Quantity—hp	6—15	3—15 3—20	6—20	6—20	3—20 3—25
	Std. capacity control	100-84-67-50-33-17-0	100-83-67-49-33-16-0	100-84-67-50-33-17-0		100-83-67-49-33-16-0
Condenser fans	Qty—diameter (in)	8—26	9—26	10—26	12—26	12—26
Condenser fan motors	Qty—hp	8—1.0	9—1.0	10—1.0	12—1.0	12—1.0
Supply fans	Type	DWDI airfoil				
	Qty—diameter (in)	1—36, 40	1—36, 40	1—36, 40	1—36, 40	1—36, 40
	Motor hp range	5–75	5–75	5–75	5–75	5–75
Return fans	Type	SWSI airfoil				
	Qty—diameter (in)	1—44.5	1—44.5	1—44.5	1—44.5	1—44.5
	Motor hp range	5–60	5–60	5–60	5–60	5–60
Exhaust fans	Type	Propeller				
	Diameter (in)	36	36	36	36	36
	Quantity	1–3 per unit	1–3 per unit	1–3 per unit	1–3 per unit	1–3 per unit
	Motor hp	5 each	5 each	5 each	5 each	5 each
Evaporator coils	Rows	3, 4, 5	3, 4, 5	3, 4, 5	3, 4, 5	3, 4, 5
	FPI	8, 10, 12	8, 10, 12	8, 10, 12	8, 10, 12	8, 10, 12
	F.A., small (sq ft)	60.8	60.8	—	—	—
	F.A., large (sq ft)	76.0	76.0	76.0	76.0	76.0
Hot water coils	Type—rows	5WH—1	5WH—1	5WH—1	5WH—1	5WH—1
		5WS—2	5WS—2	5WS—2	5WS—2	5WS—2
	FPI	9	9	9	9	9
	Face area (sq ft)	42.2	42.2	42.2	42.2	42.2
Steam coils	Type—rows	5JA—1, 2	5JA—1, 2	5JA—1, 2	5JA—1, 2	5JA—1, 2
	FPI	6, 12	6, 12	6, 12	6, 12	6, 12
	Face area (sq ft)	42.2	42.2	42.2	42.2	42.2
Gas furnace[1]	Input (MBh)	625, 800, 812, 988, 1000, 1250, 1375, 1750, 1875, 2500				
	Nom. output (MBh)	500, 640, 650, 790, 800, 1000, 1100, 1400, 1500, 2000				
Electric heat[2]	Nom. output (kW)	80, 100, 120, 160, 200, 240, 280, 320				
Panel filters	Type	85% or 30% pleated				
	Area (sq ft)	116.1	116.1	116.1	116.1	116.1
	Qty—size (in)	11—16×20×2 33—16×25×2	11—16×20×2 33—16×25×2	11—16×20×2 33—16×25×2	11—16×20×2 33—16×25×2	11—16×20×2 33—16×25×2
Prefilters (for cartridge filters)	Type	Prefilter, standard flow		Prefilter, medium flow		
	Area (sq ft)	64.0	64.0	64.0	64.0	64.0
	Qty—size (in)	4—12×24×2 12—24×24×2	4—12×24×2 12—24×24×2	16—24×24×2	16—24×24×2	16—24×24×2
	Type	Prefilter, medium flow		Prefilter, high flow		
	Area (sq ft)	80.0	80.0	80.0	80.0	80.0
	Qty—size (in)	8—12×24×2 16—24×24×2	8—12×24×2 16—24×24×2	8—12×24×2 16—24×24×2	8—12×24×2 16—24×24×2	8—12×24×2 16—24×24×2
Cartridge filters	Type	65% or 95% standard flow		65% or 95% medium flow		
	Area (sq ft)	64.0	64.0	64.0	64.0	64.0
	Qty—size (in)	16—24×24×12	16—24×24×12	16—24×24×12	16—24×24×12	16—24×24×12
	Type	65% or 95% medium flow		65% or 95% high flow		
	Area (sq ft)	80.0	80.0	80.0	80.0	80.0
	Qty—size (in)	8—12×24×12 16—24×24×12	8—12×24×12 16—24×24×12	8—12×24×12 16—24×24×12	8—12×24×12 16—24×24×12	8—12×24×12 16—24×24×12

1. Gas furnace size availability is limited by minimum airflow (RFS/RPS only).
2. 460-volt capacities are shown. Electric heat availability is limited by minimum airflow (RFS/RPS only).

RoofPak™ Models RPE and RDE Singlezone Heating and Cooling Units—75 to 150 Tons

Evaporative Condenser Arrangements

Features

- Seven sizes from 75 to 150 tons
- Blow-through (model RPE) or draw-through (model RDE) cooling
- Walk-in service vestibule contains water connections, controls, water treatment and refrigerant service components
- R-407C refrigerant

Benefits

- Up to 40% savings in condensing unit energy consumption versus air-cooled alternatives
- Reduced peak electrical demand at design conditions allows unit electrical service to be downsized for lower installation costs and electrical demand charges
- R-407C is an environmentally friendly HFC refrigerant with good efficiency on evaporative cooled applications

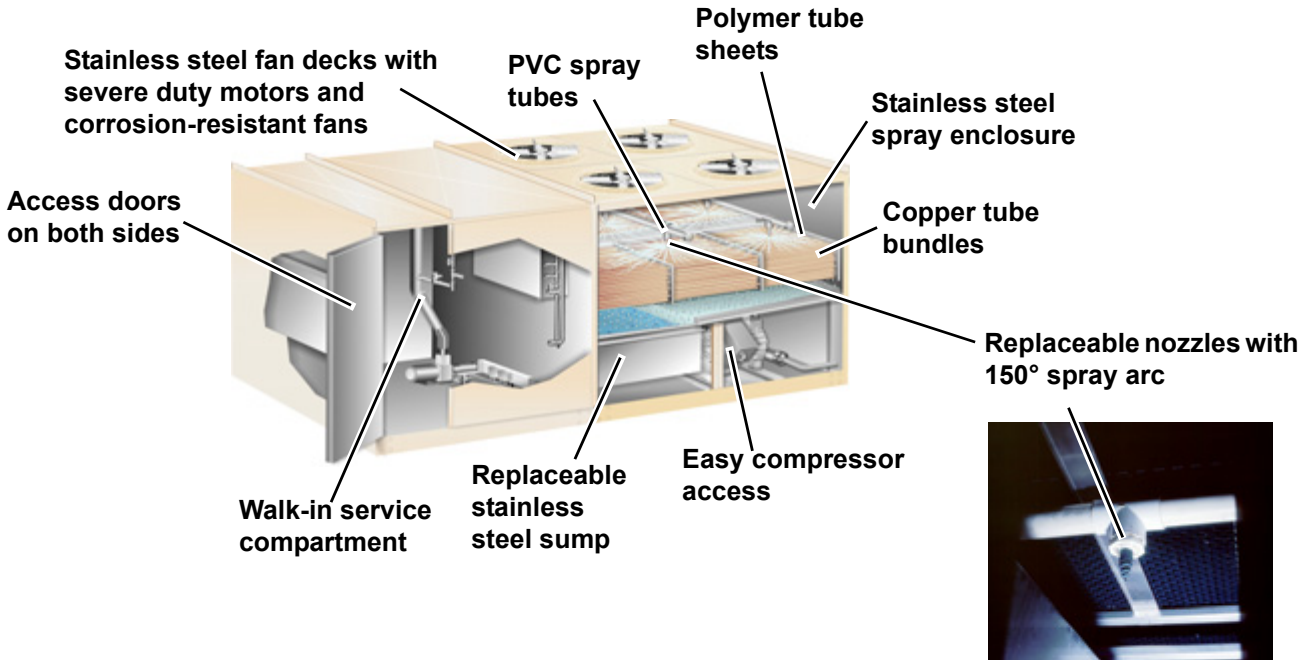
Typical savings vs. air-cooled rooftop systems*

To illustrate the savings generated by evaporative condensing, consider a two-story shopping mall using several 125-ton VAV rooftop units, occupied 365 days a year. The table below shows the McQuay RPE condensing unit savings if the mall is located in Los Angeles, New York and Las Vegas.

Conditions		Los Angeles		New York		Las Vegas	
		Air-cooled	McQuay RPE	Air-cooled	McQuay RPE	Air-cooled	McQuay RPE
Design ambient dry bulb/wet bulb		95°F/72°F	95°F / 72°F	95°F / 75°F	95°F / 75°F	110°F / 72°F	110°F / 72°F
Electrical consumption rate (per kW hour)		$0.15	$0.15	$0.11	$0.11	$0.07	$0.07
Electrical demand rate (per kW hour)		$24.00	$24.00	$18.00	$18.00	$8.00	$8.00
Condensing unit	Efficiency (kW/ton)	1.15	0.85	1.15	0.88	1.40	0.85
	Electrical cost	$30,200	$22,100	$17,860	$12,375	$19.042	$11.351
	Percent savings	27%		31%		40%	

* All energy analysis comparison charts are estimates and have been generated using McQuay Energy Analyzer™ software. Actual customer results may vary. For more information on Energy Analyzer software, see page 7.

Features and Options



Optional non-chemical water treatment

- Eliminates the costs and hazards associated with chemical water treatment
- Reduces water consumption and possibly eliminates sanitary sewer costs of blowdown water
- Evaporative condenser maintenance need not exceed maintenance for air-cooled units

Physical Data—RDE and RPE 076C to 150C

Data		Unit size						
		076C	089C	100C	110C	130C	140C	150C
Nominal capacity (tons)[1]		79.2	89.4	98.9	119.3	130.8	141.9	152.5
Nominal airflow (cfm)		32,000	35,000	35,000	42,000	45,000	46,000	46,000
Compressor	Type	Reciprocating						
	Quantity – hp	2 – 30	2 – 35	2 – 40	4 – 25	4 – 30	2 – 30, 2 – 35	4 – 35
	Std. capacity control	100-83-67-33-0			100-75-50-25-0		100-72-44-22-0	100-75-50-25-0
	Opt. capacity control	100-83-67-50-33-16-0			100-88-75-63-50-38-25-12-0		100-89-79-61-44-32-22-11-0	100-92-83-67-50-42-33-16-0
Condenser fans	Qty – diameter (in)	4– 26	4 – 26	4 – 26	6 – 26	6 – 26	6 – 26	6 – 26
Condenser fan motors	Qty – hp	4 – 1.5	4 – 1.5	4 – 1.5	6 – 1.5	6 – 1.5	6 – 1.5	6 – 1.5
Refer to RPS and RDT tables for additional physical data.								

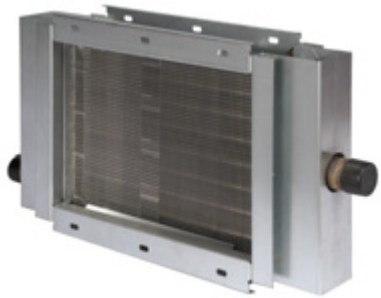
1. Rated in accordance with AHRI Standard 360.

Water Cooling or Heating, Evaporator and Steam—Fin Types HI-F5, HI-F8 and E-F5

- Easy selection of the widest variety of coil options
- Over 70 years of experience setting the industry standard for quality
- High efficiency, maximum heat transfer design
- Quick shipping programs
- Flexibility and manufacturing capabilities for special materials and configurations required for industrial and process applications
- Optional coil connection lengths and arrangements available
- Optional freeze damage protection
- Flange dimensions are variable to fit your application

For more detail, refer to Catalogs 411 (Water Cooling & Evaporator), 412 (Water Heating), and 413 (Steam). For the most current information, refer to www.mcquay.com.

Water cooling or heating coils



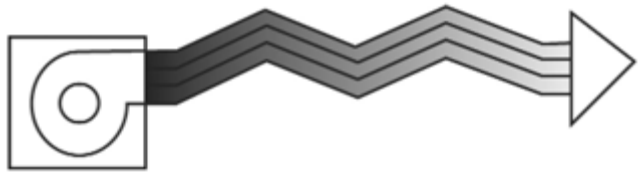
Steam coils

Evaporator coils

Reclaiming and Condenser coils

HI-F high efficiency fin type

Maximum heat transfer due to continuous air turbulence across the fin surface

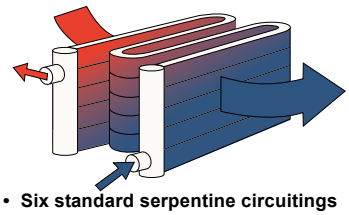


E-F energy efficient fin type

- Energy saving
- Reduces air pressure drop by as much as 33%
- Fan brake horsepower requirements are lower

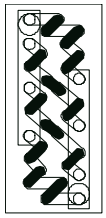
Water Cooling and Evaporator Coils—Types HI-F5 and E-F5

Chilled Water Circuitings

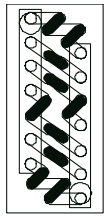


- Six standard serpentine circuitings
- Counterflow water circuits
- Unique or universal hand of connection available (all cooling coils)

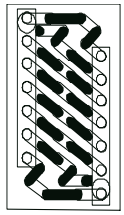
5WQ
1/4 Serpentine



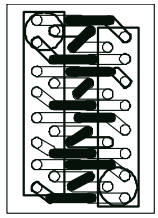
5WH
1/2 Serpentine



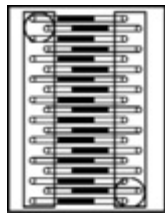
5WL
3/4 Serpentine



5WS
1 Serpentine

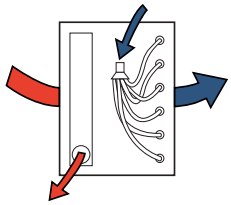


5WM
1-1/2 Serpentine

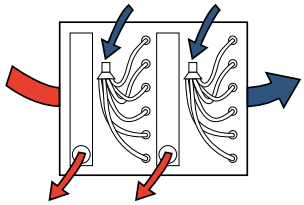


5WD
2 Serpentine

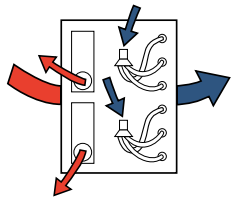
Evaporator Coil Circuitings



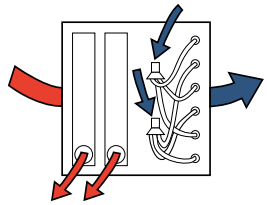
5EN Normal



5ER Row control



5EF Face control



5EJ, 5EK Interlaced

Standard Availability Chart—Water Cooling and Evaporator Coils

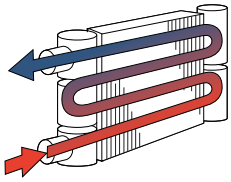
Coil type			Chilled water							Evaporator				
Coil model			5MH	5MS	5WH	5WL	5WS	5WM	5WD	5EN	5EF	5ER	5EJ	5EK
Serpentine circuit			1/2	1	1/2	3/4	1	11/2	2	Normal	Face	Row	Interlaced	
Rows			2		3,4,5,6 8,10,12			4,5,6 8,10,12	4,6,8 10,12	2,3,4,5 6,8,10		6	3,4,6,8	4,8
Connection location			Same end except 5WS 3,5 row; 5WD 6,10 row							Same end				
Fin height 3" increment			12" to 54"							12" to 54"			15" to 54"	
Fin length 1-1/2" increment			12" to 141"							12" to 141"				
Fin spacing (FPI)			6 to 14							6 to 14				
Fins	Fin type	HI-F	●	●	●	●	●	●	●	●	●	●	●	●
		E-F	●	●	●	●	●	●	●	●	●	●	●	●
	Aluminum	.0075	●	●	●	●	●	●	●	●	●	●	●	●
		.0095	●	●	●	●	●	●	●	●	●	●	●	●
	Copper	.006	●	●	●	●	●	●	●	●	●	●	●	●
		.0075	●	●	●	●	●	●	●	●	●	●	●	●
		.0095	●	●	●	●	●	●	●	●	●	●	●	●
Tubing	Copper	.020[1]	●	●	●	●	●	●	●	●	●	●	●	●
		.025	●	●	●	●	●	●	●	●	●	●	●	●
		.035	●	●	●	●	●	●	●	●	●	●	●	●
		.049	●	●	●	●	●	●	●	●	●	●	●	●
Tubing diameter			5/8"							5/8"				
Tubing face C/C			1.5							1.5				
Headers standard mat'l[2]			Copper tubing							Copper tubing				
Maximum std. operating limits		P	250 psig							250 psig				
		T	300°F							300°F				

● Feature available.

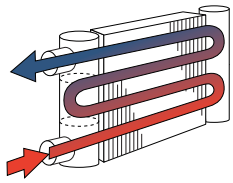
1. .020 is a nominal tube thickness.
2. Optional header materials are available. Consult your local McQuay Sales Representative.

Water Heating Coils—Types HI-F5 and E-F5

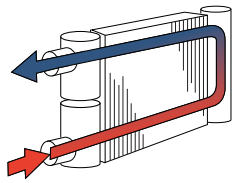
Hot Water Coil Circuitings



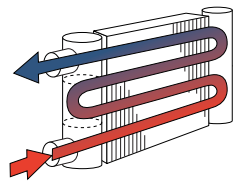
5WQ
1/4 Serpentine (1 row)



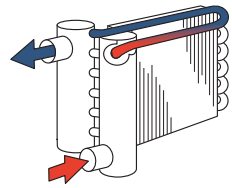
5WH
1/2 Serpentine (2 row)



5WH
1/2 Serpentine (1 row)

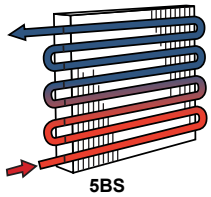


5WS
1 Serpentine (2 row)

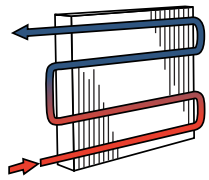


5MQ
1/4 Serpentine (1 row)
5MH
1/2 Serpentine (1, 2 row)
5MS
1 Serpentine (1 row)

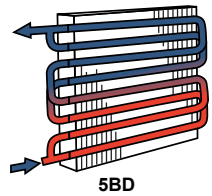
Hot Water Booster Coil Circuitings



5BS
Single feed (1, 2 row)



5BB
Single feed (1, 2 row)



5BD
Double feed (2 row)

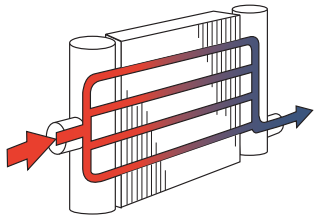
Standard Availability Chart—Water Heating Coils

Coil type			Hot water										Cleanable hot water (removable plug)									Hot water (booster)		
Coil model			5MQ	5MH	5MS	5WB	5WQ	5WH	5WL	5WS	5WM	5WD	5KQ	5KH	5KS	5QQ	5QH	5QS	5PQ	5PH	5PS	5BB	5BS	5BD
Serpentine circuit			1/4	1/2	1	1[1]	1/4	1/2	3/4	1	1 1/2	2	1/4	1/2	1	1/4	1/2	1	1/4	1/2	1	1 feed[1]	1 feed	1 feed
Rows			1	1,2	2	1,2	1	1,2,3,4	3,4	2,3,4	4	4	1	1,2	2	1	1,2	2	1	1,2	2	1,2	1,2	2
Connection location			Same end except 5WS 3-row										Same end									Same end		
Fin height 3" increment			12" to 54"[3]	12" to 54"		12" to 42" (1 & 2 row) & 12-54 (3 & 4 row)							12" to 42"									6" to 24"		
Fin length 1 1/2" increment			12" to 141"										12" to 141"									6" to 60"		
Fin spacing (FPI)			6 to 14										6 to 14									6 to 14		
Fins	Fin type	HI-F	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
		E-F	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Aluminum	.0075	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
		.0095	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Copper	.006	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
		.0075	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
		.0095	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Tubing	Copper	.020[1]	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
		.025	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
		.035	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
		.049	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Tubing diameter			5/8"										5/8"									5/8"		
Tubing face C/C			1.5			3.0	1.5						1.5									3.0	1.5	
Headers standard mat'l[2]			Copper tubing										Copper tubing									Threaded copper fittings		
Maximum std. operating limits		P	250 psig										250 psig									250 psig		
		T	300°F										300°F									300°F		

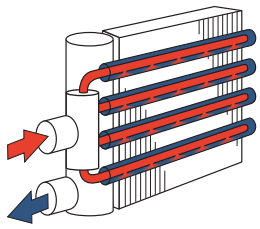
● Feature available .
1. .020 is a nominal tube thickness.
2. Optional header materials are available, consult your local McQuay Sales Representative.
3. Available in 6" increments.

Steam Coils—Types HI-F5 and E-F5

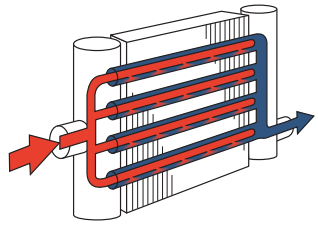
Steam Coil Circuitings



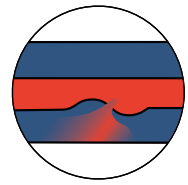
5S, 5H
Single tube



5J, 5G, 8J, 8G
Distributing tube
(same end connections)



8R, 8T
Distributing tube
(opposite end connections)



Directional orifice
(distributing tube
steam coils)

Standard Availability Chart—Steam Coils

Coil type			Steam (single tube)		Steam (distributing tube)					
Coil model			5SA	5HA	5JA	5GA	8JA	8GA	8RA	8TA
Serpentine circuit			Does not apply		Does not apply					
Rows			1,2		1,2		1			
Connection location			Opposite end		Same end		Same end		Opposite end	
Fin height, 3" increment			12" to 42"							
Fin length, 1 1/2" increment			12" to 129"							
Fin spacing (FPI)			6 to 14				3 to 14			
Fins	Fin type	HI-F	●	●	●	●	●	●	●	●
		E-F	●	●	●	●				
	AlumInum	.0075	●	●	●	●				
		.0095					●*	●*	●*	●*
		.0120					●	●	●	●
	Copper	.006	●	●	●	●				
		.0075	●	●	●	●	●*	●*	●*	●*
		.0095	●	●	●	●	●*	●*	●*	●*
Tubing	Copper	.020	●		●					
		.025	●		●		●		●	
		.035	●		●					
		.049	●		●		●		●	
	Admiralty Brass	.049		●		●				
	Cupro-nickel	.020		●		●				
		.032						●		●
		.035		●		●				
		.049		●		●		●		●
Tubing diameter			5/8"		5/8"		1"			
Tubing face C/C			1.5		1.5		3.0			
Headers standard material			Copper	Cu Ni	Copper	Cu Ni	Copper	Cu Ni	Copper	Cu Ni
Maximum standard operating limits		P	150 psig	350 psig	150 psig	350 psig	150 psig	350 psig	150 psig	350 psig
		T	366°F	450°F	366°F	450°F	366°F	450°F	366°F	450°F

● Feature available.
* Requires 6 fins per inch or more.

Outdoor Air Handler Products Summary

	Model OAH		
	Skyline™	RoofPak™ RDS	RoofPak™ RAH
			
Features and Highlights	**900—65,000 CFM**	**4000—20,000 CFM**	**12,000—50,000 CFM**
Flexible cabinet sizing in 2" increments (height and width) with our Variable Dimensioning™ feature	Yes	—	—
DesignFlow™ Precision Ventilation Air Control System	—	Yes	Yes
Multiple coil face areas and unit sizes to closely match your requirements, especially in smaller sizes	Yes	—	—
Multiple gas heat selections including SuperMod™ High Turndown Gas Burner with 20:1 turndown	—	Yes	Yes
Multiple customized component options for fans, coils, filters, and cabinet construction	Yes	—	—
Factory-mounted MicroTech® III DDC controls and value packages	—	Yes	Yes
Adjustable height roof curb (16" to 30")	Yes	—	—
Full factory wiring and single point power	—	Yes	Yes
Published leakage rates	Yes	—	—
Single piece shipment on units longer than 12' or wider than 8.5'	—	Yes	Yes
R-13 foam panels	Yes	—	—
Optional UVGI lights	—	Yes	Yes
Factory-mounted disconnects, VFDs, and starters	Yes	Yes	Yes
Electric heat	—	Yes	Yes
Energy recovery wheels up to 15,000 cfm of outdoor air	—	Yes	Yes
IBC seismic compliance	Yes	Yes	Yes

Skyline™ Outdoor Air Handler, 3 to 92 ft^2—900 to 65,000 cfm

- **Flexibility—custom modular platform and multiple component options**
- **Operating efficiency—efficient fan selections**
- **Easy, low cost installation—ships assembled or by section with curb-ready base rail and heavy duty lifting lugs; optional roof curb kit with variable heights**
- **Easy maintenance and serviceability—easy-to-remove access panels**
- **Indoor air quality—low leakage cabinet and double-sloped drain pan**

For more detail refer to Catalog 570. For the most current information, refer to www.mcquay.com.

Durable, weather tight cabinet

- Cross-broken top panels eliminate standing water
- Standing “C” cap over joint provides a watertight seal
- Drip shield on all sides and over doors
- Pre-painted frames and panels
- R-13 foam-injected insulation
- Stainless steel liners option

Custom modular design

- Allows custom selection and configuration of components to meet performance requirements

Visible double-sloped drain pan

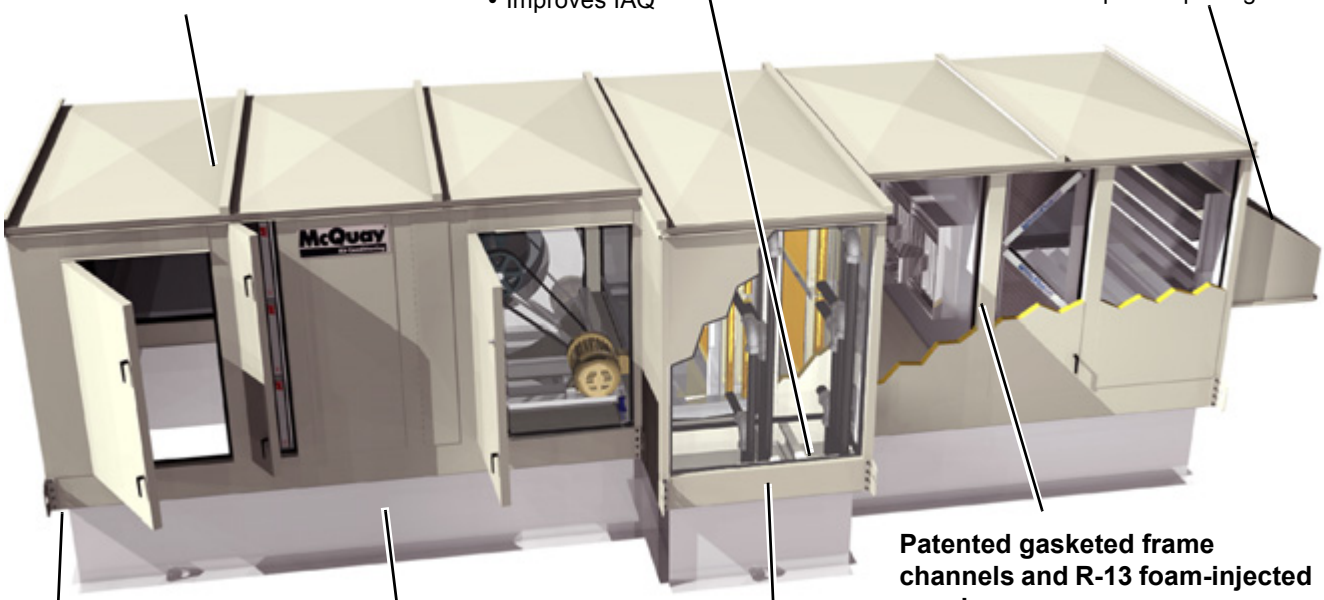
- Microbial-resistant coated galvanized or optional stainless steel to inhibit bacteria growth
- Makes inspection and cleaning easier
- Improves IAQ

Motor control

- Disconnect switches: non-fused, fused, circuit breaker
- Starters: IEC and NEMA type
- VFDs: McQuay, ABB, Danfoss

Damper hoods (optional) with screens

- Direct rain or snow away from required openings



Heavy duty base rail

- Standard base rail in varying heights (4" to 12") or curb-ready design, forms weather tight seal
- Lifting lugs on all four corners facilitates easy rigging

Factory-supplied roof curb (optional)

- Designed specifically to match custom-modular design flexibility
- Variable heights from 16" to 30" to meet installation requirements
- Includes separate pipe chase

Piping vestibule

- Encloses piping connections within unit cabinet
- Variable depths to meet your piping requirements

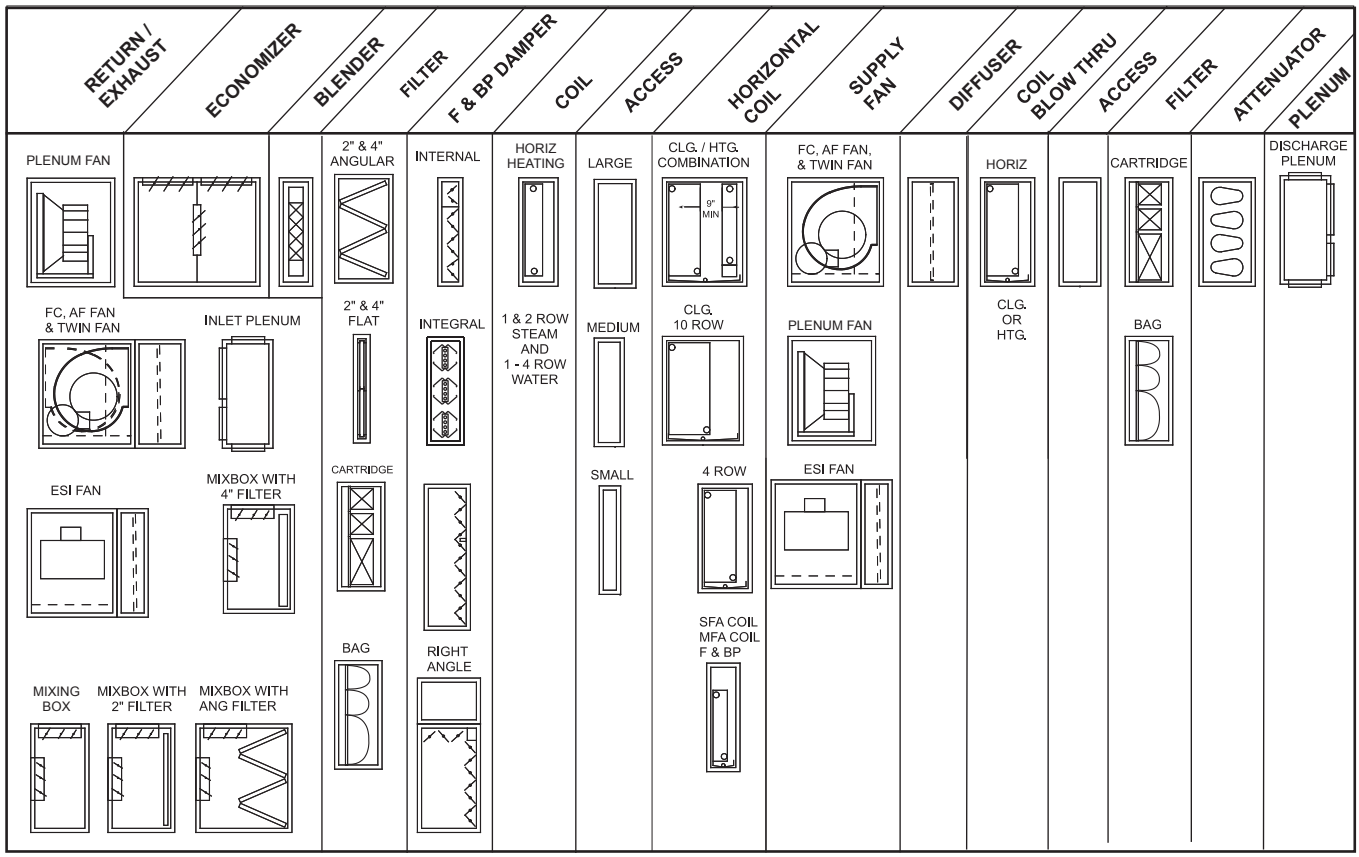
Patented gasketed frame channels and R-13 foam-injected panels

- Eliminates metal-to-metal contact between paneling and framework to minimize air leakage
- Provides superior strength
- Promotes high IAQ and long life

Customized Options

Use McQuay Skyline as a product platform on which to build the ideal outdoor air handler for your specific application. Customized options include:

- Curb-ready base and roof curb kits (16", 20", 24", 30")
- Multiple sizes of insulated, double-wall coil and piping vestibules
- Horizontal or vertical integral face and bypass dampers
- Hoods and grilles for damper openings
- Variable Dimensioning™ on 2" increments
- Multiple coil face areas per unit size
- Disconnects/starters and VFD's
- Multiple section depths
- Various casing and drain pan materials
- Mixing boxes/economizers
- Sound attenuators
- Electro-Fin epoxy coil coating
- Multiple coil section depths
- Humidifier manifold
- IBC seismic certification
- Gas-phase filtration
- Miami-Dade hurricane certified
- Multiple fan selections: forward curve, airfoil, inline, and belt or direct drive plenum fans; twin fans (two forward curved fans on one shaft)
- Filters (flat, angular, bag and cartridge) available in side load and/or front loading configurations
- Doors, marine lights, and receptacles
- Manual selections to accommodate special components
- Hinged access doors with full grip handles



Physical Data—Quick Select Table—Skyline 003 through 021*

Description	Unit size								
	003	004	006	008	010	012	014	017	021
Airflow range, cfm	900–2500	1200–3100	1700–4600	2200–6000	2900–7700	3600–9700	4200-11,200	5000-13,500	6000-16,000
cfm @ 500 ft/min through large face area coil	1550	1950	2850	3750	4800	6050	7000	8400	10,050
Height × width, in	32 × 38	36 × 40	38 × 52	40 × 58	44 × 64	50 × 66	50 × 74	52 × 80	58 × 82
Cooling coil face area, sq.ft.									
Staggered large	3.9	4.8	6.6	8.5	10.7	13.5	15.4	18.3	21.9
Large	3.1	3.9	5.7	7.5	9.6	12.1	14.0	16.8	20.1
Staggered medium	2.6	3.4	4.7	6.4	8.3	9.8	11.2	13.7	17.2
Medium	2.1	2.8	4.1	5.6	7.4	8.8	10.2	12.6	15.8
Small	NA	2.3	3.3	4.7	6.4	7.7	8.9	11.2	14.4
Fan section–depth, in									
Largest housed fan avail. w/ top hor. dis.	32	32	36	40	40	46	46	50	52
Largest inline fan and motor available	N/A	N/A	N/A	N/A	N/A	44	44	48	54
Largest belt drive plenum fan available	N/A	N/A	N/A	N/A	34	42	42	48	52
Largest direct drive plenum fan available	N/A	N/A	N/A	44	46	56	56	66	68
Largest twin fan and motor available	N/A	N/A	N/A	50	54	56	58	58	66
Mixing box–depth, in									
Mixing box only	20	20	20	20	22	24	24	26	30
Mixing box with flat filter	24	24	24	24	26	28	28	30	34
Mixing box with angular filter	42	42	42	42	44	46	46	48	52
Economizer–depth, in									
Depth	66	66	70	66	74	72	77	80	84
Blender–depth, in									
Largest Kees	18	20	24	26	28	34	36	38	42
Largest Blender Products IV	18	22	26	30	34	38	40	46	48
Side load filter sections–depth, in									
Flat 2" and 4"	12	12	12	12	12	12	12	12	12
2" angular	32	32	32	32	32	32	32	30	30
Cartridge (12" deep w/2" pre-filter)	22	22	22	22	22	22	22	22	22
Bag (36" w/2" pre-filter)	42	42	42	42	42	42	42	42	42
Front load filter sections–depth, in									
Cartridge (12" deep w/2" pre-filter)	16	16	16	16	16	16	16	16	16
Bag (36" w/2" pre-filter)	40	40	40	40	40	40	40	40	40
Face and bypass–depth, in									
Internal	12	12	12	12	12	12	12	12	12
External	18	18	18	20	22	24	24	26	30
Coil sections–depth, in									
Heating only (2-row water)	12	12	12	12	12	12	12	12	16
Cooling only (4-row water)	24	24	24	24	24	24	24	24	24
Cooling only (6-row water)	24	24	24	24	24	24	24	24	24
Clg (12-row) & reheat (1-row)	36	36	36	36	36	36	36	36	36
Access sections–depth, in									
16" deep	16	16	16	16	16	16	16	16	16
24" deep	24	24	24	24	24	24	24	24	24
30" deep	30	30	30	30	30	30	30	30	30
36" deep	36	36	36	36	36	36	36	36	36
42" deep	42	42	42	42	42	42	42	42	42
48" deep	48	48	48	48	48	48	48	48	48
54" deep	54	54	54	54	54	54	54	54	54
Diffuser–depth, in									
With housed fan	10	10	10	12	12	16	16	16	16
With inline fan	N/A	N/A	N/A	N/A	N/A	18	18	18	22
Attenuator–depth, in									
Short	40	40	40	40	40	40	40	40	40
Medium	52	52	52	52	52	52	52	52	52
Long	64	64	64	64	64	64	64	64	64
Supply or return plenum–depth, in									
Top, bottom or end opening	14	16	16	18	20	22	22	24	28

* Based on typical industry sizes. Skyline air handling units are available in 2 inch increments of height and width to fit the exact space requirements. Front load filter sections include 24" upstream plenum section with tread plate for heavy duty floor liner.

Physical Data—Quick Select Table—Skyline 025 through 090*

Description	Unit size								
	025	030	035	045	055	065	080	085	090
Airflow range, cfm	7300-19,400	8500-22,500	10,000-26,500	9600-25,500	11,400-30,200	20,000-54,000	21,500-57,500	23,100-61,600	24,600-65,600
cfm @ 500 ft/min through large face area coil	12,150	14,150	16,700	19,300	24,500	33,300	35,900	38,450	41,000
Height × width, in	66 × 86	66 × 98	72 × 102	84 × 106	96 × 106	92 × 136	98 × 136	104 × 136	110 × 136
Cooling coil face area, sq.ft.									
Staggered large	27.4	31.9	37.1	50.4	N/A	76.9	82.0	87.1	92.2
Large	24.3	28.3	33.4	42.6	50.4	66.6	71.8	76.9	82.0
Staggered medium	21.3	24.8	29.7	34.9	46.5	61.5	61.5	66.6	71.8
Medium	18.2	21.2	24.1	31.0	38.8	51.2	51.2	56.4	61.5
Small	16.7	19.5	22.3	27.1	34.9	46.1	46.1	51.2	56.4
Fan section–depth, in									
Largest housed fan avail. w/ top hor. dis.	58	58	58	58	60	92	92	92	92
Largest inline fan and motor available	64	64	70	82	82	96	96	96	96
Largest belt drive plenum fan available	56	58	62	66	66	82	82	82	82
Largest direct drive plenum fan available	66	68	84	86	92	86	N/A	N/A	N/A
Largest twin fan and motor available	66	74	82	78	78	N/A	N/A	N/A	N/A
Mixing box–depth, in									
Mixing box only	32	32	36	42	48	46	50	54	56
Mixing box with flat filter	—	—	—	—	—	50	54	58	60
Mixing box with angular filter	—	—	—	—	—	68	72	76	78
Economizer–depth, in									
Depth	84	86	100	106	112	92	100	108	112
Blender–depth, in									
Largest Kees	46	48	58	64	68	76	80	84	84
Largest Blender Products IV	52	60	64	70	70	88	88	92	92
Side load filter sections–depth, in									
Flat 2" and 4"	12	12	12	12	12	12	12	12	12
2" angular	32	32	32	32	32	32	32	32	32
Cartridge (12" deep w/2" pre-filter)	22	22	22	22	22	22	22	22	22
Bag (36" w/2" pre-filter)	42	42	42	44	44	42	42	42	42
Front load filter sections–depth, in									
Cartridge (12" deep w/2" pre-filter)	16	16	16	20	20	16	16	16	16
Bag (36" w/2" pre-filter)	40	40	40	44	44	40	40	40	40
Face and bypass–depth, in									
Internal	12	12	12	12	12	12	12	12	12
External	32	32	34	44	50	50	54	56	58
Coil sections–depth, in									
Heating only (2-row water)	12	12	12	16	16	12	12	12	12
Cooling only (4-row water)	36	36	36	48	48	18	18	18	18
Cooling only (6-row water)	42	42	42	48	48	24	24	24	24
Clg (12-row) & reheat (1-row)	42	42	42	42	42	36	36	36	36
Access sections–depth, in									
16" deep	16	16	16	16	16	16	16	16	16
24" deep	24	24	24	24	24	24	24	24	24
30" deep	30	30	30	30	30	30	30	30	30
36" deep	36	36	36	36	36	36	36	36	36
42" deep	42	42	42	42	42	42	42	42	42
48" deep	48	48	48	48	48	48	48	48	48
54" deep	54	54	54	54	54	54	54	54	54
Diffuser–depth, in									
With housed fan	24	24	24	30	30	30	30	30	30
With inline fan	26	26	28	30	32	38	38	38	38
Attenuator–depth, in									
Short	40	40	40	40	40	40	40	40	40
Medium	52	52	52	52	52	52	52	52	52
Long	64	64	64	64	64	64	64	64	64
Supply or return plenum–depth, in									
Top, bottom or end opening	30	30	32	32	40	42	48	52	54

* Based on typical industry sizes. Skyline air handling units are available in 2 inch increments of height and width to fit the exact space requirements. Front load filter sections include 24" upstream plenum section with tread plate for heavy duty floor liner.

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RoofPak™ Model RDS and RAH Air Handlers—4000 to 50,000 cfm

- **Modular, walk-in, hinged construction**
- **100% make up air, dehumidification, VAV, or constant volume operation**
- **Multiple factory-installed options for customized flexibility**
- **Blow-through or Draw-through cooling coil and filter configurations**
- **Controls flexibility—MicroTech® III controls with our Open Choices™ feature for easy integration with the BAS of your choice**
- **Heavy duty construction and independent certification (optional) confirm that the McQuay RoofPak unit complies with the newest IBC seismic requirements**

For more detail, refer to Catalog 218. For the most current information, refer to www.mcquay.com.

Model RAH air handler
12,000 to 50,000 cfm

Model RDS air handler
4000 to 20,000 cfm

Optional electrical

- Disconnects, starters, lights, and VFDs
- Single source power and branch short circuit protection complete with ETL label
- Factory-installed, preprogrammed, and tested static pressure and temperature controls complete with valve packages or face and bypass control

Optional heating

- Gas with SuperMod™ high turndown gas burners
- Electric
- Hot water
- Steam

BACnet International

LonMark 3.4

Available LonMark certified

RoofPak™ Model RDS and RAH Air Handlers—4000 to 50,000 cfm

Return or exhaust fan

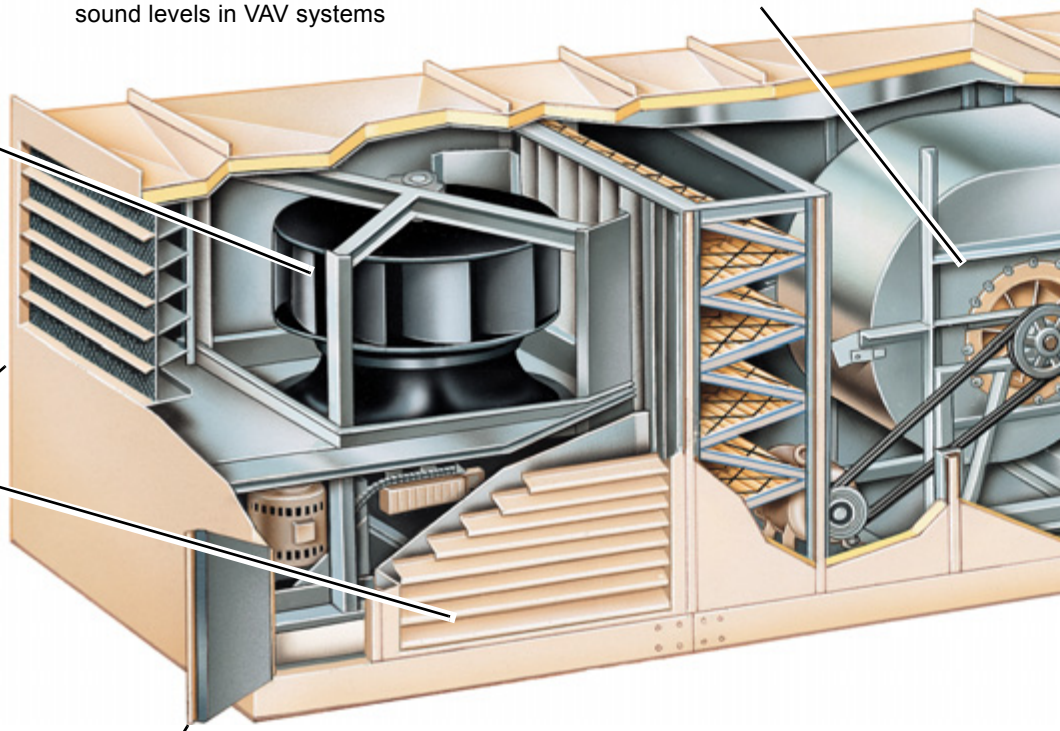
- Customize the unit to fit the application and return duct pressure drop
- Return fans provide better building pressure and ventilation control as return duct pressure drop increases
- Exhaust fans can save energy as return duct pressure drop requirements decrease

Factory-mounted variable frequency drives

- Control fan motor speed for lower fan operating costs and sound levels in VAV systems

Airfoil fans

- More energy efficient and quieter than forward curved fans
- Double width, double inlet (DWDI) or single width, single inlet (SWSI) plenum fans



Economizer

- Outside air enters from both sides, improving mixing for better temperature control
- DesignFlow Precision Ventilation Air Control System accurately measures and maintains ventilation air intake
- Patented UltraSeal™ low leak dampers minimize air leakage, reducing energy costs

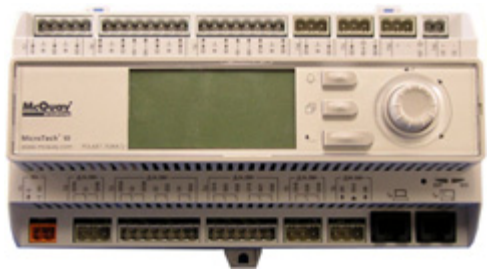
Hinged access doors

- On both sides of every section for easy access to all components
- Single lever latch and door holders provide easy entry and support routine maintenance
- Double-wall construction protects insulation during maintenance

Features

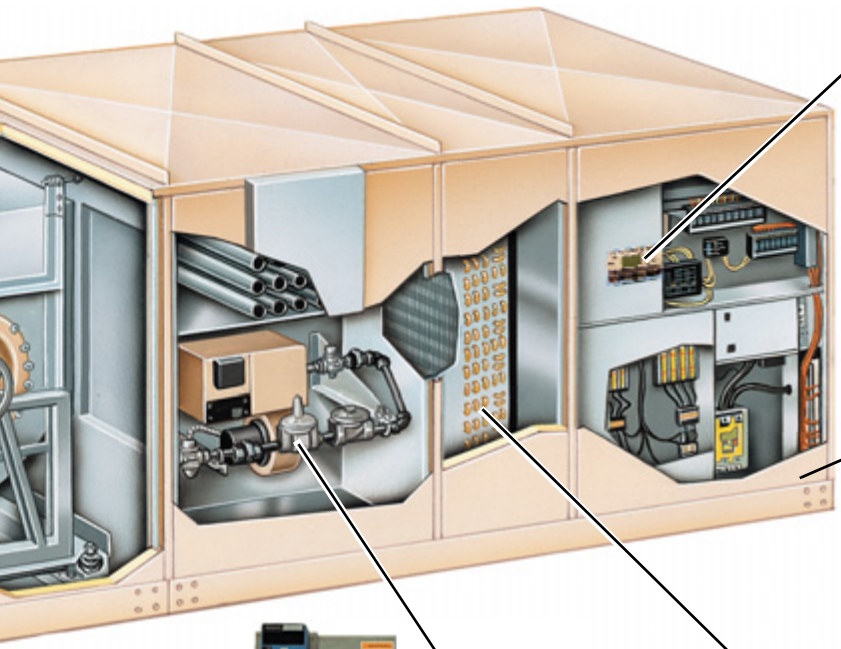
Blank sections

- Available throughout unit to factory-mount air blenders, carbon or charcoal filters, sound attenuators (shown), humidifiers, or other specialty equipment
- Allow customizing for maximum system performance and efficiency
- Reduced design and installation costs



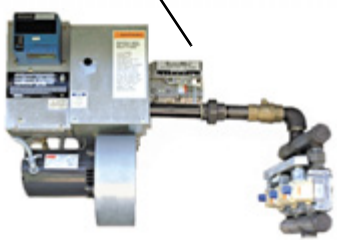
MicroTech III control system

- Factory-installed and tested to minimize costly field commissioning.
- Open Choices feature for easy integration with the BAS of your choice using open, standard communication options such as BACnet® or LonWorks®
- Easily accessed for system diagnostics and adjustments via a keypad/display on unit
- Minimum outdoor air and humidity control logic for fresh air intake and optimum humidity levels
- Optionally add a remote keypad and display that is identical to the unit-mounted user interface



Durable construction

- Pre-painted exterior cabinet panels pass ASTM B 117 Salt Spray Test for durability
- Capped seams prevent water leaks into the cabinet
- Cross-broken top panels eliminate standing water
- Double-wall construction protects R-6.5 insulation and provides wipe clean surface
- Stainless steel, sloped drain pans eliminate standing water



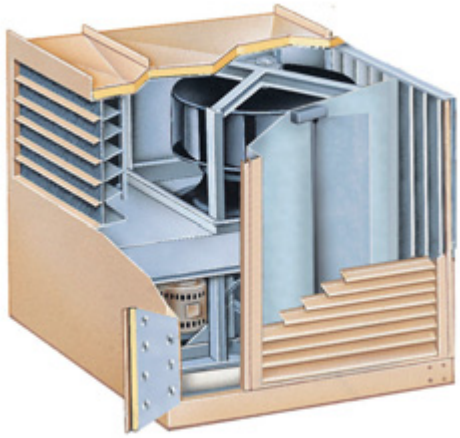
SuperMod high turndown gas burner

- Full 20:1 turndown and multiple sizes enable precise temperature control at reduced design, installation, and life cycle costs
- Maintain comfortable tenant environment in VAV, 100% make-up air, and dehumidification applications

Blow-through or draw-through cooling coils

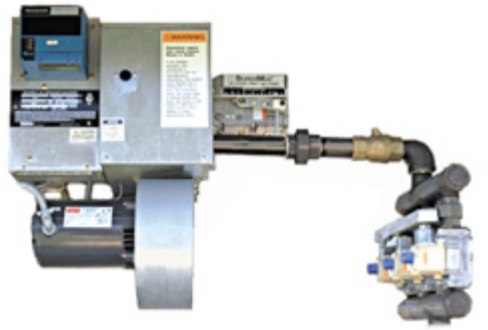
- Customize the unit to fit the application and building load
- Blow through provides greater sensible heat ratios and colder unit leaving air temperature per ton
- Draw-through arrangement provides more dehumidification per ton
- Factory-installed valve packages are offered for many chilled water, hot water, and steam coils

Features and Options



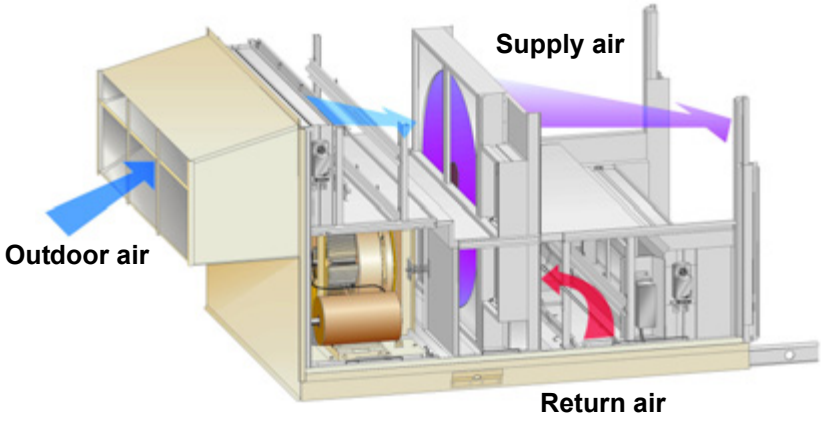
DesignFlow™ precision ventilation air control system

- Accurately measures and maintains minimum ventilation air intake to satisfy IAQ standards



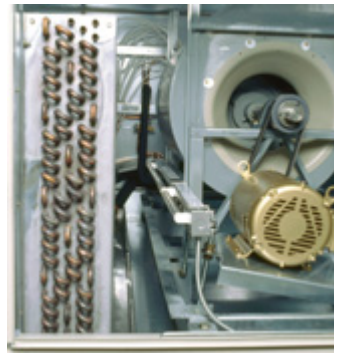
SuperMod™ high turndown gas burners

- Full 20:1 turndown and multiple sizes enable precise temperature control at reduced design, installation, and life cycle costs
- Maintain comfortable tenant environment in VAV, 100% make-up air, and dehumidification applications



Energy recovery wheel

- Recovers approximately 75% of the energy from exhaust air stream
- Allows mechanical refrigeration, heating, and humidifying capacities to be reduced, offsetting the initial cost of the energy recovery wheel
- Cuts winter humidification energy costs by up to 60%
- Provides 100% more summer energy recovery than sensible-only energy recovery devices
- Helps provide a comfortable and affordable indoor environment
- Satisfies ASHRAE Standard 90.1 requirements for energy recovery on applications involving more than 70% minimum outdoor air and 5000 total cfm



Optional UVGI lights

- Improves IAQ by destroying microorganisms on coil and drain pan surfaces
- Includes door interlocks to prevent eye contact with the UV-C ultraviolet light
- Satisfies GSA requirement for UVGI lights downstream of all cooling coils

RDS 708B, 800C and 802C—Physical Data

Data		Unit size		
		708B	800C	802C
Cabinet	Length (in)	114–279	62–538	84–566
	Height (in)	51.0	55.5	55.5
	Width (in)	67.5	94.0	94.0
Supply fans	Type	Forward curved		
	Qty–dia. (in)	1–15 × 6	2–15 × 6	1–24
	Qty–dia. (in)	1–15 × 9	2–15 × 15	–
	Qty–dia. (in)	1–15 × 15[1]	–	–
	Airflow range (cfm)	2000–8000	4000–16,000	8000–20,000
	Motor hp range	1–7.5	1–20	1–25
	Type	Backward curved with or without vanes		
	Qty–dia. (in)	–	–	1–24
	Airflow range (cfm)	–	–	8000–20,000
	Motor hp range	–	–	1–25
	Type	Airfoil with or without vanes		
	Qty–dia. (in)	1–16	1–20	–
	Airflow range (cfm)	2000–8000	4000–16,000	–
	Motor hp range	1–10	1–25	–
Return fans	Type	Forward curved		
	Qty–dia. (in)	1–15 × 15[1]	2–15 × 15	–
	Airflow range (cfm)	2000–7200	3000–14,400	–
	Motor hp range	1–5	1–10	–
	Type	Airfoil with or without vanes		
	Qty–dia. (in)	1–16	1–30	1–30
	Qty–dia. (in)	–	–	1–40
	Airflow range (cfm)	2000–7200	3000–14,400	6000–18,000
	Motor hp range	1–5	1–10	1–10
Throwaway 30% pleated, cleanable filters	Area (sq ft)	13.9[2]	50.0	50.0
	Qty–size (in)	4–20 × 25 × 2 –	10–16 × 20 × 2 10–16 × 25 × 2	10–16 × 20 × 2 10–16 × 25 × 2
	area (sq ft)	20.8[3]	–	–
	Qty–size (in)	6–20 × 25 × 2 –	– –	– –
65% cartridge filters with 2” prefilters	area (sq ft)	6.0[2]	24.0	24.0
	Qty–size (in)	1–24 × 24 × 12 1–12 × 24 × 12	4–24 × 24 × 12 4–12 × 24 × 12	4–24 × 24 × 12 4–12 × 24 × 12
	area (sq ft)	12.0 [3]	–	–
	Qty–size (in)	2–24 × 24 × 12 2–12 × 24 × 12	– –	– –
95% cartridge filters with 2” prefilters	area (sq ft)	8.0[2]	24.0	24.0
	Qty–size (in)	2–24 × 24 × 12 –	4–24 × 24 × 12 4–12 × 24 × 12	4–24 × 24 × 12 4–12 × 24 × 12
	area (sq ft)	14.0[3]	–	–
	Qty–size (in)	2–24 × 24 × 12 3–12 × 24 × 12	– –	– –
Gas, oil furnace[4]	Input (MBh)	–	250, 312, 400, 500, 625, 800, 812, 988, 1000, 1250	
	Nominal output (MBh)	–	200, 250, 320, 400, 500, 640, 650, 790, 800, 1000	
Electric[4]	Nominal output (kW)	–	20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 220, 240	

1. On RDS 708B, the 15" × 15" supply and return fans are available with or without variable inlet vanes.
2. Filter area for RDS 708B units with a 15" × 8" supply fan.
3. Filter area for RDS 708B units with a 15" × 9", 15" × 15" or 16" supply fan.
4. Gas, oil and electric heat selection is limited by the minimum airflow requirements.

RDS 708B, 800C and 802C—Physical Data (continued)

Data[1]		Unit size							
		708BS		708BL		800CY		802C	
		Without F&BP	With F&BP	Without F&BP	With F&BP	Without F&BP	With F&BP	Without F&BP	With F&BP
Physical	Fin height (in)[2]	12–39	12–30	12–39	12–30	12–36	12–30	12-36	12-30
	Fin length (in)	36		48		79		79	
	Max. coil depth (in)[3]	25.0	20.0	25.0	20.0	19.5	19.5	19.5	19.5
	Max. face area (sq ft)	9.8	7.5	13.0	10.0	19.8	16.5	19.8	16.5
	Bypass area (sq ft)	–	1.9	–	2.5	–	3.3	–	3.3
	Max bypass cfm	–	4,750	–	6,250	–	8,225	–	8,225
Chilled water coils	Diameter (in)	5/8							
	Type–rows	5MH–2				5MH–2			
	Type–rows	5WH–3, 4, 5, 6, 8, 10				5WH -, 4, 5, 6, 8, 10			
	Type–rows	5WL–3, 4, 5, 6, 8, 10				5WL–3, 4, 5, 6, 8, 10			
	Type–rows	5MS–2				5MS-2			
	Type–rows	5WS–4, 6, 8, 10				5WS–4, 6, 8, 10			
	Type–rows	5WM–5, 6, 8, 10				5WM–5, 6, 8, 10			
	Type–rows	5WD–8				5WD–8			
Evaporator coils	Diameter (in)	5/8							
	Type–rows	5EN–2, 3, 4, 5, 6, 8				5EN–2, 3, 4, 5, 6, 8			
	Type–rows	SER–6				SER–6			
	Type–rows	5EF–2, 3, 4, 5, 6, 8				5EF–2, 3, 4, 5, 6, 8			
	Type–rows	5EJ–3, 4,6, 8				5EJ–3, 4,6, 8			
	Type–rows	5EK–4, 8				5EK–4, 8			
Hot water coils	Diameter (in)	5/8							
	Type–rows	5WB–1, 2				5WB–1			
	Type–rows	5WQ–1				5WQ–1			
	Type–rows	5WH–1, 2				5WH–1			
	Type–rows	5WS–2				5MH–2[4]			
	Type–rows	–				5MS–2[4]			
	Type–rows	–				–			
Steam coils	Diameter (in)	5/8							
	Type–rows	5JA–1, 2				5JA–1, 2			
	Type–rows	5GA–1, 2				5GA–1, 2			
	Diameter (in)	1				1			
	Type–rows	8JA–1				8JA–1			
	Type–rows	8GA–1				8GA–1			

1. On RDS 708B, the 15” x 15” supply and return fans are available with or without variable inlet vanes
2. Filter area for RDS 708B units with a 15” x 6” supply fan.
3. Filter area for RDS 708B units with a 15” x 9”, 15” x 15” or 16” supply fan.
4. Gas, oil and electric heat selection is limited by the minimum airflow requirements.

RDS 800/802C Unit Heating Coils[1]

Tube diameter	5/8
Fin height (in)[2]	39
Fin length (in)	75
Type/rows, hot water	5WH/1 and 5WS/2
Type/rows, steam	5JA/1

1. Valve packages available.
2. If cooling coil is in the same section, the cooling coil is limited to 8 rows.

RAH 047C and 077C—Physical Data

Data		Unit size					
		047CS	047CL	047CY	077CS	077CL	077CY
Cabinet	Length (in)	96–552	96–576	96–504	96–624	96–696	96–600
	Height (in)	73.0	73.0	73.0	97.0	97.0	97.0
	Width (in)	99.0	99.0	99.0	99.0	99.0	99.0
Throwaway filters (standard)	Type	Throwaway					
	Area (sq ft)	73.9	73.9	73.9	116.1	116.1	116.1
	No.–size (in)	7–16 × 20 × 2 21–16 × 25 × 2	7–16 × 20 × 2 21–16 × 25 × 2	7–16 × 20 × 2 21–16 × 25 × 2	11–16 × 20 × 2 33–16 × 25 × 2	11–16 × 20 × 2 33–16 × 25 × 2	11–16 × 20 × 2 33–16 × 25 × 2
Throwaway filters (optional)	Type	30% pleated					
	Area (sq ft)	73.9	73.9	73.9	116.1	116.1	116.1
	No.–size (in)	7–16 × 20 × 2 21–16 × 25 × 2	7–16 × 20 × 2 21–16 × 25 × 2	7–16 × 20 × 2 21–16 × 25 × 2	11–16 × 20 × 2 33–16 × 25 × 2	11–16 × 20 × 2 33–16 × 25 × 2	11–16 × 20 × 2 33–16 × 25 × 2
	Type	Prefilter, standard flow					
	Area (sq ft)	40.0	40.0	40.0	56.0	56.0	56.0
	No.–size (in)	4–12 × 24 × 2 8–24 × 24 × 2	4–12 × 24 × 2 8–24 × 24 × 2	4–12 × 24 × 2 8–24 × 24 × 2	4–12 × 24 × 2 12–24 × 24 × 2	4–12 × 24 × 2 12–24 × 24 × 2	4–12 × 24 × 2 12–24 × 24 × 2
	Type	Prefilter, medium flow					
	Area (sq ft)	48.0	48.0	48.0	64.0	64.0	64.0
	No.–size (in)	8–12 × 24 × 2 8–24 × 24 × 2	8–12 × 24 × 2 8–24 × 24 × 2	8–12 × 24 × 2 8–24 × 24 × 2	– 16–24 × 24 × 2	– 16–24 × 24 × 2	– 16–24 × 24 × 2
	Type	Prefilter, high flow					
	Area (sq ft)	–	–	–	80.0	80.0	80.0
	No.–size (in)	– –	– –	– –	8–12 × 24 × 2 16–24 × 24 × 2	8–12 × 24 × 2 16–24 × 24 × 2	8–12 × 24 × 2 16–24 × 24 × 2
Cartridge filters	Type	65% or 95%, standard flow					
	Area (sq ft)	40.0	40.0	40.0	56.0	56.0	56.0
	No.–size (in)	4–12 × 24 × 12 8–24 × 24 × 12	4–12 × 24 × 12 8–24 × 24 × 12	4–12 × 24 × 12 8–24 × 24 × 12	4–12 × 24 × 12 8–24 × 24 × 12	4–12 × 24 × 12 8–24 × 24 × 12	4–12 × 24 × 12 8–24 × 24 × 12
	Type	65% or 95%, medium flow					
	Area (sq ft)	48.0	48.0	48.0	64.0	64.0	64.0
	No.–size (in)	8–12 × 24 × 12 8–24 × 24 × 12	8–12 × 24 × 12 8–24 × 24 × 12	8–12 × 24 × 12 8–24 × 24 × 12	– 16–24 × 24 × 12	– 16–24 × 24 × 12	– 16–24 × 24 × 12
	Type	65% or 95%, high flow					
	Area (sq ft)	–	–	–	80.0	80.0	80.0
	No.–size (in)	– –	– –	– –	8–12 × 24 × 12 16–24 × 24 × 12	8–12 × 24 × 12 16–24 × 24 × 12	8–12 × 24 × 12 16–24 × 24 × 12
DWDI supply fans	Type	Forward-curved, LP/MP					
		Airfoil, with or without vanes					
	Diameter (in)	27, 30, 33	27, 30, 33	27, 30, 33	33, 36, 40	33, 36, 40	33, 36, 40
	Max. airflow (cfm)	30,000	30,000	30,000	50,000	50,000	50,000
	Motor hp range	3–50	3–50	3–50	5–75	5–75	5–75
SWSI supply fans	Type	Airfoil, with or without vanes					
	Diameter (in)	40, 44	40, 44	40, 44	44, 49	44, 49	44, 49
	Max. airflow (cfm)	30,000	30,000	30,000	50,000	50,000	50,000
	Motor hp range	3–50	3–50	3–50	5–75	5–75	5–75
Return fans	Type	Airfoil, with or without vanes					
	Diameter (in)	40	40	40	44	44	44
	Max. airflow (cfm)	27,000	27,000	27,000	45,000	45,000	45,000
	Motor hp range	2–30	2–30	2–30	5–60	5–60	5–60
Exhaust fans	Type	Propeller					
	Diameter (in)	36 inch					
	Quantity	1–2 per unit			2–3 per unit		
	Motor hp	5 hp each					
	Airflow range	11,000–30,000 cfm			22,000–50,000 cfm		
Electric	Nom. output (kW)	*40, 60, 80, 100, 120, 160, 200, 240			*80, 100, 120, 160, 200, 240, 280, 320		
Gas furnace	Input (MBh)	*250, 312, 400, 500, 625, 800, 812, 988, 1000, 1250			*625, 800, 812, 988, 1000, 1250, 1375, 1750, 2500		
	Nom. output (MBh)	200, 250, 320, 400, 500, 640, 650, 790, 800, 1000			*500, 640, 650, 650, 790, 800, 1000, 1100, 1400, 1500, 2000		

* Furnace and electric heat size availability is limited by the minimum airflow.

RAH 047C and 077C—Physical Data (continued)

Data[1]		Unit size							
		047CS		047CL		077CS		077CL	
		WO/F&BP	W/F&BP[2]	WO/F&BP	W/F&BP[2]	WO/F&BP	W/F&BP[2]	WO/F&BP	W/F&BP[2]
Evaporator coils	Rows	3, 4, 5, 6							
	Fins (per in)	8, 10, 12							
	Fin material	Aluminum, copper							
	FH × FL (in)	66 × 87.5	–	(2) 39 × 87.5	–	90 × 87.5	–	(2) 63 × 87.5	–
	Face area (sq ft)	40.1	–	47.4	–	54.7	–	76.6	–
	Max. cfm	26,000	–	30,800	–	35, 500	–	49,800	–
Chilled water coils	Type–rows valve package (in)	5WH–3, 4, 5, 6, 8							
		1½, 2, 2½	–	1½, 2, 2½	–	1¼, 1½, 2½, 3	–	2, 2½, 3	–
	Type–rows valve package (in)	5WL–3, 4, 5, 6, 8							
		1½, 2, 2½	–	1½, 2, 2½, 3	–	1½, 2, 2½, 3	–	2, 2½, 3	–
	Type–rows valve package (in)	5WS–4, 6, 8							
		2, 2½, 3	–	1½, 2, 2½, 3	–	1½, 2, 2½, 3	–	2, 2½, 3	–
	Type–rows valve package (in)	5WM–4, 5, 6, 8							
		2, 2½, 3	–	1½, 2, 2½, 3	–	2, 2½, 3	–	2, 2½, 3	–
	Type–rows valve package (in)	5WD–4, 8							
		2, 2½, 3	–	2, 2½, 3	–	2, 2½, 3	–	2, 2½, 3	–
	Fins (per in)	8, 10, 12							
	Fin material	Aluminum, copper							
	FH × FL (in)	66 × 83	48 × 83	(2) 39 × 83	(2) 39 × 83	90 × 83	63 × 83	(2) 63 × 83	(2) 54 × 83
	Face area (sq ft)	38.0	27.7	45.0	45.01	51.9	36.3	72.6	62.3
	Max face cfm	24,700	18,000	29,200	29,200	33,700	23,600	47,200	40,500
	Bypass area (sq ft)	–	9.2	–	10.4	–	14.4	–	18.4
	Max. bypass cfm	–	23,000	–	25,900	–	36,000	–	46,100
Hot water coils	Type–rows[3] valve package (in)	5WH–1							
		1¼, 1½, 2, 2½, 3	–	1¼, 1½, 2, 2½, 3	–	1½, 2, 2½, 3	–	1½, 2, 2½, 3	–
	Type–rows[3] valve package (in)	5WS–2							
		1¼, 1½, 2, 2½, 3	–	1¼, 1½, 2, 2½, 3	–	1½, 2, 2½, 3	–	1½, 2, 2½, 3	–
	Fins (per in)	9							
	Fin material	Aluminum, copper							
	FH × FL (in)	57 × 75	39 × 75	57 × 75	–	81 × 75	54 × 75	81 × 75	–
	Face area (sq ft)	29.7	20.3	29.7	–	42.2	28.1	42.2	–
	Bypass area (sq ft)	–	9.2	–	–	–	14.4	–	–
	Max. bypass cfm	–	23,000	–	–	–	36,000	–	–
Steam coils	Type–rows[3] Valve package (in)	1, 2							
		1¼, 1½, 2, 2½, 3	–	1¼, 1½, 2, 2½, 3	–	1½, 2, 2½, 3	–	1½, 2, 2½, 3	–
	Fins (per in)	6, 12							
	Fin material	Aluminum, copper							
	FH × FL (in)	57 × 75	39 × 75	57 × 75	–	81 × 75	54 × 75	81 × 75	–
	Face area (sq ft)	29.7	20.3	29.7	–	42.2	28.1	42.2	–
	Bypass area (sq ft)	–	9.2	–	–	–	14.4	–	–
	Max. bypass cfm	–	23,000	–	–	–	36,000	–	–

1. Unit coils are HI-F5 fin design.
2. Consult your local McQuay representative for specific face and bypass and control valve availability.
3. The valve package for hot water and steam heat is available only in the heating section.

Indoor Air Handler Products Summary

	Destiny™ Model LAH	Vision™ Model CAH
		
Features and Highlights	**600—15,000 CFM**	**900—100,000 CFM**
Rugged, double-wall construction	Yes	Yes
Flexible cabinet sizing in 2" height and width increments (4" width increments over 142") with our Variable Dimensioning™ feature	—	Yes
Internally isolated fan and motor for quiet operation (Forward-curve and direct-drive plenum options)	Yes	Yes
Customized features/components including multiple fan types, energy recovery options, blenders/mixers, filter options, ultraviolet lights, sound attenuators, starters/inverters and integral face and bypass dampers	Filter option only	Yes
Multiple coil face areas, unit sizes and configurations to closely match application requirements	Yes	Yes
IAQ compliant galvanized or stainless steel drain pan	Yes	Yes
Digital Ready™ factory control options	—	Yes
AHRI certified fan performance on all unit sizes	Yes	Yes
Easy access on both sides	Yes	Yes
Horizontal and vertical configurations	Yes	Yes
Electric heat	Yes	Yes
Factory-mounted disconnects, VFDs, and starters	Yes	Yes
Single-point power	Yes	Yes
IBC seismic compliance	—	Yes

Destiny™ Air Handler—2 to 30 ft^2 Face Area, 600 to 15,000 cfm

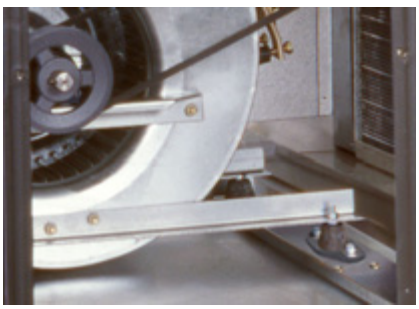
- **Rugged, double-wall construction**
- **Internally isolated fan and motor for quiet operation**
- **IAQ compliant galvanized or stainless steel drain pan**
- **AHRI certified fan performance on all unit sizes**
- **Easy access on both sides of unit interior and optional bottom filter access**

For more detail, refer to Catalog 580.

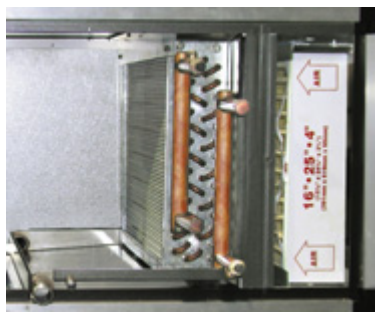
For the most current information, refer to www.mcquay.com.

