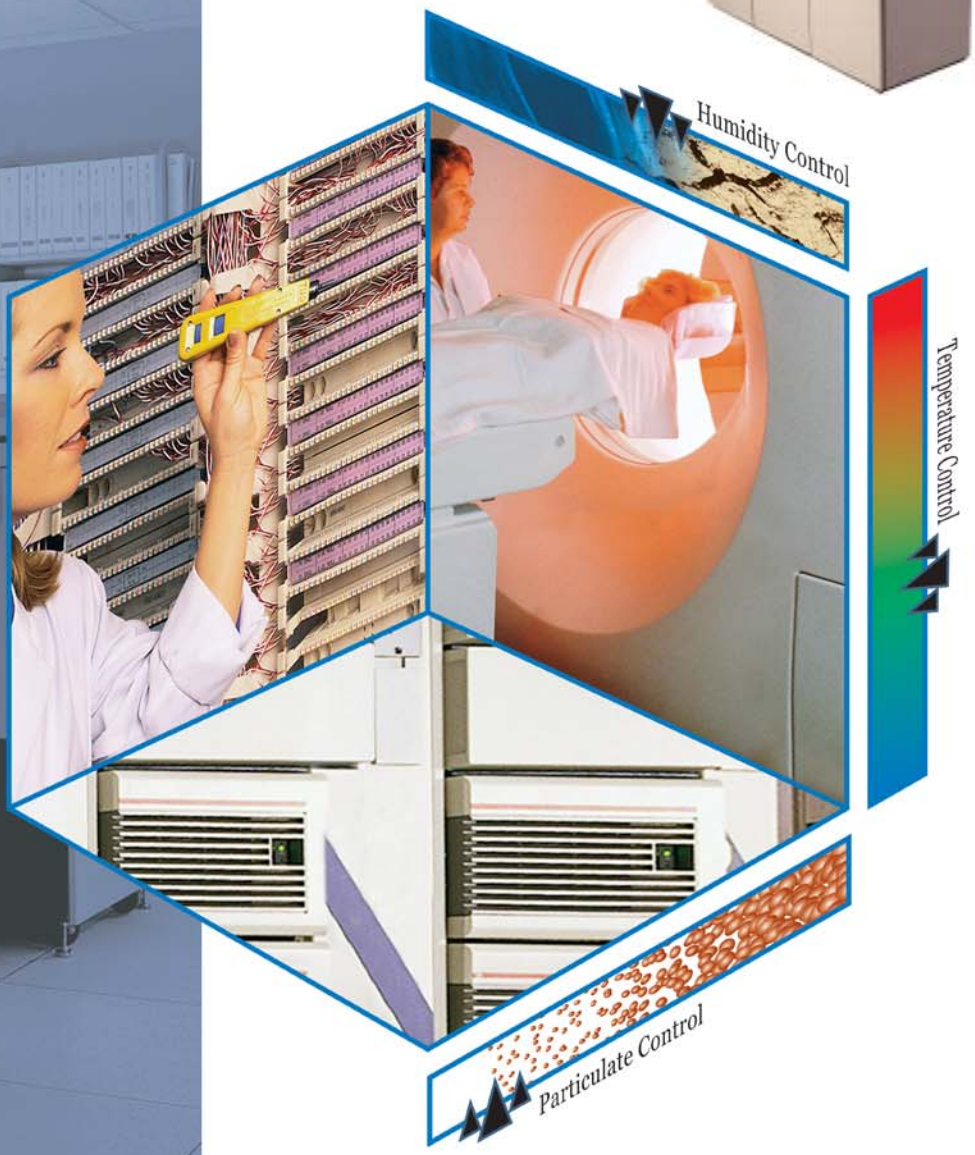
Data Aire Series
Air Cooled,
Water/Glycol Cooled
6 through 30 Ton Dual Circuits



DATA AIRE INC.

Data Aire®

… the pioneer and builder of the
most complete line of
precision cooling equipment

Data Aire's first precision cooling system was developed by data processing engineers who sought optimum environmental conditions for early computers. It was clear that "people comfort" air conditioning system were unable to meet the environmental requirements of computers and data processing equipment. Precision environmental control equipment with high sensible cooling ratios was a necessity. Problems with paper sticking , head crash, and static electricity were eliminated. Humidity fluctuation were controlled saving possible electrical and mechanical failures and more importantly – Downtime. Data Aire's innovative response to the challenge of eliminating problems within the computer room environment was the start of wide use precision cooling.

As in the past, Data Aire is meeting today's challenge of not only the computer room but also the ever expanding telecommunications industry where precision cooling is vital to our everyday communications. Telecommunication equipment requires a controlled environment with clean and properly distributed air. As in the computer room, the environment must be precisely controlled – 24 hour a day, 365 days a year.

Data Aire produces solutions. We have offered environmental control solutions to meet specific needs in the smallest of places and in areas of thousands of square feet. We are prepared to assist you, your in-house engineering department, consulting engineer, or construction department in defining the proper solutions and bringing them to a predefined outcome.

Data Aire is committed to being the supplier of choice for environmental process cooling with flexibility, reliability, and expertise required to meet our customer's needs. To be successful, it is essential to be creative and use our resources to their fullest capabilities. The Data Aire goal is to benefit the employees, partners, and most of all – our customers with honesty and integrity.

Data Aire Delivers!

DATA AIRE DX SERIES

DIRECT EXPANSION UNITS

AIR COOLED, WATER COOLED, GLYCOL COOLED

(Seperate brochure for Chilled Water Cooled units.)

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PRECISION COOLING

Data Aire Series units offer precision environmental control that brings a standard of reliable performance to meet today's market demands. Data Aire systems are designed for data centers, telecommunication sites, or anywhere process cooling is required. ***Data Aire Series*** units are available in 6 through 30 nominal tons with upflow or downflow air distribution either in air cooled or water/glycol cooled models. Each unit is factory run tested and put through a vigorous quality control procedure.

COMFORT

Computer rooms and other environmentally controlled spaces require air which is clean and properly distributed, with precisely controlled temperature and humidity. Building or "people comfort" cooling systems are not designed to meet these demands. ***Data Aire Series*** units are designed to maintain temperature and humidity with properly distributed clean air required in environmentally controlled areas.

HIGH PERFORMANCE/LOW COST

Engineered for performance and reliability, each ***Data Aire Series*** unit comes with Data Aire's commitment to excellence. This commitment began with Data Aire's first process cooling unit and has continued for more than 30 years of building the industry's finest environmental control equipment.

DATA AIRE DELIVERS

Standard ship cycle is 30 days from date of order. With an optional premium "quick ship" units can be expedited to ship in little as one week. All units are built to your specific order and specification. Call your nearest Data Aire representative for more information.

FRAME/CABINET

Units are constructed with heliarc welded tubular steel frames. The tubular construction provides for maximum strength and ease of access. Side and front panels can be easily removed with quarter-turn fasteners allowing full access to all unit components. All panels include 1 inch thick, 1 1/2 pound density insulation for protection and sound attenuation.

COIL SECTION

Designed for draw through application, the computer selected dual circuited A-frame coil has an interwoven surface that increases unit efficiency at low load conditions. Air is drawn through both circuits of the coil at low velocity providing effective surface exposure with minimum turbulence. Air bypass is provided to prevent saturated air from being introduced into the controlled space. The coil sits in a stainless steel drain pan.

FAN SECTION

The centrifugal, forward curved, double width, double inlet blower configuration is engineered for quiet reliable operation. The dual belt driven variable pitch drive section provides adjustable air flow capability to match the load requirements of the controlled space. The draw through design insures even air distribution across the coil, low internal cabinet pressure losses and static sealing of the filter section. Motors are mounted on an adjustable slide base and have internal overload protection.

FILTER SECTION

Units are provided with 4 inch deep, 30% efficient (based on ASHRAE Std. 52.1-1992), pleated filters. The filter section is accessible from the top or side on downflow units and the right hand side on upflow units.

REHEAT

Three stage electric reheat is standard. Low-watt density, finned, tubular sheathed coils are constructed of stainless steel and provide ample capacity to maintain room dry bulb conditions during dehumidification. Low-watt density coils eliminate ionization associated with open air electric resistance heating.

HUMIDIFICATION

Data Aire Series units include an electric steam generator humidifier with “quick change” disposable cylinders and auto-flush cycle. The steam generator humidifier with its patented control system optimizes cylinder life and energy efficiency by concentrating incoming water to a predetermined conductivity much higher than that of any entering water. The control system continuously monitors the conductivity in the cylinder through its electronics which allows water to be flushed as often as is necessary to maintain the capacity at this design conductivity. The high design conductivity results in a minimum flushing of heated water which saves energy. The humidifier is designed to allow all units at any voltage to produce full rated steam output capacity at an optimum low water level based on this design conductivity.

Dual refrigeration circuits include high efficiency hermetic scroll type compressors. Scroll compressors represent new yet proven compressor technology. Scroll compressors offer a combination of reliability, performance, and efficiency. System noise is inherently quieter with scroll compressors.

Scroll compressors offer:

Simplicity - Fewer parts. Two components, a fixed scroll and orbiting scroll, replace approximately 15 parts required to do the same work.

Improved Starting Ability - With the scroll design the internal compression components always start unloaded even if the system pressures are not balanced. Since internal compressor pressures are always balanced at start-up, low voltage characteristics are excellent for scroll compressors.

Energy Efficiency - Scroll compressors are at least 10% more efficient than reciprocating type compressors.

The suction and discharge processes of a scroll compressor are physically separated. This reduces heat transfer between the suction and discharge gas. In a piston type compressor the cylinder is exposed to both suction and discharge gas. This results in high heat transfer reducing the compressor efficiency.

Scroll compressor compression and discharge processes are very smooth. Gas is compressed in approximately $1^1/_2$ revolutions compared to less than $^1/_2$ revolution for a piston.

Scrolls require no valves. Piston compressors require both suction and discharge valves. No valves, no valve losses.

Durability - Significant design effort and system cost are required to protect piston compressors from slugging and debris. Scroll compressors are designed to be more tolerant of both liquid and debris.

Reliability - Scrolls contain fewer moving parts resulting in greater reliability. Proven performance means fewer maintenance calls for field personnel.

Lower Sound - Systems properly designed with scroll compressors will be inherently quieter. On average, the compressor is up to 5 decibels quieter. (Sound characteristics of a scroll compressor are different than that of a reciprocating compressor. These do not effect system performance or reliability)

These durable, heavy duty compressors have no gaskets or seals, eliminating the possibility of refrigerant or oil leaking into the controlled space or environment. Each refrigeration circuit includes built-in compressor overload protection, crankcase heater, filter drier, sight glass, adjustable expansion valve with external equalizer, low pressure override timer (air cooled units), manual reset high pressure control, and anti-short cycle timer.

Water/glycol cooled units include counterflow condensers sized to provide the required capacity for heat rejection with minimum water/glycol flow and total pressure drop. Head pressure regulating valves control the condensing temperature and maintain required capacity at various water/glycol flow rates and temperatures.

Air Cooled with Remote Outdoor Air Cooled Condenser

A wide range of outdoor condensers are available with vertical air discharge. Condensers manufactured by Data Aire are sized to meet the required heat rejection and ambient conditions. The industrial duty condenser design includes an aluminum housing, aluminum finned copper tube coils, powder coated fan guards, energy efficient, thermally protected direct drive motors, and variable speed fan control on the lead motor for proper control down to -20° F. Additional fan motors are controlled with ambient thermostats.

Air Cooled with Indoor Condenser

A wide range of floor mounted indoor condensers with horizontal intake and discharge are available for applications where an outdoor condenser cannot be used. Finished to match the indoor evaporator section, the condenser includes a centrifugal, forward curved, double width, double inlet blower engineered for quiet and reliable operation. The belt driven variable pitch drive section provides adjustable airflow. The motor has internal overload protection and is mounted on an adjustable slide base. Indoor condensers are provided with a factory mounted and piped receiver. The receiver has a head pressure control valve to maintain flooded condenser control.

Air Cooled with Remote Outdoor Condensing Unit

When compressors are required to be out of the controlled space, Data Aire Series units are available with a remote outdoor condensing unit. The condensing unit includes the compressors with built-in overload protection, crankcase heater, filter drier, sight glass, and condenser coil. The condenser coil is constructed with copper tubes and aluminum fins. The housing is aluminum with vertical air discharge. The condenser is variable speed fan control on the lead motor for head pressure control down to -20° F. Additional fan motors are controlled by ambient fan thermostats.

Water/Glycol Cooled with Remote Outdoor Fluid Cooler

Remote outdoor dry coolers (fluid coolers) are available in a variety of sizes. Each dry cooler includes an aluminum housing, aluminum finned copper tube coil, powder coated fan guards, surge tank, pump contactor, and energy efficient, thermally protected direct drive motors. Dry coolers with multiple motors have cycling control.

Water/Glycol Cooled with Indoor Fluid Cooler

When required a wide range of floor mounted indoor fluid coolers (dry coolers) are available. The air intake and discharge are horizontal. Units are finished to match the indoor unit. The centrifugal, forward curved, double width, double inlet blower is engineered for quiet reliable operation. The belt driven variable pitch drive section provides adjustable airflow. The fan motor has internal overload protection and is mounted on an adjustable slide base. The unit control panel includes a pump contactor (units can be ordered with a factory mounted pump).

The microprocessor based ***Data Alarm Processor-II™*** offers the definite answer for precision environmental control. The ***DAP-II™*** control system not only controls and monitors temperature, humidity, airflow, and cleanliness, it provides component run times, alarm history, and an automatic self-test of the microprocessor on system start-up. All messages are presented in a clear vernacular format and sequentially displayed on a 2 row, 80 character, backlit liquid crystal display (LCD).

OPERATION - High reliability, flat, sealed switches with tactile feedback allow unit On/Off operation, menu selection for programming, operational information, diagnostics, and historical data. Multilevel password prevents unauthorized access. Alarm conditions are enunciated by an audible alarm. The alarm silence switch will quiet the audible alarm but the display will continue to indicate the alarm condition until the problem is corrected.