The McQuay Destiny™ indoor air handler is a full-featured, light air handler providing a single solution for blower coil and low pressure air handler applications. Destiny air handlers ranging from 600 to 15,000 cfm, eliminate the need to choose between the low cost of a blower coil and the performance of an air handler in new construction or retrofit building projects. They can be applied in any blower coil or small air handler application in offices, schools, hotels, government buildings, stores and hospitals. By offering one product design in a size range that traditionally has required two products, the Destiny air handler helps simplify your project design and specification, and it provides uniform installation procedures. Other features that simplify design, specification and installation include:

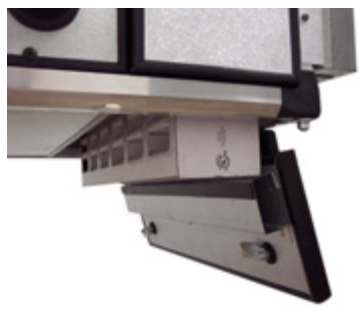
- Flexible coil and filter selections to match your application requirements
- Ceiling hung or floor mounted application flexibility in horizontal or vertical arrangements
- Higher operating static pressures than blower coils provide added flexibility in unit ducting and placement
- Field interchangeable coil allows units to be piped from either side to avoid clearance restrictions
- Blow-through electric heat with single point power connection
- Factory-mounted VFDs, starters, disconnects, and damper actuator to reduce field labor



Internally isolated fan and motor



Flexible coil and filter selections



Bottom filter access panel

Features and Options

Standard and high-efficiency motor options

- Adjustable motor mount simplifies belt adjustments
- Drive side is field interchangeable to avoid clearance restrictions
- Motor power connection through external junction box

Centrifugal blower

- Minimum turbulence for quiet, efficient operation
- Allows higher static pressure operation than blower coils for flexible ducting and unit placement
- Flex collar at discharge minimizes vibration transmission
- Flexible, end or top discharge arrangements
- Direct-drive plenum fan for horizontal units

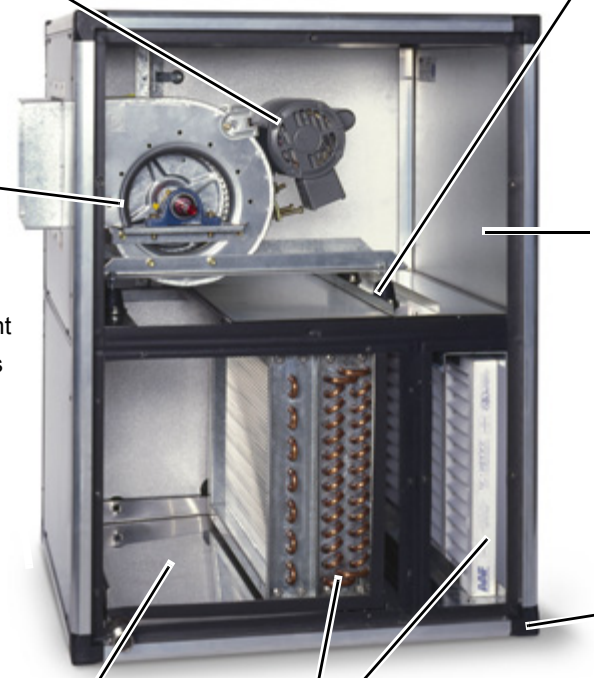
Mixing box selections

- Provide superior mixing of return and outside air streams in ducted return applications
- Optional factory mounted actuator and damper linkage for reduced field service labor

Galvanized or stainless steel sloped drain pan

- Eliminates standing water to inhibit microbial growth
- Connections on both sides to avoid clearance restrictions

Vertical Configuration



Internally isolated fan and motor

- Minimizes vibration transmission for quiet operation
- Rubber in shear (sizes 002 to 010)
- Spring isolators (sizes 015 and larger)

Double-wall construction with foam-injected insulation

- Eliminates insulation fibers from the air stream
- Helps prevent dust buildup and provides wipe-clean surface
- Galvanized or optional Galvalume® steel panels for superior corrosion resistance

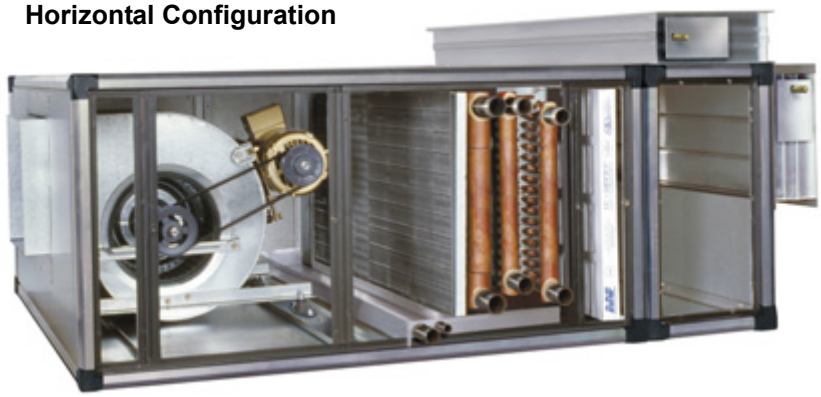
Aluminum frame and polymeric corners

- Provide rigidity and superior corrosion resistance
- Unique frame structure simplifies hanger bracket attachment

Flexible coil and filter options

- Allow you to match application requirements
- Coils are field interchangeable to avoid clearance restrictions
- Preheat and reheat arrangements available
- Flat or angular filters
- MERV-7 or MERV-8, 2" and 4" standard
- Optional high-efficiency (MERV-11 through MERV-15) filters

Horizontal Configuration



Access panels on both sides of each section

- Provide complete access to the unit interior
- Pocket pull handles provide an easy method to remove and handle access panels
- Optional hinged and quarter-turn latched access doors
- Optional bottom filter access for horizontal units
- Choice of casing materials

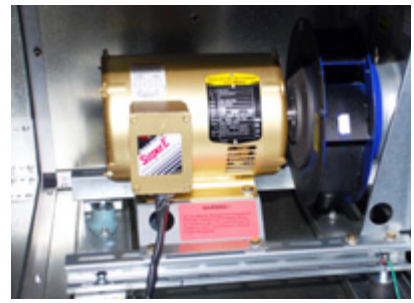
Features and Options

Electric heat features

- Single point power connection for supply fan motor and heater
- 1.5 kW - 55 kW
- 1, 2, 3, or 4 steps (1 and 2 steps on size 002)
- Factory wired contactors and fuses per step
- Factory wired motor contactors or starter and fuses as applicable
- Non-fused disconnect switch
- 24 volt control transformer
- Complete with overload and thermal protection
- High quality alloy nichrome wire (80% Ni and 20% Cr)
- Horizontal and vertical air flow arrangements
- Control box with tool access hinged door

Variable frequency drive (VFD)

- Factory mounted and wired
- McQuay brand MD2 or MD3 or Telemechanique ATV-11
- Fused disconnect required



Direct drive plenum fan

- Higher static applications (up to 4" wg total)
- Multiple discharge directions
- Better static efficiency and less noise than a forward curved fan
- No belt maintenance and drive loss typically associated with a belt driven forward curved fan

Mixing section

- Provide superior mixing of return and outside air streams in ducted return applications
- Optional factory mounted actuator and damper linkage to reduce field labor

Starter/disconnects

- Factory mounted and wired
- Disconnect only option: fused or non-fused
- Full control box options: fused disconnect, motor starter, and 24 V transformer
- Software selectable
- Wiring diagrams generated as part of submittal package

Motor control options

- Fused or non-fused disconnect only
- Starter, disconnect, and transformer

Physical Data—Destiny

Base Unit Cabinet Weights—Horizontal Unit Arrangement

Unit size	No heat	Reheat	No heat	Reheat	No heat*	Reheat	No heat*	Reheat	Preheat	
	Flat filters	Flat filters	Angular filters	Angular filters	Flat filters	Flat filters	Angular filters	Angular filters	Flat filters	Angular filters
	Cooling coil	Cooling coil	Cooling coil	Cooling coil	N/A	N/A	N/A	N/A	Cooling coil	Cooling coil
	Fan	Fan	Fan	Fan	Fan	Fan	Fan	Fan	Fan	Fan
	Weight, lb (kg)		Weight, lb (kg)		Weight, lb (kg)		Weight, lb (kg)		Weight, lb (kg)	
002	126 (57)		125 (57)		102 (46)		105 (47)		129 (59)	128 (58)
003	140 (63)		161 (73)		131 (59)		151 (69)		168 (76)	173 (78)
004	220 (100)		214 (97)		193 (88)		193 (88)		225 (102)	252 (114)
005	186 (84)		231 (105)		175 (79)		202 (92)		216 (98)	237 (107)
007	285 (129)		315 (143)		224 (102)		267 (121)		304 (138)	349 (158)
010	309 (140)		395 (179)		270 (122)		316 (143)		392 (178)	454 (206)
015	561 (254)		600 (272)		545 (247)		583 (264)		626 (284)	674 (306)
020	663 (301)		708 (321)		679 (308)		692 (314)		729 (331)	774 (351)
025	743 (337)		740 (335)		698 (317)		845 (383)		767 (348)	788 (357)
030	770 (349)		947 (430)		749 (340)		894 (406)		929 (421)	941 (427)

* Ventilation only

Base Unit Cabinet Weights—Vertical Unit Arrangement

Unit size	No heat	Reheat	No heat*	Reheat
	Flat filters	Flat filters	Flat filters	Flat filters
	Cooling coil	Cooling coil	N/A	N/A
	Fan	Fan	Fan	Fan
	Weight, lb (kg)		Weight, lb (kg)	
002	134.70 (61.10)		134.70 (61.10)	
003	183.20 (83.10)		183.20 (83.10)	
004	209.79 (95.16)		209.79 (95.16)	
005	239.00 (108.40)		239.00 (108.40)	
007	349.08 (158.30)		349.08 (158.30)	
010	399.23 (181.09)		399.23 (181.09)	
015	484.20 (219.63)		484.20 (219.63)	
020	566.96 (257.17)		566.96 (257.17)	
025	725.28 (328.98)		725.28 (328.98)	
030	750.14 (340.26)		750.14 (340.26)	

* Ventilation only

Physical Data—Destiny

Unit Coil Weights

Coil Type	Weight, lb (kg)									
	002	003	004	005	007	010	015	020	025	030
4-row chilled water	31.64 (14.35)	40.56 (18.40)	54.30 (24.64)	59.19 (26.85)	84.80 (38.46)	111.99 (50.80)	185.93 (84.34)	255.08 (115.70)	298.34 (135.32)	341.54 (154.92)
6-row chilled water	39.94 (18.12)	54.81 (24.86)	69.01 (31.30)	86.91 (39.42)	112.30 (50.94)	154.05 (69.88)	261.55 (118.64)	353.14 (160.18)	416.35 (188.85)	477.93 (216.79)
1-row hot water	16.11 (7.31)	19.95 (9.05)	28.36 (12.86)	33.60 (15.24)	45.86 (20.80)	66.07 (29.97)	91.35 (41.44)	116.29 (52.75)	132.03 (59.89)	168.86 (76.59)
2-row hot water	24.36 (11.05)	29.96 (13.59)	38.07 (17.27)	46.13 (20.92)	64.28 (29.16)	83.91 (38.06)	121.10 (54.93)	171.48 (77.78)	197.12 (89.41)	223.03 (101.16)
4-row DX	32.73 (14.85)	42.91 (19.46)	50.11 (22.73)	64.80 (29.39)	88.18 (40.00)	115.42 (52.35)	195.54 (88.70)	248.63 (112.78)	300.8 (136.44)	344.86 (156.43)
6-row DX	43.37 (19.67)	57.01 (25.86)	71.53 (32.45)	91.69 (41.59)	105.18 (47.71)	158.52 (71.90)	268.37 (121.73)	365.31 (165.71)	429.85 (194.98)	493.24 (223.73)

Fan Weights

Unit size	Fan	Weight, lb (kg)
002	DA 7/7	19.03 (8.63)
003	DA 9/9	33.95 (15.40)
004	DA 9/9	33.95 (15.40)
005	DA 10/10	41.45 (18.80)
007	DA 12/12	60.85 (27.60)
010	DA 12/12	60.85 (27.60)
015	DA 10/10 TWIN	79.37 (36.00)
020	DA 12/12 TWIN	126.77 (57.50)
025	DA 15/15 TWIN	154.88 (70.25)
030	DA 15/15 TWIN	154.88 (70.25)

Fan Data

Unit size	002	003	004	005	007	010	015	020	025	030
Type	DWDI FC	DWDI FC	DWDI FC	DWDI FC	DWDI FC	DWDI FC	Twin DWDI FC	Twin DWDI FC	Twin DWDI FC	Twin DWDI FC
Diameter	7/7	9/9	9/9	10/10	12/12	12/12	10/10	12/12	15/15	15/15
HP range	.33–2	.33–3	.33–5	.75–5	1–5	1–7.5	2–15	3–15	5–20	5–20
CFM minimum–fan limit	206	206	529	529	765	765	1059	1529	2118	2118
CFM maximum–fan limit	2088	2088	5765	6176	8529	8529	12,353	17,059	26,706	26,706
Maximum rpm	2,680	2,650	2,650	2,100	1,700	1,700	2,100	1,700	1,500	1,500
Class	1	1	1	1	1	1	1	1	1	1
Motor sheave	VP, VL, VM	VP, VL, VM	VP, VL, VM	VP, VL, VM	VP, VL, VM	VP, VL, VM	VP, VL, VM	VP, VL, VM	VP, VL, VM	VP, VL, VM
Fan sheave	AK, BK	AK, BK	AK, BK	AK, BK	AK, BK	AK, BK	AK, BK	AK, BK	AK, BK	AK, BK
Belt	A, AX, B, BX	A, AX, B, BX	A, AX, B, BX	A, AX, B, BX	A, AX, B, BX	A, AX, B, BX	A, AX, B, BX	A, AX, B, BX	A, AX, B, BX	A, AX, B, BX
Fan shaft diameter	3/4"	3/4"	3/4"	3/4"	1.00"	1.00"	3/4"	1.00"	1.00"	1.00"
Weight, lb (kg)	19.03 (8.63)	33.95 (15.40)	33.95 (15.40)	41.45 (18.80)	60.85 (27.60)	60.85 (27.60)	79.37 (36.00)	126.77 (57.50)	154.87 (70.25)	154.87 (70.25)

Physical Data—Destiny

Filter Data

Unit size	002	003	004	005	007	010	015	020	025	030
Flat filter bank number	1	1	1	1	1	1	2	2	2	2
Flat filter (qty) size	(1) 16 × 25	(1) 18 × 24	(2) 16 × 20	(2) 20 × 24	(2) 24 × 24	(3) 20 × 25	(3) 12 × 24 (3) 24 × 24	(6) 24 × 24	(4) 20 × 24 (4) 24 × 24	(6) 16 × 25 (4) 20 × 25
Flat filter depth options	2", 4"	2", 4"	2", 4"	2", 4"	2", 4"	2", 4"	2", 4"	2", 4"	2", 4"	2", 4"
Angular filter bank number	1	1	1	2	2	2	2	3	3	3
Angular filter (qty) size	(1) 20 × 24	(2) 16 × 20	(2) 20 × 20	(4) 16 × 20	(4) 16 × 25	(6) 16 × 20	(6) 20 × 24	(9) 20 × 24	(6) 20 × 24 (6) 24 × 24	(6) 20 × 24 (6) 24 × 24
Angular filter depth options	2"	2"	2"	2"	2"	2"	2"	2"	2"	2"

Coil Data—Chilled Water

Unit size	002	003	004	005	007	010	015	020	025	030
Fin height	14	16	16	22	22	26	32.5	45	45	52.5
Fin length	21	27	34	34	48	54	65	65	80	80
Rows	4, 6	4, 6	4, 6	4, 6	4, 6	4, 6	4, 6	4, 6	4, 6	4, 6
FPI	12	12	12	12	12	12	12	12	12	12
Connection material	Copper sweat	Copper sweat	Copper sweat	Copper sweat	Copper sweat	Copper sweat	Steel NPT	Steel NPT	Steel NPT	Steel NPT
Connection size 4-row	0.875 OD	1.125 OD	1.625 OD	1.625 OD	1.625 OD	1.625 OD	1.5 NPT	2.5 NPT	2.5 NPT	2.5 NPT
Connection size 6-row	0.875 OD	1.125 OD	1.625 OD	1.625 OD	1.625 OD	2.125 OD	2.0 NPT	2.5 NPT	2.5 NPT	2.5 NPT
Casing	Gal. or S.S.	Gal. or S.S.	Gal. or S.S.	Gal. or S.S.	Gal. or S.S.	Gal. or S.S.	Gal. or S.S.	Gal. or S.S.	Gal. or S.S.	Gal. or S.S.

Coil Data—DX Coils

Unit size		002	003	004	005	007	010	015	020	025	030
Fin height		14	16	16	22	22	26	32.5	45	45	52.5
Fin length		21	27	34	34	48	54	65	65	80	80
Rows		4, 6	4, 6	4, 6	4, 6	4, 6	4, 6	4, 6	4, 6	4, 6	4, 6
FPI		12	12	12	12	12	12	12	12	12	12
Connection material		Copper sweat	Copper sweat	Copper sweat	Copper sweat	Copper sweat	Copper sweat	Copper sweat	Copper sweat	Copper sweat	Copper sweat
Connection size, 4-row	Suct.	0.875 OD	1.125 OD	1.125 OD	1.125 OD	1.625 OD	1.625 OD	1.625 OD	1.625 OD	1.625 OD	1.625 OD
	Liq.	0.625 OD	0.625 OD	0.625 OD	0.875 OD	0.875 OD	1.125 OD	0.625 OD	0.875 OD	1.125 OD	1.125 OD
Connection size, 6-row	Suct.	0.875 OD	1.125 OD	1.625 OD	1.625 OD	1.625 OD	2.125 OD	1.625 OD	2.125 OD	1.625 OD	2.625 OD
	Liq.	0.625 OD	0.625 OD	0.625 OD	1.125 OD	1.125 OD	1.125 OD	0.875 OD	0.875 OD	1.125 OD	1.375 OD
Casing		Gal. or S.S.	Gal. or S.S.	Gal. or S.S.	Gal. or S.S.	Gal. or S.S.	Gal. or S.S.	Gal. or S.S.	Gal. or S.S.	Gal. or S.S.	Gal. or S.S.
Circuit Number*		1	1	1	1	1	1	2	2	2	2
Circuit type*		Normal	Normal	Normal	Normal	Normal	Normal	Face split	Face split	Face split	Face split

* Special dual-circuit interlaced coils available. Contact factory for details.

Coil Data—Hot Water Coils

Unit size	002	003	004	005	007	010	015	020	025	030
Fin height	14	16	16	22	22	26	32.5	45	45	52.5
Fin length	21	27	34	34	48	54	65	65	80	80
Rows	1, 2	1, 2	1, 2	1, 2	1, 2	1, 2	1, 2	1, 2	1, 2	1, 2
FPI	12	12	12	12	12	12	12	12	12	12
Connection material	Copper sweat	Copper sweat	Copper sweat	Copper sweat	Copper sweat	Copper sweat	Steel NPT	Steel NPT	Steel NPT	Steel NPT
Connection size 1-row	0.625 OD	0.625 OD	0.875 OD	0.875 OD	1.125 OD	1.375 OD	1.0 NPT	1.5 NPT	1.5 NPT	2.0 NPT
Connection size 2-row	0.875 OD	0.875 OD	1.125 OD	1.125 OD	1.625 OD	1.625 OD	1.5 NPT	2.0 NPT	2.0 NPT	2.0 NPT
Casing	Gal. or S.S.	Gal. or S.S.	Gal. or S.S.	Gal. or S.S.	Gal. or S.S.	Gal. or S.S.	Gal. or S.S.	Gal. or S.S.	Gal. or S.S.	Gal. or S.S.

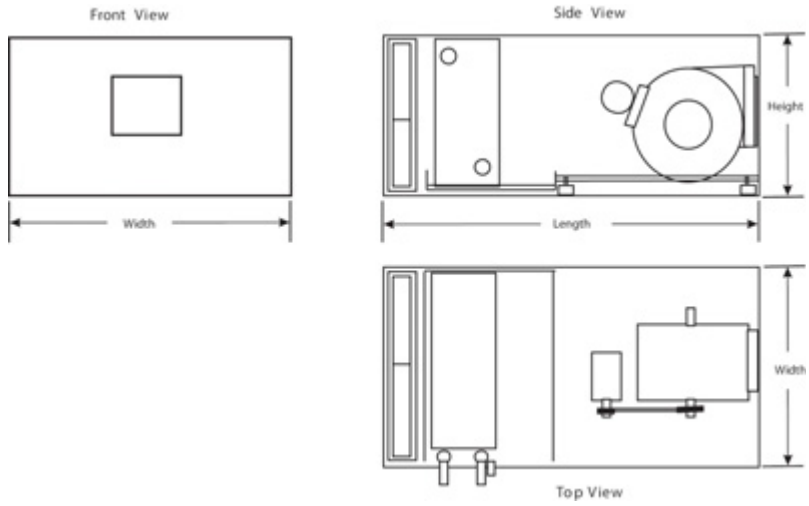
Physical Data—Destiny

Drain Connection Data—Main and Secondary

Unit size	002	003	004	005	007	010	015	020	025	030
Drain connection	ID MPT dimensions, in (mm)									
Main	1 (25.4)	1 (25.4)	1 (25.4)	1 (25.4)	1 (25.4)	1 (25.4)	1 1/4 (31.75)	1 1/4 (31.75)	1 1/4 (31.75)	1 1/4 (31.75)
Secondary	1/2 (12.7)	1/2 (12.7)	1/2 (12.7)	1/2 (12.7)	1/2 (12.7)	1/2 (12.7)	1/2 (12.7)	1/2 (12.7)	1/2 (12.7)	1/2 (12.7)

Cabinet Dimensions—Horizontal Unit

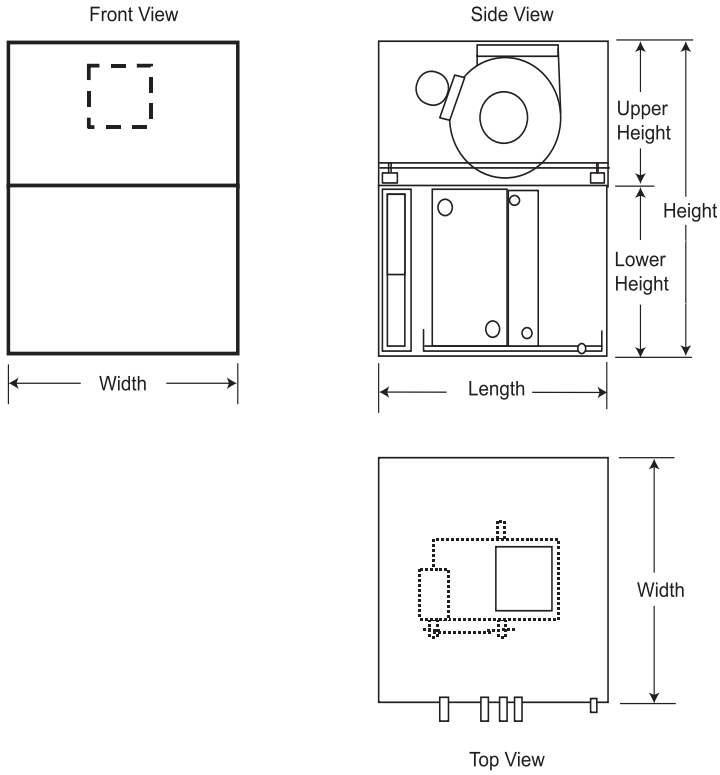
Dimension/Configuration		Unit size									
		002	003	004	005	007	010	015	020	025	030
Cabinet Dimension		Unit height and width dimensions, in (mm)									
Height		20.47 (520)	22.44 (570)	22.44 (570)	28.35 (720)	28.35 (720)	32.48 (825)	39.37 (1000)	51.57 (1310)	51.57 (1310)	59.06 (1500)
Width		28.54 (725)	34.84 (885)	42.52 (1080)	42.52 (1080)	56.50 (1435)	63.00 (1600)	74.41 (1890)	75.00 (1905)	89.96 (2285)	89.96 (2285)
Configuration		Unit length dimensions, in (mm)									
Cooling only or cooling with reheat coils	Flat filter	47.84 (1215)	47.84 (1215)	53.35 (1355)	54.72 (1390)	58.86 (1495)	58.86 (1495)	53.74 (1365)	56.30 (1430)	62.00 (1575)	62.00 (1575)
	Angular filter	58.27 (1480)	55.12 (1400)	60.63 (1540)	65.95 (1675)	70.08 (1780)	70.08 (1780)	64.37 (1635)	71.26 (1810)	76.97 (1955)	80.12 (2035)
Cooling with preheat coils	Flat filter	51.97 (1320)	51.97 (1320)	59.25 (15.05)	59.45 (15.10)	65.55 (1665)	65.55 (1665)	62.80 (15.95)	65.35 (1660)	69.09 (17.55)	69.09 (17.55)
	Angular filter	62.40 (15.85)	59.25 (1505)	66.53 (1690)	70.67 (17.95)	76.77 (1950)	76.77 (1950)	73.42 (18.65)	80.32 (2040)	84.06 (2135)	87.20 (2215)
Heating only	Flat filter	39.96 (1015)	39.96 (1015)	45.47 (1155)	45.67 (1160)	49.80 (1265)	49.80 (1265)	52.56 (1335)	55.51 (1410)	61.42 (1560)	61.42 (1560)
	Angular filter	50.39 (1280)	47.24 (1200)	52.76 (1340)	56.89 (1445)	61.02 (1550)	61.02 (1550)	63.19 (1605)	70.47 (1790)	76.38 (1940)	79.53 (2020)
Ventilation only	Flat filter	39.96 (1015)	39.96 (1015)	45.47 (1155)	45.67 (1160)	49.80 (1265)	49.80 (1265)	52.56 (1335)	55.51 (1410)	61.42 (1560)	61.42 (1560)
	Angular filter	50.39 (1280)	47.24 (1200)	52.76 (1340)	56.89 (1445)	61.02 (1550)	61.02 (1550)	63.19 (1605)	70.47 (1790)	76.38 (1940)	79.53 (2020)
Discharge Opening Dimension		Discharge height and width dimensions in. (mm)									
Height		9.17 (233)	11.77 (299)	11.77 (299)	13.07 (332)	15.51 (394)	15.51 (394)	2 x 13.07* (332)	2 x 15.51* (394)	2 x 18.54* (471)	2 x 18.54* (471)
Width		8.74 (222)	10.20 (259)	10.20 (259)	11.34 (288)	13.46 (342)	13.46 (342)	2 x 11.34* (288)	2 x 13.46* (342)	2 x 15.83* (402)	2 x 15.83* (402)



Physical Data—Destiny

Cabinet Dimensions—Vertical Unit

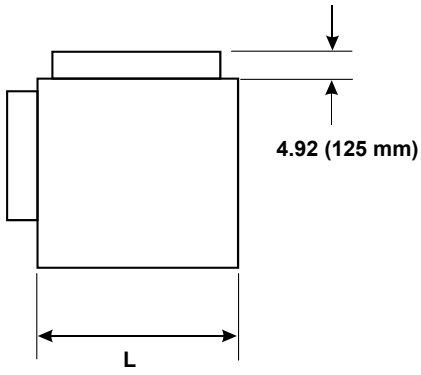
Dimensions	Unit size									
	002	003	004	005	007	010	015	020	025	030
Height–in (mm)	37.60 (955)	42.32 (1075)	42.32 (1075)	50.39 (1280)	52.95 (1345)	57.09 (1450)	63.19 (1605)	78.54 (1905)	82.87 (2285)	90.35 (2295)
Width–in (mm)	28.54 (725)	34.84 (885)	42.52 (1080)	42.52 (1080)	56.50 (1435)	62.99 (1600)	74.41 (1890)	75.00 (1905)	89.96 (2285)	89.96 (2285)
Length–in (mm)	29.92 (760)	33.07 (840)	33.07 (840)	36.42 (925)	39.96 (1015)	39.96 (1015)	42.72 (1085)	47.83 (1215)	51.18 (1300)	51.18 (1300)
Upper section height–in (mm)	17.13 (435)	19.88 (505)	19.88 (505)	22.05 (560)	24.61 (625)	24.61 (625)	23.82 (605)	26.97 (685)	31.30 (795)	31.30 (795)
Lower section height–in (mm)	20.47 (520)	22.44 (570)	22.44 (570)	28.35 (720)	28.35 (720)	32.48 (825)	39.37 (1000)	51.57 (1310)	51.57 (1310)	59.06 (1500)
Discharge Opening Dimensions	**Unit height and width dimensions in. (mm)**									
Height—in (mm)	9.17 (233)	11.77 (299)	11.77 (299)	13.07 (332)	15.51 (394)	15.51 (394)	13.07* (332)	15.51* (394)	18.54* (471)	18.54* (471)
Width—in (mm)	8.74 (222)	10.20 (259)	10.20 (259)	11.34 (288)	13.46 (342)	13.46 (342)	11.34 (288)	13.46 (342)	15.83 (402)	15.83 (402)



Physical Data—Destiny

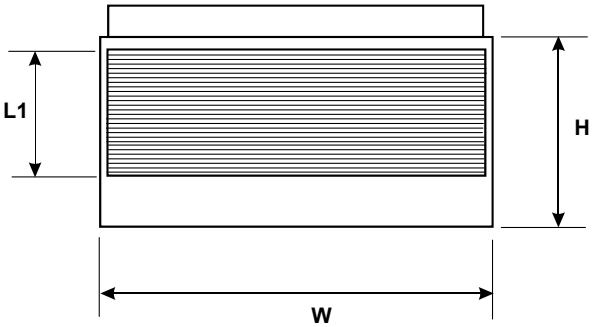
Dimensions—Mixing Box, Horizontal and Vertical Units

Unit size	Cabinet, in (mm)			Damper, in (mm)		
	W	H	L	W1	L1	Area (ft^2)
002	28.54 (725)	20.47 (520)	10.24 (260)	26.18 (665)	7.87 (200)	1.43
003	34.84 (885)	22.44 (570)	10.24 (260)	32.48 (825)	7.87 (200)	1.78
004	42.52 (1080)	22.44 (570)	10.24 (260)	40.16 (1020)	7.87 (200)	2.20
005	42.52 (1080)	28.35 (720)	14.17 (360)	40.16 (1020)	11.81 (300)	3.29
007	56.50 (1435)	28.35 (720)	14.17 (360)	54.13 (1375)	11.81 (300)	4.44
010	62.99 (1600)	32.48 (825)	14.17 (360)	60.63 (1540)	11.81 (300)	4.97
015	74.41 (1890)	39.37 (1000)	18.11 (460)	72.05 (1830)	15.75 (400)	7.88
020	75.00 (1905)	51.57 (1310)	25.98 (660)	72.64 (1845)	23.62 (600)	11.92
025	89.96 (2285)	51.57 (1310)	25.98 (660)	87.60 (2225)	23.62 (600)	14.37
030	89.96 (2285)	59.06 (1500)	29.92 (760)	87.60 (2225)	27.56 (700)	16.76

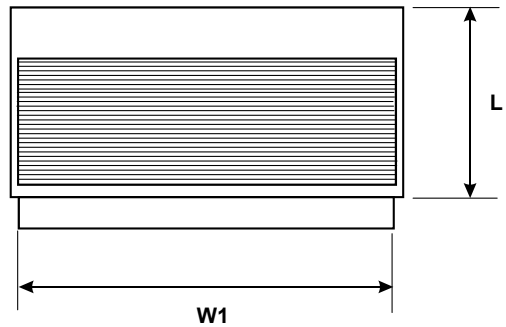


Front View

Side View



Top View



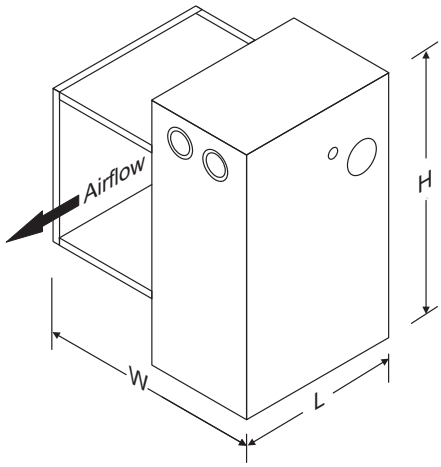
Physical Data—Destiny Electric Heat Configuration

Dimensions—Electrical Heat Box, Left and Right Hand Units *(LAH 002A through LAH 005A)*

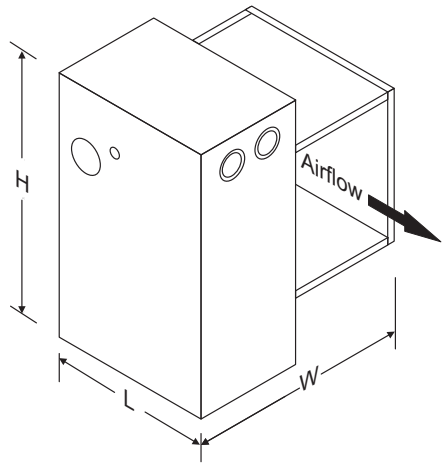
Dimensions inches (mm)	Unit part number									
	LAH002A		LAH004A				LAH005A			
	1 step	2 steps	1 step	2 steps	3 steps	4 steps	1 step	2 steps	3 steps	4 steps
L	11 1/2 (292.1)	16 (406.4)	11 1/2 (292.1)	16 (406.4)	20 (508)	24 (609.6)	11 1/2 (292.1)	16 (406.4)	20 (508)	24 (609.6)
W	19 1/2 (495.3)	19 1/2 (495.3)	22 1/4 (565.1)	22 1/4 (565.1)	22 1/4 (565.1)	22 1/4 (565.1)	23 1/2 (596.9)	23 1/2 (596.9)	23 1/2 (596.9)	23 1/2 (596.9)
H	20 (508)	20 (508)	22 1/4 (565.1)	22 1/4 (565.1)	22 1/4 (565.1)	22 1/4 (565.1)	23 1/2 (596.9)	23 1/2 (596.9)	23 1/2 (596.9)	23 1/2 (596.9)

Dimensions—Electrical Heat Box, Left and Right Hand Units *(LAH 007A through LAH 010A)*

Dimensions inches (mm)	Unit part number							
	LAH007A				LAH010A			
	1 step	2 steps	3 steps	4 steps	1 step	2 steps	3 steps	4 steps
L	11 1/2 (292.1)	16 (406.4)	20 (508)	24 (609.6)	11 1/2 (292.1)	16 (406.4)	20 (508)	24 (609.6)
W	26 (660.4)	26 (660.4)	26 (660.4)	26 (660.4)	26 (660.4)	26 (660.4)	26 (660.4)	26 (660.4)
H	25 (635)	25 (635)	25 (635)	25 (635)	25 (635)	25 (635)	25 (635)	25 (635)



Left hand electrical heat box

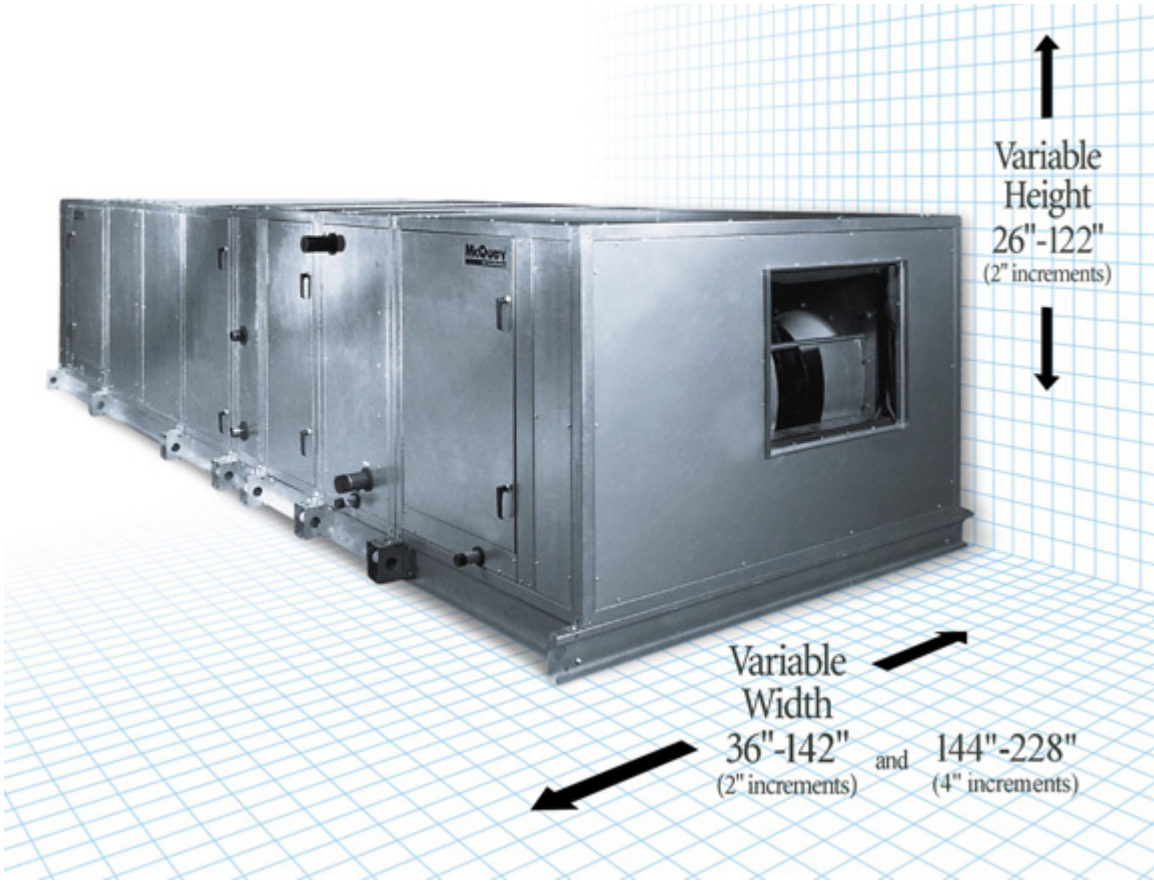


Right hand electrical heat box

Vision™ Air Handler—3 to 160 ft^2 Face Area, 900 to 100,000 cfm

- **Flexibility—custom modular platform and our Variable Dimensioning™ feature**
- **Operating efficiency—efficient fan selections and energy recovery**
- **Easy, low cost installation—ships assembled or by section**
- **Easy maintenance and serviceability—easy to remove access panels**
- **Indoor air quality—low leakage cabinet**

For more detail, refer to Catalog 550 and Catalog 565. For the most current information, refer to www.mcquay.com.



Flexibility

Our unique Variable Dimensioning feature provides tremendous flexibility, allowing sizing of units in two-inch increments up to 142" and in four-inch increments up to 228". Numerous section and component options, and the ability to arrange components however required, allow Vision air handlers to be customized for each job without modifications in the field. Units can ship completely assembled, in modules, or by component sections for new or retrofit applications requiring smaller sections for passage through the building.

Extended size units now available with up to 160 ft^2 of coil face area.

Vision™ Air Handler—3 to 160 ft^2 Face Area, 900 to 100,000 cfm

Use McQuay Vision as a product platform on which to build the ideal air handler for your specific application. Customized options include:

- Variable Dimensioning feature for flexible cabinet sizing
- Painted cabinet
- Multiple access section depths
- Variable base rail heights (4"–12")
- Various casing and drain pan materials
- Mixing boxes/economizers
- Sound attenuators
- Horizontal and vertical integral face and bypass dampers
- Blenders and air mixers
- Multiple coil section depths
- Electro-Fin epoxy coil coating
- Energy recovery sections (heat wheels, fixed plate heat exchangers, and runaround coil loops)
- Multiple fan selections: forward curve, airfoil, inline, and belt or direct drive plenum fans
- Twin fans (two forward curved fans on one shaft)
- Filters (flat, angular, bag and cartridge) available in side-load and/or front-load configuration
- Humidifier manifold
- IBC seismic certification
- Multiple liner options
- Flush-mounted filter gauges
- Starters, VFDs, and disconnects
- Digital Ready™ factory control options
- Electric heaters
- Ultraviolet lights
- Inward opening doors
- Windows, doors, marine lights and receptacles
- Manual selections to accommodate special components
- Flexibility in shipping arrangements
- Dual path dehumidification
- Gas-phase filtration

Fan options

Disconnect, starter and VFD

Integral face and bypass dampers

Digital Ready™ factory control options

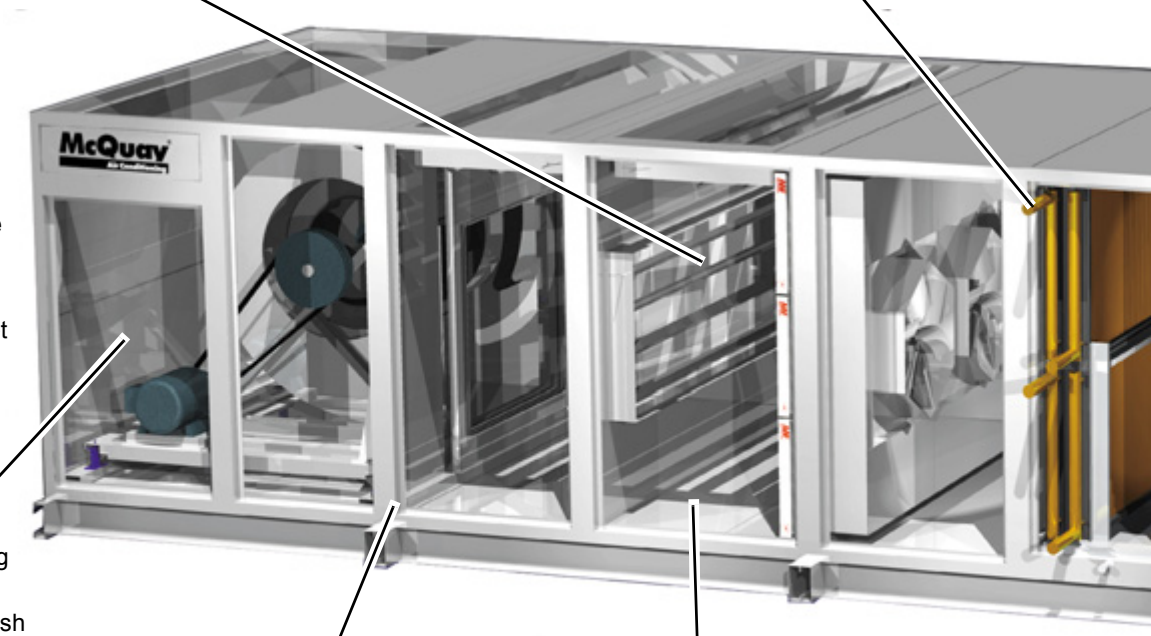
Vision™ Air Handler—3 to 160 ft^2 Face Area, 900 to 100,000 cfm

Patented UltraSeal™ low-leak dampers

- Maximize operating efficiency
- Reduce operating cost

Extended coil connections

- Saves installation costs
- Reduces maintenance time
- Aids proper drainage



Custom modular design with variable dimensioning feature

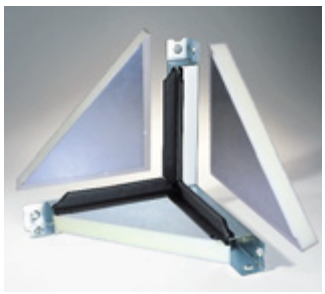
- Allows custom selection and configuration of components
- Allows design of system to meet space and performance requirements

Rugged cabinet enclosure

- Rigid thermally efficient (R-13) injected foam panels are strong and light weight
- G-90 galvanized or painted finish
- Promotes longer unit life

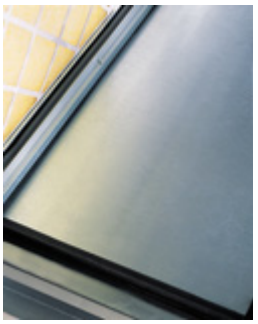
Smooth interior surface

- Reduces dirt accumulation
- Facilitates cleaning
- Improves IAQ



Gasketed frame channel

- Eliminates metal-to-metal contact between paneling and framework
- Minimizes cabinet condensate and corrosion
- Facilitates top and side component removal
- Promotes long life



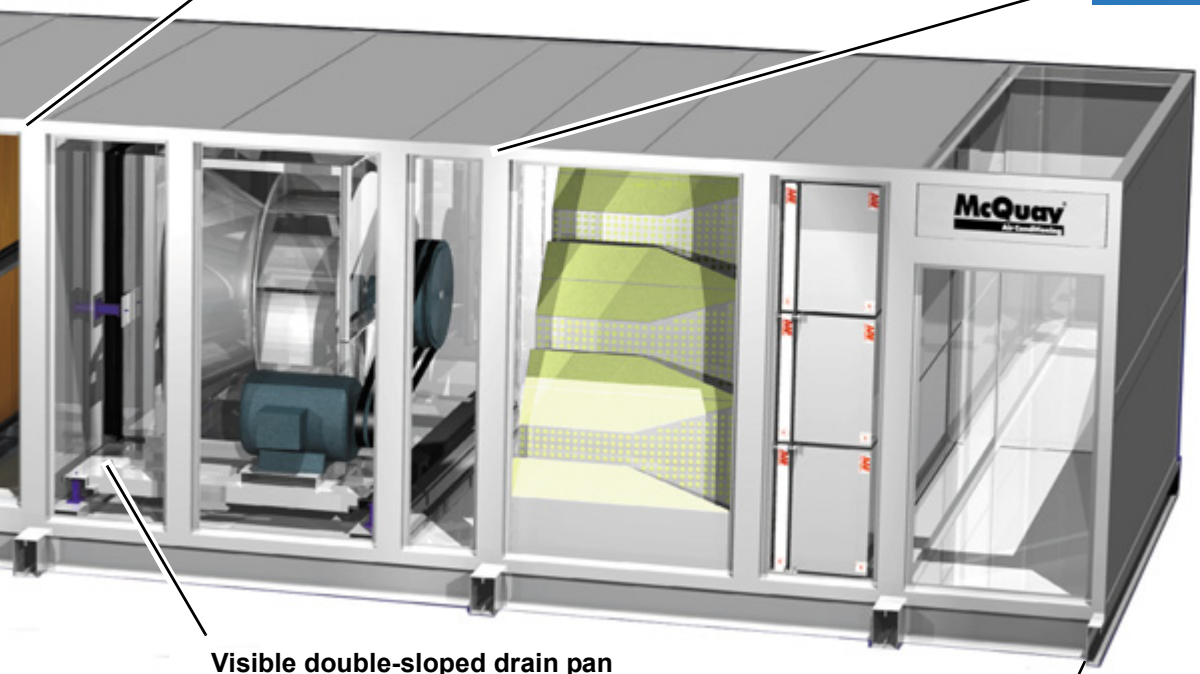
Features

Frame channel disassembly

- Allows two-sided access
- Easier, faster service and maintenance

Patented splice collar

- Reduces installation cost
- Creates an air tight environment



Visible double-sloped drain pan

- Makes inspection and cleaning easier
- Improves IAQ

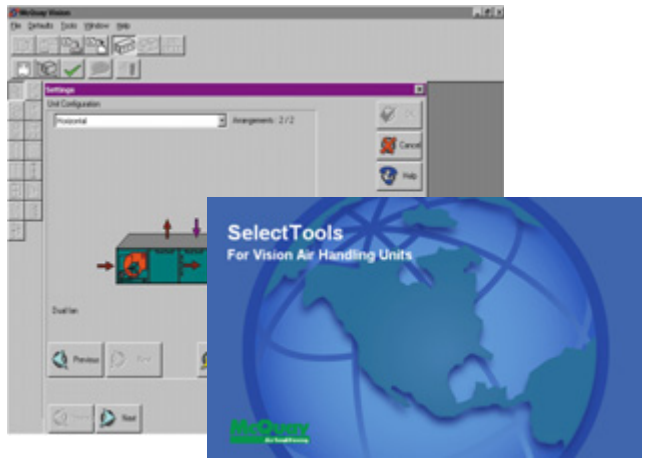
Variable height base rails (4"–12")

- Eliminates costly housekeeping pad
- Allows for adequate condensate trapping

Vision SelectTools™ Software Selection Program

Because of the Vision air handler's flexibility and various component types, there are an infinite number of unit arrangements. To help easily define product requirements, McQuay provides the user-friendly Vision SelectTools Software Selection Program to configure and size both standard and custom units. This Windows® based program leads you through the selection process by prompting for pertinent input data for all components. The program gives immediate feedback regarding fan and coil selection, offering a choice of several options based on performance inputs. Once final components are selected, the program provides all output needed for specification and submittal purposes, including required fan curves, coil performance psychometric charts, weights, dimensional drawings, and a unit specification.

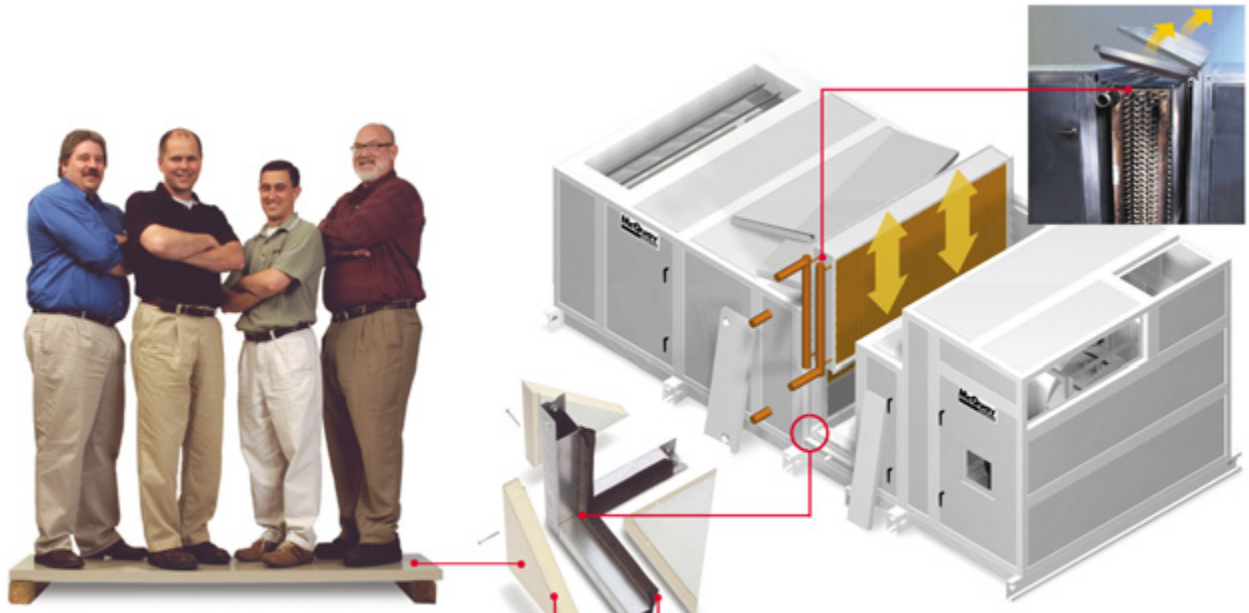
This capability is available in McQuayTools™ for engineers' software. Ask your McQuay representative for details.



Quality Construction

Quality construction makes Vision units capable of leakage rates of less than 1%. This is equal to or less than that of costly custom units, and is far superior to leakage rates of up to 10% for standard commercial units. Our patented, insulated internal splice collar, factory-installed gasketing, and double-wall, injected foam insulated panels help to preserve the airtight environment. They also eliminate fibers and stop dirt and moisture from penetrating the casing. The results for your client can be quieter units than standard commercial air handlers, with lower operating costs and optimal indoor air quality.

Panels and frame channels are easily removed for access to large components

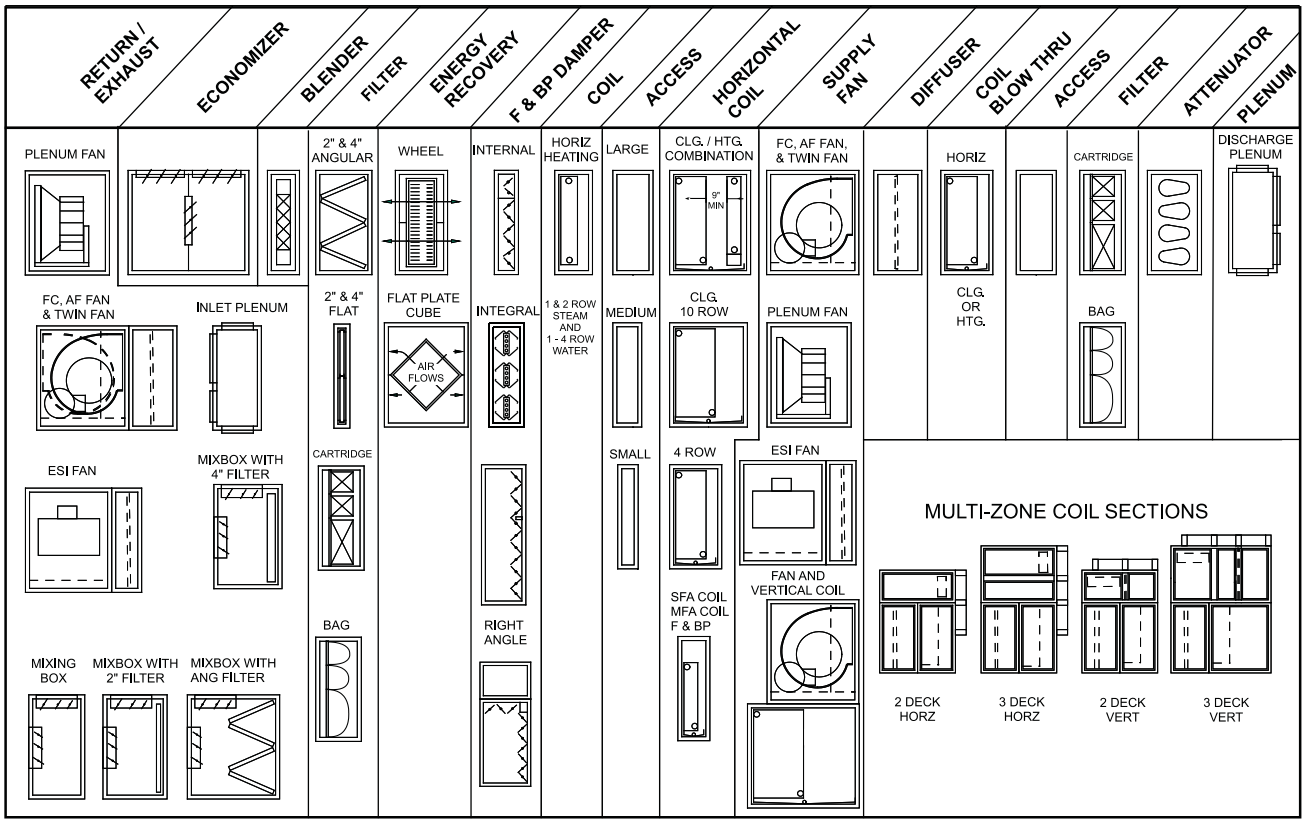


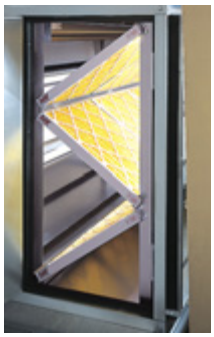
Rigid, injected foam panels provide superior strength, improve operating efficiency, and reduce unit weight.

Gasketed frame channels

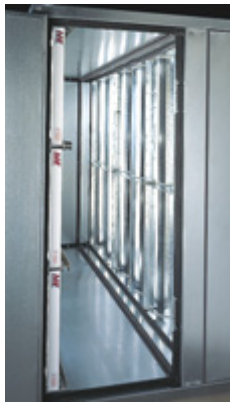
Double-wall, R-13 injected foam

Customized Options





Multiple filter options



Sound attenuator options

Static mixer options

Energy recovery options

Physical Data

Quick Select Table*—Vision

Description	Unit size								
	003	004	006	008	010	012	014	017	021
Airflow range, cfm	900–2500	1200–3100	1700–4600	2200–6000	2900–7700	3600–9700	4200–11,200	5000–13,500	6000–16,000
cfm @ 500 ft/min through large face area coil	1550	1950	2850	3750	4800	6050	7000	8400	10,050
Height × width, inches	26 × 38	30 × 40	30 × 52	34 × 58	36 × 64	42 × 66	42 × 74	46 × 80	58 × 82
Cooling coil face area, sq ft									
Extended/staggered large	3.9	4.8	6.6	8.5	10.7	13.5	15.4	18.3	21.9
Large	3.1	3.9	5.7	7.5	9.6	12.1	14.0	16.8	20.1
Extended/staggered medium	2.6	3.4	4.7	6.4	8.3	9.8	11.2	13.7	17.2
Medium	2.1	2.8	4.1	5.6	7.4	8.8	10.2	12.6	15.8
Small	N/A	2.3	3.3	4.7	6.4	7.7	8.9	11.2	14.4
Fan section–depth, inches									
Largest housed fan & motor avail. w/ top hor. dischg.	32	32	36	40	40	46	46	50	52
Largest inline fan and motor available	N/A	N/A	N/A	N/A	N/A	44	44	50	54
Largest belt drive plenum fan & motor available	N/A	N/A	N/A	N/A	34	42	42	48	52
Largest direct drive plenum fan & motor available	N/A	N/A	N/A	20	20	54	54	54	54
Largest twin fan and motor available	N/A	N/A	N/A	50	56	56	58	58	66
Mixing box–depth, inches									
Mixing box only	20	20	20	20	22	24	24	26	30
Mixing box with flat filter	24	24	24	24	26	28	28	30	34
Mixing box with angular filter	42	42	42	42	44	46	46	48	52
Economizer–depth, inches									
	40	40	40	40	44	48	48	52	60
Blender–depth, inches									
Largest Kees	18	20	24	26	28	34	36	38	42
Largest Blender Products IV	18	22	26	30	34	38	40	46	48
Side load filter sections–depth, inches									
Flat 2" and 4"	12	12	12	12	12	12	12	12	12
2" angular	32	30	30	30	30	30	30	30	30
Cartridge (12" deep w/2" pre-filter)	22	22	22	22	22	22	22	22	22
Bag (36" w/2" pre-filter)	42	42	42	42	42	42	42	42	42
Front load filter sections–depth, inches									
Cartridge (12" deep w/2" pre-filter)	16	16	16	16	16	16	16	16	16
Bag (36" w/2" pre-filter)	40	40	40	40	40	40	40	40	40
Face and bypass–depth, inches									
Internal	12	12	12	12	12	12	12	12	12
External	18	18	18	20	22	24	24	26	30
Coil sections–depth, inches									
Heating only (2-row water)	12	12	12	12	12	12	12	12	12
Cooling only (4-row water)	18	18	18	18	18	18	18	18	18
Cooling only (6-row water)	24	24	24	24	24	24	24	24	24
Cooling & reheat (12-row cooling & 1-row heating)	36	36	36	36	36	36	36	36	36
Vertical cooling only (6-row water)	30	30	30	30	36	36	36	36	42
Multizone coil section–depth, inches									
3-deck horizontal with dampers	N/A	N/A	40	42	42	52	52	54	56
Access sections–depth, inches									
16" deep	16	16	16	16	16	16	16	16	16
24" deep	24	24	24	24	24	24	24	24	24
30" deep	30	30	30	30	30	30	30	30	30
36" deep	36	36	36	36	36	36	36	36	36
42" deep	42	42	42	42	42	42	42	42	42
48" deep	48	48	48	48	48	48	48	48	48
54" deep	54	54	54	54	54	54	54	54	54
Diffuser–depth, inches									
With housed fan	10	10	10	12	12	16	16	16	16
With inline fan	N/A	N/A	N/A	N/A	N/A	18	18	18	22
Attenuator–depth, inches									
Short	40	40	40	40	40	40	40	40	40
Medium	52	52	52	52	52	52	52	52	52
Long	64	64	64	64	64	64	64	64	64
Supply or return plenum–depth, inches									
Top, bottom or end opening	14	16	16	18	20	22	22	24	28

* Based on typical industry sizes. Vision air handling units are available in 2 inch increments of height and width to fit the exact space requirements. Front load filter sections include 24" upstream plenum section with tread plate for heavy duty floor liner.

Quick Select Table*—Vision (continued)

Description	Unit size								
	025	030	035	040	050	065	080	085	090
Airflow range, cfm	7300–19,400	8500–22,500	10,000–26,500	11,500–31,000	15,000–40,000	20,000–54,000	21,500–57,500	23,100–61,600	24,600–65,600
cfm @ 500 ft/min through large face area coil	12,150	14,150	16,700	19,300	24,500	33,300	35,900	38,450	41,000
Height × width, inches	60 × 86	60 × 98	66 × 102	68 × 116	80 × 120	92 × 136	98 × 136	104 × 136	110 × 136
Cooling coil face area, sq ft									
Extended/staggered large	27.4	31.9	37.1	42.9	58.0	76.9	82.0	87.1	92.2
Large	24.3	28.3	33.4	38.6	49.0	66.6	71.8	76.9	82.0
Extended/staggered medium	21.3	24.8	29.7	34.3	40.1	61.5	61.5	66.6	71.8
Medium	18.2	21.2	24.1	30.0	35.7	51.2	51.2	56.4	61.5
Small	16.7	19.5	22.3	27.9	31.2	46.1	46.1	51.2	56.4
Fan section–depth, inches									
Largest housed fan & motor avail. w/ top hor. discharge	58	58	58	70	80	92	92	92	92
Largest inline fan and motor available	64	64	70	70	90	96	96	96	96
Largest belt drive plenum fan and motor available	56	58	62	62	70	82	82	82	82
Largest direct drive plenum fan and motor available	66	78	84	86	86	86	N/A	N/A	N/A
Largest twin fan and motor available	66	74	82	82	82	N/A	N/A	N/A	N/A
Mixing box–depth, inches									
Mixing box only	32	32	36	36	40	46	50	54	56
Mixing box with flat filter	36	36	40	40	44	50	54	58	60
Mixing box with angular filter	54	54	58	58	62	68	72	76	78
Economizer–depth, inches									
	64	64	72	72	80	92	100	108	112
Blender–depth, inches									
Largest kees	46	48	58	58	68	76	80	84	84
Largest blender products iv	52	60	64	70	74	88	88	92	92
Side load filter sections–depth, inches									
Flat 2" and 4"	12	12	12	12	12	12	12	12	12
2" angular	32	32	32	32	32	32	32	32	32
Cartridge (12" deep w/2" pre-filter)	22	22	22	22	22	22	22	22	22
Bag (36" w/2" pre-filter)	42	42	42	42	42	42	42	42	42
Front load filter sections–depth, inches									
Cartridge (12" deep w/2" pre-filter)	16	16	16	16	16	16	16	16	16
Bag (36" w/2" pre-filter)	40	40	40	40	40	40	40	40	40
Face and bypass–depth, inches									
Internal	12	12	12	12	12	12	12	12	12
External	32	32	34	38	44	50	54	56	58
Coil sections–depth, inches									
Heating only (2-row water)	12	12	12	12	12	12	12	12	12
Cooling only (4-row water)	18	18	18	18	18	18	18	18	18
Cooling only (6-row water)	24	24	24	24	24	24	24	24	24
Cooling and reheat (12-row cooling & 1-row heating)	36	36	36	36	36	36	36	36	36
Vertical cooling only (6-row water)	48	48	54	N/A	N/A	N/A	N/A	N/A	N/A
Multizone coil section–depth, inches									
3-deck horizontal with dampers	60	60	70	70	76	88	N/A	N/A	N/A
Access sections–depth, inches									
16" deep	16	16	16	16	16	16	16	16	16
24" deep	24	24	24	24	24	24	24	24	24
30" deep	30	30	30	30	30	30	30	30	30
36" deep	36	36	36	36	36	36	36	36	36
42" deep	42	42	42	42	42	42	42	42	42
48" deep	48	48	48	48	48	48	48	48	48
54" deep	54	54	54	54	54	54	54	54	54
Diffuser–depth, inches									
With housed fan	24	24	24	30	30	30	30	30	30
wIth inline fan	26	26	28	30	36	38	38	38	38
Attenuator–depth, inches									
Short	40	40	40	40	40	40	40	40	40
Medium	52	52	52	52	52	52	52	52	52
Long	64	64	64	64	64	64	64	64	64
Supply or return plenum–depth, inches									
Top, bottom or end opening	30	30	32	32	38	42	48	52	54

* Based on typical industry sizes. Vision air handling units are available in 2-inch increments of height and width to fit the exact space requirements.
Coil weights based on aluminum fins and 8 fins per inch. Mixing box and economizer section weights include dampers.
Front load filter sections include 24" upstream plenum section with tread plate for heavy duty floor liner.

Quick Select Table*—Vision (continued)

Description	Unit size				
	107	124	141	160	169
Airflow range, cfm	29,000–77,500	33,600–89,500	40,300–107,400	45,600–121,800	48,400–129,000
cfm @ 500 ft/min through large face area coil	48,500	55,900	67,100	76,200	80,600
Height × width, inches	108 × 168	108 × 192	122 × 192	122 × 216	122 × 228
Cooling coil face area, sq ft					
Large	96.88	111.9	134.25	152.25	161.25
Medium	77.5	89.5	96.96	109.96	116.46
Fan section–depth, inches					
Largest housed fan & motor avail. w/ top hor. discharge	92	92	92	92	92
Largest belt drive plenum fan and motor available	88	88	88	88	88
Largest direct drive plenum fan and motor available	94	94	94	94	94
Mixing box–depth, inches					
Mixing box only	64	64	72	72	72
Economizer–depth, inches					
	118	118	136	136	136
Blender–depth, inches					
Largest kees	68	72	80	84	84
Largest blender products iv	78	86	92	92	92
Side load filter sections–depth, inches					
Flat 2" and 4"	22/24	22/24	22/24	22/24	22/24
Cartridge (12" deep w/2"/4" pre-filter)	22/24	22/24	22/24	22/24	22/24
Bag (36" w/2"/4" pre-filter)	44/46	44/46	44/46	44/46	44/46
Front load filter sections–depth, inches					
Cartridge (12" deep w/2"/4" pre-filter)	20/20	20/20	20/20	20/20	20/20
Bag (36" w/2"/4" pre-filter)	44/44	44/44	44/44	44/44	44/44
Face and bypass–depth, inches					
Internal	12	12	12	12	12
External	58	58	64	64	64
Coil sections–depth, inches					
Heating only (2-row water)	12	12	12	12	12
Cooling only (4-row water)	18	18	18	18	18
Cooling only (6-row water)	18	18	18	18	18
Cooling and reheat (12-row cooling & 1-row heating)	24	24	24	24	24
Access sections–depth, inches					
16" deep	16	16	16	16	16
24" deep	24	24	24	24	24
30" deep	30	30	30	30	30
36" deep	36	36	36	36	36
42" deep	42	42	42	42	42
48" deep	48	48	48	48	48
54" deep	54	54	54	54	54
Diffuser–depth, inches					
With housed fan	42	46	46	46	46
Attenuator–depth, inches					
Short	40	40	40	40	40
Medium	52	52	52	52	52
Long	64	64	64	64	64
Supply or return plenum–depth, inches					
Top or end opening	36	52	60	60	60

* Based on typical industry sizes. Vision air handling units are available in 2-inch increments of height and 4-inch increments of width to fit the exact space requirements.
Coil weights based on aluminum fins and 8 fins per inch. Mixing box and economizer section weights include dampers.
Front load filter sections include 24" upstream plenum section with tread plate for heavy duty floor liner.

Single Refrigerant Circuit Air-Cooled Scroll Condensing Units—6 to 20 Tons

- Competitive price
- Prepainted exterior cabinet panels pass 1000-hour ASTM B 117 salt spray test for durability
- Vertical air discharge condenser fans for quiet operation
- Scroll compressors provide maximum dependability, efficiency and quiet operation
- Compatible with field supplied WYRG thermostats
- R-410A refrigerant
- Superior EER from 12.0–12.9

For more detail, refer to Catalog 223.
For the most current information, refer to www.mcquay.com.

Model RCS—6.5 to 7.5 tons

Model RCS—10 to 12 tons

Model RCS—15 to 20 tons

LONMARK 3.3

Available LONMARK certified

BACnet International

Scroll Condensing Units—Physical Data

RCS 06F through 20F, R-410A

Physical Data	RCS model number						
	06F Single	07F Single	10F Single	11F Tandem	12F Tandem	15F Tandem	20F Tandem
Basic data							
Capacity (tons) [kW]	6.5 [22.9]	7.5 [26.4]	10 [35.2]	10 [35.2]	12 [14.2]	15 [52.8]	20 [70.3]
Operating weight	264 [119.8]	283 [128.4]	501 [227.3]	586 [265.8]	650 [294.8]	746 [338.4]	952 [431.8]
Shipping weight	287 [130.2]	306 [138.8]	541 [245.4]	626 [284.0]	690 [313.0]	786 [356.5]	992 [450.0]
Compressor							
Quantity	1	1	1	2	2	2	2
Type	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll
RPM	3500	3500	3500	3500	3500	3500	3500
Refrigerant charge R-410A oz. [g]	178 [5046]	242 [6861]	339 [9661]	300 [8505]	378 [10,716]	506 [14,345]	655 [18,569]
Condenser Fans							
Quantity	1	1	2	2	2	3	3
CFM [L/s]	4700 [2218]	4700 [2218]	8100 [3822]	8100 [3822]	8100 [3882]	12,000 [5663]	12,000 [5663]
Diameter (in.) [mm]	24 [610]	24 [610]	24 [610]	24 [610]	24 [610]	24 [610]	24 [610]
Drive	Direct	Direct	Direct	Direct	Direct	Direct	Direct
Motor horsepower each [W]	1/3 [249]	1/3 [249]	1/3 [249]	1/3 [249]	1/3 [249]	1/3 [249]	1/3 [249]
Type	PSC	PSC	PSC	PSC	PSC	PSC	PSC
RPM	1075	1075	1075	1075	1075	1075	1075
Condenser Coil							
Quantity	1	1	2	2	2	2	2
Rows	1 1/2	2	2	2	2	2	3
Fins per inch	20	22	18	22	22	22	22
Sq. ft. [m^2]	23.0 [2.14]	23.0 [2.14]	27.0 [2.51]	27.0 [2.51]	33.9 [3.05]	40.38 [3.75]	40.38 [3.75]
Fins/tubes	Aluminum/Copper						
Cabinet							
Finish	Powder Coat						
Sheet metal	Galvanized						
Gauge (nominal) top	20	20	20	20	20	20	20
Sides	20	20	20	20	20	20	20
Base rails	14	14	14	14	14	14	14
Refrigerant Connection							
Vapor sweat (in.) [mm]	1-1/8 [29]	1-1/8 [29]	1 3/8 [35]	1 3/8 [35]	1 3/8 [35]	1 3/8 [35]	1 5/8 [41.3]
Liquid sweat (in.) [mm]	1/2 [13]	1/2 [13]	5/8 [16]	5/8 [16]	5/8 [16]	5/8 [16]	7/8 [22]
EER @ AHRI							
365 conditions	12.0	12.6	12.9	12.9	12.4	12.9	12.0

Scroll Condensing Units—Electrical Data

RCS 06F through 10F, R-410A

Electrical Data	RCS model number								
	06F Single			07F Single			10F Single		
Compressor Motor									
Electrical Characteristics	208/230 3Ø, 60 Hz	460 3Ø, 60 Hz	575 3Ø, 60 Hz	208/230 3Ø, 60 Hz	460 3Ø, 60 Hz	575 3Ø, 60 Hz	208/230 3Ø, 60 Hz	460 3Ø, 60 Hz	575 3Ø, 60 Hz
Unit full load amps[1]	20.8	10.3	8.4	27.8	13.5	10.0	34.5	19.3	14.2
Minimum circuit ampacity	31.0	15.0	11.0	34.0	17.0	13.0	43.0	24.0	18.0
Maximum fuse size (amps) or HACR circuit breaker ampacity[2]	50	25	15	50	25	20	60	40	25
Disconnect Size	60	30	30	60	30	30	60	40	25

1. Conditions at 45°F suction and 95°F ambient.
2. Local codes take precedent over recommended fuse size.

RCS 11F through 15F, R-410A

Electrical Data	RCS model number								
	11F Tandem			12F Tandem			15F Tandem		
Compressor Motor									
Electrical Characteristics	208/230 3Ø, 60 Hz	460 3Ø, 60 Hz	575 3Ø, 60 Hz	208/230 3Ø, 60 Hz	460 3Ø, 60 Hz	575 3Ø, 60 Hz	208/230 3Ø, 60 Hz	460 3Ø, 60 Hz	575 3Ø, 60 Hz
Unit full load amps[1]	39.6	21.8	14.4	49.2	23.8	17.4	56.6	28.3	21.0
Minimum circuit ampacity	45.0	25.0	16.0	56.0	27.0	20.0	64.0	32.0	24.0
Maximum fuse size (amps) or HACR circuit breaker ampacity[2]	60	30	25	70	35	25	80	40	30
Disconnect Size	60	30	30	60	30	30	100	60	60

1. Conditions at 45°F suction and 95°F ambient.
2. Local codes take precedent over recommended fuse size.

RCS 20F, R-410A

Electrical Data	RCS model number		
	20F Tandem		
Compressor Motor			
Electrical Characteristics	208/230 3Ø, 60 Hz	460 3Ø, 60 Hz	575 3Ø, 60 Hz
Unit full load amps[1]	73.2	39.2	28.6
Minimum circuit ampacity	83.0	44.0	32.0
Maximum fuse size (amps) or HACR circuit breaker ampacity[2]	110	60	40
Disconnect Size	200	60	60

1. Conditions at 45°F suction and 95°F ambient.
2. Local codes take precedent over recommended fuse size.

Single Circuit Air-Cooled Scroll Condensing Units—10 to 39 Tons

- Efficient—Up to 10.9 EER at full load and up to 13.6 EER at part load (IPLV)
- Quiet—All dBA ratings are tested in accordance with AHRI Standard 370; less acoustical treatment can lower your project cost
- Reliable—Scroll compressors have fewer moving parts
- Controls flexibility—MicroTech® II controls with our Open Choices™ feature for easy integration with the BAS of your choice
- Optional low ambient operation range down to 0°F
- R-407C refrigerant

For more detail, refer to Catalog ACZ–AGZB. For the most current information, refer to www.mcquay.com.

Model ACZ-B—10 to 39 tons
R-407C

LONMARK 3.3
Available LONMARK certified

BACnet International

Modbus®

Air-Cooled Scroll Condensing Units, Single Circuit—Physical Data

ACZ 010BS through 020BS, R-407C

Physical data	ACZ model number			
	010BS	013BS	016BS	020BS
Basic data				
Nominal Tons[1]	10	13	16	20
Number of refrigerant circuits	1	1	1	1
Unit operating charge,R-407C, lb (kg)[2]	22.0 (10.0)	22.0 (10.0)	24.0 (10.9)	31.0 (14.1)
Cabinet dimensions, L × W × H, in (mm)	73.6 × 46.3 × 50.8 (1869 × 1176 × 1289)	73.6 × 46.3 × 50.8 (1869 × 1176 × 1289)	73.6 × 46.3 × 50.8 (1869 × 1176 × 1289)	73.6 × 46.3 × 50.8 (1869 × 1176 × 1289)
Unit operating weight, lb (kg)	1015 (461)	1015 (461)	1090 (495)	1190 (541)
Unit shipping weight, lb (kg)	1000 (454)	1000 (454)	1065 (484)	1150 (523)
Add'l weight if copper finned coils, lb (kg) R-407C	176 (80.0)	176 (80.0)	176 (80.0)	264 (120.0)
Compressors				
Type	Scroll	Scroll	Scroll	Scroll
Nominal horsepower	4.0 / 4.0	6.0 / 6.0	7.5 / 7.5	9.0 / 9.0
Oil charge per compressor of a tandem set, oz (g)	57 (1616)	60 (1701)	140 (3969)	140 (3969)
Capacity reduction steps–percent of compressor displacement				
Standard staging	0 – 50 – 100	0 – 50 – 100	0 – 50 – 100	0 – 50 – 100
Condensers–high efficiency fin and tube type with integral subcooling				
Coil face area, ft^2 (m^2)	30.3 (2.8)	30.3 (2.8)	30.3 (2.8)	30.3 (2.8)
Finned height × finned length, in (mm)	84 × 52 (2134 × 1321)	84 × 52 (2134 × 1321)	84 × 52 (2134 × 1321)	84 × 52 (2134 × 1321)
Fins per inch × rows deep:R-407C	16 × 2	16 × 2	16 × 2	16 × 3
Pumpdown capacity, lb (kg)	35.3 (16.0)	35.3 (16.0)	35.3 (16.0)	50.3 (22.8)
Condenser fans–direct drive propeller type				
Number of fans–fan diameter, in (mm)	2–26 (660)	2–26 (660)	2–26 (660)	2–26 (660)
Number of motors–hp (kW)[3]	2–1.0 (0.75)	2–1.0 (0.75)	2–1.0 (0.75)	2–1.0 (0.75)
Fan and motor rpm, 60 Hz	1140	1140	1140	1140
60 Hz total unit airflow, cfm (L/s)	13,950 (6584)	13,950 (6584)	13,950 (6584)	12,000 (5664)

1. Nominal capacity based on 95°F ambient air and 50°F saturated suction temperature (SST).
2. Operating charge is for the condensing unit only. Refrigerant lines and evaporator charge must be added.
3. Except for 380V/60 and 575V/60, hp = 2.0.

ACZ 025BS through 039BS, R-407C

Physical data	ACZ model number			
	025BS	028BS	033BS	039BS
Basic data				
Nominal tons[1]	25	28	33	39
Number of refrigerant circuits	1	1	1	1
Unit operating charge, R-407C, lb (kg)[2]	34.0 (15.4)	36.0 (16.3)	47.0 (21.3)	50.0 (22.7)
Cabinet dimensions, L × W × H, in (mm)	106.2 × 46.3 × 50.8 (2697×1176 × 1289)	106.2 × 46.3 × 50.8 (2697 × 1176 × 1289)	106.2 × 46.3 × 58.8 (2697 × 1176 × 1493)	106.2 × 46.3 × 58.8 (2697 × 1176 × 1493)
Unit operating weight, lb (kg)	1470 (667)	1490 (676)	1760 (799)	1960 (890)
Unit shipping weight, lb (kg)	1580 (717)	1600 (726)	1890 (858)	2090 (949)
Add'l weight if copper finned coils, lb (kg) R-407C	426 (194)	426 (194)	435 (197)	435 (197)
Compressors				
Type	Scroll	Scroll	Scroll	Scroll
Nominal horsepower	12.0 / 12.0	13.0 / 13.0	15.0 / 15.0	20.0 / 20.0
Oil charge per compressor of a tandem set, oz (g)	110 (3119)	110 (3119)	110 (3119)	158 (4479)
Capacity reduction steps–percent of compressor displacement				
Standard staging	0 – 50 – 100	0 – 50 – 100	0 – 50 – 100	0 – 50 – 100
Condensers–high efficiency fin and tube type with integral subcooling				
Coil face area, ft^2 (m^2)	49.0 (4.6)	49.0 (4.6)	58.3 (5.4)	58.3 (5.4)
Finned height × finned length, in (mm)	84 × 84 (2134 × 2134)	84 × 84 (2134 × 2134)	100 × 84 (2545 × 2134)	100 × 84 (2545 × 2134)
Fins per inch × rows deep: R-407C	16 × 2	16 × 2	16 × 3	16 × 3
Pumpdown capacity, lb (kg)	53.1 (24.0)	53.1 (24.0)	90.7 (41.1)	92.8 (42.0)
Condenser fans–direct drive propeller type				
Number of fans–fan diameter, in (mm)	3–26 (660)	3–26 (660)	3–26 (660)	3–26 (660)
Number of motors–hp (kW)[3]	3–1.0 (0.75)	3–1.0 (0.75)	3–1.0 (0.75)	3–1.0 (0.75)
Fan and motor rpm, 60 Hz	1140	1140	1140	1140
60 Hz total unit airflow, cfm (L/s)	20,925 (9877)	20,925 (9877)	19,800 (9346)	19,800 (9346)

1. Nominal capacity based on 95°F ambient air and 50°F saturated suction temperature (SST).
2. Operating charge is for the condensing unit only. Refrigerant lines and evaporator charge must be added.
3. Except for 380V/60 and 575V/60, hp = 2.0.

Dual Circuit Air-Cooled Scroll Condensing Units—15 to 140 Tons

- **Efficient—Up to 12.1 EER at full load**
- **Reliable—Scroll compressors have fewer moving parts; two circuits on all size units provide backup cooling**
- **Optional low ambient operation range down to 0°F**
- **R-410A refrigerant**

For more detail, refer to Catalog 222. For the most current information, refer to www.mcquay.com.

Model RCS air cooled scroll condensing unit—15 to 140 tons with R-410A

Quiet condenser option

With this option, sound power at the unit is reduced by an average of 7 dB when compared to standard units.

- Quiet condensers are specially engineered to reduce radiated noise and improve condenser fan efficiency
- Aerodynamic, airfoil, sickle-shaped blades and bell mouth orifices improve fan efficiency
- Each fan includes seven blades complete with serrated trailing edges and special blade tip to break up turbulence and reduce noise
- Individual compressor sound blankets are provided to reduce noise

Air Cooled Scroll Condensing Units, Dual Circuit—Physical Data

RCS 015D through 030D, R-410A

Physical data	RCS model number			
	015D	020D	025D	030D
Basic data				
Number of refrigeration circuits	2	2	2	2
Unit operating charge (lb)[1] per circuit	7	7.5	8.5	10
Operating weight (lb)	1492	1577	1581	1986
Compressors				
Qty.- hp	2-7	2-4.5, 1-10	2-5.5, 1-11.5	2-6, 1-13
Capacity control	100-50	100-78-55-22	100-78-55-22	100-78-55-22
Condenser Fans				
Qty. - diameter	2 - 26"	2 - 26"	2 - 26"	4 - 26"
Qty. - hp	2 - 1.0	2 - 1.0	2 - 1.0	4 - 1.0

1. Unit shipped with dry nitrogen holding charge.

RCS 035D through 050D, R-410A

Physical data	RCS model number			
	035D	040D	045D	050D
Basic data				
Number of refrigeration circuits	2	2	2	2
Unit operating charge (lb)[1] per circuit	10.5	11	12.5	22
Operating weight (lb)	2203	2229	2205	Consult Factory
Compressors				
Qty.- hp	4 - 7.5	4 - 8.5	4 - 10	4-11.5
Capacity control	100-75-50-25	100-75-50-25	100-75-50-25	100-75-50-25-0
Condenser Fans				
Qty. - diameter	4 - 26"	4 - 26"	4 - 26"	4 - 26"
Qty. - hp	4 - 1.0	4 - 1.0	4 - 1.0	4 - 1.0

1. Unit shipped with dry nitrogen holding charge.

RCS 060D through 075D, R-410A

Physical data	RCS model number			
	060D	062D	070D	075D
Basic data				
Number of refrigeration circuits	2	2	2	2
Unit operating charge (lb)[1] per circuit	23	23	26	27
Operating weight (lb)	Consult Factory			
Compressors				
Qty.- hp	4 - 13	4 - 13	6 - 10	6 - 11.5
Std. capacity control	100-75-50-25-0	100-75-50-25-0	100-83-67-50-33-17-0	100-83-67-50-33-17-0
Condenser Fans				
Qty. - diameter	4 - 26"	6 - 26"	6 - 26"	8 - 26"
Qty. - hp	4 - 1.0	6 - 1.0	6 - 1.0	8 - 1.0

1. Unit shipped with dry nitrogen holding charge.

RCS 080D through 110D, R-410A

Physical data	RCS model number			
	080D	090D	100D	110D
Basic data				
Number of refrigeration circuits	2	2	2	2
Unit operating charge (lb)[1] per circuit	30	31	32	44
Operating weight (lb)	3603	3708	3764	4277
Compressors				
Qty.- hp	6 - 11.5	6 - 13	3 - 10 3 - 15	6 - 15
Std. capacity control	100-83-67-50-33-17-0	100-83-67-50-33-17-0	100-83-67-50-33-17-0	100-84-67-50-33-17-0
Condenser Fans				
Qty. - diameter	6 - 26"	8 - 26"	9 - 26"	8 - 26"
Qty. - hp	6 - 1.0	8 - 1.0	9 - 1.0	8 - 1.0

1. Unit shipped with dry nitrogen holding charge.

RCS 120D through 140D, R-410A

Physical data	RCS model number		
	120D	125D	140D
Basic data			
Number of refrigeration circuits	2	2	2
Unit operating charge (lb)[1] per circuit	45	46	47
Operating weight (lb)	4858	5439	5619
Compressors			
Qty.- hp	3 - 15 3 - 20	6 - 20	3 - 20 3 - 25
Std. capacity control	100-83-67-49-33-16-0	100-84-67-50-33-17-0	100-83-67-49-33-16-0
Condenser Fans			
Qty. - diameter	9 - 26"	10 - 26"	12 - 26"
Qty. - hp	9 - 1.0	10 - 1.0	12 - 1.0

1. Unit shipped with dry nitrogen holding charge.

Compressor Rated Load Amps

Unit Size	Voltage	MCA Total	MOCPD Total	Standard Fuse Size
015D	208	70	98	90
	230	64	89	80
	460	31	44	40
	575	25	34	30
020D	208	95	116	125
	230	87	105	125
	460	43	52	60
	575	33	39	40
025D	208	117	142	175
	230	107	129	150
	460	47	58	60
	575	37	44	50
030D	208	131	156	175
	230	120	143	175
	460	56	68	80
	575	45	53	60
035D	208	155	187	175
	230	141	171	150
	460	70	85	80
	575	59	71	70
040D	208	159	193	175
	230	146	176	175
	460	79	96	90
	575	59	71	70
045D	208	195	238	225
	230	178	217	200
	460	90	109	100
	575	66	80	70
050D	208	20	273	250
	230	193	241	225
	460	98	117	110
	575	71	87	80
060D	208	257	314	300
	230	226	227	250
	460	114	137	125
	575	91	111	110
062D	208	265	322	300
	230	230	281	250
	460	122	145	125
	575	95	115	110

Unit Size	Voltage	MCA Total	MOCPD Total	Standard Fuse Size
070D	208	288	330	300
	230	251	289	250
	460	144	163	150
	575	97	111	110
075D	208	376	433	400
	230	327	378	350
	460	165	188	175
	575	126	146	125
080D	208	357	410	400
	230	313	361	350
	460	144	163	150
	575	110	126	125
090D	208	386	443	400
	230	337	388	350
	460	176	199	175
	575	138	158	150
100D	208	410	474	450
	230	358	416	400
	460	196	225	200
	575	150	174	150
110D	208	431	495	450
	230	377	435	400
	460	213	242	225
	575	162	185	175
120D	208	502	586	500
	230	439	516	500
	460	236	271	250
	575	179	207	200
125D	208	567	651	600
	230	497	573	500
	460	258	292	250
	575	195	223	200
140D	208	625	724	700
	230	546	636	600
	460	299	344	300
	575	218	253	250

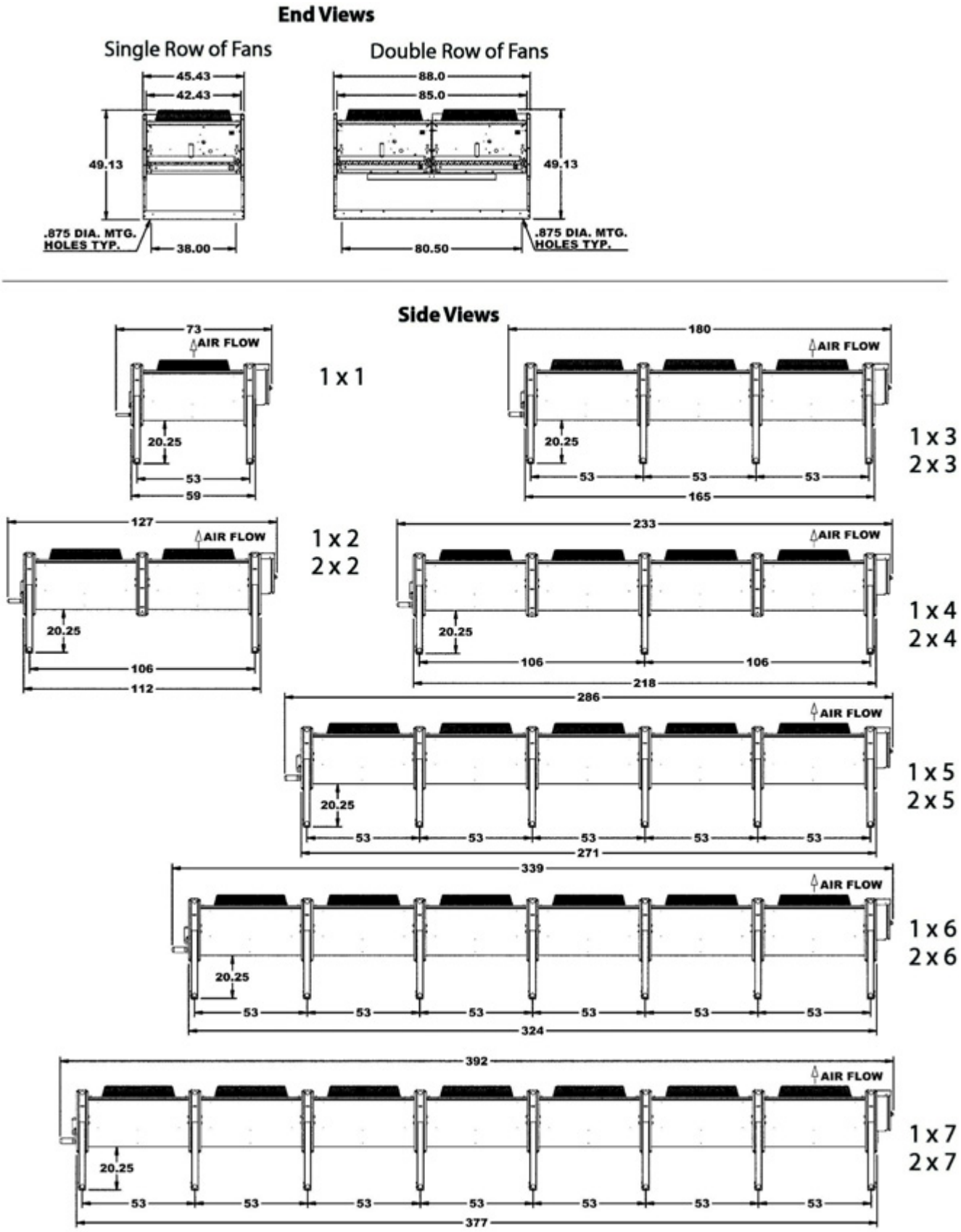
Air-Cooled Condensers—130 to 2225 MBh

- Model ACH offers most capacity per dollar
- Models ACL and ACX provide excellent efficiency and sound ratings at a moderate price
- Easy-to-install design reduces installation cost and time
- Fan motors and blades have been selected for the best performance at minimum sound levels
- High efficiency condenser coil designed for optimum performance
- Condenser coils are designed to operate with R-134a, R-407C, and R-410A

For more detail, refer to Catalog A–C Cond. For the most current information, refer to www.mcquay.com.

Models ACH/ACX/ACL air-cooled condenser—130 to 2225 MBh

Air-Cooled Condenser Dimensions (shown in inches)



Air-Cooled Condensers—Physical Data

Model 014S through 225D

Model number	Model ACH				Model ACL				Model ACX			
	Fans/ Row	CFM	Conn. (in)	Weight (lbs)	Fans/ Row	CFM	Conn. (in)	Weight (lbs)	Fans/ Row	CFM	Conn. (in)	Weight (lbs)
014S	1	9900	1 3/8	330	1	8400	1 3/8	330	1	7600	1 3/8	330
016S	1	9500	1 3/8	360	1	8000	1 3/8	360	1	7300	1 3/8	360
020S	2	20,500	1 3/8	580	2	17,500	1 3/8	580	2	15,900	1 3/8	580
025S	2	19,800	1 5/8	630	2	16,700	1 5/8	630	2	15,200	1 5/8	630
030S	2	19,000	2 1/8	680	2	16,100	2 1/8	680	2	14,700	2 1/8	680
040S	3	29,700	2 1/8	930	3	25,100	2 1/8	930	3	22,900	2 1/8	930
050S	3	28,500	2 1/8	1000	3	24,100	2 1/8	1000	3	22,000	2 1/8	1000
055S	4	38,600	2 1/8	1210	4	32,800	2 1/8	1210	4	29,800	2 1/8	1210
060S	4	37,000	2 5/8	1310	4	31,200	2 5/8	1310	4	28,400	2 5/8	1310
070S	5	48,300	2 5/8	1510	5	41,000	2 5/8	1510	5	37,300	2 5/8	1510
080S	5	46,200	2 5/8	1640	5	39,100	2 5/8	1640	5	35,500	2 5/8	1640
100S	6	55,400	2 5/8	1950	6	46,900	2 5/8	1950	6	42,600	2 5/8	1950
110S	7	64,700	(2) 2 5/8	2240	7	54,700	(2) 2 5/8	2240	7	49,700	(2) 2 5/8	2240
040D	2	41,000	(2) 1 3/8	1240	2	35,000	(2) 1 3/8	1240	2	31,700	(2) 1 3/8	1240
050D	2	39,600	(2) 1 5/8	1340	2	33,500	(2) 1 5/8	1340	2	30,500	(2) 1 5/8	1340
060D	2	38,100	(2) 2 1/8	1440	2	32,100	(2) 2 1/8	1440	2	29,300	(2) 2 1/8	1440
080D	3	59,400	(2) 2 1/8	1990	3	50,200	(2) 2 1/8	1990	3	45,700	(2) 2 1/8	1990
100D	3	57,100	(2) 2 1/8	2140	3	48,200	(2) 2 1/8	2140	3	44,000	(2) 2 1/8	2140
110D	4	77,200	(2) 2 1/8	2630	4	65,600	2) 2 1/8	2630	4	59,700	(2) 2 1/8	2630
130D	4	73,900	(2) 2 5/8	2830	4	62,500	2) 2 5/8	2830	4	56,800	(2) 2 5/8	2830
140D	5	96,500	(2) 2 5/8	3290	5	82,000	2) 2 5/8	3290	5	74,600	(2) 2 5/8	3290
160D	5	92,400	(2) 2 5/8	3540	5	78,100	2) 2 5/8	3540	5	71,000	(2) 2 5/8	3540
200D	6	110,900	(2) 2 5/8	4230	6	93,700	(2) 2 5/8	4230	6	85,200	(2) 2 5/8	4230
225D	7	129,400	(4) 2 5/8	4910	7	109,300	(4) 2 5/8	4910	7	99,400	(4) 2 5/8	4910

Direct Drive Fluid Coolers—5 to 212 Tons

- Specifically engineered for outdoor installation with heavy gauge galvanized steel construction to resist corrosion
- Factory-installed lifting brackets and single point field wiring reduce installation costs and time
- Coils are fabricated with corrugated aluminum fins and staggered copper tubes for optimum heat transfer
- Models AFS 023 through AFD 212 use the McQuay patented Floating Tube design to virtually eliminate leaks at the tube sheets
- Fan motor and blade assemblies undergo dynamic stress testing to provide low vibration levels and to improve the reliability of the air moving assembly

For more detail, refer to Catalog 607.
For the most current information, refer to www.mcquay.com.

Model AFS 005 through AFS 107—5 to 107 tons
Model AFD 046 through AFD 212—46 to 212 tons

Direct Drive Fluid Coolers—Physical Data

Model 005 through 021

AFS Model	Fan data		Operating Charge (Gal)	Approximate net weight (lb[1])	Approx. shipping weight (lb)	Approx. Operating Weight (lb)
	Fan config.	Fan diameter				
005	1 × 1	24	2.5	180	325	240
008	1 × 1	26	3.8	260	380	330
010	1 × 2	24	4.0	450	600	537
012	1 × 2	26	4.0	470	620	557
014	1 × 2	26	4.9	510	650	615
016	1 × 2	26	6.1	530	680	635
021	1 × 3	26	6.6	550	725	698

1. Net weight is dry unit only.

Model 023 through 212

Model	Fan Data			Approx. Operating Charge (gal)	Approx. Net Weight (lbs)[1]	Approx. Shipping Weight (lbs)	Approx. Operating Weight (lbs)[2]
	Fan Config.	Number of Fans[3]	cfm				
AFS single row of fans							
023	1 × 2	2	23,000	6.7	730	800	788
027	1 × 2	2	23,200	9.2	790	840	870
031	1 × 2	2	21,900	9.2	790	860	870
035	1 × 2	2	20,700	11.8	889	950	992
041	1 × 3	3	34,800	13.0	1190	1280	1303
045	1 × 3	3	32,900	13.0	1210	1300	1323
049	1 × 3	3	31,800	16.7	1240	1330	1385
053	1 × 4	4	46,400	16.7	1580	1690	1725
061	1 × 4	4	43,900	16.7	1620	1730	1765
065	1 × 4	4	42,400	21.7	1650	1760	1839
071	1 × 4	4	41,500	21.7	1760	1870	1949
075	1 × 5	5	54,900	20.4	2000	2150	2177
079	1 × 5	5	54,800	26.6	2020	2150	2251
089	1 × 5	5	51,800	26.6	2200	2390	2431
097	1 × 6	6	65,800	31.6	2390	2610	2665
107	1 × 6	6	62,200	31.6	2630	2850	2905
AFD double row of fans							
046	2 × 2	4	46,000	13.5	1540	1730	1657
054	2 × 2	4	46,400	18.5	1580	1770	1741
060	2 × 2	4	43,900	18.5	1620	1820	1781
066	2 × 2	4	42,400	23.5	1650	1840	1854
070	2 × 2	4	41,500	23.5	1760	1950	1964
080	2 × 3	6	69,700	25.9	2360	2570	2585
086	2 × 3	6	67,000	25.9	2380	2620	2605
090	2 × 3	6	65,800	25.9	2420	2630	2645
098	2 × 3	6	63,600	33.4	2480	2690	2771
106	2 × 4	8	92,900	33.3	3150	3360	3440
120	2 × 4	8	87,800	33.3	3230	3420	3520
132	2 × 4	8	84,800	43.3	3300	3470	3677
140	2 × 4	8	83,000	43.3	3510	3730	3887
152	2 × 5	10	190,700	40.7	4040	4290	4394
162	2 × 5	10	109,700	53.1	3990	4270	4452
168	2 × 5	10	106,000	53.1	4130	4450	4592
178	2 × 5	10	103,700	53.1	4390	4680	4852
194	2 × 6	12	131,600	63.1	4790	5150	5339
202	2 × 6	12	127,200	63.1	4960	5330	5509
212	2 × 6	12	124,400	63.1	5270	5670	5819

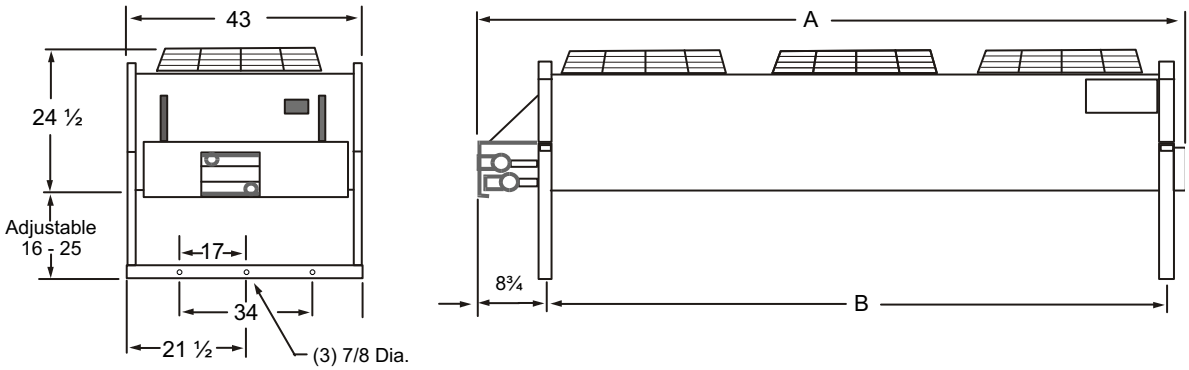
1. Net weight is dry unit only.
2. Operating weight based on 50% ethylene glycol at 130°F.
3. All fans are 30 inches in diameter.

Sound Pressure

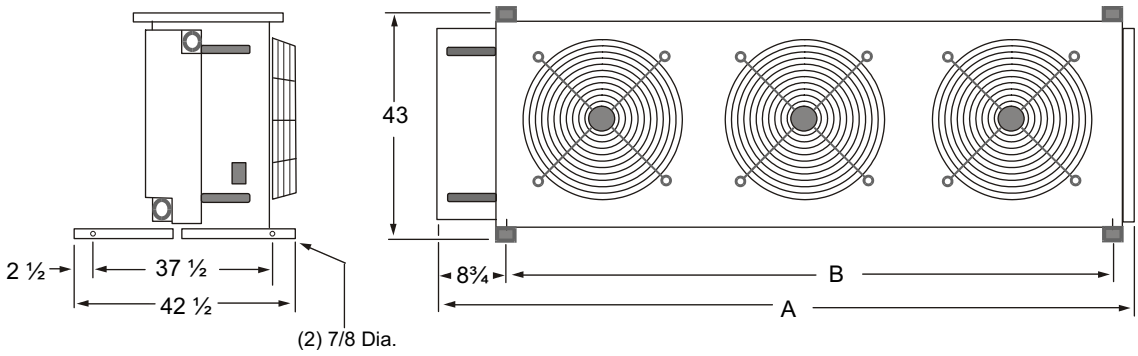
Model No.	Fans	Sound Pressure, dBa, 1140 RPM Fans				Sound Pressure, dBa, 830 RPM Fans			
		Distance from Side of Unit, ft.				Distance from Side of Unit, ft.			
		5	10	20	40	5	10	20	40
023, 027, 031, 035	1x2	77	74	69	65	69	65	61	56
041, 045, 049	1x3	79	76	71	67	71	67	63	58
053, 061, 065, 071,	1x4	80	77	72	68	72	68	64	59
075, 079, 089	1x5	81	78	73	69	73	69	65	60
097, 107	1x6	82	79	74	70	74	70	65	61
046, 054, 060, 066, 070	2x2	79	76	71	67	71	67	63	58
080, 086, 090, 098	2x3	81	78	73	69	73	69	65	60
106, 120, 132, 140	2x4	82	79	74	70	74	70	66	61
152, 162, 168, 178	2x5	83	80	75	71	75	71	67	62
194, 202, 212	2x6	84	81	76	72	76	72	68	63

Direct Drive Fluid Coolers—Dimensions

AFS 005 through AFS 021 with Vertical Flow



AFS 005 through AFS 021 with Horizontal Flow

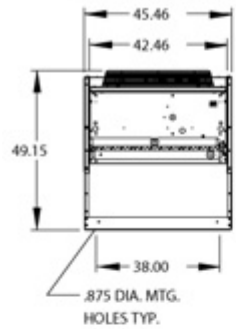


Notes:
Inlet is the top connection, outlet the bottom.
The electrical box is on the same end as the fluid connections with knockouts on the bottom and sides.

AFS Model	Number of Fans	Dim. A (in.)	Dim. B (in.)
005	1	39 3/4	30
008	1	49 3/4	40
010	2	69 3/4	60
012	2	69 3/4	60
014	2	89 3/4	80
016	2	89 3/4	80
021	3	129 3/4	120

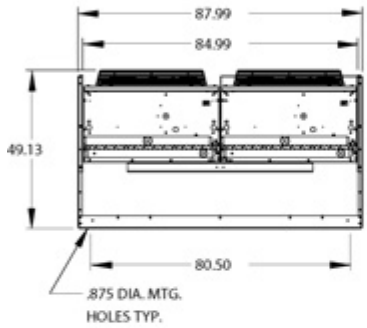
End View

Single Fan Row



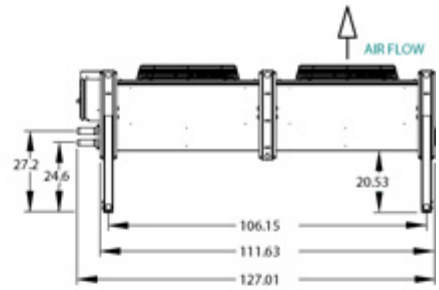
AFS 023 through AFS 107

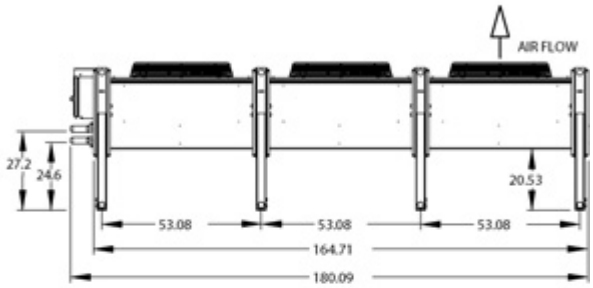
Double Fan Row

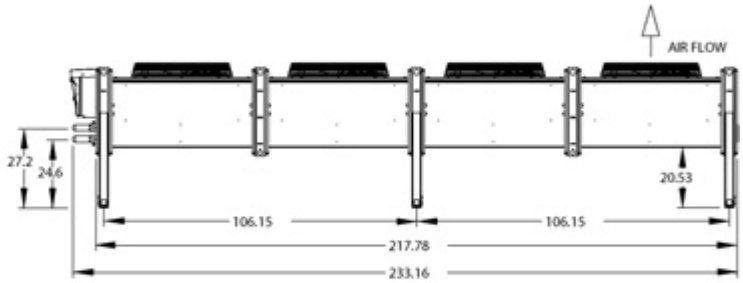


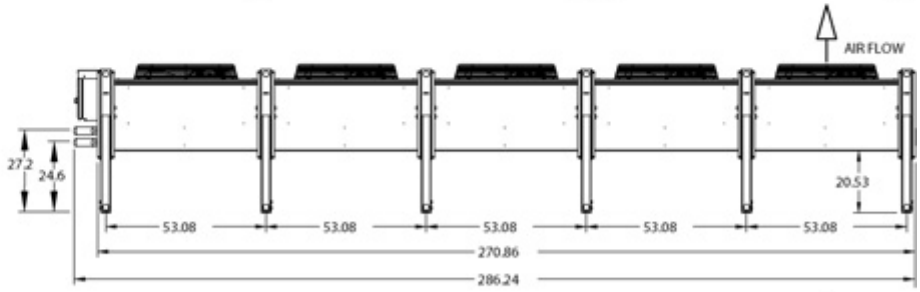
AFD 046 through AFD 212

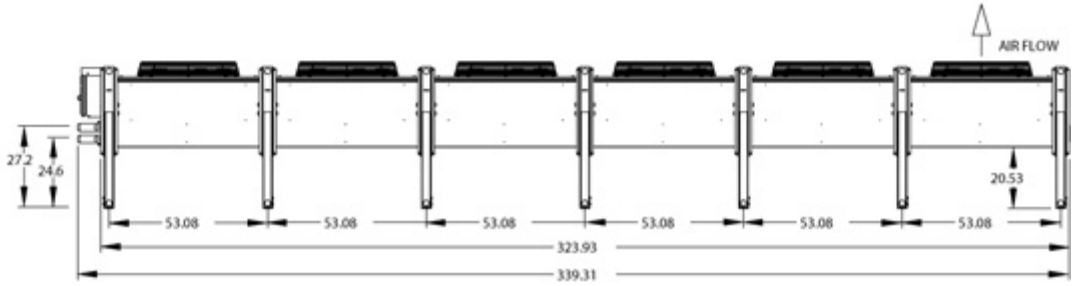
Side View











Air-Cooled Chiller Selection Chart

Model:

R-407C

AGZ-B

Air-cooled Scroll Compressor Chiller

EER range: up to 13.9 IPLV

10 - 34 tons

R-410A

AGZ-D

Air-cooled Scroll Compressor Chiller

EER range: up to 15.6 IPLV

25 - 190 tons

R-134a

AWS

Pathfinder™

Air-cooled Screw Compressor Chiller

EER range:
up to 19.4 IPLV

150 - 530 tons

Optional VFD available on certain models
Remote evaporator and pump package available in 2011

Air-Cooled Scroll Compressor Chillers—25 to 190 Tons

- Efficient—Meets or exceeds ASHRAE Standard 90.1
  Up to 10.3 EER at full load and up to 15.6 EER at part load (IPLV)
- Quiet—As low as 60 dBa without any optional acoustic treatment. Less acoustical treatment can lower your project's cost
- Controls flexibility—MicroTech® III controls with our Open Choices™ feature for easy integration with the BAS of your choice
- Optional low ambient operation range down to -10°F (-23ºC)
- Remote evaporators available
- Pump package option available

For more detail, refer to Catalog 611.
For the most current information, refer to www.mcquay.com.

Model AGZ-D—25 to 190 tons, R-410A, Dual Circuit

LONMARK 3.4
Available LONMARK certified

BACnet International

Modbus®

AGZ Air-Cooled Scroll Compressor Packaged Chiller—Physical Data

AGZ 025D through 035D, Packaged, R-410A

Physical data	AGZ-D model number					
	025		030		035	
Basic data	**Circuit 1**	**Circuit 2**	**Circuit 1**	**Circuit 2**	**Circuit 1**	**Circuit 2**
Unit capacity @ AHRI conditions, tons (kW)[1]	27.0 (96.0)		31.0 (111.0)		35.0 (123.0)	
No. of refrigerant circuits	2		2		2	
Unit operating charge, R-410A, lb (kg)	28 (13)	28 (13)	32 (15)	32 (15)	32 (15)	32 (15)
Cabinet dimensions, L × W × H, in (mm)	94.4 × 88.0 × 100.4 (2398 × 2235 × 2550)		94.4 × 88.0 × 100.4 (2398 × 2235 × 2550)		94.4 × 88.0 × 100.4 (2398 × 2235 × 2550)	
Unit operating weight, lb (kg)	3163 (1435)		3195 (1449)		3205 (1454)	
Unit shipping weight, lb (kg)	3148 (1428)		3180 (1442)		3185 (1445)	
Add'l weight if copper finned coils, lb (kg)	284 (129)		284 (129)		288 (130)	
Compressors						
Type	Tandem scrolls		Tandem scrolls		Tandem scrolls	
Nominal tonnage of each compressor	7.5	7.5	8.5	8.5	8.5	10.0
No. of compressors per circuit	2	2	2	2	2	2
Oil charge per compressor, oz (g)	85 (2410)	85 (2410)	110 (3119)	110 (3119)	110 (3119)	110 (3119)
Capacity reduction steps–percent of compressor displacement						
Staging, 4 stages, circuit #1 in lead	0-25-50-75-100		0-25-50-75-100		0-23-50-73-100	
Staging, 4 stages, circuit #2 in lead	0-25-50-75-100		0-25-50-75-100		0-27-50-73-100	
Condensers–high efficiency fin and tube type with integral subcooling						
Coil face area, ft^2 (m^2)	26.3 (2.4)	26.3 (2.4)	26.3 (2.4)	26.3 (2.4)	44.1 (4.1)	44.1 (4.1)
Finned height × finned length, in (mm)	50 × 75.6 (1270 × 1920)	50 × 75.6 (1270 × 1920)	50 × 75.6 (1270 × 1920)	50 × 75.6 (1270 × 1920)	50 × 75.6 (1270 × 1920)	50 × 75.6 (1270 × 1920)
Fins per inch × rows deep	16 × 3	16 × 3	16 × 3	16 × 3	16 × 3	16 × 3
Pumpdown capacity, 90% full lb (kg)	40 (18)	40 (18)	40 (18)	40 (18)	40 (18)	47 (21)
Condenser fans–direct drive propeller type						
No. of fans/circuit–fan dia., in (mm)	4–30 (762)		4–30 (762)		4–30 (762)	
No. of motors–hp (kW)[2]	4–1.5 (1.1)		4–1.5 (1.1)		4–1.5 (1.1)	
Fan and motor rpm, 60 Hz	1140		1140		1140	
60 Hz fan tip speed, fpm (m/s)	8950 (45)		8950 (45)		8950 (45)	
60 Hz total unit airflow, cfm (L/s)	24,316 (11,478)		24,316 (11,478)		24,316 (11,478)	
Evaporator–brazed plate-to-plate						
No. of evaporators	1		1		1	
No. of refrigerant circuits	2		2		2	
Water volume, gallons (L)	2.01 (7.6)		2.01 (7.6)		2.22 (8.4)	
Maximum water pressure, psig (kPa)	653 (4502)		653 (4502)		653 (4502)	
Max. refrig. working pressure, psig (kPa)	653 (4502)		653 (4502)		653 (4502)	
Water inlet/outlet victaulic conn. in (mm)[3]	2.5 (65)		2.5 (65)		2.5 (65)	
Drain–NPT int, in (mm)[4]	Field Piping		Field Piping		Field Piping	
Vent–NPT int, in (mm)[4]	Field Piping		Field Piping		Field Piping	

1. Nominal capacity based on 95°F ambient air temperature and 54°F/44°F water range.
2. For all 380V/60 and 575V/60, hp = 2.0
3. Water connection shown is nominal pipe size.
4. Brazed plate evaporators do not have drain or vent connections integral to the heat exchanger. The connections must be installed in the field. Inlet and outlet piping as shown in Piping Section of Catalog 611.

AGZ 040D through 050D, Packaged, R-410A

Physical data	AGZ-D model number					
	040		045		050	
Basic data	**Circuit 1**	**Circuit 2**	**Circuit 1**	**Circuit 2**	**Circuit 1**	**Circuit 2**
Unit capacity @ AHRI conditions, tons (kW)[1]	38.0 (133.0)		43.0 (150.0)		48.0 (169.0)	
No. of refrigerant circuits	2		2		2	
Unit operating charge, R-410A, lb (kg)	39 (17)	39 (17)	44 (20)	44 (20)	50 (23)	50 (23)
Cabinet dimensions, L × W × H, in (mm)	94.4 × 88.0 × 100.4 (2398 × 2235 × 2550)		94.4 × 88.0 × 100.4 (2398 × 2235 × 2550)		94.4 × 88.0 × 100.4 (2398 × 2235 × 2550)	
Unit operating weight, lb (kg)	3285 (1490)		3445 (1563)		3525 (1599)	
Unit shipping weight, lb (kg)	3265 (1481)		3420 (1551)		3495 (1585)	
Add'l weight if copper finned coils, lb (kg)	288 (130)		476 (216)		476 (216)	
Compressors						
Type	Tandem scrolls		Tandem scrolls		Tandem scrolls	
Nominal tonnage of each compressor	10.0	10.0	11.5	11.5	13.0	13.0
No. of compressors per circuit	2	2	2	2	2	2
Oil charge per compressor, oz (g)	110 (3119)	110 (3119)	110 (3119)	110 (3119)	110 (3119)	110 (3119)
Capacity reduction steps–percent of compressor displacement						
Staging, 4 stages, circuit #1 in lead	0-25-50-75-100		0-25-50-75-100		0-25-50-75-100	
Staging, 4 stages, circuit #2 in lead	0-25-50-75-100		0-25-50-75-100		0-25-50-75-100	
Condensers–high efficiency fin and tube type with integral subcooling						
Coil face area, ft^2 (m^2)	44.1 (4.1)	44.1 (4.1)	44.1 (4.1)	44.1 (4.1)	44.1 (4.1)	44.1 (4.1)
Finned height × finned length, in (mm)	42 × 75.6 (1067 × 1920)	42 × 75.6 (1067 × 1920)	42 × 75.6 (1067 × 1920)	42 × 75.6 (1067 × 1920)	42 × 75.6 (1067 × 1920)	42 × 75.6 (1067 × 1920)
Fins per inch × rows deep	16 × 2	16 × 2	16 × 3	16 × 3	16 × 3	16 × 3
Pumpdown capacity, 90% full lb (kg)	47 (21)	47 (21)	69 (31)	69 (31)	69 (31)	69 (31)
Condenser fans–direct drive propeller type						
No. of fans/circuit–fan dia., in (mm)	4–30 (762)		4–30 (762)		4–30 (762)	
No. of motors–hp (kW)[2]	4–1.5 (1.1)		4–1.5 (1.1)		4–1.5 (1.1)	
Fan and motor rpm, 60 Hz	1140		1140		1140	
60 Hz fan tip speed, fpm (m/s)	8950 (45)		8950 (45)		8950 (45)	
60 Hz total unit airflow, cfm (L/s)	39,600 (18,692)		37,228 (17,572)		37,228 (17,572)	
Evaporator–brazed plate-to-plate						
No. of evaporators	1		1		1	
No. of refrigerant circuits	2		2		2	
Water volume, gallons (L)	2.43 (9.2)		2.85 (10.8)		3.28 (12.4)	
Maximum water pressure, psig (kPa)	653 (4502)		653 (4502)		653 (4502)	
Max. refrig. working pressure, psig (kPa)	653 (4502)		653 (4502)		653 (4502)	
Water inlet/outlet victaulic conn. in (mm)[3]	2.5 (65)		2.5 (65)		2.5 (65)	
Drain–NPT int, in (mm)[4]	Field Piping		Field Piping		Field Piping	
Vent–NPT int, in (mm)[4]	Field Piping		Field Piping		Field Piping	

1. Nominal capacity based on 95°F ambient air temperature and 54°F/44°F water range.
2. Except for 380V/60 and 575V/60, hp = 2.0.
3. Water connection shown is nominal pipe size.
4. Brazed plate evaporators do not have drain or vent connections integral to the heat exchanger. The connections must be installed in the field. Inlet and outlet piping as shown in Piping Section of Catalog 611.

AGZ 055D through 065D, Packaged, R-410A

Physical data	AGZ-D model number					
	055		060		065	
Basic data	**Circuit 1**	**Circuit 2**	**Circuit 1**	**Circuit 2**	**Circuit 1**	**Circuit 2**
Unit capacity @ AHRI conditions, tons (kW)[1]	52.0 (181.0)		56.0 (197.0)		58.0 (204.0)	
No. of refrigerant circuits	2		2		2	
Unit operating charge, R-410A, lb (kg)	52 (24)	52 (24)	54 (25)	54 (25)	58 (26)	58 (26)
Cabinet dimensions, L × W × H, in (mm)	94.4 × 88.0 × 100.4 (2398 × 2235 × 2550)		94.4 × 88.0 × 100.4 (2398 × 2235 × 2550)		94.4 × 88.0 × 100.4 (2398 × 2235 × 2550)	
Unit operating weight, lb (kg)	3555 (1613)		3680 (1670)		3715 (1683)	
Unit shipping weight, lb (kg)	3525 (1599)		3645 (1639)		3675 (1665)	
Add'l weight if copper finned coils, lb (kg)	476 (216)		568 (258)		568 (258)	
Compressors						
Type	Tandem scrolls		Tandem scrolls		Tandem scrolls	
Nominal tonnage of each compressor	13.0	15.0	15.0	15.0	15.0	15.0
No. of compressors per circuit	2	2	2	2	2	2
Oil charge per compressor, oz	110 (3119)	110 (3119)	110 (3119)	110 (3119)	110 (3119)	110 (3119)
Capacity Reduction Steps–percent of compressor displacement						
Staging, 4 stages, circuit #1 in lead	0-23-50-73-100		0-25-50-75-100		0-25-50-75-100	
Staging, 4 stages, circuit #2 in lead	0-27-50-77-100		0-25-50-75-100		0-25-50-75-100	
Condensers–high efficiency fin and tube type with integral subcooling						
Coil face area, ft^2 (m^2)	44.1 (4.1)	44.1 (4.1)	44.1 (4.1)	44.1 (4.1)	52.6 (4.9)	52.6 (4.9)
Finned height × finned length, in (mm)	42 × 75.6 (1067 × 1920)	42 × 75.6 (1067 × 1920)	42 × 75.6 (1067 × 1920)	42 × 75.6 (1067 × 1920)	50 × 75.6 (1270 × 1920)	50 × 75.6 (1270 × 1920)
Fins per inch × rows deep	16 × 3	16 × 3	16 × 3	16 × 3	16 × 3	16 × 3
Pumpdown capacity, 90% full lb (kg)	69 (31)	69 (31)	69 (31)	69 (31)	81 (37)	81 (37)
Condenser fans–direct drive propeller type						
No. of fans/circuit–fan dia., in (mm)	4–30 (762)		4–30 (762)		4–30 (762)	
No. of motors–hp (kW)[2]	4–1.5 (1.1)		4–1.5 (1.1)		4–2.0 (1.5)	
Fan and motor rpm, 60 Hz	1140		1140		1140	
60 Hz fan tip speed, fpm (m/s)	8950 (45)		8950 (45)		8950 (45)	
60 Hz total unit airflow, cfm (L/s)	37,228 (17,572)		43,452 (20,510)		43,452 (20,510)	
Evaporator–brazed plate-to-plate						
No. of evaporators	1		1		1	
No. of refrigerant circuits	2		2		2	
Water volume, gallons (L)	3.7 (14.0)		3.49 (13.2)		4.04 (15.3)	
Maximum water pressure, psig (kPa)	653 (4502)		653 (4502)		653 (4502)	
Max. refrig. working pressure, psig (kPa)	653 (4502)		653 (4502)		653 (4502)	
Water inlet / outlet victaulic conn., in (mm)[3]	2.5 (65)		3 (80)		3 (80)	
Drain–NPT int, in (mm)[4]	Field Piping		Field Piping		Field Piping	
Vent–NPT int, in (mm)[4]	Field Piping		Field Piping		Field Piping	

1. Nominal capacity based on 95°F ambient air temperature and 54°F/44°F water range.
2. Except for 380V/60 and 575V/60, hp = 2.0.
3. Water connection shown is nominal pipe size.
4. Brazed plate evaporators do not have drain or vent connections integral to the heat exchanger. The connections must be installed in the field. Inlet and outlet piping as shown in Piping Section of Catalog 611.

AGZ 070D through 080D, Packaged, R-410A

Physical data	AGZ-D model number					
	070		075		080	
Basic data	**Circuit 1**	**Circuit 2**	**Circuit 1**	**Circuit 2**	**Circuit 1**	**Circuit 2**
Unit capacity @ AHRI conditions, tons (kW)[1]	64.0 (225.0)		73.0 (257.0)		81.0 (285.0)	
No. of refrigerant circuits	2		2		2	
Unit operating charge, R-410A, lb (kg)	60 (27)	60 (27)	75 (34)	75 (34)	80 (36)	80 (36)
Cabinet dimensions, L × W × H, in (mm)	94.4 × 88.0 × 100.4 (2398 × 2235 × 2550)		134.9 × 88.0 × 100.4 (3426 × 2235 × 2550)		134.9 × 88.0 × 100.4 (3426 × 2235 × 2550)	
Unit operating weight, lb (kg)	4125 ((1869)		5470 (2478)		5565 (2521)	
Unit Shipping Weight, lb (kg)	4085 (1851)		5425 (2458)		5515 (2498)	
Add'l weight if copper finned Coils, lb (kg)	568 (258)		870 (395)		870 (395)	
Compressors						
Type	Tandem scrolls		Tandem scrolls		Tandem scrolls	
Nominal tonnage of each compressor	15.0 / 20.0	15.0 / 20.0	20.0	20.0	20.0	25.0
No. of compressors per circuit	2	2	2	2	2	2
Oil charge per compressor, oz (g)	110 (3119) 158 (4479)	110 (3119) 158 (4479)	158 (4479)	158 (4479)	158 (4479)	230 (6520)
Capacity reduction steps–percent of compressor displacement						
Staging, 4 stages, circuit #1 in lead	0-21-50-71-100		0-25-50-75-100		0-22-50-72-100	
Staging, 4 stages, circuit #2 in lead	0-28-50-78-100		0-25-50-75-100		0-28-50-78-100	
Condensers–high efficiency fin and tube type with integral subcooling						
Coil face area, ft^2 (m^2)	52.6 (4.9)	52.6 (4.9)	66.2 (6.1)	66.2 (6.1)	66.2 (6.1)	66.2 (6.1)
Finned height × finned length, in (mm)	50 × 75.6 (1270 × 1920)	50 × 75.6 (1270 × 1920)	42 × 113.4 (1069 × 2880)	42 × 113.4 (1069 × 2880)	42 × 113.4 (1067 × 2880)	42 × 113.4 (1067 × 2880)
Fins per inch × rows deep	16 × 3	16 × 3	16 × 3	16 × 3	16 × 3	16 × 3
Pumpdown capacity, 90% full, lb (kg)	81 (37)	81 (37)	111 (50)	111 (50)	111 (50)	111 (50)
Condenser fans–direct drive propeller type						
No. of fans/circuit–fan dia., in (mm)	4–30 (762)		6–30 (762)		6–30 (762)	
No. of motors–hp (kW)[2]	4–2.0 (1.5)		6–2.0 (1.5)		6–2.0 (1.5)	
Fan and motor rpm, 60 Hz	1140		1140		1140	
60 Hz fan tip speed, fpm (m/s)	8950 (45)		8950 (45)		8950 (45)	
60 Hz total unit airflow, cfm (L/s)	43,452 (20,510)		61,200 (28,888)		61,200 (28,888)	
Evaporator–brazed plate-to-plate						
No. of evaporators	1		1		1	
No. of refrigerant circuits	2		2		2	
Water volume, gallons (L)	4.76 (18.0)		5.47 (24.3)		6.18 (23.4)	
Maximum water pressure, psig (kPa)	653 (4502)		653 (4502)		653 (4502)	
Max. refrigerant working pressure, psig (kPa)	653 (4502)		653 (4502)		653 (4502)	
Water inlet/outlet victaulic conn., in (mm)[3]	3 (80)		3 (80)		3 (80)	
Drain–NPT int, in (mm)[4]	Field Piping		Field Piping		Field Piping	
Vent–NPT int, in (mm)[4]	Field Piping		Field Piping		Field Piping	

1. Nominal capacity based on 95°F ambient air temperature and 54°F/44°F water range.
2. Except for 380V/60 and 575V/60, hp = 2.0.
3. Water connection shown is nominal pipe size.
4. Brazed plate evaporators do not have drain or vent connections integral to the heat exchanger. The connections must be installed in the field. Inlet and outlet piping as shown in Piping Section of Catalog 611.

AGZ 090D through 110D, Packaged, R-410A

Physical data	AGZ-D model number					
	090		100		110	
Basic data	**Circuit 1**	**Circuit 2**	**Circuit 1**	**Circuit 2**	**Circuit 1**	**Circuit 2**
Unit capacity @ AHRI conditions, tons (kW)[1]	89.0 (314.0)		100.0 (351.0)		106.0 (373.0)	
No. of refrigerant circuits	2		2		2	
Unit operating charge, R-410A, lb (kg)	86 (39)	86 (39)	88 (40)	88 (40)	102 (46)	102 (46)
Cabinet dimensions, L × W × H, in (mm)	134.9 × 88.0 × 100.4 (3426 × 2235 × 2550)		134.9 × 88.0 × 100.4 (3426 × 2235 × 2550)		173.1 × 88.0 × 100.4 (4397 × 2235 × 2550)	
Unit operating weight, lb (kg)	5660 (2564)		5795 (2625)		7300 (3307)	
Unit shipping weight, lb (kg)	5605 (2539)		5730 (2596)		7230 (3275)	
Add'l weight if copper finned coils, lb (kg)	870 (395)		870 (395)		1155 (524)	
Compressors						
Type	Tandem scrolls		Tandem scrolls		Trio scrolls	
Nominal tonnage of each compressor	25.0	25.0	25.0 / 30.0	25.0 / 30.0	20.0	20.0
No. of compressors per circuit	2	2	2	2	3	3
Oil charge per compressor, oz (g)	230 (6520)	230 (6520)	230 (6520) 213 (6038)	230 (6520) 213 (6038)	158 (4479)	158 (4479)
Capacity reduction steps–percent of compressor displacement						
Staging, 4 stages, circuit #1 in lead	0-25-50-75-100		0-22-50-72-100		0-17-33-50-67-83-100	
Staging, 4 stages, circuit #2 in lead	0-25-50-75-100		0-22-50-72-100		0-17-33-50-67-83-100	
Condensers–high efficiency fin and tube type with integral subcooling						
Coil face area, ft^2 (m^2)	78.8 (7.3)	78.8 (7.3)	78.8 (7.3)	78.8 (7.3)	88.4 (8.2)	88.4 (8.2)
Finned height × finned length, in (mm)	50 × 113.4 (1270 × 2880)	50 × 113.4 (1270 × 2880)	50 × 113.4 (1270 × 2880)	50 × 113.4 (1270 × 2880)	42 × 151.6 (1069 × 3851)	42 × 151.6 (1069 × 3851)
Fins per inch × rows deep	16 × 3	16 × 3	16 × 3	16 × 3	16 × 3	16 × 3
Pumpdown capacity, 90% full, lb (kg)	130 (59)	130 (59)	130 (59)	130 (59)	142 (64)	142 (64)
Condenser fans–direct drive propeller type						
No. of fans/circuit–fan dia., in (mm)	6–30 (762)		6–30 (762)		8–30 (762)	
No. of motors–hp (kW)[2]	6–2.0 (1.5)		6–2.0 (1.5)		8–2.0 (1.5)	
Fan and motor rpm, 60 Hz	1140		1140		1140	
60 Hz fan tip speed, fpm (m/s)	8950 (45)		8950 (45)		8950 (45)	
60 Hz total unit airflow, cfm (L/s)	65,178 (30,765)		65,178 (30,765)		81,600 (38,517)	
Evaporator–brazed plate-to-plate						
No. of evaporators	1		1		1	
No. of refrigerant circuits	2		2		2	
Water volume, gallons (L)	6.66 (25.2)		7.85 (29.7)		8.32 (31.5)	
Maximum water pressure, psig (kpa)	653 (4502)		653 (4502)		653 (4502)	
Max. refrigerant working pressure, psig (kpa)	653 (4502)		653 (4502)		653 (4502)	
Water inlet/outlet victaulic connections, in (mm)[3]	3 (80)		3 (80)		3 (80)	
Drain–NPT int, in (mm)[4]	Field Piping		Field Piping		Field Piping	
Vent–NPT int, in (mm)[4]	Field Piping		Field Piping		Field Piping	

1. Nominal capacity based on 95°F ambient air temperature and 54°F/44°F water range.
2. Except for 380V/60 and 575V/60, hp = 2.0.
3. Water connection shown is nominal pipe size.
4. Brazed plate evaporators do not have drain or vent connections integral to the heat exchanger. The connections must be installed in the field. Inlet and outlet piping as shown in Piping Section of Catalog 611.

AGZ 125D through 140D, Packaged, R-410A

Physical data	AGZ-D model number					
	125		130		140	
Basic data	**Circuit 1**	**Circuit 2**	**Circuit 1**	**Circuit 2**	**Circuit 1**	**Circuit 2**
Unit capacity @ AHRI conditions, tons (kW)[1]	117.0 (412.0)		13.0 (456.0)		136.0 (479.0)	
No. of refrigerant circuits	2		2		2	
Unit operating charge, R-410A, lb (kg)	115 (52)	115 (52)	115 (52)	115 (52)	125 (57)	125 (57)
Cabinet dimensions, L × W × H, in (mm)	173.1 × 88.0 × 100.4 (4397 × 2235 × 2550)		173.1 × 88.0 × 100.4 (4397 × 2235 × 2550)		218.6 × 88.0 × 100.4 (5552 × 2235 × 2545)	
Unit operating weight, lb (kg)	7535 (3413)		7680 (3479)		9792 (4436)	
Unit shipping weight, lb (kg)	7455 (3377)		7590 (3438)		9310 (4217)	
Add'l weight if copper finned coils, lb (kg)	1155 (524)		1155 (524)		1596 (724)	
Compressors						
Type	Trio scrolls		Trio scrolls		Trio scrolls	
Nominal tonnage of each compressor	20.0	25.0	25.0	25.0	25.0	25.0
No. of compressors per circuit	3	3	3	3	3	3
Oil charge per compressor, oz (g)	158 (4479)	230 (6520)	230 (6520)	230 (6520)	230 (6520)	230 (6520)
Capacity reduction steps–percent of compressor displacement						
Staging, 6 stages, circuit #1 in lead	0-15-33-48-67-81-100		0-17-33-50-67-83-100		0-17-33-50-67-83-100	
Staging, 6 stages, circuit #2 in lead	0-19-33-52-67-86-100		0-17-33-50-67-83-100		0-17-33-50-67-83-100	
Condensers–high efficiency fin and tube type with integral subcooling						
Coil face area, ft^2 (m^2)	105.3 (9.8)	105.3 (9.8)	105.3 (9.8)	105.3 (9.8)	131.8 (12.2)	131.8 (12.2)
Finned height × finned length, in (mm)	50 × 151.6 (1270 × 3851)	50 × 151.6 (1270 × 3851)	50 × 151.6 (1270 × 3851)	50 × 151.6 (1270 × 3851)	50 × 190.0 (1270 × 4821)	50 × 190.0 (1270 × 4821)
Fins per inch × rows deep	16 × 3	16 × 3	16 × 3	16 × 3	16 × 3	16 × 3
Pumpdown capacity, 90% full lb (kg)	166 (75)	166 (75)	166 (75)	166 (75)	202 (92)	202 (92)
Condenser fans–direct drive propeller type						
No. of fans/circuit–fan dia., in (mm)	8–30 (762)		8–30 (762)		10–30 (762)	
No. of motors–hp (kW)[2]	8–2.0 (1.5)		8–2.0 (1.5)		10–2.0 (1.5)	
Fan and motor rpm, 60 Hz	1140		1140		1140	
60 Hz Fan tip speed, fpm (m/s)	8950 (45)		8950 (45)		8950 (45)	
60 Hz Total unit airflow, cfm (L/s)	86,904 (41,020)		86,904 (41,020)		108,630 (51,268)	
Evaporator–shell and tube						
No. of evaporators	1		1		1	
No. of refrigerant circuits	2		2		2	
Water volume, gallons (L)	9.51 (36.0)		10.7 (40.5)		60.0 (277.0)	
Maximum water pressure, psig (kPa)	653 (4502)		653 (4502)		152 (1048)	
Max. refrigerant working pressure, psig (kPa)	653 (4502)		653 (4502)		450 (3103)	
Water inlet/outlet victaulic connections, in (mm)[3]	3 (80)		3 (80)		8 (200)	
Drain–NPT int, in (mm)[4]	Field Piping		Field Piping		1/2-in NPTF	
Vent–NPT int, in (mm)[4]	Field Piping		Field Piping		1/2-in NPTF	

1. Nominal capacity based on 95°F ambient air temperature and 54°F/44°F water range.
2. Except for 380V/60 and 575V/60, hp = 2.0.
3. Water connection shown is nominal pipe size.
4. Brazed plate evaporators do not have drain or vent connections integral to the heat exchanger. The connections must be installed in the field. Inlet and outlet piping as shown in Piping Section of Catalog 611.

AGZ 160D through 190D, Packaged, R-410A

Physical data	AGZ-D model number					
	160		180		190	
Basic data	**Circuit 1**	**Circuit 2**	**Circuit 1**	**Circuit 2**	**Circuit 1**	**Circuit 2**
Unit capacity @ AHRI conditions, tons (kW)[1]	153.0 (539.0)		172.0 (605.0)		180.0 (633.0)	
No. of refrigerant circuits	2		2		2	
Unit operating charge, R-410A, lb (kg)	130 (59)	130 (59)	130 (59)	130 (59)	140 (64)	140 (64)
Cabinet dimensions, L × W × H, in (mm)	218.6 × 88.0 × 100.4 (5552 × 2235 × 2545)		218.6 × 88.0 × 100.4 (5552 × 2235 × 2545)		256.9 × 88.0 × 100.4 (6525 × 2235 × 2545)	
Unit operating weight, lb (kg)	9942 (4504)		10107 (4578)		11070 (5023)	
Unit shipping weight, lb (kg)	9460 (4285)		9625 (4360)		10585 (4803)	
Add'l weight if copper finned coils, lb (kg)	1596 (724)		1596 (724)		1915 (869)	
Compressors						
Type	Trio scrolls		Trio scrolls		Trio scrolls	
Nominal tonnage of each compressor	25.0	30.0	30.0	30.0	30.0	30.0
No. of compressors per circuit	3	3	3	3	3	3
Oil charge per compressor, oz (g)	230 (6520)	213 (6038)	213 (6038)	213 (6038)	213 (6038)	213 (6038)
Capacity reduction steps–percent of compressor displacement						
Staging, 6 stages, circuit #1 in lead	0-15-33-48-67-81-100		0-17-33-50-67-83-100		0-17-33-50-67-83-100	
Staging, 6 stages, circuit #2 in lead	0-19-33-52-67-86-100		0-17-33-50-67-83-100		0-17-33-50-67-83-100	
Condensers–high efficiency fin and tube type with integral subcooling						
Coil face area, ft^2 (m^2)	131.8 (12.2)	131.8 (12.2)	131.8 (12.2)	131.8 (12.2)	158.3 (14.7)	158.3 (14.7)
Finned height × finned length, in (mm)	50 × 190.0 (1270 × 4821)		50 × 190.0 (1270 × 4821)		50 × 228.0 (1270 × 5791)	
Fins per inch × rows deep	16 × 3	16 × 3	16 × 3	16 × 3	16 × 3	16 × 3
Pumpdown capacity, 90% full lb (kg)	202 (92)	202 (92)	202 (92)	202 (92)	242 (110)	242 (110)
Condenser fans–direct drive propeller type						
No. of fans/circuit–fan dia., in (mm)	10–30 (762)		10–30 (762)		12–30 (762)	
No. of motors–hp (kW)[2]	10–2.0 (1.5)		10–2.0 (1.5)		10–2.0 (1.5)	
Fan and motor rpm, 60 Hz	1140		1140		1140	
60 Hz Fan tip speed, fpm (m/s)	8950 (45)		8950 (45)		8950 (45)	
60 Hz Total unit airflow, cfm (L/s)	108,630 (51,268)		108,630 (51,268)		130,356 (61,522)	
Evaporator–shell and tube						
No. of evaporators	1		1		1	
No. of refrigerant circuits	2		2		2	
Water volume, gallons (L)	60 (227.0)		58 (219.0)		57 (215)	
Maximum water pressure, psig (kPa)	152 (1048)		152 (1048)		152 (1048)	
Max. refrigerant working pressure, psig (kPa)	450 (3103)		450 (3103)		450 (3103)	
Water inlet/outlet victaulic connections, in (mm)[3]	8 (200)		8 (200)		8 (200)	
Drain–NPT int, in[4]	1/2-in NPTF		1/2-in NPTF		1/2-in NPTF	
Vent–NPT int, in[4]	1/2-in NPTF		1/2-in NPTF		1/2-in NPTF	

1. Nominal capacity based on 95°F ambient air temperature and 54°F/44°F water range.
2. Except for 380V/60 and 575V/60, hp = 2.0.
3. Water connection shown is nominal pipe size.
4. Brazed plate evaporators do not have drain or vent connections integral to the heat exchanger. The connections must be installed in the field. Inlet and outlet piping as shown in Piping Section of Catalog 611.

AGZ Air-Cooled Scroll Compressor Chiller with Remote Evaporator—Physical Data

AGZ 030CB through 040CB, Remote Evaporator, R-410A

Physical data	AGZ model number					
	030CB		035CB		040CB	
Basic data	**Circuit 1**	**Circuit 2**	**Circuit 1**	**Circuit 2**	**Circuit 1**	**Circuit 2**
Unit capacity @ AHRI conditions, tons (kW)[1, 5]	31.5 (110.7)		34.1 (119.9)		37.1 (130.4)	
No. of refrigerant circuits	2		2		2	
Unit operating charge, R-410A, lb (kg)[4]	30 (13.6)	30 (13.6)	30 (13.6)	30 (13.6)	39 (17.7)	39 (17.7)
Cabinet dimensions, L × W × H, in (mm)	94.4 × 88.0 × 100.4 (2398 × 2235 × 2550)		94.4 × 88.0 × 100.4 (2398 × 2235 × 2550)		94.4 × 88.0 × 100.4 (2398 × 2235 × 2550)	
Unit operating weight, lb (kg)	3130 (1420)		3130 (1420)		3195 (1449)	
Unit shipping weight, lb (kg)	3070 (1393)		3070 (1393)		3115 (1413)	
Add'l weight if copper finned coils, lb (kg)	284 (129)		288 (130)		288 (130)	
Compressors						
Type	Tandem scrolls		Tandem scrolls		Tandem scrolls	
Nominal tonnage of each compressor	8.5	8.5	8.5	10.0	10.0	10.0
No. of compressors per circuit	2	2	2	2	2	2
Oil charge per compressor, oz (g)	110 (3119)	110 (3119)	110 (3119)	110 (3119)	110 (3119)	110 (3119)
Capacity reduction steps–percent of compressor displacement						
Staging, 4 stages, circuit #1 in lead	0-25-50-75-100		0-23-50-73-100		0-25-50-75-100	
Staging, 4 stages, circuit #2 in lead	0-25-50-75-100		0-27-50-73-100		0-25-50-75-100	
Condensers–high efficiency fin and tube type with integral subcooling						
Coil face area, ft^2 (m^2)	26.3 (2.4)	26.3 (2.4)	26.3 (2.4)	26.3 (2.4)	44.1 (4.1)	44.1 (4.1)
Finned height × finned length, in (mm)	50 × 75.6 (1270 × 1920)	50 × 75.6 (1270 × 1920)	50 × 75.6 (1270 × 1920)	50 × 75.6 (1270 × 1920)	42 × 75.6 (1067 × 1920)	42 × 75.6 (1067 × 1920)
Fins per inch × rows deep	16 × 3	16 × 3	16 × 3	16 × 3	16 × 2	16 × 2
Pumpdown capacity, 90% full lb (kg)	40 (18)	40 (18)	40 (18)	40 (18)	47 (21)	47 (21)
Condenser fans–direct drive propeller type						
No. of fans/circuit–fan dia., in (mm)	4–30 (762)		4–30 (762)		4–30 (762)	
No. of motors–hp (kW)[2]	4–1.5 (1.1)		4–1.5 (1.1)		4–1.5 (1.1)	
Fan and motor rpm, 60 Hz	1140		1140		1140	
60 Hz fan tip speed, fpm (m/s)	8950 (45)		8950 (45)		8950 (45)	
60 Hz total unit airflow, cfm (L/s)	24,316 (11,478)		39,600 (18,692)		39,600 (18,692)	
Remote evaporator–brazed plate-to-plate						
No. of evaporators	1		1		1	
No. of refrigerant circuits	2		2		2	
Evaporator model	ACH130-90DX		ACH130-102DQ		ACH130-118DQ	
Dry weight, lb (kg)	99 (45)		110 (50)		126 (57)	
Water volume, gallons (L)	1.9 (7.14)		2.2 (8.3)		2.4 (9.1)	
Maximum water pressure, psig (kPa)	653 (4502)		653 (4502)		653 (4502)	
Max. refrig. working pressure, psig (kPa)	653 (4502)		653 (4502)		653 (4502)	
Water inlet/outlet victaulic conn. in (mm)[3]	2.5 (65)		2.5 (65)		2.5 (65)	
Drain–NPT int, in (mm)	Field Piping		Field Piping		Field Piping	
Vent–NPT int, in (mm)	Field Piping		Field Piping		Field Piping	

1. Nominal capacity based on 95°F ambient air temperature and 54°F/44°F water range.
2. Except for 380V/60 and 575V/60, hp = 2.0.
3. Water connection shown is nominal pipe size.
4. Units shipped with a holding charge. Operating charge quantity shown must have field piping charge added.
5. Length of interconnecting field piping affects unit performance.

AGZ 045CB through 060CB, Remote Evaporator, R-410A

Physical data	AGZ model number							
	045CB		050CB		055CB		060CB	
Basic data	**Circuit 1**	**Circuit 2**	**Circuit 1**	**Circuit 2**	**Circuit 1**	**Circuit 2**	**Circuit 1**	**Circuit 2**
Unit capacity @ AHRI conditions, tons (kW)[1, 5]	42.1 (148.0)		47.6 (167.4)		51.4 (180.7)		55.1 (193.7)	
No. of refrigerant circuits	2		2		2		2	
Unit operating charge, R-410A, lb (kg)[4]	47 (21)	47 (21)	50 (23)	50 (23)	52 (24)	52 (24)	54 (25)	54 (25)
Cabinet dimensions, L × W × H, in (mm)	94.4 × 88.0 × 100.4 (2398 × 2235 × 2550)		94.4 × 88.0 × 100.4 (2398 × 2235 × 2550)		94.4 × 88.0 × 100.4 (2398 × 2235 × 2550)		94.4 × 88.0 × 100.4 (2398 × 2235 × 2550)	
Unit operating weight, lb (kg)	3360 (1524)		3380 (1533)		3410 (1547)		3430 (1556)	
Unit shipping weight, lb (kg)	3260 (1479)		3280 (1488)		3300 (1497)		3320 (1506)	
Add'l weight if copper finned coils, lb (kg)	476 (216)		476 (216)		476 (130)		568 (258)	
Compressors								
Type	Tandem scrolls		Tandem scrolls		Tandem scrolls		Tandem scrolls	
Nominal tonnage of each compressor	11.5	11.5	13.0	13.0	13.0	15.0	15.0	15.0
No. of compressors per circuit	2	2	2	2	2	2	2	2
Oil charge per compressor, oz	110 (3119)	110 (3119)	110 (3119)	110 (3119)	110 (3119)	110 (3119)	110 (3119)	110 (3119)
Capacity Reduction Steps–percent of compressor displacement								
Staging, 4 stages, circuit #1 in lead	0-25-50-75-100		0-25-50-75-100		0-23-50-73-100		0-25-50-75-100	
Staging, 4 stages, circuit #2 in lead	0-25-50-75-100		0-25-50-75-100		0-27-50-77-100		0-25-50-75-100	
Condensers–high efficiency fin and tube type with integral subcooling								
Coil face area, ft^2 (m^2)	44.1 (4.1)	44.1 (4.1)	44.1 (4.1)	44.1 (4.1)	44.1 (4.1)	44.1 (4.1)	44.1 (4.1)	44.1 (4.1)
Finned height × finned length, in (mm)	42 × 75.6 (1067 × 1920)	42 × 75.6 (1067 × 1920)	42 × 75.6 (1067 × 1920)	42 × 75.6 (1067 × 1920)	42 × 75.6 (1067 × 1920)	42 × 75.6 (1067 × 1920)	42 × 75.6 (1067 × 1920)	42 × 75.6 (1067 × 1920)
Fins per inch × rows deep	16 × 3	16 × 3	16 × 3	16 × 3	16 × 3	16 × 3	16 × 3	16 × 3
Pumpdown capacity, 90% full lb (kg)	69 (31)	69 (31)	69 (31)	69 (31)	69 (31)	69 (31)	69 (31)	69 (31)
Condenser fans–direct drive propeller type								
No. of fans/circuit–fan dia., in (mm)	4–30 (762)		4–30 (762)		4–30 (762)		4–30 (762)	
No. of motors–hp (kW)[2]	4–1.5 (1.1)		4–1.5 (1.1)		4–1.5 (1.1)		4–1.5 (1.1)	
Fan and motor rpm, 60 Hz	1140		1140		1140		1140	
60 Hz fan tip speed, fpm (m/s)	8950 (45)		8950 (45)		8950 (45)		8950 (45)	
60 Hz total unit airflow, cfm (L/s)	39,600 (18,692)		39,600 (18,692)		37,228 (17,572)		43,452 (20,510)	
Remote evaporator–brazed plate-to-plate								
No. of evaporators	1		1		1		1	
No. of refrigerant circuits	2		2		2		2	
Evaporator model	ACH130-138DQ		ACH130-158DQ		ACH130-178DQ		ACH250-110DQ	
Dry weight, lb (kg)	146 (66)		165 (75)		183 (83)		229 (104)	
Water volume, gallons (L)	2.9 (11.0)		3.4 (12.8)		3.7 (14.0)		5.8 (22.1)	
Maximum water pressure, psig (kPa)	653 (4502)		653 (4502)		653 (4502)		653 (4502)	
Max. refrig. working pressure, psig (kPa)	653 (4502)		653 (4502)		653 (4502)		653 (4502)	
Water inlet / outlet victaulic conn., in (mm)[3]	2.5 (65)		2.5 (65)		2.5 (65)		3 (80)	
Drain–NPT int, in (mm)	Field Piping		Field Piping		Field Piping		Field Piping	
Vent–NPT int, in (mm)	Field Piping		Field Piping		Field Piping		Field Piping	

1. Nominal capacity based on 95°F ambient air temperature and 54°F/44°F water range.
2. Except for 380V/60 and 575V/60, hp = 2.0.
3. Water connection shown is nominal pipe size.
4. Units shipped with a holding charge. Operating charge quantity shown must have field piping charge added.
5. Length of interconnecting field piping affects unit performance.

AGZ 065CB through 075CB, Remote Evaporator, R-410A

Physical data	AGZ model number					
	065CB		070CB		075CB	
Basic data	**Circuit 1**	**Circuit 2**	**Circuit 1**	**Circuit 2**	**Circuit 1**	**Circuit 2**
Unit capacity @ AHRI conditions, tons (kW)[1, 5]	57.1 (200.8)		62.3 (219.1)		71.6 (251.7)	
No. of refrigerant circuits	2		2		2	
Unit operating charge, R-410A, lb (kg)[4]	58 (26)	58 (26)	60 (27)	60 (27)	80 (36)	80 (36)
Cabinet dimensions, L × W × H, in (mm)	94.4 × 88.0 × 100.4 (2398 × 2235 × 2550)		94.4 × 88.0 × 100.4 (2398 × 2235 × 2550)		134.9 × 88.0 × 100.4 (3426 × 2235 × 2550)	
Unit operating weight, lb (kg)	3470 (1574)		3700 (1678)		5510 (2499)	
Unit shipping weight, lb (kg)	3350 (1520)		3580 (1624)		5460 (2477)	
Add'l weight if copper finned Coils, lb (kg)	568 (258)		568 (258)		870 (395)	
Compressors						
Type	Tandem scrolls		Tandem scrolls		Tandem scrolls	
Nominal tonnage of each compressor	15.0	15.0	15.0 / 20.0	15. / 20.0	20.0	20.0
No. of compressors per circuit	2	2	2	2	2	2
Oil charge per compressor, oz (g)	110 (3119)	110 (3119)	110 (3119) 158 (4479)	110 (3119) 158 (4479)	158 (4479)	158 (4479)
Capacity reduction steps–percent of compressor displacement						
Staging, 4 stages, circuit #1 in lead	0-25-50-75-100		0-25-50-75-100		0-25-50-75-100	
Staging, 4 stages, circuit #2 in lead	0-25-50-75-100		0-25-50-75-100		0-25-50-75-100	
Condensers–high efficiency fin and tube type with integral subcooling						
Coil face area, ft^2 (m^2)	52.6 (4.9)	52.6 (4.9)	52.6 (4.9)	52.6 (4.9)	66.2 (6.1)	66.2 (6.1)
Finned height × finned length, in (mm)	50 × 75.6 (1270 × 1920)	50 × 75.6 (1270 × 1920)	50 × 75.6 (1270 × 1920)	50 × 75.6 (1270 × 1920)	42 × 113.4 (1069 × 2880)	42 × 113.4 (1069 × 2880)
Fins per inch × rows deep	16 × 3	16 × 3	16 × 3	16 × 3	16 × 3	16 × 3
Pumpdown capacity, 90% full, lb (kg)	81 (37)	81 (37)	81 (37)	81 (37)	111 (50)	111 (50)
Condenser fans–direct drive propeller type						
No. of fans/circuit–fan dia., in (mm)	4–30 (762)		4–30 (762)		6–30 (762)	
No. of motors–hp (kW)[2]	4–2.0 (1.5)		4–2.0 (1.5)		6–2.0 (1.5)	
Fan and motor rpm, 60 Hz	1140		1140		1140	
60 Hz fan tip speed, fpm (m/s)	8950 (45)		8950 (45)		8950 (45)	
60 Hz total unit airflow, cfm (L/s)	43,452 (20,510)		43,452 (20,510)		65,178 (30,765)	
Remote evaporator–brazed plate-to-plate						
No. of evaporators	1		1		1	
No. of refrigerant circuits	2		2		2	
Evaporator model	ACH250-122DQ		ACH250-122DQ		ACH350-118DQ	
Dry weight, lb (kg)	251 (114)		251 (114)		243 (110)	
Water volume, gallons (L)	6.4 (24.3)		6.4 (24.3)		6.4 (24.3)	
Maximum water pressure, psig (kPa)	653 (4502)		653 (4502)		653 (4502)	
Max. refrigerant working pressure, psig (kPa)	653 (4502)		653 (4502)		653 (4502)	
Water inlet/outlet victaulic conn., in (mm)[3]	3 (80)		3 (80)		3 (80)	
Drain–NPT int, in (mm)	Field Piping		Field Piping		Field Piping	
Vent–NPT int, in (mm)	Field Piping		Field Piping		Field Piping	

1. Nominal capacity based on 95°F ambient air temperature and 54°F/44°F water range.
2. Except for 380V/60 and 575V/60, hp = 2.0.
3. Water connection shown is nominal pipe size.
4. Units shipped with a holding charge. Operating charge quantity shown must have field piping charge added.
5. Length of interconnecting field piping affects unit performance.

AGZ 080CB through 100CB, Remote Evaporator, R-410A

Physical data	AGZ model number					
	080CB		090CB		100CB	
Basic data	**Circuit 1**	**Circuit 2**	**Circuit 1**	**Circuit 2**	**Circuit 1**	**Circuit 2**
Unit capacity @ AHRI conditions, tons (kW)[1, 5]	79.5 (279.5)		86.3 (303.4)		97.8 (343.6)	
No. of refrigerant circuits	2		2		2	
Unit operating charge, R-410A, lb (kg)[4]	80 (36)	80 (36)	86 (39)	86 (39)	88 (40)	88 (40)
Cabinet dimensions, L × W × H, in (mm)	134.9 × 88.0 × 100.4 (3426 × 2235 × 2550)		134.9 × 88.0 × 100.4 (3426 × 2235 × 2550)		134.9 × 88.0 × 100.4 (3426 × 2235 × 2550)	
Unit operating weight, lb (kg)	5320 (2413)		5390 (2445)		5480 (2486)	
Unit shipping weight, lb (kg)	5160 (2341)		5220 (2368)		5300 (2404)	
Add'l weight if copper finned coils, lb (kg)	870 (395)		870 (395)		870 (395)	
Compressors						
Type	Tandem scrolls		Tandem scrolls		Tandem scrolls	
Nominal tonnage of each compressor	20.0	25.0	25.0	25.0	25.0 / 30.0	25.0 / 30.0
No. of compressors per circuit	2	2	2	2	2	2
Oil charge per compressor, oz (g)	158 (4479)	230 (6520)	230 (6520)	230 (6520)	230 (6520) 213 (6038)	230 (6520) 213 (6038)
Capacity reduction steps–percent of compressor displacement						
Staging, 4 stages, circuit #1 in lead	0-22-50-72-100		0-25-50-75-100		0-22-50-72-100	
Staging, 4 stages, circuit #2 in lead	0-28-50-78-100		0-25-50-75-100		0-22-50-72-100	
Condensers–high efficiency fin and tube type with integral subcooling						
Coil face area, ft^2 (m^2)	66.2 (6.1)	66.2 (6.1)	78.8 (7.3)	78.8 (7.3)	78.8 (7.3)	78.8 (7.3)
Finned height × finned length, in (mm)	42 × 113.4 (1067 × 2880)	42 × 113.4 (1067 × 2880)	50 × 113.4 (1270 × 2880)	50 × 113.4 (1270 × 2880)	50 × 113.4 (1270 × 2880)	50 × 113.4 (1270 × 2880)
Fins per inch × rows deep	16 × 3	16 × 3	16 × 3	16 × 3	16 × 3	16 × 3
Pumpdown capacity, 90% full, lb (kg)	111 (50)	111 (50)	130 (59)	130 (59)	130 (59)	130 (59)
Condenser fans–direct drive propeller type						
No. of fans/circuit–fan dia., in (mm)	6–30 (762)		6–30 (762)		6–30 (762)	
No. of motors–hp (kW)[2]	6–2.0 (1.5)		6–2.0 (1.5)		6–2.0 (1.5)	
Fan and motor rpm, 60 Hz	1140		1140		1140	
60 Hz fan tip speed, fpm (m/s)	8950 (45)		8950 (45)		8950 (45)	
60 Hz total unit airflow, cfm (L/s)	65,178 (30,765)		65,178 (30,765)		65,178 (30,765)	
Remote evaporator–brazed plate-to-plate						
No. of evaporators	1		1		1	
No. of refrigerant circuits	2		2		2	
Evaporator model	ACH350-126DQ		ACH350-150DQ		ACH350-162DQ	
Dry weight	258 (117)		287 (130)		324 9147)	
Water volume, gallons (L)	6.6 (24.9)		7.5 (28.4)		8.0 (30.2)	
Maximum water pressure, psig (kpa)	653 (4502)		653 (4502)		653 (4502)	
Max. refrigerant working pressure, psig (kpa)	653 (4502)		653 (4502)		653 (4502)	
Water inlet/outlet victaulic connections, in (mm)[3]	3 (80)		3 (80)		3 (80)	
Drain–NPT int, in (mm)	Field Piping		Field Piping		Field Piping	
Vent–NPT int, in (mm)	Field Piping		Field Piping		Field Piping	

1. Nominal capacity based on 95°F ambient air temperature and 54°F/44°F water range.
2. Except for 380V/60 and 575V/60, hp = 2.0.
3. Water connection shown is nominal pipe size.
4. Units shipped with a holding charge. Operating charge quantity shown must have field piping charge added.
5. Length of interconnecting field piping affects unit performance.

AGZ 110CB through 130CB, Remote Evaporator, R-410A

Physical data	AGZ model number					
	110CB		125CB		130CB	
Basic data	**Circuit 1**	**Circuit 2**	**Circuit 1**	**Circuit 2**	**Circuit 1**	**Circuit 2**
Unit capacity @ AHRI conditions, tons (kW)[1, 5]	104.2 (366.0)		114.3 (402)		124.7 (438)	
No. of refrigerant circuits	2		2		2	
Unit operating charge, R-410A, lb (kg)[4]	102 (46)	102 (46)	115 (52)	115 (52)	115 (52)	115 (52)
Cabinet dimensions, L × W × H, in (mm)	173.1 × 88.0 × 100.4 (4397 × 2235 × 2550)		173.1 × 88.0 × 100.4 (4397 × 2235 × 2550)		173.1 × 88.0 × 100.4 (4397 × 2235 × 2550)	
Unit operating weight, lb (kg)	6035 (2737)		6215 (2819)		6315 (2864)	
Unit shipping weight, lb (kg)	5830 (2644)		5995 (2719)		6085 (2760)	
Add'l weight if copper finned coils, lb (kg)	1155 (524)		1155 (524)		1155 (524)	
Compressors						
Type	Trio scrolls		Trio scrolls		Trio scrolls	
Nominal tonnage of each compressor	20.0	20.0	20.0	25.0	25.0	25.0
No. of compressors per circuit	3	3	3	3	3	3
Oil charge per compressor, oz (g)	158 (4479)	158 (4479)	158 (4479)	230 (6520)	230 (6520)	230 (6520)
Capacity reduction steps–percent of compressor displacement						
Staging, 6 stages, circuit #1 in lead	0-17-33-50-67-83-100		0-15-33-48-67-81-100		0-17-33-50-67-83-100	
Staging, 6 stages, circuit #2 in lead	0-17-33-50-67-83-100		0-19-33-52-67-86-100		0-17-33-50-67-83-100	
Condensers–high efficiency fin and tube type with integral subcooling						
Coil face area, ft^2 (m^2)	88.4 (8.2)	88.4 (8.2)	105.3 (9.8)	105.3 (9.8)	105.3 (9.8)	105.3 (9.8)
Finned height × finned length, in (mm)	42 × 151.6 (1069 × 3851)	42 × 151.6 (1069 × 3851)	50 × 151.6 (1270 × 3851)	50 × 151.6 (1270 × 3851)	50 × 151.6 (1270 × 3851)	50 × 151.6 (1270 × 3851)
Fins per inch × rows deep	16 × 3	16 × 3	16 × 3	16 × 3	16 × 3	16 × 3
Pumpdown capacity, 90% full lb (kg)	142 (64)	142 (64)	166 (75)	166 (75)	166 (75)	166 (75)
Condenser fans–direct drive propeller type						
No. of fans/circuit–fan dia., in (mm)	8–30 (762)		8–30 (762)		8–30 (762)	
No. of motors–hp (kW)[2]	8–2.0 (1.5)		8–2.0 (1.5)		8–2.0 (1.5)	
Fan and motor rpm, 60 Hz	1140		1140		1140	
60 Hz Fan tip speed, fpm (m/s)	8950 (45)		8950 (45)		8950 (45)	
60 Hz Total unit airflow, cfm (L/s)	86,904 (41,020)		86,904 (41,020)		86,904 (41,020)	
Remote evaporator–shell and tube						
No. of evaporators	1		1		1	
No. of refrigerant circuits	2		2		2	
Evaporator model	ACH350-162DQ		ACH350-182DQ		ACH350-210DQ	
Dry weight, lb (kg)	324 (147)		359 (163)		410 (186)	
Water volume, gallons (L)	8.5 (32.1)		9.6 (36.3)		10.5 (39.7)	
Maximum water pressure, psig (kPa)	653 (4502)		653 (4502)		653 (4502)	
Max. refrigerant working pressure, psig (kPa)	653 (4502)		653 (4502)		653 (4502)	
Water inlet/outlet victaulic connections, in (mm)[3]	3 (80)		3 (80)		3 (80)	
Drain–NPT int, in (mm)	Field Piping		Field Piping		Field Piping	
Vent–NPT int, in (mm)	Field Piping		Field Piping		Field Piping	

1. Nominal capacity based on 95°F ambient air temperature and 54°F/44°F water range.
2. Except for 380V/60 and 575V/60, hp = 2.0.
3. Water connection shown is nominal pipe size.
4. Units shipped with a holding charge. Operating charge quantity shown must have field piping charge added.
5. Length of interconnecting field piping affects unit performance.

AGZ 140CB through 190CB, Remote Evaporator, R-410A

Physical data	AGZ model number							
	140CB		160CB		180CB		190CB	
Basic data	**Circuit 1**	**Circuit 2**	**Circuit 1**	**Circuit 2**	**Circuit 1**	**Circuit 2**	**Circuit 1**	**Circuit 2**
Unit capacity @ AHRI conditions, tons (kW)[1, 5]	133.7 (470.0)		151.5 (533)		169.3 (595)		180.1 (633)	
No. of refrigerant circuits	2		2		2		2	
Unit operating charge, R-410A, lb (kg)[4]	125 (57)	125 (57)	130 (59)	130 (59)	130 (59)	130 (59)	140 (64)	140 (64)
Cabinet dimensions, L × W × H, in (mm)	218.6 × 88.0 × 100.4 (5552 × 2235 × 2545)		218.6 × 88.0 × 100.4 (5552 × 2235 × 2545)		218.6 × 88.0 × 100.4 (5552 × 2235 × 2545)		256.9 × 88.0 × 100.4 (6525 × 2235 × 2545)	
Unit operating weight, lb (kg)	8380 (3801)		8510 (3860)		8630 (3915)		10,170 (4614)	
Unit shipping weight, lb (kg)	8120 (3683)		8240 (3738)		8350 (3788)		9685 (4394)	
Add'l weight if copper finned coils, lb (kg)	1596 (724)		1596 (724)		1596 (724)		1915 (869)	
Compressors								
Type	Trio scrolls		Trio scrolls		Trio scrolls		Trio scrolls	
Nominal tonnage of each compressor	25.0	25.0	25.0	30.0	30.0	30.0	30.0	30.0
No. of compressors per circuit	3	3	3	3	3	3	3	3
Oil charge per compressor, oz (g)	230 (6520)	230 (6520)	230 (6520)	213 (6038)	213 (6038)	213 (6038)	213 (6038)	213 (6038)
Capacity reduction steps–percent of compressor displacement								
Staging, 6 stages, circuit #1 in lead	0-17-33-50-67-83-100		0-15-33-48-67-81-100		0-17-33-50-67-83-100		0-17-33-50-67-83-100	
Staging, 6 stages, circuit #2 in lead	0-17-33-50-67-83-100		0-19-33-52-67-86-100		0-17-33-50-67-83-100		0-17-33-50-67-83-100	
Condensers–high efficiency fin and tube type with integral subcooling								
Coil face area, ft^2 (m^2)	131.8 (12.2)		131.8 (12.2)		131.8 (12.2)		158.3 (14.7)	
Finned height × finned length, in (mm)	50 × 190.0 (1270 × 4821)		50 × 190.0 (1270 × 4821)		50 × 190.0 (1270 × 4821)		50 × 228.0 (1270 × 5791)	
Fins per inch × rows deep	16 × 3	16 × 3	16 × 3	16 × 3	16 × 3	16 × 3	16 × 3	16 × 3
Pumpdown capacity, 90% full lb (kg)	202 (92)	202 (92)	202 (92)	202 (92)	202 (92)	202 (92)	242 (110)	242 (110)
Condenser fans–direct drive propeller type								
No. of fans/circuit–fan dia., in (mm)	10–30 (762)		10–30 (762)		10–30 (762)		12–30 (762)	
No. of motors–hp (kW)[2]	10–2.0 (1.5)		10–2.0 (1.5)		10–2.0 (1.5)		12–2.0 (1.5)	
Fan and motor rpm, 60 Hz	1140		1140		1140		1140	
60 Hz Fan tip speed, fpm (m/s)	8950 (45)		8950 (45)		8950 (45)		8950 (45)	
60 Hz Total unit airflow, cfm (L/s)	108,630 (51,268)		108,630 (51,268)		108,630 (51,268)		130,356 (61,522)	
Remote evaporator–shell and tube								
No. of evaporators	1		1		1		1	
No. of refrigerant circuits	2		2		2		2	
Evaporator model	EV34191111NX/9		EV34191111NX/9		EV34191111NX/9		EV34191212NX/7	
Dry weight, lb (kg)	870 (395)		870 (395)		870 (395)		900 (408)	
Water volume, gallons (L)	58 (219.0)		58 (219.0)		58 (219.0)		57 (215.7)	
Maximum water pressure, psig (kPa)	152 (1048)		152 (1048)		152 (1048)		152 (1048)	
Max. refrigerant working pressure, psig (kPa)	450 (3103)		450 (3103)		450 (3103)		450 (3103)	
Water inlet/outlet victaulic connections, in (mm)[3]	8 (200)		8 (200)		8 (200)		8 (200)	
Drain–NPT int, in	1/2-in NPTF		1/2-in NPTF		1/2-in NPTF		1/2-in NPTF	
Vent–NPT int, in (mm)	1/2-in NPTF		1/2-in NPTF		1/2-in NPTF		1/2-in NPTF	

1. Nominal capacity based on 95°F ambient air temperature and 54°F/44°F water range.
2. Except for 380V/60 and 575V/60, hp = 2.0.
3. Water connection shown is nominal pipe size.
4. Units shipped with a holding charge. Operating charge quantity shown must have field piping charge added.
5. Length of interconnecting field piping affects unit performance.

Daikin McQuay Pathfinder™ Air-Cooled Screw Compressor Chillers—150 to 530 Tons

- Three levels of efficiency: *Standard, High* and *Premium*
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Pathfinder Chiller wth VFD - 150 to 530 tons, Model AWS, R-134a

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175 to 530 tons,
Model AWS, R-134a

Which Pathfinder Chiller is right for your system?