STANDARD FEATURES

- Forward/backward menu access
- Multilevel password access
- Stand alone panel
- All settings from face of panel
- Factory calibrated temperature sensor
- Factory calibrated humidity sensor
- Database of unit and room conditions
- All programmed settings saved in EEPROM
- Battery backup for historical data
- Automatic self-test diagnostics

OPERATIONAL FEATURES

- Selectable control type
- Sequential load activation
- Temperature anticipation
- Humidity anticipation
- Energy saver (glycol) operation
- Auxiliary chilled water operation
- Supplemental compressor operation with energy saver
- Dehumidification mode lockout
- Automatic compressor rotation
- Automatic reheat element rotation
- Chilled water, energy saver, hot water coil flush cycle
- Compressor short cycle control

DIAGNOSTIC and SERVICE FEATURES

- Manual diagnostics program
- Alarms displayed in order of occurrence
- Manual override for: blower, cool 1 and 2, heat 1, humidification, water valve
- Adjustable alarm limit
- Four programmable optional alarms
- Programmable delays for optional alarms
- Programmable remote alarm
- Select alarms optionally disabled
- Audio alarm tone

PROTECTIVE and SAFETY FEATURES

- Metal shell enclosure with sealed front control panel
- Isolation transformer
- Opto-coupler signal inputs
- Network bypass relays
- Protected 24 VAC power input
- Heavy ground planes and power foils
- Watch dog timer
- Fused RS-485 network lines
- Switching power supply

OPTIONAL FEATURES

- Analog inputs
- RS-485 network system

PROGRAMMABLE FUNCTIONS

- Temperature setpoint
  - 65-85^{o} F/18.3-29.4^{o} C
- High temperature alarm limit
  - 70-90^{o} F/21.1-32.2^{o} C
- Humidity setpoint
  - 30-70% RH
- High humidity alarm limit
  - 35-90% RH
- Mode and stage response time
  - 1-5 minutes
- Reset equipment times
  - Blower
  - Condenser
  - Compressor 1, 2
  - Reheat strip 1, 2, 3
  - Humidifier
  - Dehumidification
  - Energy Saver*
  - Chilled water cooling*
  - Reset all to zero runtimes
- Automatic self-test acknowledge
  - On/Off
- Dehumidification mode
  - 1 compressor within reheat limits
  - 2 compressors within reheat limits
  - 1 compressor with no reheat limits
  - 2 compressors with no reheat limits
  - Dehumidification Off
- System start delay
  - 0-10 minutes in 5 second increments
- Message for optional alarm 1, 2, 3, 4
  - Custom message alarm: 25 space message*
  - Fan motor overload: check motor amperage*
  - Local alarm: see tag inside door*
  - Standby pump On: check primary pump*
  - UPS/alternate power On: check main power*
  - Reheat inhibited
  - Humidification inhibited
  - Reheat and humidification inhibited
- Temperature deadband
  - ± 1-5^{o} F/C
- Low temperature alarm limit
  - 55-75^{o} F/12.8-23.9^{o} C
- Humidity deadband
  - 1-15% RH
- Low humidity alarm limit
  - 10-65% RH
- Compressor lead/lag sequence
  - Automatic/No. 1 Lead/No. 2 Lead
- Audio alarm mode
  - None/long/full/short beep
- Manual diagnostics
  - Normal menu or diagnostic mode
- Humidity anticipation
  - On/Off
- Compressor short cycle alarm
  - On/Off
- Compressor supplements to Energy Saver*
  - Energy Saver not available
  - Energy Saver with no compressors
  - Energy Saver with 1 compressor
  - Energy Saver with 2 compressors
- Low discharge temperature alarm limit*
  - 45-60^{o} F/7.2-15.6^{o} C
- Power failure or restart mode
  - Automatic: no message or alarm
  - Automatic: message, audio alarm, relay
  - Manual: message, audio alarm, relay
- Person to contact on alarm
  - Message not used
  - Data processing manager
  - Maintenance engineer
  - Service company
  - Custom message
- Define password
  - 00-99

* Some programmable selections, displays, and alarms may require optional components or sensors.

PROGRAMMABLE FUNCTIONS, continued

- Firestat temperature alarm limit
  - Unit shutdown and alarm at 100-150° F
- Temperature scale
  - Fahrenheit/Centigrade
- Unit and network identification number
  - 0 to 260
- Remote alarm 1, 2, 3 selection*
  - Compressor short cycle
  - Custom message 1, 2, 3, and 4*
  - Dirty filter
  - Discharge air sensor problem*
  - Fan motor overload*
  - Firestat
  - High humidity
  - High pressure compressor 1
  - High pressure compressor 2
  - High temperature
  - Humidifier problem
  - Humidity sensor problem
  - Local alarm 1 ,2, 3, and 4*
  - Low humidity
  - Low pressure compressor 1
  - Low pressure compressor 2
  - Low temperature
  - Low voltage
  - Maintenance required
  - Manual override
  - No airflow
  - No water flow*
  - Power problem or restart
  - Smoke detector*
  - Standby pump on*
  - Temperature sensor problem
  - Water detection probe
  - UPS/alternate power On
  - Reheat inhibited
  - Humidification inhibited
  - Reheat and humidification inhibited
- Delay for optional alarm 1, 2, 3, and 4
  - 0-900 seconds/Off
- Humidifier autoflush timer*
  - Autoflush timer not used
  - 6 hours
  - 12-96 hours in 12 hour increments
- Scheduled normal maintenance
  - 1-1000 hours/off
- Control logic
  - Setpoint deviation/PID/smart logic
- Compressors
  - Primary/primary
  - Primary/secondary
  - Primary/secondary/primary/secondary*
- Calibrate temperature sensor
  - + 9.9° F/C
- Calibrate humidity sensor
  - + 30% RH
- Calibrate discharge sensor*
  - 9.9° F/C
- Reheat stages
  - None
  - 1, 2, or 3
  - Hot Water*
- Humidifier
  - None
  - Computer, non-modulating
  - Computer, modulating
  - Comfort, non-modulating
  - Comfort, modulating
- Water valve mode
  - None
  - Chilled water cooling
  - Energy saver cooling
  - Auxiliary chilled water cooling
- Water valve range
  - 0 - 10 DC
  - 4 - 7 DC
  - 6 - 9 DC
  - 7 - 10 DC
- Reverse acting water valve
  - Yes/No

* Some programmable selections, displays, and alarms may require optional components or sensors.

DISPLAYED CONDITIONS, DATA, and FUNCTIONS - The ***Data Alarm Processor-II***^{TM} displays and monitors the following conditions, data, and functions:

- Temperature setpoint
- Current temperature
- Current percent of capacity utilized
- Unit or Network ID Number
- Cooling 1,2,3,4 as applicable
- Humidification
- Energy Saver cooling
- Humidity setpoint
- Current humidity
- Current discharge air temperature*
- Zone number
- Reheat stages 1, 2, 3
- Dehumidification

ALARMS - Alarm conditions are displayed and monitored on the microprocessor LCD along with an audible alarm. The alarm silence switch will quiet the audible alarm but the display will continue to indicate the alarm condition until it is corrected. The following alarms are displayed:

- High temperature warning
- High humidity warning
- High pressure compressor 1
- Low pressure compressor 1
- Under floor water detection
- Dirty filter
- Manual override
- Low voltage warning
- Compressor short cycle
- Temperature sensor error
- Discharge air sensor error*
- Fan motor overload*
- Smoke detected*
- Custom message*
- Low temperature warning
- Low humidity warning
- High pressure compressor 2
- Low pressure compressor 2
- No air flow
- Humidifier failure
- Firestat tripped
- Power failure restart
- Maintenance required
- Humidity sensor error
- Local alarm
- No water flow*
- Standby pump on*

***** Some of the programmable selections, displays, or alarms may require additional components or sensors. Contact your Data Aire representative for a detailed analysis of your requirements.

HISTORICAL DATA - In order to facilitate maintenance and service, historical data can be recalled and displayed. The historical database is maintained by battery back-up should power fail. The following data can be recalled and displayed:

- High temperature last 24 hours
- High humidity last 24 hours
- Average percentage of capacity last hour
- Equipment runtimes
- Low temperature last 24 hours
- Low humidity last 24 hours
- Alarm history for last 10 alarms

Data Aire Remote Telecommunications System™

The ***Data Aire Remote Telecommunications System™ (DART-200™)*** provides comprehensive monitoring and control of Data Aire units via a phone modem to a host PC station. The Data Aire units are interfaced with a communications module (DART-Board) with integral phone modem. The ***DART-200™*** allows complete remote control, monitoring, and retrieval of all historical data of the Data Aire units through the unit mounted ***Data Alarm Processor-II™*** . Upon an alarm at the unit, the DART-Board can be programmed to automatically dial one or two pre-programmed numbers and transmit specific alarm information. All entry or configuration capabilities available at the ***Data Alarm Processor-II™*** are accessible at the host station. The commands or requests for data from each unit are processed through the DART-Board. A single DART-Board will allow up to 32 Data Aire units to be connected and controlled. The ***DART™*** System is capable of monitoring and controlling up to 200 DART-Boards.

SYSTEM FEATURES

- Automatic scrolling of current status
- Sensor database
- Password access
- Automatic status log prints
- Automatic scrolling of sensor readings
- Sequential display of alarms
- Multiple audio alarm modes
- Custom “Help” messages for alarms

PROGRAMMABLE FUNCTIONS

- Temperature setpoint
- Temperature high limit
- Temperature low limit
- Temperature sensitivity (deadband)
- On/Off/Standby operation
- Unit ID number
- Password
- Humidity setpoint
- Humidity high limit
- Humidity low limit
- Humidity sensitivity (deadband)
- Unit rotation
- Zone number

MONITORED CONDITIONS

- Specific alarms from unit(s)
- Programmed local alarms from unit(s)
- Current temperature sensor readings
- All standard alarms from unit(s)
- Current operating mode
- Current humidity sensor readings

HISTORICAL DATA

- Alarm history for last 10 alarms in order of occurrence and time since detected
- Current and average percent of capacity for last hour
- Equipment runtimes for:
  - Evaporator motors
  - Compressors,
  - Reheat,
  - Humidification,
  - Dehumidification,
  - Energy Saver cooling*,
  - Chilled water cooling*.

* Some programmable selections, displays, and alarms may require optional components or sensors.

Energy Saver Coil - The Data Aire *Energy Saver Coil* is built into the system to provide total required capacity. Whenever the incoming water/glycol temperature is below 45^{o} F/ 7.2^{o} C, *Energy Saver* cooling is available. *Energy Saver* mode operates in the following range: return air setpoint plus deadband plus 2 degrees. The *Energy Saver* will operate providing there is a need for cooling. The valve will open at setpoint plus deadband. The valve will modulate as long as the space is between setpoint plus deadband plus 2 degrees. If the temperature falls below the deadband minus setpoint, the valve will close and the space is considered satisfied. While still in *Energy Saver* with the valve modulating, if the temperature goes beyond setpoint plus 2 degrees, the *Energy Saver* valve will close and DX cooling will begin.

The *Energy Saver* coil includes the next size motor, 3-way pressure control valve on the condenser water circuit, and 3-way valve on the economy coil. Common piping for coil and condensers is provided.

Energy Saver/Compressor Supplement - Units with *Energy Saver* option can be provided with compressor supplement if the *Energy Saver* is not sufficient as a stand alone system. When the incoming water/glycol temperature is below the setpoint of the water changeover thermostat, the *Energy Saver* is enabled (even if there is no call for cooling). Upon a call for cooling (setpoint plus deadband), the valve will open proportionally - 10% for each 0.1^{o} above setpoint plus deadband. The compressor will come on at setpoint plus deadband plus 1^{o} (the valve is 100% open at this point). The compressor will go off at setpoint plus deadband plus 0.7^{o}. The valve will close proportionally - 10% for each 0.1^{o} below setpoint plus deadband. An air discharge sensor is factory installed.

Auxiliary Chilled Water Coil - Where an existing chilled water loop is available, units can be fitted with an auxiliary chilled water coil. Units will operate using the chilled water for cooling. Upon a loss of water flow or an increase in room temperature the system will bring on compressor (DX) cooling. The Auxiliary Chilled Water coil includes the next size motor. Separate piping is provided for the chilled water coil and refrigeration connections.

Auxiliary Chilled Water Coil/Compressor Supplement - The Auxiliary Chilled Water Coil can be provided with compressor supplement for extended savings by allowing the compressor to supplement operation as needed when the chilled water is not sufficient on a stand alone basis. An air discharge sensor is factory installed. (See *Energy Saver/Compressor Supplement* for details)

Remote Temperature and Humidity Sensors - Temperature and humidity sensors may be ordered for remote wall mounting. Sensors are provided in a wall mount plastic case for remote sensing of temperature and humidity. 25 feet of shielded cable is provided for field wiring.

Smoke Detector - A unit mounted smoke detector will shut down the unit if smoke is sensed. The unit mounted microprocessor control will sound an alarm and display a "SMOKE DETECTED" message. The smoke detector is mounted in the return air stream and is provided with auxiliary contacts.

Unit Mounted Disconnect - A unit mounted nonautomatic disconnect switch is installed in the high voltage electrical section. The operating mechanism (handle) protrudes through the decorative exterior panel. The operating mechanism prevents access to the high voltage electrical components by not allowing entry until switched to the "OFF" position.

Tandem Scroll Compressors - Units may be ordered with tandem scroll compressors when four stage compressor control is required. Units remain dual circuited. Tandem scrolls offer the inherent advantages of scroll technology: higher efficiency, increased reliability, lower sound, and excellent liquid handling.

Scroll tandems offer two steps of modulation so that one or both compressors (per circuit) can run depending upon the load of the system, resulting in part-load efficiency equal to full load efficiency. Two-step modulation is possible because of a carefully designed tubing configuration and the scroll's superior ability to tolerate liquid. The built-in discharge check valve, present in all scroll compressors, effectively prevents liquid migration in the off compressor. Oil migration is controlled with two specially designed oil and gas equalization lines. Adding this option to 30-ton unit will increase cabinet size to 144". *(See Supplement TS1-99: Tandem Scroll Technical Performance)*

Semi-Hermetic Compressors - Cast iron semi-hermetic compressors are available on all Data Aire Series units. Semi-hermetic compressors are mounted on vibration isolators and have built-in overload protection. The compressors also include oil sight glass, reversible oil pump for forced feed lubrication, and suction line strainer. Units with semi-hermetic compressor option also include solenoid valves and mufflers. Maximum rpm is 1750.

Four Step Control (Cylinder Unloading) - Units with semi-hermetic compressors may be ordered with four step control for periods of low load conditions. Cylinder unloaders on one head of each compressor reduces compressor cooling capacity. Four steps of cooling are available to meet changing room conditions.

Compressor Sequence:

Step 1 Lead compressor starts with unloader valve activated
Step 2 Lead compressor running at full load
Step 3 Lag compressor starts with unloader valve activated
Step 3 Lag compressor running at full load

Hot Gas Bypass - Hot gas bypass is available for changing load conditions. The hot gas bypass valve is installed between the compressor discharge line and the leaving side of the expansion valve through a side outlet distributor. The system with the evaporator under full load will maintain pressure on the leaving side of the hot gas bypass valve to keep the valve port closed. Should the load on the evaporator decrease to the point where the coil is below the desired setting, the pressure on the discharge of the hot gas bypass will put pressure on the diaphragm overcoming the spring pressure of the seat and allowing some hot gas to mix with the normal liquid discharge of the expansion valve raising the evaporator pressure. This reduces the cooling capacity of the unit to match the load. The hot gas bypass valve can be adjusted to "fine tune" the unit to room conditions.

Humidifier Modulating Control - Modulating control may be added to the unit's steam generator humidifier. Modulating control will allow the humidifier to match its output to the signal from the humidity control. A self-regulating auto flush is included.

Hot Water Reheat - Where hot water is available, a water coil for reheat is offered. The coil is designed for 150 psi maximum water pressure and includes a 2-way valve (a 3-way is also available). Units with the hot water reheat do not include electric reheat. Supplemental reheat may be ordered.

Hot Gas Reheat - The unit's hot gas discharge may be used for reheat and maximum system efficiency. Supplemental electric reheat may be ordered in addition to the hot gas reheat.

3-Way Water Regulating Valve - 3-way water regulating valves are available on water and glycol cooled units to replace the standard 2-way valve. The 3-way valve controls the water/glycol flow rate to maintain the required capacity under varying conditions. This option is recommended on units with dual pump applicatoins.

Upflow Air Discharge Plenum - Upflow air discharge plenums are fully insulated with front discharge grille. Side grilles for both or one side are available. Plenums are 18" high and painted to match the unit's color.

Floorstands - Floorstands are adjustable (± 2 inches) and may be ordered with factory installed turning vane or with seismic construction.

High Efficiency Filters - Standard filters are rated at 30% (per ASHRAE Std. 52-76). Higher efficiency filters are available (consult factory regarding efficiency percentage and unit static pressures).

Condensate Pumps - Condensate pumps may be ordered factory installed or shipped loose for field installation. Condensate pumps are complete with sump, motor, and automatic control. Pumps shipped loose are available in 115, 230, or 460 volts.