	Standard Efficiency	Standard Efficiency with VFD	High Efficiency	High Efficiency with VFD	Premium Efficiency	Premium Efficiency with VFD
Capacity (tons)	175 to 530	150 to 190	210 to 530		210 to 350	
Sound pressure (dBA) with no attentuation*	65 to 70	65 to 66	68 to 72		69 to 70	
Power	60 Hz, 50 Hz	60 Hz	60 Hz, 50 Hz		60 Hz	
Part load (IPLV, EER)	13.1 to 13.5	16.4	13.4 to 14.1	18.2 to 18.8	14.4 to 15.1	19.2 to 19.4
Full load (EER)	9.6 to 9.8	9.6 to 9.8	10.2 to 10.8	9.6 to 10.3	11.1 to 11.6	10.8 to 11.3
Small unit footprint	Best	Best	Best	Better	Better	Good
First cost	Best	Good	Better	Good	Better	Good
Life cycle cost	Good	Best	Better	Better	Best	Best
Full load optimization	Good	Good	Better	Better	Best	Better
Part load optimization	Good	Best	Better	Best	Better	Best
Integration options	BACnet, LonWorks or Modbus communications					

* Per AHRI Standard 370.Pathfinder Model AWS Air-Cooled Packaged Chiller, Standard Efficiency—Physical Data

AWS 175ADS through AWS 210ADS, Packaged, Standard Efficiency, R-134a, Non-VFD ModelsAWS

Data	AWS175ADS Std Eff		AWS190ADS Std Eff		AWS210ADS Std Eff	
	Circuit 1	Circuit 2	Circuit 1	Circuit 2	Circuit 1	Circuit 2
Unit cap. @ AHRI tons (kW)	173 (608)		196 (690)		216 (70)	
Unit operating charge lb (kg)	145 (66)	145 (66)	165 (75)	165 (75)	175 (79)	175 (79)
Unit dimensions L × W × H, in (mm)	245 x 88 x 100 (6220 x 2225 x 2548)		245 x 88 x 100 (6220 x 2225 x 2548)		245 x 88 x 100 (6220 x 2225 x 2548)	
Unit operating weight, lb (kg)	12,950 (5874)		13,673 (6202)		14,208 (6445)	
Unit shipping weight, lb (kg)	12,407 (5628)		13,130 (5956)		13,665 (6198)	
Weight-add for copper fins	1786 (810)		1786 (810)		1786 (810)	
Weight-add for louvered panels	676 (307)		788 (357)		788 (357)	
Weight-add for sound enclosures	477 (216)		477 (216)		477 (216)	
Weight-add for PFCC options	160 (73)		160 (73)		160 (73)	
Compressors, Screw, Semi-Hermetic						
Nominal capacity, tons (kW)	90 (316)	90 (316)	90 (316)	100 (351)	100 (351)	100 (351)
Minimum capacity (% of full load)	15		15		15	
Oil charge per circuit, gallons (liters)	4.5 (17)	4.5 (17)	4.5 (17)	5.5 (21)	5.5 (21)	5.5 (21)
Condensers, High Efficiency Fin and Tube Type						
Pumpdown capacity, lb (kg)	208 (94)	208 (94)	250 (113)	250 (113)	250 (113)	250 (113)
Coil inlet face area, ft^2 (m^2)	123.1 (11.4)	123.1 (11.4)	147.7 (13.7)	147.7 (13.7)	147.7 (13.7)	147.7 (13.7)
Rows deep/fins per inch	3 / 16	3 / 16	3 / 16	3 / 16	3 / 16	3 / 16
Condenser Fans, Direct Drive Propeller Type						
No. of fans/circuit–fan dia., in (mm)	5–31.5 (800)		6–31.5 (800)		6–31.5 (800)	
Fan motors–hp (kW) / rpm	1.4 (1.05) / 850		1.4 (1.05) / 850		1.4 (1.05) / 850	
Fan tip speed, fpm (m/s)	6984 (35)		6984 (35)		6984 (35)	
Airflow, cfm (L/s)	110,850 (52,315)		133,020 (62,778)		133,020 (62,778)	
Evaporator, Direct Expansion Shell and Tube						
Shell dia. tube length, in (mm)	16 x 406 (406 x 2750)		16 x 108 (406 x 2750)		16 x 108 (406 x 2750)	
Water volume, gallons (L)	67 (255)		67 (255)		63 (240)	
Victaulic inlet/outlet conn. in. (mm)	6 (168)		6 (168)		6 (168)	
Max. water / refrig. pressure, psi (kPa)	152 (1048) / 325 (2241)		152 (1048) / 325 (2241)		152 (1048) / 325 (2241)	

230ADS through AWS 280ADS, Packaged, Standard Efficiency, R-134a, Non-VFD Models

Data	AWS230ADS Std Eff		AWS250ADS Std Eff		AWS280ADS Std Eff	
	Circuit 1	Circuit 2	Circuit 1	Circuit 2	Circuit 1	Circuit 2
Unit cap. @ AHRI tons (kW)	230 (808)		253 (888)		274 (962)	
Unit operating charge lb (kg)	195 (88)	210 (95)	210 (95)	210 (95)	230 (104)	245 (111)
Unit dimensions L × W × H, in (mm)	280 x 88 x 100 (7121 x 2225 x 2548)		280 x 88 x 100 (7121 x 2225 x 2548)		316 x 88 x 100 (8022 x 2225 x 2548)	
Unit operating weight, lb (kg)	15,381 (6977)		15,669 (7107)		17,012 (7717)	
Unit shipping weight, lb (kg)	14,838 (6730)		15,126 (6861)		16,145 (7323)	
Weight-add for copper fins	2084 (945)		2084 (945)		2372 (1076)	
Weight-add for louvered panels	900 (408)		900 (408)		1012 (459)	
Weight-add for sound enclosures	477 (216)		477 (216)		477 (216)	
Weight-add for PFCC options	160 (73)		160 (73)		160 (73)	
Compressors, Screw, Semi-Hermetic						
Nominal capacity, tons (kW)	100 (351)	125 (439)	125 (439)	125 (439)	125 (439)	150 (528)
Minimum capacity (% of full load)	15		15		15	
Oil charge per circuit, gallons (liters)	5.5 (21)	5.5 (21)	5.5 (21)	5.5 (21)	5.5 (21)	6 (23)
Condensers, High Efficiency Fin and Tube Type						
Pumpdown capacity, lb (kg)	291 (132)	291 (132)	291 (132)	291 (132)	333 (151)	333 (151)
Coil inlet face area, ft^2 (m^2)	172.3 (16.0)	172.3 (16.0)	172.3 (16.0)	172.3 (16.0)	169.9 (18.3)	169.9 (18.3)
Rows deep/fins per inch	3 / 16	3 / 16	3 / 16	3 / 16	3 / 16	3 / 16
Condenser Fans, Direct Drive Propeller Type						
No. of fans/circuit–fan dia., in (mm)	7–31.5 (800)		7–31.5 (800)		8–31.5 (800)	
Fan motors–hp (kW) / rpm	1.4 (1.05) / 850		1.4 (1.05) / 850		1.4 (1.05) / 850	
Fan tip speed, fpm (m/s)	6984 (35)		6984 (35)		6984 (35)	
Airflow, cfm (L/s)	155,190 (73,241)		155,190 (73,241)		177,360 (83,704)	
Evaporator, Direct Expansion Shell and Tube						
Shell dia. tube length, in (mm)	16 x 108 / (406 x 2750)		16 x 108 / (406 x 2750)		20 x 108 / (508 x 2750)	
Water volume, gallons (L)	61 (232)		61 (232)		103 (390)	
Victaulic inlet/outlet conn. in. (mm)	6 (168)		6 (168)		8 (219)	
Max. water / refrig. pressure, psi (kPa)	152 (1048) / 325 (2241)		152 (1048) / 325 (2241)		152 (1048) / 325 (2241)	

AWS 300ADS through AWS 350ADS, Packaged, Standard Efficiency, R-134a, Non-VFD Models

Data	AWS300ADS Std Eff		AWS320ADS Std Eff		AWS350ADS Std Eff	
	Circuit 1	Circuit 2	Circuit 1	Circuit 2	Circuit 1	Circuit 2
Unit cap. @ AHRI tons (kW)	291 (1021)		327 (1151)		350 (1229)	
Unit operating charge lb (kg)	215 (98)	215 (98)	265 (120)	265 (120)	265 (120)	265 (120)
Unit dimensions L × W × H, in (mm)	316 x 88 x 100 (8026 x 2225 x 2548)		387 x 88 x 100 (9823 x 2225 x 2548)		387 x 88 x 100 (9823 x 2225 x 2548)	
Unit operating weight, lb (kg)	17,724 (8040)		19,656 (8916)		19,656 (8916)	
Unit shipping weight, lb (kg)	16,857 (7646)		18,789 (8523)		18,789 (8523)	
Weight-add for copper fins	2372 (1076)		2968 (1346)		2968 (1346)	
Weight-add for louvered panels	1012 (459)		1236 (561)		1236 (561)	
Weight-add for sound enclosures	477 (216)		477 (216)		477 (216)	
Weight-add for PFCC options	160 (73)		160 (73)		160 (73)	
Compressors, Screw, Semi-Hermetic						
Nominal capacity, tons (kW)	150 (528)	150 (528)	150 (128)	175 (615)	175 (615)	175 (615)
Minimum capacity (% of full load)	15		15		15	
Oil charge per circuit, gallons (liters)	6 (23)	6 (23)	6 (23)	6 (23)	6 (23)	6 (23)
Condensers, High Efficiency Fin and Tube Type						
Pumpdown capacity, lb (kg)	333 (151)	333 (151)	416 (189)	416 (189)	416 (189)	416 (189)
Coil inlet face area, ft^2 (m^2)	169.9 (18.3)	169.9 (18.3)	246.1 (22.8)	246.1 (22.8)	246.1 (22.8)	246.1 (22.8)
Rows deep/fins per inch	3 / 16	3 / 16	3 / 16	3 / 16	3 / 16	3 / 16
Condenser Fans, Direct Drive Propeller Type						
No. of fans/circuit–fan dia., in (mm)	8–31.5 (800)		10–31.5 (800)		10–31.5 (800)	
Fan motors–hp (kW) / rpm	1.4 (1.05) / 850		1.4 (1.05) / 850		1.4 (1.05) / 850	
Fan tip speed, fpm (m/s)	6984 (35)		6984 (35)		6984 (35)	
Airflow, cfm (L/s)	177,360 (83,704)		221,700 (104,630)		221,700 (104,630)	
Evaporator, Direct Expansion Shell and Tube						
Shell dia. tube length, in (mm)	20 x 108 / (508 x 2750)		20 x 108 / (508 x 2750)		20 x 108 / (508 x 2750)	
Water volume, gallons (L)	103 (390)		99 (374)		99 (374)	
Victaulic inlet/outlet conn. in. (mm)	8 (219)		8 (219)		8 (219)	
Max. water / refrig. pressure, psi (kPa)	152 (1048) / 325 (2241)		152 (1048) / 325 (2241)		152 (1048) / 325 (2241)	

AWS 375ATS through AWS 400ATS, Packaged, Standard Efficiency, R-134a, Non-VFD Models

Data	AWS375ATS Std Eff			AWS400ATS Std Eff		
	Circuit 1	Circuit 2	Circuit 3	Circuit 1	Circuit 2	Circuit 3
Unit cap. @ AHRI tons (kW)	398 (1401)			398 (1401)		
Unit operating charge lb (kg)	185 (84)	185 (84)	220 (100)	185 (84)	185 (84)	220 (100)
Unit dimensions L × W × H, in (mm)	438 x 88 x 100 (11,123 x 2225 x 2548)			438 x 88 x 100 (11,123 x 2225 x 2548)		
Unit operating weight, lb (kg)	23,885 (10,834)			24,570 (11,145)		
Unit shipping weight, lb (kg)	22,486 (10,200)			23,171 (10,510)		
Weight-add for copper fins	3256 (1477)			3256 (1477)		
Weight-add for louvered panels	1348 (611)			1348 (611)		
Weight-add for sound enclosures	776 (352)			776 (352)		
Weight-add for PFCC options	120 (55)			120 (55)		
Compressors, Screw, Semi-Hermetic						
Nominal capacity, tons (kW)	125 (439)	125 (439)	125 (439)	125 (439)	125 (439)	150 (528)
Minimum capacity (% of full load)	8			8		
Oil charge per circuit, gallons (liters)	5.5 (21)	5.5 (21)	5.5 (21)	5.5 (21)	5.5 (21)	6 (23)
Condensers, High Efficiency Fin and Tube Type						
Pumpdown capacity, lb (kg)	291 (132)	291 (132)	333 (151)	291 (132)	291 (132)	333 (151)
Coil inlet face area, ft^2 (m^2)	172.3 (16.0)	172.3 (16.0)	169.9 (18.3)	172.3 (16.0)	172.3 (16.0)	169.9 (18.3)
Rows deep/fins per inch	3 / 16	3 / 16	3 / 16	3 / 16	3 / 16	3 / 16
Condenser Fans, Direct Drive Propeller Type						
No. of fans/circuit–fan dia., in (mm)	7–31.5 (800)	7–31.5 (800)	8–31.5 (800)	7–31.5 (800)	7–31.5 (800)	8–31.5 (800)
Fan motors–hp (kW) / rpm	1.4 (1.05) / 850			1.4 (1.05) / 850		
Fan tip speed, fpm (m/s)	6984 (35)			6984 (35)		
Airflow, cfm (L/s)	266,040 (125,556)			243,870 (115,094)		
Evaporator, Direct Expansion Shell and Tube						
Shell dia. tube length, in (mm)	26 x 130 / (660 x 3300)			26 x 130 / (660 x 3300)		
Water volume, gallons (L)	230 (871)			225 (850)		
Victaulic inlet/outlet conn. in. (mm)	10 (273)			10 (273)		
Max. water / refrig. pressure, psi (kPa)	152 (1048) / 325 (2241)			152 (1048) / 325 (2241)		

AWS 425ATS through AWS 445ATS, Packaged, Standard Efficiency, R-134a, Non-VFD Models

Data	AWS425ATS Std Eff			AWS445ATS Std Eff		
	Circuit 1	Circuit 2	Circuit 3	Circuit 1	Circuit 2	Circuit 3
Unit cap. @ AHRI tons (kW)	419 (1472)			448 (1575)		
Unit operating charge lb (kg)	210 (95)	210 (95)	220 (100)	210 (95)	210 (95)	220 (100)
Unit dimensions L × W × H, in (mm)	473 x 88 x 100 (12024 x 2225 x 2548)			473 x 88 x 100 (12024 x 2225 x 2548)		
Unit operating weight, lb (kg)	26,830 (12,170)			27,506 (12,477)		
Unit shipping weight, lb (kg)	25,431 (11,535)			26,107 (11,842)		
Weight-add for copper fins	3553 (1612)			3553 (1612)		
Weight-add for louvered panels	1460 (662)			1460 (662)		
Weight-add for sound enclosures	776 (352)			776 (352)		
Weight-add for PFCC options	120 (55)			120 (55)		
Compressors, Screw, Semi-Hermetic						
Nominal capacity, tons (kW)	125 (439)	150 (528)	150 (528)	150 (528)	150 (528)	150 (528)
Minimum capacity (% of full load)	8			8		
Oil charge per circuit, gallons (liters)	5.5 (21)	6 (23)	6 (23)	6 (23)	6 (23)	6 (23)
Condensers, High Efficiency Fin and Tube Type						
Pumpdown capacity, lb (kg)	333 (151)	333 (151)	333 (151)	333 (151)	333 (151)	333 (151)
Coil inlet face area, ft^2 (m^2)	169.9 (18.3)	169.9 (18.3)	169.9 (18.3)	169.9 (18.3)	169.9 (18.3)	169.9 (18.3)
Rows deep/fins per inch	3 / 16	3 / 16	3 / 16	3 / 16	3 / 16	3 / 16
Condenser Fans, Direct Drive Propeller Type						
No. of fans/circuit–fan dia., in (mm)	8–31.5 (800)			8–31.5 (800)		
Fan motors–hp (kW) / rpm	1.4 (1.05) / 850			1.4 (1.05) / 850		
Fan tip speed, fpm (m/s)	6984 (35)			6984 (35)		
Airflow, cfm (L/s)	266,040 (125,556)			266,040 (125,556)		
Evaporator, Direct Expansion Shell and Tube						
Shell dia. tube length, in (mm)	26 x 130 / (660 x 3300)			26 x 130 / (660 x 3300)		
Water volume, gallons (L)	220 (831)			220 (831)		
Victaulic inlet/outlet conn. in. (mm)	10 (273)			10 (273)		
Max. water / refrig. pressure, psi (kPa)	152 (1048) / 325 (2241)			152 (1048) / 325 (2241)		

AWS 470ATS through AWS 500ATS, Packaged, Standard Efficiency, R-134a, Non-VFD Models

Data	AWS470ATS Std Eff			AWS500ATS Std Eff		
	Circuit 1	Circuit 2	Circuit 3	Circuit 1	Circuit 2	Circuit 3
Unit cap. @ AHRI tons (kW)	478 (1681)			511 (1798)		
Unit operating charge lb (kg)	210 (95)	210 (95)	280 (127)	265 (120)	265 (120)	220 (100)
Unit dimensions L × W × H, in (mm)	509 x 88 x 100 (12,921 x 2225 x 2548)			544 x 88 x 100 (13,823 x 2225 x 2548)		
Unit operating weight, lb (kg)	28,631 (12,987)			29,508 (13,385)		
Unit shipping weight, lb (kg)	27,232 (12,352)			28,109 (12,750)		
Weight-add for copper fins	3870 (1755)			4168 (1891)		
Weight-add for louvered panels	1572 (713)			1684 (764)		
Weight-add for sound enclosures	776 (352)			776 (352)		
Weight-add for PFCC options	120 (55)			120 (55)		
Compressors, Screw, Semi-Hermetic						
Nominal capacity, tons (kW)	150 (528)	150 (528)	175 (615)	175 (615)	175 (615)	150 (528)
Minimum capacity (% of full load)	8			8		
Oil charge per circuit, gallons (liters)	6 (23)	6 (23)	6 (23)	6 (23)	6 (23)	6 (23)
Condensers, High Efficiency Fin and Tube Type						
Pumpdown capacity, lb (kg)	333 (151)	333 (151)	416 (189)	416 (189)	416 (189)	333 (151)
Coil inlet face area, ft^2 (m^2)	169.9 (18.3)	169.9 (18.3)	246.1 (22.8)	246.1 (22.8)	246.1 (22.8)	169.9 (18.3)
Rows deep/fins per inch	3 / 16	3 / 16	3 / 16	3 / 16	3 / 16	3 / 16
Condenser Fans, Direct Drive Propeller Type						
No. of fans/circuit–fan dia., in (mm)	8–31.5 (800)	8–31.5 (800)	10–31.5 (800)	10–31.5 (800)	10–31.5 (800)	8–31.5 (800)
Fan motors–hp (kW) / rpm	1.4 (1.05) / 850			1.4 (1.05) / 850		
Fan tip speed, fpm (m/s)	6984 (35)			6984 (35)		
Airflow, cfm (L/s)	288,210 (136,019)			310,380 (146,482)		
Evaporator, Direct Expansion Shell and Tube						
Shell dia. tube length, in (mm)	26 x 130 / (660 x 3300)			26 x 130 / (660 x 3300)		
Water volume, gallons (L)	220 (831)			220 (831)		
Victaulic inlet/outlet conn. in. (mm)	10 (273)			10 (273)		
Max. water / refrig. pressure, psi (kPa)	152 (1048) / 325 (2241)			152 (1048) / 325 (2241)		

AWS 530ATS, Packaged, Standard Efficiency, R-134a, Non-VFD Models

Data	AWS530ATS Std Eff		
	Circuit 1	Circuit 2	Circuit 3
Unit cap. @ AHRI tons (kW)	541 (1902)		
Unit operating charge lb (kg)	270 (122)	270 (122)	280 (127)
Unit dimensions L × W × H, in (mm)	580 x 88 x 100 (14722 x 2225 x 2548)		
Unit operating weight, lb (kg)	30,348 (13,766)		
Unit shipping weight, lb (kg)	28,949 (13,131)		
Weight-add for copper fins	4466 (2026)		
Weight-add for louvered panels	1796 (815)		
Weight-add for sound enclosures	776 (352)		
Weight-add for PFCC options	120 (55)		
Compressors, Screw, Semi-Hermetic			
Nominal capacity, tons (kW)	175 (615)	175 (615)	175 (615)
Minimum capacity (% of full load)	8		
Oil charge per circuit, gallons (liters)	6 (23)	6 (23)	6 (23)
Condensers, High Efficiency Fin and Tube Type			
Pumpdown capacity, lb (kg)	416 (189)	416 (189)	416 (189)
Coil inlet face area, ft^2 (m^2)	246.1 (22.8)	246.1 (22.8)	246.1 (22.8)
Rows deep/fins per inch	3 / 16	3 / 16	3 / 16
Condenser Fans, Direct Drive Propeller Type			
No. of fans/circuit–fan dia., in (mm)	10–31.5 (800)	10–31.5 (800)	10–31.5 (800)
Fan motors–hp (kW) / rpm	1.4 (1.05) / 850		
Fan tip speed, fpm (m/s)	6984 (35)		
Airflow, cfm (L/s)	332,550 (156,945)		
Evaporator, Direct Expansion Shell and Tube			
Shell dia. tube length, in (mm)	26 x 130 / (660 x 3300)		
Water volume, gallons (L)	220 (831)		
Victaulic inlet/outlet conn. in. (mm)	10 (273)		
Max. water / refrig. pressure, psi (kPa)	152 (1048) / 325 (2241)		

Pathfinder Model AWS Air-Cooled Packaged Chiller, High Efficiency—Physical Data

AWS 210ADH through AWS 250ADH, Packaged, High Efficiency, R-134a, Non-VFD Models

Data	AWS210ADH High Eff		AWS230ADH High Eff		AWS250ADH High Eff	
	Circuit 1	Circuit 2	Circuit 1	Circuit 2	Circuit 1	Circuit 2
Unit cap. @ AHRI tons (kW)	207 (728)		233 (820)		254 (892)	
Unit operating charge lb (kg)	180 (82)	180 (82)	200 (90)	220 (100)	220 (100)	220 (100)
Unit dimensions L × W × H, in (mm)	245 x 88 x 100 (6220 x 2225 x 2548)		280 x 88 x 100 (7121 x 2225 x 2548)		280 x 88 x 100 (7121 x 2225 x 2548)	
Unit operating weight, lb (kg)	13,411 (6083)		15,107 (6852)		15,669 (7107)	
Unit shipping weight, lb (kg)	12,868 (5837)		14,564 (6606)		15,126 (6861)	
Weight-add for copper fins	1876 (851)		2084 (945)		2084 (945)	
Weight-add for louvered panels	788 (357)		900 (408)		900 (408)	
Weight-add for sound enclosures	477 (216)		477 (216)		477 (216)	
Weight-add for PFCC options	160 (73)		160 (73)		160 (73)	
Compressors, Screw, Semi-Hermetic						
Nominal capacity, tons (kW)	100 (351)	100 (351)	100 (351)	125 (439)	125 (439)	125 (439)
Minimum capacity (% of full load)	15		15		15	
Oil charge per circuit, gallons (liters)	4.5 (17)	4.5 (17)	4.5 (17)	5.5 (21)	5.5 (21)	5.5 (21)
Condensers, High Efficiency Fin and Tube Type						
Pumpdown capacity, lb (kg)	250 (113)	250 (113)	291 (132)	291 (132)	291 (132)	291 (132)
Coil inlet face area, ft^2 (m^2)	147.7 (13.7)	147.7 (13.7)	172.3 (16.0)	172.3 (16.0)	172.3 (16.0)	172.3 (16.0)
Rows deep/fins per inch	3 / 16	3 / 16	3 / 16	3 / 16	3 / 16	3 / 16
Condenser Fans, Direct Drive Propeller Type						
No. of fans/circuit–fan dia., in (mm)	6–31.5 (800)		7–31.5 (800)		7–31.5 (800)	
Fan motors–hp (kW) / rpm	1.4 (1.05) / 850		1.4 (1.05) / 850		1.4 (1.05) / 850	
Fan tip speed, fpm (m/s)	6984 (35)		6984 (35)		6984 (35)	
Airflow, cfm (L/s)	133,020 (62,778)		155,190 (73,241)		155,190 (73,241)	
Evaporator, Direct Expansion Shell and Tube						
Shell dia. tube length, in (mm)	16 x 108 / (406 x 2750)		16 x 108 / (406 x 2750)		16 x 108 / (406 x 2750)	
Water volume, gallons (L)	63 (240)		61 (232)		61 (252)	
Victaulic inlet/outlet conn. in. (mm)	6 (168)		6 (168)		6 (168)	
Max. water / refrig. pressure, psi (kPa)	152 (1048) / 325 (2241)		152 (1048) / 325 (2241)		152 (1048) / 325 (2241)	

AWS 280ADH through AWS 320ADH, Packaged, High Efficiency, R-134a, Non-VFD Models

Data	AWS280ADH High Eff		AWS300ADH High Eff		AWS320ADH High Eff	
	Circuit 1	Circuit 2	Circuit 1	Circuit 2	Circuit 1	Circuit 2
Unit cap. @ AHRI tons (kW)	272 (956)		293 (1030)		327 (1151)	
Unit operating charge lb (kg)	230 (104)	250 (113)	250 (113)	250 (113)	260 (118)	285 (129)
Unit dimensions L × W × H, in (mm)	316 x 88 x 100 (8022 x 2225 x 2548)		316 x 88 x 100 (8022 x 2225 x 2548)		387 x 88 x 100 (9823 x 2225 x 2548)	
Unit operating weight, lb (kg)	17,008 (7715)		17,008 (7715)		19,486 (8839)	
Unit shipping weight, lb (kg)	16,141 (7322)		16,141 (7322)		18,619 (8446)	
Weight-add for copper fins	2372 (1076)		2372 (1076)		2968 (1346)	
Weight-add for louvered panels	1012 (459)		1012 (459)		1236 (561)	
Weight-add for sound enclosures	477 (216)		477 (216)		477 (216)	
Weight-add for PFCC options	160 (73)		160 (73)		160 (73)	
Compressors, Screw, Semi-Hermetic						
Nominal capacity, tons (kW)	125 (439)	150 (528)	150 (528)	150 (528)	150 (528)	175 (615)
Minimum capacity (% of full load)	15		15		15	
Oil charge per circuit, gallons (liters)	5.5 (21)	5.5 (21)	5.5 (21)	5.5 (21)	5.5 (21)	6 (23)
Condensers, High Efficiency Fin and Tube Type						
Pumpdown capacity, lb (kg)	333 (151)	333 (151)	333 (151)	333 (151)	416 (189)	416 (189)
Coil inlet face area, ft^2 (m^2)	169.9 (18.3)	169.9 (18.3)	169.9 (18.3)	169.9 (18.3)	246.1 (22.8)	246.1 (22.8)
Rows deep/fins per inch	3 / 16	3 / 16	3 / 16	3 / 16	3 / 16	3 / 16
Condenser Fans, Direct Drive Propeller Type						
No. of fans/circuit–fan dia., in (mm)	8–31.5 (800)		8–31.5 (800)		10–31.5 (800)	
Fan motors–hp (kW) / rpm	1.4 (1.05) / 850		1.4 (1.05) / 850		1.4 (1.05) / 850	
Fan tip speed, fpm (m/s)	6984 (35)		6984 (35)		6984 (35)	
Airflow, cfm (L/s)	177,360 (83,704)		177,360 (83,704)		221,700 (104,630)	
Evaporator, Direct Expansion Shell and Tube						
Shell dia. tube length, in (mm)	20 x 108 / (508 x 2750)		20 x 108 / (508 x 2750)		20 x 108 / (508 x 2750)	
Water volume, gallons (L)	103 (390)		103 (390)		99 (374)	
Victaulic inlet/outlet conn. in. (mm)	8 (219)		8 (219)		8 (219)	
Max. water / refrig. pressure, psi (kPa)	152 (1048) / 325 (2241)		152 (1048) / 325 (2241)		152 (1048) / 325 (2241)	

AWS 350ADH through AWS 405ADH, Packaged, High Efficiency, R-134a, Non-VFD Models

Data	AWS350ADH High Eff		AWS380ADH High Eff		AWS405ADH High Eff	
	Circuit 1	Circuit 2	Circuit 1	Circuit 2	Circuit 1	Circuit 2
Unit cap. @ AHRI tons (kW)	336 (1183)		366 (1286)		395 (1388)	
Unit operating charge lb (kg)	285 (129)	285 (129)	285 (129)	331 (150)	331 (150)	331 (150)
Unit dimensions L × W × H, in (mm)	387 x 88 x 100 (9823 x 2225 x 2548)		438 x 88 x 100 (11123 x 2225 x 2548)		473 x 88 x 101 (12024 x 2225 x 2548)	
Unit operating weight, lb (kg)	19,656 (8916)		21,132 (9585)		21,915 (9941)	
Unit shipping weight, lb (kg)	18,789 (8523)		20,265 (9192)		21,048 (9547)	
Weight-add for copper fins	2968 (1346)		3256 (1477)		3553 (1612)	
Weight-add for louvered panels	1236 (561)		1348 (611)		1460 (662)	
Weight-add for sound enclosures	477 (216)		477 (216)		477 (216)	
Weight-add for PFCC options	160 (73)		160 (73)		160 (73)	
Compressors, Screw, Semi-Hermetic						
Nominal capacity, tons (kW)	175 (615)	175 (615)	175 (615)	200 (703)	200 (703)	200 (703)
Minimum capacity (% of full load)	15		15		15	
Oil charge per circuit, gallons (liters)	6 (23)	6 (23)	6 (23)	6 (23)	6 (23)	6 (23)
Condensers, High Efficiency Fin and Tube Type						
Pumpdown capacity, lb (kg)	416 (189)	416 (189)	416 (189)	500 (227)	500 (227)	500 (227)
Coil inlet face area, ft^2 (m^2)	246.1 (22.8)	246.1 (22.8)	246.1 (22.8)	295.3 (27.4)	295.3 (27.4)	295.3 (27.4)
Rows deep/fins per inch	3 / 16	3 / 16	3 / 16	3 / 16	3 / 16	3 / 16
Condenser Fans, Direct Drive Propeller Type						
No. of fans/circuit–fan dia., in (mm)	10–31.5 (800)	10–31.5 (800)	10–31.5 (800)	12–31.5 (800)	12–31.5 (800)	12–31.5 (800)
Fan motors–hp (kW) / rpm	1.4 (1.05) / 850		1.4 (1.05) / 850		1.4 (1.05) / 850	
Fan tip speed, fpm (m/s)	6984 (35)		6984 (35)		6984 (35)	
Airflow, cfm (L/s)	221,700 (104,630)		243,870 (115,094)		266,040 (125,556)	
Evaporator, Direct Expansion Shell and Tube						
Shell dia. tube length, in (mm)	20 x 108 / (508 x 2750)		20 x 108 / (508 x 2750)		20 x 108 / (508 x 2750)	
Water volume, gallons (L)	99 (374)		99 (374)		99 (374)	
Victaulic inlet/outlet conn. in. (mm)	8 (219)		8 (219)		8 (219)	
Max. water / refrig. pressure, psi (kPa)	152 (1048) / 325 (2241)		152 (1048) / 325 (2241)		152 (1048) / 325 (2241)	

AWS 445ATH through AWS 470ATH, Packaged, High Efficiency, R-134a, Non-VFD Models

Data	AWS445ATH High Eff			AWS470ATH High Eff		
	Circuit 1	Circuit 2	Circuit 3	Circuit 1	Circuit 2	Circuit 3
Unit cap. @ AHRI tons (kW)	438 (1540)			468 (1645)		
Unit operating charge lb (kg)	250 (113)	250 (113)	250 (113)	250 (113)	250 (113)	295 (134)
Unit dimensions L × W × H, in (mm)	473 x 88 x 100 (12,024 x 2225 x 2548)			509 x 88 x 100 (12,921 x 2225 x 2548)		
Unit operating weight, lb (kg)	25,590 (11,608)			27,125 (12,304)		
Unit shipping weight, lb (kg)	24,191 (10,973)			25,726 (11,669)		
Weight-add for copper fins	3553 (1612)			3870 (1755)		
Weight-add for louvered panels	1460 (662)			1572 (713)		
Weight-add for sound enclosures	776 (352)			776 (352)		
Weight-add for PFCC options	120 (55)			120 (55)		
Compressors, Screw, Semi-Hermetic						
Nominal capacity, tons (kW)	150 (528)	150 (528)	150 (528)	150 (528)	150 (528)	175 (615)
Minimum capacity (% of full load)	8			8		
Oil charge per circuit, gallons (liters)	5.5 (21)	5.5 (21)	5.5 (21)	5.5 (21)	5.5 (21)	6 (23)
Condensers, High Efficiency Fin and Tube Type						
Pumpdown capacity, lb (kg)	333 (151)	333 (151)	333 (151)	333 (151)	333 (151)	416 (189)
Coil inlet face area, ft^2 (m^2)	169.9 (18.3)	169.9 (18.3)	169.9 (18.3)	169.9 (18.3)	169.9 (18.3)	246.1 (22.8)
Rows deep/fins per inch	3 / 16	3 / 16	3 / 16	3 / 16	3 / 16	3 / 16
Condenser Fans, Direct Drive Propeller Type						
No. of fans/circuit–fan dia., in (mm)	8–31.5 (800)	8–31.5 (800)	8–31.5 (800)	8–31.5 (800)	8–31.5 (800)	10–31.5 (800)
Fan motors–hp (kW) / rpm	1.4 (1.05) / 850			1.4 (1.05) / 850		
Fan tip speed, fpm (m/s)	6984 (35)			6984 (35)		
Airflow, cfm (L/s)	266,040 (125,556)			288,210 (136,019)		
Evaporator, Direct Expansion Shell and Tube						
Shell dia. tube length, in (mm)	26 x 130 / (660 x 3300)			26 x 130 / (660 x 3300)		
Water volume, gallons (L)	225 (850)			220 (831)		
Victaulic inlet/outlet conn. in. (mm)	10 (273)			10 (273)		
Max. water / refrig. pressure, psi (kPa)	152 (1048) / 325 (2241)			152 (1048) / 325 (2241)		

AWS 500ATH through AWS 530ATH, Packaged, High Efficiency, R-134a, Non-VFD Models

Data	AWS500ATH High Eff			AWS530ATH High Eff		
	Circuit 1	Circuit 2	Circuit 3	Circuit 1	Circuit 2	Circuit 3
Unit cap. @ AHRI tons (kW)	493 (1734)			525 (1845)		
Unit operating charge lb (kg)	295 (134)	295 (134)	250 (113)	295 (134)	295 (134)	295 (134)
Unit dimensions L × W × H, in (mm)	544 x 88 x 100 (13,823 x 2225 x 2548)			580 x 88 x 100 (14,722 x 2225 x 2548)		
Unit operating weight, lb (kg)	29,098 (13,199)			30,348 (13,766)		
Unit shipping weight, lb (kg)	27,699 (12,564)			28,949 (13,131)		
Weight-add for copper fins	4168 (1891)			4466 (2026)		
Weight-add for louvered panels	1684 (764)			1796 (815)		
Weight-add for sound enclosures	776 (352)			776 (352)		
Weight-add for PFCC options	120 (55)			120 (55)		
Compressors, Screw, Semi-Hermetic						
Nominal capacity, tons (kW)	175 (615)	175 (615)	150 (528)	175 (615)	175 (615)	175 (615)
Minimum capacity (% of full load)	8			8		
Oil charge per circuit, gallons (liters)	6 (23)	6 (23)	5.5 (21)	6 (23)	6 (23)	6 (23)
Condensers, High Efficiency Fin and Tube Type						
Pumpdown capacity, lb (kg)	416 (189)	416 (189)	333 (151)	416 (189)	416 (189)	416 (189)
Coil inlet face area, ft^2 (m^2)	246.1 (22.8)	246.1 (22.8)	169.9 (18.3)	246.1 (22.8)	246.1 (22.8)	246.1 (22.8)
Rows deep/fins per inch	3 / 16	3 / 16	3 / 16	3 / 16	3 / 16	3 / 16
Condenser Fans, Direct Drive Propeller Type						
No. of fans/circuit–fan dia., in (mm)	10–31.5 (800)	10–31.5 (800)	8–31.5 (800)	10–31.5 (800)	10–31.5 (800)	10–31.5 (800)
Fan motors–hp (kW) / rpm	1.4 (1.05) / 850			1.4 (1.05) / 850		
Fan tip speed, fpm (m/s)	6984 (35)			6984 (35)		
Airflow, cfm (L/s)	310,380 (146,482)			332,550 (156,945)		
Evaporator, Direct Expansion Shell and Tube						
Shell dia. tube length, in (mm)	26 x 130 / (660 x 3300)			26 x 130 / (660 x 3300)		
Water volume, gallons (L)	220 (831)			220 (831)		
Victaulic inlet/outlet conn. in. (mm)	10 (273)			10 (273)		
Max. water / refrig. pressure, psi (kPa)	152 (1048) / 325 (2241)			152 (1048) / 325 (2241)		

Pathfinder Model AWS Air-Cooled Packaged Chiller, Premium Efficiency—Physical Data

AWS 210ADP through AWS 250ADP, Packaged, Premium Efficiency, R-134a, Non-VFD Models

Data	AWS210ADP Prem Eff		AWS230ADP Prem Eff		AWS250ADP Prem Eff	
	Circuit 1	Circuit 2	Circuit 1	Circuit 2	Circuit 1	Circuit 2
Unit cap. @ AHRI tons (kW)	213 (750)		239 (840)		260 (915)	
Unit operating charge lb (kg)	200 (91)	200 (91)	225 (102)	225 (102)	(235) (107)	(235) (107)
Unit dimensions L × W × H, in (mm)	316 x 88 x 100 (8022 x 2225 x 2548)		351 x 88 x 100 (8923 x 2225 x 2548)		351 x 88 x 100 (8923 x 2225 x 2548)	
Unit operating weight, lb (kg)	16,812 (7626)		18,327 (8313)		20,200 (9163)	
Unit shipping weight, lb (kg)	15,560 (7058)		17,075 (7745)		18,547 (8413)	
Weight-add for copper fins	2372 (1076)		2679 (1215)		2679 (1215)	
Weight-add for louvered panels	1012 (459)		1124 (510)		1124 (510)	
Weight-add for sound enclosures	477 (216)		477 (216)		477 (216)	
Weight-add for PFCC options	160 (73)		160 (73)		160 (73)	
Compressors, Screw, Semi-Hermetic						
Nominal capacity, tons (kW)	100 (351)	100 (351)	100 (351)	125 (439)	125 (439)	125 (439)
Minimum capacity (% of full load)	15		15		15	
Oil charge per circuit, gallons (liters)	4.5 (17)	4.5 (17)	4.5 (17)	5.5 (21)	5.5 (21)	5.5 (21)
Condensers, High Efficiency Fin and Tube Type						
Pumpdown capacity, lb (kg)	333 (151)	333 (151)	375 (170)	375 (170)	375 (170)	375 (170)
Coil inlet face area, ft^2 (m^2)	169.9 (18.3)	169.9 (18.3)	221.5 (20.6)	221.5 (20.6)	221.5 (20.6)	221.5 (20.6)
Rows deep/fins per inch	3 / 16	3 / 16	3 / 16	3 / 16	3 / 16	3 / 16
Condenser Fans, Direct Drive Propeller Type						
No. of fans/circuit–fan dia., in (mm)	8–31.5 (800)		9–31.5 (800)		9–31.5 (800)	
Fan motors–hp (kW) / rpm	1.4 (1.05) / 850		1.4 (1.05) / 850		1.4 (1.05) / 850	
Fan tip speed, fpm (m/s)	6984 (35)		6984 (35)		6984 (35)	
Airflow, cfm (L/s)	177,360 (83,704)		199,530 (94,167)		199,530 (94,167)	
Evaporator, Direct Expansion Shell and Tube						
Shell dia. tube length, in (mm)	20 x 154 / (508 x 3900)		20 x 154 / (508 x 3900)		26 x 154 / (660 x 3900)	
Water volume, gallons (L)	154 (582)		154 (582)		267 (1011)	
Victaulic inlet/outlet conn. in. (mm)	8 (2199		8 (219)		10 (273)	
Max. water / refrig. pressure, psi (kPa)	152 (1048) / 325 (2241)		152 (1048) / 325 (2241)		152 (1048) / 325 (2241)	

AWS 280ADP through AWS 320ADP, Packaged, Premium Efficiency, R-134a, Non-VFD Models

Data	AWS280ADP Prem Eff		AWS300ADP Prem Eff		AWS320ADP Prem Eff	
	Circuit 1	Circuit 2	Circuit 1	Circuit 2	Circuit 1	Circuit 2
Unit cap. @ AHRI tons (kW)	281 (990)		301 (1058)		337 (1184)	
Unit operating charge lb (kg)	250 (113)	250 (113)	260 (118)	260 (118)	260 (118)	300 (136)
Unit dimensions L × W × H, in (mm)	387 x 88 x 100 (9823 x 2225 x 2548)		387 x 88 x 100 (9823 x 2225 x 2548)		438 x 88 x 100 (11,122 x 2225 x 2548)	
Unit operating weight, lb (kg)	22,485 (10199)		22,485 (10199)		24,441 (11086)	
Unit shipping weight, lb (kg)	20,832 (9449)		20,832 (9449)		22,788 (10337)	
Weight-add for copper fins	2968 (1346)		2968 (1346)		3256 (1477)	
Weight-add for louvered panels	1236 (561)		1236 (561)		1348 (611)	
Weight-add for sound enclosures	477 (216)		477 (216)		477 (216)	
Weight-add for PFCC options	160 (73)		160 (73)		160 (73)	
Compressors, Screw, Semi-Hermetic						
Nominal capacity, tons (kW)	125 (439)	150 (528)	150 (528)	150 (528)	150 (528)	175 (615)
Minimum capacity (% of full load)	15		15		15	
Oil charge per circuit, gallons (liters)	5.5 (21)	5.5 (21)	5.5 (21)	5.5 (21)	5.5 (21)	6 (23)
Condensers, High Efficiency Fin and Tube Type						
Pumpdown capacity, lb (kg)	416 (189)	416 (189)	416 (189)	416 (189)	416 (189)	500 (227)
Coil inlet face area, ft^2 (m^2)	246.1 (22.8)	246.1 (22.8)	246.1 (22.8)	246.1 (22.8)	246.1 (22.8)	295.3 (27.4)
Rows deep/fins per inch	3 / 16	3 / 16	3 / 16	3 / 16	3 / 16	3 / 16
Condenser Fans, Direct Drive Propeller Type						
No. of fans/circuit–fan dia., in (mm)	10–31.5 (800)	10–31.5 (800)	10–31.5 (800)	10–31.5 (800)	10–31.5 (800)	12–31.5 (800)
Fan motors–hp (kW) / rpm	1.4 (1.05) / 850		1.4 (1.05) / 850		1.4 (1.05) / 850	
Fan tip speed, fpm (m/s)	6984 (35)		6984 (35)		6984 (35)	
Airflow, cfm (L/s)	221,700 (104,630)		221,700 (104,630)		243,870 (115,093)	
Evaporator, Direct Expansion Shell and Tube						
Shell dia. tube length, in (mm)	26 x 154 / (660 x 3900)		26 x 154 / (660 x 3900)		26 x 154 / (660 x 3900)	
Water volume, gallons (L)	267 (1011)		267 (1011)		254 (963)	
Victaulic inlet/outlet conn. in. (mm)	10 (273)		10 (273)		10 (273)	
Max. water / refrig. pressure, psi (kPa)	152 (1048) / 325 (2241)		152 (1048) / 325 (2241)		152 (1048) / 325 (2241)	

AWS 350ADP, Packaged, Premium Efficiency, R-134a, Non-VFD Models

Data	AWS350ADP Prem Eff	
	Circuit 1	Circuit 2
Unit cap. @ AHRI tons (kW)	368 (1295)	
Unit operating charge lb (kg)	310 (141)	310 (141)
Unit dimensions L × W × H, in (mm)	473 x 88 x 100 (12024 x 2225 x 2548)	
Unit operating weight, lb (kg)	24,140 (10,950)	
Unit shipping weight, lb (kg)	22,487 (10,200)	
Weight-add for copper fins	3553 (1612)	
Weight-add for louvered panels	1460 (662)	
Weight-add for sound enclosures	477 (216)	
Weight-add for PFCC options	160 (73)	
Compressors, Screw, Semi-Hermetic		
Nominal capacity, tons (kW)	175 (615)	175 (615)
Minimum capacity (% of full load)	15	
Oil charge per circuit, gallons (liters)	6 (23)	6 (23)
Condensers, High Efficiency Fin and Tube Type		
Pumpdown capacity, lb (kg)	500 (227)	500 (227)
Coil inlet face area, ft^2 (m^2)	295.3 (27.4)	295.3 (27.4)
Rows deep/fins per inch	3 / 16	3 / 16
Condenser Fans, Direct Drive Propeller Type		
No. of fans/circuit–fan dia., in (mm)	12–31.5 (800)	
Fan motors–hp (kW) / rpm	1.4 (1.05) / 850	
Fan tip speed, fpm (m/s)	6984 (35)	
Airflow, cfm (L/s)	266,040 (125,556)	
Evaporator, Direct Expansion Shell and Tube		
Shell dia. tube length, in (mm)	26 x 154 / (660 x 3900)	
Water volume, gallons (L)	254 (963)	
Victaulic inlet/outlet conn. in. (mm)	10 (273)	
Max. water / refrig. pressure, psi (kPa)	152 (1048) / 325 (2241)	

Pathfinder Model AWS Air-Cooled Packaged Chiller, Standard Efficiency—VFD Models

AWS 150ADS through AWS 190ADS, Packaged, Standard Efficiency, R-134a, VFD Models

Data	AWS 150ADS		AWS 175ADS		AWS 190ADS	
	Circuit 1	Circuit 2	Circuit 1	Circuit 2	Circuit 1	Circuit 2
Unit cap. @ AHRI tons (kW)	154 (542)		170 (598)		185 (651)	
Unit operating charge lb (kg)	145 (66)	145 (66)	165 (75)	165 (75)	165 (75)	165 (75)
Unit dimensions L × W × H, in (mm)	268 x 88 x 100 (6803 x 2225 x 2548)		268 x 88 x 100 (6803 x 2225 x 2548)		268 x 88 x 100 (6803 x 2225 x 2548)	
Unit operating weight, lb (kg)	14673 (6656)		15978 (7248)		15902 (7213)	
Unit shipping weight, lb (kg)	14130 (6409)		15435 (7001)		15359 (6967)	
Weight-add for copper fins	1776 (806)		1776 (806)		1776 (806)	
Weight-add for louvered panels	676 (307)		788 (357)		788 (357)	
Compressors, Screw, Semi-Hermetic						
Nominal capacity, tons (kW)	90 (316)	90 (316)	90 (316)	100 (351)	100 (351)	100 (351)
Minimum capacity (% of full load)	20		20		20	
Oil charge per circuit, gallons (liters)	4.5 (17)	4.5 (17)	4.5 (17)	5.5 (21)	5.5 (21)	5.5 (21)
Condensers, High Efficiency Fin and Tube Type						
Pumpdown capacity, lb (kg)	208 (94)	208 (94)	250 (113)	250 (113)	250 (113)	250 (113)
Coil inlet face area, ft^2 (m^2)	123.1 (11.4)	123.1 (11.4)	147.7 (13.7)	147.7 (13.7)	147.7 (13.7)	147.7 (13.7)
Rows deep/fins per inch	3 / 16	3 / 16	3 / 16	3 / 16	3 / 16	3 / 16
Condenser Fans, Direct Drive Propeller Type						
No. of fans/circuit–fan dia., in (mm)	5–31.5 (800)		6–31.5 (800)		6–31.5 (800)	
Fan motors–hp (kW) / rpm	1.4 (1.05)/850		1.4 (1.05)/850		1.4 (1.05)/850	
Fan tip speed, fpm (m/s)	6984 (35)		6984 (35)		6984 (35)	
Airflow, cfm (L/s)	110850 (52315)		133020 (62778)		133020 (62778)	
Evaporator, Direct Expansion Shell and Tube						
Shell dia. tube length, in (mm)	16 x 108 (406 x 2750)		16 x 108 (406 x 2750)		16 x 108 (406 x 2750)	
Water volume, gallons (L)	67 (255)		67 (255)		63 (240)	
Victaulic inlet/outlet conn. in. (mm)	6 (168)		6 (168)		6 (168)	
Max. water / refrig. pressure, psi (kPa)	152 (1048)/325 (2241)		152 (1048)/325 (2241)		152 (1048)/325 (2241)	

AWS 210ADH through AWS 250ADH, Packaged, High Efficiency, R-134a, VFD Models

Data	AWS 210ADH		AWS 230ADH		AWS 250ADH	
	Circuit 1	Circuit 2	Circuit 1	Circuit 2	Circuit 1	Circuit 2
Unit cap. @ AHRI tons (kW)	207 (728)		233 (820)		254 (892)	
Unit operating charge lb (kg)	160 (73)	160 (73)	180 (82)	180 (82)	180 (82)	180 (82)
Unit dimensions L × W × H, in (mm)	268 x 88 x 100 (6803 x 2225 x 2548)		303 x 88 x 100 (7703 x 2225 x 2548)		303 x 88 x 100 (7703 x 2225 x 2548)	
Unit operating weight, lb (kg)	15146 (6870)		16478 (7474)		17021 (7721)	
Unit shipping weight, lb (kg)	14603 (6624)		15935 (7228)		16478 (7474)	
Weight-add for copper fins	1876 (851)		2084 (945)		2084 (945)	
Weight-add for louvered panels	788 (357)		900 (408)		900 (408)	
Compressors, Screw, Semi-Hermetic						
Nominal capacity, tons (kW)	100 (351)	100 (351)	100 (351)	125 (439)	125 (439)	125 (439)
Minimum capacity (% of full load)	20		20		20	
Oil charge per circuit, gallons (liters)	4.5 (17)	4.5 (17)	4.5 (17)	5.5 (21)	5.5 (21)	5.5 (21)
Condensers, High Efficiency Fin and Tube Type						
Pumpdown capacity, lb (kg)	250 (113)	250 (113)	291 (132)	291 (132)	291 (132)	291 (132)
Coil inlet face area, ft^2 (m^2)	147.7 (13.7)	147.7 (13.7)	172.3 (16.0)	172.3 (16.0)	172.3 (16.0)	172.3 (16.0)
Rows deep/fins per inch	3 / 16	3 / 16	3 / 16	3 / 16	3 / 16	3 / 16
Condenser Fans, Direct Drive Propeller Type						
No. of fans/circuit–fan dia., in (mm)	6–31.5 (800)		7–31.5 (800)		7–31.5 (800)	
Fan motors–hp (kW) / rpm	1.4 (1.05)/850		1.4 (1.05)/850		1.4 (1.05)/850	
Fan tip speed, fpm (m/s)	6984 (35)		6984 (35)		6984 (35)	
Airflow, cfm (L/s)	133020 (62778)		155190 (73241)		155190 (73241)	
Evaporator, Direct Expansion Shell and Tube						
Shell dia. tube length, in (mm)	16 x 108 (406 x 2750)		16 x 108 (406 x 2750)		16 x 108 (406 x 2750)	
Water volume, gallons (L)	63 (240)		61 (232)		61 (252)	
Victaulic inlet/outlet conn. in. (mm)	6 (168)		6 (168)		6 (168)	
Max. water / refrig. pressure, psi (kPa)	152 (1048)/325 (2241)		152 (1048)/325 (2241)		152 (1048)/325 (2241)	

AWS 280ADH through AWS 320ADH, Packaged, High Efficiency, R-134a, VFD Models

Data	AWS 280ADH		AWS 300ADH		AWS 320ADH	
	Circuit 1	Circuit 2	Circuit 1	Circuit 2	Circuit 1	Circuit 2
Unit cap. @ AHRI tons (kW)	272 (956)		292 (1028)		327 (1151)	
Unit operating charge lb (kg)	200 (91)	200 (91)	210 (95)	210 (95)	260 (118)	260 (118)
Unit dimensions L × W × H, in (mm)	339 x 88 x 100 (8602 x 2225 x 2548)		339 x 88 x 100 (8602 x 2225 x 2548)		410 x 88 x 100 (10402 x 2225 x 2545)	
Unit operating weight, lb (kg)	18606 (8440)		18606 (8440)		20903 (9482)	
Unit shipping weight, lb (kg)	17739 (8046)		17739 (8046)		20036 (9088)	
Weight-add for copper fins	2372 (1076)		2372 (1076)		2968 (1346)	
Weight-add for louvered panels	1012 (459)		1012 (459)		1236 (561)	
Compressors, Screw, Semi-Hermetic						
Nominal capacity, tons (kW)	125 (439)	150 (528)	150 (528)	150 (528)	150 (528)	175 (615)
Minimum capacity (% of full load)	20		20		20	
Oil charge per circuit, gallons (liters)	5.5 (21)	5.5 (21)	5.5 (21)	5.5 (21)	5.5 (21)	6 (23)
Condensers, High Efficiency Fin and Tube Type						
Pumpdown capacity, lb (kg)	333 (151)	333 (151)	333 (151)	333 (151)	416 (189)	416 (189)
Coil inlet face area, ft^2 (m^2)	169.9 (18.3)	169.9 (18.3)	169.9 (18.3)	169.9 (18.3)	246.1 (22.8)	246.1 (22.8)
Rows deep/fins per inch	3 / 16	3 / 16	3 / 16	3 / 16	3 / 16	3 / 16
Condenser Fans, Direct Drive Propeller Type						
No. of fans/circuit–fan dia., in (mm)	8–31.5 (800)		8–31.5 (800)		10–31.5 (800)	
Fan motors–hp (kW) / rpm	1.4 (1.05)/850		1.4 (1.05)/850		1.4 (1.05)/850	
Fan tip speed, fpm (m/s)	6984 (35)		6984 (35)		6984 (35)	
Airflow, cfm (L/s)	177360 (83704)		177360 (83704)		221700 (104630)	
Evaporator, Direct Expansion Shell and Tube						
Shell dia. tube length, in (mm)	20 x 108 (508 x 2750)		20 x 108 (508 x 2750)		20 x 108 (508 x 2750)	
Water volume, gallons (L)	103 (390)		103 (390)		99 (374)	
Victaulic inlet/outlet conn. in. (mm)	8 (219)		8 (219)		8 (219)	
Max. water / refrig. pressure, psi (kPa)	152 (1048)/325 (2241)		152 (1048)/325 (2241)		152 (1048)/325 (2241)	

AWS 350ADH through AWS 405ADH, Packaged, High Efficiency, R-134a, VFD Models

Data	AWS 350ADH		AWS 380ADH		AWS 405ADH	
	Circuit 1	Circuit 2	Circuit 1	Circuit 2	Circuit 1	Circuit 2
Unit cap. @ AHRI tons (kW)	336 (1184)		366 (1287)		395 (1389)	
Unit operating charge lb (kg)	265 (120)	265 (120)	270 (122)	320 (145)	320 (145)	320 (145)
Unit dimensions L × W × H, in (mm)	410 x 88 x 100 (10402 x 2225 x 2545)		461 x 88 x 100 (11701 x 2225 x 2548)		496 x 88 x 100 (12604 x 2225 x 2545)	
Unit operating weight, lb (kg)	21596 (9796)		22900 (10387)		23705 (10753)	
Unit shipping weight, lb (kg)	20729 (9403)		22033 (9994)		22838 (10359)	
Weight-add for copper fins	2968 (1346)		3256 (1477)		3553 (1612)	
Weight-add for louvered panels	1236 (561)		1348 (611)		1460 (662)	
Compressors, Screw, Semi-Hermetic						
Nominal capacity, tons (kW)	175 (615)	175 (615)	175 (615)	200 (703)	200 (703)	200 (703)
Minimum capacity (% of full load)	20		20		20	
Oil charge per circuit, gallons (liters)	6 (23)	6 (23)	6 (23)	6 (23)	6 (23)	6 (23)
Condensers, High Efficiency Fin and Tube Type						
Pumpdown capacity, lb (kg)	416 (189)	416 (189)	416 (189)	500 (227)	500 (227)	500 (227)
Coil inlet face area, ft^2 (m^2)	246.1 (22.8)	246.1 (22.8)	246.1 (22.8)	295.3 (27.4)	295.3 (27.4)	295.3 (27.4)
Rows deep/fins per inch	3 / 16	3 / 16	3 / 16	3 / 16	3 / 16	3 / 16
Condenser Fans, Direct Drive Propeller Type						
No. of fans/circuit–fan dia., in (mm)	10–31.5 (800)	10–31.5 (800)	10–31.5 (800)	12–31.5 (800)	12–31.5 (800)	12–31.5 (800)
Fan motors–hp (kW) / rpm	1.4 (1.05)/850		1.4 (1.05)/850		1.4 (1.05)/850	
Fan tip speed, fpm (m/s)	6984 (35)		6984 (35)		6984 (35)	
Airflow, cfm (L/s)	221700 (104630)		243870 (115094)		266040 (125556)	
Evaporator, Direct Expansion Shell and Tube						
Shell dia. tube length, in (mm)	20 x 108 / (508 x 2750)		20 x 108 / (508 x 2750)		20 x 108 / (508 x 2750)	
Water volume, gallons (L)	99 (374)		99 (374)		99 (374)	
Victaulic inlet/outlet conn. in. (mm)	8 (219)		8 (219)		8 (219)	
Max. water / refrig. pressure, psi (kPa)	152 (1048)/325 (2241)		152 (1048)/325 (2241)		152 (1048)/325 (2241)	

AWS 445ATH through AWS 470ATH, Packaged, High Efficiency, R-134a, VFD Models

Data	AWS445ATH High Eff			AWS470ATH High Eff		
	Circuit 1	Circuit 2	Circuit 3	Circuit 1	Circuit 2	Circuit 3
Unit cap. @ AHRI tons (kW)	438 (1540)			468 (1645)		
Unit operating charge lb (kg)	210 (95)	210 (95)	220 (100)	210 (95)	210 (95)	280 (187)
Unit dimensions L × W × H, in (mm)	496 x 88 x 100 (12605 x 2225 x 2548)			532 x 88 x 100 (13504 x 2225 x 2545)		
Unit operating weight, lb (kg)	27152 (12316)			28300 (12837)		
Unit shipping weight, lb (kg)	25753 (11682)			26901 (12202)		
Weight-add for copper fins	3553 (1612)			3870 (1755)		
Weight-add for louvered panels	1460 (662)			1572 (713)		
Compressors, Screw, Semi-Hermetic						
Nominal capacity, tons (kW)	150 (528)	150 (528)	150 (528)	150 (528)	150 (528)	175 (615)
Minimum capacity (% of full load)	13			13		
Oil charge per circuit, gallons (liters)	5.5 (21)	5.5 (21)	5.5 (21)	5.5 (21)	5.5 (21)	6 (23)
Condensers, High Efficiency Fin and Tube Type						
Pumpdown capacity, lb (kg)	333 (151)	333 (151)	333 (151)	333 (151)	333 (151)	416 (189)
Coil inlet face area, ft^2 (m^2)	169.9 (18.3)	169.9 (18.3)	169.9 (18.3)	169.9 (18.3)	169.9 (18.3)	246.1 (22.8)
Rows deep/fins per inch	3 / 16	3 / 16	3 / 16	3 / 16	3 / 16	3 / 16
Condenser Fans, Direct Drive Propeller Type						
No. of fans/circuit–fan dia., in (mm)	8–31.5 (800)	8–31.5 (800)	8–31.5 (800)	8–31.5 (800)	8–31.5 (800)	10–31.5 (800)
Fan motors–hp (kW) / rpm	1.4 (1.05) / 850			1.4 (1.05) / 850		
Fan tip speed, fpm (m/s)	6984 (35)			6984 (35)		
Airflow, cfm (L/s)	266,040 (125556)			288,210 (136019)		
Evaporator, Direct Expansion Shell and Tube						
Shell dia. tube length, in (mm)	26 x 130 / (660 x 3300)			26 x 130 / (660 x 3300)		
Water volume, gallons (L)	225 (850)			220 (831)		
Victaulic inlet/outlet conn. in. (mm)	10 (273)			10 (273)		
Max. water / refrig. pressure, psi (kPa)	152 (1048) / 325 (2241)			152 (1048) / 325 (2241)		

AWS 500ATH through AWS 530ATH, Packaged, High Efficiency, R-134a, VFD Models

Data	AWS500ATH High Eff			AWS530ATH High Eff		
	Circuit 1	Circuit 2	Circuit 3	Circuit 1	Circuit 2	Circuit 3
Unit cap. @ AHRI tons (kW)	493 (1735)			525 (1845)		
Unit operating charge lb (kg)	265 (120)	265 (120)	220 (100)	265 (120)	265 (120)	280 (187)
Unit dimensions L × W × H, in (mm)	567 x 88 x 100 (14405 x 2225 x 2548)			603 x 88 x 100 (15304 x 2225 x 2545)		
Unit operating weight, lb (kg)	30117 (13661)			31446 (14264)		
Unit shipping weight, lb (kg)	28718 (13026)			30047 (13629)		
Weight-add for copper fins	4168 (1891)			4466 (2026)		
Weight-add for louvered panels	1684 (764)			1796 (815)		
Compressors, Screw, Semi-Hermetic						
Nominal capacity, tons (kW)	175 (615)	175 (615)	150 (528)	175 (615)	175 (615)	175 (615)
Minimum capacity (% of full load)	13			13		
Oil charge per circuit, gallons (liters)	6 (23)	6 (23)	5.5 (21)	6 (23)	6 (23)	6 (23)
Condensers, High Efficiency Fin and Tube Type						
Pumpdown capacity, lb (kg)	416 (189)	416 (189)	333 (151)	416 (189)	416 (189)	416 (189)
Coil inlet face area, ft^2 (m^2)	246.1 (22.8)	246.1 (22.8)	169.9 (18.3)	246.1 (22.8)	246.1 (22.8)	246.1 (22.8)
Rows deep/fins per inch	3 / 16	3 / 16	3 / 16	3 / 16	3 / 16	3 / 16
Condenser Fans, Direct Drive Propeller Type						
No. of fans/circuit–fan dia., in (mm)	10–31.5 (800)	10–31.5 (800)	8–31.5 (800)	10–31.5 (800)	10–31.5 (800)	10–31.5 (800)
Fan motors–hp (kW) / rpm	1.4 (1.05) / 850			1.4 (1.05) / 850		
Fan tip speed, fpm (m/s)	6984 (35)			6984 (35)		
Airflow, cfm (L/s)	310,380 (146482)			332,550 (156945)		
Evaporator, Direct Expansion Shell and Tube						
Shell dia. tube length, in (mm)	26 x 130 / (660 x 3300)			26 x 130 / (660 x 3300)		
Water volume, gallons (L)	220 (831)			220 (831)		
Victaulic inlet/outlet conn. in. (mm)	10 (273)			10 (273)		
Max. water / refrig. pressure, psi (kPa)	152 (1048) / 325 (2241)			152 (1048) / 325 (2241)		

AWS 210ADP through AWS 250ADP, Packaged, Premium Efficiency, R-134a, VFD Models

Data	AWS 210ADP		AWS 230ADP		AWS 250ADP	
	Circuit 1	Circuit 2	Circuit 1	Circuit 2	Circuit 1	Circuit 2
Unit cap. @ AHRI tons (kW)	213 (750)		238 (840)		260.2 (915)	
Unit operating charge lb (kg)	200 (91)	200 (91)	225 (102)	225 (102)	(235) (107)	(235) (107)
Unit dimensions L × W × H, in (mm)	339 x 88 x 100 (8602 x 2225 x 2548)		374 x 88 x 100 (9504 x 2225 x 2545)		374 x 88 x 100 (9504 x 2225 x 2545)	
Unit operating weight, lb (kg)	18435 (8362)		19641 (8909)		21512 (9758)	
Unit shipping weight, lb (kg)	17183 (7794)		18389 (8341)		19859 (9008)	
Weight-add for copper fins	2372 (1076)		2679 (1215)		2679 (1215)	
Weight-add for louvered panels	1012 (459)		1124 (510)		1124 (510)	
Compressors, Screw, Semi-Hermetic						
Nominal capacity, tons (kW)	100 (351)	100 (351)	100 (351)	125 (439)	125 (439)	125 (439)
Minimum capacity (% of full load)	20		20		20	
Oil charge per circuit, gallons (liters)	4.5 (17)	4.5 (17)	4.5 (17)	5.5 (21)	5.5 (21)	5.5 (21)
Condensers, High Efficiency Fin and Tube Type						
Pumpdown capacity, lb (kg)	333 (151)	333 (151)	375 (170)	375 (170)	375 (170)	375 (170)
Coil inlet face area, ft^2 (m^2)	169.9 (18.3)	169.9 (18.3)	221.5 (20.6)	221.5 (20.6)	221.5 (20.6)	221.5 (20.6)
Rows deep/fins per inch	3 / 16	3 / 16	3 / 16	3 / 16	3 / 16	3 / 16
Condenser Fans, Direct Drive Propeller Type						
No. of fans/circuit–fan dia., in (mm)	8–31.5 (800)	8–31.5 (800)	9–31.5 (800)	9–31.5 (800)	9–31.5 (800)	9–31.5 (800)
Fan motors–hp (kW) / rpm	1.4 (1.05)/850		1.4 (1.05)/850		1.4 (1.05)/850	
Fan tip speed, fpm (m/s)	6984 (35)		6984 (35)		6984 (35)	
Airflow, cfm (L/s)	177,360 (83704)		199,530 (94167)		199,530 (94167)	
Evaporator, Direct Expansion Shell and Tube						
Shell dia. tube length, in (mm)	20 x 154 / (508 x 3900)		20 x 154 / (508 x 3900)		26 x 154 / (660 x 3900)	
Water volume, gallons (L)	154 (582)		154 (582)		267 (1011)	
Victaulic inlet/outlet conn. in. (mm)	8 (2199		8 (219)		10 (273)	
Max. water / refrig. pressure, psi (kPa)	152 (1048)/325 (2241)		152 (1048)/325 (2241)		152 (1048)/325 (2241)	

AWS 280ADP through AWS 320ADP, Packaged, Premium Efficiency, R-134a, VFD Models

Data	AWS 280ADP		AWS 300ADP		AWS 320ADP	
	Circuit 1	Circuit 2	Circuit 1	Circuit 2	Circuit 1	Circuit 2
Unit cap. @ AHRI tons (kW)	282 (990)		301 (1058)		337 (1184)	
Unit operating charge lb (kg)	250 (113)	250 (113)	260 (118)	260 (118)	260 (118)	300 (136)
Unit dimensions L × W × H, in (mm)	410 x 88 x 100 (10402 x 2225 x 2545)		410 x 88 x 100 (10402 x 2225 x 2545)		461 x 88 x 100 (11701 x 2225 x 2548)	
Unit operating weight, lb (kg)	22485 (10199)		22485 (10199)		24441 (11086)	
Unit shipping weight, lb (kg)	20832 (9449)		20832 (9449)		22788 (10337)	
Weight-add for copper fins	2968 (1346)		2968 (1346)		3256 (1477)	
Weight-add for louvered panels	1236 (561)		1236 (561)		1348 (611)	
Compressors, Screw, Semi-Hermetic						
Nominal capacity, tons (kW)	125 (439)	150 (528)	150 (528)	150 (528)	150 (528)	175 (615)
Minimum capacity (% of full load)	20		20		20	
Oil charge per circuit, gallons (liters)	5.5 (21)	5.5 (21)	5.5 (21)	5.5 (21)	5.5 (21)	6 (23)
Condensers, High Efficiency Fin and Tube Type						
Pumpdown capacity, lb (kg)	416 (189)	416 (189)	416 (189)	416 (189)	416 (189)	500 (227)
Coil inlet face area, ft^2 (m^2)	246.1 (22.8)	246.1 (22.8)	246.1 (22.8)	246.1 (22.8)	246.1 (22.8)	295.3 (27.4)
Rows deep/fins per inch	3 / 16	3 / 16	3 / 16	3 / 16	3 / 16	3 / 16
Condenser Fans, Direct Drive Propeller Type						
No. of fans/circuit–fan dia., in (mm)	10–31.5 (800)	10–31.5 (800)	10–31.5 (800)	10–31.5 (800)	10–31.5 (800)	12–31.5 (800)
Fan motors–hp (kW) / rpm	1.4 (1.05)/850		1.4 (1.05)/850		1.4 (1.05)/850	
Fan tip speed, fpm (m/s)	6984 (35)		6984 (35)		6984 (35)	
Airflow, cfm (L/s)	221,700 (104630)		221,700 (104630)		243,870 (115093)	
Evaporator, Direct Expansion Shell and Tube						
Shell dia. tube length, in (mm)	26 x 154 / (660 x 3900)		26 x 154 / (660 x 3900)		26 x 154 / (660 x 3900)	
Water volume, gallons (L)	267 (1011)		267 (1011)		254 (963)	
Victaulic inlet/outlet conn. in. (mm)	10 (273)		10 (273)		10 (273)	
Max. water / refrig. pressure, psi (kPa)	152 (1048)/325 (2241)		152 (1048)/325 (2241)		152 (1048)/325 (2241)	

AWS 280ADP, Packaged, Premium Efficiency, R-134a, VFD Models

Data	AWS 280ADP	
	Circuit 1	Circuit 2
Unit cap. @ AHRI tons (kW)	368 (1295)	
Unit operating charge lb (kg)	310 (141)	310 (141)
Unit dimensions L × W × H, in (mm)	496 x 88 x 100 (12604 x 2225 x 2545)	
Unit operating weight, lb (kg)	25881 (11740)	
Unit shipping weight, lb (kg)	24228 (10990)	
Weight-add for copper fins	3553 (1612)	
Weight-add for louvered panels	1460 (662)	
Compressors, Screw, Semi-Hermetic		
Nominal capacity, tons (kW)	175 (615)	175 (615)
Minimum capacity (% of full load)	20	
Oil charge per circuit, gallons (liters)	6 (23)	6 (23)
Condensers, High Efficiency Fin and Tube Type		
Pumpdown capacity, lb (kg)	500 (227)	500 (227)
Coil inlet face area, ft^2 (m^2)	295.3 (27.4)	295.3 (27.4)
Rows deep/fins per inch	3 / 16	3 / 16
Condenser Fans, Direct Drive Propeller Type		
No. of fans/circuit–fan dia., in (mm)	12–31.5 (800)	12–31.5 (800)
Fan motors–hp (kW) / rpm	1.4 (1.05)/850	
Fan tip speed, fpm (m/s)	6984 (35)	
Airflow, cfm (L/s)	266040 (125556)	
Evaporator, Direct Expansion Shell and Tube		
Shell dia. tube length, in (mm)	26 x 154 / (660 x 3900)	
Water volume, gallons (L)	254 (963)	
Victaulic inlet/outlet conn. in. (mm)	10 (273)	
Max. water / refrig. pressure, psi (kPa)	152 (1048)/325 (2241)	

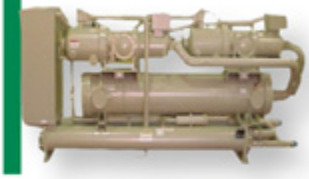
Water-Cooled Chiller Selection Chart

Model:

WGZ — R-410A
Water-cooled Scroll Compressor Chiller

30 - 200 tons

WGS — R-134a
Water-cooled Screw Compressor Chiller



130 - 190 tons

WMC/WME — R-134a
Magnitude™ Frictionless Centrifugal Chiller

WMC WME

145 - 570 tons

WSC — R-134a
Water-cooled Centrifugal Single Compressor Chiller

200 - 1250 tons

WDC — R-134a
Water-cooled Centrifugal Dual Compressor Chiller Single Circuit

400 - 2500 tons

WCC — R-134a
Water-cooled Centrifugal Dual Compressor Chiller Dual Circuit

1200 - 2700 tons

Water-Cooled Scroll Compressor Chillers—30 to 200 Tons

- Efficient—up to 16.7 EER at full load, up to 20.1 EER at part load (IPLV)
- Scroll compressor technology is quiet for installation in sound sensitive environments
- Available for water-cooled, remote air-cooled, or evaporative condenser applications
- Controls flexibility—MicroTech® II controls with our Open Choices™ feature for easy integration with the BAS of your choice
- Designed for easy retrofit—fits through a standard three ft. door (sizes up to 130 tons)
- R-410A refrigerant has no phase-out schedule and no ozone depletion potential

For more detail, refer to Catalog WGZC. For the most current information, refer to www.mcquay.com.

Model WGZ-C—30 to 200 tons, R-410A

Modbus®

BACnet International

LONMARK 3.3

Available LONMARK certified

WGZ Water-Cooled Scroll Compressor Packaged Chiller—Physical Data

WGZ 030CW through 055CW, Packaged, R-410A

WGZ unit size	030CW		035CW		040CW		045CW		050CW		055CW	
Unit capacity @ AHRI conditions tons, (kW)[1]	30.0 (105.5)		34.6 (121.7)		40.7 (143.1)		45.5 (160.0)		51.4 (180.8)		56.4 (198.4)	
Number of circuits	2		2		2		2		2		2	
Compressors												
Nominal tons	7.5	7.5	9	9	10	10	12	12	13	13	13	15
Number[2]	2	2	2	2	2	2	2	2	2	2	2	2
Staging, circuit #1 in lead	25/50/75/100		25/50/75/100		25/50/75/100		25/50/75/100		25/50/75/100		23/50/73/100	
Staging, circuit #2 in lead	25/50/75/100		25/50/75/100		25/50/75/100		25/50/75/100		25/50/75/100		27/50/77/100	
Oil charge per compressor, oz (L)	85 (2.5)		110 (3.3)		110 (3.3)		110 (3.3)		110 (3.3)		110 (3.3)	
Condenser												
Number	1		1		1		1		1		1	
Number of refrigerant circuits	2		2		2		2		2		2	
Diameter, in (mm)	10 (254)		10 (254)		10 (254)		10 (254)		10 (254)		10 (254)	
Tube length, in (mm)	120 (3048)		120 (3048)		120 (3048)		120 (3048)		120 (3048)		120 (3048)	
Design W.P. psig, (kPa): refrigerant side	500 (3447)		500 (3447)		500 (3447)		500 (3447)		500 (3447)		500 (3447)	
Design W.P. psig, (kPa): water side	232 (1599)		232 (1599)		232 (1599)		232 (1599)		232 (1599)		232 (1599)	
Pump-out capacity, lb (kg)[3]	245.8 (111.7)		245.8 (111.7)		228.2 (103.7)		228.2 (103.7)		205.4 (93.4)		205 (93.4)	
Connections												
Water in and out, in (mm) victaulic	4 (102)		4 (102)		4 (102)		4 (102)		4 (102)		4 (102)	
Relief valve, flare. in (mm)	5/8 (15.9)		5/8 (15.9)		5/8 (15.9)		5/8 (15.9)		5/8 (15.9)		5/8 (15.9)	
Purge valve, flare, in (mm)	1/2 (12.7)		1/2 (12.7)		1/2 (12.7)		1/2 (12.7)		1/2 (12.7)		1/2 (12.7)	
Vent and drain, in (mm) FPT	1/4 (6.4)		1/4 (6.4)		1/4 (6.4)		1/4 (6.4)		1/4 (6.4)		1/4 (6.4)	
Liquid subcooling	Integral		Integral		Integral		Integral		Integral		Integral	
Evaporator–brazed plate-to-plate												
Number	1		1		1		1		1		1	
No. refrigerant circuits	2		2		2		2		2		2	
Water volume, gallons, (L)	1.9 (7.1)		2.2 (8.3)		2.4 (9.1)		2.9 (11.0)		3.4 (12.8)		3.7 (14.0)	
Refrig. side D.W.P. (working pressure) psig, (kPa)	450 (3102)		450 (3102)		450 (3102)		450 (3102)		450 (3102)		450 (3102)	
Water side D.W.P. (working pressure) psig, (kPa)	653 (4500)		653 (4500)		653 (4500)		653 (4500)		653 (4500)		653 (4500)	
Water connections												
Inlet and outlet, in (mm) victaulic	2.5 (65)		2.5 (65)		2.5 (65)		2.5 (65)		2.5 (65)		2.5 (65)	
Relief valve, flare, in (mm)	5/8 (15.9)		5/8 (15.9)		5/8 (15.9)		5/8 (15.9)		5/8 (15.9)		5/8 (15.9)	
Drain and vent (NPT int.)	Field		Field		Field		Field		Field		Field	
Unit dimensions												
Length, in (mm)	136.0 (3455)		136.0 (3455)		136.0 (3455)		136.0 (3455)		136.0 (3455)		136.0 (3455)	
Width, in (mm)	32.8 (832)		32.8 (832)		32.8 (832)		32.8 (832)		32.8 (832)		32.8 (832)	
Height, in (mm)	63.4 (1609)		63.4 (1609)		63.4 (1609)		63.4 (1609)		63.4 (1609)		63.4 (1609)	
Unit weights												
Operating weight, lb (kg)	2486 (1128)		2572 (1167)		2631 (1193)		2650 (1202)		2752 (1248)		2771 (1257)	
Shipping weight, lb (kg)	2410 (1093)		2496 (1132)		2539 (1152)		2558 (1160)		2639 (1197)		2658 (1206)	
Cir # 1, operating charge, lb (kg) R-410A	45 (20.5)		45 (20.5)		47 (21.4)		47 (21.4)		47 (21.4)		50 (22.7)	
Cir # 2, operating charge, lb (kg) R-410A	45 (20.5)		45 (20.5)		47 (21.4)		47 (21.4)		47 (21.4)		50 (22.7)	

1. Certified in accordance with AHRI Standard 550/590-98.
2. All units have two compressors per circuit in parallel.
3. 90% Full R-410A at 90°F (32°C) per unit.

WGZ 060CW through 100CW, Packaged, R-410A

WGZ unit size	060CW		070CW		080CW		090CW		100CW	
Unit capacity @ AHRI conditions tons, (kW)[1]	60.5 (212.8)		70.8 (249.0)		78.3 (275.4)		88.0 (309.5)		97.8 (344.0)	
Number of circuits	2		2		2		2		2	
Compressors										
Nominal tons	15	15	15/20	15/20	20	20	20	26	26	26
Number[2]	2	2	2	2	2	2	2	2	2	2
Staging, circuit #1 in lead	25/50/75/100		22/50/72/100		25/50/75/100		25/50/75/100		25/50/75/100	
Staging, circuit #2 in lead	25/50/75/100		22/50/72/100		25/50/75/100		25/50/75/100		25/50/75/100	
Oil charge per compressor, oz (L)	110 (3.3)		110 (3.3) 158 (4.7)		158 (4.7)		158 (4.7) 230 (6.8)		230 (6.8)	
Condenser										
Number	1		1		1		1		1	
Number of refrigerant circuits	2		2		2		2		2	
Diameter, in (mm)	10 (254)		14 (356)		14 (356)		14 (356)		14 (356)	
Tube length, in (mm)	120 (3048)		120 (3048)		120 (3048)		120 (3048)		120 (3048)	
Design W.P. psig, (kPa): refrigerant side	500 (3447)		500 (3447)		500 (3447)		500 (3447)		500 (3447)	
Design W.P. psig, (kPa): water side	232 (1599)		232 (1599)		232 (1599)		232 (1599)		232 (1599)	
No. of passes	2		2		2		2		2	
Pump-out capacity, lb (kg)[3]	205.4 (93.4)		415.1 (188.7)		397.5 (180.7)		371.1 (168.7)		344.7 (156.7)	
Connections										
Water in and out, in (mm) victaulic	4 (102)		4 (102)		4 (102)		4 (102)		4 (102)	
Relief valve, flare. in (mm)	5/8 (15.9)		5/8 (15.9)		5/8 (15.9)		5/8 (15.9)		5/8 (15.9)	
Purge valve, flare, in (mm)	1/2 (12.7)		1/2 (12.7)		1/2 (12.7)		1/2 (12.7)		1/2 (12.7)	
Vent and drain, in (mm) FPT	1/4 (6.4)		1/4 (6.4)		1/4 (6.4)		1/4 (6.4)		1/4 (6.4)	
Liquid subcooling	Integral		Integral		Integral		Integral		Integral	
Evaporator–brazed plate-to-plate										
Number	1		1		1		1		1	
No. refrigerant circuits	2		2		2		2		2	
Water volume, gallons, (L)	4.2 (15.9)		6.4 (24.3)		6.6 (24.9)		7.5 (28.4)		8.0 (30.2)	
Refrig. side D.W.P. (working pressure) psig, (kPa)	450 (3102)		450 (3102)		450 (3102)		450 (3102)		450 (3102)	
Water side D.W.P. (working pressure) psig, (kPa)	653 (4500)		653 (4500)		653 (4500)		653 (4500)		653 (4500)	
Water connections										
Inlet and outlet, in (mm) victaulic	2.5 (65)		3 (76)		3 (76)		3 (76)		3 (76)	
Relief valve, flare, in (mm)	5/8 (15.9)		5/8 (15.9)		5/8 (15.9)		5/8 (15.9)		5/8 (15.9)	
Drain and vent (NPT int.)	Field		Field		Field		Field		Field	
Unit dimensions										
Length, in (mm)	136.0 (3455)		143.3 (3639)		149.6 (3799)		149.4 (3795)		149.4 (3795)	
Width, in (mm)	32.8 (832)		35 (889)		35 (889)		35 (889)		35 (889)	
Height, in (mm)	63.4 (1609)		65.5 (1664)		65.5 (1664)		65.5 (1664)		65.5 (1664)	
Unit weights										
Operating weight, lb (kg)	2801 (1271)		3887 (1763)		4302 (1951)		4507 (2044)		4678 (2122)	
Shipping weight, lb (kg)	2688 (1219)		3746 (1699)		4145 (1880)		4327 (1963)		4474 (2029)	
Cir # 1, operating charge, lb (kg) R-410A	50 (22.7)		74 (33.6)		80 (36.4)		80 (36.4)		90 (40.9)	
Cir # 2, operating charge, lb (kg) R-410A	50 (22.7)		74 (33.6)		80 (36.4)		80 (36.4)		90 (40.9)	

1. Certified in accordance with AHRI Standard 550/590-98.
2. All units have two compressors per circuit in parallel.
3. 90% Full R-410A at 90°F (32°C) per unit.