Pump Ratings:

230 volt:

with check valve - 40 GPH at 20 feet
without check valve - 130 GPH at 40 feet

460 volt:

with check valve - 50 GPH at 20 feet
without check valve - 270 GPH at 40 feet

Pump Package - Centrifugal pump packages are available to circulate water or water/glycol solutions. Pumps are available in various horsepower and voltages. Both 3400 and 1750 rpm pumps are available as an option. On dual pump applicatons it is recommended that a 3-way water regulating valve be used in lieu of the standard 2-way valve.

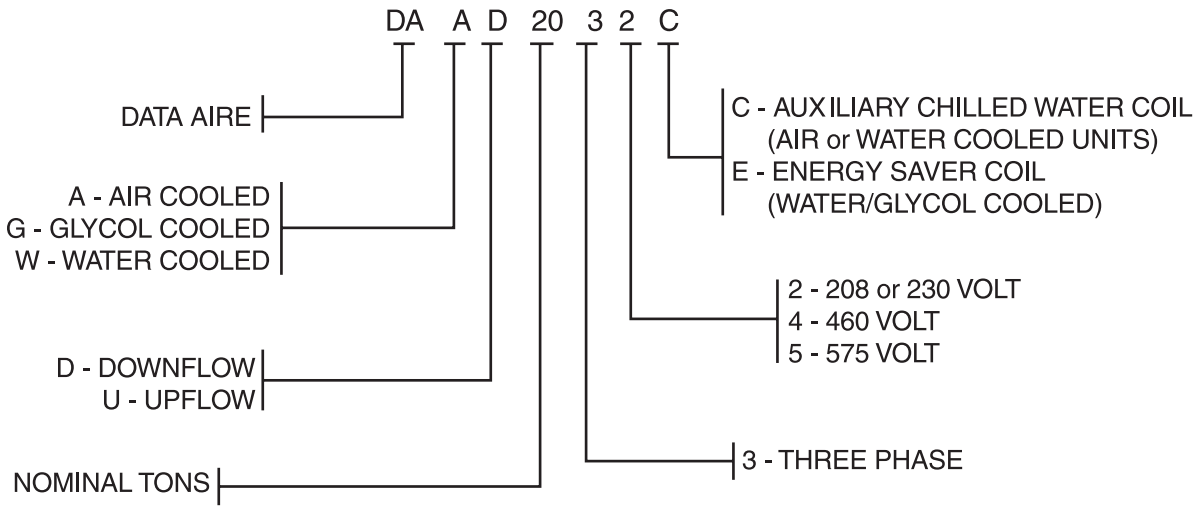
Pump Enclosure - Pump enclosures are available for either single or dual pump applications. Pump enclosures are vented and weather resistant. When ordered with pumps, the pumps are factory mounted in the enclosure ready for field piping and wiring.

Integral Pump Enclosures - Pumps may be factory mounted as an integral part of the dry cooler. A 30" extension is added to the dry cooler. Pumps are pre-piped and wired and includes shut-off valves. A flow switch is included with dual pumps.

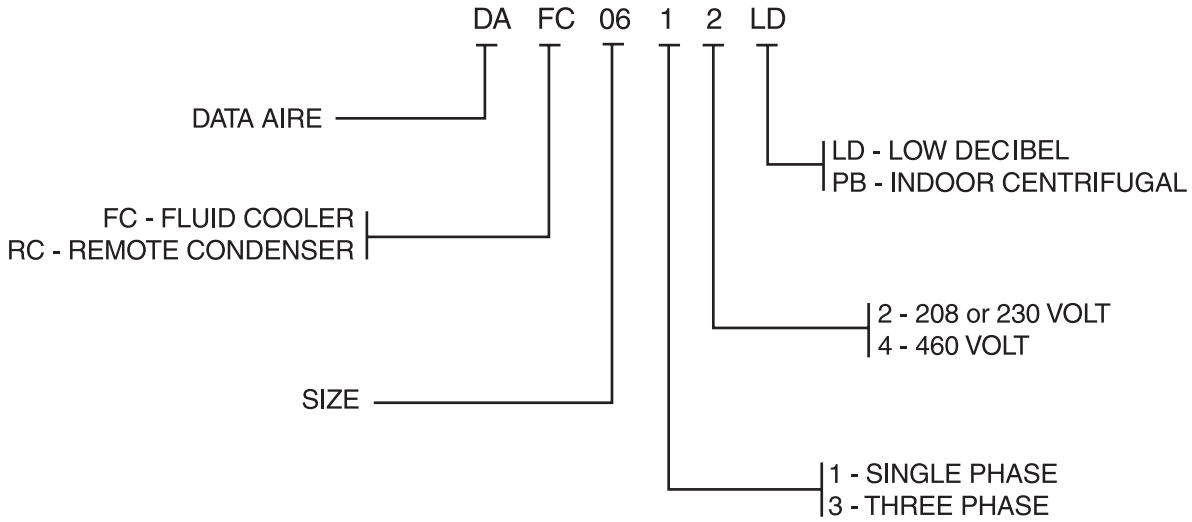
Pump Auto-Changeover - Dual pump packages may be provided with a pump auto-changeover control and NEMA 4 flow switch (field installed). The pump auto-changeover control is factory wired and mounted in the dry cooler control box. The pump auto-changeover control provides automatic pump changeover in the event of a pump failure. Upon pump changeover, an audible alarm will sound at the indoor unit and a message ("STANDBY PUMP ON") will be displayed on the indoor unit microprocessor display.

Extended Compressor Warranty - Extended compressor warranties are available from Data Aire. Contact your local representative for one that best suites your needs.

DATA AIRE SERIES
MODEL NUMBER IDENTIFICATION



AIR COOLED CONDENSERS & FLUID COOLERS
MODEL NUMBER IDENTIFICATION



PERFORMANCE

and

ELECTRICAL DATA

AIR COOLED: Performance data at STANDARD airflow

MODEL NUMBER		*DAAD/U-06*	*DAAD/U-08*	*DAAD/U-10*	*DAAD/U-13*	*DAAD/U-16*	*DAAD/U-20*	*DAAD/U-26*	*DAAD/U-30*
CAPACITY in Btu/hr									
80° DB/67° WB	Total	74,800	105,900	133,500	159,000	212,600	283,100	345,200	416,600
50% RH	Sensible	59,600	84,100	107,700	122,600	159,400	209,600	248,500	310,200
75° DB/62.5° WB	Total	68,500	97,500	123,000	146,600	194,500	261,900	311,100	379,900
50% RH	Sensible	56,300	82,500	105,600	120,500	156,200	206,500	245,300	302,500
75° DB/61° WB	Total	66,600	94,900	119,600	142,500	188,600	254,600	308,600	368,000
45% RH	Sensible	62,200	88,100	112,800	128,300	165,900	219,400	259,100	321,900
72° DB/60° WB	Total	65,600	92,800	117,200	140,100	185,800	249,300	302,500	362,500
50% RH	Sensible	57,100	80,600	103,300	118,100	153,100	202,200	239,600	297,200
72° DB/58.6° WB	Total	64,500	90,500	114,200	136,800	181,200	244,300	296,200	351,900
45% RH	Sensible	61,100	85,800	109,900	125,500	162,400	214,800	253,900	314,500
BLOWER SECTION									
Airflow - CFM		2,700	3,600	4,500	4,800	6,400	8,000	9,000	12,000
Standard Motor - horsepower		1	2	3	3	3	5	7.5	3
External static pressure (E.S.P.) - inches of W.G.		0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Number of motors/fans		1/1	1/1	1/1	1/1	1/2	1/2	1/2	3/3
Maximum E.S.P.	*Downflow*	0.8	1.0	1.2	0.7	1.0	1.2	1.5	1.5
(Standard motor)	*Upflow*	0.7	0.9	1.0	0.6	0.9	1.1	1.5	1.5
Maximum E.S.P.	*Downflow*	0.9	1.5	1.5	1.5	1.4	1.5	1.5	1.5
(Next Size motor)	*Upflow*	0.9	1.5	1.0	1.5	1.3	1.5	1.5	1.5
Next size motor horsepower		1.5	3	5	5	5	7.5	10	5
COMPRESSORS									
Type:									
Hermetic scroll		Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
Semi-Hermetic		Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional
Number		2	2	2	2	2	2	2	2
Refrigerant type		R-22	R-22	R-22	R-22	R-22	R-22	R-22	R-22
EVAPORATOR COIL									
Face area - sq. ft.		12.2	12.2	12.2	14.5	24.4	24.4	24.4	32.5
Rows of coils		2	3	4	5	3	4	5	4
Face velocity - FPM		221	295	369	331	262	328	369	369
REHEAT SECTION									
Electric		Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
kW		15	15	15	15	22.5	22.5	22.5	30
Capacity - Btu/hr		51,225	51,225	51,225	51,225	76,835	76,835	76,835	102,450
Hot gas		Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional
Capacity - Btu/hr		26,000	38,000	42,200	48,000	64,000	81,000	101,000	126,000
Steam		Optional	Optional	Optional	Optional	Optional	Optional	Optional	N/A
Capacity - Btu/hr	*Downflow*	105,500	115,000	121,000	126,000	90,000	210,000	230,000	N/A
	Upflow	60,000	65,000	69,000	72,000	108,000	120,000	130,000	N/A
Hot water		Optional	Optional	Optional	Optional	Optional	Optional	Optional	N/A
Capacity - Btu/hr	*Downflow*	70,000	81,000	86,000	90,000	130,000	145,000	160,000	N/A
	Upflow	34,300	44,800	47,500	49,400	74,200	82,000	90,700	N/A

AIR COOLED: Performance data at STANDARD airflow

MODEL NUMBER		*DAAD/U-06*	*DAAD/U-08*	*DAAD/U-10*	*DAAD/U-13*	*DAAD/U-16*	*DAAD/U-20*	*DAAD/U-26*	*DAAD/U-30*
HUMIDIFIER SECTION									
Steam generator		Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
Capacity lbs/hr (Adjustable)		10-30	10-30	10-30	10-30	10-30	10-30	10-30	10-30
kW		3.3-10.2	3.3-10.2	3.3-10.2	3.3-10.2	3.3-10.2	3.3-10.2	3.3-10.2	3.3-10.2
Steam grid		Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional
Capacity lbs/hr at 15 psi		31	31	31	31	31	31	31	31
FILTER SECTION*		(4 inch thick, 30% efficient, based on ASHRAE Std. 52-76)							
Quantity /size	*Downflow*	3/20x25	3/20x25	3/20x25	2/20x25	3/20x25	3/20x25	3/20x25	3/20x25
		-	-	-	2/16x25	2/16x25	2/16x25	2/16x25	4/16x25
	Upflow	2/20x25	2/20x25	2/20x25	3/20x25	2/20x25	2/20x25	2/20x25	2/20x25
		-	-	-	-	2/16x25	2/16x25	2/16x25	4/16x25
CONNECTION SIZES									
Liquid line - O.D. Copper (2 per unit)		1/2	1/2	1/2	5/8	5/8	5/8	7/8	7/8
Hot gas line - O.D. Copper (2 per unit)		1/2	5/8	5/8	3/4	3/4	3/4	7/8	7/8
Suction line* - O.D. Copper (2 per unit)		7/8	7/8	1 1/8	1 1/8	1 3/8	1 3/8	1 3/8	1 3/8
Condensate drain		3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4
Humidifier supply		1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4

NOTE: Refer to Operation and Maintenance manual for recommended pipe sizing between unit and condenser.

ELECTRICAL SECTION **Standard Motor**

Electrical data based on STANDARD unit: electric reheat - **YES**, steam generator - **YES** and STANDARD MOTOR.

208-230/3/60	FLA/MCA/MFS	56/69/70	61/75/80	71/83/90	74/86/90	100/123/125	114/139/150	124/149/150	156/189/200
460/3/60	FLA/MCA/MFS	26/32/35	29/36/40	35/40/45	38/43/50	47/58/60	52/63/70	66/74/90	74/89/100
575/3/60	FLA/MCA/MFS	21/25/30	23/29/30	28/32/35	28/33/35	37/45/50	47/53/60	53/60/70	60/72/80

Electrical data based on: electric reheat - **NO**, steam generator - **YES** and STANDARD MOTOR.

208-230/3/60	FLA/MCA/MFS	53/62/70	61/72/80	71/83/90	74/86/90	94/109/110	117/134/150	130/148/175	148/167/200
460/3/60	FLA/MCA/MFS	25/29/30	31/36/40	35/40/45	38/43/50	46/53/60	54/61/70	66/74/90	73/82/100
575/3/60	FLA/MCA/MFS	20/24/25	24/28/30	28/32/35	28/33/35	35/40/45	47/53/60	53/60/70	59/67/80

Electrical data based on: electric reheat - **YES**, steam generator - **NO** and STANDARD MOTOR.

208-230/3/60	FLA/MCA/MFS	56/69/70	61/75/80	67/82/90	69/84/90	100/123/125	114/139/150	124/149/150	156/189/200
460/3/60	FLA/MCA/MFS	26/32/35	29/36/40	32/39/40	33/41/45	47/58/60	52/63/70	59/72/80	74/89/100
575/3/60	FLA/MCA/MFS	21/25/30	23/29/30	28/32/35	28/33/35	37/45/50	47/53/60	53/60/70	60/72/80

Electrical data based on: electric reheat - **NO**, steam generator - **NO** and STANDARD MOTOR.

208-230/3/60	FLA/MCA/MFS	24/27/35	33/36/45	43/47/60	46/50/60	66/73/100	89/98/125	102/112/150	120/132/175
460/3/60	FLA/MCA/MFS	12/13/15	18/20/25	22/24/30	25/27/35	34/37/50	41/45/60	53/58/80	60/66/80
575/3/60	FLA/MCA/MFS	10/11/15	14/16/20	18/19/25	18/20/25	25/28/30	36/40/50	43/48/60	49/54/70

* Only applicable when compressors are in the condensing unit rather than evaporator section.