WGZ 115CW through 200CW, Packaged, R-410A

WGZ unit size	115CW		130CW		150CW		170CW		200CW	
Unit capacity @ AHRI conditions tons, (kW)[1]	112.9 (397.1)		125.4 (441.0)		146.6 (515.6)		169.3 (595.4)		188.1 (661.5)	
Number of circuits	2		2		2		2		2	
Compressors										
Nominal tons	26/30	26/30	30	30	26	26	26	30	30	30
Number[2]	2	2	2	2	3	3	3	3	3	3
Staging, circuit #1 in lead	22/50/72/100		25/50/75/100		17/33/50/67/83/100		15/33/48/67/81/100		17/33/50/67/83/100	
Staging, circuit #2 in lead	22/50/72/100		25/50/75/100		17/33/50/67/83/100		19/33/52/67/86/100		17/33/50/67/83/100	
Oil charge per compressor, oz (L)	230 (6.8) 213 96.3)		213 (6.3)		230 (6.8)		230 (6.8) 213 (6.3)		213 (6.3)	
Condenser										
Number	1		1		1		1		1	
Number of refrigerant circuits	2		2		2		2		2	
Diameter, in (mm)	14 (356)		14 (356)		16 (406.4)		16 (406.4)		16 (406.4)	
Tube length, in (mm)	120 (3048)		120 (3048)		144 (3658)		144 (3658)		144 (3658)	
Design W.P. psig, (kPa): refrigerant side	500 (3447)		500 (3447)		500 (3447)		500 (3447)		500 (3447)	
Design W.P. psig, (kPa): water side	232 (1599)		232 (1599)		232 (1599)		232 (1599)		232 (1599)	
Pump-out capacity, lb (kg)[3]	344.7 (156.7)		344.7 (156.7)		572.3 (260.1)		508.9 (231.3)		508.9 (231.3)	
Connections										
Water in and out, in (mm) victaulic	4 (102)		4 (102)		5 (127)		5 (127)		5 (127)	
Relief valve, flare. in (mm)	5/8 (15.9)		5/8 (15.9)		5/8 (15.9)		5/8 (15.9)		5/8 (15.9)	
Purge valve, flare, in (mm)	1/2 (12.7)		1/2 (12.7)		1/2 (12.7)		1/2 (12.7)		1/2 (12.7)	
Vent and drain, in (mm) FPT	1/4 (6.4)		1/4 (6.4)		1/4 (6.4)		1/4 (6.4)		1/4 (6.4)	
Liquid subcooling	Integral		Integral		Integral		Integral		Integral	
Evaporator–brazed plate-to-plate					**Evaporator–shell and tube**					
Number	1		1		1		1		1	
No. refrigerant circuits	2		2		2		2		2	
Water volume, gallons, (L)	8.5 (32.1)		10.5 (39.7)		57.6 (218.0)		56.9 (215.4)		56.9 (215.4)	
Refrig. side D.W.P. (working pressure) psig, (kPa)	450 (3102)		450 (3102)		450 (3102)		450 (3102)		450 (3102)	
Water side D.W.P. (working pressure) psig, (kPa)	653 (4500)		653 (4500)		150 (1034)		150 (1034)		150 (1034)	
Water connections										
Inlet and outlet, in (mm) victaulic	3 (76)		3 (76)		8 (203)		8 (203)		8 (203)	
Relief valve, flare, in (mm)	5/8 (15.9)		5/8 (15.9)		5/8 (15.9)		5/8 (15.9)		5/8 (15.9)	
Drain and vent (NPT int.)	Field		Field		1/2 (12.7)		1/2 (12.7)		1/2 (12.7)	
Unit dimensions										
Length, in (mm)	149.4 (3795)		149.4 (3795)		170.2 (4322)		170.2 (4322)		170.2 (4322)	
Width, in (mm)	35.0 (889)		35 (889)		36.5 (927)		36.5 (927)		36.5 (927)	
Height, in (mm)	65.5 (1664)		65.5 (1664)		77.7 (1973)		77.7 (1973)		77.7 (1973)	
Unit weights										
Operating weight, lb (kg)	4712 (2137)		4772 (2165)		7370 (3343)		7758 (3519)		7873 (3571)	
Shipping weight, lb (kg)	4508 (2045)		4568 (2072)		6581 (2985)		6921 (3139)		7036 (3192)	
Cir # 1, operating charge, lb (kg) R-410A	100 (45.5)		100 (45.5)		150 (68.2)		150 (68.2)		150 (68.2)	
Cir # 2, operating charge, lb (kg) R-410A	100 (45.5)		100 (45.5)		150 (68.2)		150 (68.2)		150 (68.2)	

1. Certified in accordance with AHRI Standard 550/590-98.
2. All units have two compressors per circuit in parallel.
3. 90% Full R-410A at 90°F (32°C) per unit.

WGZ Water-Cooled Scroll Compressor Chiller with Remote Condenser—Physical Data

WGZ 030CA through 055CA, Remote Condenser, R-410A

WGZ unit size	030CA		035CA		040CA		045CA		050CA		055CA	
Cap @ 44°F LWT, 125°F SDT tons, (kW)	26.6 (93.5)		30.5 (107.3)		35.2 (123.8)		39.8 (139.9)		45.8 (161.0)		50.3 (176.8)	
No. circuits	2		2		2		2		2		2	
Compressors												
Nominal tons	7.5	7.5	9	9	10	10	12	12	13	13	13	15
Number[1]	2	2	2	2	2	2	2	2	2	2	2	2
Staging, circuit #1, in lead	25/50/75/100		25/50/75/100		25/50/75/100		25/50/75/100		25/50/75/100		23/50/73/100	
Staging, circuit #2, in lead	25/50/75/100		25/50/75/100		25/50/75/100		25/50/75/100		25/50/75/100		27/50/77/100	
Oil charge per compressor, oz (L)	85 (2.5)		110 (3.3)		110 (3.3)		110 (3.3)		110 (3.3)		110 (3.3)	
Evaporator–brazed plate-to-plate												
No. refrigerant circuits	2		2		2		2		2		2	
Water volume, gallons (L)	1.9 (7.1)		2.2 (8.3)		2.4 (9.1)		2.9 (11.0)		3.4 (12.8)		3.7 (14.0)	
Refrigerant side D.W.P. psig, (kPa)	450 (3102)		450 (3102)		450 (3102)		450 (3102)		450 (3102)		450 (3102)	
Water side D.W.P. psig, (kPa)	653 (4500)		653 (4500)		653 (4500)		653 (4500)		653 (4500)		653 (4500)	
Water connections: inlet and outlet, in (mm)[2,3]	2.5 (65)		2.5 (65)		2.5 (65)		2.5 (65)		2.5 (65)		2.5 (65)	
Relief valve, flare, in (mm)	5/8 (15.9)		5/8 (15.9)		5/8 (15.9)		5/8 (15.9)		5/8 (15.9)		5/8 (15.9)	
Water connections: drain and vent	Field		Field		Field		Field		Field		Field	
Unit dimensions												
Length, in (mm)	137.0 (3480)		137.0 (3480)		137.0 (3480)		137.0 (3480)		137.0 (3480)		137.0 (3480)	
Width in, (mm)	34 (864)		34 (864)		34 (864)		34 (864)		34 (864)		34 (864)	
Height, in (mm)	60.0 (1524)		60.0 (1524)		60.0 (1524)		60.0 (1524)		60.0 (1524)		60.0 (1524)	
Unit weights												
Operating weight, lb (kg)	1606 (728)		1698 (770)		1715 (778)		1738 (788)		1773 (804)		1795 (814)	
Shipping weight, lb (kg)	1580 (717)		1670 (758)		1685 (764)		1704 (773)		1735 (787)		1754 (796)	
Holding charge, lb (kg) R-410A	10.0 (4.5)		10.0 (4.5)		10.0 (4.5)		10.0 (4.5)		10.0 (4.5)		10.0 (4.5)	

WGZ 060CA through 100CA, Remote Condenser, R-410A

WGZ unit size	060CA		070CA		080CA		090CA		100CA	
Cap @ 44°F LWT, 125°F SDT tons, (kW)	53.9 (189.5)		61.3 (215.7)		68.6 (242)		77.7 (273.3)		86.6 (304.5)	
No. circuits	2		2		2		2		2	
Compressors										
Nominal horsepower	15	15	15/20	15/20	20	20	20	26	26	26
Number[1]	2	2	2	2	2	2	2	2	2	2
Staging, circuit #1, in lead	25/50/75/100		22/50/72/100		25/50/75/100		25/50/75/100		25/50/75/100	
Staging, circuit #2, in lead	25/50/75/100		22/50/72/100		25/50/75/100		25/50/75/100		25/50/75/100	
Oil charge, oz (L)	110 (3.3)		110 (3.3)		158 (4.7)		158 (4.7)		230 (6.8)	
Evaporator–brazed plate-to-plate										
No. refrigerant circuits	2		2		2		2		2	
Water volume, gallons (L)	4.2 (15.9)		6.4 (24.3)		6.6 (24.9)		7.5 (28.4)		8.0 (30.2)	
Refrigerant side D.W.P. (working pressure) psig, (kPa)	450 (3102)		450 (3102)		450 (3102)		450 (3102)		450 (3102)	
Water side D.W.P. (working press. psig, (kPa)	653 (4500)		653 (4500)		653 (4500)		653 (4500)		653 (4500)	
Water connections: inlet and outlet, in (mm)[2, 3]	2.5 (63)		3 (76)		3 (76)		3 (76)		3 (76)	
Relief valve, flare, in (mm)	5/8 (15.9)		5/8 (15.9)		5/8 (15.9)		5/8 (15.9)		5/8 (15.9)	
Water connections: drain and vent	Field		Field		Field		Field		Field	
Unit dimensions										
Length, in (mm)	137.0 (3480)		137.0 (3480)		137.0 (3480)		137.0 (3480)		137.0 (3480)	
Width, in (mm)	34 (864)		34 (864)		34 (864)		34 (864)		34 (864)	
Height, in (mm)	60 (1524)		60 (1524)		60 (1524)		60 (1524)		60 (1524)	
Unit weights										
Operating wt, lb (kg)	1816 (824)		2474 (1122)		2787 (1264)		2928 (1328)		3050 (1383)	
Shipping wt, lb (kg)	1771 (803)		2406 (1091)		2717 (1232)		2851 (1293)		2968 (1346)	
Cir #1 holding chg, lb (kg) R-410A per circuit	10.0 (4.5)		15 (6.8)		15 (6.8)		15 (6.8)		15 (6.8)	

1. All units have two compressors per circuit in parallel.
2. Victaulic connections.
3. Condenser and field piping not included.

WGZ 115CA through 200CA, Remote Condenser, R-410A

WGZ unit size	115CA		130CA		150CA		170CA		200CA	
Cap @ 44°F LWT, 125°F SDT tons, (kW)	100.1 (352.2)		111.4 (391.7)		129.9 (456.8)		150.2 (528.3)		170.6 (599.8)	
No. circuits	2		2		2		2		2	
Compressors										
Nominal horsepower	26/30	26/30	30	30	26	26	26	30	30	30
Number[1]	2	2	2	2	3	3	3	3	3	3
Staging, circuit #1, in lead	22/50/72/100		25/50/75/100		17/33/50/67/83/100		15/33/48/67/81/100		17/33/50/67/83/100	
Staging, circuit #2, in lead	22/50/72/100		25/50/75/100		17/33/50/67/83/100		19/33/52/67/86/100		17/33/50/67/83/100	
Oil charge, oz (L)	230 (6.8) 213 (6.3)		213 (6.3)		230 (6.8)		230 (6.8) 213 (6.3)		213 (6.3)	
Evaporator–brazed plate-to-plate					**Evaporator–shell and tube**					
No. refrigerant circuits	2		2		2		2		2	
Water volume, gallons (L)	8.5 (32.1)		10.5 (39.7)		57.6 (218.0)		56.9 (215.4)		56.9 (215.4)	
Refrigerant side D.W.P. (working pressure) psig, (kPa)	450 (3102)		450 (3102)		450 (3102)		450 (3102)		450 (3102)	
Water side D.W.P. (working press. psig, (kPa)	653 (4500)		653 (4500)		150 (1034)		150 (1034)		150 (1034)	
Water connections: inlet and outlet, in (mm)[2, 3]	3 (76)		3 (76)		8 (203)		8 (203)		8 (203)	
Relief valve, flare, in (mm)	5/8 (15.9)		5/8 (15.9)		5/8 (15.9)		5/8 (15.9)		5/8 (15.9)	
Water connections: drain and vent	Field		Field		1/2 (12.7)		1/2 (12.7)		1/2 (12.7)	
Unit dimensions										
Length, in (mm)	137.0 (3480)		137.0 (3480)		154.0 (3912)		154.0 (3912)		154.0 (3912)	
Width, in (mm)	34 (864)		34 (864)		34 (864)		34 (864)		34 (864)	
Height, in (mm)	60 (1524)		60 (1524)		75 (1905)		75 (1905)		75 (1905)	
Unit weights										
Operating wt, lb (kg)	3120 (1415)		3194 (1449)		5279 (2395)		5385 (2443)		5498 (2494)	
Shipping wt, lb (kg)	3035 (1377)		3091 (1402)		4779 (2168)		4891 (2219)		5004 (2270)	
Cir #1 holding chg, lb (kg) R-410A per circuit	15 (6.8)		15 (6.8)		20 (9.1)		20 (9.1)		20 (9.1)	

1. All units have two compressors per circuit in parallel.
2. Victaulic connections.
3. Condenser and field piping not included.

Water-Cooled Screw Compressor Chillers—130 to 190 Tons

- Meets ASHRAE Standard 90.1-2004 with part load efficiencies as low as 0.536 IPLV
- Two refrigerant circuits improve part load efficiency
- Single main rotor compressor means inherently quieter operation than dual rotor compressors
- Compact size fits through a 3-foot door for lower installed costs
- Solid state starters are standard to provide controlled acceleration and deceleration with less compressor stress and vibration
- Controls flexibility—MicroTech® II controls with our Open Choices™ feature for easy integration with the BAS of your choice
- R-134a refrigerant has no ozone depletion potential and no phase-out schedule

For more detail, refer to Catalog WGS. For the most current information, refer to www.mcquay.com.

Model WGS—130 to 190 tons
R-134a

LONMARK 3.3
Available LONMARK certified

BACnet International

Modbus®

WGS Water-Cooled Screw Compressor Packaged Chiller—Physical Data

WGS 130AW through 190AW, Packaged, R-134a

Physical data	130AW	140AW	160AW	170AW	190AW
Unit capacity @ AHRI conditions tons, (kW)[1]	130.0 (457.1)	140.7 (494.7)	156.7 (551.0)	169.6 (596.3)	182.1 (640.3)
No. circuits	2	2	2	2	2
Compressors					
Nominal horsepower	65 / 65	65 / 80	80 / 80	80 / 95	95 / 95
Number[2]	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1
% minimum capacity (modulated)[4]	15	13/17	15	14/16	15
Oil charge per compressor, oz (L)	256 (7.6)	256 (7.6)	256 (7.6)	256 (7.6)	256 (7.6)
Condenser					
Number	2	2	2	2	2
No. refrigerant circuits per condenser	1	1	1	1	1
Diameter, in (mm)	12 (305)	12 (305)	12 (305)	12 (305)	12 (305)
Tube length, in (mm)	120 (3048)	120 (3048)	120 (3048)	120 (3048)	120 (3048)
Design w.p. psig, (kPa): refrigerant side	350 (2413)	350 (2413)	350 (2413)	350 (2413)	350 (2413)
Design w.p. psig, (kPa): water side	225 (1551)	225 (1551)	225 (1551)	225 (1551)	225 (1551)
No. of passes	2	2	2	2	2
Pump-out capacity per circuit, lb (kg)[4]	330 (150)	330 (150)	330 (150)	296 (134)	296 (134)
Connections: water in and out, in, (mm) victaulic	4.0 (101)	4.0 (101)	4.0 (101)	4.0 (101)	4.0 (101)
Connections: relief valve, in (mm)	0.5 (12.7)	0.5 (12.7)	0.5 (12.7)	0.5 (12.7)	0.5 (12.7)
Connections: purge valve, flare in (mm)	.625 (15.9)	.625 (15.9)	.625 (15.9)	.625 (15.9)	.625 (15.9)
Connections: vent and drain, in (mm) FPT	0.5 (12.7)	0.5 (12.7)	0.5 (12.7)	0.5 (12.7)	0.5 (12.7)
Connections: liquid subcooling	Integral	Integral	Integral	Integral	Integral
Evaporator					
Number	1	1	1	1	1
No. refrigerant circuits	2	2	2	2	2
Water volume, gallons, (L)	68 (257)	68 (257)	115 (435)	115 (435)	115 (435)
Refrig. side D.W.P., psig, (kPa)	354 (2441)	354 (2441)	354 (2441)	354 (2441)	354 (2441)
Water side D.W.P., psig, (kPa)	150 (1034)	150 (1034)	150 (1034)	150 (1034)	150 (1034)
Water connections: inlet and outlet, in (mm) victaulic	6.0 (152)	6.0 (152)	8.0 (203)	8.0 (203)	8.0 (203)
Water connections: drain and vent (NPT int.)	0.5	0.5	0.5	0.5	0.5
Unit dimensions[5]					
Length, in (mm)	169.9 (4315)	169.9 (4315)	169.9 (4315)	169.9 (4315)	169.9 (4315)
Width, in (mm)	34 (864)	34 (864)	34 (864)	34 (864)	34 (864)
Height, in (mm)	74.6 (1895)	74.6 (1895)	76.6 (1946)	76.6 (1946)	76.6 (1946)
Unit weights					
Operating weight, lb (kg)	8557 (3881)	8557 (3881)	9314 (4225)	9505 (4311)	9505 (4311)
Shipping weight, lb (kg)	7840 (3556)	7840 (3556)	8206 (3722)	8345 (3785)	8345 (3785)
Operating charge per circuit, R-134a, lb (kg)	127 (58)	127 (58)	128 (58)	124 (56)	124 (56)

1. Certified in accordance with AHRI Standard 550/590-98.
2. All units have one compressor per circuit.
3. 80% full R-134a at 90°F (32°C) per refrigerant circuit.
4. On units with mixed capacity compressors, the minimum capacity depends on which compressor is lag.
5. Without sound enclosure – see dimension drawing in CAT AGS for enclosure dimensions.

WGS Water-Cooled Screw Compressor Chiller with Remote Condenser—Physical Data

WGS 130AA through 190AA, Remote Condensers, R-134a

Physical data	130AA	140AA	160AA	170AA	190AA
Unit capacity @ 44°F LWT and 125°F SDT tons, (kW)[1]	116.0 (407.9)	125.9 (442.7)	136.1 (478.5)	148.0 (520.4)	160.1 (562.9)
No. circuits	2	2	2	2	2
Compressors					
Nominal horsepower	65 / 65	65 / 80	80 / 80	80 / 95	95 / 95
Number[2]	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1
% minimum capacity (modulated)[3]	15	13/17	15	14/16	15
Oil charge per compressor, oz (L)	256 (7.6)	256 (7.6)	256 (7.6)	256 (7.6)	256 (7.6)
Condenser (remote)					
Evaporator					
Number	1	1	1	1	1
No. refrigerant circuits per condenser	2	2	2	2	2
Water volume, gallons (L)	68 (257)	68 (257)	115 (435)	115 (435)	115 (435)
Refrig. side D.W.P., psig, (kPa)	354 (2441)	354 (2441)	354 (2441)	354 (2441)	354 (2441)
Water side D.W.P., psig, (kPa)	150 (1034)	150 (1034)	150 (1034)	150 (1034)	150 (1034)
Water connections: inlet and outlet, in (mm) victaulic	6.0 (152)	6.0 (152)	8.0 (203)	8.0 (203)	8.0 (203)
Water connections: drain and vent (npt int.)	0.5	0.5	0.5	0.5	0.5
Unit dimensions[4]					
Length, in (mm)	179.3 (4554)	179.3 (4554)	179.3 (4554)	179.3 (4554)	179.3 (4554)
Width, in (mm)	34.0 (864)	34.0 (864)	34.0 (864)	34.0 (864)	34.0 (864)
Height, in (mm)	60.8 (1544)	60.8 (1544)	62.8 (1595)	62.8 (1595)	62.8 (1595)
Unit weights[5]					
Operating weight, lb (kg)	6265 (2841)	6265 (2841)	7022 (3185)	7022 (3185)	7022 (3185)
Shipping weight, lb (kg)	5659 (2567)	5659 (2567)	6024 (2732)	6024 (2732)	6024 (2732)
Operating charge per circuit, lb (kg)[6]	35 (15.9)	35 (15.9)	36 (16.5)	36 (16.5)	36 (16.5)

1. Certified in accordance with AHRI Standard 550/590-98.
2. All units have one compressor per circuit.
3. On units with mixed capacity compressors, the minimum capacity depends on which compressor is lag.
4. Without sound enclosure – see dimension drawing for enclosure dimensions.
5. Add 650 lbs (295 kg) for sound enclosure.
6. Indoor unit only. Does not include field piping or condenser charge. System charge of R-134a supplied by the installing contractor.

Magnitude™ Magnetic Bearing Centrifugal Chillers—145 to 400 Tons

- Energy savings with part load performance as low as 0.31 kW/ton IPLV; full load performance as low as 0.62 kW/ton
- Quietest sound levels in the industry with sound pressure ratings as low as 76 dBA per AHRI Standard 575
- Lower maintenance costs because the frictionless, magnetic bearing compressor design eliminates the oil support system
- R-134a refrigerant with no ozone depletion potential or phase-out schedule
- Controls flexibility—Open Choices™ feature for easy integration with the BAS of your choice
- Sustainable performance over the operating life of the chiller–a positive pressure, oil-free design eliminates performance degradation due to non-condensables and oil contamination of the refrigerant

For more detail, refer to Catalog 602.
For the most current information, refer to www.mcquay.com.

Daikin McQuay Magnitude Chiller—145 to 400 tons, Model WMC, R-134a

LONMARK 3.3
Available LONMARK certified

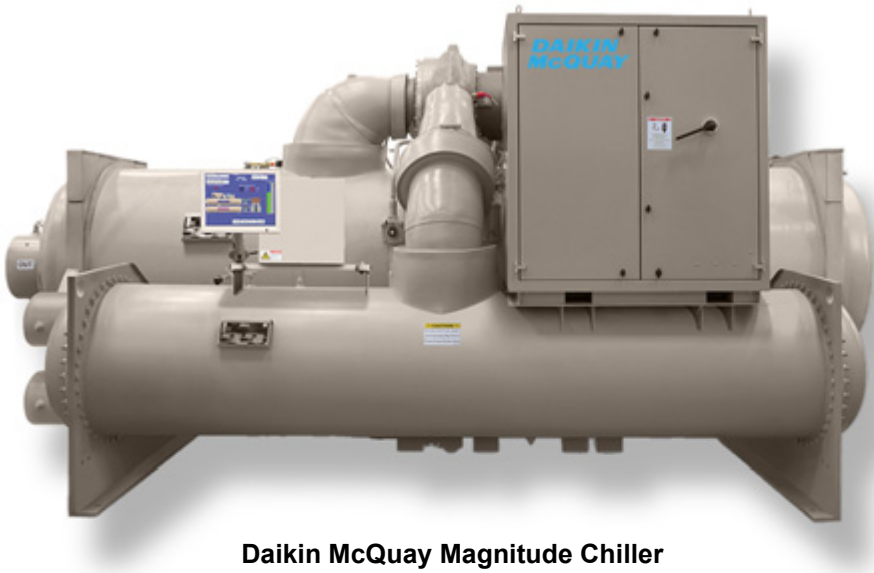
BACnet International

Modbus®

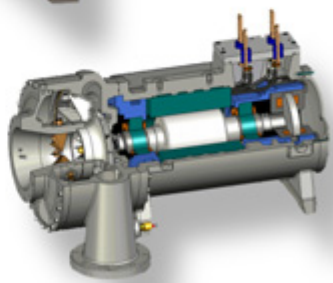
Magnitude™ Magnetic Bearing Centrifugal Chiller - 400 to 570 Tons

- World class efficiency at full and part load
- Green - Contributes to LEED® Green Building Rating System points for enhanced refrigerant management and optimized energy efficiency
- Small unit footprint makes it ideal for retrofit and replacement projects
- Quiet operation for sound sensitive environment
- Uses R-134a refrigerant which has no ozone depletion potential and no phase-out schedule
- Open Choices™ control feature for easy integration to a building automation system
- Magnetic bearing compressor eliminates the need for an oil management system and its associated maintenance costs
- Integrated variable frequency drive for optimized part load performance
- Sustainable performance over the operating life of the chiller–a positive pressure, oil-free design eliminates performance degradation due to non-condensables and oil contamination of the refrigerant

For more detail, refer to Catalog 604.
For the most current information, refer to www.mcquay.com.



Daikin McQuay Magnitude Chiller
400 to 570 tons,
Model WME, R-134a



WME Compressor
Cutaway View

LONMARK 3.4
Available LONMARK certified

BACnet International

Modbus®

WMC Evaporator Physical Data

WMC model	Evaporator model	Tube length	Unit refrigerant charge lb (kg)	Evaporator water volume gal (L)	Insulation area sq ft (m^2)	Number of relief valves
145S, 145D	E2209	9 ft.	550 (249)	38 (145)	66 (6.1)	1
150D	E2212	12 ft.	800 (363)	45 (170)	90 (8.3)	1
250D	E2609	9 ft.	600 (272)	61 (231)	76 (7.1)	1
290D	E2612	12 ft.	1100 (500)	72 (273)	102 (9.4)	1
400D	E3012	12 ft.	1240 (562)	88 (336)	114 (11)	1

1. Refrigerant charge is approximate since the actual charge depends on other variables. Actual charge is shown on unit nameplate.
2. Water capacity is based on standard tube configuration and standard dished heads.

WMC Condenser Physical Data

WMC model	Condenser model	Tube length	Maximum pumpdown capacity lb (kg)	Evaporator water volume gal (L)	Number of relief valves
145S, 145D	C2009	9 ft.	728 (330)	47 (147)	2
150D	C2012	12 ft.	971 (440)	62 (236)	2
250D	C2209	9 ft.	883 (401)	50 (223)	2
290D	C2212	12 ft.	1174 (533)	72 (273)	2
400D	C2612	12 ft.	1174 (533)	111 (419)	2

1. Condenser pumpdown capacity based on 90% full at 90°F.
2. Water capacity is based on standard configuration and standard heads and can be less with lower tube counts.

WMC Overall Dimensions, 2-Pass Vessels

Data	WMC 145S, 145D		WMC 150		WMC 250		WMC 290		WMC 400	
	Same end	Opp. end	Same end	Opp. end	Same end	Opp. end	Same end	Opp. end	Same end	Opp. end
Length, in (mm)	135 (3429)	141 (3581)	171 (4343)	177 (4496)	135 (3429)	141 (3581)	171 (4343)	171 (4343)	169 (4292)	172 (4368)
Width, in (mm)	39 (991)	39 (991)	38 (965)	38 (965)	44 (1117)	44 (1117)	44 (1117)	44 (1117)	47 (737)	47 (737)
Height, in (mm)	80 (2032)	80 (2032)	80 (2032)	80 (2032)	83 (2108)	83 (2108)	83 (2108)	83 (2108)	93 (2351)	93 (2351)
Overall shipping weight, lb (kg)	5399 (2449)-WMC145S 6252 (2836)-WMC145D		7380 (3347)		7525 (3414)		10,953 (4923)		12,629 (5728)	

For the most current information on the Magnitude WME unit, please visit www.mcquay.com.

WME/WMC Performance Data

WME model	Capacity tons	Full load, kW/ton	IPLV
WME500S	570	0.551	0.325[1]
WME550S	500	0.531	0.312
WMC400D	390	0.599	0.328
WMC400D	360	0.572	0.325
WMC290D	290	0.627	0.326
WMC250D	250	0.627	0.354
WMC150D	150	0.616	0.357
WMC145D	145	0.634	0.368
WMC145S	145	0.666	0.363

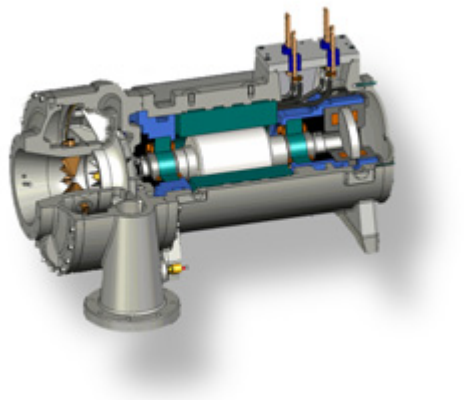
1. 17% energy savings over comparable standard centrifugal chiller w/VFD.

Magnetic Bearing Compressors As Reliable As They Are Efficient

- Magnetic bearings eliminate mechanical seals and wear surfaces for longer machine life.
- The simplicity of a direct-drive motor and shaft eliminates gears, slide valves and extra parts to increase reliability.
- VFD designed as an integrated component with the compressor and optimized by digital controls to reduce power consumption while maximizing chiller performance.
- Reduced in-rush current by utilizing a VFD; a gradual soft start that lessens mechanical and thermal stresses leading to increased motor life.
- Onboard digital controls to continuously monitor operating status and provide fault protections.
- Oil-free design eliminates oil management systems for improved compressor and system reliability. The oil-free design also eliminates the possibility of efficiency robbing oil contamination of heat-transfer surfaces.

Power Protection for Long-Term Viability

The compressor's ability to protect itself from low power quality, and to have controlled response in power loss situations, is a feature that enhances long-term compressor viability and reduces downtime. Magnitude chillers can often remain on-line through minor power disturbances and some models meet industry voltage sag immunity standard SEMI F47. In extreme or extended power disruptions, Magnitude compressors are designed to regenerate power from the spinning motor and feed that power back to the bearings and control system. This regenerative power mode allows the compressor shaft to coast down and gently reseat onto touchdown bearings



WME Compressor Cutaway View

Why Magnetic Bearing Compressors Are the Right Technology for Today

The frictionless magnetic bearing compressor was developed to improve performance, reliability and reduce service requirements as compared with conventional centrifugal compressor designs. The magnetic bearing compressor is a single rotating component – the compressor shaft – levitated on a magnetic cushion. This cushion results in the shaft not being in contact with any other part of the compressor while operating. The compressor shaft is kept perfectly aligned in all directions by sensors at each magnetic bearing providing real-time feedback to the digital bearing control system. This cutting edge magnetic bearing technology enables outstanding energy efficiency and reliable, long-life operation.

Water-Cooled Centrifugal Compressor Water Chillers—200 to 2700 Tons

- R-134a refrigerant with no ozone depletion potential and no phase-out schedule
- Smallest footprint per ton in the industry to optimize equipment room space
- Controls flexibility—MicroTech® II controls with our Open Choices™ feature for easy integration with the BAS of your choice
- Moveable diffuser geometry provides superior part load performance with or without a VFD
- Dual compressor chiller models offer efficiency choices: WDC for superior part load efficiency and WCC for exceptional full load efficiency

For more detail, refer to Catalog 605.
For the most current information, refer to www.mcquay.com.

Model WDC dual compressor—single circuit
R-134a—400 to 2500 tons

Model WSC single compressor
R-134a—200 to 1250 tons

Model WCC dual compressor—dual circuit
R-134a—1200 to 2700 tons

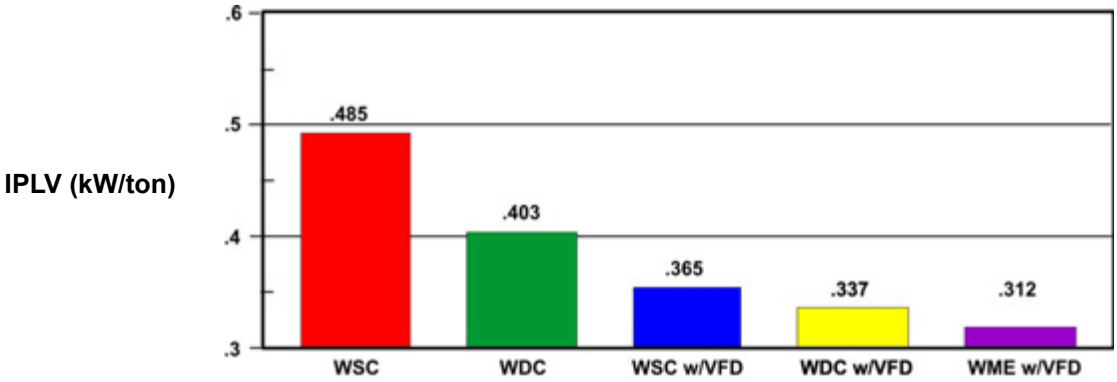
Modbus®

BACnet International

LonMark 3.3

Available LonMark certified

Relative IPLV efficiencies of various McQuay options for 500-ton selection



Notes: WSC = Single Compressor Centrifugal Chiller
WDC = Dual Compressor Centrifugal Chiller
VFD = Variable Frequency Drive
WME = Magnitude™ Magnetic Bearing Centrifugal Chiller

Physical Data

Model WSC Series Single Compressor Chiller

Chiller model	Nominal capacity tons (kW)	Dimensions (in)[1]			Max. unit operating weight (lb)[1]
		Maximum length	Maximum width (w/o starter)	Maximum height	
WSC 063	200–300 (700–1050)	175 (4445)	96 (2438)	96 (2438)	16,769 (7606)
WSC 079/087	300–600 (1050–2100)	175 (4445)	80 (2032)	105 (2667)	24,999 (11,340)
WSC 100/113/126	600–1300 (2100–4550)	181 (4597)	104 (2642)	106 (2692)	43,017 (19,513)

1. Lengths in inches (mm), weight in pounds (kg).

Models WDC and WCC Dual Compressor Chiller

Chiller model	Nominal capacity tons (kW)	Dimensions (in)[1]			Max. unit operating weight (lb)[1]
		Maximum length	Maximum width (w/o starter)	Maximum height	
WDC 063	400–600 (1400–2100)	221 (5623)	64 (1619)	90 (2280)	28,815 (13,070)
WDC 079	600–700 (2100–2450)	224 (5698)	74 (1865)	106 (2686)	38,515 (17,470)
WDC 087	700–1200 (2450–4200)	224 (5698)	74 (1865)	106 (2686)	39,875 (18,087)
WDC100/113/126	1200–2700 (4200–8750)	230 (5848)	110 (2792)	116 (2956)	68,996 (31,296)
WDC100/113/126	1200–2700 (4200–9450)	278 (7071)	104 (2651)	110 (2084	65,806 (29,849)

1. Lengths in inches (mm), weight in pounds (kg).

Single Circuit vs. Dual Circuit – What's the best dual compressor model for your system?

Model WDC – Dual Circuit

- Overall lowest energy consumption with best part load performance
- Smaller chilled water plant where unit unloading is expected
- Floor space is limited (16-foot vessel length compared to 20-foot for WCC unit)
- Two or three pass vessels are required, typical of retrofit applications
- Built-in redundancy — a single compressor will provide 60% of full load capacity

Model WCC – Single Circuit

- Lowest kW per ton performance at full load
- Large central plant where cycling chillers for system capacity reduction is expected (three or more chillers)
- High chilled water delta-T and low water pressure drops
- Built-in redundancy — a single compressor will provide 50% of full load capacity
- High efficiency and large capacity with series flow

Combination of WDC and WCC Chillers

- Peak overall system efficiency is a priority
- Example using three WCC and one WDC chiller, all in parallel:
- The WCC units are optimized for full load and the WDC is optimized for part load operation
- The WCC units cycle on and off, while the WDC unit trims the load, running between 5 to 100% capacity

Centrifugal Compressor Water Chillers Features

Positive pressure R-134a design

- Eliminates air and other non-condensables which reduce chiller performance
- No refrigerant phase-out or availability issues

MicroTech II controls

- Color touch screen operator panel
- Easy integration with most building automation systems

Compact design

- Provides the smallest footprint per ton in the industry
- Fits in most tight equipment rooms

Variable frequency drive option

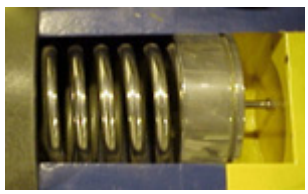
- Improves part-load efficiency
- Reduces annual energy costs

Standard bolt-together construction

- Allows for easier field disassembly and re-assembly
- Facilitates the difficult rigging work often associated with retrofit installations

Power failure coastdown protection

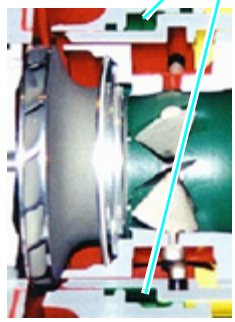
- Lubricated compressor coastdown
- Protects bearings from damage after a power failure



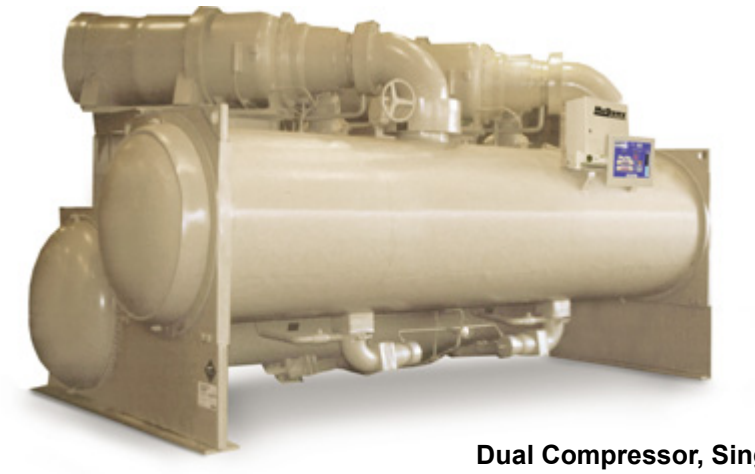
A compressed spring pressurizes an oil reservoir in the compressor, providing force to lubricate bearings in a coastdown.

Unmatched unloading

- Moveable diffuser geometry offers unloading without using a VFD
- Provides improved stability of the chiller water temperature and less harmful cycling of compressors



Dual Compressor Centrifugal Chillers



Dual Compressor, Single Circuit

Dual Compressor, Dual Circuit

All the features and benefits of the single compressor models *plus:*

- Single circuit parallel-flow model provides superior part load efficiency, especially with optional variable frequency drives
- Dual circuit series-counterflow model delivers exceptional full load efficiency
- Automatic backup with at least 60% of the chiller design capacity available on single circuit units and 50% on dual circuit units
- Positive pressure R-134a design has a significantly smaller footprint than R-123 designs

Templifier™ Water Heaters—600 to 19,200 MBh

- Designed to economically turn waste heat into useful heat for loads such as space heating and domestic hot water
- Heats water more economically than fossil fuel or electric resistance heaters
- Can reduce the burden on overloaded boilers and/or cooling towers, thereby delaying or eliminating the capital expenditure required to increase their capacity
- Model TSC Templifier units are equipped with centrifugal compressors. Capacities range from 3000 to 19,200 MBh with hot water temperatures up to 140°F (60°C)
- Model TGZ Templifier units are equipped with scroll compressors using R-134a. Capacities range from 600 to 3100 MBh with hot water temperatures up to 160°F (71°C)
- Controls flexibility—MicroTech® II controls with our Open Choices™ feature for easy integration with the BAS of your choice

For more detail, refer to Catalog Templifier. For the most current information, refer to www.mcquay.com.

Model TSC Templifier Water Heater
3000 to 19,200 MBh (880 to 5,630 kW), R-134a

Model TGZ Templifier Water Heater
600 to 3100 MBh (175 to 900 kW), R-134a

LONMARK 3.3
Available LONMARK certified

BACnet International

Modbus®

Which McQuay Templifier Model is Right for You?

TGZ Scroll Templifier

TSC Centrifugal Templifier

Heating Capacity	600 to 3,100 MBh (176 to 908 kW)	3,000 to 19,200 MBh (880 to 5,630 kW)
Maximum hot water temperature	160ºF (71ºC)	140ºF (60ºC)
Refrigerant	R-134a	R-134a
Communication protocol options	BACnet®, Modbus®, LONWORKS®	

TSC Centrifugal Compressor Templifier Water Heater—Physical Data

TSC 063 through 126, R-134a

TSC unit size	TSC 063	TSC 079	TSC 087	TSC 100	TSC 126
Compressor					
Model	CE 063	CE 079	CE 087	CE 100	CE 126
Number	1	1	1	1	1
Motor speed 60/50 Hz	3550/2960	3550/2960	3550/2960	3550/2960	3550/2960
Condenser					
Diameter/length, in/ft	22/12	26/12	36/12	36/12	36/12
Diameter/length, (mm/mm)	(559/3658)	(660/3658)	(914/3658)	(914/3658)	(914/3658)
Water volume, gal (L)	76 (290)	111 (419)	234 (884)	234 (884)	234 (884)
Two pass connection size, in (mm)	8 (203)	8 (203)	12 (305)	12 (305)	12 (305)
Working press., water, psi (kPa)	150 (1034)	150 (1034)	150 (1034)	150 (1034)	150 (1034)
Working press., refrig, psi (kPa)	300 (2070)	300 (2070)	300 (2070)	300 (2070)	300 (2070)
Evaporator					
Diameter/length, in/ft	26/12	30/12	42/12	42/12	48/12
Diameter/length, (mm/mm)	(660/3658)	(762/3658)	(1067/3658)	(1067/3658)	(1219/3658)
Water volume, gal (L)	72 (273)	101 (381)	222 (841)	222 (841)	327 (1237)
Two pass connection size, in (mm)	8 (203)	10 (254)	14 (356)	14 (356)	18 (457)
Working press., water, psi (kPa)	150 (1034)	150 (1034)	150 (1034)	150 (1034)	150 (1034)
Working press., refrig, psi (kPa)	200 (1380)	200 (1380)	200 (1380)	200 (1380)	200 (1380)
Dimensions					
Length, in (mm)	169 (4293)	175 (4445)	175 (4445)	175 (4445)	175 (4445)
Width w/o starter, in (mm)	48 (1219)	56 (1422)	86 (2184)	86 (2184)	104 (2642)
Height, in (mm)	80 (2032)	88 (2235)	111 (2819)	99 (2515)	99 (2515)
Weights, (w/starter)					
Shipping, lb (kg)	12,777 (5796)	15,835 (7183)	24,657 (11,170)	27,657 (13,545)	33,224 (15,070)
Operating, lb (kg)	14,017 (6358)	17,501 (7938)	28,460 (12,892)	31,460 (14,270)	38,823 (17,610)
Weights, (w/o starter)					
Shipping, lb (kg)	11,577 (5251)	14,635 (6638)	23,457 (10,626)	26,457 (12,001)	32,024 (14,526)
Operating, lb (kg)	12,517 (5678)	16,301 (7394)	27,260 (12,349)	30,260 (13,726)	37,623 (17,066)

TGZ Scroll Compressor Templifier Water Heaters—Physical Data

TGZ 040A through 100A, R-134a

TGZ unit size	TGZ 040A	TGZ 050A	TGZ 060A	TGZ 080A	TGZ 100A
Compressors					
Nominal horsepower	10	13	15	20	25
Number per circuit	2	2	2	2	2
Unloading steps, %	25/50/75/100	25/50/75/100	25/50/75/100	25/50/75/100	25/50/75/100
Oil charge, per compressor, oz (L)	110 (3.3)	110 (3.3)	110 (3.3)	159 (4.7)	200 (5.9)
Condenser					
Number	1	1	1	1	1
Number of refrigerant circuits	2	2	2	2	2
Diameter, in (mm)	10.75 (273)	10.75 (273)	10.75 (273)	14 (356)	14 (356)
Tube length, in (mm)	122 (3099)	122 (3099)	122 (3099)	122 (3099)	122 (3099)
Design W.P. psig, (kPa): refrigerant side	500 (3447)	500 (3447)	500 (3447)	500 (3447)	500 (3447)
Design W.P. psig, (kPa): water side	232 (1599)	232 (1599)	232 (1599)	232 (1599)	232 (1599)
Relief valve setting, psig (kPa)	500 (3447)	500 (3447)	500 (3447)	500 (3447)	500 (3447)
No. of water passes - standard	4	4	4	4	4
No. of water passes - optional	2	2	2	2	2
Water volume, gal (L)	13.6 (51.5)	13.6 (51.5)	16.3 (61.8)	27.5 (104)	27.5 (104)
Pump down capacity, lb (kg)	121.7 (55.2)	121.7 (55.2)	107.3 (48.7)	186 (84)	186 (84)
Two pass connection size, in (mm)	4 (102)	4 (102)	4 (102)	4 (102)	4 (102)
Four pass connection size, in (mm)	3 (76)	3 (76)	3 (76)	4 (102)	4 (102)
Relief valve, flare, in (mm)	5/8 (15.9)	5/8 (15.9)	5/8 (15.9)	5/8 (15.9)	5/8 (15.9)
Purge valve, flare, in (mm)	5/8 (15.9)	5/8 (15.9)	5/8 (15.9)	5/8 (15.9)	5/8 (15.9)
Vent and drain, in (mm) FPT	1/2 (12.7)	1/2 (12.7)	1/2 (12.7)	1/2 (12.7)	1/2 (12.7)
Liquid subcooling	Intregal	Intregal	Intregal	Intregal	Intregal
Evaporator–brazed plate-to-plate					
Number	1	1	1	1	1
Number of refrigerant circuits	2	2	2	2	2
Water volume, gal (L)	3.7 (14.0)	5.0 (18.9)	5.0 (18.9)	8.7 (32.9)	8.7 (32.9)
Design W.P. psig, (kPa): refrigerant side	450 (3102)	450 (3102)	450 (3102)	450 (3102)	450 (3102)
Relief valve setting, psig (kPa)	450 (3102)	450 (3102)	450 (3102)	450 (3102)	450 (3102)
Design W.P. psig, (kPa): water side	450 (3102)	450 (3102)	450 (3102)	450 (3102)	450 (3102)
In & out victaulic water connections, in (mm)	3 (76)	3 (76)	3 (76)	3 (76)	3 (76)
Drain and vent	Field supplied	Field supplied	Field supplied	Field supplied	Field supplied
Dimensions					
Length, in (mm)	139 (3530)	139 (3530)	139 (3530)	153 (3886)	153 (3886)
Width, in (mm)	33 (838)	33 (838)	33 (838)	32.5 (826)	32.5 (826)
Height, in (mm)	63.2 (1605)	63.2 (1605)	63.2 (1605)	65.5 (1664)	65.5 (1664)
Weights, (w/o starter)					
Shipping, lb (kg)	2434 (1104)	2464 (1117)	2496 (1132)	4116 (1867)	4418 (2004)
Operating, lb (kg)	2604 (1181)	2644 (1199)	2699 (1224)	4422 (2005)	4749 (2154)

TGZ 110A through 190A, R-134a

TGZ unit size	TGZ 110A	TGZ 120A	TGZ 150A	TGZ 170A	TGZ 190A
Compressors					
Nominal horsepower	25/30	30	25/25	25/30	30/30
Number per circuit	2/2	2/2	3/3	3/3	3/3
Staging, 4 stages, circuit #1 in lead	23/50/73/100	25/50/75/100	17/33/50/67/83/100	15/33/48/67/81/100	17/33/50/67/83/100
Staging, 4 stages, circuit #2 in lead	27/50/77/100	25/50/75/100	17/33/50/67/83/100	19/33/52/67/85/100	17/33/50/67/83/100
Oil charge, per compressor, oz (L)	200 (5.9)/213 (6.3)	213 (6.3)	200 (5.9)	200 (5.9/213 (6.3)	213 (6.3)
Condenser					
Number	1	1	1	1	1
Number of refrigerant circuits	2	2	2	2	2
Diameter, in (mm)	16.0 (406.4)	16.0 (406.4)	16.0 (406.4)	16.0 (406.4)	16.0 (406.4)
Tube length, in (mm)	120 (3048)	120 (3048)	144 (3658)	144 (3658)	144 (3658)
Design W.P. psig, (kPa): refrigerant side	500 (3447)	500 (3447)	500 (3447)	500 (3447)	500 (3447)
Design W.P. psig, (kPa): water side	232 (1599)	232 (1599)	232 (1599)	232 (1599)	232 (1599)
Relief valve setting, psig (kPa)	500 (3447)	500 (3447)	500 (3447)	500 (3447)	500 (3447)
No. of water passes - standard	4	4	4	4	4
No. of water passes - optional	2	2	2	2	2
Water volume, gal (L)	35.4 (134)	35.4 (134)	42.5 (160.9)	47.1 (178.4)	47.1 (178.4)
Pump down capacity, lb (kg)	252 (114)	252 (114)	302 (137)	277 (126)	277 (126)
Two pass connection size, in (mm)	5 (127)	5 (127)	5 (127)	5 (127)	5 (127)
Four pass connection size, in (mm)	4 (102)	4 (102)	4 (102)	4 (102)	4 (102)
Relief valve, flare, in (mm)	5/8 (15.9)	5/8 (15.9)	5/8 (15.9)	5/8 (15.9)	5/8 (15.9)
Purge valve, flare, in (mm)	5/8 (15.9)	5/8 (15.9)	5/8 (15.9)	5/8 (15.9)	5/8 (15.9)
Vent and drain, in (mm) FPT	1/2 (12.7)	1/2 (12.7)	1/2 (12.7)	1/2 (12.7)	1/2 (12.7)
Liquid subcooling	Intregal	Intregal	Intregal	Intregal	Intregal
Evaporator–brazed plate-to-plate					
Number	1	1	1	1	1
Number of refrigerant circuits	2	2	2	2	2
Water volume, gal (L)	9.7 (36.7)	9.7 (36.7)	57.6 (218)	56.9 (215.4)	56.9 (215.4)
Design W.P. psig, (kPa): refrigerant side	450 (3102)	450 (3102)	450 (3102)	450 (3102)	450 (3102)
Relief valve setting, psig (kPa)	450 (3102)	450 (3102)	450 (3102)	450 (3102)	450 (3102)
Design W.P. psig, (kPa): water side	450 (3102)	450 (3102)	150 (1034)	150 (1034)	150 (1034)
In & out victaulic water connections, in (mm)	3 (76)	3 (76)	8 (203)	8 (203)	8 (203)
Drain and vent	Field supplied	Field supplied	1/2 (12.7)	1/2 (12.7)	1/2 (12.7)
Dimensions					
Length, in (mm)	153 (3886)	153 (3886)	139 (3530)	153 (3886)	153 (3886)
Width, in (mm)	34.5 (876)	34.5 (876)	33 (838)	32.5 (826)	32.5 (826)
Height, in (mm)	67 (1702)	67 (1702)	63.2 (1605)	65.5 (1664)	65.5 (1664)
Weights, (w/o starter)					
Shipping, lb (kg)	4967 (2253)	4913 (2228)	7019 (3183)	7101 (3220)	7082 (3212)
Operating, lb (kg)	5373 (2437)	5319 (2412)	7877 (3572)	7991 (3624)	7972 (3616)

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Modular Central Plants—75 to 720 Tons Per Single Package, up to 3700 Total Tons

- The high efficiency, low cost alternative to site-built central plants
- Combines chiller, cooling tower, pumps, and interconnecting condenser water piping in pre-engineered and pre-assembled modules
- Sizes from 75 to 720 tons in a single compact package with a modular design that allows central plants up to 3700 tons
- Reduces trade coordination costs and site assembly time
- Lower costs per ton compared to traditional site-built plants
- Available with McQuay water-cooled scroll, screw, centrifugal, and magnetic bearing compressor chillers

For more detail, refer to ASP 31-235.
For the most current information, refer to www.mcquay.com.

Modular Central Plant

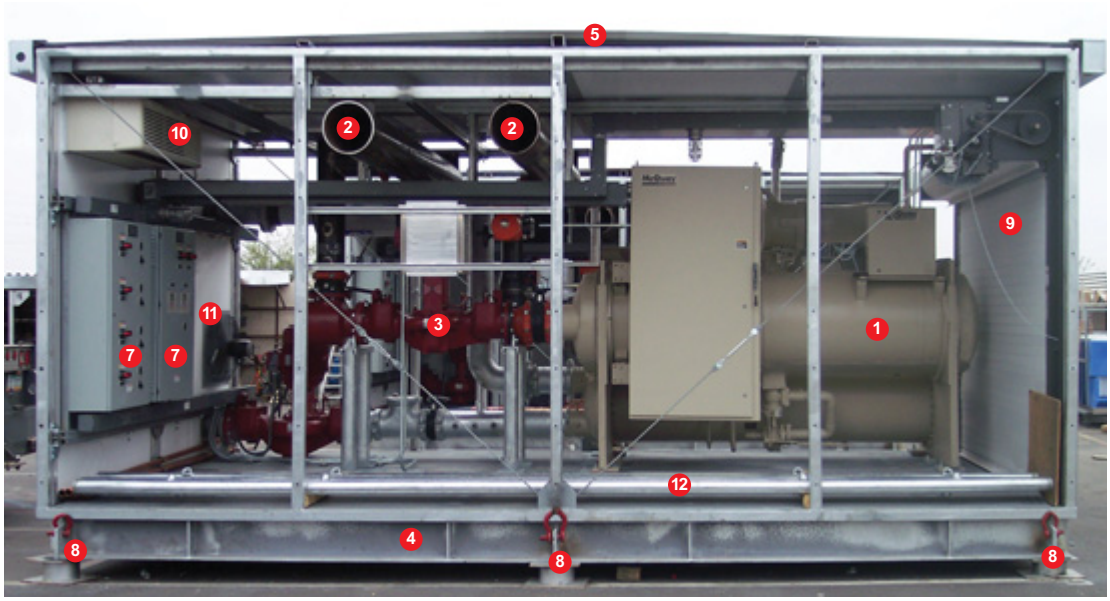
LONMARK 3.3
Available LONMARK certified

BACnet International

Modbus®

The Modular Central Plant Advantage

Innovation inside...



...and outside the box

1. Chiller—scroll, screw, or centrifugal
2. Interconnecting chilled water supply and return pipe headers
3. Split-coupled, in-line pump
4. Fully engineered, galvanized, welded, and point-loading steel structure, with seismic bracing where required
5. Removable roof with integral gutters and flashing
6. Removable wall panel with lifting handles
7. UL listed motor starter and VFD panels
8. Lifting and multiple-module connecting lugs
9. Motorized roll-up access door
10. Packaged terminal air-conditioner unit
11. Enclosure ventilation fan
12. Complete interconnecting hardware provided and shipped with modules

Complete with cooling tower, interconnecting condenser water piping...

13 Cooling tower—cross flow type with stainless steel hot and cold water basins optional

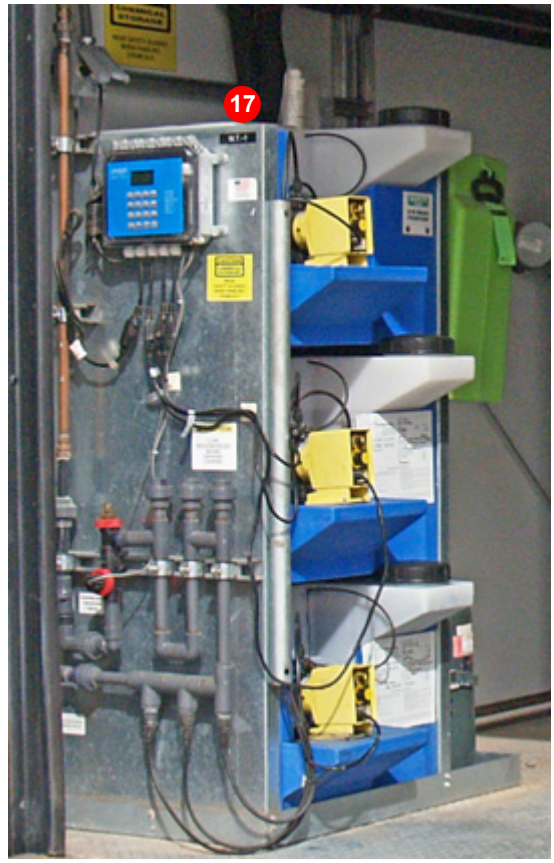
14 Fully engineered, galvanized, welded, and point-loading steel structure, with seismic bracing where required

15 Interconnecting galvanized condenser water supply and return piping and pipe supports

16 Main distribution panel with single point electrical 480 volt/3-phase connection (one per module)

17 Chemical treatment tanks, metering pumps, controller, coupon rack, pot feeder, and containment pan skid mounted for either internal or external insulation

...and chemical water treatment equipment

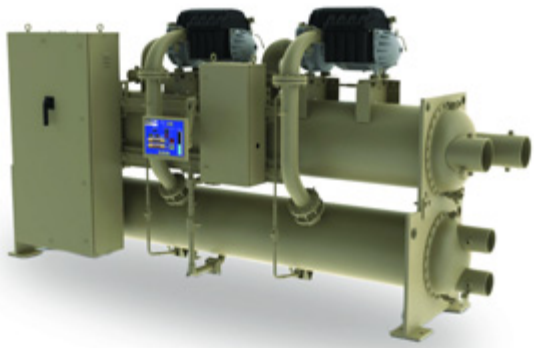


Single / Multiple / Dual-Module, Water-Cooled Chiller Options

Scroll Chiller
MCP-WGZ-SCS
Module capacity—
Single: 75 to 100 tons
Multiple: 150 to 500 tons

Screw Chiller
MCP-WGS-SCS
Module capacity—
Single: 125 to 175 tons
Multiple: 250 to 975 tons

MCP-WGS-DCS
Dual: 250 to 350 tons



Magnetic Bearing Centrifugal Chiller
MCP-WMC-SCS
Module capacity—
Single: 145 to 290 tons
Multiple: 290 to 1450 tons

MCP-WMC-DCS
Dual: 200 to 500 tons

Standard Centrifugal Chiller
MCP-WSC-SCS
Module capacity—
Single: 200 to 600 tons
Multiple: 400 to 2400 tons

Available Options

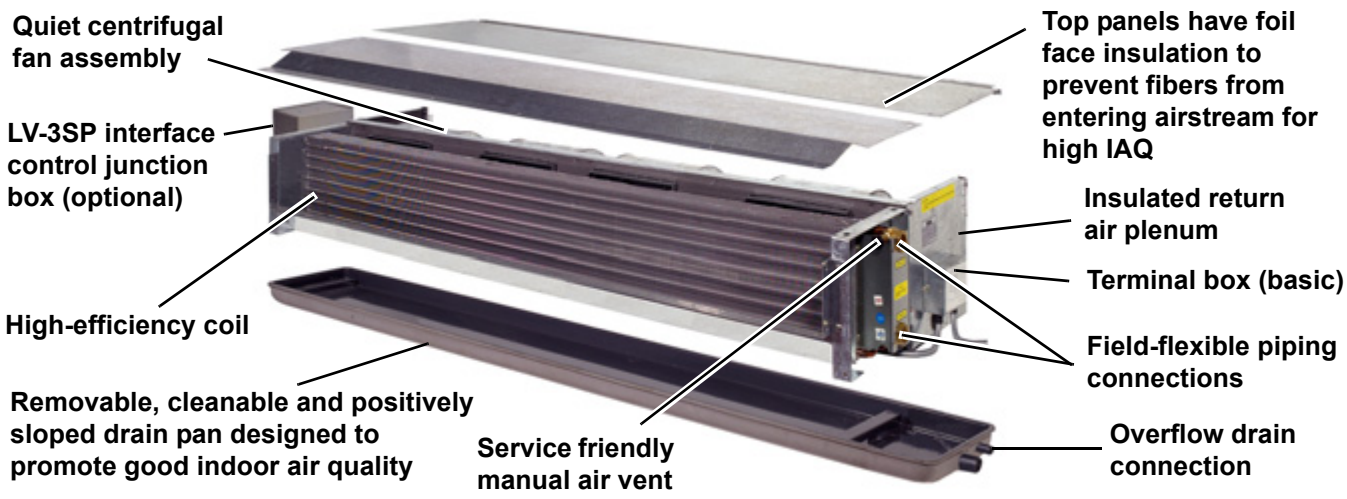
- Redundant primary and condenser water pumps
- Redundant cooling towers
- Tower basin filtration
- Tower basin heater
- Stainless steel hot and cold water basins
- Complete stainless steel tower construction
- Winterized MCP for cold climate applications
- Air separator
- Air and dirt separator
- 65,000 AIC breakers
- MCP extended parts and labor warranty
- Waterside economizer
- Chilled and condenser water pipe insulation
- Sealed cpmbustion boilers for heating and domestic hot water applications

Fan Coil Products Summary

Model THC Ceiling Concealed Fan Coils—200 to 1200 cfm

- Compact, lightweight design conserves space
- Coil design provides good air mixing for high thermal efficiency
- High-efficiency centrifugal fan assembly minimizes vibration and noise
- Field-flexible design for easy, low cost installation
- Service-friendly design
- Full faced, insulated plenum with rear return
- 1" supply air duct collar, removable from both sides and bottom
- 1" throwaway filter
- Units available in stock
- AHRI certified performance
- ETL and CETL safety agency approval listing

For more detail, refer to Catalog 700. For the most current information, refer to www.mcquay.com.



THC Fan Coils—Performance Data

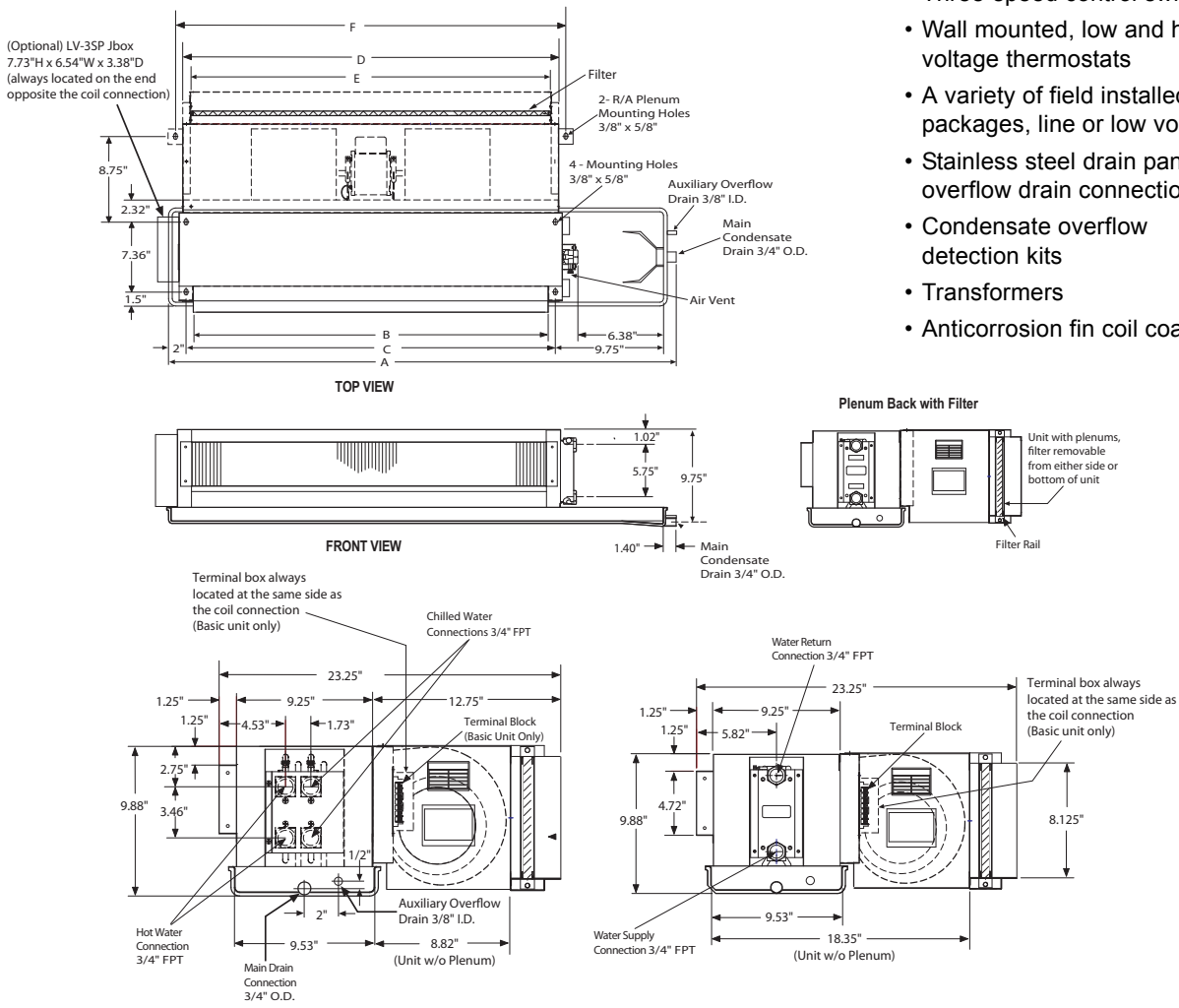
Model		THCH02		THCH03		THCH04		THCH06		THCH08		THCH10		THCH12	
System		2-pipe	4-pipe	2-pipe	4-pipe	2-pipe	4-pipe	2-pipe	4-pipe	2-pipe	4-pipe	2-pipe	4-pipe	2-pipe	4-pipe
Air flow (cfm)[3]		200		300		400		600		800		1000		1200	
AHRI total cooling cap. (Btuh)[1]		8500		11,100		14,500		21,200		22,700		25,300		34,200	
AHRI sensible clog. cap. (Btuh)		6100		8400		10,800		16,100		18,000		20,000		27,000	
AHRI heating cap. (Btuh)[2]		14,900	11,500	20,300	16,300	26,800	20,400	37,600	29,600	42,400	36,100	48,300	40,300	68,800	49,800
Water flow–3-row (gpm)		1.94		2.51		3.26		4.70		5.14		5.70		7.75	
Water flow–1-row (gpm)		N/A	0.64	N/A	0.91	N/A	1.12	N/A	1.65	N/A	2.00	N/A	2.24	N/A	2.76
Water PD–3-row (ft WC)		5.10		3.26		5.80		12.82		3.68		4.76		8.29	
Water PD–1-row (ft WC)		N/A	1.47	N/A	2.89	N/A	5.32	N/A	10.72	N/A	3.24	N/A	4.07	N/A	6.45
Fan(s)	Type	Centrifugal fan (forward curved galvanized steel fan wheel)													
	Number	1		1		2		2		3		3		4	
	Fan housing	Galvanized steel													
Coil	Type	Water													
	Rows[4]	3-row	3/1-row	3-row	3/1-row	3-row	3/1-row	3-row	3/1-row	3-row	3/1-row	3-row	3/1-row	3-row	3/1-row
	Testing press.	425 psi for 1 minute; leak test: 225 psi for 5 minutes													
Motor(s)	Type	PSC													
	Number	1		1		1		1		2		2		2	
	Power supply	115/60/1, 208-230/50-60/1, 277/60/1													
Watts–high speed	50 Hz	62		91		109		171		242		249		321	
	60 Hz	75		109		131		205		291		299		385	
Coil connection		3/4" FPT													
Drain pipe		3/4" MPT													
Ship weight (lbs.)[5]		61.00	63.00	69.00	73.00	83.00	88.00	97.00	102.00	127.00	134.00	137.00	143.00	146.00	153.00

1. Conditions: Cooling capacity: Entering air temperature 80°F (OB), 67°F (WB); Entering water temperature 45°F, Leaving Water Temperature 55°F.
2. Heating capacity: Entering air temperature 70°F (OB); Entering water temperature 140°F, the same amount of water flow as with cooling.
3. Nominal air flow: Under dry coil conditions; Fan speed high.
4. 3-Row = 3-row chilled water/hot water coil; 4-Row = 3-row chilled water, 1-row hot water coil.
5. Weight includes return air plenum and packing.

Dimensional Data

Available options:

- Two-pipe or four-pipe systems
- Low voltage junction box
- Three-speed control switch
- Wall mounted, low and high-voltage thermostats
- A variety of field installed valve packages, line or low voltage
- Stainless steel drain pan with overflow drain connection
- Condensate overflow detection kits
- Transformers
- Anticorrosion fin coil coating



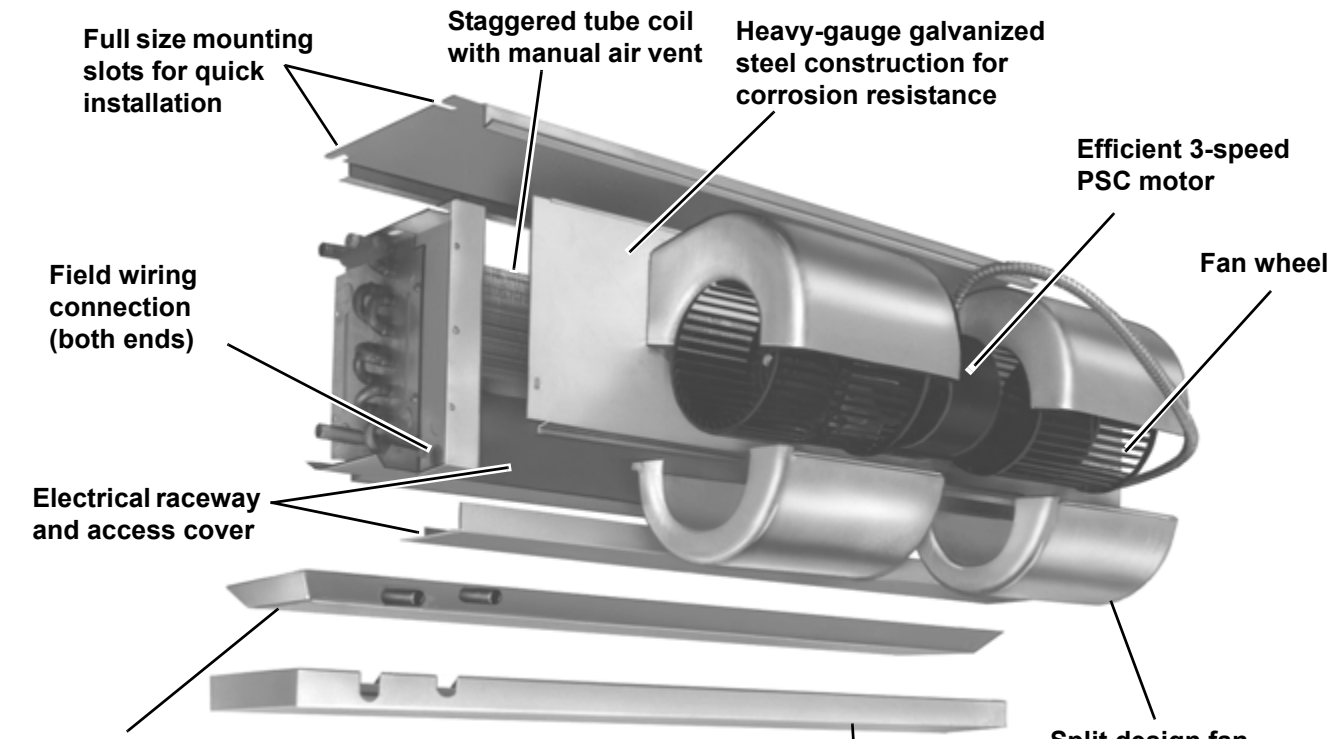
Model	A	B	C	D	E	Number of Fans	Filters	
							Size[1]	Qty
THCH02	32.05"	17.64"	19.17"	19.96"	18.46"	1	18 1/8" × 8" × 1"	1
THCH03	38.74"	24.33"	25.87"	26.65"	25.15"	1	24 7/8" × 8" × 1"	1
THCH04	43.86"	29.45"	30.98"	31.77"	30.20"	2	29 7/8" × 8" × 1"	1
THCH06	51.73"	37.32"	38.86"	39.65"	38.07"	2	18 7/8" × 8" × 1"	2
THCH08	61.57"	47.17"	48.70"	49.49"	47.91"	3	23 3/4" × 8" × 1"	2
THCH10	65.51"	51.10"	52.64"	53.43"	51.85"	3	25 3/4" × 8" × 1"	2
THCH12	75.75"	61.34"	62.87"	63.66"	62.09"	4	30 7/8" × 8" × 1"	2

1. Dimensions based on unit with return air plenum and filter.

ThinLine™ Model TSH and TSC—Horizontal Design—300 to 1200 cfm

- Six unit sizes from 300 to 1200 cfm
- Heavy-gauge galvanized steel construction for longer life
- Fully concealed, exposed or recessed applications
- 2-pipe or 4-pipe configuration
- Electric heat
- AHRI-certified performance
- ETL and CETL safety agency approval listing

For more detail, refer to Catalog 720. For the most current information, refer to www.mcquay.com



Available options:

- Electric heat
- Low-voltage or line-voltage controls packages
- Low-voltage or line-voltage valve packages (factory or field mounted)
- One-row steam or hot water coil, field or factory mounted

TSC ceiling unit

TSC ceiling unit with optional trim flange

TSH hideaway unit

ThinLine TSH and TSC Models Horizontal Design—Performance Data

AHRI Certified Standard Ratings—Ceiling Units

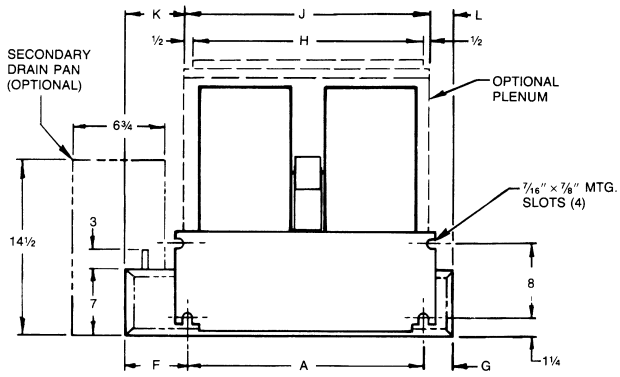
Standard coil water cooling capacity ratings.[1] High capacity and heating capacity detail is available in Catalog 720.

Unit size	TSH hideaway units				TSH ceiling units			
	Cooling capacity[2]		Water flow (gpm)	Water flow p.d. ft. w.c.	Cooling capacity[2]		Water flow (gpm)	Water flow p.d. ft. w.c.
	Total Btuh	Sensible Btuh			Total Btuh	Sensible Btuh		
S03	8100	6800	1.7	3.7	5800	4600	1.2	2.0
S04	11,900	10,100	2.5	8.0	10,900	9100	2.2	6.5
S06	19,100	15,200	4.0	3.0	17,100	13,000	3.4	2.4
S08	22,100	17,600	4.6	3.9	19,900	15,200	3.9	2.8
S10	29,000	23,500	6.2	11.5	26,500	20,300	5.3	8.8
S12	38,300	29,700	7.8	21.6	34,500	25,300	6.9	17.2

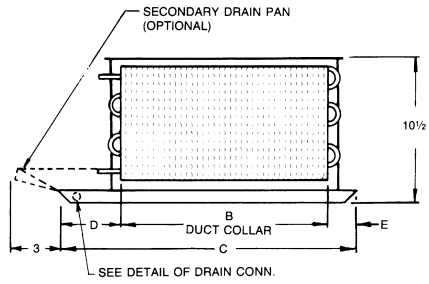
1. Rated in accordance with AHRI Standard 440. Cooling capacities based on 80°F DB/67°F WB entering air, 45°F entering water, 10°F water temperature rise and high fan speed with standard 115/60/1 motor.
2. For cooling coil capacity ratings at conditions other than those listed, consult your McQuay representative.

Dimensional Data

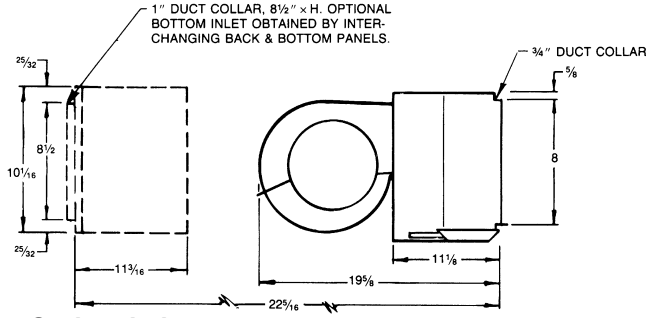
Left hand unit shown. Unit connection on left when facing front of unit.



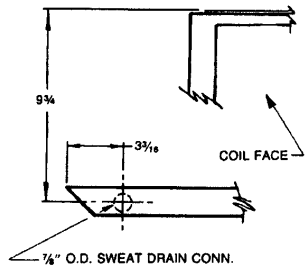
Top view



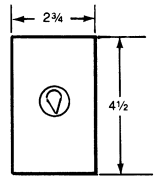
Front view



Optional plenum (side view)



Drain connection detail (front view)



REMOTE THREE-SPEED FAN SWITCH WITH OFF POSITION
P/N 107112101

Unit size	Unit dimensions (in)[1]										
	A	B	C	D	E	F	G	H	J	K	L
S03	20 1/4	19	27	5 1/2	2 1/2	4 7/8	1 7/8	21	22	4	1
S04	26 1/4	25	33	5 1/2	2 1/2	4 7/8	1 7/8	27	28	4	1
S06	35 1/4	34	42	5 1/2	2 1/2	4 7/8	1 7/8	36	37	4	1
S08	35 1/4	34	42	5 1/2	2 1/2	4 7/8	1 7/8	36	37	4	1
S10	43 1/4	42	50	5 1/2	2 1/2	4 7/8	1 7/8	44	45	4	1
S12	59 1/4	58	68	6 1/2	3 1/2	5 7/8	2 7/8	60	61	5	2

1. All dimensions approximate. Certified drawings available upon request.

ThinLine™ 3G Model FCVC, FCVH, and FCVS—Vertical Design—200 to 1200 cfm

- **Seven unit sizes from 200 to 1200 cfm**
- **2-pipe or 4-pipe configurations**
- **Heavy-gauge galvanized steel construction for longer life**
- **Fully concealed, exposed or recessed applications**
- **AHRI certified performance**
- **ETL and CETL safety agency approval listing**

For more detail, refer to Catalog 722.
For the most current information, refer to www.mcquay.com.