FLA - Full load amps
MCA - Minimum circuit ampacity (wire sizing amps)
MFS - Maximum over current protection device ampacity

AIR COOLED: Performance data at STANDARD airflow

MODEL NUMBER		*DAAD/U-06*	*DAAD/U-08*	*DAAD/U-10*	*DAAD/U-13*	*DAAD/U-16*	*DAAD/U-20*	*DAAD/U-26*	*DAAD/U-30*
ELECTRICAL SECTION		**Next Size Motor**							
Electrical data based on: electric reheat - **YES**, steam generator humidifier - **YES** and NEXT SIZE MOTOR.									
208-230/3/60	FLA/MCA/MFS	57/70/80	64/77/80	76/88/90	79/90/100	105/127/150	120/145/150	129/154/175	170/203/225
460/3/60	FLA/MCA/MFS	27/33/35	30/37/40	37/43/45	40/46/50	50/60/70	55/66/70	69/78/90	81/97/110
575/3/60	FLA/MCA/MFS	21/26/30	24/29/30	30/34/35	30/35/40	39/47/50	50/56/60	55/62/70	66/78/90
Electrical data based on: electric reheat - **NO**, steam generator humidifier - **YES** and NEXT SIZE MOTOR.									
208-230/3/60	FLA/MCA/MFS	54/63/70	64/74/80	76/88/90	79/90/100	99/113/125	124/140/150	135/153/175	163/182/200
460/3/60	FLA/MCA/MFS	26/30/35	32/37/40	37/43/45	40/46/50	49/56/60	57/64/70	69/78/90	80/89/100
575/3/60	FLA/MCA/MFS	21/24/25	25/29/30	30/34/35	30/35/40	37/42/50	50/56/60	55/62/70	65/73/80
Electrical data based on: electric reheat - **YES**, steam generator humidifier - **NO** and NEXT SIZE MOTOR.									
208-230/3/60	FLA/MCA/MFS	57/70/80	64/77/80	72/87/90	73/89/90	105/127/150	120/145/150	129/154/175	170/203/225
460/3/60	FLA/MCA/MFS	27/33/35	30/37/40	34/41/45	36/43/45	50/60/70	55/66/70	63/75/80	81/97/110
575/3/60	FLA/MCA/MFS	21/26/30	24/29/30	27/33/35	28/33/35	39/47/50	47/56/60	50/60/70	66/78/90
Electrical data based on: electric reheat - **NO**, steam generator humidifier - **NO** and NEXT SIZE MOTOR.									
208-230/3/60	FLA/MCA/MFS	25/28/35	35/39/50	48/52/60	50/55/70	71/78/100	96/105/125	107/117/150	134/146/175
460/3/60	FLA/MCA/MFS	13/14/15	19/21/25	25/27/35	27/30/40	36/40/50	44/48/60	56/62/80	67/73/90
575/3/60	FLA/MCA/MFS	10/11/15	15/16/20	20/21/25	20/22/25	27/30/40	40/43/50	45/49/60	55/60/70

FLA - full load amps MCA - Minimum circuit amps (wire size amps) MFS - Maximum overcurrent protection device amps

COMPRESSOR	*FLA -full load amps*							
208-230/3/60	13.3	13.5	17.3	18.6	28.8	37.8	41.0	47.4
460/3/60	7.4	7.4	9.0	10.3	14.7	17.2	21.8	23.7
575/3/60	5.8	5.8	7.1	7.4	10.8	15.5	17.3	19.6

CONDENSER	*Remote air cooled outdoor*							
Standard selection at 95° F ambient at sea level								
Evaporative model	DAAD/U-06	DAAD/U-08	DAAD/U-10	DAAD/U-13	DAAD/U-16	DAAD/U-20	DAAD/U-26	DAAD/U-30
Condenser model	DARC-06	DARC-09	DARC-11	DARC-15	DARC-17	DARC-21	DARC-28	DARC-30
Selection at 100° F ambient at sea level								
Evaporative model	DAAD/U-06	DAAD/U-08	DAAD/U-10	DAAD/U-13	DAAD/U-16	DAAD/U-20	DAAD/U-26	DAAD/U-30
Condenser model	DARC-07	DARC-11	DARC-15	DARC-17	DARC-21	DARC-24	DARC-30	DARC-40
Selection at 105° F ambient at sea level								
Evaporative model	DAAD/U-06	DAAD/U-08	DAAD/U-10	DAAD/U-13	DAAD/U-16	DAAD/U-20	DAAD/U-26	DAAD/U-30
Condenser model	DARC-11	DARC-15	DARC-15	DARC-21	DARC-24	DARC-30	DARC-40	DARC-50

(Note: Refer to pages 57 and 61 for electrical data on remote air cooled condensers.)

*** * * The following section has no reference to column headings * * ***

EVAPORATOR FAN MOTOR	*FLA - full load amps*						
Horsepower	1.0	1.5	2.0	3.0	5.0	7.5	10.0
208-230/3/60	3.6	4.8	6.0	8.4	14.8	20.0	25.0
460/3/60	1.8	2.8	3.0	4.2	6.6	10.1	14.0
575/3/60	1.4	2.0	2.5	3.3	5.3	8.6	10.0

AIR COOLED: Performance data at OPTIONAL airflow

MODEL NUMBER		*DAAD/U-06*	*DAAD/U-08*	*DAAD/U-10*	*DAAD/U-13*	*DAAD/U-16*	*DAAD/U-20*	*DAAD/U-26*	*DAAD/U-30*
CAPACITY in Btu/hr									
80° F/67° WB	Total	76,700	109,000	136,200	170,800	219,700	288,200	351,700	419,100
50% RH	Sensible	65,200	94,200	120,800	137,500	180,100	223,300	263,100	334,700
75° DB/62.5° WB	Total	70,000	99,800	126,100	158,100	201,400	266,900	323,800	387,600
50% RH	Sensible	63,400	92,100	118,500	135,200	176,200	219,900	258,600	329,000
75° DB/61° WB	Total	68,200	97,200	122,600	153,600	196,000	259,600	314,800	377,600
45% RH	Sensible	68,200	96,700	122,000	144,300	188,500	234,400	274,900	351,500
72° DB/60° WB	Total	67,000	95,100	120,600	150,600	191,900	254,200	308,600	370,300
50% RH	Sensible	62,200	89,800	115,800	132,200	172,100	215,100	253,300	322,100
72° DB/58.6° WB	Total	65,700	93,100	117,500	146,500	188,300	247,800	300,600	361,300
45% RH	Sensible	65,500	92,600	116,900	140,600	184,100	228,500	268,400	342,900
BLOWER SECTION									
Airflow - CFM		3,300	4,400	5,500	5,600	8,000	9,000	10,000	14,000
Standard motor - horsepower		1.5	3	5	5	5	7.5	7.5	3
External static pressure (E.S.P.) - inches of W.G.		0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Number of motors/fans		1/1	1/1	1/1	1/1	1/2	1/2	1/2	3/3
Maximum E.S.P.	*Downflow*	0.9	1.2	1.2	1.1	1.2	1.5	1.0	0.6
(Standard Motor)	*Upflow*	0.7	0.9	1.0	0.6	0.9	1.1	1.6	0.5
Maximum E.S.P.	*Downflow*	1.5	1.5	1.2	1.1	1.5	1.5	1.5	1.5
(Next Size Motor)	*Upflow*	1.5	1.5	0.9	1.0	1.5	1.5	1.5	1.5
Next size motor - horsepower		2	5	7.5	7.5	7.5	10	10	5
COMPRESSORS									
Type:									
Hermetic scroll		Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
Semi-hermetic		Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional
Number		2	2	2	2	2	2	2	2
Refrigerant type		R-22	R-22	R-22	R-22	R-22	R-22	R-22	R-22
EVAPORATOR COIL									
Face area - sq ft		12.2	12.2	12.2	14.5	24.4	24.4	24.4	32.5
Rows of coils		2	3	4	5	3	4	5	4
Face velocity - fpm		271	361	451	386	328	369	410	431
REHEAT SECTION									
Electric		Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
kW		15	15	15	15	22.5	22.5	22.5	30
Capacity - Btu/hr		51,225	51,225	51,225	51,225	76,835	76,835	76,835	102,450
Hot gas		Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional
Capacity - Btu/hr		26,000	38,000	42,200	48,000	64,000	81,000	101,000	126,000
Steam		Optional	Optional	Optional	Optional	Optional	Optional	Optional	N/A
Capacity - Btu/hr	*Downflow*	105,500	115,000	121,000	126,000	190,000	210,000	230,000	N/A
	Upflow	60,000	65,000	69,000	72,000	108,000	120,000	130,000	N/A
Hot water		Optional	Optional	Optional	Optional	Optional	Optional	Optional	N/A
Capacity - Btu/hr	*Downflow*	70,000	81,000	86,000	90,000	130,000	145,000	160,000	N/A
	Upflow	34,300	44,800	47,500	49,400	74,200	82,000	90,700	N/A

AIR COOLED: Performance data at OPTIONAL airflow

MODEL NUMBER		*DAAD/U-06*	*DAAD/U-08*	*DAAD/U-10*	*DAAD/U-13*	*DAAD/U-16*	*DAAD/U-20*	*DAAD/U-26*	*DAAD/U-30*
HUMIDIFIER SECTION									
Steam generator		Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
Capacity - lb/hr (Adjustable)		10-30	10-30	10-30	10-30	10-30	10-30	10-30	10-30
kW		3.3-10.2	3.3-10.2	3.3-10.2	3.3-10.2	3.3-10.2	3.3-10.2	3.3-10.2	3.3-10.2
Steam grid		Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional
Capacity - lb/hr at 15 psi		31	31	31	31	31	31	31	31
FILTER SECTION		***(4 inch thick, 30% efficient, based on ASHRAE Std. 52-76)***							
Quantity/Size	*Downflow*	3/20x25	3/20x25	3/20x25	2/20x25	3/20x25	3/20x25	3/20x25	3/20x25
		-	-	-	2/16x25	2/16x25	2/16x25	2/16x25	4/16x25
	Upflow	2/20x25	2/20x25	2/20x25	3/20x25	2/20x25	2/20x25	2/20x25	2/20x25
		-	-	-	-	2/16x25	2/16x25	2/16x25	4/16x25
CONNECTION SIZES									
Liquid line - O.D. Copper (2 per unit)		1/2	1/2	1/2	5/8	5/8	5/8	7/8	7/8
Hot gas line - O.D. Copper (2 per unit)		1/2	5/8	5/8	3/4	3/4	3/4	7/8	7/8
Suction line* - O.D. Copper (2 per unit)		7/8	7/8	1 1/8	1 1/8	1 3/8	1 3/8	1 3/8	1 3/8
Condensate drain		3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4
Humidifier supply		1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4

(Note: Refer to Operation and Maintenance manual for recommended pipe sizing between unit and condenser.)

ELECTRICAL SECTION — **Standard Motor**

Electrical data based on STANDARD unit: electric reheat - **YES**, steam generator humidifier - **YES**, and STANDARD MOTOR.

208-230/3/60	FLA/MCA/MFS	57/70/80	64/77/80	76/88/90	79/90/100	105/127/150	120/145/150	124/149/150	156/189/200
460/3/60	FLA/MCA/MFS	27/33/35	30/37/40	37/43/45	40/46/50	50/60/70	55/66/70	66/74/90	74/89/100
575/3/60	FLA/MCA/MFS	21/26/30	24/29/30	30/34/35	30/35/40	39/47/50	50/56/60	53/60/70	60/72/80

Electrical data based on: electrical reheat -**NO**, steam generator humidifier - **YES**, and STANDARD MOTOR.

208-230/3/60	FLA/MCA/MFS	54/63/70	64/74/80	76/88/90	79/90/100	99/113/125	124/140/150	130/148/175	148/167/200
460/3/60	FLA/MCA/MFS	26/30/35	32/37/40	37/43/45	40/46/50	49/56/60	57/64/70	66/74/90	73/82/100
575/3/60	FLA/MCA/MFS	21/24/25	25/29/30	30/34/35	30/35/45	37/42/50	50/56/60	53/60/70	59/67/80

Electrical data based on: electrical reheat -**YES**, steam generator humidifier - **NO**, and STANDARD MOTOR.

208-230/3/60	FLA/MCA/MFS	57/70/80	64/77/80	76/88/90	73/89/90	105/127/150	120/145/150	124/149/150	156/189/200
460/3/60	FLA/MCA/MFS	27/33/35	30/37/40	34/41/45	36/43/45	50/60/70	55/66/70	59/72/80	74/89/100
575/3/60	FLA/MCA/MFS	21/26/30	24/29/30	30/34/35	30/35/40	39/47/50	50/56/60	53/60/70	60/72/80

Electrical data based on: electrical reheat -**NO**, steam generator humidifier - **NO**, and STANDARD MOTOR.

208-230/3/60	FLA/MCA/MFS	25/28/35	35/39/50	48/52/60	50/55/70	71/78/100	96/105/125	102/112/150	120/132/175
460/3/60	FLA/MCA/MFS	13/14/15	19/21/25	25/27/35	27/30/40	36/40/50	44/48/60	53/58/80	60/66/80
575/3/60	FLA/MCA/MFS	10/11/15	15/16/20	20/21/25	20/22/25	27/30/40	40/43/50	43/48/60	49/54/70

* Only applicable when compressors are in the condensing unit rather than the evaporator section.

FLA - Full load amps
MCA - Minimum circuit amps (wire sizing amps)
MFS - Maximum overcurrent protection device amps

AIR COOLED: Performance data at OPTIONAL airflow

MODEL NUMBER		*DAAD/U-06*	*DAAD/U-08*	*DAAD/U-10*	*DAAD/U-13*	*DAAD/U-16*	*DAAD/U-20*	*DAAD/U-26*	*DAAD/U-30*
ELECTRICAL SECTION		**Next Size Motor**							
Electrical data based on: electric reheat - **YES**, steam generator humidifier - **YES**, and NEXT SIZE MOTOR.									
208-230/3/60	FLA/MCA/MFS	58/71/80	68/82/90	83/94/100	86/97/100	111/134/150	125/150/175	129/154/175	170/203/225
460/3/60	FLA/MCA/MFS	27/33/35	33/39/40	40/46/50	43/49/50	52/63/70	58/69/70	69/78/90	81/97/110
575/3/60	FLA/MCA/MFS	22/27/30	26/31/35	33/37/40	34/38/40	42/50/60	51/58/70	55/62/70	66/78/90
Electrical data based on: electric reheat - **NO**, steam generator humidifier - **YES**, and NEXT SIZE MOTOR.									
208-230/3/60	FLA/MCA/MFS	55/65/70	69/79/80	83/94/100	86/97/100	106/120/125	129/145/150	135/153/175	163/182/200
460/3/60	FLA/MCA/MFS	26/30/35	34/39/40	40/46/50	43/49/50	52/58/60	60/67/80	69/78/90	80/89/100
575/3/60	FLA/MCA/MFS	21/25/30	27/31/35	33/37/40	34/38/40	40/46/50	51/58/70	55/62/70	65/73/80
Electrical data based on: electric reheat - **YES**, steam generator humidifier - **NO**, and NEXT SIZE MOTOR.									
208-230/3/60	FLA/MCA/MFS	58/71/80	68/82/90	79/94/100	80/95/100	111/134/150	125/150/175	129/154/175	170/203/225
460/3/60	FLA/MCA/MFS	27/33/35	33/39/40	37/44/45	39/46/50	52/63/70	58/69/70	63/75/80	81/97/110
575/3/60	FLA/MCA/MFS	22/27/30	26/31/35	31/36/40	31/37/40	42/50/60	48/58/60	50/60/70	66/78/90
Electrical data based on: electric reheat - **NO**, steam generator humidifier - **NO**, and NEXT SIZE MOTOR.									
208-230/3/60	FLA/MCA/MFS	27/29/35	40/44/50	55/59/70	57/62/80	78/85/110	101/110/125	107/117/150	134/146/175
460/3/60	FLA/MCA/MFS	13/14/15	21/23/25	27/30/35	30/33/40	39/42/50	47/51/60	56/62/80	67/73/90
575/3/60	FLA/MCA/MFS	11/12/15	17/18/20	23/25/30	23/25/30	30/33/40	41/45/60	45/49/60	55/60/70

FLA - full load amps MCA - Minimum circuit amps (wire size amps) MFS - Maximum overcurrent protection device amps

COMPRESSOR	*FLA - full load amps*							
208-230/3/60	10.3	13.5	17.3	18.6	27.0	37.8	41.7	57.1
460/3/60	5.1	7.4	9.0	10.3	14.2	18.9	24.7	25.65
575/3/60	4.2	5.8	7.1	7.4	11.1	15.2	19.2	20.5

CONDENSER	*Remote air cooled outdoor*							
Standard selection at 95° F ambient and sea level								
Evaporator model	DAAD/U-06	DAAD/U-08	DAAD/U-10	DAAD/U-13	DAAD/U-16	DAAD/U-20	DAAD/U-26	DAAD/U-30
Condenser model	DARC-06	DARC-09	DARC-11	DARC-15	DARC-17	DARC-21	DARC-28	DARC-30
Selection at 100° F ambient and sea level								
Evaporator model	DAAD/U-06	DAAD/U-08	DAAD/U-10	DAAD/U-13	DAAD/U-16	DAAD/U-20	DAAD/U-26	DAAD/U-30
Condenser model	DARC-07	DARC-11	DARC-15	DARC-17	DARC-21	DARC-24	DARC-30	DARC-40
Selection at 105° F ambient and sea level								
Evaporator model	DAAD/U-06	DAAD/U-08	DAAD/U-10	DAAD/U-13	DAAD/U-16	DAAD/U-20	DAAD/U-26	DAAD/U-30
Condenser model	DARC-11	DARC-15	DARC-15	DARC-21	DARC-24	DARC-30	DARC-40	DARC-50

(NOTE: Refer to pages 57 and 61 for electrical data on remote air cooled condensers.)