Multiple Control Options

- 3-speed switch or low voltage interface board
- Analog or digital thermostat
- Remote or unit mounted
- 3-speed or staged fan control

Multiple Configurations

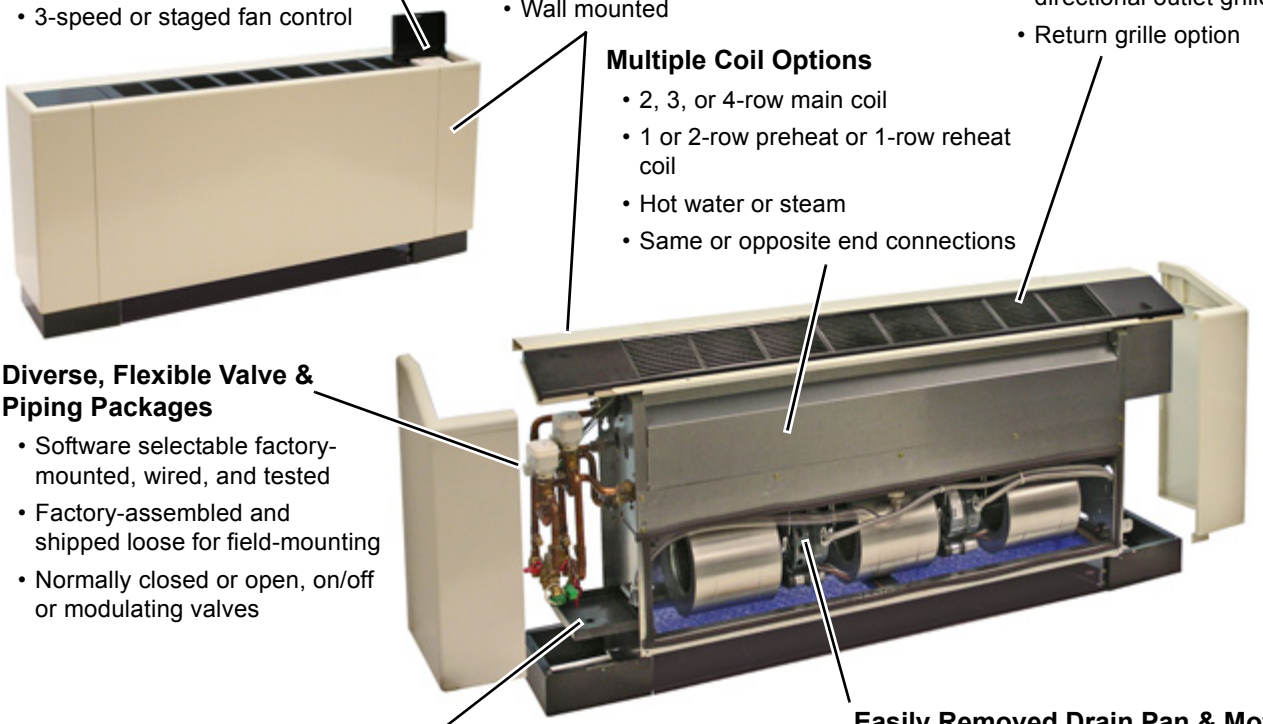
- Flat Top
- Angled Top
- Hideaway
- Wall mounted

Multiple Grille Options

- Stamped and milti-directional outlet grilles
- Return grille option

Multiple Coil Options

- 2, 3, or 4-row main coil
- 1 or 2-row preheat or 1-row reheat coil
- Hot water or steam
- Same or opposite end connections



Diverse, Flexible Valve & Piping Packages

- Software selectable factory-mounted, wired, and tested
- Factory-assembled and shipped loose for field-mounting
- Normally closed or open, on/off or modulating valves

Optional Secondary Drain Pan

- Noncorrosive
- Easily removed

Easily Removed Drain Pan & Motor Assembly

- For easy maintenance and service
- Sloped, polymer drain pan for good IAQ

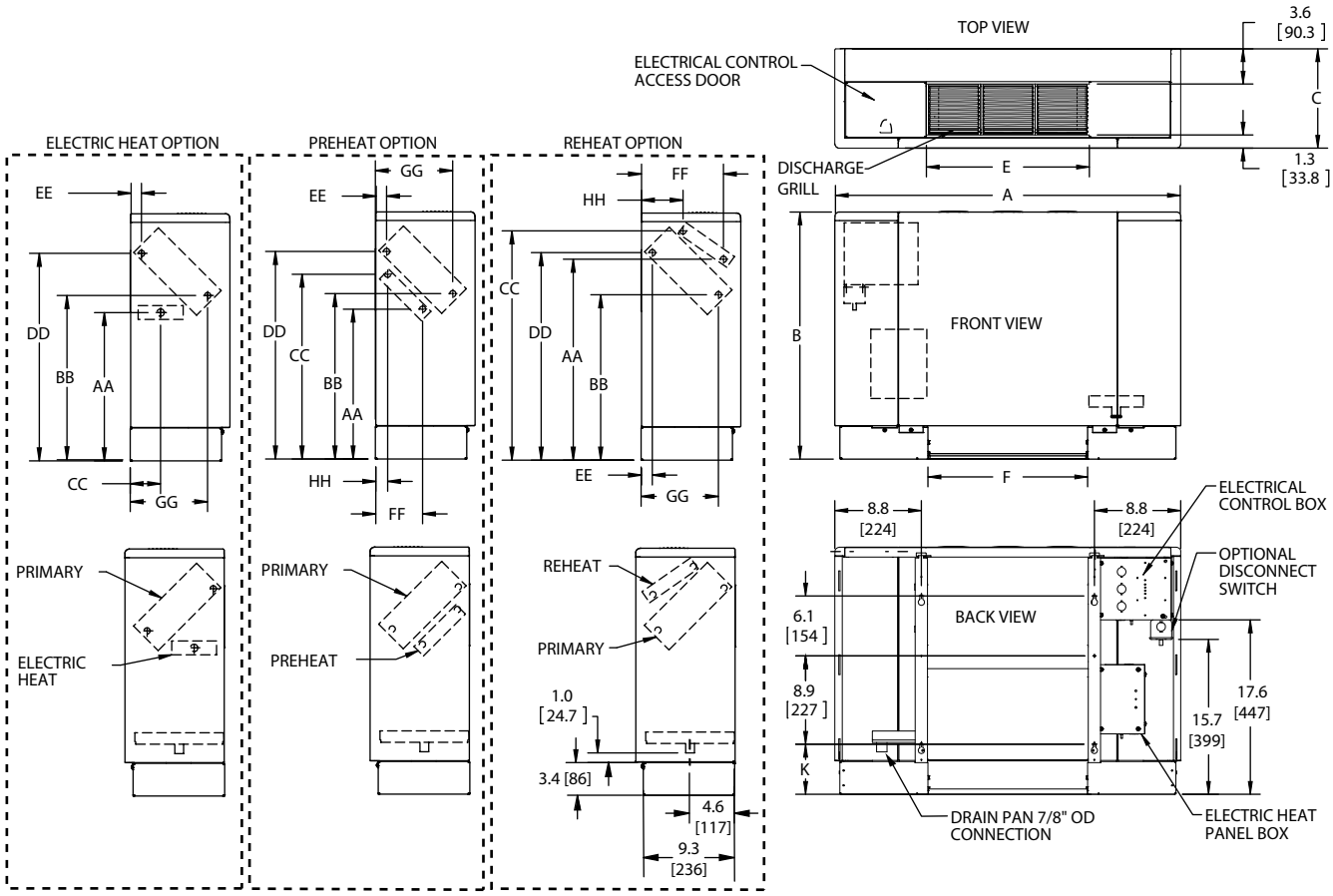
Cooling and Heating Performance—Two-Pipe Systems

Unit Size	Main Coil Rows	SCFM	Cooling Performance				Heating Performance	
			Total TMBh (kW)	Sensible TMBh (kW)	Gpm (L/s)	WPD FtofH_2O (kPa)	TMBh (TkW)	Gpm (L/s)
02	4 Row	200	5.9 (1.7)	4.7 (1.4)	1.2 (0.08)	0.6 (1.8)	19.2 (5.6)	1.2 (0.08)
03	4 Row	265	9.4 (2.8)	6.9 (2.0)	1.9 (0.12)	1.5 (4.5)	27.2 (8.0)	1.9 (0.12)
04	4 Row	374	14.3 (4.2)	10.2 (3.0)	2.9 (0.18)	3.4 (10.2)	38.9 (11.4)	2.9 (0.18)
06	4 Row	554	22.4 (6.6)	15.2 (4.5)	4.6 (0.29)	9.0 (26.9)	52.6 (15.4)	4.6 (0.29)
08	4 Row	634	26.4 (7.7)	17.8 (5.2)	5.5 (0.35)	14.8 (44.2)	64.3 (18.8)	5.5 (0.35)
10	4 Row	795	32.4 (9.5)	21.9 (6.4)	6.7 (0.42)	11.1 (33.2)	80.8 (23.7)	6.7 (0.42)
12	4 Row	1022	40.2 (11.8)	27.0 (7.9)	8.3 (0.52)	18.3 (54.7)	103.8 (30.4)	8.3 (0.52)

* Rated in accordance with AHRI Standard 440. Cooling performance is based on 80/67°F (27/19°C) entering air temperature, 45°F (7°C) entering chilled water temperature with a 10°F (5.5°C) ΔT. Heating performance is based on 70°F (21°C) entering air temperature, 180°F (82°C) entering hot water temperature with a 30°F (17°C) ΔT

* Ratings shown are for 2-pipe systems with 4-row coil. For ratings with 4-pipe systems and other coil configurations, consult catalog 722.

Performance Data—Unit Dimensions



Dimension		S02		S03		S04		S06		S08		S10		S12	
		inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm
Unit Width	A	35.0	889	40.5	1029	46.0	1168	57.0	1448	62.5	1588	73.5	1867	84.5	2146
Unit Height	B	25.0	635	25.0	635	25.0	635	25.0	635	25.0	635	25.0	635	25.0	635
Unit Depth	C	10.0	254	10.0	254	10.0	254	10.0	254	10.0	254	10.0	254	10.0	254
Discharge Grille - Width	E	16.3	414	21.8	554	27.3	693	38.3	973	43.8	1113	54.8	1392	65.8	1671
Return Air Opening - Width	F	16.2	411	21.7	551	27.2	691	38.2	970	43.7	1110	54.7	1389	65.7	1669
Primary Coil - Water Supply	BB	16.7	424	16.7	424	16.7	424	16.7	424	16.7	424	16.7	424	16.7	424
	GG	7.8	198	7.8	198	7.8	198	7.8	198	7.8	198	7.8	198	7.8	198
Primary Coil - Water Return	DD	21	533	21	533	21	533	21	533	21	533	21	533	21	533
	EE	1.1	28	1.1	28	1.1	28	1.1	28	1.1	28	1.1	28	1.1	28
Preheat Coil - Water Return	CC	18.7	475	18.7	475	18.7	475	18.7	475	18.7	475	18.7	475	18.7	475
	HH	1.2	30	1.2	30	1.2	30	1.2	30	1.2	30	1.2	30	1.2	30
Preheat Coil - Water Supply	AA	15	381	15	381	15	381	15	381	15	381	15	381	15	381
	FF	4.7	119	4.7	119	4.7	119	4.7	119	4.7	119	4.7	119	4.7	119
Reheat Coil - Water Return	CC	23.2	589	23.2	589	23.2	589	23.2	589	23.2	589	23.2	589	23.2	589
	HH	4.2	107	4.2	107	4.2	107	4.2	107	4.2	107	4.2	107	4.2	107
Reheat Coil - Water Supply	AA	20.3	516	20.3	516	20.3	516	20.3	516	20.3	516	20.3	516	20.3	516
	FF	8.3	211	8.3	211	8.3	211	8.3	211	8.3	211	8.3	211	8.3	211
Electric Heat Connection	AA	15.1	384	15.1	384	15.1	384	15.1	384	15.1	384	15.1	384	15.1	384
	CC	3.0	76	3.0	76	3.0	76	3.0	76	3.0	76	3.0	76	3.0	76

HiLine™ Model HSS Vertical Stacking Fan Coils—300 to 1200 cfm

- **Four unit sizes from 300 to 800 cfm, blow-through configuration**
- **Two unit sizes, 1000 and 1200 cfm, draw-through configuration**
- **Low cfm design for individual rooms**
- **Quiet operation**
- **AHRI certified performance**

For more detail, refer to Catalog 770. For the most current information, refer to www.mcquay.com.

Note: Picture below is for 300 to 800 cfm only.

Low sound level operation

- Quiet, energy efficient motor and fan assembly within a fully insulated cabinet

Risers

- Risers from 100–115" long. No on-the-job cutting required. Supply and return risers are factory insulated and have sweat ball valves (union ball valve combination optional)

Fast and simple installation

- Installs by stacking one unit above another
- Unique couplings require only one person for setting and connecting

Discharge arrangements

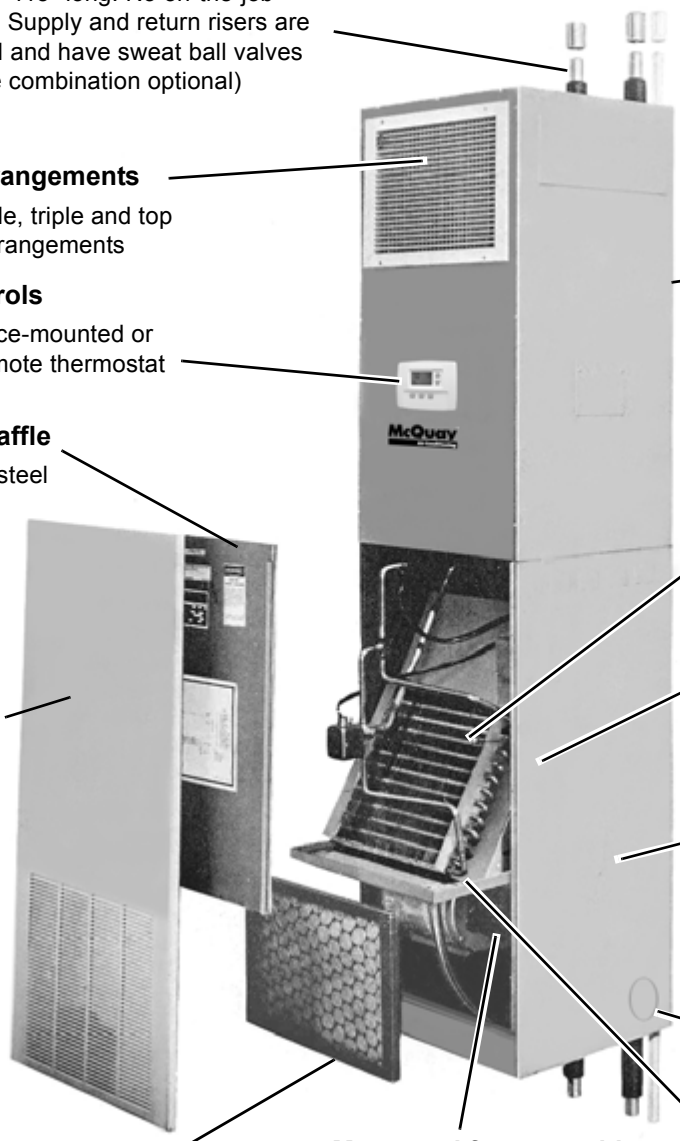
- Single, double, triple and top discharge arrangements

Cabinet

- Heavy gauge galvanized steel
- Fully insulated
- Aluminum foil face or closed cell insulation available

Controls

- Face-mounted or remote thermostat



Access and sound baffle

- Insulated galvanized steel
- Easily removed for complete access
- Reduces sound level

Coils

- High efficiency type
- AHRI certified

Valve packages

- Low-voltage or line-voltage
- Factory installed or field mounted preassembled kits

Return air grille panel

- Heavy gauge steel with stamped grille and attractive finish

Removable chassis

- All components mounted on a single removable chassis
- Different capacity chassis can be installed in the future if required

Fresh air damper

- Two-position
- Motorized or manual

Twin units

- Two adjacent room units can be connected to a single set of risers and still retain individual room temperature control

Filter

- Easily accessible by simple removal of air grille panel

Motor and fan assembly

- Energy efficient and quiet
- Fan motor is easily removed
- ECM motor option available

Drain pan options

- Galvanized (standard)
- Stainless steel
- Overflow detection

HiLine Model HSS Vertical Stacking Fan Coil Units—Performance Data

AHRI Certified Standard Ratings

Standard coil water cooling capacity ratings.[1] Capacity rating details available in Catalog 770.

Unit size	Cooling capacity[2]		Water flow (gpm)	Water flow p.d. ft. w.c.
	Total Btuh	Sensible Btuh		
S03	11,000	7200	2.3	14.6
S04	17,000	11,400	3.5	44.7
S06	23,000	16,100	4.7	28.8
S08	28,800	20,600	6.0	44.1
S10	39,600	26,600	8.2	29.7
S12	44,900	30,400	9.3	39.6

1. Rated in accordance with AHRI Standard 440. Cooling capacities based on 80°F DB/67°F WB entering air, 45°F entering water, 10°F water temperature rise and high fan speed with standard 115/60/1 motor.
2. For cooling coil capacity ratings at conditions other than those listed, consult your McQuay representative. Riser sizes available from 3/4" to 2 1/2".

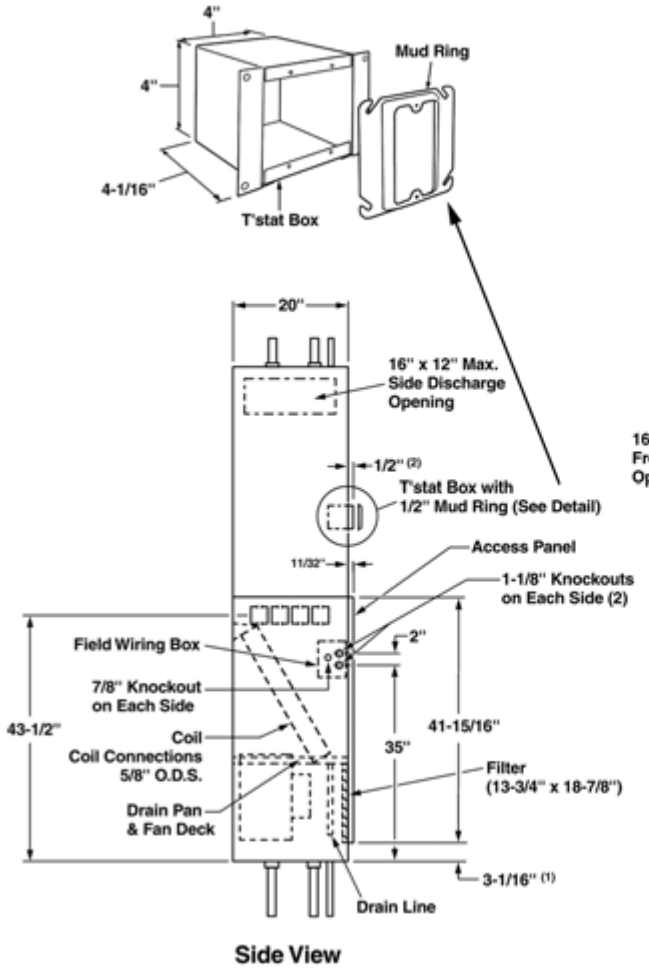
Dimensional Data—sizes 03 to 08

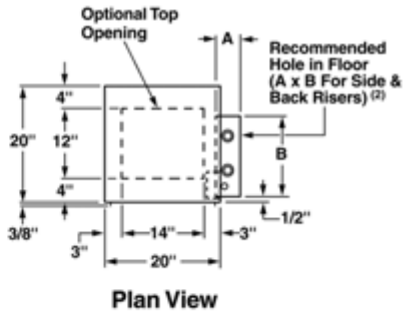
Right hand unit shown. Hand of unit determined by facing return air opening.

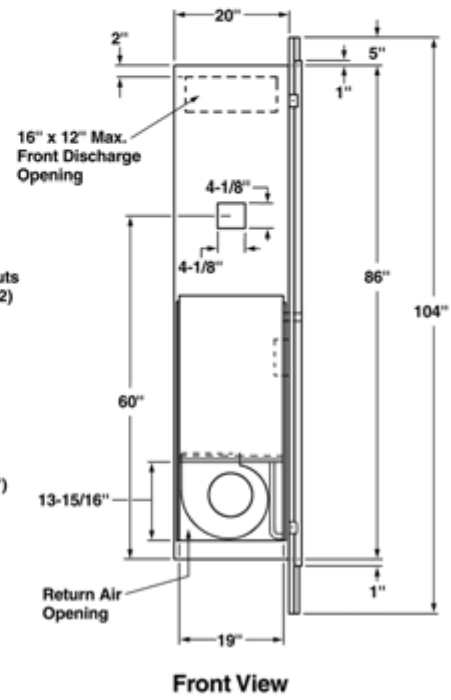
Risers on right = Right hand of unit.

Risers on left = Left hand of unit.

Risers on back = Neutral unit.



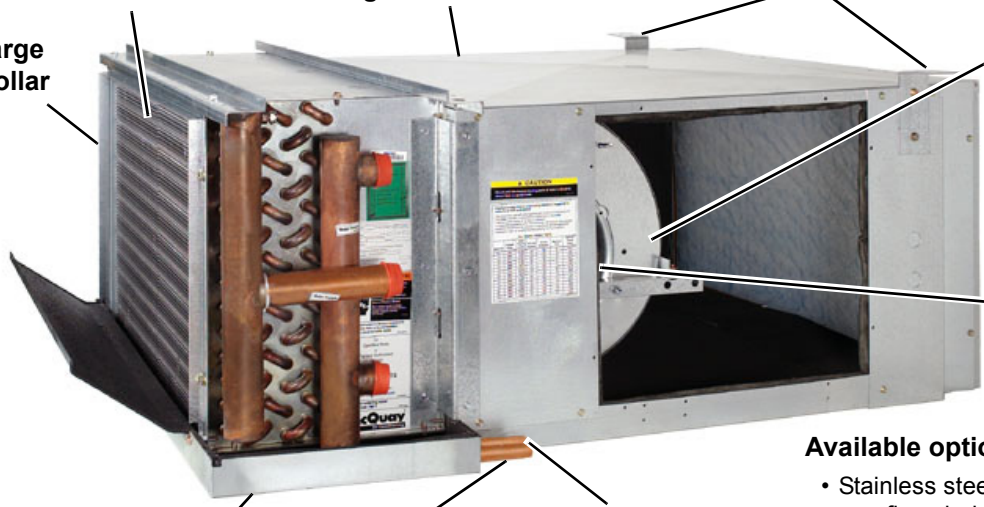




Large Capacity Fan Coil Units—600 to 3000 cfm

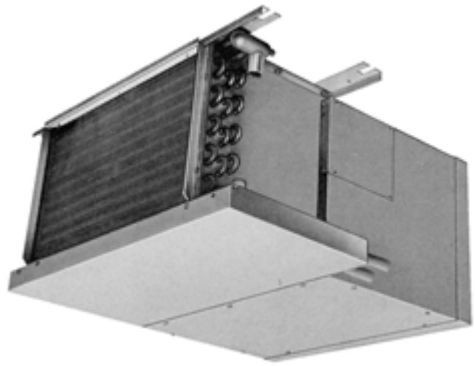
- Five direct drive hideaway or cabinet ceiling unit sizes from 600 to 2000 cfm
- Five belt drive hideaway or cabinet ceiling unit sizes from 800 to 3000 cfm
- 3-row to 6-row primary coil; 1-row or 2-row secondary heating coil
- Heavy-gauge, galvanized steel construction for longer life
- UL listing

For more detail, refer to Catalog 735. For the most current information, refer to www.mcquay.com.



Available options

- Stainless steel drain pan with overflow drain connection
- Deluxe valve package low or high-voltage for field mounting
- 1 or 2-row hot water or steam coils (preheat position)
- Condensate overflow detection kits
- Disconnect



Direct drive hideaway unit

Direct drive cabinet ceiling unit

Large Capacity Fan Coil Units, Direct Drive—Performance Data

Standard Coil Water Cooling Capacity Ratings[1]

High capacity and heating capacity detail is available in Catalog 720.

Unit types	Size	Cooling capacity[2]		Water flow (gpm)	Water flow p.d. (ft. w.c.)
		Total Btuh	Sensible Btuh		
SCD, SHD	S06	17,600	14,500	3.5	3.7
SCD, SHD	S08	26,000	19,700	5.2	3.5
SCD, SHD	S12	37,000	26,800	7.4	8.1
SCD, SHD	S16	53,000	40,000	10.6	3.2
SCD, SHD	S20	61,000	48,000	12.2	3.2

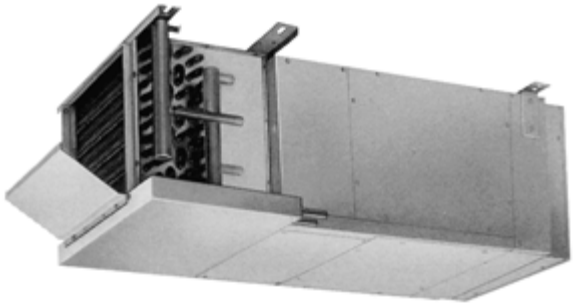
1. Cooling capacities based on 80°F DB/67°F WB entering air, 45°F entering water, 10°F water temperature rise in SHD unit with plenum operating at high fan speed with no external static pressure.
2. For cooling coil capacity ratings at conditions other than those listed, consult your McQuay representative.

Large Capacity Fan Coil Units, Belt Drive—Performance Data

Standard Coil Water Cooling Capacity Ratings[1]

Unit types	Size	Airflow (cfm)	Cooling capacity[2]		Water flow (gpm)	Water flow p.d.(ft. w.c.)
			Total Btuh	Sensible Btuh		
Cabinet and hideaway	S08	800	24,000	17,700	4.8	3.1
		900	25,615	19,241	5.1	3.4
	S12	1200	37,265	27,027	7.5	8.2
		1300	38,898	28,581	7.8	8.8
	S16	1600	48,421	35,472	9.7	2.7
		1800	51,521	38,482	10.3	3.0
	S20	2000	57,596	45,014	11.5	2.9
		2200	60,565	48,102	12.1	3.1
	S30	3000	91,633	66,864	18.3	2.9
		3200	94,813	69,923	19.0	3.1

1. Cooling capacities based on 80°F DB/67°F WB entering air, 45°F entering water, 10°F water temperature rise.
2. For cooling coil capacity ratings at conditions other than those listed, consult your McQuay representative.

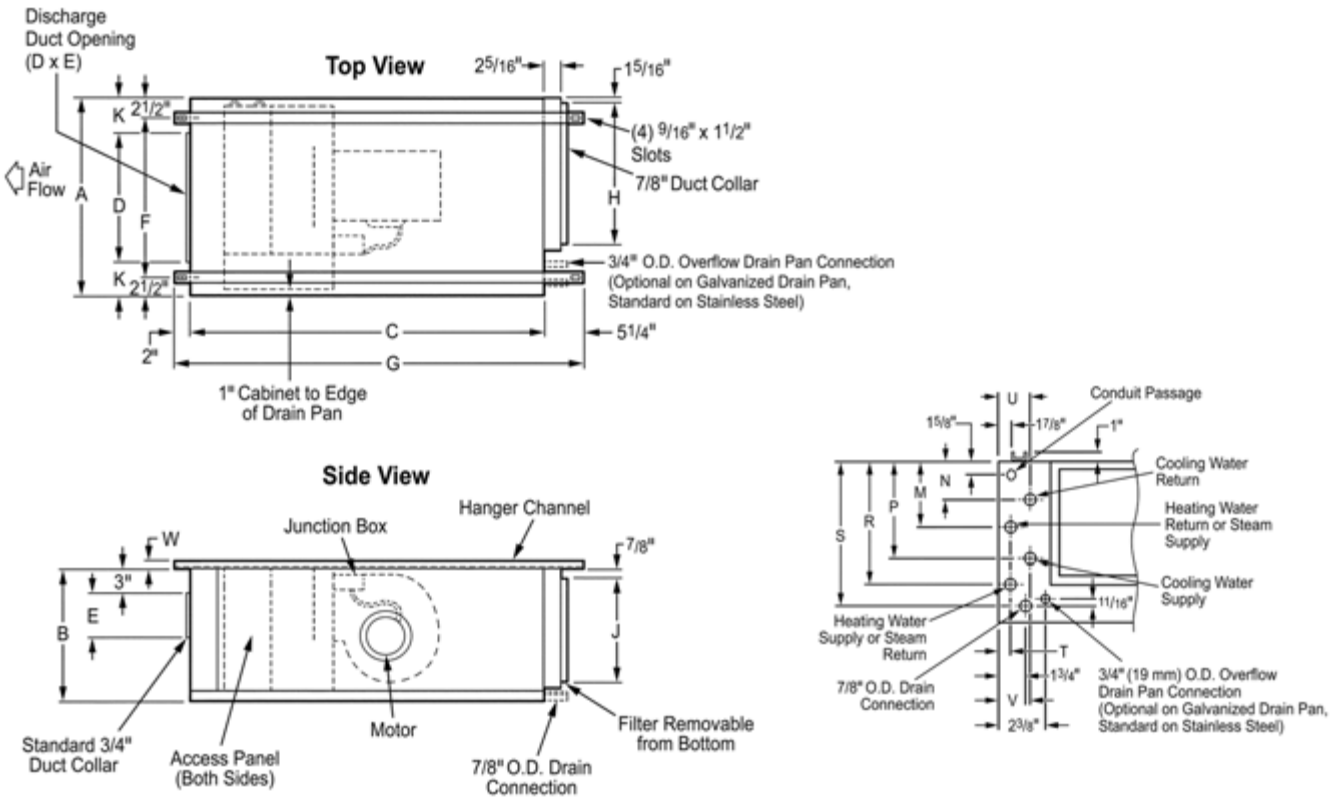


Belt drive hideaway unit

Belt drive cabinet ceiling unit

Large Capacity Fan Coil Units, Direct Drive Units—Dimensional Data—SCD Model

Right-hand unit shown. (Hand of unit determined by cooling unit connection *when facing discharge*.)

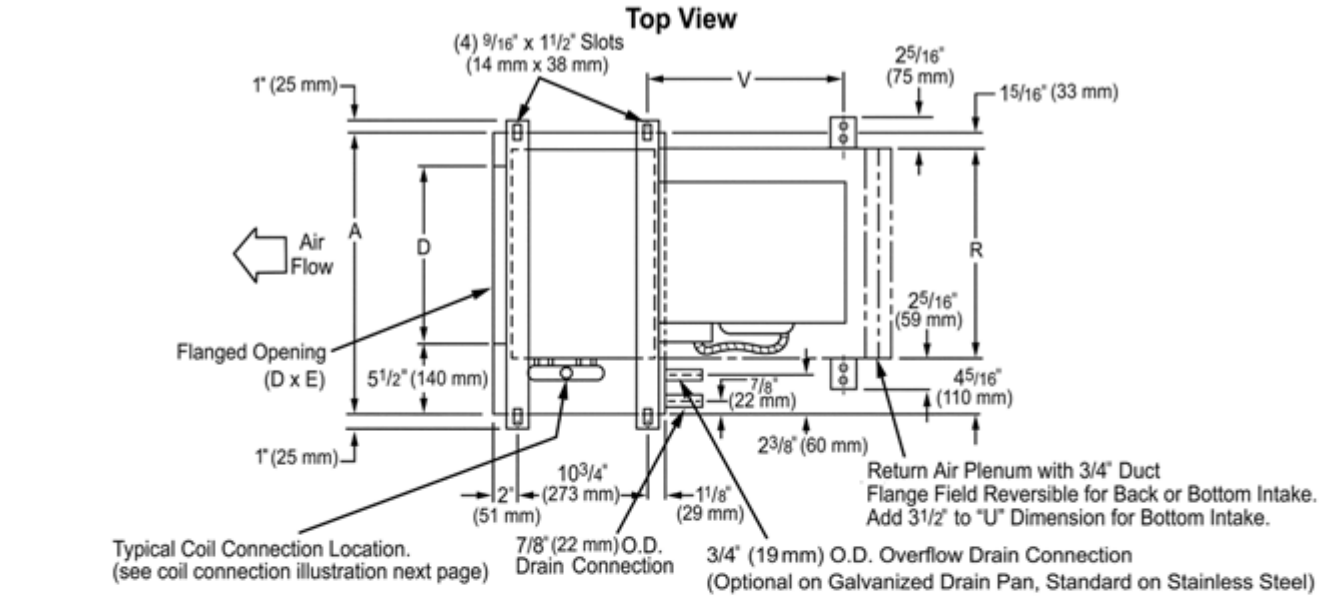


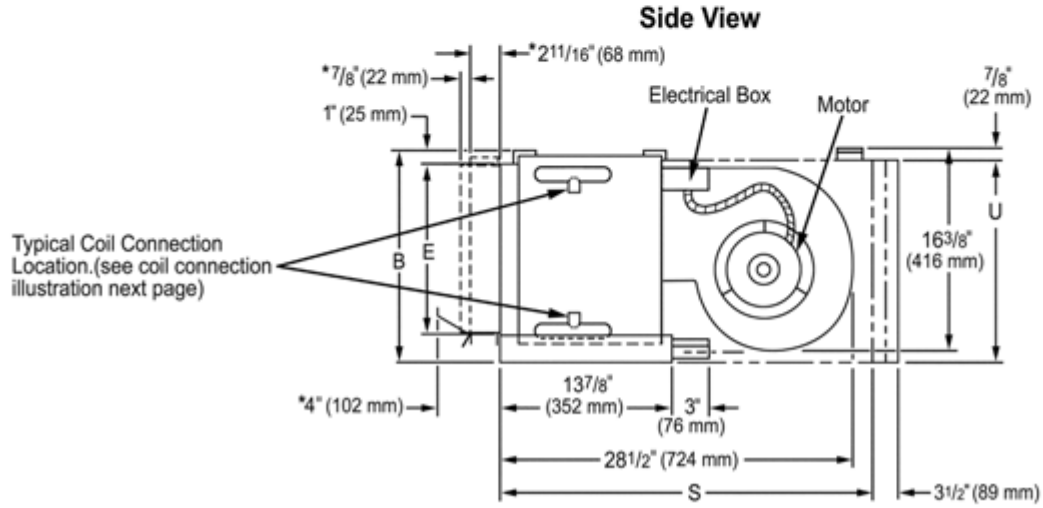
SCD model	Unit dimensions (in)[1]																		
	A	B	C	D	E	F	G	H	J	K	M	N	P	R	S	T	U	V	W
S06	24	17 5/8	37	20	4	19	44 1/4	18 1/2	14 5/8	2	4 7/16	2 11/16	9 9/16	11 3/8	14 1/4	1 9/16	1 9/16	1 9/16	1
S08	26	17 5/8	46	20	6	21	53 1/4	18 1/2	14 5/8	3	4 7/16	4 7/16	12 1/16	13 7/8	16 3/4	1 9/16	1 9/16	3 3/4	1
S12	33	17 5/8	46	24	8	28	53 1/4	23 1/2	14 5/8	4 1/2	4 7/16	4 7/16	12 1/16	13 7/8	16 3/4	1 9/16	1 9/16	3 3/4	1
S16	44	17 5/8	46	36	8	39	53 1/4	38 1/2	14 5/8	4	4 7/16	4 7/16	8 3/16	13 3/4	16 3/4	2 1/4	2 1/4	2 1/4	1
S20	46	21 1/8	50	41 3/4	6	41	57 1/4	38 1/2	18 5/8	2 1/8	5 1/16	4 1/8	9 7/16	16 1/4	19 1/4	2 1/4	4 3/16	4 3/16	1 1/4

1. All dimensions approximate. Certified drawings available upon request.

Large Capacity Fan Coil Units, Direct Drive Units—Dimensional Data—SHD Model

Right-hand unit shown. (Hand of unit determined by cooling unit connection *when facing discharge.*)



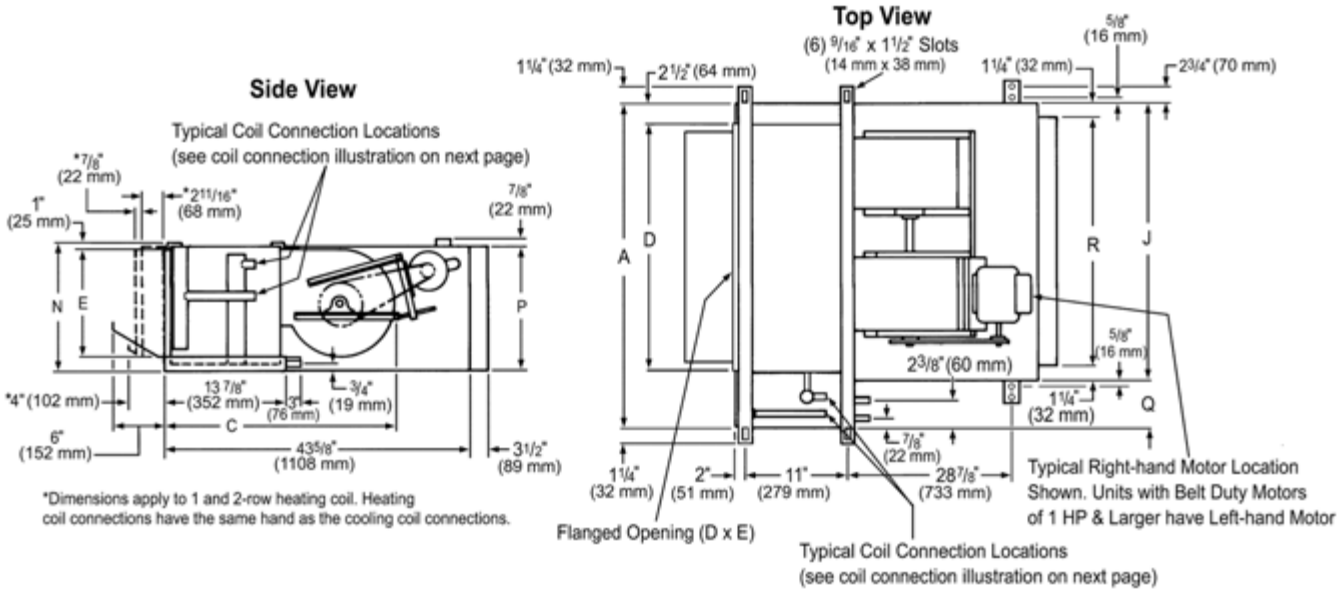


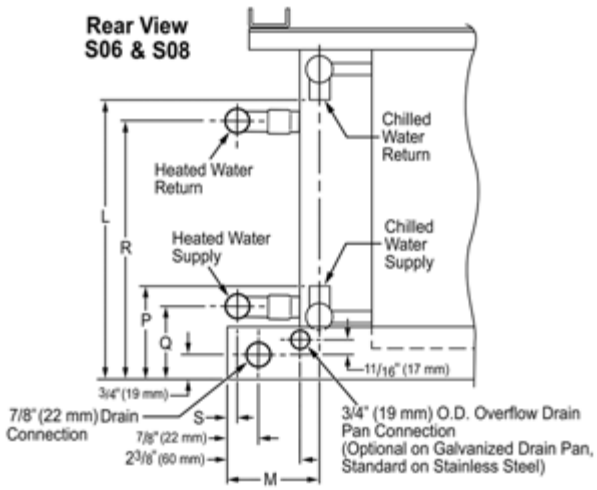
SHD model	Unit dimensions (in)[1]							
	A	B	D	E	R	S	U	V
S06	22	14	14	10 7/8	16 3/8	29 5/8	15 3/4	15 3/8
S08	24	16 1/2	16	13 3/8	18 3/8	29 5/8	15 3/4	15 3/8
S12	31	16 1/2	23	13 3/8	25 3/8	29 5/8	15 3/4	15 3/8
S16	39	16 1/2	31	13 3/8	33 3/8	29 5/8	15 3/4	15 3/8
S20	41	19	33	15 5/8	35 3/8	32 1/8	18 1/4	17 3/8

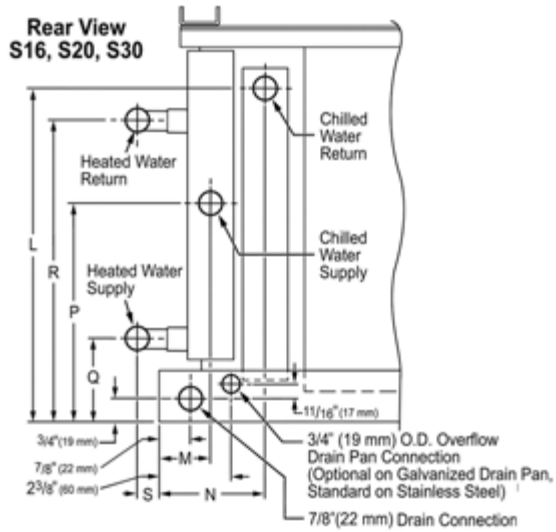
1. All dimensions approximate. Certified drawings available upon request.

Large Capacity Fan Coil Units, Belt Drive Units—Dimensional Data—HZ Model

Right-hand unit shown. (Hand of unit determined by cooling unit connection *when facing discharge.*)





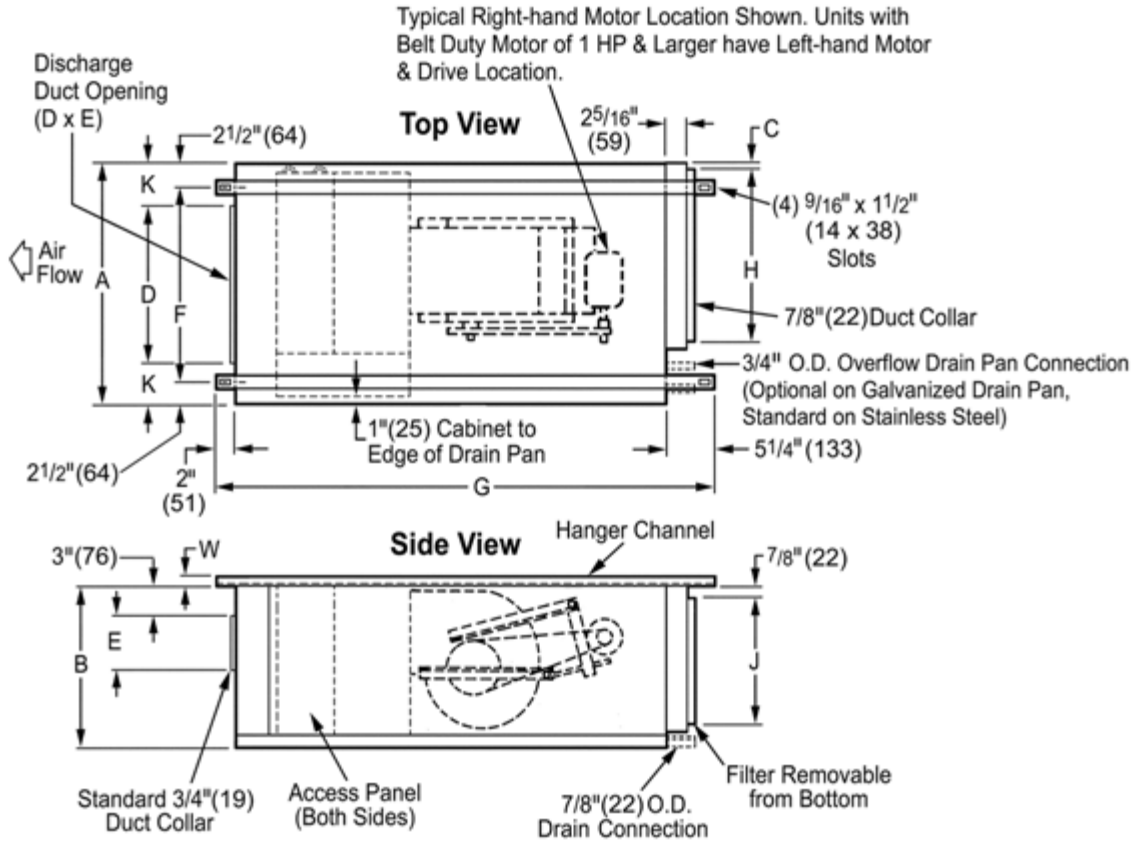


HZ model	No. of fans	Unit dimensions (in)[1]									
		A	C	D	E	F	J	N	P	Q	R
S08	1	24	28 1/2	16 1/4	13 3/8	24	21	16 1/2	15 3/4	3	18 1/2
S12	1	31	28 1/2	23	13 3/8	31	28	16 1/2	15 3/4	3	25 1/2
S16	2	39	28 1/2	31	13 3/8	39	36	16 1/2	15 3/4	3	33 1/2
S20	2	41	28 1/2	33 1/4	15 3/8	41	38	18 3/4	18 1/4	3	35 1/2
S30	2	60	30	49	15 3/8	57	54	18 3/4	18 1/4	6	51 1/2

1. All dimensions approximate. Certified drawings available upon request.

Large Capacity Fan Coil Units, Belt Drive Units—Dimensional Data—CZ Model

Right-hand unit shown. (Hand of unit determined by cooling unit connection *when facing discharge.*)



CZ model	No. of fans	Unit dimensions (in)[1]																		
		A	B	C	D	E	F	G	H	J	K	M	N	P	R	S	T	U	V	W
S08	1	26	17 5/8	1 1/4	20	6	21	53 1/4	18 1/2	14 5/8	3	4 7/16	4 7/16	12 1/16	13 7/8	16 3/4	1 9/16	1 9/16	3 3/4	1
S12	1	33	17 5/8	1 1/4	24	8	28	53 1/4	23 1/2	14 5/8	4 1/2	4 7/16	4 7/16	12 1/16	13 7/8	16 3/4	1 9/16	1 9/16	3 3/4	1
S16	2	44	17 5/8	1 1/4	36	6	39	53 1/4	38 1/2	14 5/8	5	4 7/16	2 11/16	8 3/16	13 7/8	16 3/4	2 1/4	2 1/4	2 1/4	1
S20	2	46	21 1/8	1 1/4	41 3/4	6	41	57 1/4	38 1/2	18 5/8	2 1/8	5 1/16	4 1/8	9 7/16	16 1/4	19 1/4	2 1/4	2 1/4	4 3/16	1 1/4
S30	2	62	21 1/8	6 3/4	49 3/4	8	57	57 1/4	48 1/2	18 5/8	6 1/8	5 1/16	2 7/8	9 7/16	16 1/4	19 1/4	2 1/4	2 1/4	4	1 1/4

1. All dimensions approximate. Certified drawings available upon request.

McQuay Cabinet Unit Heaters

- **AHRI certified and C-UL listed**
- **Heavy-gauge decorative steel cabinet with powder coat finish**
- **Heavy-gauge galvanized steel basic cabinet**
- **Top or front discharge available**
- **Left-hand coil connections when facing air discharge**
- **Solid-state fan speed control**
- **Split design, die-formed fan housings for quiet air delivery**
- **High performance, forward curve, centrifugal fan wheels**
- **115/60/1 three-speed, permanent split capacitor motor(s)**

For more detail, refer to Catalog 355. For the most current information, refer to www.mcquay.com.

Multiple control options

- From 3-speed switch to DDC interface board
- Remote or unit mounted
- 3-speed or staged fan

Multiple configurations

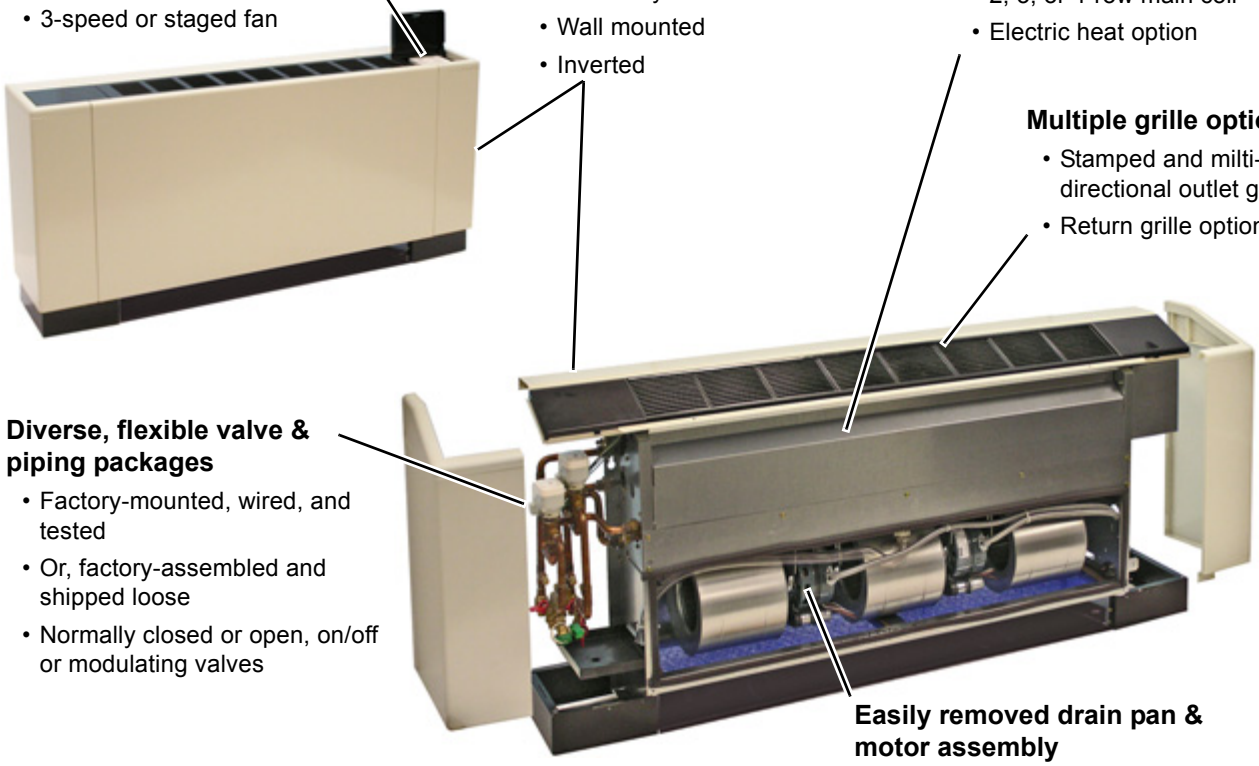
- Flat top
- Angled top
- Hideaway
- Wall mounted
- Inverted

Multiple coil options

- 2, 3, or 4-row main coil
- Electric heat option

Multiple grille options

- Stamped and milti-directional outlet grilles
- Return grille option



Diverse, flexible valve & piping packages

- Factory-mounted, wired, and tested
- Or, factory-assembled and shipped loose
- Normally closed or open, on/off or modulating valves

Easily removed drain pan & motor assembly

- For easy maintenance and service

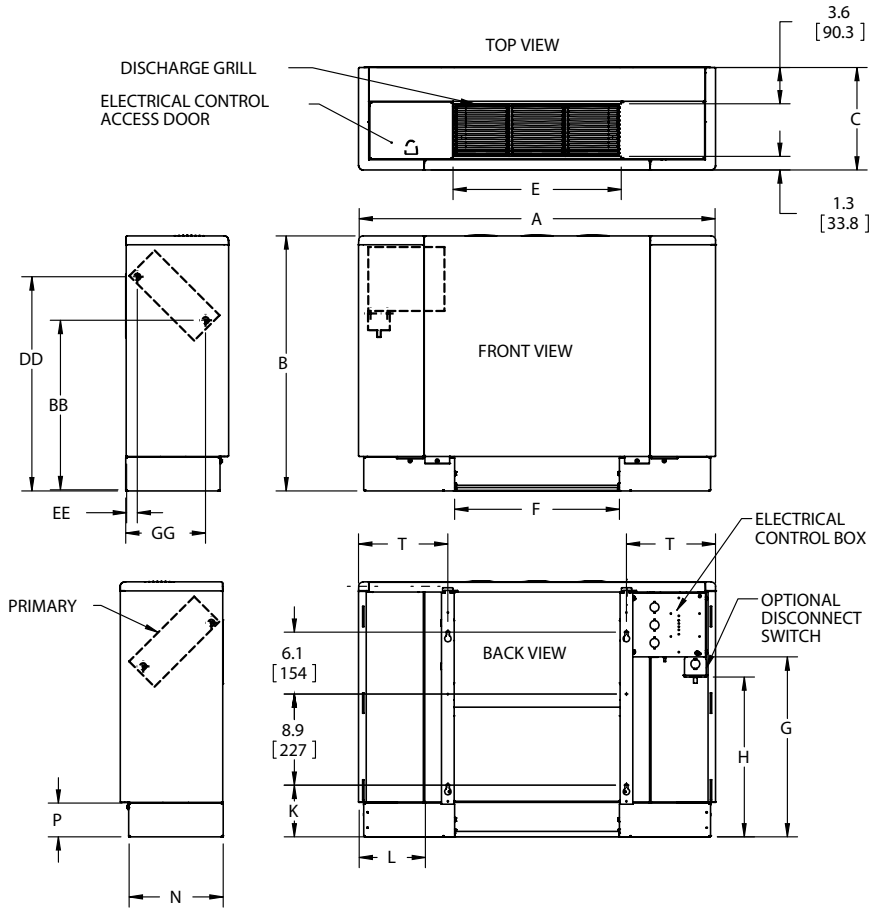
Heating Performance—Hot Water Coil

Unit Size	Main Coil Rows	SCFM	Heating Performance			
			TMBh (kW)	Q/ITD	Gpm (L/s)	WPD FtofH$_2$O (kPa)
02	4 Row	200	19.2 (5.6)	0.175 (0.092)	1.2 (0.08)	0.6 (1.8)
03	4 Row	265	27.2 (8.0)	0.247 (0.131)	1.9 (0.12)	1.5 (4.5)
04	4 Row	374	38.9 (11.4)	0.354 (0.187)	2.9 (0.18)	3.4 (10.2)
06	4 Row	554	52.6 (15.4)	0.478 (0.252)	4.6 (0.29)	9.0 (26.9)
08	4 Row	634	64.3 (18.8)	0.585 (0.308)	5.5 (0.35)	14.8 (44.2)
10	4 Row	795	80.8 (23.7)	0.735 (0.388)	6.7 (0.42)	11.1 (33.2)
12	4 Row	1022	103.8 (30.4)	0.944 (0.497)	8.3 (0.52)	18.3 (54.7)

* All performance measured on high speed tap, 115 V, zero ESP, with a throwaway filter. Heating performance is based on 70°F (21°C) entering air temperature, 180°F (82°C) entering hot water temperature with a 30°F (17°C) DT.

* Capacities shown are for 4-row coil configuration. For other configurations, consult catalog 723.

Performance Data—Unit Dimensions—Flat Top Unit Heaters



Dimension		S02		S03		S04		S06		S08		S10		S12	
		inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm
Unit Width	A	35.0	889	40.5	1029	46.0	1168	57.0	1448	62.5	1588	73.5	1867	84.5	2146
Unit Height	B	25.0	635	25.0	635	25.0	635	25.0	635	25.0	635	25.0	635	25.0	635
Unit Depth	C	10.0	254	10.0	254	10.0	254	10.0	254	10.0	254	10.0	254	10.0	254
Discharge Grille - Width	E	16.3	414	21.8	554	27.3	693	38.3	973	43.8	1113	54.8	1392	65.8	1671
Return Air Opening - Width	F	16.2	411	21.7	551	27.2	691	38.2	970	43.7	1110	54.7	1389	65.7	1669
Floor to Bottom Mtg Hole	K	5	127	5	127	5	127	5	127	5	127	5	127	5	127
Water Supply	BB	16.7	424	16.7	424	16.7	424	16.7	424	16.7	424	16.7	424	16.7	424
	GG	7.8	198	7.8	198	7.8	198	7.8	198	7.8	198	7.8	198	7.8	198
Water Return	DD	21	533	21	533	21	533	21	533	21	533	21	533	21	533
	EE	1.1	28	1.1	28	1.1	28	1.1	28	1.1	28	1.1	28	1.1	28

Steam/Hot Water Unit Heaters, Horizontal Model—UH and Vertical Model—UD

- 2-pipe applications, up to 150 psig steam or 220 psig, 375°F water
- Copper coils, 1/2" diameter, with aluminum fins (12 per inch)
- Horizontal louvers standard, vertical louvers an option on all models
- Intermittent or continuous fan operation controls (optional)
- Standard 115/60/1 PSC motors, enclosed with thermal overload protection
- 230/60/1; 200/60/3; 230/460/60/3 motors available
- Explosion proof motors available
- Finger-proof fan guards standard
- CSA Listed
- Baked-on, textured paint
- Optional air deflectors: cone jet, truncone, louvers and 3 or 4 cone anemostat

For more detail, refer to Catalog FC-UH00. For the most current information, refer to www.mcquay.com.

Model UH

Model UD

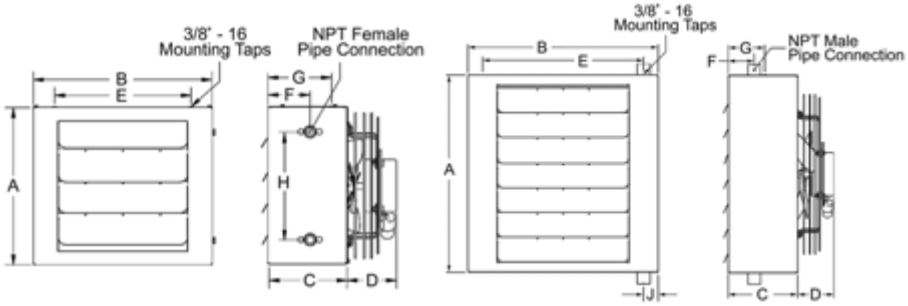
Model UH and Model UD Performance Data—2 lbs Steam[1], 60°F Entering Air, High Motor Speed

Model	Btu/hr	Condensate lb/hr	Sq ft EDR	Cfm	Outlet velocity (fpm)	Final air temp (°F)	Air Data						
							Max. mounting height (ft)[2]		Heat spread @ max height		Sound class	Heat spread @ max height	Sound class
Horizontal Units													
UH-18	18,000	18	75	400	510	102	9	15	17	11	II	1/30	1550
UH-24	24,000	25	100	450	580	109	9	18	18	13	II	1/30	1550
UH-33	33,000	35	138	630	510	109	10	19	20	14	II	1/15	1550
UH-47	47,000	49	196	730	600	120	12	21	25	16	III	1/15	1550
UH-63	63,000	66	263	1120	605	112	14	24	29	18	III	1/10	1550
UH-86	86,000	89	358	1340	730	119	15	28	31	21	III	1/10	1550
UH-108	108,000	111	450	1550	625	125	15	31	32	23	III	1/8	1075
UH-121	121,000	126	504	1775	715	123	16	34	33	25	III	1/8	1075
UH-165	165,000	170	688	2500	750	121	17	37	34	26	IV	1/4	1075
UH-193	193,000	200	804	2900	870	122	18	37	37	30	IV	1/4	1075
UH-258	258,000	267	1075	3900	920	121	19	36	40	30	V	1/3	1075
UH-290	290,000	300	1208	4300	1010	122	20	44	44	37	V	1/2	1100
UH-340	340,000	352	1417	5130	965	121	20	43	46	36	V	1/2	1100
Vertical Units													
UD-42	42,000	43	175	950	779	103	11	15	17	11	II	1/20	1550
UD-59	59,000	61	246	1150	943	111	13	18	20	13	II	1/20	1550
UD-78	78,000	81	325	1550	992	110	14	19	22	14	II	1/8	1550
UD-95	95,000	99	396	1775	1136	113	16	21	24	16	II	1/8	1550
UD-139	139,000	144	579	2500	1284	116	18	24	27	18	III	1/4	1075
UD-161	161,000	167	671	2900	1490	115	21	28	31	21	III	1/4	1075
UD-193	193,000	200	804	3900	1643	109	23	31	34	23	IV	1/2	900
UD-212	212,000	219	883	4300	1812	109	25	33	37	25	IV	1/2	1075
UD-247	247,000	256	1029	5130	1805	107	26	34	39	26	IV	5/8	900
UD-279	279,000	288	1163	5800	2040	107	30	37	45	30	V	5/8	1075
UD-333	333,000	345	1388	6600	1968	110	30	37	45	30	V	1	1075
UD-385	385,000	398	1604	7860	1930	106	30	36	45	30	VI	1	1140
UD-500	500,000	518	2083	10,790	2490	103	37	44	56	37	VI	1 1/2	1140
UD-610	610,000	631	2542	12,350	2345	106	36	43	54	36	VI	1 1/2	1140

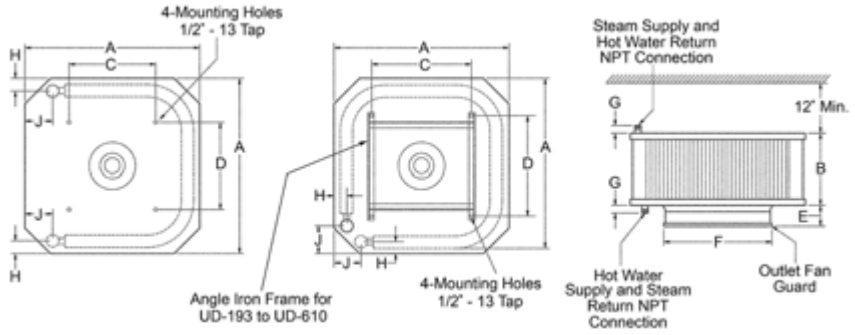
1. For hot water performance data, see Catalog FC-UH00.
2. Applies to most popular motor.

Dimensional Data

Model UH



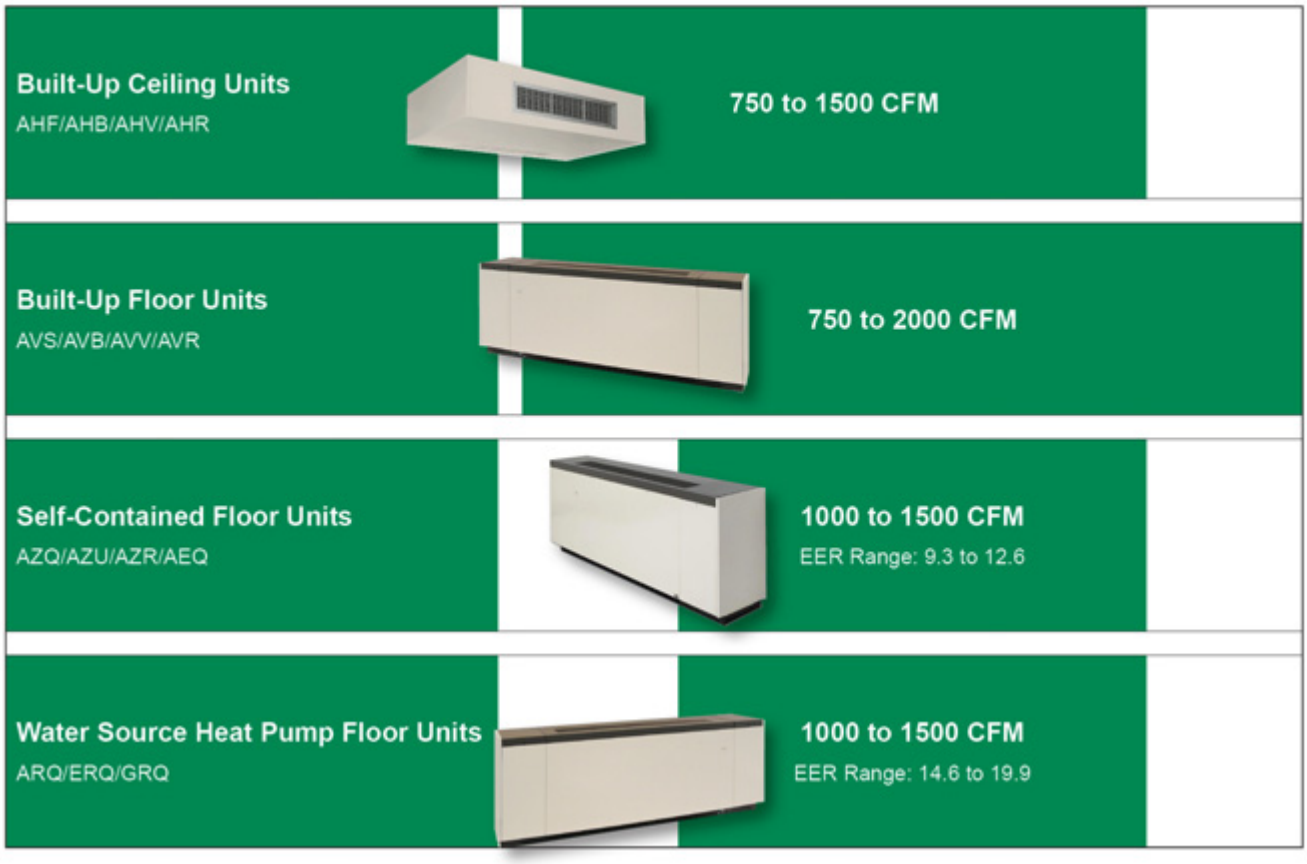
Model UD



Model UH and Model UD Dimensions

Model	A	B	C	D	E	F	G	H	J	NPT connections	Fan dia.	Approx. shipping weight (lbs)
Horizontal Units												
UH-18	15"	16 7/8"	7 1/2"	4 1/2"	12"	3 1/2"	5"	10"	–	3/4"	9"	18
UH-24	15"	16 7/8"	7 1/2"	4 1/2"	12"	3 1/2"	5"	10"	–	3/4"	9"	19
UH-33	19"	19 3/4"	7 1/2"	4 3/4"	12"	3 1/2"	5"	14"	–	3/4"	12"	35
UH-47	19"	19 3/4"	7 1/2"	4 3/4"	12"	3 1/2"	5"	14"	–	3/4"	12"	36
UH-63	19"	25 3/4"	8 1/2"	4 3/4"	18"	3 1/2"	5"	14"	–	3/4"	14"	51
UH-86	19"	25 3/4"	8 1/2"	4 3/4"	18"	3 1/2"	5"	14"	–	3/4"	14"	52
UH-108	27"	25 7/8"	9 1/2"	6 1/4"	18"	3 1/2"	5 1/4"	–	2"	1 1/2"	18"	76
UH-121	27"	25 7/8"	9 1/2"	6 1/4"	18"	3 1/2"	5 1/4"	–	2"	1 1/2"	18"	77
UH-165	27"	31 7/8"	10"	6 1/4"	24 7/8"	3 1/2"	6 1/4"	–	2"	1 1/2"	20"	95
UH-193	27"	31 7/8"	10"	8 3/8"	24 7/8"	3 1/2"	6 1/4"	–	2"	1 1/2"	20"	96
UH-258	33"	40 13/16"	11"	8 3/8"	32 7/8"	3 1/2"	6 1/4"	–	2 1/4"	2"	22"	165
UH-290	33"	40 13/16"	11"	8 3/8"	32 7/8"	3 1/2"	6 1/4"	–	2 1/4"	2"	22"	167
UH-340	39"	40 13/16"	12"	8 3/8"	32 7/8"	3 1/2"	7 1/4"	–	2 1/4"	2"	24"	182
Vertical Units												
UD-42, UD-59	23"	6 3/8"	12"	12"	3 1/8"	15"	2 3/4"	1 7/8"	3 1/4"	1 1/2"	13 3/4"	52
UD-78, UD-95	25"	6 3/8"	13"	13"	3 1/8"	17"	2 3/4"	1 7/8"	3 1/4"	1 1/2"	15 3/4"	64
UD-139, UD-161	35"	10 3/8"	14 7/16"	14 7/16"	3 1/8"	18 7/8"	2 3/4"	2"	3 1/4"	1 1/2"	17 3/4"	99
UD-193, UD-212	30"	12 3/8"	19"	17"	4"	20 7/8"	2 3/4"	2"	3 5/8"	2"	19 3/4"	126
UD-247, UD-279	35"	12 3/8"	20"	18"	4"	22 7/8"	2 3/4"	2"	3 5/8"	2"	21 3/4"	154
UD-333, UD-385	35"	18 3/8"	21"	21"	4"	24 3/4"	2 3/4"	2 1/2"	4 1/2"	2 1/2"	23 3/4"	189
UD-510	43"	18 3/8"	25"	25"	4"	28 3/4"	2 3/4"	2 1/2"	4 1/2"	2 1/2"	27 3/4"	270
UD-610	43"	18 3/8"	27"	27"	4"	30 3/4"	2 3/4"	2 1/2"	4 1/2"	2 1/2"	29 3/4"	290

AAF-HermanNelson® Unit Ventilators Selection Chart



AAF-HermanNelson® Unit Ventilators

- Built-up floor and ceiling units, plus air source air conditioner, air-to-air heat pump or water source heat pump (boiler/tower and geothermal)
- Draw-through design with face and bypass damper control for superior temperature and dehumidification control
- GentleFlo™ air moving system for very quiet operation
- Welded frame construction and industrial strength cabinet and finish for long life
- Unique draw-thru design provides uniform air distribution across the coil for even discharge air temperatures
- Controls flexibility—MicroTech® II controls with our Open Choices™ feature for easy integration with the BAS of your choice
- Digital Ready™ feature provides industry standard Direct Digital Control (DDC) components for easy integration of unit controllers by others
- Economizer, Demand Control Ventilation (DCV) and Part Load, Variable Air options allow you to reduce operating costs while closely matching classroom comfort requirements

For more detail, refer to Catalogs UV1600 (AV), UV1610 (AH), UV1620 (AZ), UV1640 (AR, ER, & GR) and UV1650 (AE).
For the most current information, refer to www.mcquay.com.

Models AHF, AHB, AHV, and AHR ceiling units
Available with ECM motor

Models AVS, AVB, AVV, and AVR floor units

Models AZQ, AZR, AZU, AEQ, ARQ, ERQ and GRQ self-contained floor units

BACnet International

LonMark 3.3

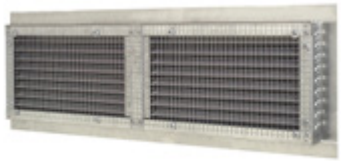
Available LonMark certified

AAF-HermanNelson® Unit Ventilators

Louvers

- Constructed of heavy gauge aluminum (painted or unpainted) for maximum durability
- Designed to maximize outdoor air intake and keep rain and moisture out

Front



Back

AV/AH horizontal and vertical blade louvers

Dual top hinged access doors

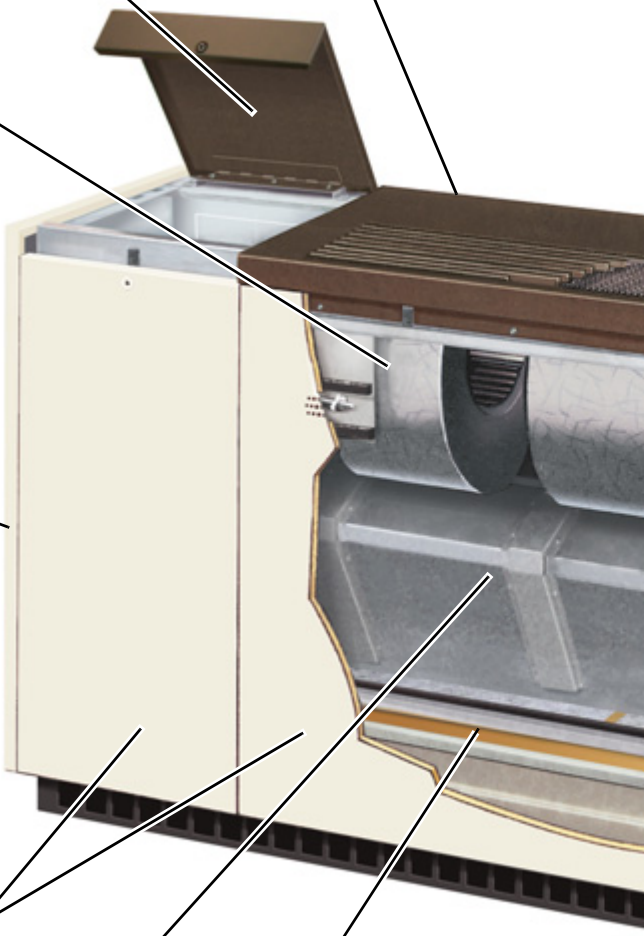
- Provides easy access to motor and end bearing

Non-glare top

- Scuff resistant

Fan housing

- Logarithmic expansion for quieter operation



Welded frame construction

- Promotes long life

Three sectionalized front access panels

- Easy access to unit interior

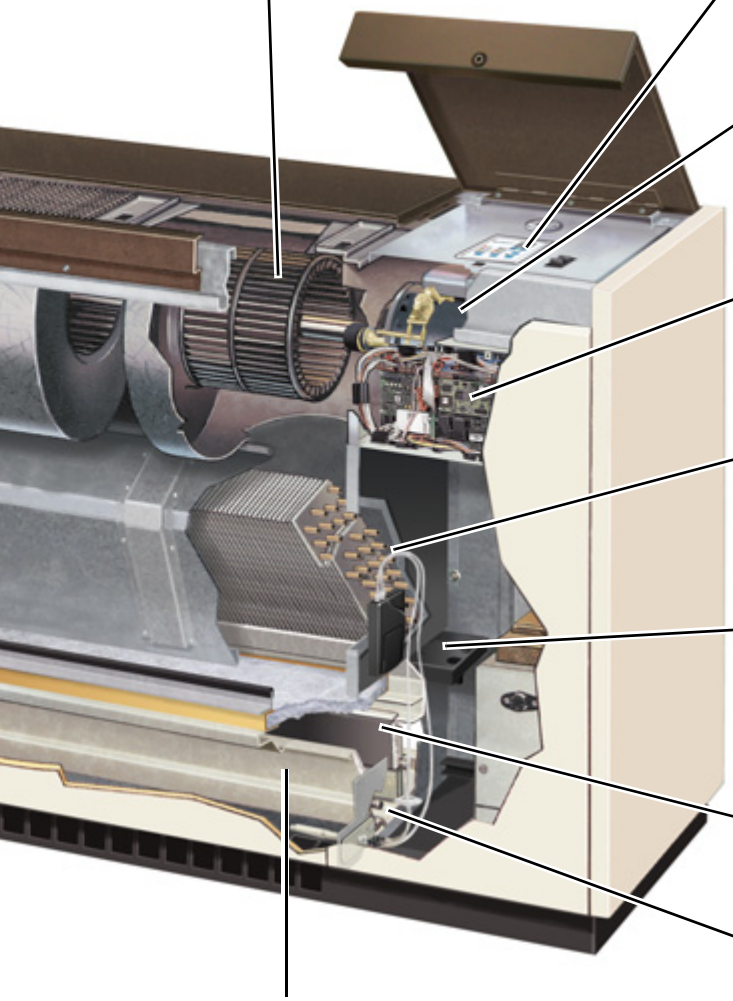
Face and bypass damper

- Superior dehumidification control

Full length filter

- All air delivered into the classroom is filtered
- One piece design makes filter changes quick and easy

Features



Fan wheel design
- Larger and fewer blades move air quietly

MicroTech II local user interface
- Displays unit condition
- Diagnostics capability
- Settable unit functions

Maintainable motor location
- Motor location out of airstream for easy access

MicroTech II controls
- LonWorks®, BACnet®, Metasys® communication capability

High heat transfer coil design
- Provides more cooling capacity

Integral drain pan
- Standard in all units to permit future cooling

Insulated, double-wall outdoor air damper
- Seals without twisting

Optional factory-mounted CO_2 sensor

Indoor return air damper
- Unique, free floating design to prevent cold air gusts from directly entering the classroom

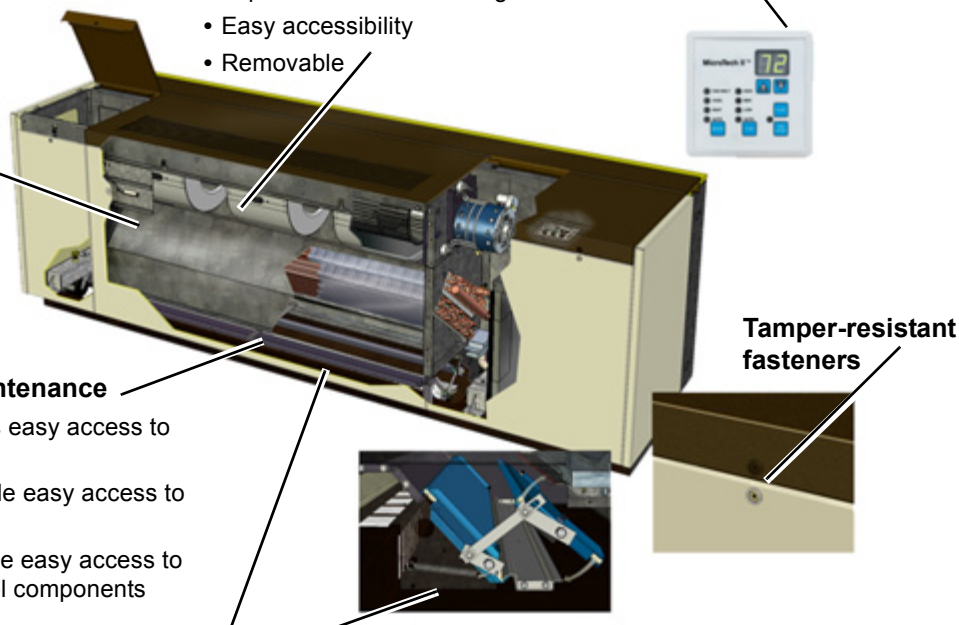
Two-Stage Self-Contained Unit Ventilators - Models AZ and AE

Model AZ – Air-Source Air Conditioner with Hot Water, Steam or Electric Heating
Unit sizes 024, 036, 044 & 054

MicroTech™II factory-integrated controls
- Provide superior comfort control
- Easily integrate into the building automation system of your choice

Modular fan section
- Improved balance and alignment
- Easy accessibility
- Removable

Superior airflow
- Quiet, aerodynamic fans utilizing GentleFlo technology
- Unique Draw-Thru Design provides uniform air distribution across the coil for even discharge air temperatures



Tamper-resistant fasteners

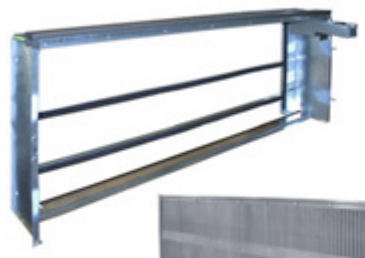
Easy installation and maintenance
- Center front panel provides easy access to full-length air filter
- Side and end panels provide easy access to piping and drain pan
- Hinged doors on top provide easy access to motor, electrical and control components

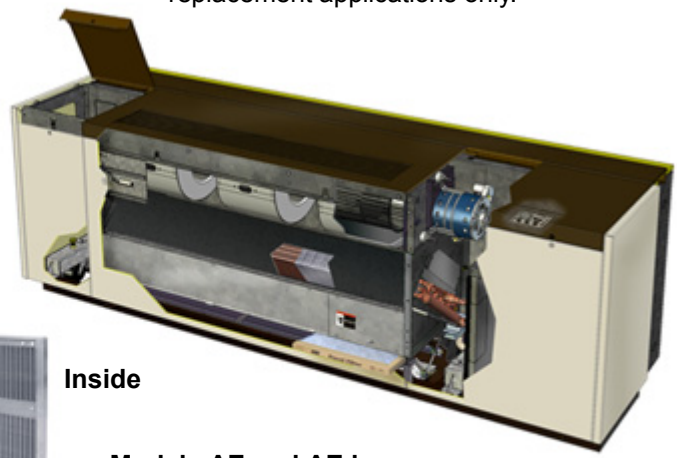
Insulated, double-wall outdoor air damper
- Provides superior mixture of outdoor air and room air for precise temperature control
- Seals tightly without twisting

Model AE – Air-Source Heat Pump

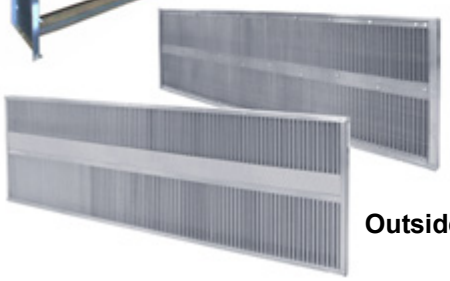
Model AE utilizes refrigerant for cooling and heating. Size 024 is just right for new construction and for retrofit applications. Unit sizes 036, 044 and 054 are for replacement applications only.

Models AZ and AE wall sleeve
- Heavy duty construction
- Simplifies insulation and service





Inside

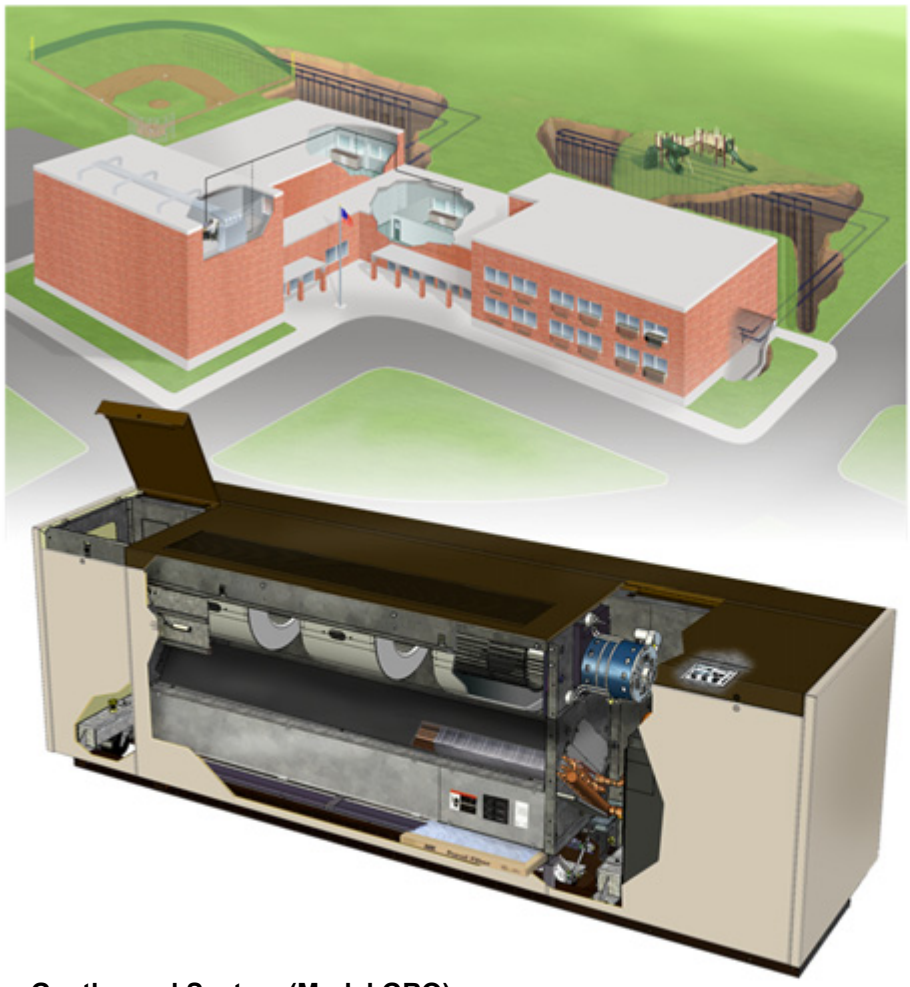


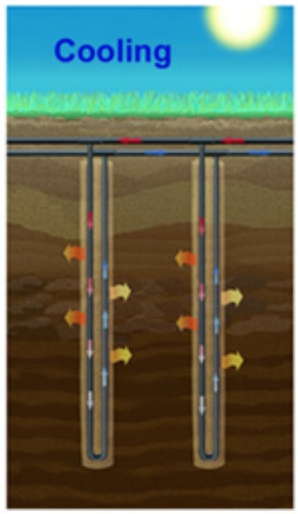
Outside

Models AZ and AE louvers
- Constructed of heavy gauge aluminum (painted or unpainted) for maximum durability
- Designed to maximize outdoor air intake and keep rain and moisture out

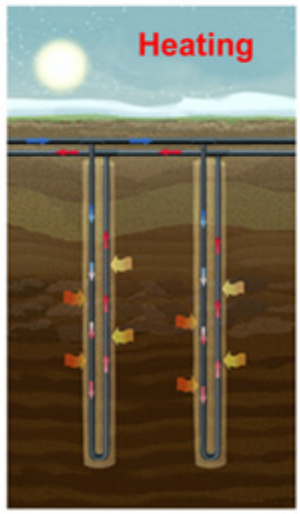
Water Source Heat Pump Self-Contained Unit Ventilators

Model AR – Standard Range
Model ER – Extended Range
Model GR – Geothermal Range
Unit sizes 024, 040 & 048





Rejection of heat into the ground



Addition of warmth from the ground

The Geothermal System (Model GRQ)

Model GRQ Ground Source heat pump utilize the natural properties of the earth to provide heating and cooling to a building. Heat addition and rejection take place below the ground, inside hundreds of feet of high density polyethylene pipe, known as a ground loop. Fluid is circulated through the ground loop and into the geothermal units. The Geothermal heat pump unit simply amplifies and directs conditioned air to the desired location.