*** * * The following section has no reference to column headings * * ***

EVAPORATOR FAN MOTOR	*FLA - full load amps*					
Horsepower	1.5	2.0	3.0	5.0	7.5	10.0
208-230/3/60	5.7	6.0	8.4	14.8	20.0	25.0
460/3/60	2.8	3.0	4.2	6.6	10.1	14.0
575/3/60	2.0	2.5	3.3	5.3	8.6	10.0

WATER COOLED: Performance data at STANDARD airflow

MODEL NUMBER		*DAWD/U-06*	*DAWD/U-08*	*DAWD/U-10*	*DAWD/U-13*	*DAWD/U-16*	*DAWD/U-20*	*DAWD/U-26*	*DAWD/U-30*
CAPACITY in BTU/hr									
80° F/67° WB	Total	78,000	110,600	139,100	174,000	221,400	296,200	359,700	429,600
50% RH	Sensible	60,700	85,800	109,800	128,800	162,800	214,700	254,300	315,200
75° DB/62.5°WB	Total	71,500	101,800	128,200	159,900	202,600	270,900	331,000	395,100
50% RH	Sensible	59,500	84,300	107,800	126,500	159,600	210,400	250,300	309,800
75° DB/61° WB	Total	69,700	100,000	124,400	156,100	196,600	263,500	321,800	384,800
45% RH	Sensible	63,600	89,900	114,900	134,600	169,400	223,300	265,100	329,300
72° DB/60° WB	Total	68,700	97,000	122,600	153,100	193,600	260,900	315,400	377,300
50% RH	Sensible	58,400	82,400	105,600	124,200	156,600	207,400	245,500	303,900
72° DB/58.6° WB	Total	67,300	94,600	119,500	149,800	188,800	252,900	307,300	368,100
45% RH	Sensible	62,300	87,600	112,300	131,800	165,900	218,800	259,100	321,900
BLOWER SECTION									
Airflow - CFM		2,700	3,600	4,500	4,800	6,400	8,000	9,000	12,000
Standard motor - horsepower		1	2	3	3	3	5	7.5	3
External static pressure (E.S.P.) - inches of W.G.		0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Number of motors/fans		1/1	1/1	1/1	1/1	1/2	1/2	1/2	3/3
Maximum E.S.P.	*Downflow*	0.8	1.0	1.2	0.7	1.0	1.2	1.5	1.5
(Standard Motor)	*Upflow*	0.7	0.9	1.0	0.6	0.9	1.1	1.5	1.5
Maximum E.S.P.	*Downflow*	0.9	1.5	1.5	1.5	1.4	1.5	1.5	1.5
(Next Size Motor)	*Upflow*	0.9	1.5	1.5	1.5	1.3	1.5	1.5	1.5
Next size motor - horsepower		1.5	3	5	5	5	7.5	10	5
COMPRESSORS									
Type:									
Hermetic Scroll		Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
Semi-Hermetic		Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional
Number		2	2	2	2	2	2	2	2
Refrigerant type		R-22	R-22	R-22	R-22	R-22	R-22	R-22	R-22
EVAPORATOR COIL									
Face area - sq ft		12.2	12.2	12.2	14.5	24.4	24.4	24.4	32.5
Rows of coils		2	3	4	5	3	4	5	4
Face velocity - fpm		221	295	369	331	262	328	369	369
REHEAT SECTION									
Electric		Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
kW		15	15	15	15	22.5	22.5	22.5	30
Capacity - Btu/hr		51,225	51,225	51,225	51,225	76,835	76,835	76,835	102,450
Hot gas		Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional
Capacity - Btu/hr		26,000	38,000	42,200	48,000	64,000	81,000	101,000	126,000
Steam		Optional	Optional	Optional	Optional	Optional	Optional	Optional	N/A
Capacity - Btu/hr	*Downflow*	105,500	115,000	121,000	126,000	190,000	210,000	230,000	N/A
	Upflow	60,000	65,000	69,000	72,000	108,000	120,000	130,000	N/A
Hot water		Optional	Optional	Optional	Optional	Optional	Optional	Optional	N/A
Capacity - Btu/hr	*Downflow*	70,000	81,000	86,000	90,000	130,000	145,000	160,000	N/A
	Upflow	34,300	44,800	47,500	49,400	74,200	82,000	90,700	N/A

WATER COOLED: Performance data at STANDARD airflow

MODEL NUMBER		*DAWD/U-06*	*DAWD/U-08*	*DAWD/U-10*	*DAWD/U-13*	*DAWD/U-16*	*DAWD/U-20*	*DAWD/U-26*	*DAWD/U-30*
HUMIDIFIER SECTION									
Steam generator		Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
Capacity in lb/hr (Adjustable)		10-30	10-30	10-30	10-30	10-30	10-30	10-30	10-30
kW		3.3-10.2	3.3-10.2	3.3-10.2	3.3-10.2	3.3-10.2	3.3-10.2	3.3-10.2	3.3-10.2
Steam grid		Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional
Capacity in lb/hr at 15 psi		31	31	31	31	31	31	31	31
FILTER SECTION		(4 inch thick, 30% efficient, based on ASHRAE Std. 52-76)							
Quantity/size	*Downflow*	3/20x25	3/20x25	3/20x25	2/20x25	3/20x25	3/20x25	3/20x25	3/20x25
		-	-	-	2/16x25	2/16x25	2/16x25	2/16x25	4/16x25
	Upflow	2/20x25	2/20x25	2/20x25	3/20x25	2/20x25	2/20x25	2/20x25	2/20x25
		-	-	-	-	2/16x25	2/16x25	2/16x25	4/16x25
CONDENSER WATER REQMNTS		(Maximum design water pressure 150 psi - high pressure valves optional.)							
Using 65°F EWT GPM/△P in psi		7.1/2.0	9.5/3.0	11.9/3.5	19.0/4.0	19.0/4.0	23.8/4.0	29.7/6.0	35.0/6.5
Using 75° F EWT GPM/△P in psi		11.1/3.0	14.8/3.5	18.6/4.0	29.7/4.5	29.7/4.5	37.1/4.5	46.4/7.0	52.0/8.0
Using 85°F EWT GPM/△P in psi`		15.8/4.0	21.0/4.0	26.2/5.0	42.0/7.0	42.0/7.0	52.5/7.0	62.6/10.5	72.0/12.0
CONNECTION SIZES									
Condenser water supply		1-5/8	1-5/8	1-5/8	1-5/8	2-1/8	2-1/8	2-1/8	2-1/8
Condenser water return		1-5/8	1-5/8	1-5/8	1-5/8	2-1/8	2-1/8	2-1/8	2-1/8
Condensate drain		3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4
Humidifier supply		1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4
ELECTRICAL SECTION		**Standard Motor**							
Electrical data based on STANDARD UNIT: electric reheat - **YES**, steam generator humidifier - **YES**, and STANDARD MOTOR.									
208-230/3/60	FLA/MCA/MFS	56/69/70	61/75/80	71/83/90	74/86/90	100/123/125	114/139/150	124/149/150	156/189/200
460/3/60	FLA/MCA/MFS	26/32/35	29/36/40	35/40/45	38/43/50	47/58/60	52/63/70	66/74/90	74/89/100
575/3/60	FLA/MCA/MFS	21/25/30	23/29/30	28/32/35	28/33/35	37/45/50	47/53/60	53/60/70	60/72/80
Electrical data based on: electric reheat - **NO**, steam generator humidifier - **YES**, and STANDARD MOTOR.									
208-230/3/60	FLA/MCA/MFS	53/62/70	61/72/80	71/83/90	74/86/90	94/109/125	117/134/150	130/148/175	148/167/200
460/3/60	FLA/MCA/MFS	25/29/30	31/36/40	35/40/45	38/43/50	46/53/60	54/61/70	66/74/90	73/82/100
575/3/60	FLA/MCA/MFS	20/24/25	24/28/30	28/32/35	28/33/35	35/40/45	47/53/60	53/60/70	59/67/80
Electrical data based on: electric reheat - **YES**, steam generator humidifier - **NO**, and STANDARD MOTOR.									
208-230/3/60	FLA/MCA/MFS	56/69/70	61/75/80	67/82/90	69/84/90	100/123/125	114/139/150	124/149/150	156/189/200
460/3/60	FLA/MCA/MFS	26/32/35	29/36/40	32/39/40	33/41/45	47/58/60	52/63/70	59/72/80	74/89/100
575/3/60	FLA/MCA/MFS	21/25/30	23/29/30	28/32/35	28/33/35	37/45/50	47/53/60	53/60/70	60/72/80
Electrical data based on: electric reheat - **NO**, steam generator humidifier - **NO**, and STANDARD MOTOR.									
208-230/3/60	FLA/MCA/MFS	24/27/35	33/36/45	43/47/60	46/50/60	66/73/100	89/98/125	102/112/150	120/132/175
460/3/60	FLA/MCA/MFS	12/13/15	18/20/25	22/24/30	25/27/35	34/37/50	41/45/60	53/58/80	60/66/80
575/3/60	FLA/MCA/MFS	10/11/15	14/16/20	18/19/25	18/20/25	25/28/35	36/40/50	43/48/60	49/54/70

FLA - Full load amps MCA - Minimum circuit amps (wire sizing amps) MFS - Maximum overcurrent protection device amps

WATER COOLED: Performance data at STANDARD airflow

MODEL NUMBER		*DAWD/U-06*	*DAWD/U-08*	*DAWD/U-10*	*DAWD/U-13*	*DAWD/U-16*	*DAWD/U-20*	*DAWD/U-26*	*DAWD/U-30*
ELECTRICAL SECTION		**Next Size Motor**							
Electrical data based on: electric reheat - **YES**, steam generator humidifier - **YES**, and NEXT SIZE MOTOR.									
208-230/3/60	FLA/MCA/MFS	57/70/80	64/77/80	76/88/90	79/90/100	105/127/125	120/145/150	129/154/175	170/203/225
460/3/60	FLA/MCA/MFS	27/33/35	30/37/40	37/43/45	40/46/50	50/60/70	55/66/70	69/78/90	81/97/110
575/3/60	FLA/MCA/MFS	21/26/30	24/29/30	30/34/35	30/35/40	39/47/50	50/56/60	55/62/70	66/78/90
Electrical data based on: electric reheat - **NO**, steam generator humidifier - **YES**, and NEXT SIZE MOTOR.									
208-230/3/60	FLA/MCA/MFS	54/63/70	64/74/80	76/88/90	79/90/100	99/113/125	124/140/150	135/153/175	163/182/200
460/3/60	FLA/MCA/MFS	26/30/35	32/37/40	37/43/45	40/46/50	49/56/60	57/64/70	69/78/90	80/89/100
575/3/60	FLA/MCA/MFS	21/24/25	25/29/30	30/34/35	30/35/40	37/42/50	50/56/60	55/62/70	65/73/80
Electrical data based on: electric reheat - **YES**, steam generator humidifier - **NO**, and NEXT SIZE MOTOR.									
208-230/3/60	FLA/MCA/MFS	57/70/80	64/77/80	72/87/90	73/89/90	105/127/150	120/145/150	129/154/175	170/203/225
460/3/60	FLA/MCA/MFS	27/33/35	30/37/40	34/41/45	36/43/45	50/60/70	55/66/70	63/75/80	81/97/110
575/3/60	FLA/MCA/MFS	21/26/30	24/29/30	27/33/35	28/33/35	39/47/50	47/56/60	50/60/70	66/78/90
Electrical data based on: electric reheat - **NO**, steam generator humidifier - **NO**, and NEXT SIZE MOTOR.									
208-230/3/60	FLA/MCA/MFS	25/28/35	35/39/50	48/52/60	50/55/70	71/78/100	96/105/125	107/117/150	134/146/175
460/3/60	FLA/MCA/MFS	13/14/15	19/21/25	25/27/35	27/30/40	36/40/50	44/48/60	56/62/80	67/73/90
575/3/60	FLA/MCA/MFS	10/11/15	15/16/20	20/21/25	20/22/25	27/30/40	40/43/50	45/49/60	55/60/70

FLA - Full load amps
MCA - Minimum circuit amps (wire sizing amps)
MFS - Maximum overcurrent protection device amps

COMPRESSOR	*FLA - full load amps*							
208-230/3/60	13.5	13.5	17.3	18.6	28.8	37.8	41.0	47.4
460/3/60	7.4	7.4	9.0	10.3	14.7	17.2	21.8	23.7
575/3/60	5.8	5.8	7.1	7.4	10.8	15.5	17.3	19.6

*** * * The following section has no reference to column headings * * ***

EVAPORATOR FAN MOTOR	*FLA - full load amps*						
Horsepower	1.0	1.5	2.0	3.0	5.0	7.5	10.0
208-230/3/60	3.6	4.8	6.0	8.4	14.8	20.0	25.0
460/3/60	1.8	2.8	3.0	4.2	6.6	10.1	14.0
575/3/60	1.4	2.0	2.5	3.3	5.3	8.6	10.0

** Units with Energy Saver or Auxiliary Chilled Water Coils have different filter quantities as those listed in this section. Refer to dimensional data sheets.*

WATER COOLED: Performance data at OPTIONAL airflow

MODEL NUMBER		*DAWD/U-06*	*DAWD/U-08*	*DAWD/U-10*	*DAWD/U-13*	*DAWD/U-16*	*DAWD/U-20*	*DAWD/U-26*	*DAWD/U-30*
CAPACITY in Btu/hr									
80° F/67° WB	Total	79,500	113,700	142,300	178,300	228,900	299,100	365,800	437,900
50% RH	Sensible	66,200	95,900	123,000	140,300	183,500	227,500	268,600	341,700
75° DB/62.5° WB	Total	73,100	104,500	131,700	165,000	209,900	277,000	336,800	403,000
50% RH	Sensible	64,800	93,900	120,700	138,100	179,600	224,200	264,200	335,400
75° DB/61° WB	Total	71,300	101,800	128,200	160,300	186,100	269,500	327,600	394,600
45% RH	Sensible	69,500	100,700	127,600	147,200	184,400	238,600	280,600	358,700
72° DB/60° WB	Total	70,000	99,000	125,600	156,200	201,300	265,400	321,000	386,900
50% RH	Sensible	63,500	91,900	117,900	134,600	176,100	220,100	258,900	329,300
72° DB/58.6°WB	Total	68,900	97,200	122,500	153,900	196,300	258,800	312,900	377,700
45% RH	Sensible	68,000	96,700	121,900	143,900	187,600	233,500	274,100	350,200
BLOWER SECTION									
Airflow - CFM		3,300	4,400	5,500	5,600	8,000	9,000	10,000	14,000
Standard motor - horsepower		1.5	3	5	5	5	7.5	7.5	3
External static pressure (E.S.P.) - inches of W.G.		0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Number of motors/fans		1/1	1/1	1/1	1/1	1/2	1/2	1/2	3/3
Maximum E.S.P.	*Downflow*	0.9	1.2	1.2	1.1	1.2	1.5	1.0	0.6
(Standard motor)	*Upflow*	0.7	0.9	1.0	0.6	0.9	1.1	1.6	0.5
Maximum E.S.P.	*Downflow*	1.5	1.5	1.2	1.1	1.5	1.5	1.5	1.5
(Next Size Motor)	*Upflow*	1.5	1.5	0.9	1.0	1.5	1.5	1.5	1.5
Next size motor - horsepower		2	5	7.5	7.5	7.5	10	10	5
COMPRESSORS									
Type:									
Hermetic Scroll		Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
Semi-Hermetic		Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional
Number		2	2	2	2	2	2	2	2
Refrigerant type		R-22	R-22	R-22	R-22	R-22	R-22	R-22	R-22
EVAPORATOR COIL									
Face area in sq ft		12.2	12.2	12.2	14.5	24.4	24.4	24.4	32.5
Rows of coils		2	3	4	5	3	4	5	4
Face velocity in fpm		271	361	451	386	328	369	410	431
REHEAT SECTION									
Electrical		Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
kW		15	15	15	15	22.5	22.5	22.5	30
Capacity - Btu/hr		51,225	51,225	51,225	51,225	76,835	76,835	76,835	102,450
Hot gas		Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional
Capacity - Btu/hr		26,000	38,000	42,200	48,000	64,000	81,000	101,000	126,000
Steam		Optional	Optional	Optional	Optional	Optional	Optional	Optional	N/A
Capacity - Btu/hr	*Downflow*	105,500	115,000	121,000	126,000	190,000	210,000	230,000	N/A
	Upflow	60,000	65,000	69,000	72,000	108,000	120,000	130,000	N/A
Hot water		Optional	Optional	Optional	Optional	Optional	Optional	Optional	N/A
Capacity - Btu/hr	*Downflow*	70,000	81,000	86,000	90,000	130,000	145,00	160,000	N/A
	Upflow	34,300	44,800	47,500	49,400	74,200	82,000	90,700	N/A

WATER COOLED: Performance data at OPTIONAL airflow

MODEL NUMBER		*DAWD/U-06*	*DAWD/U-08*	*DAWD/U-10*	*DAWD/U-13*	*DAWD/U-16*	*DAWD/U-20*	*DAWD/U-26*	*DAWD/U-30*
HUMIDIFIER SECTION									
Steam generator		Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
Capacity in lb/hr (Adjustable)		10-30	10-30	10-30	10-30	10-30	10-30	10-30	10-30
kW		3.3-10.2	3.3-10.2	3.3-10.2	3.3-10.2	3.3-10.2	3.3-10.2	3.3-10.2	3.3-10.2
Steam grid		Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional
Capacity in lb/hr at 15 psi		31	31	31	31	31	31	31	31
FILTER SECTION	*(4 inch thick, 30% efficient, based on ASHRAE Std. 52-76)*								
Quantity/Size	*Downflow*	3/20x25	3/20x25	3/20x25	2/20x25	3/20x25	3/20x25	3/20x25	3/20x25
		-	-	-	2/16x25	2/16x25	2/16x25	2/16x25	4/16x25
	Upflow	2/20x25	2/20x25	2/20x25	3/20x25	2/20x25	2/20x25	2/20x25	2/20x25
		-	-	-	-	2/16x25	2/16x25	2/16x25	4/16x25
CONDENSER WATER	*Requirements (Maximum design water pressure 150 psi - high pressure valves optional.)*								
Using 65° F EWT GPM/△P in psi		7.1/2.0	9.5/3.0	11.9/3.5	19.0/4.0	19.0/4.0	23.8/4	29.7/6.0	35.0/6.5
Using 75° F EWT GPM/△P in psi		11.1/3.0	14.8/3.5	18.6/4.0	29.7/4.5	29.7/4.5	37.1/4.5	46.4/7.0	52.0/8.0
Using 85° F EWT GPM/△P in psi		15.8/4.0	21.0/4.0	26.2/5.0	42.0/7.0	42.0/7.0	52.5/7.0	62.6/10.5	72.0/12.0
CONNECTION SIZES									
Condenser water supply		1-5/8	1-5/8	1-5/8	1-5/8	2-1/8	2-1/8	2-1/8	2-1/8
Condenser water return		1-5/8	1-5/8	1-5/8	1-5/8	2-1/8	2-1/8	2-1/8	2-1/8
Condensate drain		3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4
Humidifier supply		1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4
ELECTRICAL SECTION	**Standard Motor**								
Electrical data based on STANDARD unit: electric reheat - **YES**, steam generator humidifier - **YES**, and STANDARD MOTOR.									
208-230/3/60	FLA/MCA/MFS	57/70/80	64/77/80	76/88/90	79/90/100	105/127/150	120/145/150	124/149/150	156/189/200
460/3/60	FLA/MCA/MFS	27/33/35	30/37/40	37/43/45	40/46/50	50/60/70	55/66/70	6/74/90	74/89/100
575/3/60	FLA/MCA/MFS	21/26/30	24/29/30	30/34/35	30/35/40	39/47/50	50/56/60	53/60/70	60/72/80
Electrical data based on: electric reheat - **NO**, steam generator humidifier - **YES**, and STANDARD MOTOR.									
208-230/3/60	FLA/MCA/MFS	54/63/70	64/74/80	76/88/90	79/90/100	99/113/125	124/140/150	130/148/175	148/167/200
460/3/60	FLA/MCA/MFS	26/30/35	32/37/40	37/43/45	40/46/50	49/56/60	57/64/70	66/74/90	73/82/100
575/3/60	FLA/MCA/MFS	21/24/2	25/29/30	30/34/35	30/35/40	37/42/50	50/56/60	53/60/70	59/67/80
Electrical data based on: electric reheat - **YES**, steam generator humidifier - **NO**, and STANDARD MOTOR.									
208-230/3/60	FLA/MCA/MFS	57/70/80	64/77/80	72/87/90	73/89/90	105/127/150	120/145/150	124/149/150	156/189/200
460/3/60	FLA/MCA/MFS	27/33/35	30/37/40	34/41/45	36/43/45	50/60/70	55/66/70	59/72/80	74/89/100
575/3/60	FLA/MCA/MFS	21/26/30	24/29/30	30/34/35	30/35/40	39/47/50	50/56/60	53/60/70	60/72/80
Electrical data based on: electric reheat - **NO**, steam generator humidifier - **NO**, and STANDARD MOTOR.									
208-230/3/60	FLA/MCA/MFS	25/28/35	35/39/50	48/52/60	50/55/70	71/78/100	96/105/125	102/112/150	120/132/175
460/3/60	FLA/MCA/MFS	13/14/15	19/21/25	25/27/35	27/30/40	36/40/50	44/48/60	53/58/80	60/66/80
575/3/60	FLA/MCA/MFS	10/11/15	15/16/20	20/21/25	20/22/25	27/30/40	40/43/50	43/48/60	49/54/70

FLA - Full load amps MCA - Minimum circuit amps (wire size amps) MFS - Maximum overcurrent protection device amps

WATER COOLED: Performance data at OPTIONAL airflow

MODEL NUMBER		*DAWD/U-06*	*DAWD/U-08*	*DAWD/U-10*	*DAWD/U-13*	*DAWD/U-16*	*DAWD/U-20*	*DAWD/U-26*	*DAWD/U-30*
ELECTRICAL SECTION		**Next Size Motor**							
Electrical data based on: electric reheat - **YES**, steam generator humidifier - **YES**, and NEXT SIZE MOTOR.									
208-230/3/60	FLA/MCA/MFS	58/71/80	68/82/90	83/94/100	86/97/100	111/134/150	125/150/175	129/154/175	170/203/225
460/3/60	FLA/MCA/MFS	27/33/35	33/39/40	40/46/50	43/49/50	52/63/70	58/69/70	69/78/90	81/97/110
575/3/60	FLA/MCA/MFS	22/27/30	26/31/35	33/37/40	34/38/40	42/50/60	51/58/70	55/62/70	66/78/90
Electrical data based on: electric reheat - **NO**, steam generator humidifier - **YES**, and NEXT SIZE MOTOR.									
208-230/3/60	FLA/MCA/MFS	55/65/70	69/79/80	83/94/100	86/97/100	106/120/125	129/145/150	135/153/175	163/182/200
460/3/60	FLA/MCA/MFS	26/30/35	34/39/40	40/46/50	43/49/50	52/58/60	60/67/80	69/78/90	80/89/100
575/3/60	FLA/MCA/MFS	21/25/30	27/31/35	33/37/40	34/38/40	40/46/50	51/58/70	55/62/70	65/73/80
Electrical data based on: electric reheat - **YES**, steam generator humidifier - **NO**, and NEXT SIZE MOTOR.									
208-230/3/60	FLA/MCA/MFS	58/71/80	68/82/90	79/94/100	80/95/100	111/134/150	125/150/175	129/154/175	170/203/225
460/3/60	FLA/MCA/MFS	27/33/35	33/39/40	37/44/45	39/46/50	52/63/70	58/69/70	63/75/80	81/97/110
575/3/60	FLA/MCA/MFS	22/27/30	26/31/35	31/36/40	31/37/40	42/50/60	48/58/60	50/60/70	66/78/90
Electrical data based on: electric reheat - **NO**, steam generator humidifier - **NO**, and NEXT SIZE MOTOR.									
208-230/3/60	FLA/MCA/MFS	27/29/35	40/44/50	55/59/70	57/62/80	78/85/110	101/110/125	107/117/150	134/146/175
460/3/60	FLA/MCA/MFS	13/14/15	21/23/30	27/30/35	30/33/40	39/42/50	47/51/60	56/62/80	67/73/90
575/3/60	FLA/MCA/MFS	11/12/15	17/18/20	23/25/30	23/25/30	30/33/40	41/45/60	45/49/60	55/60/70

FLA - full load amps MCA - Minimum circuit amps (wire size amps) MFS - Maximum overcurrent protection device amps

COMPRESSOR	*FLA - full load amps*							
208-230/3/60	10.3	13.5	17.3	18.6	28.8	37.8	41.0	47.4
460/3/60	5.1	7.4	9.0	10.3	14.7	17.2	21.8	23.7
575/3/60	4.2	5.8	7.1	7.4	10.8	15.5	17.3	19.6

*** * * The following section has no reference to column headings * * ***

EVAPORATOR	***Fan motor FLA - full load amp***						
Horsepower	1.0	1.5	2.0	3.0	5.0	7.5	10.0
208-230/3/60	3.6	4.8	6.0	8.4	14.8	20.0	25.0
460/3/60	1.8	2.8	3.0	4.2	6.6	10.1	14.0
575/3/60	1.4	2.0	2.5	3.3	5.3	8.6	10.0

** Units with Energy Saver or Auxiliary Chilled Water Coils have different filter quantities as those listed in this section. Refer to dimensional data sheets.*

GLYCOL COOLED: Performance data at STANDARD airflow

MODEL NUMBER		*DAGD/U-06*	*DAGD/U-08*	*DAGD/U-10*	*DAGD/U-13*	*DAGD/U-16*	*DAGD/U-20*	*DAGD/U-26*	*DAGD/U-30*
CAPACITY in Btu/hr									
80° F/67° WB	Total	73,000	103,500	130,800	163,200	206,900	277,400	337,700	401,600
50% RH	Sensible	57,900	83,200	106,600	124,600	157,300	207,300	245,600	304,400
75° DB/62.5° WB	Total	66,900	95,300	120,500	150,800	190,400	255,000	310,700	369,100
50% RH	Sensible	56,700	81,600	104,600	122,600	154,400	203,600	241,400	298,800
75° DB/61° WB	Total	65,200	92,700	117,200	146,400	184,600	252,300	301,900	361,100
45% RH	Sensible	60,600	87,200	111,800	130,400	164,200	218,400	256,100	318,900
72° DB/60° WB	Total	64,100	90,700	114,500	143,600	180,800	247,100	296,000	354,100
50% RH	Sensible	55,600	79,700	102,100	119,900	150,900	201,200	236,600	293,500
72° DB/58.6° WB	Total	62,100	88,400	111,800	139,700	176,200	237,900	288,800	345,400
45% RH	Sensible	59,000	84,900	108,900	127,200	160,200	211,900	250,900	311,500
BLOWER SECTION									
Airflow - CFM		2,700	3,600	4,500	4,800	6,400	8,000	9,000	12,000
Standard motor - horsepower		1	2	3	3	3	5	7.5	3
External static pressure (E.S.P.) - inches of W.G.		0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Number of motors/fans		1/1	1/1	1/1	1/1	1/2	1/2	1/2	3/3
Maximum E.S.P.	*Downflow*	0.8	1.0	1.2	0.7	1.0	1.2	1.5	1.5
(Standard motor)	*Upflow*	0.7	0.9	1.0	0.6	0.9	1.1	1.5	1.5
Maximum E.S.P.	*Downflow*	0.9	1.5	1.5	1.5	1.4	1.5	1.5	1.5
(Next Size Motor)	*Upflow*	0.9	1.5	1.5	1.5	1.3	1.5	1.5	1.5
Next size motor - horsepower		1.5	3	5	5	5	7.5	10	5
COMPRESSORS									
Type:									
Hermetic Scroll		Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
Semi-Hermetic		Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional
Number		2	2	2	2	2	2	2	2
Refrigerant type		R-22	R-22	R-22	R-22	R-22	R-22	R-22	R-22
EVAPORATOR COIL									
Face are - sq ft		12.2	12.2	12.2	14.5	24.4	24.4	24.4	32.5
Rows of coils		2	3	4	5	3	4	5	4
Face velocity - fpm		221	295	369	331	262	328	369	369
REHEAT SECTION									
Electric		Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
kW		15	15	15	15	22.5	22.5	22.5	30
Capacity - Btu/hr		51,225	51,225	51,225	51,225	76,835	76,835	76,835	102,450
Hot gas		Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional
Capacity - Btu/hr		26,000	38,000	42,200	48,000	64,000	81,000	101,000	126,000
Steam		Optional	Optional	Optional	Optional	Optional	Optional	Optional	N/A
Capacity - Btu/hr	*Downflow*	105,500	115,000	121,000	126,000	190,000	210,000	230,000	N/A
	Upflow	60,000	65,000	69,000	72,000	108,000	120,000	130,000	N/A
Hot Water		Optional	Optional	Optional	Optional	Optional	Optional	Optional	N/A
Capacity - Btu/hr	*Downflow*	70,000	81,000	86,000	90,000	130,000	145,000	160,000	N/A
	Upflow	34,300	44,800	47,500	49,400	74,200	82,000	90,700	N/A