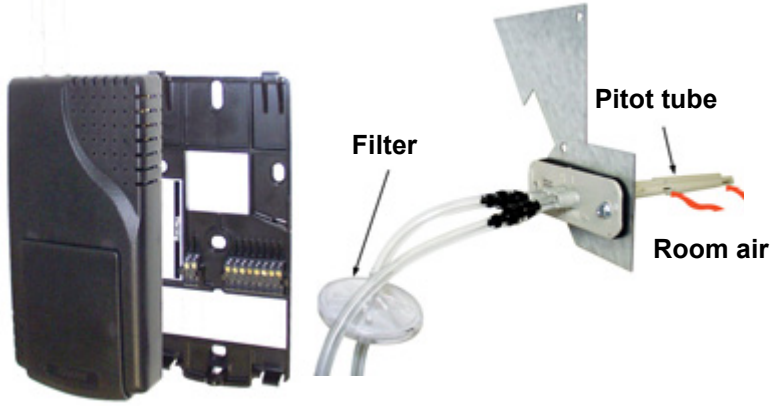
In the Heating Mode, the earth acts as a heat source, allowing the circulating fluid to extract natural heat from the earth and transfer it to the space where it can be used for heating.

In the Cooling Mode, the earth acts as a heat sink enabling the circulating fluid to transfer the excess heat, absorbed by the unit, from the building zones to earth where it is absorbed and stored for future heating requirements.

Options

MicroTech II DDC controls

- Precise, efficient operation
- User-friendly keypad with visual display
- Plug-in interface to BAS of your choice (LONWORKS® SCC, BACnet® MS/TP, Metasys® N2 Open)
- Part-load, variable air option varies fan speed automatically to meet room load, helping to provide comfort and reduce operating costs

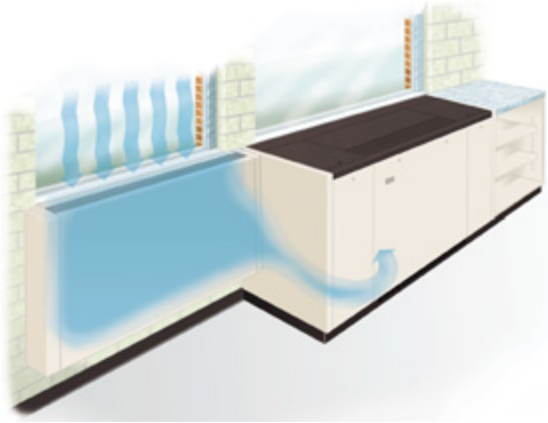


CO_2 sensor and unit-mounted sensing device

- Modulates amount of outside air to meet ASHRAE Standard 62.1-2004 requirements and lower operating costs

Three different economizer types for "free" cooling

- Basic—compares inside and outside temperature
- Expanded—compares inside and outside temperature, and outside air relative humidity to help prevent the entrance of humid outside air
- Leading Edge—compares temperature and relative humidity of inside and outside air (a true enthalpy economizer) to help prevent the entrance of humid outside air



Draftstop® system

- Intercepts cold drafts from windows
- Not available with Self-contained unit models

Optional remote room air sensor

Optional expanded room air sensor

- With variable temperature adjustment (+/- 3 degrees)

Optional deluxe room air sensor

- Individual room temperature control with variable temperature adjustment (54 to 82 degrees)
- Not available with Self-contained unit models

Physical Data

Built Up Floor Units—Models AV

Unit series			S07	S10	S13	S15
Nominal airflow, cfm (L/s)			750 (354)	1000 (472)	1250 (590)	1500 (708)
Filter data	Nominal size	inches	10 × 36 1/2 × 1	10 × 48-1/2 × 1	10 × 60-1/2 × 1	10 × 36-1/2 × 1
		mm	254 × 927 × 25	254 × 1232 × 25	254 × 1537 × 25	254 × 927 × 25
	Area	ft² (m²)	2.54 (.24)	3.37 (.31)	4.2 (.39)	5.08 (.47)
	Quantity		1	1	1	2
Shipping weight, lb (kg) [1]	16 5/8" deep units		350 (158)	425 (193)	495 (225)	570 (259)
	21 7/8" deep units		370 (168)	445 (202)	525 (238)	600 (272)
Height, inches (mm)			30 1/8 (765)			
Depth, inches (mm)			16 5/8 (422)	16 5/8 (422)	16 5/8 (422)	16 5/8 (422)
			21 7/8 (556)	21 7/8 (556)	21 7/8 (556)	21 7/8 (556)
Width, inches (mm)[2]			62 (1575)	74 (1880)	86 (2184)	98 (2489)

1. Approximate weights based on face and bypass damper controlled unit with 4-row cooling coil, high capacity hot water coil and MicroTech II controls.
2. Measurement is without end panels.

Built Up Ceiling Units—Models AH

Unit series			S07, H07	S10, H10	S13, H13	S15, H15	S20, H20
Nominal airflow, cfm (L/s)			750 (354)	1000 (472)	1250 (590)	1500 (708)	2000 (994)
Filter data	Nominal size	inches	10 × 36 1/2 × 1	10 × 48 1/2 × 1	10 × 60 1/2 × 1	10 × 36 1/2 × 1	10 × 36 1/2 × 1
		mm	254 × 927 × 25	254 × 1232 × 25	254 × 1537 × 25	254 × 927 × 25	254 × 914 × 25
	Area	ft² (m²)	2.54 (.24)	3.37 (.31)	4.2 (.39)	5.08 (.47)	5.08 (.47)
	Quantity		1	1	1	2	2
Shipping weight, lb (kg)[1]	Discharge air arrangement	AH, AT, BD, FD,FG	385 (179)	465 (211)	540 (245)	600 (272)	680 (309)[2]
Height, inches (mm)			16 5/8 (422)	16 5/8 (422)	16 5/8 (422)	16 5/8 (422)	16 5/8 (422)
Depth, inches (mm)		AH, AT	36 (914)	36 (914)	36 (914)	36 (914)	–
		BD, FD, FG	40 (1016)	40 (1016)	40 (1016)	40 (1016)	40 (1016)
Width, inches (mm)[3]			62 (1575)	74 (1880)	86 (2184) 98	98 (2489)	98 (2489)

1. Approximate weights based on face and bypass damper controlled unit with 4-row cooling coil, high capacity hot water coil and MicroTech II controls.
2. FD and FG are for 2000 cfm only.
3. Measurement is without end panels.

Self-Contained Floor Units—Models AZ & AE

Unit series			024	036	044	054
Nominal airflow, cfm (L/S)			1000 (472)	1250 (590)	1500 (708)	1500 (708)
Filter data	Nominal size	inches	10 × 48 1/2 × 1	10 × 60 1/2 × 1	10 × 36 1/2 × 1	10 × 36 1/2 × 1
		mm	254 × 1232 × 25	254 × 1537 × 25	254 × 927 × 25	254 × 927 × 25
	Area	ft² (m²)	3.37 (.31)	4.2 (.39)	5.08 (.47)	5.08 (.47)
	Quantity		1	1	2	2
Shipping weight, lb (kg)			885 (402)	975 (442)	1075 (448)	1075 (448)
Height, inches (mm)			30 (762)	30 (762)	30 (762)	30 (762)
Room depth, inches (mm)			16 5/8 (422)	16 5/8 (422)	16 5/8 (422)	16 5/8 (422)
			21 7/8 (556)	21 7/8 (556)	21 7/8 (556)	21 7/8 (556)
			28 (711)	28 (711)	28 (711)	28 (711)
Width inches, (mm)			86 (2184)	98 (2489)	110 (2794)	110 (2794)

Measurement is without end panels.

Water Source Heat Pump Floor Units—Models AR, ER & GR

Unit series			024	040	048
Nominal airflow, cfm (L/S)			1000 (472)	1250 (590)	1500 (708)
Filter data	Nominal size	inches	10 × 48 1/2 × 1	10 × 60 1/2 × 1	10 × 36 1/2 × 1
		mm	254 × 1232 × 25	254 × 1537 × 25	254 × 927 × 25
	Area	ft² (m²)	3.37 (.31)	4.2 (.39)	5.08 (.47)
	Quantity		1	1	2
Shipping weight, lb (kg)			690 (310)	720 (325)	760 (340)
Height, inches (mm)			30 (762)	30 (762)	30 (762)
Room depth, inches (mm)			16 5/8 (422)	16 5/8 (422)	16 5/8 (422)
			21 7/8 (556)	21 7/8 (556)	21 7/8 (556)
			28 (711)	28 (711)	28 (711)
Width inches, (mm)			86 (2184)	98 (2489)	110 (2794)

Measurement is without end panels.

Performance Data

Nominal Capacity Data—Models AV/AH

Unit series[1]		S07	S10	S13	S15	S20
Cooling capacity (Btuh)[3]	cfm	750	1000	1250	1500	2000
	2-row	17,900	23,600	31,500	38,800	44,900
	3-row	21,700	33,300	41,100	51,200	50,800
	4-row	27,800	35,600	43,400	56,700	62,200
Steam heat (Btuh)[4]	cfm	750	1000	1250	1500	2000
	Standard	50,300	75,200	89,000	111,500	140,800
	High	66,500	89,900	112,500	128,500	227,900
Electric heat (Btuh)	Low	20,500	27,300	34,100	41,000	41,000
	High	41,000	54,600	68,300	81,900	81,900
Hot water heat[5]	1-row	37,000	49,500	57,000	66,000	69,800
	2-row	48,300	62,000	74,100	97,200	96,700
	3-row	56,800	72,000	84,500	97,500	115,000
	4-row	62,500	81,000	95,000	110,000	142,100

1. All data is for F Vintage units.
2. Ceiling unit only.
3. 80°F/67°F entering air temperature; 45°F entering water temperature; 10°F water temperature rise.
4. 0°F entering air temperature; 2 PSI steam at 218.5°F.
5. 60°F entering air temperature; 160°F entering water temperature; 6 gpm water flow.

Nominal Capacity Data—Model AZ

Unit series			AZ024	AZ036	AZ044	AZ054
Full load cooling capacity[1]	Total	Btuh	22,100	36,800	44,000	52,100
		Watts	6478	10,786	12,986	15,271
	Sensible	Btuh	15,500	23,800	31,500	35,500
		Watts	4543	6976	9233	10,405
	Efficiency	EER	9.7	9.5	9.4	9.3
	Power	kW	2.3	3.9	4.7	5.6
Part load cooling capacity[2]	Total	Btuh	18,000	28,000	36,300	42,700
		Watts	5276	8207	10,640	12,515
	Sensible	Btuh	12,200	19,000	24,900	27,500
		Watts	3576	5569	7298	8060
	Efficiency	EER	12.6	12.4	11.8	11.8
	Power	kW	1423	2259	3060	3600
Steam heat[3]	Low capacity (68)	Btuh	52,000	64,000	77,800	77,800
		Watts	15,236	18,752	22,795	22,795
	High capacity (69)	Btuh	85,700	105,000	128,500	128,500
		Watts	25,110	30,765	37,650	37,650
Electric heat	Low	kW	8.0	10.0	12.0	12.0
		MBh	27.3	34.1	41.0	41.0
	High	kW	16.0	20.0	24.0	24.0
		MBh	54.6	68.3	81.9	81.9
Hot water heat[4]	1-row coil	Btuh	49,500	57,000	66,000	66,000
		Watts	13,390	15,851	18,693	18,693
	2-row coil	Btuh	62,000	74,100	97,200	97,200
		Watts	18,313	21,536	25,959	25,959

1. Conditions: Indoor 80ºF (27ºC) DB / 67ºF (19ºC) WB, Outdoor 95ºF (35ºC) DB / 75ºF (24ºC) WB
2. Conditions: Indoor 80ºF (27ºC) DB / 67ºF (19ºC) WB, Outdoor 82ºF (28ºC) DB / 65ºF (18ºC) WB
3. Steam Heating @ 2 psig Steam (13.8 KPa); 60°F (16ºC) Entering Air Temperature.
4. 60°F (16ºC) Entering Air Temperature; 160°F (71ºC) Entering Water Temperature; 6 gpm (22.7 Lpm) Water Flow.

Nominal Capacity Data—Model AE

Unit series			AE024	AE036	AE044	AE054
Full load cooling capacity[1]	Total	Btuh	21,100	39,300	43,700	51,200
		Watts	6180	11,520	1,810	15,000
	Sensible	Btuh	15,700	25,500	30,000	34,400
		Watts	4530	7500	8790	10,080
	Efficiency	EER	9.1	9.7	9.1	9.1
	Power	kW	2.3	4.1	4.8	5.6
Part load cooling capacity[2]	Total	Btuh	16,900	30,800	35,500	41,600
		Watts	4950	9030	10,410	12,180
	Sensible	Btuh	12,100	20,000	23,800	26,600
		Watts	3540	5850	6990	7770
	Efficiency	EER	11.7	11.7	11.8	11.5
	Power	kW	1450	2630	3010	3620
Full load heating capacity[3]	Total	Btuh	20,700	35,000	41,600	49,700
		Watts	6090	10,230	12,180	14,580
	Efficiency	COP	3.0	2.6	2.6	2.5
	Power	kW	2.1	3.9	4.6	5.8
Part load heating capacity[4]	Total	Btuh	17,700	29,100	36,100	43,000
		Watts	5160	8520	10,560	12,600
	Efficiency	COP	3.3	2.8	3.0	2.8
	Power	kW	1560	3055	3525	4500
Electric heat	Low	kW	8.0	10.0	12.0	12.0
		MBh	27.3	34.1	41.0	41.0
	High	kW	16.0	20.0	24.0	24.0
		MBh	54.6	68.3	81.9	81.9

1. Conditions: Indoor 80ºF (27ºC) DB / 67ºF (19ºC) WB, Outdoor 95ºF (35ºC) DB / 75ºF (24ºC) WB
2. Conditions: Indoor 80ºF (27ºC) DB / 67ºF (19ºC) WB, Outdoor 82ºF (28ºC) DB / 65ºF (18ºC) WB
3. Conditions: Indoor 70ºF (21ºC) DB / 60ºF (16ºC) WB, Outdoor 47ºF (8ºC) DB / 43ºF (6ºC) WB
4. Conditions: Indoor 70ºF (21ºC) DB / 60ºF (16ºC) WB, Outdoor 62ºF (17ºC) DB / 56.5ºF (14ºC) WB

Nominal Capacity Data—Water Loop at High Indoor Fan Speed—Models AR/ER

Unit series				AR/ER024	AR/ER040	AR/ER048
Boiler/ tower	Water flow		Gpm	6.5	10.0	12.0
			L/s	0.41	0.63	0.76
	Cooling[1]	Total	Btuh	23,000	39,200	48,100
			Watts	6740	11,490	14,100
		Sensible	Btuh	17,600	28,000	35,900
			Watts	5160	8210	10,520
		Efficiency	EER	13.0	13.5	14.0
		Power	kW	1.8	2.9	3.4
		Nominal Airflow CFM (L/s)		1000 (472)	1250 (590)	1500 (708)
	Heating[2]	Total	Btuh	28,500	45,900	56,000
			Watts	8350	13,450	16,410
		Efficiency	COP	4.5	4.2	4.4
		Power	kW	1.8	3.2	3.7
Electric heat	Low		kW	8.0	10.0	12.0
			MBh	27.3	34.1	41.0
	High		kW	16.0	20.0	24.0
			MBh	54.6	68.3	81.9

1. Based on ASHRAE and ISO 13256-1 conditions of 86°F (30°C) entering water temperature.
2. Based on ASHRAE and ISO 13256-1 conditions of 68°F (20°C) entering water temperature.

Nominal Capacity Data—Water Loop at Medium Indoor Fan Speed—Models AR/ER

Unit series				AR/ER024	AR/ER040	AR/ER048
Boiler/ tower	Water flow		Gpm	6.5	10.0	12.0
			L/s	0.41	0.63	0.76
	Cooling[1]	Total	Btuh	17,000	27,700	34,600
			Watts	4980	8120	10,140
		Sensible	Btuh	13,400	20,300	26,000
			Watts	3930	5950	7620
		Efficiency	EER	14.7	14.7	15.0
		Power	kW	1.2	1.9	2.3
		Nominal Airflow CFM (L/s)		750 (354)	1000 (472)	1150 (542)
	Heating[2]	Total	Btuh	19,300	33,300	40,300
			Watts	5660	9760	11,810
		Efficiency	COP	4.8	4.4	4.7
		Power	kW	1.2	2.2	2.5
Electric heat	Low		kW	8.0	10.0	12.0
			MBh	27.3	34.1	41.0
	High		kW	16.0	20.0	24.0
			MBh	54.6	68.3	81.9

1. Based on ASHRAE and ISO 13256-1 conditions of 86°F (30°C) entering water temperature.
2. Based on ASHRAE and ISO 13256-1 conditions of 68°F (20°C) entering water temperature.

Nominal Capacity Data—Ground Loop at High Indoor Fan Speed—Model GR

Unit series				GR024	GR040	GR048
Geothermal	Coolant flow		Gpm	6.5	10.0	12.0
			L/s	0.41	0.63	0.76
	Cooling[1]	Total	Btuh	23,800	40,300	49,800
			Watts	6980	11,810	14,600
		Sensible	Btuh	18,100	28,400	36,500
			Watts	5310	8320	10,700
		Efficiency	EER	14.6	15.0	15.6
		Power	kW	1.2	1.9	2.3
		Nominal Airflow CFM (L/s)		1000 (472)	1250 (590)	1500 (708)
	Heating[2]	Total	Btuh	17,500	35,100	34,000
			Watts	5130	10,290	9970
		Efficiency	COP	3.3	3.5	3.3
		Power	kW	1.6	2.9	3.0
Electric heat	Low		kW	8.0	10.0	12.0
			MBh	27.3	34.1	41.0
	High		kW	16.0	20.0	24.0
			MBh	54.6	68.3	81.9

1. Based on ASHRAE and ISO 13256-1 conditions of 77°F (25°C) entering temperature of 15% brine solution.
2. Based on ASHRAE and ISO 13256-1 conditions of 32°F (0°C) entering temperature of 15% brine solution.

Nominal Capacity Data—Ground Loop at Medium Indoor Fan Speed—Model GR

Unit series				GR024	GR040	GR048
Geothermal	Coolant flow		Gpm	6.5	10.0	12.0
			L/s	0.41	0.63	0.76
	Cooling[1]	Total	Btuh	18,300	29,900	37,400
			Watts	5360	8760	10,960
		Sensible	Btuh	14,000	21,500	27,000
			Watts	4100	6300	7910
		Efficiency	EER	19.5	19.3	19.9
		Power	kW	0.9	1.6	1.9
		Nominal Airflow CFM (L/s)		1000 (472)	1250 (590)	1500 (708)
	Heating[2]	Total	Btuh	13,600	25,600	27,600
			Watts	3990	7500	8090
		Efficiency	COP	3.5	3.6	3.5
		Power	kW	1.1	2.1	2.3
Electric heat	Low		kW	8.0	10.0	12.0
			MBh	27.3	34.1	41.0
	High		kW	16.0	20.0	24.0
			MBh	54.6	68.3	81.9

1. Based on ASHRAE and ISO 13256-1 conditions of 68°F (20°C) entering temperature of 15% brine solution.
2. Based on ASHRAE and ISO 13256-1 conditions of 41°F (5°C) entering temperature of 15% brine solution.

PTAC/PTHP Selection Chart

Applied PTAC

Unit Size	07	09	012	015	017
PDAA/PDHAF, PDAF/PDHF Catalog 1300 16" x 42" Angled Top 16" x 42" Flat Top	• AC or Heat Pump (Size 17 is cooling only) • Electric Heat • Hydronic Heat • Hydronic Heat with Intermediate Electric • R-410A Refrigerant • Auto or Manual Damper • GentleFlo™ Tangential Fan • Digital Control Module • Wireless Remote Control • Triple Sloping Drain Pan • Sea Coast Coating Option				
PDAE/PDHE Catalog 1301 16" x 44" Flat Top	• AC or Heat Pump (Size 17 is cooling only) • Electric Heat • Hydronic Heat • R-410A Refrigerant • Auto or Manual Damper • GentleFlo™ Tangential Fan • Digital Control Module • Wireless Remote Control • Triple Sloping Drain Pan • Sea Coast Coating Option				
PDAN Catalog 1355 16" x 42" Top Mounted Hydronic Heat (NYC Style)	• AC Only • Top Mounted Hydronic Heat • Hydronic Heat with Intermediate Electric • R-410A Refrigerant • Auto or Manual Damper • GentleFlo™ Tangential Fan • Digital Control Module • Wireless Remote Control • Triple Sloping Drain Pan • Sea Coast Coating Option				

Legacy PTAC

Unit Size	07	09	012	015	019
PKEC,PKEI, PKES,PKHS Cat 1302 Type K Replacement	• R-410A Refrigerant • AC Only • Electric Heat • Hydronic Heat • Special: Corrosion Protection				
PNES/PNHS Catalog 1303 Enersaver		• R-410A Refrigerant • AC or Heat Pump (Size 15 is cooling only) • Electric Heat • Hydronic Heat			

16" × 42" Applied Packaged Terminal Air Conditioners and Heat Pumps 7,400 to 16,800 Btuh

- Non CFC, R-410A refrigerant
- Ideal for new construction or replacement applications
- Fits standard 16" × 42" wall sleeve
- Broadest selection of features and customizable options allow you to choose the ideal unit for each space in your building
- Top-mounted or Subbase hydronic selections
- Meets or exceeds ASHRAE efficiency standards and COP ratings provide lower operating costs
- Exceptionally quiet, reliable cooling/heating operation maximize comfort
- Easy to install and maintain
- Engineered and manufactured in the U.S.A.

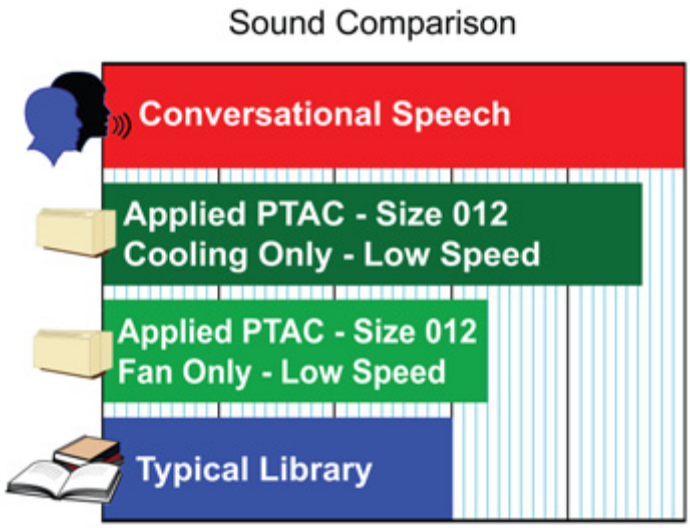
For more detail, refer to Catalog 1300. For the most current information, refer to www.mcquay.com.

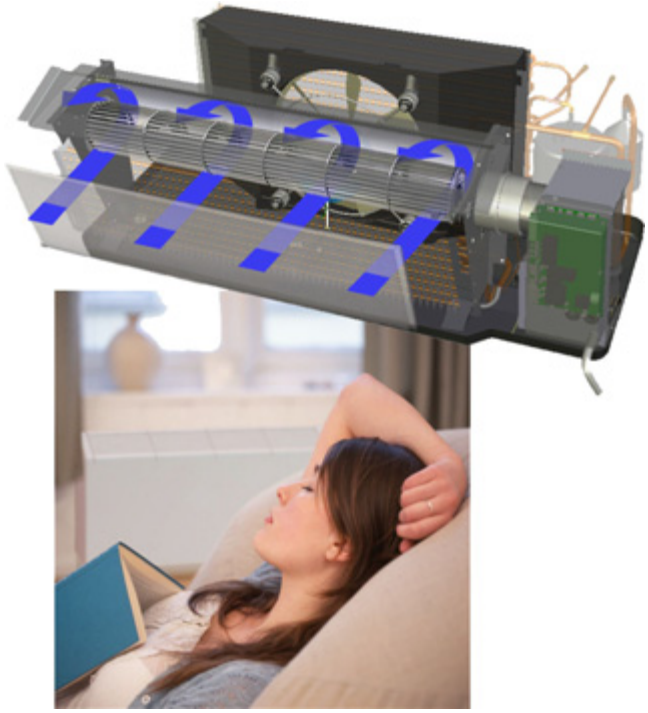
Models PDAA and PDHA 16" × 42" Angled Top (new construction or replacement)

Model PDAN 16" × 42" Top-Mounted hydronic (new construction or replacement)

Models PDAF and PDHF 16" × 42" Flat Top (new construction or replacement)

Exceptionally Quiet Operation



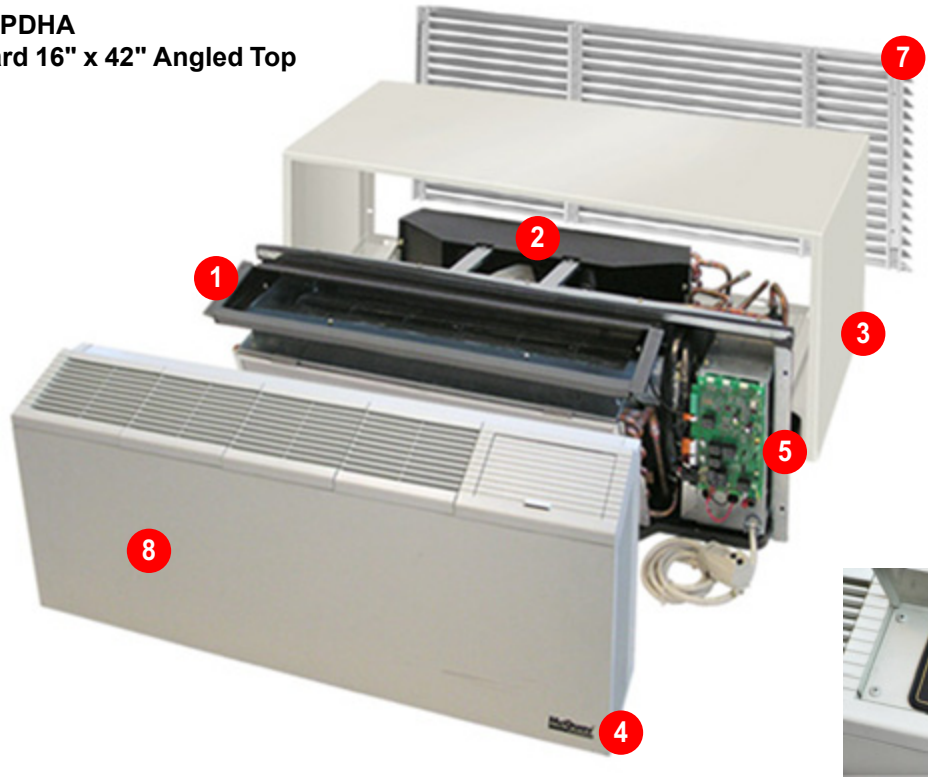


Tangential indoor fan

The GentleFlo™ cross-tangential fan wheel design of Applied PTAC/PTHP units provides whisper quiet operation while delivering maximum airflow required for proper air circulation

PDAA/PDHA Features

PDAA/PDHA
standard 16" x 42" Angled Top



1 Heating/cooling chassis

- Heat pump or cooling with electric and/or hydronic heat

2 Condenser coil

- Optimized heat transfer technology maximizes comfort, reduces energy consumption

3 Basic wall sleeve

- Heavy-gauge steel construction
- Pre-painted for durability and corrosion resistance

4 Room cabinet

- Heavy-gauge steel construction
- Baked on powder coat paint provides maximum scratch and dent resistance

5 Digital control module

- Provides reliable control and diagnostic information
- Optional premium control with infra-red remote control capability (select models)
- Offers Remote, Wired or Wireless thermostat control option

6 Digital control touchpad

- Easy to use when selecting fan speed, mode of operation, and temperature setting.
- Digital temperature display provides guests with an exact comfort setting to avoid overheating/overcooling
- Fahrenheit or Celsius temperature display
- Standard (non-programmable) or optional premium (7-day programmable)
- Available in Manual (MCO) or Automatic Changeover (ACO)
- Continuous or cycle fan operation
- Automatic room freeze protection

7 Louver (accessory)

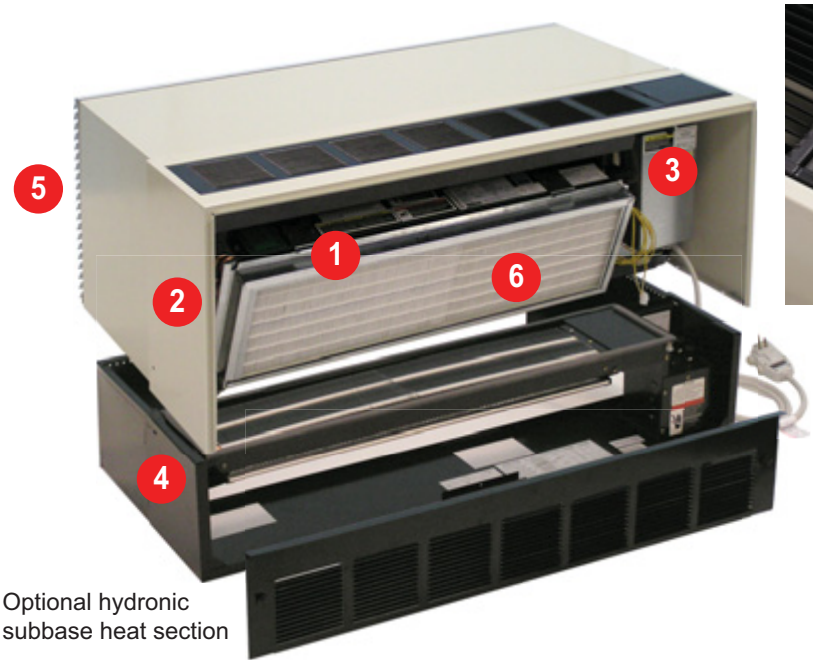
- Flush stamped or architectural style
- Anodized aluminum to resist corrosion

8 Front panel

- Heavy gauge steel construction
- Baked on powder coat paint provides maximum scratch and dent resistance

PDAF/PDHF Features

PDAF/PDHF
standard 16" x 42" Flat Top



Optional hydronic subbase heat section

1 Heating/cooling chassis

- Heat pump or cooling with electric and/or hydronic heat

2 Room cabinet

- Flat top discharge grille with a single, stamped steel grille
- Front panel raises and can be completely removed for service and chassis access
- Cabinet is a wrap-around design and completely encloses the chassis

3 Digital control module

- Provides reliable control and diagnostic information
- Optional premium control with infra-red remote control capability (select models)
- Offers Remote, Wired or Wireless thermostat control option

4 Hydronic subbase heat section (option)

- 2-row, finned/tube coil for either hot water or steam
- Louvered subbase front panel with quick opening latches and hinged for easy access to piping, valves and 1/2" permanent filter

5 Outside air louver

- Heavy-duty, architectural, extruded aluminum to resist weathering
- Option for recessed louver

6 Permanent cleanable filters

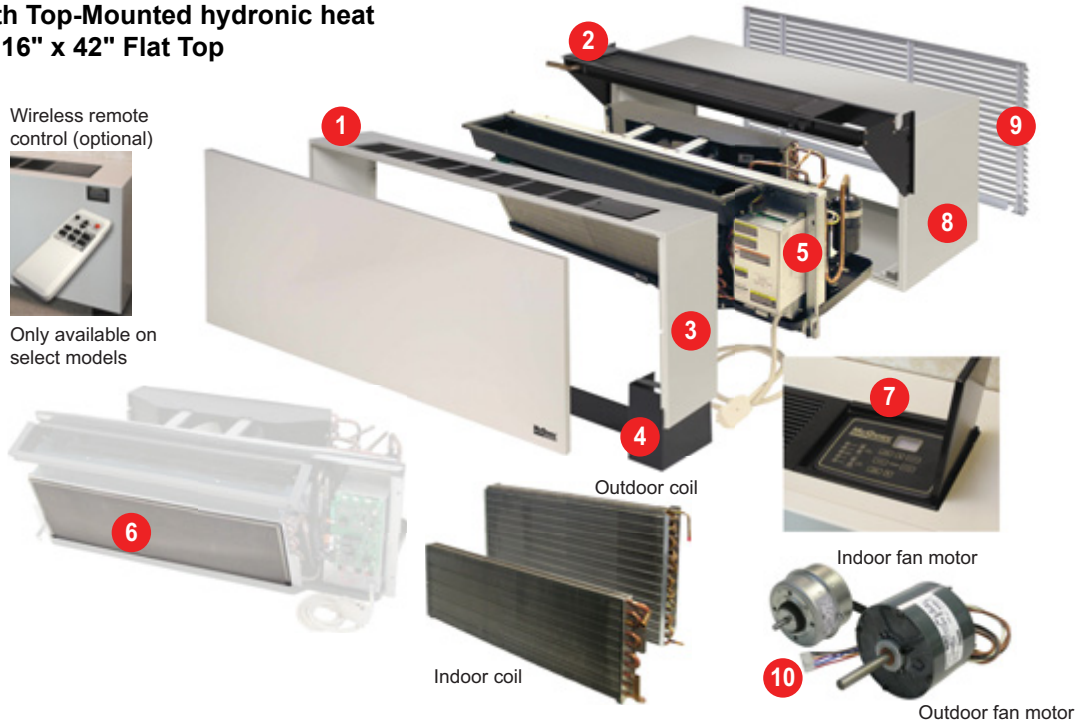
- Filters all return air to promote good indoor air quality
- Easy to access and maintain

7 Digital control touchpad

- Easy to use when selecting fan speed, mode of operation, and temperature setting.
- Digital temperature display provides guests with an exact comfort setting to avoid overheating/overcooling
- Fahrenheit or Celsius temperature display
- Standard (non-programmable) or optional premium (7-day programmable)
- Available in Manual (MCO) or Automatic Changeover (ACO)
- Continuous or cycle fan operation
- Automatic room freeze protection

PDAN Features

PDAN with Top-Mounted hydronic heat standard 16" x 42" Flat Top



1 Heavy-duty grille
- Option for four-way adjustment allows air to be directed where it is needed
- Option for extruded aluminum grille

2 Heating chassis
- Top-mounted hydronic (hot water or steam) heat for easy installation

3 Room cabinet
- Heavy-gauge steel with powder paint coating for maximum scratch and dent resistance
- Removable for easy access to filters, controls and piping for routine maintenance and service
- Option for custom cabinet colors
- Custom depth for varying wal thicknesses
- Available in front or bottom return configurations

4 Kick plate
- Adjustable height and custom colors for varying floor treatments

5 Digital control module
- Provides reliable control and diagnostic information
- Optional premium control with infra-red remote control capability (select models)
- Offers Remote, Wired or Wireless thermostat control option

6 Permanent cleanable filter
- Room side return air is filtered through this permanent, washable polypropylene mesh filter

7 Digital control touchpad
- Easy to use when selecting fan speed, mode of operation, and temperature setting.
- Digital temperature display provides guests with an exact comfort setting to avoid overheating/overcooling
- Fahrenheit or Celsius temperature display
- Standard (non-programmable) or optional premium (7-day programmable)
- Available in Manual (MCO) or Automatic Changeover (ACO)
- Continuous or cycle fan operation
- Automatic room freeze protection

8 Wall sleeve
- Heavy-guage steel with powder paint coating for maximum scratch, dent and corrosion resistance
- Custom wall sleeve depths available
- Options for brick or panel/curtain wall applications

9 Outside air louver
- Heavy-duty, architectural, extruded aluminum to resist weathering
- Option for recessed louver

10 Separate indoor and outdoor fans
- Two fan motors provide lower operating costs and quieter operation
- Provide more flexible options for architectural louvers or special condenser air treatments

Replacement Guide

Manufacturer	Model	Wall opening dimensions		Discharge		Return air		Heat type	
		16 1/4" × 42 1/4"		Angled	Flat	Bottom	Front	Electric	Hydronic
		AC	HP						
Amana	PTC	•		•			•	•	•
	PTH		•	•			•	•	
Carrier	52PE	•		•			•	•	
	56PC	•		•			•		
	56PQ	•		•			•	•	
	52SC	•		•			•		
	52SE	•		•			•	•	
	52SQ		•	•			•	•	
Climate Master	PTA	•		•			•	•	
	PTP		•	•			•		•
	PTH	•		•			•	•	
CNI	PC	•		•			•	•	
	PH		•	•			•	•	
Friedrich	PDE	•		•			•	•	
	PDH		•	•			•	•	
	PE	•		•			•	•	
	PH		•	•			•	•	
	TE	•		•			•	•	
	TH		•	•			•	•	
	TW	•		•			•		•
GE	AZ	•	•	•			•	•	
Ice Air	RSK	•			•	•			•
Island Aire	ED	•			•	•		•	•
	NE				•	•		•	•
McQuay	PDE	•		•	•	•		•	•
	PDH		•	•	•	•			
	PSE	•		•		•		•	•
	PSH		•	•		•			
	MQE	•		•	•		•	•	•
	MQR		•	•		•		•	
	MQS	•	•	•	•	•		•	
	NR		•		•	•		•	
	PTAC	•		•			•	•	
	PTHP		•	•			•	•	
Singer	N	•			•	•		•	
	NE	•			•	•		•	
	NH		•		•	•			•
	NR		•		•	•		•	
Trane	PTE	•		•			•	•	•
	PTH		•	•			•	•	

= Not applicable
• = Available by McQuay

Not finding what you are looking for? Consult your McQuay representative for information on other replacement PTAC/PTHP products from McQuay.

Customized Options

Chassis Customization Options - Models PDAA/PDHA and PDAF/PDHF

Description		Unit Size				
Unit Type – PDAA/PDHA and PDAF/PDHF		**007**	**009**	**012**	**015**	**017**
Cabinet type	16" × 42" angled top	•	•	•	•	•
	16" × 42" flat top	•	•	•	•	•
Voltage	115/60/1	•	•	n/a	n/a	n/a
	208/230/60/1	•	•	•	•	•
	265/277/60/1	•	•	•	•	n/a
	208/230/60/1 w/standby 115/50/1	•	•	•	•	n/a
	265-277/60/1 w/standby 115/50/1	•	•	n/a	n/a	n/a
	208/208/60/1 w/standby (all sizes)	•	•	•	•	•
Cooling capacity Btuh		7,400	9,100	12,800	14,400	16,800
Heating options						
Electric heater (kW)	2.5	•	•	•	•	•
	3.5	•	•	•	•	•
	5.0	n/a	n/a	•	•	•
Hydronic - hot water or steam		•	•	•	•	•
Hydronic with intermediate electric (PDAA, PDAFand PDAN units only)		•	•	•	•	•
Heat pump		•	•	•	•	n/a
Heat pump with supplemental electric heat		•	•	•	•	n/a
Air flow cfm – high/low speed in heating	380/340	•	•	•	•	580/380
Outside air damper – vent – cfm –high/low speed	50/40	•	•	•	•	70/50
Damper						
Auto damper control (standard with hydronic heat)		•	•	•	•	•
Manual damper control (not available with hydronic heat)		•	•	•	•	•
Indoor air quality (IAQ) boost fan with auto damper		•	•	•	•	•
Unit control	Unit mounted non-programmable	•	•	•	•	•
	Unit mounted programmable	•	•	•	•	•
	Remote thermostat (wired or wireless)	•	•	•	•	•
Seacoast coating package		•	•	•	•	•

Other Customization Options

Custom sleeve

- Extended depths, brick stops, or support legs can be added for panel wall or curtain wall applications

ExtendAire™

- Cabinet extension to provide balanced cooling/heating in two rooms using one unit (flat top units only)

The Hydronic Experts

McQuay is a leading manufacturer of hydronic heat equipment with a host of configurable options.

- Cooling only mode with hydronic heat
- Cooling only mode with hydronic heat and supplemental electric heat
- Top mounted hydronic coil (steam or hot water)
- Subbase hydronic (steam or hot water)

Hydronic Subbase

For PDAA and PDAF series only

Performance Data - Models PDAA/PDHA, PDAF/PDHF, PDAN and PDAE/PDHE

Model			007			009			012		015		017
Cooling	Total Btuh[1]		7,400			9,100			12,800		14,400		16,800
	Sensible Btuh[1]		6,500			7,500			9,000		9,600		11,700
	EER		10.9			10.7			9.8		9.4		9.3
	Volts		115	208/230	265	115	208/230	265	208/230	265	208/230	265	208/230
	Full load amps[6]		7.43	4.07	3.34	9.33	5.45	4.04	7.15	6.09	8.21	6.69	10.03
	Watts[1]		679			850			1306		1532		1806
Electric heat[3]	Volts		-	208/230	265	-	208/230	265	208/230	265	208/230	265	208/230
	2.5 kW	kW	-	2.2/2.7	-	-	2.2/2.7	-	2.2/2.7	-	2.2/2.7	-	2.2/2.7
		Amps	-	10.7/11.9	-	-	10.7/11.9	-	10.7/11.9	-	10.7/11.9	-	10.7/11.9
	3.5 kW	kW	-	3.1/3.8	3500	-	3.1/3.8	3500	3.1/3.8	3500	3.1/3.8	3500	3.1/3.8
		Amps	-	15.2/16.8	13.7	-	15.2/16.8	13.7	15.2/16.8	13.7	15.2/16.8	13.7	15.2/16.8
	5.0 kW	kW	-	-	-	-	-	-	3.9/4.8	5000	3.9/4.8	5000	3.9/4.8
		Amps	-	-	-	-	-	-	19.0/21.0	19.3	19.0/21.0	19.3	19.0/21.0
Hydronic heat[4]	Valve/fan motor amps		0.74	0.41	0.32	0.74	0.41	0.32	0.41	0.32	0.41	0.32	0.47
	Hot H_2O (Btuh) hi/lo		18,400/15,600			18,400/15,600			18,400/15,600		18,400/15,600		23,200/16,400
	Steam (Btuh) hi/lo		22,400/22,300			22,400/22,300			22,400/22,300		22,400/22,300		27,900/23,300
Heat Pump Model													
Cooling	Total Btuh[2]		7400			9200			12700		14200		-
	Sensible Btuh[2]		6500			7500			9000		9500		-
	EER		10.9			10.3			9.8		9.4		-
	Volts		115	208/230	265	115	208/230	265	208/230	265	208/230	265	-
	Full load amps		7.43	4.07	3.34	9.33	5.45	4.04	7.15	6.09	8.21	6.69	-
	Watts[1]		679			893			1296		1511		-
Reverse cycle heat	Btuh[2]		6800			8500			12400		14000		-
	COP		3.2			3.3			3.0		2.9		-
	Volts		115	208/230	265	115	208/230	265	208/230	265	208/230	265	-
	Full load amps		7.43	4.07	3.34	9.33	5.45	4.04	7.15	6.09	8.21	6.69	-
	Watts[2]		623			755			1211		1415		-
Electric htr.	Voltage		-	240	265	-	240	265	240	265	240	265	240
Minimum circuit ampacity	2.5 kW		-	15.51	-	-	15.51	-	15.51	-	15.51	-	15.51
	3.5 kW		-	21.92	17.07	-	21.92	17.07	21.92	17.07	21.92	17.07	21.92
	5.0 kW		-	-	-	-	-	-	27.38	24.1	27.38	24.1	27.38
	Hydronic heat		8.69	4.77	3.89	11.06	6.49	4.77	8.48	7.22	9.8	7.97	12.07
Time delay fuses or HACR circuit breaker	2.5 kW		-	15	-	-	15	-	15	-	15	-	15
	3.5 kW		-	20	15	-	20	15	20	15	20	15	20
	5.0 kW		-	-	-	-	-	-	25	20	25	20	25
	Hydronic heat		15			15			15		15		15
NEMA receptacle required	2.5 kW		-	6–15R	-	-	6–15R	-	6–15R	-	6–15R	-	6–15R
	3.5 kW		-	6–20R	7–20R	-	6–20R	7–20R	6–20R	7–20R	6–20R	7–20R	6–20R
	5.0 kW		-	-	-	-	-	-	6–30R	7–30R	6–30R	7–30R	6–30R
	Hydronic heat		5–15R	6–15R	7–20R	5–15R	6–15R	7–20R	6–15R	7–20R	6–15R	7–20R	6–15R
Airflow cfm	Cool		High/low			High/low			High/low		High/low		High/low
			360/330			360/330			360/330		360/330		540/360
	Heat		380/340			380/340			380/340		380/340		550/380
	Vent[5]		50/40			50/40			50/40		50/40		70/50

1. Based on ASHRAE and AHRI test conditions of 95°F DB/75°F WB outside, 80°F DB/67°F WB inside.
2. Based on ASHRAE and AHRI test conditions of 47°F DB outside, 70°F DB inside.
3. Electric Resistance Heat Watts × 3.41 = Btuh. Electric heating watts and amps includes indoor fan motor.
4. Water—Based on ASHRAE and AHRI test conditions of 200°F EWT, 180°F LWT, 70°F EAT with a 1.8 gpm flow rate.
5. 100 cfm with power vent option.
6. Cooling full load amps includes compressor, indoor air fan, and outdoor air fan.

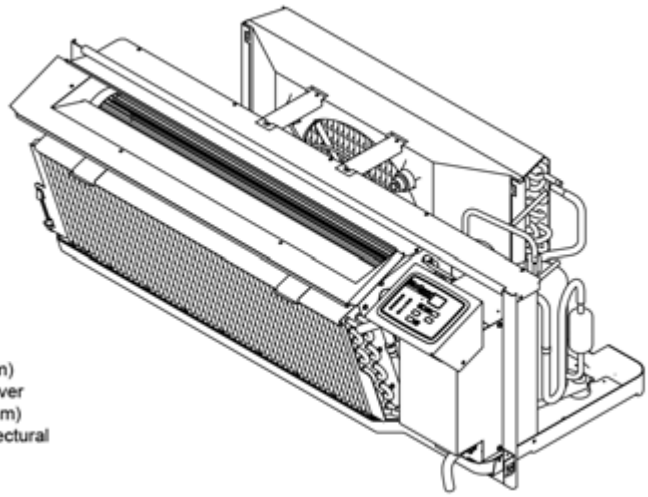
Unit Weights*

Model	007	009	012	015	017
16" × 42" (angled) PDAA (chassis) lb (kg)	129.5 (58.7)	137.0 (62.1)	137.9 (62.6)	145.6 (66.0)	150.6 (68.3)
*16" × 42" (angled) PDAA (packaged) lb (kg)	144.5 (65.5)	152.0 (68.9)	152.9 (69.4)	160.6 (72.8)	165.6 (75.1)
16" × 42" (angled) PDHA (chassis) lb (kg)	129.5 (58.7)	137.0 (62.1)	137.9 (62.6)	145.6 (66.0)	-
*16" × 42" (angled) PDHA (packaged) lb (kg)	131.0 (59.4)	138.5 (62.8)	139.9 (63.5)	147.1 (66.7)	-
16" × 42" (flat) PDAF (chassis) lb (kg)	129.5 (58.7)	137.0 (62.1)	137.9 (62.6)	145.6 (66.0)	150.6 (68.3)
*16" × 42" (flat) PDAF (packaged) lb (kg)	144.5 (65.5)	152.0 (68.9)	152.9 (69.4)	160.6 (72.8)	165.6 (75.1)
16" × 42" (flat) PDHF (chassis) lb (kg)	131.0 (59.4)	138.5 (62.8)	139.9 (63.5)	147.1 (66.7)	-
*16" × 42" (flat) PDHF (packaged) lb (kg)	146.0 (66.1)	153.5 (69.6)	154.4 (70.0)	162.1 (73.5)	-
*16" × 44" PDHE (packaged) lb (kg)	131.0 (59.4)	138.5 (62.8)	139.4 (63.2)	147.1 (66.7)	-
*16" × 44" PDAE (packaged) lb (kg)	129.5 (58.7)	137.0 (62.1)	137.9 (62.6)	145.6 (66.0)	148.8
16" × 44" PDHE (chassis) lb (kg)	116.0 (52.6)	123.5 (56.0)	124.4 (56.4)	132.1 (59.9)	-
16" × 44" PDAE (chassis) lb (kg)	114.5 (51.9)	122.0 (55.3)	122.9 (55.7)	130.6 (59.2)	135.8

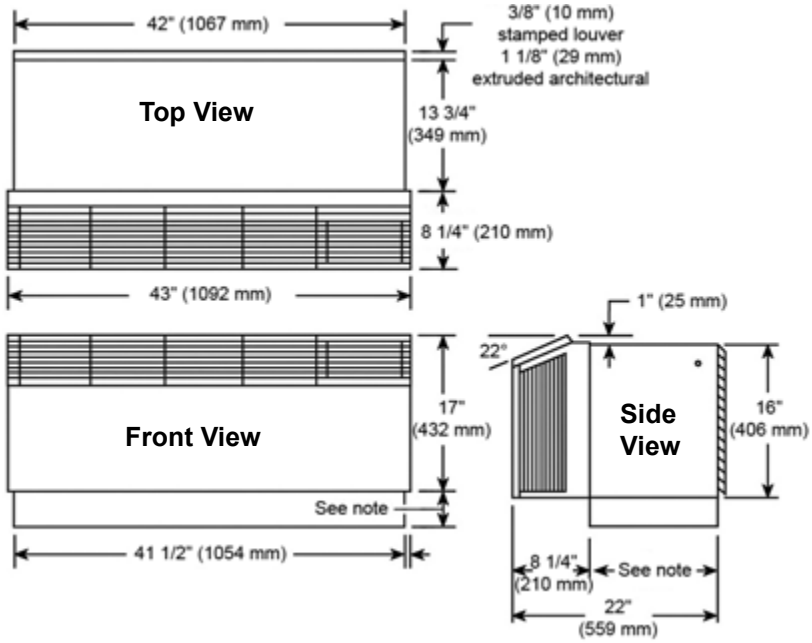
* Includes chassis and cabinet assembly (wall sleeve ships separate).

Dimensions

PDAA/PDHA standard 16" × 42" Angled Top

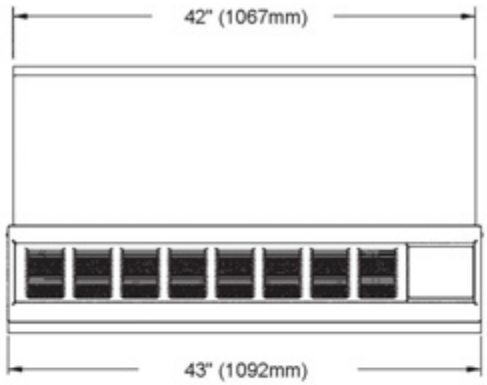


Note: Unit pictured with subbase installed. Subbase is optional on 208V/230V units. Subbase is standard on all 265V and units with hydronic heat.

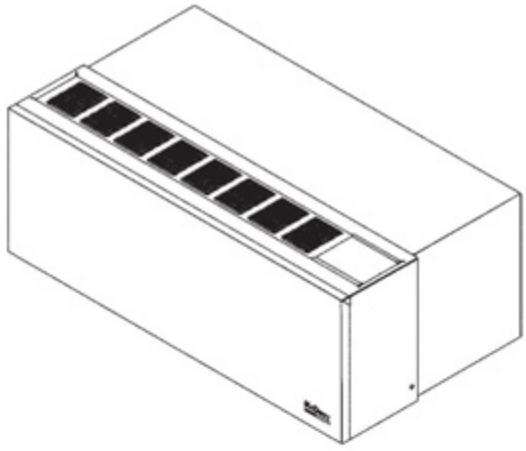


PDAF/PDHF standard 16" × 42" Flat Top

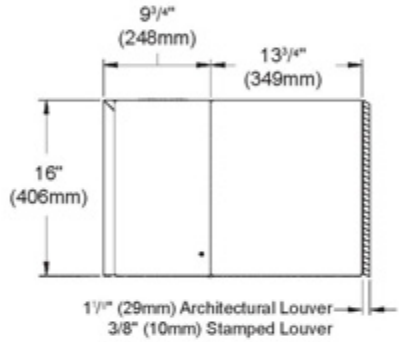
Cabinet Assembly & Wall Sleeve



Top View

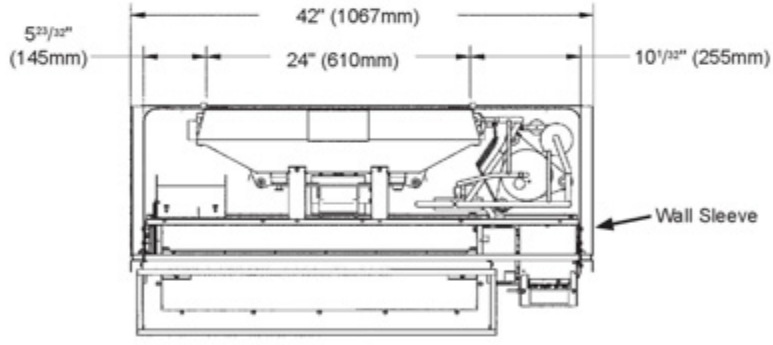


Front View

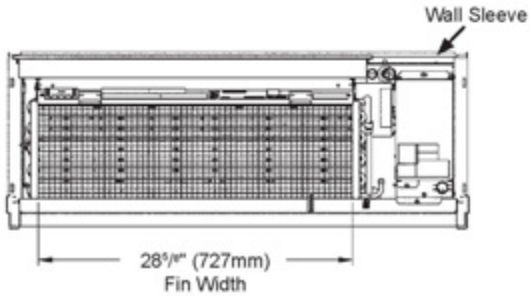


Right End View

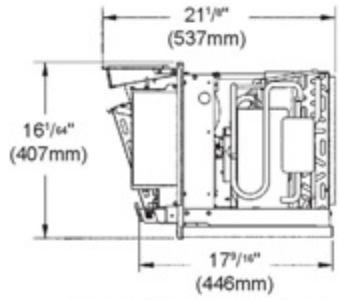
Chassis



Top View



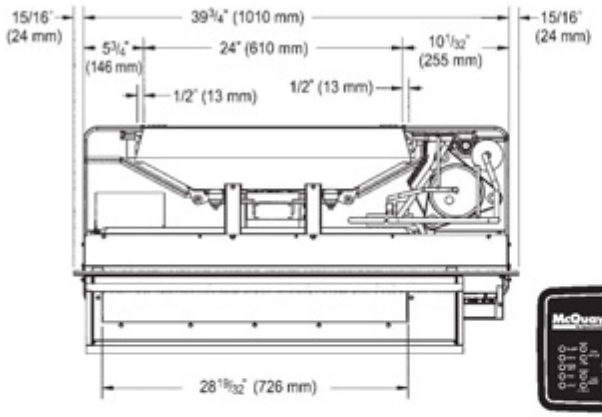
Front View



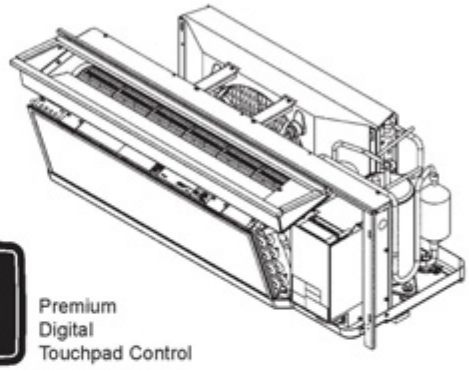
Right End View without Wall Sleeve

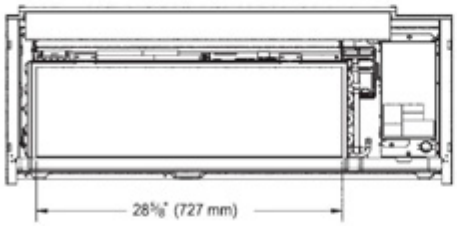
PDAN standard 16" × 42" Flat Top

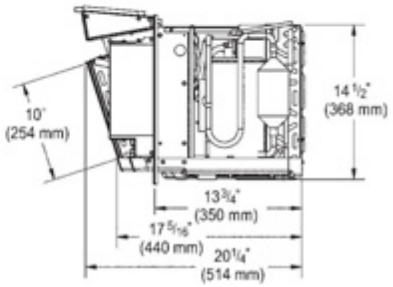
Unit Dimensions – Chassis



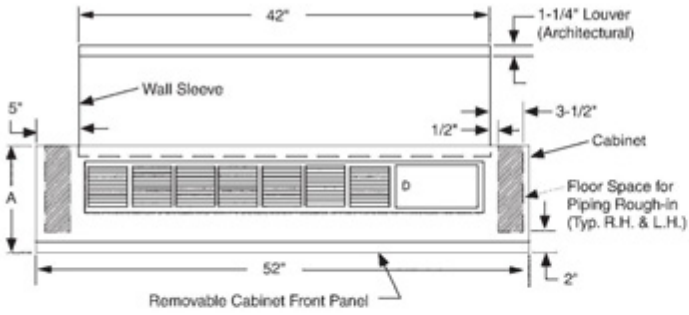
Premium
Digital
Touchpad Control







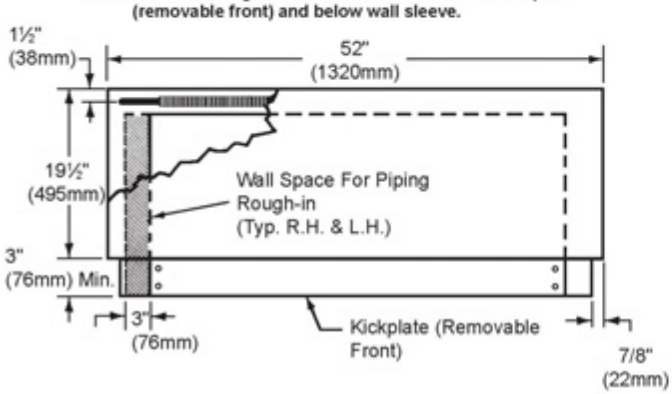
Unit Dimensions – Wall Sleeve, Cabinet & Louver

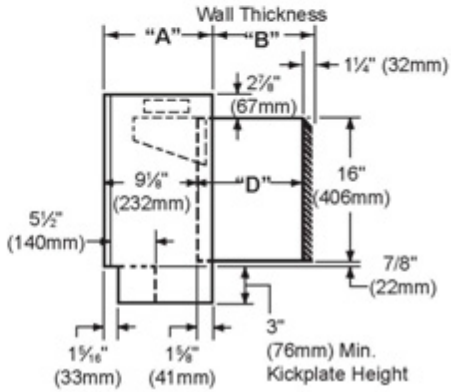


1½" RECESS FOR ARCHITECTURAL LOUVER		
"A" – IN. (MM) ROOM CABINET	"D" – IN. (MM) WALL SLEEVE	"B" – IN. (MM) WALL THICKNESS
18¾ (476)	13¾ (349)	4¾–5¾ (121–146)
17¾ (451)	13¾ (349)	5¾–6¾ (146–171)
16¾ (425)	13¾ (349)	6¾–7¾ (171–197)
15¾ (400)	13¾ (349)	7¾–8¾ (197–222)
14¾ (375)	13¾ (349)	8¾–9¾ (222–248)
13¾ (349)	13¾ (349)	9¾–10¾ (248–273)
12¾ (324)	13¾ (349)	10¾–11¾ (273–298)
11¾ (298)	13¾ (349)	11¾–12¾ (298–324)
10¾ (273)	13¾ (349)	12¾–13¾ (324–349)
10¾ (273)	14¾ (375)	13¾–14¾ (349–375)
10¾ (273)	15¾ (400)	14¾–15¾ (375–400)
10¾ (273)	16¾ (425)	15¾–16¾ (400–425)
10¾ (273)	17¾ (451)	16¾–17¾ (425–451)

Standard Size Wall Sleeve

Note: Electrical rough-in should be located behind kickplate (removable front) and below wall sleeve.





16" × 44" Model PDAE/PDHE Applied Packaged Terminal Air Conditioners and Heat Pumps—7,400 to 16,800 Btuh

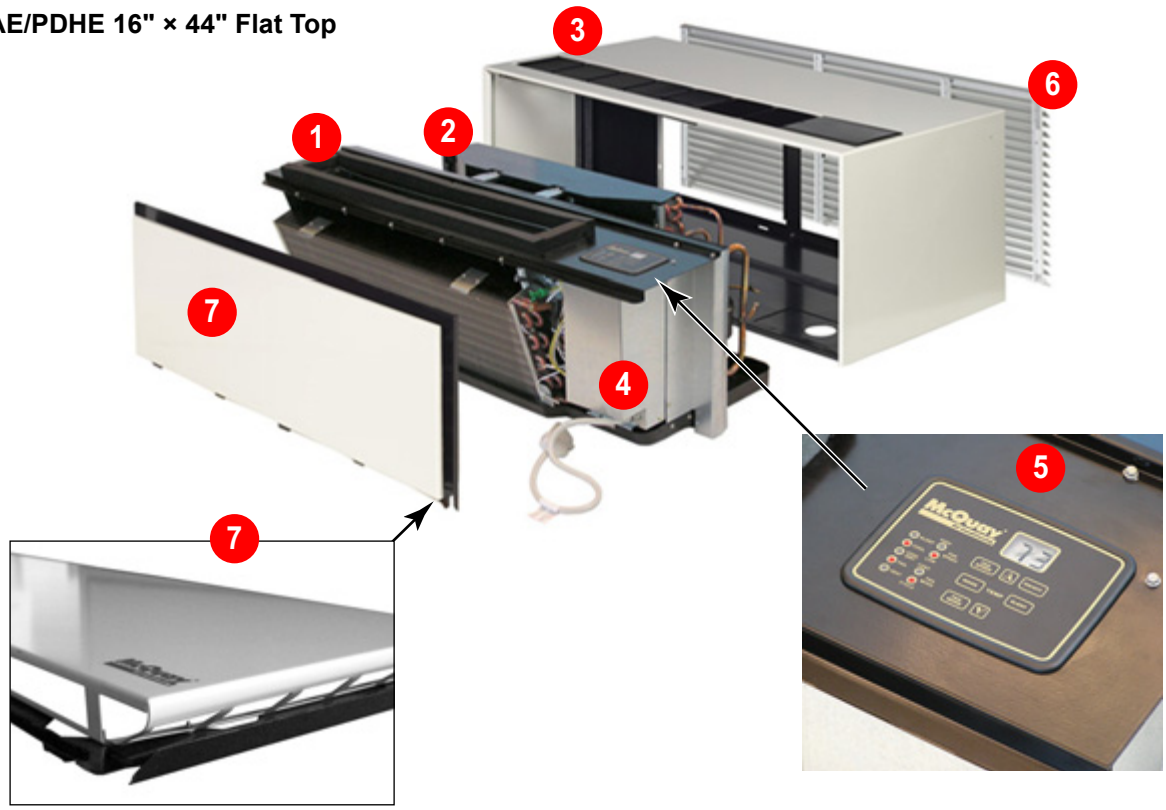
- Ideal for replacement applications or new construction
- Fits 16" × 44" wall sleeve
- Broadest selection of features and customizable options allows you to choose the ideal unit for each space in your building
- Subbase hydronic selections
- Meets or exceeds ASHRAE efficiency standards and COP ratings to provide lower operating costs
- Exceptionally quiet, reliable cooling/heating operation maximizes comfort
- Easy to install and maintain
- Engineered and manufactured in the U.S.A.

For more detail, refer to Catalog 1301. For the most current information, refer to www.mcquay.com.

Models PDAE and PDHE
16" × 44" flat top for PMES, PMRS, EA & RS

PDAE/PDHE Features

PDAE/PDHE 16" × 44" Flat Top



1 Heating/cooling chassis

- Heat pump or cooling with electric and/or hydronic heat

2 Condenser coil

- Optimized heat transfer technology maximizes comfort, reduces energy consumption

3 Combination room cabinet and wall sleeve

- Heavy-gauge steel construction
- Baked on powder coat paint provides maximum scratch and dent resistance

4 Digital control module

- Provides reliable control and diagnostic information
- Optional premium control with infra-red remote control capability (select models)
- Offers Remote, Wired or Wireless thermostat control option

5 Digital control touchpad

- Easy to use when selecting fan speed, mode of operation, and temperature setting.
- Digital temperature display provides guests with an exact comfort setting to avoid overheating/overcooling
- Fahrenheit or Celsius temperature display
- Standard (non-programmable) or optional premium (7-day programmable)
- Available in Manual (MCO) or Automatic Changeover (ACO)
- Continuous or cycle fan operation
- Automatic room freeze protection

6 Louver (accessory)

- Flush stamped or architectural style
- Anodized aluminum to resist corrosion

7 Front panel

- Heavy gauge steel construction
- Baked on powder coat paint provides maximum scratch and dent resistance

Customized Options

Chassis Customization Options

Description		Unit Size				
Unit Type – PDAE/PDHE		**007**	**009**	**012**	**015**	**017**
Cabinet type	16" × 44" top mount hydronic	•	•	•	•	•
	16" x 44" flat top replacement	•	•	•	•	•
Voltage	115/60/1	•	•	N/A	N/A	N/A
	208/230/60/1	•	•	•	•	•
	265/277/60/1	•	•	•	•	N/A
	208/230/60/1 w/standby 115/60/1	•	•	N/A	N/A	N/A
	265/277/60/1 w/standby 115/60/1	•	•	N/A	N/A	N/A
	208/208/60/1 w/standby (all sizes)	•	•	•	•	•
Cooling capacity Btuh		7,400	9,100	12,800	14,400	16,800
Heating options						
Electric heater (kW)	2.5	•	•	•	•	•
	3.5	•	•	•	•	•
	5.0	N/A	N/A	•	•	•
Hydronic - hot water or steam		•	•	•	•	•
Heat pump		•	•	•	•	•
Heat pump with supplemental electric heat		•	•	•	•	•
Air flow cfm – high/low speed in heating	380/340	•	•	•	•	550/380
Outside air damper – vent – cfm –high/low speed	50/40	•	•	•	•	70/50
Damper						
Auto damper control (standard for most hydronic heat)		•	•	•	•	•
Manual damper control (not available for most hydronic heat)		•	•	•	•	•
Indoor air quality (IAQ) boost fan with auto damper		•	•	•	•	•
Unit control	Unit mounted non-programmable	•	•	•	•	•
	Unit mounted programmable	•	•	•	•	•
	Remote (Wired or Wireless), Hand Held IR	•	•	•	•	•
Seacoast coating package		•	•	•	•	•

N/A = Not Applicable.
For illustration purposes only. Not all options available with all models.
Consult a McQuay Sales Representative for details and availability.

Other Customization Options

Hydronic coils

- Factory-installed in subbases

The Hydronic Experts

McQuay is a leading manufacturer of hydronic heat equipment, both hot water and steam, with a host of configurable options.

- Cooling only mode with hydronic heat
- Cooling only mode with hydronic heat and supplemental electric heat
- Subbase hydronic (steam or hot water)

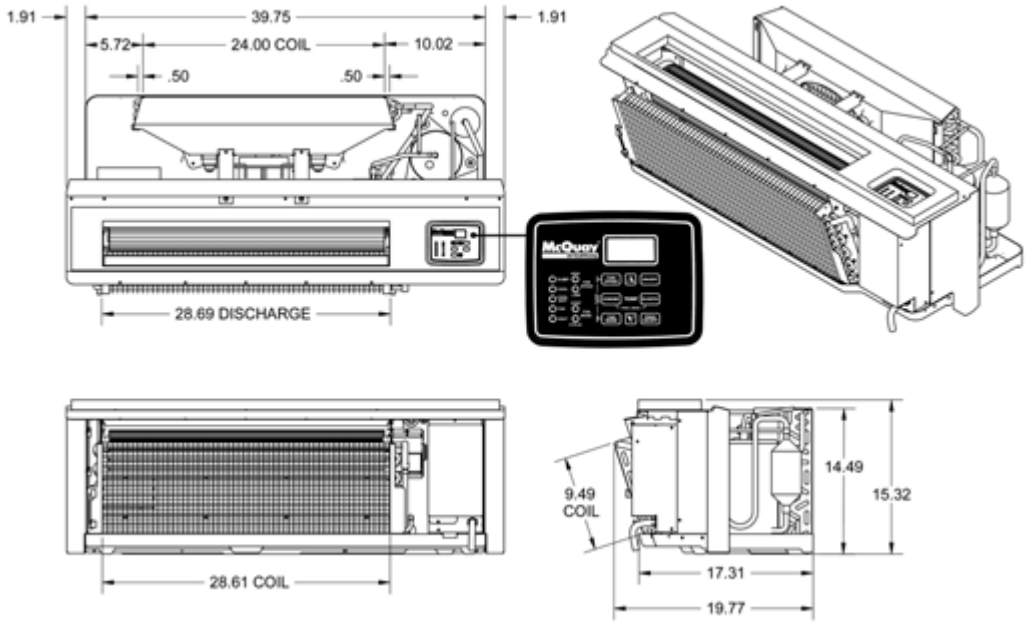
Hydronic Subbase

Dimensions

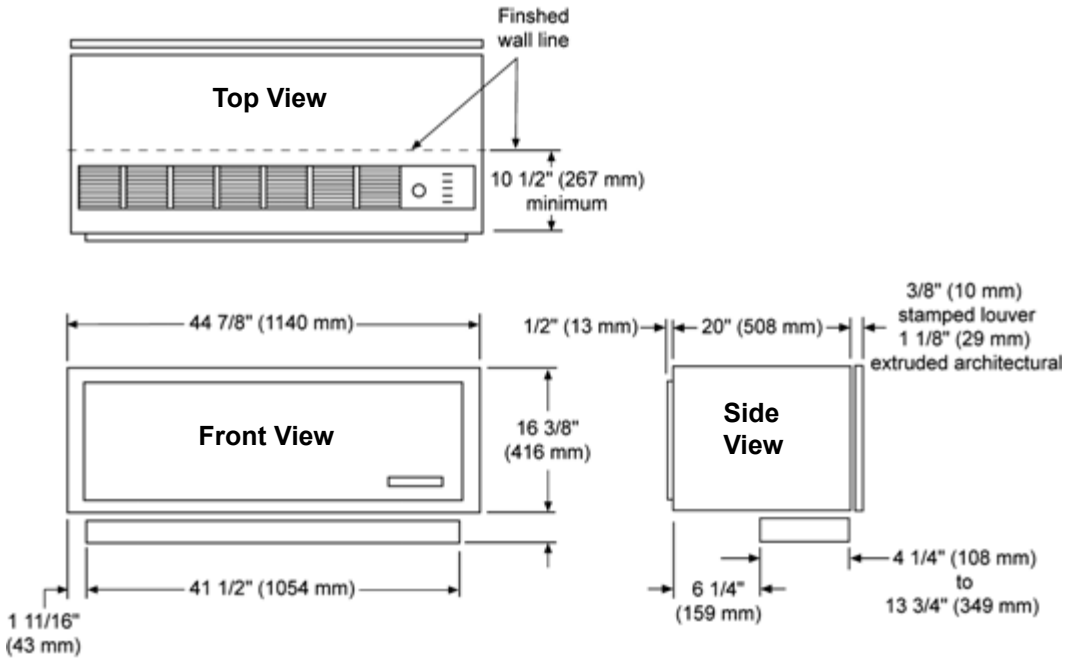
PDAE/PDHE 16" × 44" Flat Top

Air conditioner with electric heat or heat pump with electric heat

Unit Dimensions—Chassis



Unit Dimensions—Wall Sleeve, Cabinet & Louver



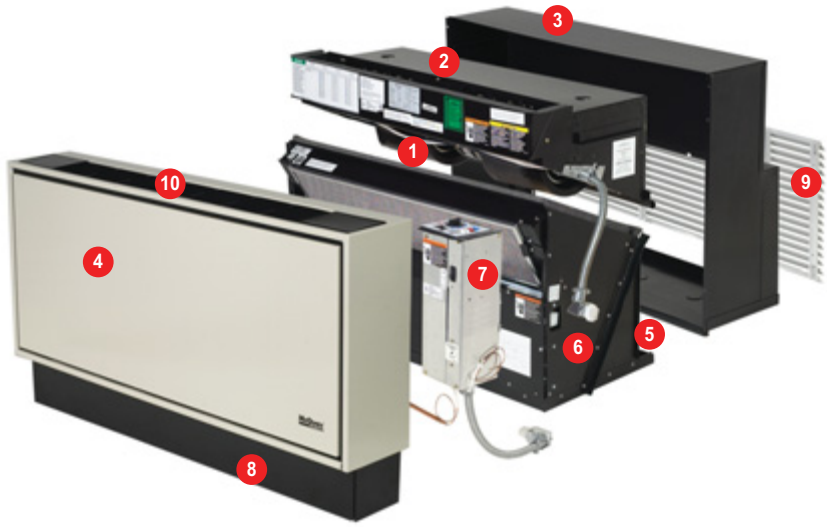
Legacy Incremental® and Packaged Terminal Conditioners and Heat Pumps

- **Proven institutional grade design and heavy duty construction**
- **Fits exactly into existing wall sleeves to reduce renovation costs**
- **Updated performance adds comfort and reduces operating costs**
- **Factory test, check and run program for reliable start-up**
- **Easy maintenance can be done by your own staff**
- **UL, CSA, and CE agency listings**
- **R-410A refrigerant**

For more detail, refer to catalog 1302. For the most current information, refer to www.mcquay.com.

Type K (PKES, PKHS)
Incremental® Room Conditioner

- 13 11/16" × 36 1/4" (Type K) wall sleeve dimensions
- 15 7/8" × 46 1/4" (Type KG) wall sleeve dimensions
- Electric resistance (2.4–6.6 kW) or hydronic (steam or hot water) heat
- Cooling capacities from 6,800 to 20,000 Btuh
- Designed for long life



1 Centrifugal fans
- Quieter and able to overcome more external static pressure than propeller fans
- Allows more flexible options for architectural louvers or special condenser air treatments

2 Heating section
- Option for electric resistance or hydronic (steam or hot water) heat

3 Wall sleeve
- Heavy-gauge steel construction
- Minimizes vibration for quieter operation

4 Room cabinet
- Heavy-gauge steel with powder paint coating provides maximum scratch and dent resistance and minimizes vibration for quieter operation

5 Motorized outside air damper
- Opens when unit is operating to bring in outside air for improved indoor air quality (IAQ)
- Closes when unit is idle to prevent drafts

6 Cooling chassis
- Energy efficient, reliable rotary compressor
- Compressor is vibration isolated for quieter operation
- Dry-pan operation minimizes condensate

7 Electro-mechanical controls
- Reliable and easy to operate
- Easy to read with color coding and raised lettering for the visually impaired
- Remote thermostat option available

8 Adjustable kickplate
- Adjusts up or down to accommodate new floor coverings

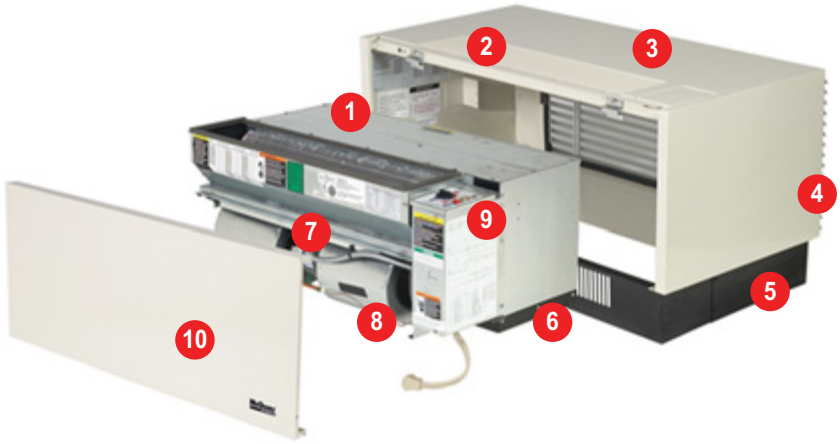
9 Outside air louver
- Heavy-duty, architectural extruded aluminum to resist weathering

10 Heavy-duty grille
- Four-way adjustment allows air to be directed where it is needed

EnerSaver

PNES - Air conditioner with electric or hydronic heat
PNHS - Heat Pump with electric heat

- 16" × 37 1/2" or 16" × 41 1/2" wall sleeve dimensions
- Replaces Series 16 and Type 45 units
- Combined heating and cooling chassis
- Cooling capacities from 9,500 to 13,000 Btuh
- Electric or hydronic heat
- Available voltages–208, 230 and 265V
- EERs up to 9.8 and COP's up to 3.0 on reverse cycle heat pump models
- Designed for long life



1 Ventilation control
- Manual damper standard on electric and heat pump chassis
- Motorized damper standard on hydronic chassis

2 Heavy-duty grille
- Factory-mounted, "pencil proof" bar stock discharge grille

3 Room cabinet/wall sleeve
- Heavy gauge steel with powder paint coating provides maximum scratch and dent protection and resists corrosion

4 Outside air louver
- Factory-mounted extruded aluminum to resist weathering

5 Subbase
- Heavy-duty steel with powder coated paint to resist corrosion

6 Base pan
- One-piece base pan and one-piece bulkhead assure weather tightness and water integrity

7 Fan motors
- Both indoor and outdoor fan motors are PSC for superior quality and greater reliability

8 Indoor fan wheels
- Large diameter to provide improved airflow and quiet operation

9 Electromechanical controls
- Reliable and easy to operate. Easily adaptable to energy management systems

10 Front access panel
- Heavy gauge steel with powder paint coating provides maximum scratch and dent resistance and minimizes vibration for quieter operation

Replacement Guide

Old model description	Wall opening dimensions (in)	Current model description
AAF Enersaver A/C—Type ENR	16 x 37 1/2 or 16 x 41 1/2	McQuay Enersaver PTAC—PNES1
AAF Enersaver A/C—Type WY[1]	16 x 37 1/2 or 16 x 41 1/2	McQuay Enersaver PTAC—PNES1
AAF Enersaver Heat Pump—Type ENH	16 x 37 1/2 or 16 x 41 1/2	McQuay Enersaver PTHP—PNHS1
AAF Enersaver Heat Pump—Type YY[1]	16 x 37 1/2 or 16 x 41 1/2	McQuay Enersaver PTHP—PNHS1
American Standard Type 45 A/C	16 x 37 or 16 x 42	McQuay Enersaver PTAC—PNES2
American Standard Type 45 HP	16 x 37 or 16 x 42	McQuay Enersaver PTAC—PNHS2
McQuay—Type MEK	13 11/16 x 36 1/4 or 15 7/8x 46 1/4	McQuay Type K, Cooling Chassis—PKES
McQuay—Type MHK	13 11/16 x 36 1/4 or 15 7/8x 46 1/4	McQuay Type K, Heating Chassis—PKHS
McQuay—Type MQP	13 11/16 x 36 1/4 or 15 7/8x 46 1/4	McQuay Type K, Heating Chassis—PKHS; Cooling Chassis—PKES
McQuay—Type EK	13 11/16 x 36 1/4	McQuay Type K, Heating Chassis—PKHS; Cooling Chassis—PKES
McQuay—Type RK	13 11/16 x 36 1/4	McQuay Type K, Heating Chassis—PKHS; Cooling Chassis—PKES
McQuay—Type K	13 11/16 x 36 1/4	McQuay Type K, Heating Chassis—PKHS; Cooling Chassis—PKES
McQuay—Type EKG	15 7/8 x 46 1/4	McQuay Type K, Heating Chassis—PKHS; Cooling Chassis—PKES
McQuay—Type KG	15 7/8 x 46 1/4	McQuay Type K, Heating Chassis—PKHS; Cooling Chassis—PKES

1. AAF Series 16. For other AAF, Singer, or Remington models, call your local McQuay Representative or (800) 432-1342

Performance Data–Type K (PKES/PKHS)

Unit Size			007				009			012			019	
Cooling	Btuh[1]		7300				9500			11,600			18,700	
	Watts		770				1060			1380			2300	
	EER (Btuh/Watts)		9.4				8.9			8.4			8.1	
Airflow (CFM)	High/Low Speed		290/210				290/210			290/210			530/470	
Ventilation	CFM		70				70			70			135	
Electric Heaters	Voltage		115	208	230	265	208	230	265	208	230	265	208	230
	"L" Heater	Amps[2]	—	—	—	—	20.2	18.3	15.8	20.2	18.3	15.8	32.7	31.7
		Watts	—	—	—	—	4200	4200	4200	4200	4200	4200	600	7300
	"M" Heater	Amps[2]	—	16.3	13.9	12.1	16.3	13.9	12.1	16.3	13.9	12.1	24.5	23.9
		Watts	—	3400	3200	3200	3400	3200	3200	3400	3200	3200		
	"S" Heater	Amps[2]	—	12.5	10.4	9.8	12.5	10.4	9.8	12.5	10.4	9.8	—	—
		Watts	—	2600	2400	2600	2600	2400	2600	2600	2400	2600	—	—
Hydronic Heat (Btuh)[3]	Hot Water		15,500				15,500			15,500			16,500	
	Steam		19,200				19,200			19,200			23,500	
Minimum Circuit Ampacity	"L" Heater		—	—	—	—	25.7	23.3	20.1	25.7	23.3	20.1	41.6	40.4
	"M" Heater		—	20.9	17.8	15.4	20.9	17.8	15.4	20.9	17.8	15.4	31.4	30.6
	"S" Heater		—	16.1	13.5	12.6	16.1	13.5	12.6	16.1	13.5	12.6	—	—
	Hydronic		10.0	4.9	4.9	4.3	7.5	7.5	5.2	9.0	9.0	7.2	13.9	13.9
Time Delay Fuse, or if under 250 V Type HACR	"L" Heater		—	—	—	—	30	25	20	30	25	20	45	45
	"M" Heater		—	25	20	20	25	20	20	25	20	20	35	35
	"S" Heater		—	20	15	15	20	15	15	20	15	15	—	—
	Hydronic		15	15	15	15	15	15	15	15	15	15	20	20

Notes:
1 Based on ASHRAE and AHRI test conditions of 95ºF DB / 75ºF WB outdoors, 80ºF DB / 67ºF WB inside.
2 Includes fan motor.
3 Based on 200ºF EWT, 180ºF LWT: 2psig steam–65ºF EAT. Tested and rated in accordance with AHRI Standards 310 and 380.