GLYCOL COOLED: Performance data at STANDARD airflow

MODEL NUMBER		*DAGD/U-06*	*DAGD/U-08*	*DAGD/U-10*	*DAGD/U-13*	*DAGD/U-16*	*DAGD/U-20*	*DAGD/U-26*	*DAGD/U-30*
HUMIDIFIER SECTION									
Steam generator		Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
Capacity - lb/hr (Adjustable)		10-30	10-30	10-30	10-30	10-30	10-30	10-30	10-30
kW		3.3-10.2	3.3-10.2	3.3-10.2	3.3-10.2	3.3-10.2	3.3-10.2	3.3-10.2	3.3-10.2
Steam grid		Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional
Capacity - lb/hr at 15 psi		31	31	31	31	31	31	31	31
FILTER SECTION		(4 inch thick, 30% efficient, based on ASHRAE Std. 52-76)							
Quantity/Size	*Downflow*	3/20x25	3/20x25	3/20x25	2/20x25	3/20x25	3/20x25	3/20x25	3/20x25
		-	-	-	2/16x25	2/16x25	2/16x25	2/16x25	4/16x25
	Upflow	2/20x25	2/20x25	2/20x25	3/20x25	2/20x25	2/20x25	2/20x25	2/20x25
		-	-	-	-	2/16x25	2/16x25	2/16x25	4/16x25
CONDENSER WATER		*Requirements: (Maximum design water pressure 150 psi - high pressure valves optional.)*							
Using 65° F EGT GPM/△P in psi		7.1/2.0	9.5/3.0	11.9/3.5	19.0/4.0	19.0/4.0	23.8/4.0	29.7/6.0	35.0/6.5
Using 75°F EGT GPM/△P in psi		11.1/3.0	14.8/3.5	18.6/4.0	29.7/4.5	29.7/4.5	37.1/4.5	46.4/7.0	52.0/8.0
Using 85° F EGT GPM/△P in psi		15.8/4.0	21.0/4.0	26.2/5.0	42.0/7.0	42.0/7.0	52.5/7.0	62.6/10.5	72.0/12.0
Using fluid cooler GPM/△P in psi		21.0/5.7	28.0/7.0	35.0/7.5	56.0/9.0	56.0/9.0	70.0/10.0	87.5/14.0	98.0/16.0
CONNECTION SIZES									
Condensate water supply		1-5/8	1-5/8	1-5/8	1-5/8	2-1/8	2-1/8	2-1/8	2-1/8
Condensate water return		1-5/8	1-5/8	1-5/8	1-5/8	2-1/8	2-1/8	2-1/8	2-1/8
Condensate drain		3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4
Humidifier supply		1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4
ELECTRICAL SECTION		**Standard Motor**							
Electrical data based on STANDARD UNIT, electric reheat - **YES**, steam generator humidifier - **YES**, and STANDARD MOTOR.									
208-230/3/60	FLA/MCA/MFS	56/69/70	61/75/80	71/83/90	74/86/90	100/123/125	114/139/150	124/149/150	156/189/200
460/3/60	FLA/MCA/MFS	26/32/35	29/36/40	35/40/45	38/43/50	47/58/60	52/63/70	66/74/90	74/89/100
575/3/60	FLA/MCA/MFS	21/25/30	23/29/30	28/32/35	28/33/35	37/45/50	47/53/60	53/60/70	60/72/80
Electrical data based on: electric reheat - **NO**, steam generator humidifier - **YES**, and STANDARD MOTOR.									
208-230/3/60	FLA/MCA/MFS	53/62/70	61/72/80	71/83/90	74/86/90	94/109/125	117/134/150	130/148/175	148/167/200
460/3/60	FLA/MCA/MFS	25/29/30	31/36/40	35/40/45	38/43/50	46/53/60	54/61/70	66/74/90	73/82/100
575/3/60	FLA/MCA/MFS	20/24/25	24/28/30	28/32/35	28/33/35	35/40/45	47/53/60	53/60/70	59/67/80
Electrical data based on: electric reheat - **YES**, steam generator humidifier - **NO**, and STANDARD MOTOR.									
208-230/3/60	FLA/MCA/MFS	56/69/70	61/75/80	67/82/90	69/84/90	100/123/125	114/139/150	124/149/150	156/189/200
460/3/60	FLA/MCA/MFS	26/32/35	29/36/40	32/39/40	33/41/45	47/58/60	52/63/70	59/72/80	74/89/100
575/3/60	FLA/MCA/MFS	21/25/30	23/29/30	28/32/35	28/33/35	37/45/50	47/53/60	53/60/70	60/72/80
Electrical data based on: electric reheat - **NO**, steam generator humidifier - **NO**, and STANDARD MOTOR.									
208-230/3/60	FLA/MCA/MFS	24/27/35	33/36/45	43/47/60	46/50/60	66/73/100	89/98/125	102/112/150	120/132/175
460/3/60	FLA/MCA/MFS	12/13/15	18/20/25	22/24/30	25/27/35	34/37/50	41/45/60	53/58/80	60/66/80
575/3/60	FLA/MCA/MFS	10/11/15	14/16/20	18/19/25	18/20/25	25/28/35	36/40/50	43/48/60	49/54/70

FLA - Full load amps MCA - Minimum circuit amps (wire sizing amps) MFS - Maximum overcurrent protection device amps

GLYCOL COOLED: Performance data at STANDARD airflow

MODEL NUMBER		*DAGD/U-06*	*DAGD/U-08*	*DAGD/U-10*	*DAGD/U-13*	*DAGD/U-16*	*DAGD/U-20*	*DAGD/U-26*	*DAGD/U-30*
ELECTRICAL SECTION		**Next Size Motor**							
Electrical data based on: electric reheat - **YES**, steam generator humidifier - **YES**, and NEXT SIZE MOTOR.									
208-230/3/60	FLA/MCA/MFS	57/70/80	64/77/80	76/88/90	79/90/100	105/127/150	120/145/150	129/154/175	170/203/225
460/3/60	FLA/MCA/MFS	27/33/35	30/37/40	37/43/45	40/46/50	50/60/70	55/66/70	69/78/90	81/97/110
575/3/60	FLA/MCA/MFS	21/26/30	24/29/30	30/34/35	30/35/40	39/47/50	50/56/60	55/62/70	66/78/90
Electrical data based on: electric reheat - **NO**, steam generator humidifier - **YES**, and NEXT SIZE MOTOR.									
208-230/3/60	FLA/MCA/MFS	54/63/70	64/74/80	76/88/90	79/90/100	99/113/125	124/140/150	135/153/175	163/182/200
460/3/60	FLA/MCA/MFS	26/30/35	32/37/40	37/43/45	40/46/50	49/56/60	57/64/70	69/78/90	80/89/100
575/3/60	FLA/MCA/MFS	21/24/25	25/29/30	30/34/35	30/35/40	37/42/50	50/56/60	55/62/70	65/73/80
Electrical data based on: electric reheat - **YES**, steam generator humidifier - **NO**, and NEXT SIZE MOTOR.									
208-230/3/60	FLA/MCA/MFS	57/70/80	64/77/80	72/87/90	73/89/90	105/127/150	120/145/150	129/154/175	170/203/225
460/3/60	FLA/MCA/MFS	27/33/35	30/37/40	34/41/45	36/43/45	50/60/70	55/66/70	63/75/80	81/97/110
575/3/60	FLA/MCA/MFS	21/26/30	24/29/30	27/33/35	28/33/35	39/47/50	47/56/60	50/60/70	66/78/90
Electrical data based on: electric reheat - **NO**, steam generator humidifier - **NO**, and NEXT SIZE MOTOR.									
208-230/3/60	FLA/MCA/MFS	25/28/35	35/39/50	48/52/60	50/55/70	71/78/100	96/105/125	107/117/150	134/146/175
460/3/60	FLA/MCA/MFS	13/14/15	19/21/25	25/27/35	27/30/40	36/40/50	44/48/60	56/62/80	67/73/90
575/3/60	FLA/MCA/MFS	10/11/15	15/16/20	20/21/25	20/22/25	27/30/40	40/43/50	45/49/60	55/60/70

FLA - Full load amps MCA - Minimum circuit amps (wire sizing amps) MFS - Maximum overcurrent protection device amps

COMPRESSOR	FLA - full load amps							
208-230/3/60	13.5	13.5	17.3	18.6	28.8	37.8	41.0	47.4
460/3/60	7.4	7.4	9.0	10.3	14.7	17.2	21.8	23.7
575/3/60	5.8	5.8	7.1	7.4	10.8	15.5	17.3	19.6

OUTDOOR FLUID COOLER

Standard selection at 95° F ambient and sea level								
Evaporative model	DAGD/U-06	DAGD/U-08	DAGD/U-10	DAGD/U-13	DAGD/U-16	DAGD/U-20	DAGD/U-26	DAGD/U-30
Fluid cooler model	DAFC-11	DAFC-17	DAFC-17	DAFC-21	DAFC-24	DAFC-37	DAFC-40	DAFC-50
Selection at 100° F ambient and sea level								
Evaporative model	DAGD/U-06	DAGD/U-08	DAGD/U-10	DAGD/U-13	DAGD/U-16	DAGD/U-20	DAGD/U-26	DAGD/U-30
Fluid cooler model	DAFC-17	DAFC-21	DAFC-21	DAFC-30	DAFC-30	DAFC-40	DAFC-50	DAFC-61

(NOTE: Refer to pages 59 and 62 for electrical data on fluid coolers.)

*** * * The following section has no reference to column headings * * ***

EVAPORATOR	FAN MOTOR - FLA - full load amps						
Horsepower	1.0	1.5	2.0	3.0	50	7.5	10.0
208-230/3/60	3.6	4.8	6.0	8.4	14.8	20.0	25.0
460/3/60	1.8	2.8	3.0	4.2	6.6	10.1	14.0
575/3/60	1.4	2.0	2.5	3.3	5.3	8.6	10.0

** Units with Energy Saver or Auxiliary Chilled Water Coils have different filter quantities as those listed in this section. Refer to dimensional data sheets.*

GLYCOL COOLED: Performance data at OPTIONAL airflow

MODEL NUMBER		*DAGD/U-06*	*DAGD/U-08*	*DAGD/U-10*	*DAGD/U-13*	*DAGD/U-16*	*DAGD/U-20*	*DAGD/U-26*	*DAGD/U-30*
CAPACITY in Btu/hr									
80° DB/67° WB	Total	74,700	106,600	134,400	168,000	214,400	280,000	343,500	410,600
50% RH	Sensible	64,500	93,400	120,100	136,500	178,100	220,200	260,000	331,500
75° DB/62.5° WB	Total	69,200	98,300	124,000	154,600	197,700	261,000	316,300	379,600
50% RH	Sensible	63,300	91,500	117,600	133,800	174,700	217,500	255,400	325,800
75° DB/61° WB	Total	66,900	95,000	119,800	150,100	192,400	253,800	307,500	367,900
45% RH	Sensible	66,600	94,600	119,200	142,800	187,000	231,900	271,700	347,400
72° DB/60° WB	Total	65,700	92,900	117,400	147,200	187,100	248,500	301,400	360,800
50% RH	Sensible	61,700	88,900	114,500	130,700	170,100	212,600	250,000	318,000
72° DB/58.6° WB	Total	64,500	90,600	114,400	143,200	182,400	242,200	293,500	352,000
45% RH	Sensible	64,200	90,200	113,800	139,100	181,500	226,000	265,200	338,800
BLOWER SECTION									
Airflow - CFM		3,300	4,400	5,500	5,600	8,000	9,000	10,000	14,000
Standard motor - horsepower		1.5	3	5	5	5	7.5	7.5	3
External static pressure (E.S.P.) - inches of W.G.		0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Number of motors/fans		1/1	1/1	1/1	1/1	1/2	1/2	1/2	3/3
Maximum E.S.P	*Downflow*	0.9	1.2	1.2	1.1	1.2	1.5	1.0	0.6
(Standard motor)	*Upflow*	0.7	0.9	1.0	0.6	0.9	1.1	1.5	0.5
Maximum E.S.P.	*Downflow*	1.5	1.5	1.2	1.1	1.5	1.5	1.5	1.5
(Next size motor)	*Upflow*	1.5	1.5	0.9	1.0	1.5	1.5	1.5	1.5
Next size motor - horsepower		2	5	7.5	7.5	7.5	10	10	5
COMPRESSORS									
Type:									
Hermetic Scroll		Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
Semi-Hermetic		Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional
Number		2	2	2	2	2	2	2	2
Refrigerant type		R-22	R-22	R-22	R-22	R-22	R-22	R-22	R-22
EVAPORATOR COIL									
Face area - sq ft		12.2	12.2	12.2	14.5	24.4	24.4	24.4	32.5
Rows of coils		2	3	4	5	3	4	5	4
Face velocity - fpm		271	361	451	386	328	369	410	431
REHEAT SECTION									
Electric		Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
kW		15	15	15	15	22.5	22.5	22.5	30
Capacity - Btu/hr		51,225	51,225	51,225	51,225	76,835	76,835	76,835	102,450
Hot gas		Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional
Capacity - Btu/hr		26,000	38,000	42,200	48,000	64,000	81,000	101,000	126,000
Steam		Optional	Optional	Optional	Optional	Optional	Optional	Optional	N/A
Capacity - Btu/hr	*Downflow*	105,500	115,000	121,000	126,000	190,000	210,000	230,000	N/A
	Upflow	60,000	65,000	69,000	72,000	108,000	120,000	130,000	N/A
Hot water		Optional	Optional	Optional	Optional	Optional	Optional	Optional	N/A
Capacity - Btu/hr	*Downflow*	70,000	81,000	86,000	90,000	130,000	145,000	160,000	N/A
	Upflow	34,300	44,800	47,500	49,400	74,200	82,000	90,700	N/A

GLYCOL COOLED: Performance data at OPTIONAL airflow

MODEL NUMBER		*DAGD/U-06*	*DAGD/U-08*	*DAGD/U-10*	*DAGD/U-13*	*DAGD/U-16*	*DAGD/U-20*	*DAGD/U-26*	*DAGD/U-30*
HUMIDIFIER SECTION									
Steam generator		Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
Capacity in lb/hr (Adjustable)		10-30	10-30	10-30	10-30	10-30	10-30	10-30	10-30
kW		3.3-10.2	3.3-10.2	3.3-10.2	3.3-10.2	3.3-10.2	3.3-10.2	3.3-10.2	3.3-10.2
Steam grid		Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional
Capacity in lb/hr at 15 psi		31	31	31	31	31	31	31	31
FILTER SECTION		(4 inch thick, 30% efficient, based onn ASHRAE Std. 52-76)							
Quantity/size	*Downflow*	3/20x25	3/20x25	3/20x25	2/20x25	3/20x25	3/20x25	3/20x25	3/20x25
		-	-	-	2/16x25	2/16x25	2/16x25	2/16x25	4/16x25
	Upflow	2/20x25	2/20x25	2/20x25	3/20x25	2/20x25	2/20x25	2/20x25	2/20x25
		-	-	-	-	2/16x25	2/16x25	2/16x25	4/16x25
CONDENSER WATER		Requirements (Maximum design water pressure 150 psi - high pressure valves optional.)							
Using 65° F EGT GPM/△P in psi		7.1/2.0	9.5/3.0	11.9/3.5	19.0/4.0	19.0/4.0	23.8/4.0	29.7/6.0	35.0/6.5
Using 75° F EGT GPM/△P in psi		11.1/3.0	14.8/3.5	18.6/4.0	29.7/4.5	29.7/4.5	37.1/4.5	46.4/7.0	52.0/8.0
Using 85° F EGT GPM/△P in psi		15.8/4.0	21.0/4.0	26.2/5.0	42.0/7.0	42.0/7.0	52.5/7.0	62.6/10.5	72.0/12.0
Using fluid cooler GPM/△P in psi		21.0/5.7	28.0/7.0	35.0/7.5	56.0/9.0	56.0/9.0	70.0/10.0	87.5/14.0	98.0/16.0
CONNECTION SIZES									
Condenser water supply		1-5/8	1-5/8	1-5/8	1-5/8	2-1/8	2-1/8	2-1/8	2-1/8
Condenser water return		1-5/8	1-5/8	1-5/8	1-5/8	2-1/8	2-1/8	2-1/8	2-1/8
Condensate drain		3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4
Humidifier supply		1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4
ELECTRICAL SECTION		**Standard Motor**							
Electrical data based on STANDARD unit, electric reheat - **YES**, steam generator humidifier - **YES,** and STANDARD MOTOR.									
208-230/3/60	FLA/MCA/MFS	57/70/80	64/77/80	76/88/90	79/90/100	105/127/150	120/145/150	124/149/150	156/189/200
460/3/60	FLA/MCA/MFS	27/33/35	30/37/40	37/43/45	40/46/50	50/60/70	55/66/70	66/74/90	74/89/100
575/3/60	FLA/MCA/MFS	21/26/30	24/29/30	30/34/35	30/35/40	39/47/50	50/56/60	53/60/70	60/72/80
Electrical data based on, electric reheat - **NO**, steam generator humidifier - **YES**, and STANDARD MOTOR.									
208-230/3/60	FLA/MCA/MFS	54/63/70	64/74/80	76/88/90	79/90/100	99/113/125	124/140/150	130/148/175	148/167/200
460/3/60	FLA/MCA/MFS	26/30/35	32/37/40	37/43/45	40/46/50	49/56/60	57/64/70	66/74/90	73/82/100
575/3/60	FLA/MCA/MFS	21/24/25	25/29/30	30/34/35	30/35/45	37/42/50	50/56/60	53/60/70	59/67/80
Electrical data based on, electric reheat - **YES**, steam generator humidifier - **NO**, and STANDARD MOTOR.									
208-230/3/60	FLA/MCA/MFS	57/70/80	64/77/80	72/87/90	73/89/90	105/127/150	120/145/150	124/149/150	156/189/200
460/3/60	FLA/MCA/MFS	27/33/35	30/37/40	34/41/45	36/43/45	50/60/70	55/66/70	59/72/80	74/89/100
575/3/60	FLA/MCA/MFS	21/26/30	24/29/30	30/34/35	30/35/40	39/47/50	50/56/60	53/60/70	60/72/80
Electrical data based on, electric reheat - **NO**, steam generator humidifier - **NO**, and STANDARD MOTOR.									
208-230/3/60	FLA/MCA/MFS	25/28/35	35/39/50	48/52/60	50/55/70	71/78/100	96/105/125	102/112/150	120/132/175
460/3/60	FLA/MCA/MFS	13/14/15	19/21/25	25/27/35	27/30/40	36/40/50	44/48/60	53/58/80	60/66/80
575/3/60	FLA/MCA/MFS	10/11/15	15/16/20	20/21/25	20/22/25	27/30/40	40/43/50	43/48/60	49/54/70