Performance Data–EnerSaver (PNES/PNHS)

Unit Size	009				012			015		
Voltage[4]	115	208	230	265	208	230	265	208	230	265
Full Load Amps–Cooling Only[2, 3]	6.4	5.8	5.2	4.5	6.9	6.3	5.8	8.9	8.0	7.4
Cooling Capacity Btuh[1]	9200	9200	9200	9200	11,200	11,200	11,200	13,000	13,000	13,000
Sensible Cooling Capacity, Btuh	6400	6400	6400	6400	7200	7200	7200	8100	8100	8100
Watts	939	939	939	939	1217	1217	1217	1529	1529	1529
EER	9.8	9.8	9.8	9.8	9.2	9.2	9.2	8.5	8.5	8.5
Outside Air Ventilation %	20	20	20	20	20	20	20	20	20	20
Auxilliary Electric Heat Elements (Total Amps)										
2.2 kW	—	—	9.9	8.8	—	9.9	8.8	—	9.9	9.8
2.3 kW	—	11.4	—	—	11.4	—	—	11.4	—	—
2.9 kW	—	—	12.9	11.4	—	12.9	11.4	—	12.9	11.4
3.2 kW	—	15.7	—	—	15.7	—	—	15.7	—	—
3.7 kW	—	—	—	14.4	—	—	14.4	—	—	14.4
3.9 kW	—	—	17.3	—	—	17.3	—	—	17.3	—
4.2 kW	—	20.5	—	—	20.5	—	—	20.5	—	—

Notes:
1 Based on ASHRAE and AHRI standard test conditions of 95ºF (35ºC) DB / 75ºF (24ºC) WB outdoor air and 80ºF (27ºC) DB / 67ºF (16ºC) WB indoor air.
2 Includes fan motor.
3 Based on high fan speed.
4 All voltages 60Hz, single phase.

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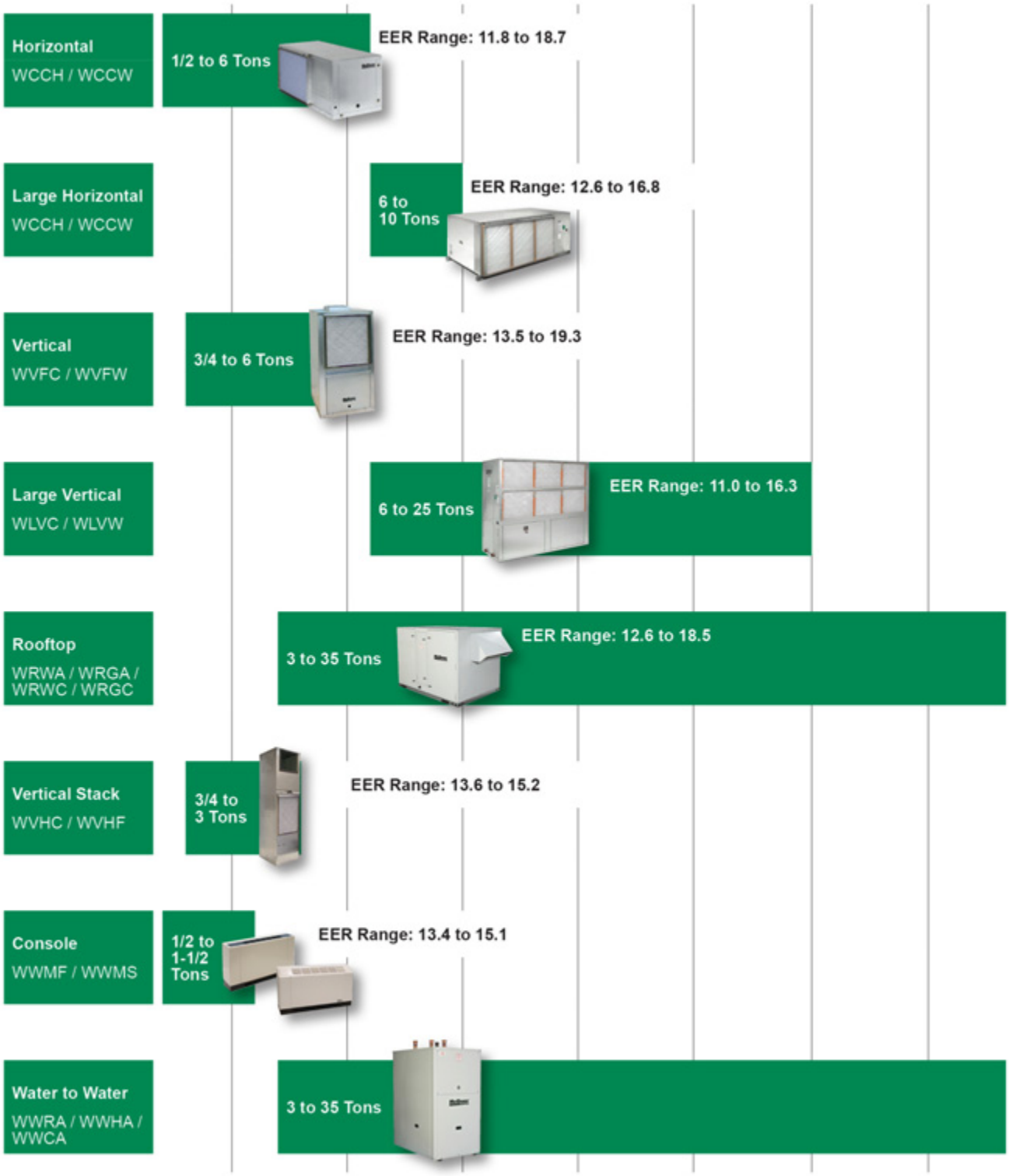
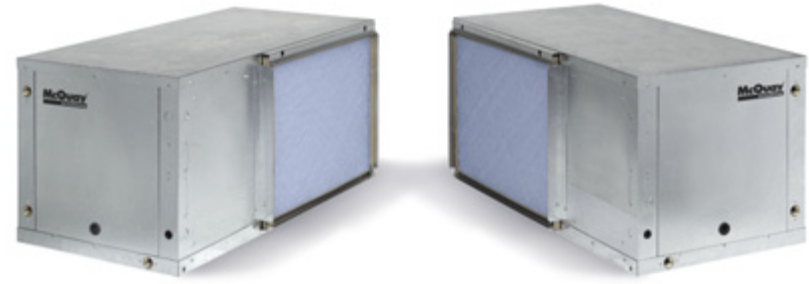
Water Source Heat Pump Product Lines



Small Horizontal Ceiling-Mounted–1/2 to 6 Tons

- Non-CFC, R-410A refrigerant
- Standard or geothermal application flexibility
- Easy, low cost design and installation
- High efficiency reduces energy consumption/operating costs and can contribute to earning LEED® points and rebates
- Superior indoor air quality and quiet operation
- Easy, low cost maintenance and service
- MicroTech® III unit controls with Open Choices™ feature allows standalone or network operation using LonWorks® or BACnet® communications
- Performance rated with ISO Standard 13256-1

For more detail, refer to Catalog 1108. For the most current information, refer to www.mcquay.com.



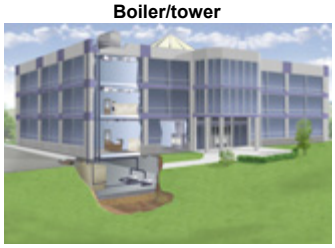
Enfinity™ R-410A Models
WCCH - Standard Range: 55° to 110° F
WCCW - Geothermal Range: 30° to 110° F

Available LonMark certified

R-410A refrigerant with no ozone depletion potential

Water Source Heat Pump Systems

Boiler/tower

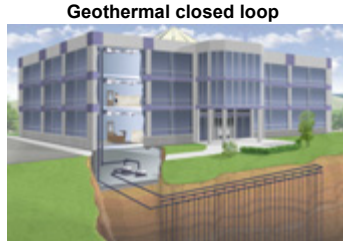


A "Boiler/Tower" application uses a simple two-pipe water circulating system that adds heat, removes heat or transfers rejected heat to other units throughout the building. The water temperature for heating is usually provided by a natural gas or electric boiler located in a mechanical room. The condensing water temperature is provided by a cooling tower that dissipates waste heat. This application can be the lowest cost of the loop options available.

Open loop "well water"

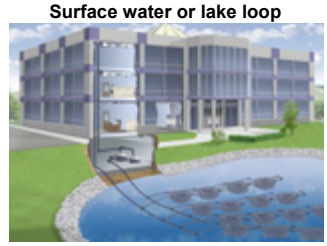
"Open Loop" well water systems use ground water to remove or add heat to the interior water loop. The key benefit of an open loop system is the constant water temperature, usually 50°F to 60°F, which provides efficient operation at a low first cost. Open Loop applications are commonly used in coastal areas where soil characteristics allow reinjection wells to return the water back to the aquifer. Reinjection wells must be approved by the U.S. Environmental Protection Agency.

Geothermal closed loop



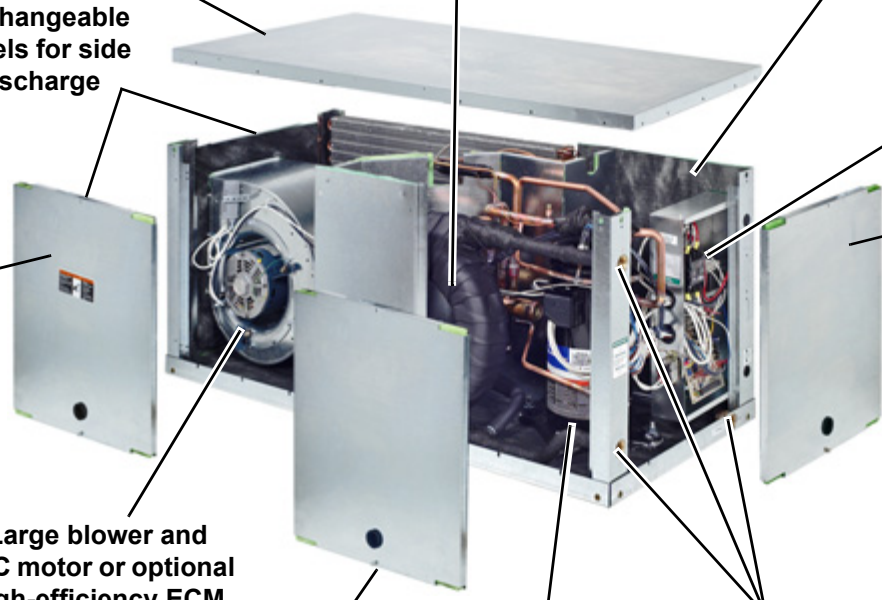
Vertical Loops (shown) are installed by drilling vertical bore holes into the earth and inserting a plastic polyethylene supply/return pipe into the holes. Horizontal loops are installed in trenches approximately 5 feet below the ground surface. Both vertical and horizontal loops extract the Earth's natural heat and reject it back.

Surface water or lake loop



A "Surface Water" or "Lake" closed loop system is a geothermal loop that is directly installed in a lake or body of water that is near the building. In many cases, the body of water is constructed on the building site to meet drainage or aesthetic requirements. The size and the depth of the lake is critical and commercial design services should be used that certify a given body of water is sufficient to withstand the building loads.

WCCH and WCCW Features



Durable, heavy gauge steel cabinet construction

High efficiency coaxial heat exchanger (insulated for geothermal models)

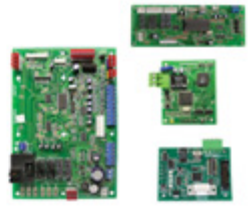
Dual-density fiberglass panels (closed cell insulation optional)

Field interchangeable airside panels for side or end discharge

MicroTech III standalone or network controls using LonWorks® or BACnet® communications

Access panel for compressor section and control box

Access panel for blower and motor



Large blower and PSC motor or optional high-efficiency ECM

Flush mounted water and drain connections

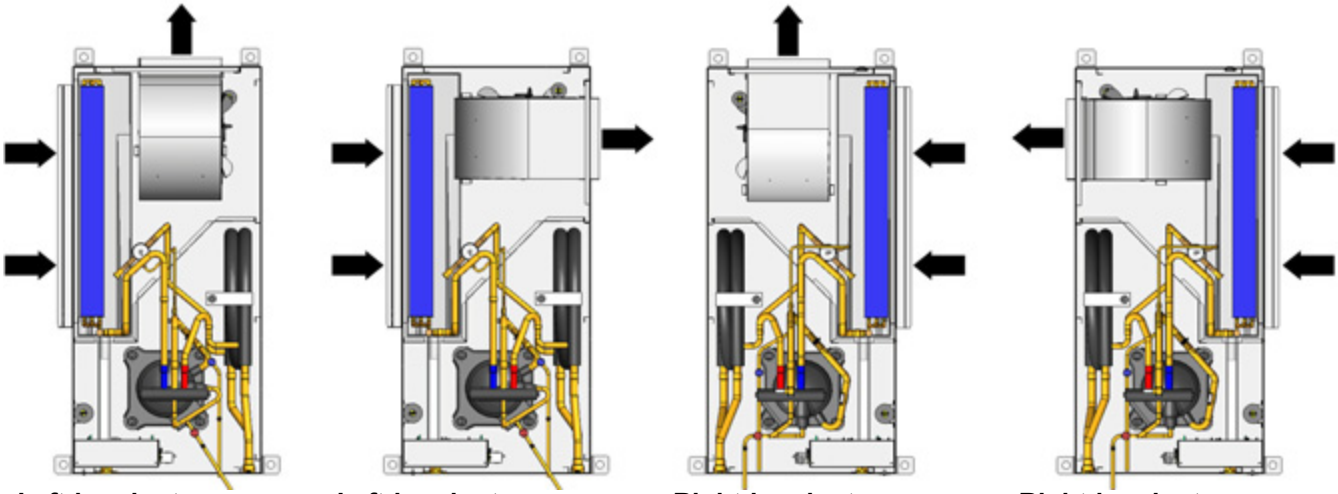
Two Schrader refrigerant service valves (high and low side—not visible)

Access panel for compressor section and refrigerant service valves

Vibration isolated rotary, reciprocating or scroll compressor

- MicroTech III Unit Controller
- I/O expansion module
- LonWorks & BACnet communications modules

Four Different Air Configurations

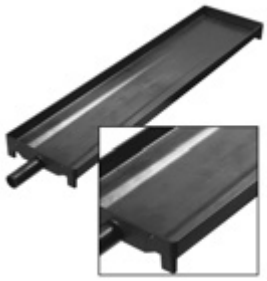


Left-hand return with end discharge

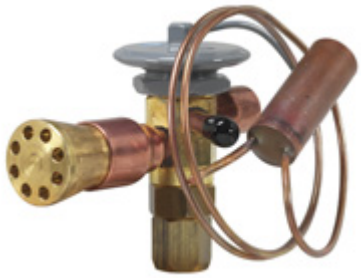
Left-hand return with straight discharge

Right-hand return with end discharge

Right-hand return with straight discharge



Plastic, double-sloped drain pan to prevent standing water



Thermal expansion valve (standard and geothermal models)

Removable orifice ring for ease of service

2-stage unit available as a special. Please contact your McQuay representative for details.

Performance Data

Enfinity R-410A Models WCCH/WCCW with PSC Fan Motor

Unit size	Airflow		Water flow		Water loop[1]							Ground loop[2]							Dimensions L × W × H (inches)
					Cooling 86°F (30°C)				Heating 68°F (20°C)			Cooling 77°F (25°C)				Heating 32°F (0°C)			
	cfm	L/S	GPM	L/S	Btu/hr	Watts	EER	COP	Btu/hr	Watts	COP	Btu/hr	Watts	EER	COP	Btu/hr	Watts	COP	
007	300	142	2.1	0.14	8000	2346	11.8	3.5	10,700	3137	4.2	8900	2610	14.4	4.2	7100	2082	3.1	34 × 20 × 11.5
009	300	142	2.3	0.14	8800	2581	12.9	3.8	11,800	3460	4.6	9200	2698	14.8	4.3	7400	2170	3.3	34 × 20 × 11.5
012	400	189	3.0	0.19	12,900	3783	12.7	3.7	15,800	4633	4.3	13,900	4076	15.0	4.4	10,400	3050	3.1	40 × 20 × 11.5
015	630	297	3.8	0.24	15,700	4598	16.0	4.7	18,100	5301	5.2	16,900	4950	18.7	5.5	11,500	3368	3.7	42 × 20 × 19
019	630	297	5.3	0.33	21,000	6149	14.9	4.7	23,600	6920	4.8	22,600	6628	17.3	5.1	14,700	4311	3.6	42 × 20 × 19
024	800	378	6.2	0.39	24,700	7232	14.4	4.4	28,400	8328	4.7	26,300	7713	16.6	4.9	18,000	5279	3.6	42 × 20 × 19
030	1000	472	7.6	0.48	30,400	8915	15.3	4.2	36,200	10,616	5.0	31,500	9238	17.7	5.1	23,100	6774	3.6	46 × 21 × 20
036	1200	566	9.0	0.57	35,800	10,499	15.2	4.5	42,500	12,463	4.9	37,800	11,085	17.7	4.7	28,400	8328	3.6	46 × 21 × 20
042	1400	661	10.7	0.68	43,000	12,610	15.0	4.5	50,700	14,868	5.0	44,500	13,050	17.1	5.0	33,900	9941	3.7	52 × 28 × 23
048	1600	755	12.3	0.78	48,400	14,194	14.1	4.4	57,100	16,745	4.7	50,200	14,721	16.1	4.7	38,400	11,261	3.7	52 × 28 × 23
060	2000	944	15.2	0.96	59,500	17,449	14.6	4.1	69,400	20,352	4.9	61,500	18,035	16.8	4.7	47,500	13,930	3.7	52 × 28 × 23

1. Rated in accordance with ISO Standard 13256-1 Boiler/Tower.
2. Rated in accordance with ISO Standard 13256-1 Ground Loop.

Enfinity R-410A Models WCCH/WCCW with ECM Fan Motor

Unit size	Airflow		Water flow		Water loop[1]							Ground loop[2]							Dimensions L × W × H (inches)
					Cooling 86°F (30°C)				Heating 68°F (20°C)			Cooling 77°F (25°C)				Heating 32°F (0°C)			
	cfm	L/S	GPM	L/S	Btu/hr	Watts	EER	COP	Btu/hr	Watts	COP	Btu/hr	Watts	EER	COP	Btu/hr	Watts	COP	
015	500	297	3.8	0.24	16,000	4686	17.6	5.1	18,100	5301	5.6	17,200	5037	20.8	6.1	11,500	3368	4.0	42 × 20 × 19
019	630	297	5.3	0.33	20,900	6129	15.7	4.6	23,700	6950	5.1	22,600	6628	18.4	5.4	14,800	4340	3.8	42 × 20 × 19
024	800	378	6.2	0.39	24,700	7243	14.7	4.3	28,500	8358	4.9	26,300	7713	17.0	5.0	18,100	5308	3.7	42 × 20 × 19
030	1000	472	7.6	0.48	30,500	8944	15.9	4.7	36,100	10,587	5.3	31,600	9267	18.4	5.4	23,000	6745	3.8	46 × 21 × 20
036	1200	566	9.0	0.57	36,000	10,559	16.0	4.7	42,400	12,434	5.2	38,000	11,144	18.8	5.6	28,700	8416	3.8	46 × 21 × 20
042	1400	661	10.7	0.68	43,000	12,610	15.5	4.6	51,600	15,132	5.2	44,100	12,933	17.9	5.3	34,600	10,147	3.8	52 × 28 × 23
048	1600	755	12.3	0.78	48,700	14,282	15.6	4.6	57,700	16,921	5.2	50,600	14,839	18.2	5.4	39,300	11,525	3.9	52 × 28 × 23
060	2000	944	15.2	0.96	59,700	17,507	15.5	4.6	69,300	20,323	5.2	61,700	18,094	17.9	5.3	48,000	14,076	3.9	52 × 28 × 23
070	2330	944	18.0	1.14	71,300	20,880	12.7	3.7	88,100	25,800	4.2	73,800	21,610	14.3	4.2	59,300	17,370	3.3	52 × 28 × 23

1. Rated in accordance with ISO Standard 13256-1 Boiler/Tower.
2. Rated in accordance with ISO Standard 13256-1 Ground Loop.

Large Horizontal Ceiling-Mounted—6 to 10 Tons

- High efficiency and quiet operation
- Standard or geothermal application flexibility
- Large panels for accessibility to compressor and fan sections
- Flexible fan discharge options
- Belt-driven blower motor
- MicroTech® III unit controls with Open Choices™ feature allows standalone or network operation using LonWorks® or BACnet® communications
- Performance rated with ISO Standard 13256-1
- R-410A refrigerant

For more detail, refer to Catalog 1112. For the most current information, refer to www.mcquay.com.

Enfinity™
Models WCCH/WCCW

Performance Data

Unit size	Air flow cfm (L/S)	Water flow gpm (L/S)	Voltage	Water loop				Ground loop				Dimensions L x W x H, in (mm)
				Cooling[2]		Heating[3]		Cooling[4]		Heating[5]		
				Btu/hr (Watts)	EER[1]	Btu/hr (Watts)	COP[1]	Btu/hr (Watts)	EER[1]	Btu/hr (Watts)	COP[1]	
072	2400 (1133)	20.1 (1.27)	208-60-3	78,100 (22,868)	13.4	82,700 (24,215)	4.4	77,700 (22,751)	16.3	58,700 (17,188)	3.7	78 x 44 x 29 (1981 x 1118 x 737)
			230-60-3									
			460-60-3									
			575-60-3									
096	3000 (1416)	223.6 (1.49)	208-60-3	94,900 (27,788)	14.8	94,300 (27,612)	4.3	97,300 (28,490)	16.8	66,100 (19,355)	3.3	
			230-60-3									
			460-60-3									
			575-60-3									
120	4000 (1888)	30.1 (1.9)	208-60-3	12,1000 (35,664)	12.6	135,000 (41,052)	4.3	125,000 (36,221)	14.1	81,500 (24,479)	3.2	
			230-60-3									
			460-60-3									
			575-60-3									

1. EER = Energy Efficiency Ratio COP = Coefficient of Performance.
2. Water Loop cooling capacity is based on 80.6°F db. 66.2°F wb entering air temperature and 86°F entering water temperature.
3. Water Loop heating capacity is based on 68°F entering air temperature and 68°F entering water temperature.
4. Ground Loop cooling capacity is based on 80.6°F db, 66.2°F wb entering air temperature and 77°F entering water temperature.
5. Ground Loop heating capacity is based on 68°F entering air temperature and 32°F entering water temperature.

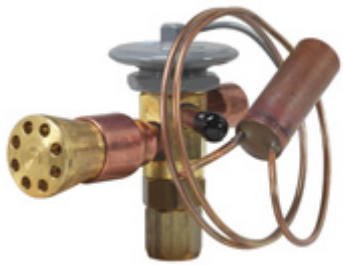
Vertical Floor-Mounted—3/4 to 6 Tons

- Standard or geothermal application flexibility
- R-410A refrigerant with no ozone depletion potential or phase-out date
- High efficiency reduces energy consumption/operating costs and can contribute to earning LEED® points and rebates
- Superior indoor air quality and quiet operation
- MicroTech® III unit controls with Open Choices™ feature allows standalone or easy, low cost network integration using LonWorks® or BACnet® communications
- Multiple factory-installed features/options - including desuperheater, hot gas reheat, auxiliary electric heat, ECM fan motor, two-way motorized valve and compressor sound blanket, allow you to closely match application requirements and lower installation costs
- Performance rated with ISO Standard 13256-1

For more detail, refer to Catalog 1103. For the most current information, refer to www.mcquay.com.

Enfinity™
Models WVFC/WVFW

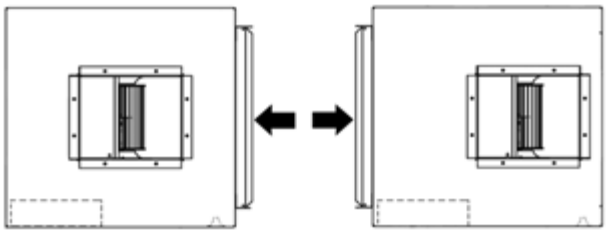
Plastic, double-sloped drain pan to prevent standing water



Thermal expansion valve (standard and geothermal models)

Removable orifice ring for ease of service

Flexible Air Configurations (Top View)



Right hand return top discharge

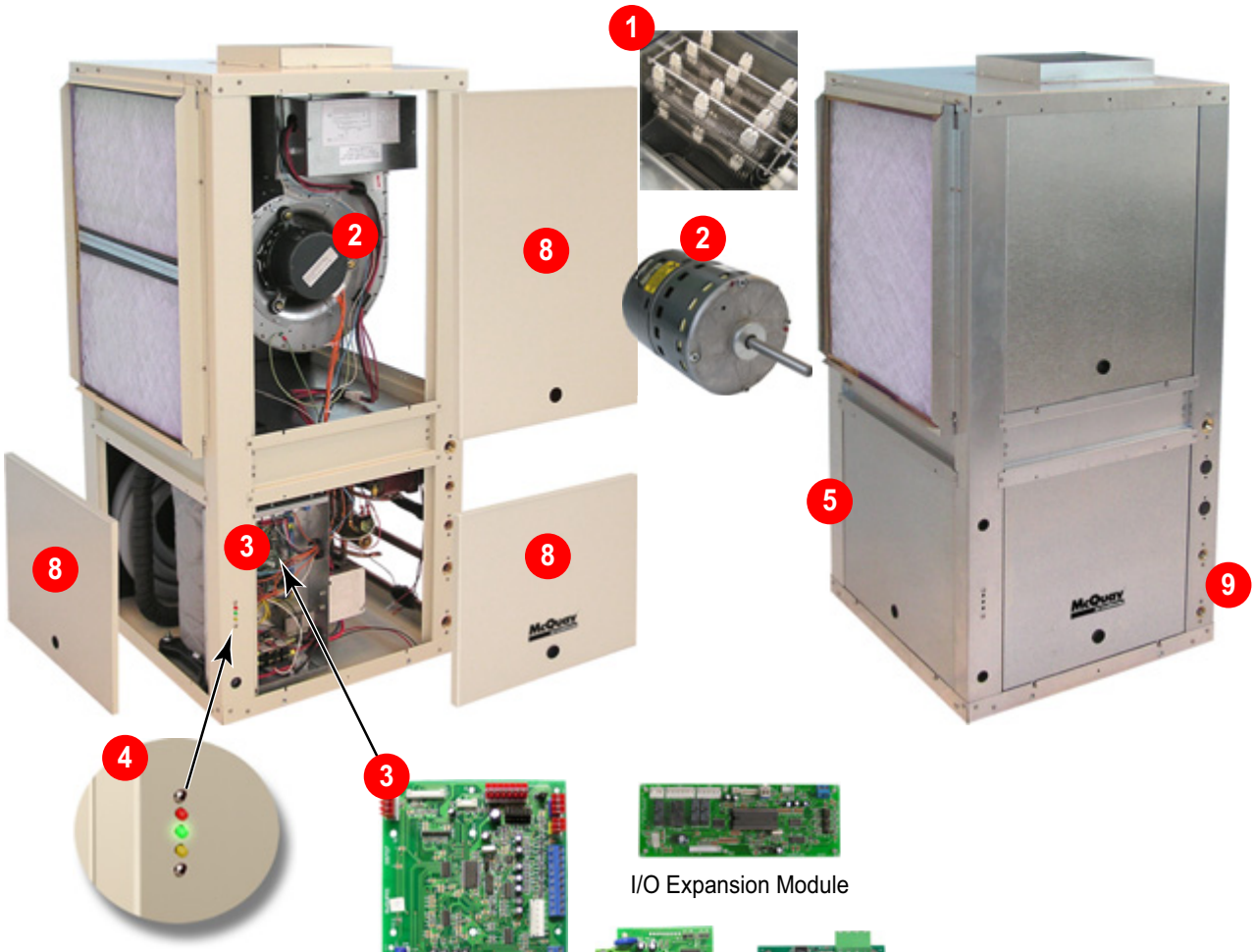
Left hand return top discharge

BACnet International

LonMark 3.4

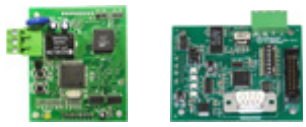
Available LonMark certified

WVFC and WVFW Features

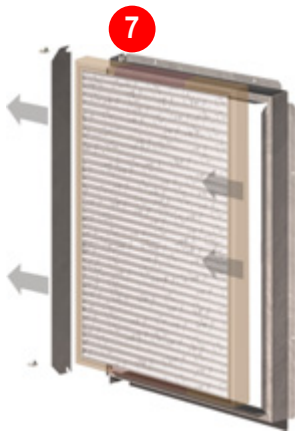


MicroTech III Unit Controller

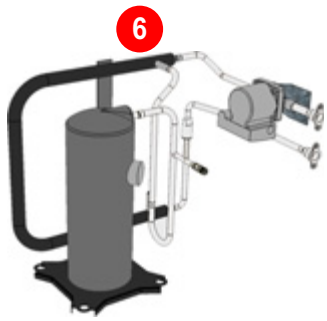
I/O Expansion Module



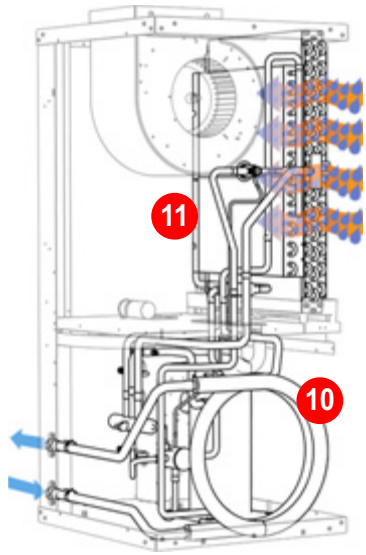
LonWorks & BACnet Communications Modules



2" Filter Racks (optional) for High Efficiency Filters and Easy Tool-less Removal



Desuperheater - Heat Exchanger and Water Pump Piping Circuit (optional)



Hot Gas Reheat Coil & Piping Circuit (optional)

WVFC and WVFW Features

1 Electric heat (optional)

- Integral electric heat coil provides supplemental or emergency heat when conditions require.

2 Electronically commutated motor (ECM) optional

- ECM motor provides quiet, efficient operation while maintaining constant CFM over its static operating range. Factory programmed for 3-speeds.

3 MicroTech® III unit controller

- Designed for flexibility. The main control board is used in standalone applications. An optional I/O expansion module can be used to control electric heat and multiple fan speeds. A separate LonWorks® or BACnet® communication module can be easily snapped onto the board to accommodate the building automation system of your choice.

4 LED annunciator

- External LED status lights display fault conditions to provide easy troubleshooting and diagnosis.

5 Compact cabinet

- The standard unit is constructed of unpainted G-60 galvanized steel, with the smallest possible footprint. Optional painted cabinet is ideal for aesthetic requirements of residential applications.

6 Desuperheater (optional)

- Saves energy by producing domestic hot water using a small heat exchanger and water pump located in the compressor compartment. Superheated refrigerant gas from the compressor, which would otherwise be wasted, is used to heat water. This reduces the amount of additional energy required to heat water and it may eliminate the requirement for separate water heating equipment.

7 Filter & filter rack

- Units come standard with a 1" (25.4 mm) thick throwaway filter mounted in a 4-sided combination filter rack and return air duct collar. This eliminates the added labor and cost to field-mount brackets. Filters can be easily removed from any side. A 2" filter rack is available as a factory-installed selectable option to accept higher efficiency filters.

8 Removable access panels

- Two front panels provide easy access to the blower motor and unit controls. Two rear panels provide easy access to the fan housing and compressor section.

9 Piping connections

- Water connections are FPT water fittings, flush with the outside of the cabinet for easy one-wrench connection to units.
- A large condensate connection provides proper condensate removal.

10 Coaxial heat exchanger

- Designed for maximum heat transfer at normal and low water flow rates with minimum pressure drop. The inside tube is deeply fluted to enhance heat transfer and minimize fouling. A cupronickel heat exchanger is available as a selectable option.

11 Hot gas reheat coil (optional)

- Uses expelled heat from the refrigeration cycle and redirects it through an isolated circuit in the evaporator section. For every 10°F of temperature rise across the hot gas reheat coil there is approximately a 20% drop in the discharge air relative humidity (%Rh). The hot gas reheat coil prevents over-cooling of the space when the unit is in dehumidification mode. A wall-mounted humidistat must be used in conjunction with the unit to measure and adjust the humidity setpoint in the space.

2-Way motorized isolation valve (optional - not shown)

- Control valve can be factory-installed or field-installed to handle variable speed pumping requirements. Both standard and high cut-off pressure valves are available as a selectable option.

Performance Data

Enfinity Vertical Floor-Mounted Models WVFC and WVFW–Water Loop

Unit size	Airflow		Water flow		Water loop - standard unit							Water loop - ECM @ high static							Dimensions L × W × H (inches)
					Cooling[2] 86°F (30°C)				Heating[3] 68°F (20°C)			Cooling[2] 77°F (25°C)				Heating[3] 32°F (0°C)			
	cfm	L/S	GPM	L/S	Btu/hr	Watts	EER[1]	COP[1]	Btu/hr	Watts	COP[1]	Btu/hr	Watts	EER[1]	COP[1]	Btu/hr	Watts	COP[1]	
009	300	142	2.3	0.15	9060	2650	14.0	4.1	10,600	3110	4.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	22.25 × 20 × 37
012	400	189	3.0	0.19	12,000	3510	14.4	4.2	14,000	4110	4.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	22.25 × 20 × 37
015	500	236	3.6	0.23	14,700	4300	16.0	4.7	16,100	4720	5.1	*	*	*	*	*	*	*	24.25 × 23 × 46.5
019	600	283	4.7	0.30	19,200	5620	15.2	4.5	18,300	5370	4.4	19,500	5710	16.6	4.9	18,000	5270	4.6	24.25 × 23 × 46.5
024	800	378	5.8	0.37	23,800	6980	15.1	4.4	26,700	7820	4.9	24,100	7050	16.3	4.8	26,300	7700	5.2	24.25 × 23 × 46.5
030	1000	472	7.3	0.46	30,000	8800	17.0	5.0	33,400	9780	5.2	29,900	8750	17.0	5.0	33,400	9780	5.4	24.25 × 23 × 50.5
036	1300	614	9.5	0.60	39,500	11,500	14.8	4.3	45,000	13,200	4.6	39,900	11,700	15.0	4.4	44,500	13,000	4.6	24.25 × 23 × 50.5
042	1400	661	11.0	0.69	43,900	12,800	15.0	4.4	52,500	15,400	4.8	44,200	12,900	16.2	4.7	52,300	15,300	5.1	32.5 × 25 × 46.5
048	1600	755	12.0	0.76	48,100	14,100	14.7	4.3	56,800	16,600	4.8	48,700	14,200	16.0	4.7	56,400	16,600	5.1	32.5 × 25 × 46.5
060	2000	944	15.5	0.98	63,200	18,500	15.1	4.4	68,300	20,000	4.7	63,600	18,600	15.7	4.6	67,700	19,800	5.0	32.5 × 25 × 58.5
070	2160	1019	19.0	1.20	75,400	22,100	13.5	4.0	87,300	25,500	4.4	76,200	22,300	14.0	4.1	86,300	25,300	4.5	32.5 × 25 × 58.5

1. EER = Energy Efficiency Ratio COP = Coefficient of Performance.
2. Cooling capacity is based on 80.6°F db. 66.2°F wb. (27/19°C) entering air temperature and 86°F (30°C) entering water temperature.
3. Heating capacity is based on 68°F (20°C) entering air temperature and 68°F (20°C) entering water temperature.

N/A = Option not available.

Enfinity Vertical Floor-Mounted Models WVFC and WVFW–Ground Loop

Unit size	Airflow		Water flow		Ground loop - standard unit							Ground loop - ECM @ high static							Dimensions L × W × H (inches)
					Cooling[2] 86°F (30°C)				Heating[3] 68°F (20°C)			Cooling[2] 77°F (25°C)				Heating[3] 32°F (0°C)			
	cfm	L/S	GPM	L/S	Btu/hr	Watts	EER[1]	COP[1]	Btu/hr	Watts	COP[1]	Btu/hr	Watts	EER[1]	COP[1]	Btu/hr	Watts	COP[1]	
009	300	142	2.3	0.15	9720	2850	16.7	4.9	7020	2050	3.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	22.25 × 20 × 37
012	400	189	3.0	0.19	12,700	3720	16.9	5.0	9300	2720	3.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	22.25 × 20 × 37
015	500	236	3.6	0.23	15,700	4600	19.6	5.7	10,000	2920	3.5	*	*	*	*	*	*	*	24.25 × 23 × 46.5
019	600	283	4.7	0.30	19,400	5690	17.3	5.1	13,700	4010	3.5	19,700	5770	19.0	5.6	13,400	3920	3.7	24.25 × 23 × 46.5
024	800	378	5.8	0.37	24,800	7260	17.7	5.2	17,800	5210	3.6	25,100	7350	19.2	5.6	17,500	5120	3.8	24.25 × 23 × 46.5
030	1000	472	7.3	0.46	30,700	9000	19.1	5.6	22,300	6530	3.9	30,600	8960	19.3	5.7	22,300	6530	4.0	24.25 × 23 × 50.5
036	1300	614	9.5	0.60	40,300	11,800	17.3	5.1	30,300	8900	3.4	40,500	11,800	16.6	4.9	30,000	8790	3.3	24.25 × 23 × 50.5
042	1400	661	11.0	0.69	45,400	13,300	17.0	5.0	35,100	10,300	3.6	46,100	13,500	18.9	5.5	34,400	10,100	3.8	32.5 × 25 × 46.5
048	1600	755	12.0	0.76	51,600	15,100	15.8	4.6	40,300	11,800	3.4	50,200	14,700	18.2	5.3	37,600	11,000	3.8	32.5 × 25 × 46.5
060	2000	944	15.5	0.98	65,100	19,100	16.3	4.8	47,000	13,700	3.5	66,000	19,300	18.0	5.3	46,000	13,500	3.8	32.5 × 25 × 58.5
070	2160	1019	19.0	1.20	76,500	22,400	13.7	4.0	58,900	17,200	3.1	78,400	22,900	16.2	4.7	56,800	16,600	3.6	32.5 × 25 × 58.5

1. EER = Energy Efficiency Ratio COP = Coefficient of Performance.
2. Cooling capacity is based on 80.6°F db. 66.2°F wb. (27/19°C) entering air temperature and 86°F (30°C) entering water temperature.
3. Heating capacity is based on 68°F (20°C) entering air temperature and 68°F (20°C) entering water temperature.

N/A = Option not available.

Enfinity Vertical ISO Performance Data – Ground Source

Ground Source Performance Data Rated in Accordance with ISO Standard 13256-1

Unit size	Airflow		Water flow		Voltage	Standard Unit							ECM at High Static						
						Cooling				Heating			Cooling				Heating		
	cfm	L/S	GPM	L/S		Btu/h	Watts	EER	COP	Btu/h	Watts	COP	Btu/h	Watts	EER	COP	Btu/h	Watts	COP
009	300	142	2.3	0.15	115-1-60 208/230-1-60 265-1-60 230-1-50	10900	3200	23.8	7.0	8820	2580	4.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A
012	400	189	3.0	0.19	115-1-60 208/230-1-60 265-1-60	14100	4130	23.8	7.0	11800	3450	4.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A
015	500	236	3.6	0.23	230-1-50 208/230-1-60 265-1-60	17100	5010	28.1	8.2	13100	3830	4.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A
019	600	283	4.68	0.30	230-1-50 208/230-1-60 265-1-60	21400	6270	23.5	6.9	16900	4950	4.1	21600	6320	26.1	7.7	16600	4860	4.4
024	800	378	5.81	0.37	230-1-50 208/230-1-60 265-1-60	26600	7790	23.3	6.8	21700	6360	4.2	26900	7880	25.8	7.6	21300	6240	4.5
030	1000	472	7.25	0.46	230-1-50 208/230-1-60 265-1-60 208/230-3-60	33000	9600	25.1	7.4	28400	8320	4.6	32900	9630	25.5	7.5	28400	8300	4.8
036	1300	614	9.50	0.60	230-1-50 208/230-1-60 208/230-3-60 460-3-60	42900	12500	22.3	6.5	37700	11000	4.1	43000	12600	21.3	6.2	37400	10900	4.0
042	1400	661	11.00	0.69	380-3-50 208/230-3-60 460-3-60 575-3-60	48800	14300	22.1	6.5	42900	12500	4.2	49100	14400	24.8	7.3	43000	12600	4.5
048	1600	755	12.00	0.76	380-3-50 208/230-1-60 208/230-3-60 265-1-60 460-3-60 575-3-60 230-1-50	56100	16400	20.3	5.9	48900	14300	4.0	54300	15900	23.8	7.0	47100	13800	4.5
060	2000	944	15.50	0.98	380-3-50 208/230-1-60 208/230-3-60 265-1-60 460-3-60 575-3-60 230-1-50	69000	20200	20.5	6.0	58400	17100	4.1	69900	20500	22.9	6.7	57400	16800	4.4
070	2160	1019	19.00	1.20	380-3-50 208/230-3-60 460-3-60 575-3-60 380-3-50	79100	23100	16.6	4.9	72700	21300	3.6	80600	23600	19.6	5.7	70500	20600	4.1

N/A = ECM not available in unit sizes 009 or 012.

Heating capacity is based on 68°F (20°C) entering air temperature and 50°F (10°C) entering water temperature.

Table notes:
CFM = Cubic Feet per MinuteL/S = Liters per second, GPM = Gallons Per Minute,
Btu/h = BTU per hour, EER = Energy Efficiency Ratio, COP = Coefficient of Performance

Large Vertical Floor-Mounted—6 to 25 Tons

- Standard or geothermal application flexibility
- High efficiency and quiet operation
- Dual compressors on all unit sizes
- Belt driven multiple fans
- Two or 3-fan units and multiple discharge air arrangements
- Multiple access panels
- MicroTech® III unit controls with Open Choices™ feature allows standalone or network operation using LonWorks® or BACnet® communications
- Performance rated with ISO Standard 13256-1
- R-410A refrigerant

For more detail, refer to Catalog 1109. For the most current information, refer to www.mcquay.com.

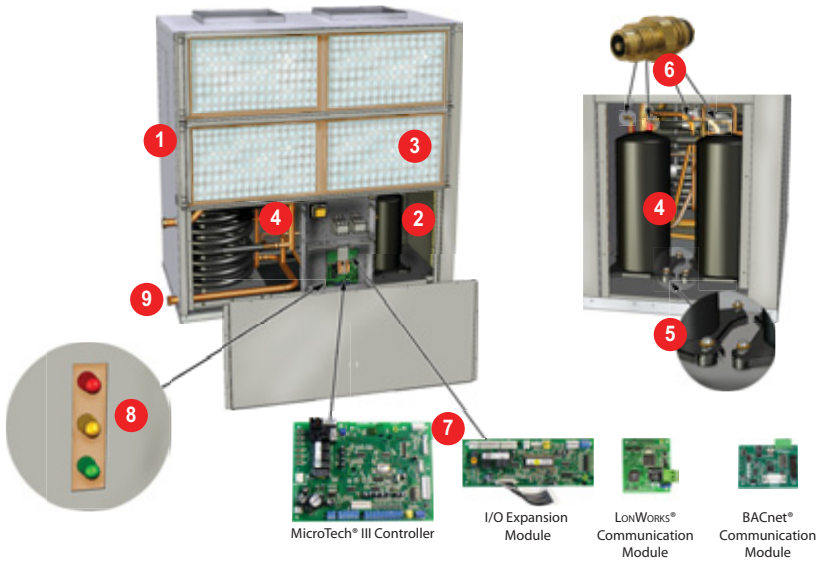
Enfinity™
WLVC - Standard range: 50ºF to 110ºF
WLVW - Geothermal range: 30ºF to 110ºF
(6 to 25 tons)

Performance Data

Unit size[6]	Airflow cfm (L/S)	Water flow gpm (L/S)	Voltage	Water loop				Ground loop				Dimensions L x W x H, in (mm)
				Cooling[2]		Heating[3]		Cooling[4]		Heating[5]		
				Btu/hr (Watts)	EER[1]	Btu/hr (Watts)	COP[1]	Btu/hr (Watts)	EER[1]	Btu/hr (Watts)	COP[1]	
072	2300 (1085)	18.5 (1.17)	208-60-3 230-60-3 460-60-3 575-60-3	72,800 (21,317)	13.1	88,500 (25,914)	4.6	74,500 (21.814)	14.6	59,100 (17,305)	3.4	54 5/8 x 28 x 55 3/4 (1387 x 711 x 1416)
096	3600 (1699)	22.2 (1.4)	208-60-3 230-60-3 460-60-3 575-60-3	86,500 (25,328)	13.0	100,800 (29,515)	4.7	89,200 (26,119)	14.6	69,700 (20,409)	3.6	
120	4000 (1888)	30.0 (1.89)	208-60-3 230-60-3 460-60-3 575-60-3	119,700 (35,049)	14.0	150,200 (43,980)	5.3	123,200 (36,074)	15.9	98,000 (28,695)	3.9	
180	6000 (2832)	46.0 (2.9)	208-60-3 230-60-3 460-60-3 575-60-3	189,200 (55,400)	14.9	209,800 (61,432)	4.9	191,200 (55,985)	14.7	132,000 (38,651)	3.6	80 1/4 x 30 x 67 (2038 x 762 x 1702)
215	7167 (3382)	54.0 (3.4)	208-60-3 230-60-3 460-60-3 575-60-3	220,800 (64,653)	14.2	254,800 (74,608)	4.9	229,200 (67,112)	16.3	147,600 (43,219)	3.7	
290	9670 (4564)	80.0 (5.04)	208-60-3 230-60-3 460-60-3 575-60-3	308,800 (90,420)	11.0	422,100 (123,595)	4.1	322,400 (94,402)	12.4	260,728 (76,344)	3.3	

1. EER = Energy Efficiency Ratio COP = Coefficient of Performance.
2. Water Loop cooling capacity is based on 80.6°F db. 66.2°F wb entering air temperature and 86°F entering water temperature.
3. Water Loop heating capacity is based on 68°F entering air temperature and 68°F entering water temperature.
4. Ground Loop cooling capacity is based on 80.6°F db, 66.2°F wb entering air temperature and 77°F entering water temperature.
5. Ground Loop heating capacity is based on 68°F entering air temperature and 32°F entering water temperature.
6. Vertical unit sizes 180 through 290 are not AHRI certified since they exceed 135,000 Btuh/hr for standard 320.S.

WLVC and WLVW Features



1 Cabinets

- Heavy gauge G-60 galvanized steel.

2 Insulation

- All interior framework and panels are lined with 1/2" thick, 1½ lb. dual-density fiberglass insulation. Optional (IAQ) closed-cell foam insulation.

3 Filter

- Standard 1" factory-installed filter rack with 1" throwaway filter. Optional 2" filter rack with duct collar for field-installation.

4 Refrigerant circuit

- All units have a dual refrigerant circuit with scroll compressors, thermal expansion valve, coaxial heat exchanger, finned tube airside coil and reversing valve.

5 Compressor vibration isolators

- Standard feature for all units, reduces vibration sound levels during compressor operation.

6 Schrader connections

- Four Schrader valves are located inside the end access panel – one on the low side and one on the high side of the refrigeration circuit – for charging and servicing. All valves are 7/16" SAE fittings.

7 MicroTech® III controllers

- Designed for flexibility, the control board is used in standalone applications in conjunction with the I/O expansion module for control of the second refrigerant circuit. A separate LonWorks® or BACnet® communication module can be easily snapped onto the board to allow communication with a building automation system. The control system accomodates the use of a two-stage heat/two-stage cool 7-day programmable or non-programmable wall-mounted thermostat, offered as a field-installed option.

Electrical – The control enclosure includes fan relay, compressor relays, 24-volt control transformer, reversing valve solenoid coil, lockout circuits and control circuit board.

8 LED annunciator

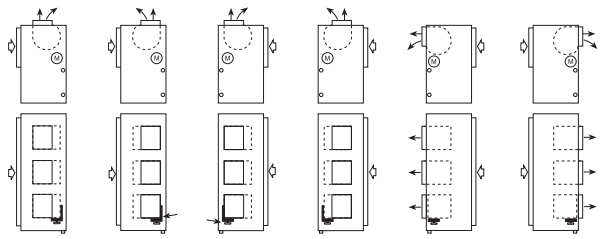
- External LED status lights display fault conditions to provide easy troubleshooting and diagnosis, visible without removing access panel.

9 External pipe connections

- Supply and return pipe connections located outside the cabinet make pipe connections easy without removing access panels.

Safety controls (not shown) – Low and high refrigerant pressure switches and low refrigerant suction temperature (freezestat) sensor.

Two or 3-fan units and multiple discharge air arrangements



Rooftop Outdoor Curb-Mounted—3 to 35 Tons

- **Flexible downflow and horizontal discharge arrangements**
- **Standard or geothermal application flexibility**
- **Heavy duty cabinet construction and full perimeter roof curb for long life**
- **Multiple access panels for easy maintenance**
- **Sloped stainless steel drain pan for superior IAQ**
- **Multiple refrigerant circuits on units 8-ton (28kW) and larger for staged operation**
- **Economizer, hot gas bypass and reheat, and fan motor size options to meet application requirements**
- **Performance rated in accordance with ISO 13256-1**
- **R-410A refrigerant**

For more detail, refer to Catalog 1106.
For the most current information, refer to mcquay.com.

Standard Range (Water Loop) Models :
WRWA - Downflow Discharge and Return
WRWC - Horizontal Discharge and Return

Geothermal Range (Ground Loop) Models:
WRGA - Downflow Discharge and Return
WRGC - Horizontal Discharge and Return

Physical Data

Unit Dimensions—WRWA, WRGA, WRWC and WRGC Units

Dimensions, inches (mm)	Unit Size													
	036	048	066	072	084	096	120	150	180	210	200	300	360	420
	RWA, RGA Downflow Discharge													
Length	96.0 (2438)	96.0 (2438)	96.0 (2438)	96.0 (2438)	96.0 (2438)	96.0 (2438)	96.0 (2438)	96.0 (2438)	96.0 (2438)	96.0 (2438)	96.0 (2438)	96.0 (2438)	96.0 (2438)	96.0 (2438)
Width(1)	97.0 (2464)	97.0 (2464)	97.0 (2464)	97.0 (2464)	97.0 (2464)	97.0 (2464)	97.0 (2464)	97.0 (2464)	97.0 (2464)	97.0 (2464)	130.75 (3321)	130.75 (3321)	130.75 (3321)	130.75 (3321)
Width(2)	82.5 (2096)	82.5 (2096)	82.5 (2096)	82.5 (2096)	82.5 (2096)	82.5 (2096)	82.5 (2096)	82.5 (2096)	82.5 (2096)	82.5 (2096)	112.56 (2859)	112.56 (2859)	112.56 (2859)	112.56 (2859)
Height	62.0 (1575)	62.0 (1575)	62.0 (1575)	62.0 (1575)	62.0 (1575)	62.0 (1575)	62.0 (1575)	62.0 (1575)	62.0 (1575)	62.0 (1575)	83.0 (2108)	83.0 (2108)	83.0 (2108)	83.0 (2108)
	RWC, RGC Horizontal Discharge													
Length	96.0 (2438)	96.0 (2438)	96.0 (2438)	96.0 (2438)	96.0 (2438)	96.0 (2438)	96.0 (2438)	96.0 (2438)	96.0 (2438)	96.0 (2438)	96.0 (2438)	96.0 (2438)	96.0 (2438)	96.0 (2438)
Width(1)	107.75 (2737)	107.75 (2737)	107.75 (2737)	107.75 (2737)	107.75 (2737)	107.75 (2737)	107.75 (2737)	107.75 (2737)	107.75 (2737)	107.75 (2737)	146.63 (3724)	146.63 (3724)	146.63 (3724)	146.63 (3724)
Width(2)	82.5 (3321)	82.5 (3321)	82.5 (3321)	82.5 (3321)	82.5 (3321)	82.5 (3321)	82.5 (3321)	82.5 (3321)	82.5 (3321)	82.5 (3321)	112.5 (2858)	112.5 (2858)	112.5 (2858)	112.5 (2858)
Height	62.0 (1575)	62.0 (1575)	62.0 (1575)	62.0 (1575)	62.0 (1575)	62.0 (1575)	62.0 (1575)	62.0 (1575)	62.0 (1575)	62.0 (1575)	83.0 (2108)	83.0 (2108)	83.0 (2108)	83.0 (2108)

(1) with intake hood
(2) without intake hood

Roof Curb Dimensions—WRWA, WRGA, WRWC and WRGC Units

Unit size	Length, in (mm)	Width, in (mm)	Height, in (mm)
036	79.0 (2007)	54.093 (1374)	14.0 (356)
048	79.0 (2007)	54.093 (1374)	14.0 (356)
060	79.0 (2007)	54.093 (1374)	14.0 (356)
072	79.0 (2007)	54.093 (1374)	14.0 (356)
084	79.0 (2007)	54.093 (1374)	14.0 (356)
096	79.0 (2007)	54.093 (1374)	14.0 (356)
120	79.0 (2007)	54.093 (1374)	14.0 (356)
150	79.0 (2007)	54.093 (1374)	14.0 (356)
180	79.0 (2007)	54.093 (1374)	14.0 (356)
210	79.0 (2007)	54.093 (1374)	14.0 (356)
200	109.0 (2769)	58.813 (1494)	14.0 (356)
240	109.0 (2769)	58.813 (1494)	14.0 (356)
300	109.0 (2769)	58.813 (1494)	14.0 (356)
360	109.0 (2769)	58.813 (1494)	14.0 (356)
420	109.0 (2769)	58.813 (1494)	14.0 (356)

Performance Data

WRWA, WRWC Water Loop and WRGA, WRGC Ground Loop Units

Unit size	Airflow	Water flow	Voltage	Water loop[2]				Ground loop[3]			
				Cooling		Heating		Cooling		Heating	
	cfm (L/S)	gpm (L/S)		Btu/hr (Watts)	EER[1]	Btu/hr (Watts)	COP[1]	Btu/hr (Watts)	EER[1]	Btu/hr (Watts)	COP[1]
036	1200 (566)	7.5 (0.47)	208-230/60/3	38,090 (2,645)	14.4	4,211 (1,532)	5.2	3,752 (2,424)	16.4	2,231 (8,560)	3.6
			460/60/3								
048	1600 (755)	10.0 (0.63)	208-230/60/3	52,095 (3,383)	15.4	61,121 (1,898)	5.2	54,352 (3,053)	17.8	39,327 (11,516)	3.5
			460/60/3								
066	2000 (944)	12.5 (0.79)	208-230/60/3	70,075 (4,672)	15.0	81,384 (23,832)	4.9	72,901 (4,352)	16.8	51,538 (15,092)	3.4
			460/60/3								
072	2400 (1133)	15.0 (0.92)	208-230/60/3	75,224 (5,572)	13.5	94.842 (27,773)	5.1	78,308 (5,152)	15.2	60,250 (17,643)	3.6
			460/60/3								
084	2800 (1321)	17.5 (1.1)	208-230/60/3	85,534 (6,788)	12.6	110,539 (32,369)	4.9	88,826 (6,300)	14.1	70,261 (20,575)	3.7
			460/60/3								
096	3200 (1510)	20.0 (1.26)	208-230/60/3	109,084 (7,575)	14.4	128,592 (37,656)	5.2	113,778 (6,980)	16.3	82,078 (24,035)	3.9
			460/60/3								
120	4000 (1888)	25.0 (1.58)	208-230/60/3	142,372 (9,367)	15.2	164,834 (48,268)	5.2	148,344 (8,726)	17.0	105,706 (30,954)	3.6
			460/60/3								
150	5000 (2360)	31.3 (1.97)	208-230/60/3	164,390 (11,033)	14.9	198,666 (58,175)	5.3	171,048 (10,175)	16.8	128,646 (37,671)	3.8
			460/60/3								
180	6000 (2832)	37.5 (2.37)	208-230/60/3	199,072 (13,361)	14.9	241,608 (70,750)	5.2	206,992 (12,395)	16.7	155,900 (45,652)	4.0
			460/60/3								
210	6000 (2832)	43.8 (2.76)	208-230/60/3	222,472 (14,541)	15.3	265,856 (77,851)	5.5	231,598 (13,465)	17.2	167,484 (49,044)	4.0
			460/60/3								
200	6000 (2832)	41.7 (2.63)	208-230/60/3	225,066 (14,245)	15.8	264,276 (77,388)	5.3	234,082 (13,225)	17.7	167,404 (49,021)	4.0
			460/60/3								
240	8000 (3776)	50.0 (3.15)	208-230/60/3	263,654 (16,076)	16.4	298,834 (87,508)	5.6	274,346 (14,830)	18.5	190,026 (55,645)	4.2
			460/60/3								
300	10,000 (4720)	62.5 (3.94)	208-230/60/3	358,174 (25,768)	13.9	439,652 (128,743)	4.9	372,950 (23,922)	15.6	285,872 (83,712)	3.8
			460/60/3								
360	12,000 (5663)	75.0 (4.73)	208-230/60/3	414,688 (28,999)	14.3	497,222 (145,602)	4.9	430,604 (27,082)	15.9	315,926 (92,513)	3.7
			460/60/3								
420	12,000 (5663)	87.6 (5.53)	208-230/60/3	477,606 (32,490)	14.7	583,648 (170,910)	5.0	496,578 (30,096)	16.5	373,286 (109,309)	3.8
			460/60/3								

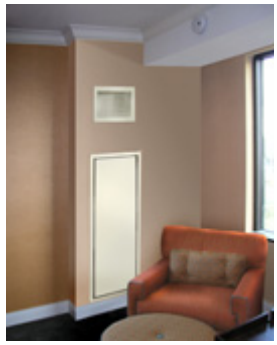
1. EER = Energy Efficiency Ratio; COP = Coefficient of Performance.
2. Cooling capacity is based on 80.6°F (27°C) db, 66.2°F (19°C) wb entering air temperature and 86°F (30°C) entering, 95°F (35°C) leaving water temperature.Heating capacity based on 68°F (20°C) db entering air temperature and 68°F (20°C) entering water temperature. Net capacities include fan motor heat; 50 cycle units are de-rated, 60 cycle units.
3. Cooling capacity is based on 80.6°F (27°C) db, 66.2°F (19°C) wb entering air temperature and 77°F (25°C) entering, 87°F (31°C) leaving water temperature. Heating capacity based on 68°F (20°C) db entering air temperature and 32°F (0°C) entering water temperature. Net capacities include fan motor heat; 50 cycle units are de-rated, 60 cycle units.

Vertical Stack Water Source Heat Pumps—3/4 to 3 Tons

- R-410A refrigerant with no ozone depletion potential or phase-out date
- Superior indoor air quality and quiet operation
- Multiple unit sizes – 009 (3/4 ton, 2.6kW) through 036 (3 ton, 10.6kW)
- Units exceed ASHRAE 90.1 efficiency levels
- MicroTech® III unit controls with Open Choices™ feature allows standalone or easy, low cost network integration using LonWorks® or BACnet® communications
- Performance rated with ISO Standard 13256-1
- ECM motor (021–036)

For more detail, refer to Catalog 1105. For the most current information, refer to www.mcquay.com.

Enfinity™
Model WVHF - Cabinet
Model WVHC - Chassis

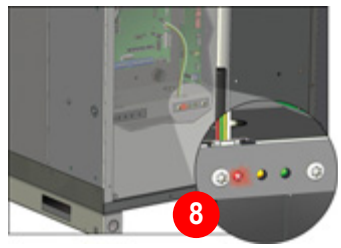


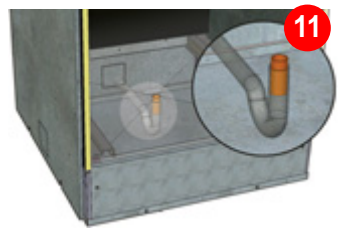
Water Loop Performance Data

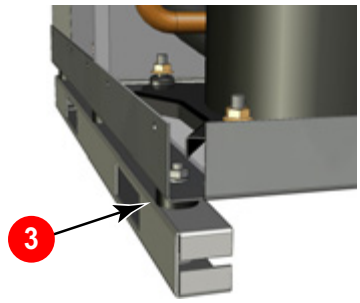
Unit size	Airflow		Water flow		Voltage	Standard Unit							ECM at High Static						
						Cooling				Heating			Cooling				Heating		
	cfm	L/S	GPM	L/S		Btu/h	Watts	EER	COP	Btu/h	Watts	COP	Btu/h	Watts	EER	COP	Btu/h	Watts	COP
009	450	212	2.5	0.16	115-1-60 208/230-1-60 265-1-60	9800	2870	14.4	4.2	11000	3230	5.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A
012	450	212	3.0	0.19	115-1-60 208/230-1-60 265-1-60	11700	3430	13.6	4.0	14700	4306	5.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A
015	500	236	3.5	0.22	208/230-1-60 265-1-60	14000	4200	14.5	4.2	18100	5300	5.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A
018	500	236	4.2	0.26	208/230-1-60 265-1-60	16800	4900	13.6	4.0	21200	6300	4.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A
018	500	236	4.2	0.26	208/230-1-60 265-1-60	16800	4900	13.6	4.0	21200	6300	4.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A
021	760	359	5.4	0.34	208/230-1-60	21500	6200	14.2	4.2	26700	7900	5.1	21500	6200	14.5	4.3	26700	7800	5.2
024	760	359	6.0	0.38	208/230-1-60 265-1-60	24400	7200	15.1	4.4	29000	8400	4.9	24400	7100	15.4	4.5	29000	8400	5.0
030	1100	519	7.3	0.46	208/230-1-60 265-1-60	29100	8500	15.2	4.5	35700	10400	4.9	29100	8500	15.4	4.5	35700	10400	5.0
036	1100	519	9.0	0.57	208/230-1-60 265-1-60	35400	10400	14.1	4.1	44900	13100	4.3	35400	10300	14.2	4.2	44900	13200	4.3

n/a = Not Available
Size 007 available, please contact your McQuay representative for details.

WVHF and WVHC Features

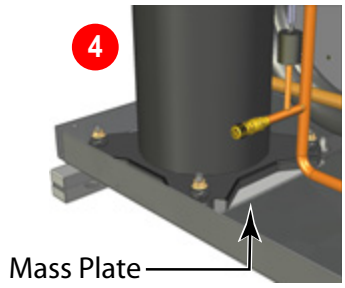






The optional Remote Control Node (RCN) interfaces with the Vertical Stack unit, and communicates with the T9000 wireless temperature control using unlicensed 900 MHz, radio frequency energy.

The T9000 Wireless Temperature Control provides precision temperature control without the installation labor and expense of wiring.



WVHF and WVHC Features

1 Compact cabinets

Constructed of unpainted galvanized steel, with the smallest possible footprint. 18" × 18" cabinet for unit sizes 009 through 018 and 24" × 24" for unit sizes 021 through 036.

2 Chassis

Removable, allows staged installation and ease of service and routine maintenance.

3 Chassis vibration isolators

Vibration isolators are integral to the chassis support rails to help minimize noise and vibration transmission resulting in a quiet occupied space.

4 Compressors

High efficiency rotary and scroll, available with optional mass plate and/or compressor sound blanket for quiet operation (unit sizes 021-036).

5 Motor/blower assembly

PSC standard fan motor and housing is removable and slides out through the front of the cabinet. Optional ECM motor available in unit sizes 021-036.

6 Supply air plenum

Allows for multiple discharge air configurations.

7 Microtech® III control system

Open Choices™ allows standalone or easy, low cost network integration using LONWORKS® or BACnet® open protocols.

8 LED annunciator

LED status lights display fault conditions to provide easy troubleshooting and diagnosis. Accessed by opening the return air grille/panel.

9 Primary condensate drain pan

Is sloped and constructed of a corrosion resistant ABS plastic. It sits below the air coil to capture all condensate in cooling mode. A factory installed condensate overflow sensor disables unit operation when the condensate level reaches the sensor.

10 Secondary IAQ condensate drain pan

Sits below the chassis to prevent condensate or other liquids from dripping into the cabinet and possibly reaching the living space. Available in optional corrosion resistant stainless steel or standard galvanized steel. This drain pan also includes a factory installed condensate overflow sensor.

11 Condensate drain hose IAQ J-trap

Formed, flexible condensate trap helps prevent undesirable odors from backing up into the unit and into the supply air stream.

12 Front-mounted disconnect switch

Easy-access disconnect switch allows the user to turn off power to the unit for service / maintenance.

13 Two-speed fan toggle switch

Convenient location for easy hgh/low fan speed change.

14 Front-mounted thermostat terminal strip

Provides easy connection of wall-mounted thermostat.

WVHF and WVHC Accessories

2-way motorized valves

Ideal in variable pumping applications. On a call for cooling or heating the valve opens providing full water flow prior to compressor operation.

Shutoff valves

Factory-mounted and brazed to the unit supply and return risers. They have FPT connections for connecting flexible supply and return hoses.

Stainless steel braided hoses

Fire rated construction in lengths of 48" and 36". Threaded connections of 1/2" (13 mm) to match the MPT fittings on unit sizes 009-018 and 3/4" (19 mm) to match the MPT fittings on unit sizes 021-036.

Supply air diffuser

Double-deflection or double-deflection with adjustable damper.

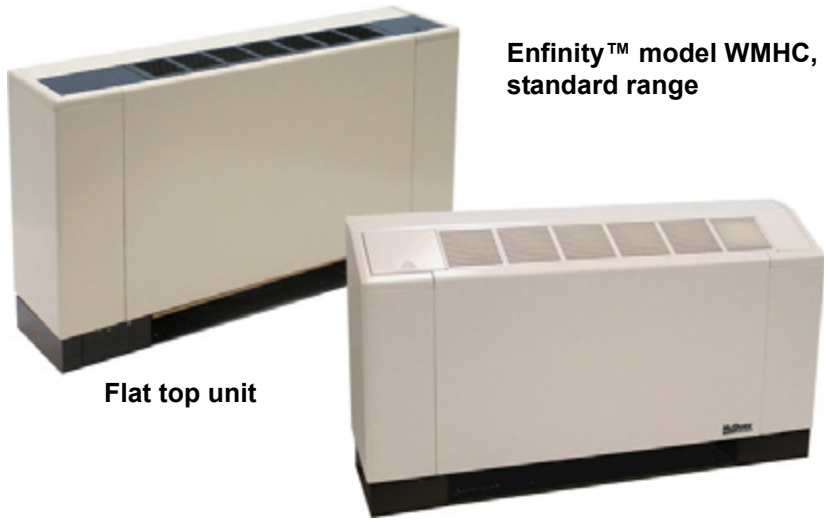
Hinged return air grille

Constructed of heavy gauge steel, lined with insulation to help attenuate sound. Electrostatic powder coat finish, in Antique Ivory or Cupola White.

Console In-Room—1/2 to 1 1/2 Tons

- Standard or geothermal application flexibility
- High efficiency reduces energy consumption/operating costs and can contribute to earning LEED® points and rebates
- R-410A refrigerant with no ozone depletion potential or phase-out date
- GentleFlo™ cross-tangential fan wheel design provides whisper quiet operation and maximum airflow for proper air circulation
- MicroTech® III unit controls with Open Choices™ feature allows standalone or easy, low cost network integration using LonWorks® or BACnet® communications
- Two cabinet styles – flat top or slope top in high or low sill configuration to satisfy special application requirements
- Performance rated with ISO Standard 13256-1

For more detail, refer to Catalog 1104. For the most current information, refer to www.mcquay.com.



Enfinity™ model WMHC, standard range

Enfinity™ model WMHW, extended range/geothermal

Flat top unit

Slope top unit

Performance Data

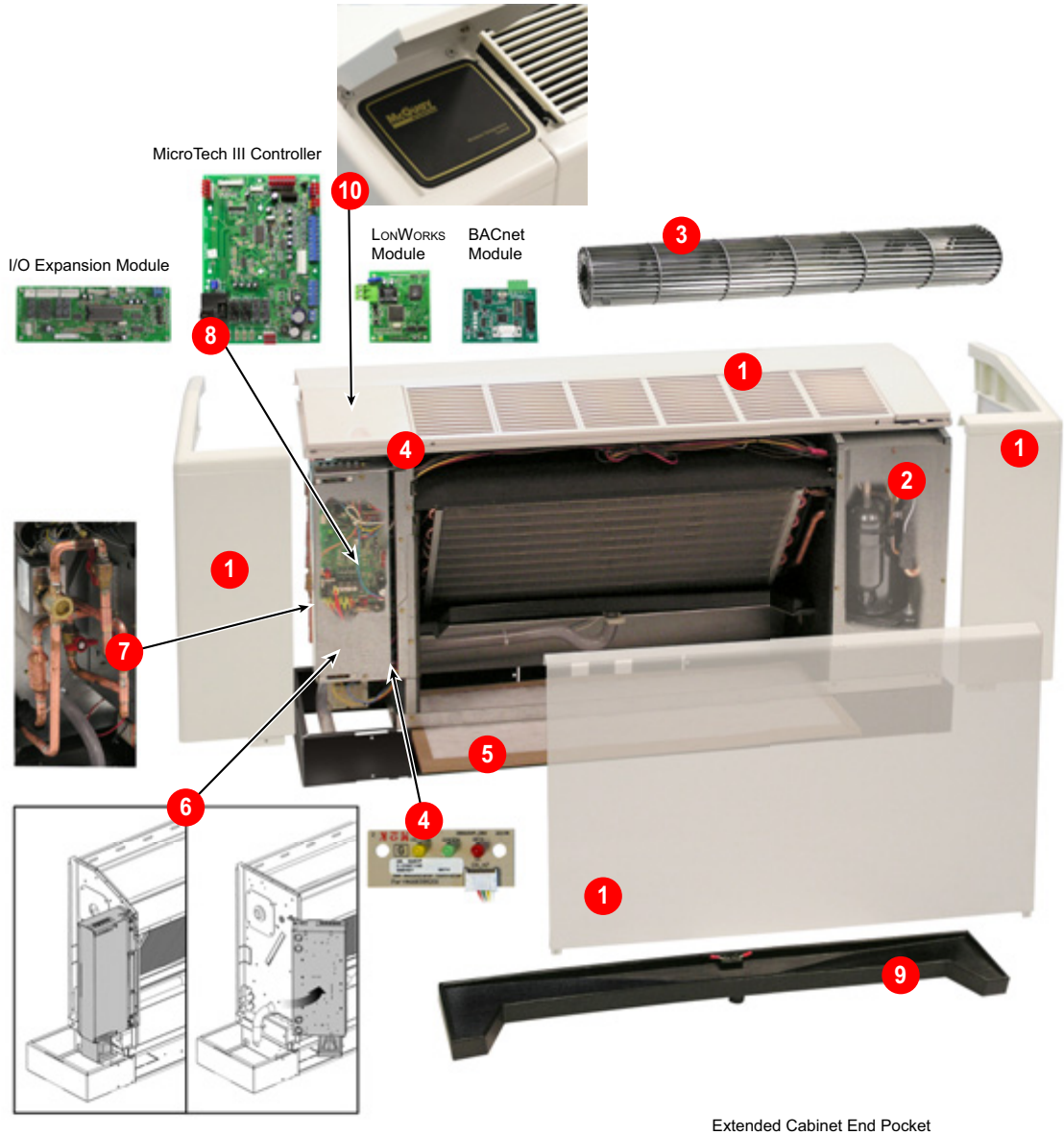
Enfinity™ Console In-room Models WMHC and WMHW

Unit size	Airflow		Water flow		Water loop - standard unit							Ground loop - ECM @ high static							Dimensions L × W × H Low Sill & High Sill
					Cooling[1] 86°F (30°C)				Heating[2] 68°F (20°C)			Cooling[1] 77°F (25°C)				Heating[2] 32°F (0°C)			
	cfm	L/S	GPM	L/S	Btu/hr	Watts	EER	COP	Btu/hr	Watts	COP	Btu/hr	Watts	EER	COP	Btu/hr	Watts	COP	
007	273	129	1.93	0.122	7718	518	14.9	4.4	9109	526	5.1	8365	474	17.7	5.2	5605	495	3.3	46×10.25×22.5 46×10.25×25
009	347	164	2.4	0.15	9170	651	14.1	4.1	11,000	686	4.7	9730	602	16.2	4.7	7030	627	3.3	
012	275	130	2.9	0.18	11,600	776	14.9	4.4	13,900	894	4.6	12,300	700	17.5	5.1	9000	780	3.4	
015	559	264	3.7	0.23	14,500	964	15.1	4.4	18,200	1031	5.2	15,400	885	17.3	5.1	10,900	940	3.4	54×10.25×22.5 54×10.25×25
018	421	199	4.6	0.29	16,400	1223	13.4	3.9	13,700	4010	3.5	19,700	5770	19.0	5.6	13,400	3920	3.7	

Table notes:
CFM = Cubic Feet per Minute, L/S = Liters per second, GPM = Gallons Per Minute
Btu/hr = BTU per hour, EER = Energy Efficiency Ratio, COP = Coefficient of Performance

1. Cooling capacity is based on 80.6°F db. 66.2°F wb. (27/19°C) entering air temperature and 86°F (30°C) entering water temperature.
2. Heating capacity is based on 68°F (20°C) entering air temperature and 68°F (20°C) entering water temperature.

WMHC and WMHW Features



WMHC and WMHW Features

1 Cabinets

- Selectable flat top or angled top cabinet configuration with multiple grille options. Individual panels – top, front and end panels are designed for easy removal and provide easy access to unit components for service and maintenance.

2 Compressor

- High efficiency rotary type, using R-410A refrigerant with zero ozone depletion potential or phase-out date.

3 Gentleflo™ fan

- User selectable, multi-speed tangential fan system provides high efficiency and very quiet operation suitable for noise sensitive applications.

4 LED annunciator

- LED status lights display fault conditions to provide easy troubleshooting and diagnosis. Accessed by removing the left or right end panel to the control enclosure.

5 Filter

- Units come standard with a 1/2" (12.7mm) thick disposable filter that is easy to access and replaced from the front of the unit without removing a panel.

6 Hinged control box

- Provides added accessibility to plumbing end compartment for easier access for service.

7 MicroTech® III unit controller

- Designed for flexibility, the main control board is used in standalone applications. An optional I/O expansion module can be used to control electric heat and multiple fan speeds. A separate LONWORKS® or BACnet® communication module can be easily snapped onto the board to accommodate the building automation system of your choice.

8 2-way motorized valve packages (optional)

- Factory installed or field-installed for variable pumping applications. Other valve options available upon request Two-way isolation valves open only on a call for heating or cooling, saving on operating costs.

9 Double-sloped drain pan

- Made of durable, noncorrosive polymer, promotes positive condensate drainage for superior Indoor Air Quality (IAQ). Drain Pan is easy to remove for cleaning.

10 Wireless temperature control (optional)

- Factory or Field-installed for units set up for unit-mounted 24V thermostat control. The Remote Control Node (RCN) interfaces with specific HVAC equipment and communicates with its thermostat.
- The Remote Control Node (RCN) interfaces with the console unit, and communicates with the T9000 wireless temperature control using unlicensed 900 MHz, radio frequency energy.
- The T9000 Wireless Temperature Control provides precision temperature control without the installation labor and expense of wiring.

Wireless control skin attached

Wireless (RCN) remote control node

T9000 wireless thermostat

11 Optional multi-directional grilles

- Selectable plastic Multi-Directional Grilles can rotate 90, 180 or 270 degrees for added control of discharge air direction.

12 Optional extended end pockets (high sill units)

- Optional extended cabinet end pocket for high sill units, provides 11" of additional area inside the left or right end pocket for piping or a field-installed pump.

Air dampers (optional - not shown)

Motorized or manually operated outside air dampers provide ventilation air.

Optional 7" high subbase

- Allows increased flexibility for piping arrangements.

Unit flexibility

- Selectable for standard (boiler/tower) or extended range (geothermal) applications to achieve the highest efficiency for your application requirements.

Water to Water Floor-Mounted—3 to 35 Tons

- Heating only, cooling only or heating and cooling models
- High efficiency and quiet operation
- Large panels for accessibility to compressor and controls sections
- Flexible configurations with top or side piping (120–420)
- Flexible configurations with front or side control box (120–420)
- Status lights—compressor 1, compressor 2, fault (120–420)
- Domestic hot water coil (036–072)
- R-410A refrigerant

For more detail, refer to Catalog 1107. For the most current information, refer to www.mcquay.com.

Model WWRA—extended range heating and cooling models

Model WWHA—extended range heating only models

Model WWCA—extended range cooling only models

Physical Data

Model sizes	Btuh nominal cooling	Cabinet dimensions, inches			Water connections	
		Width	Depth	Height	Load/source	Domestic hot water
036	36,000	28 1/8	28 1/8	19	3/4" FPT	1/2" FPT
048	48,000	28 1/8	28 1/8	21	1" FPT	1/2" FPT
060	60,000	28 1/8	28 1/8	21	1" FPT	1/2" FPT
072	72,000	35 1/8	28 1/8	21	1" FPT	1/2" FPT
120	120,000	34	42	41	1 1/2	N/A
150	150,000	34	42	41	1 1/2	N/A
180	180,000	34	42	41	1 1/2	N/A
240	240,000	34	50	63 1/8	2	N/A
300	300,000	34	50	63 1/8	2	N/A
360	360,000	34	50	63 1/8	2	N/A
420	420,000	34	50	63 1/8	2	N/A

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Products Manufactured in ISO Certified Facilities.

Warranty

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