FLA - Full load amps MCA - Minimum circuit amps (wire sizing amps) MFS - Maximum overcurrent protection device amps

GLYCOL COOLED: Performance data at OPTIONAL airflow

MODEL NUMBER		*DAGD/U-06*	*DAGD/U-08*	*DAGD/U-10*	*DAGD/U-13*	*DAGD/U-16*	*DAGD/U-20*	*DAGD/U-26*	*DAGD/U-30*
ELECTRICAL SECTION		**Next size motor**							
Electrical data based on, electric reheat - **YES**, steam generator humidifier - **YES**, and NEXT SIZE MOTOR.									
208-230/3/60	FLA/MCA/MFS	58/71/80	68/82/90	83/94/100	86/97/100	111/134/150	125/150/175	129/154/175	170/203/225
460/3/60	FLA/MCA/MFS	27/33/35	33/39/40	40/46/50	43/49/50	52/63/70	58/69/70	69/78/90	81/97/110
575/3/60	FLA/MCA/MFS	22/27/30	26/31/35	33/37/40	34/38/40	42/50/60	51/58/70	55/62/70	66/78/90
Electrical data based on, electric reheat - **NO**, steam generator humidifier - **YES**, and NEXT SIZE MOTOR.									
208-230/3/60	FLA/MCA/MFS	55/65/70	69/79/80	83/94/100	86/97/100	106/120/125	129/145/150	135/153/175	163/182/200
460/3/60	FLA/MCA/MFS	26/30/35	34/39/40	40/46/50	43/49/50	52/58/60	60/67/80	69/78/90	80/89/100
575/3/60	FLA/MCA/MFS	21/25/30	27/31/35	33/37/40	34/38/40	40/46/50	51/58/70	55/62/70	65/73/80
Electrical data based on, electric reheat - **YES**, steam generator humidifier - **NO**, and NEXT SIZE MOTOR.									
208-230/3/60	FLA/MCA/MFS	58/71/80	68/82/90	79/94/100	80/95/100	111/134/150	125/150/175	129/154/175	170/203/225
460/3/60	FLA/MCA/MFS	27/33/35	33/39/40	37/44/45	39/46/50	52/63/70	58/69/70	63/75/80	81/97/110
575/3/60	FLA/MCA/MFS	22/27/30	26/31/35	31/36/40	31/37/40	42/50/60	48/58/60	50/60/70	66/78/90
Electrical data based on, electric reheat - **NO**, steam generator humidifier - **NO**, and NEXT SIZE MOTOR.									
208-230/3/60	FLA/MCA/MFS	27/29/35	40/44/50	55/59/70	57/62/80	78/85/110	101/110/125	107/117/150	134/146/175
460/3/60	FLA/MCA/MFS	13/14/15	21/23/30	27/30/35	30/33/40	39/42/50	47/51/60	56/62/80	67/73/90
575/3/60	FLA/MCA/MFS	11/12/15	17/18/20	23/25/30	23/25/30	30/33/40	41/45/60	45/49/60	55/60/70

FLA - Full load amps MCA - Minimum circuit amps (wire sizing amps) MFS - Maximum overcurrent protection device amps

COMPRESSOR	FLA - full load amps							
208-230/3/60	10.3	13.5	17.3	18.6	28.8	37.8	41.0	47.4
460/3/60	5.1	7.4	9.0	10.3	14.7	17.2	21.8	23.7
575/3/60	4.2	5.8	7.1	7.4	10.8	15.5	17.3	19.6

OUTDOOR FLUID COOLER

Standard selection at 95° F ambient at sea level

Evaporator model	DAGD/U-06	DAGD/U-08	DAGD/U-10	DAGD/U-13	DAGD/U-16	DAGD/U-20	DAGD/U-26	DAGD/U-30
Fluid cooler model	DAFC-11	DAFC-17	DAFC-17	DAFC-21	DAFC-24	DAFC-37	DAFC-40	DAFC-50

Selection at 100° F ambient at sea level

Evaporator model	DAGD/U-06	DAGD/U-08	DAGD/U-10	DAGD/U-13	DAGD/U-16	DAGD/U-20	DAGD/U-26	DAGD/U-30
Fluid cooler model	DAFC-17	DAFC-21	DAFC-21	DAFC-30	DAFC-30	DAFC-40	DAFC-50	DAFC-61

(NOTE: Refer to pages 59 and 62 for electrical data on fluid coolers.)

*** * * The following section has no reference to column headings * * ***

EVAPORATOR	*Fan motor FLA - full load amps*						
Horsepower	1.0	1.5	2.0	3.0	5.0	7.5	10.0
208-230/3/60	3.6	4.8	6.0	8.4	14.8	20.0	25.0
460/3/60	1.8	2.8	3.0	4.2	6.6	10.1	14.0
575/3/60	1.4	2.0	2.5	3.3	5.3	8.6	10.0

** Units with Energy Saver or Auxiliary Chilled Water Coils have different filter quantities as those listed in this section. Refer to dimensional data sheets.*

ENERGY SAVER-GLYCOL COOLED: Performance data at STANDARD airflow

CAPACITY in Btu/hr — **Downflow** units — *(based on 45° F entering fluid temperature with 40% glycol solution)*

MODEL NUMBER		*DAGD-06*	*DAGD-08*	*DAGD-10*	*DAGD-13*	*DAGD-16*	*DAGD-20*	*DAGD-26*	*DAGD-30*
75° DB/62.5° WB	Total	77,200	97,200	117,000	134,200	201,600	246,200	268,500	342,400
50% RH	Sensible	65,900	85,000	103,900	115,100	163,900	201,800	222,900	289,700
72° DB/60° WB	Total	67,200	84,800	102,300	116,400	173,400	211,900	231,500	296,800
50% RH	Sensible	61,400	79,300	96,800	107,000	151,800	186,900	206,600	269,100
Rows of coils		6	6	6	6	6	6	6	6
GPM		21.0	29.0	35.0	45.5	56.0	70.0	75.0	80.0
Pressure drop - psi		3.8	6.5	9.8	20.5	13.1	20.1	22.9	27.8

CAPACITY in Btu/hr — **Upflow** units — *(based on 45° F entering fluid temperature with 40% glycol solution)*

MODEL NUMBER		*DAGU-06*	*DAGU-08*	*DAGU-10*	*DAGU-13*	*DAGU-16*	*DAGU-20*	*DAGU-26*	*DAGU-30*
75° DB/62.5° WB	Total	71,900	90,900	108,100	122,500	198,100	240,100	261,200	347,900
50% RH	Sensible	62,800	80,900	97,800	107,700	160,800	196,700	216,600	288,200
72° DB/60° WB	Total	62,600	79,400	94,600	106,400	169,800	205,900	224,500	298,900
50% RH	Sensible	58,400	75,100	90,800	99,900	148,500	181,800	200,300	266,300
Rows of Coil		4	4	4	4	4	4	4	4
GPM		21.0	29.0	35.0	45.5	56.0	70.0	75.0	80.0
Pressure drop - psi		3.8	6.8	10.3	21.2	14.7	22.4	22.8	15.7

BLOWER SECTION

Airflow - CFM		2,700	3,600	4,500	4,800	6,400	8,000	9,000	12,000
Standard Motor - horsepower		1.5	3	5	5	5	7.5	10	5
External Static Pressure (E.S.P.) - inches of W.G.		0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Number of motors/fans		1/1	1/1	1/1	1/1	1/2	1/2	1/2	3/3
Maximum E.S.P.	*Downflow*	0.6	1.4	1.5	1.5	0.9	1.5	1.5	1.3
	Upflow	0.8	1.5	1.5	1.5	1.2	1.5	1.5	1.5

ELECTRICAL SECTION — **Standard Motor**

Electrical data based on STANDARD unit, electric reheat - **YES**, steam generator humidifier - **YES**, and STANDARD MOTOR.

208-230/3/60	FLA/MCA/MFS	57/70/80	64/77/80	76/88/90	79/90/100	105/127/150	120/145/150	129/154/175	170/203/225
460/3/60	FLA/MCA/MFS	27/33/35	30/37/40	37/43/45	40/46/50	50/60/70	55/66/70	69/78/90	81/97/110
575/3/60	FLA/MCA/MFS	21/26/30	24/29/30	30/34/35	30/35/40	39/47/50	50/56/60	55/62/70	66/78/90

Electric data based on: electric reheat - **NO**, steam generator humidifier - **YES**, and STANDARD MOTOR.

208-230/3/60	FLA/MCA/MFS	54/63/70	64/74/80	76/88/90	79/90/100	99/113/125	124/140/150	135/153/175	163/182/200
460/3/60	FLA/MCA/MFS	26/30/35	32/37/40	37/43/45	40/46/50	49/56/60	57/64/70	69/78/90	80/89/100
575/3/60	FLA/MCA/MFS	21/24/25	25/29/30	30/34/35	30/35/40	37/42/50	50/56/60	55/62/70	65/73/80

Electric data based on: electric reheat - **YES**, steam generator humidifier - **NO**, and STANDARD MOTOR.

208-230/3/60	FLA/MCA/MFS	57/70/80	64/77/80	72/87/90	73/89/90	105/127/150	120/145/150	129/154/175	170/203/225
460/3/60	FLA/MCA/MFS	27/33/35	30/37/40	34/41/45	36/43/45	50/60/70	55/66/70	63/75/80	81/97/110
575/3/60	FLA/MCA/MFS	21/26/30	24/29/30	27/33/35	28/33/35	39/47/50	47/56/60	50/60/70	66/78/90

Electric data based on: electric reheat - **NO**, steam generator humidifier - **NO**, and STANDARD MOTOR.

208-230/3/60	FLA/MCA/MFS	25/28/35	35/39/50	48/52/60	50/55/70	71/78/100	96/105/125	107/117/150	134/146/175
460/3/60	FLA/MCA/MFS	13/14/15	19/21/25	25/27/35	27/30/40	36/40/50	44/48/60	56/62/80	67/73/90
575/3/60	FLA/MCA/MFS	10/11/15	15/16/20	20/21/25	20/22/25	27/30/40	40/43/50	45/49/60	55/60/70

ENERGY SAVER-GLYCOL COOLED: Performance data at OPTIONAL airflow

CAPACITY in Btu/hr — **Downflow** units — *(based on 45° F entering fluid temperature with 40% glycol solution)*

MODEL NUMBER		*DAGD-06*	*DAGD-08*	*DAGD-10*	*DAGD-13*	*DAGD-16*	*DAGD-20*	*DAGD-26*	*DAGD-30*
75° DB/62.5° WB	Total	85,000	106,700	121,200	144,500	226,200	261,700	283,200	369,100
50% RH	Sensible	76,100	97,900	119,300	128,400	192,800	219,800	240,400	322,800
72° DB/60° WB	Total	74,60	94,000	113,200	126,200	196,400	226,300	245,300	322,100
50% RH	Sensible	71,000	91,200	110,400	119,400	179,300	204,100	223,300	300,300
Rows of coils		6	6	6	6	6	6	6	6
GPM		21.0	29.0	35.0	45.5	56.0	70.0	75.0	80.0
Pressure drop - psi		3.8	6.5	9.8	20.5	13.1	20.1	22.9	27.8

CAPACITY in BTU/hr — **Upflow** units — *(based on 45° F entering fluid temperature with 40% glycol solution)*

MODEL NUMBER		*DAGU-06*	*DAGU-08*	*DAGU-10*	*DAGU-13*	*DAGU-16*	*DAGU-20*	*DAGU-26*	*DAGU-30*
75° DB/62.5° WB	Total	79,000	99,600	118,200	131,700	222,500	255,300	275,600	376,200
50% RH	Sensible	72,100	92,500	111,500	119,500	188,600	213,900	233,300	320,900
72° DB/60° WB	Total	69,400	87,800	104,500	115,100	192,400	220,000	237,900	325,300
50% RH	Sensible	67,000	85,700	103,000	110,800	174,800	198,000	216,000	297,200
Rows of coils		4	4	4	4	4	4	4	4
GPM		21.0	29.0	35.0	45.5	56.0	70.0	75.0	80.0
Pressure drop - psi		3.8	6.8	10.3	21.2	14.7	22.4	22.8	15.7

BLOWER SECTION

Airflow - CFM		3,300	4,400	5,500	5,600	8,000	9,000	10,000	14,000
Standard motor - horsepower		2	3	5	5	5	7.5	10	5
External Static Pressure (E.S.P.) - inches of W.G.		0.5	0.5	*	*	0.5	0.5	0.5	0.5
Number of fans/motors		1/1	1/1	1/1	1/1	2/1	2/1	2/1	3/3
* Limited External Static Pressure (see below for maximum E.S.P.)									
Maximum E.S.P.	*Downflow*	1.2	1.5	0.4	0.2	1.5	1.5	0.8	1.1
	Upflow	1.4	1.5	0.5	0.6	1.5	1.5	1.0	1.5

ELECTRICAL SECTION — **Standard Motor**

Electrical data based on STANDARD unit, electric reheat - **YES**, steam generator humidifier - **YES**, and STANDARD MOTOR.									
208-230/3/60	FLA/MCA/MFS	58/71/80	64/77/80	76/88/90	79/90/100	105/127/150	120/145/150	129/154/175	170/203/225
460/3/60	FLA/MCA/MFS	27/33/35	30/37/40	37/43/45	40/46/50	50/60/70	55/66/70	69/78/90	81/97/110
575/3/60	FLA/MCA/MFS	22/27/30	24/29/30	30/34/35	30/35/40	39/47/50	50/56/60	55/62/70	66/78/90
Electrical data based on; electric reheat - **NO**, steam generator humidifier - **YES**, and STANDARD MOTOR.									
208-230/3/60	FLA/MCA/MFS	55/65/70	64/74/80	76/88/90	79/90/100	99/113/125	124/140/150	135/153/175	163/182/200
460/3/60	FLA/MCA/MFS	26/30/35	32/37/40	37/43/45	40/46/50	49/56/60	57/64/70	69/78/90	80/89/100
575/3/60	FLA/MCA/MFS	21/25/35	25/29/30	30/34/35	30/35/45	37/42/50	50/62/70	55/62/70	65/73/80
Electrical data based on; electric reheat - **YES**, steam generator humidifier - **NO**, and STANDARD MOTOR.									
208-230/3/60	FLA/MCA/MFS	57/70/80	64/77/80	72/87/90	73/89/90	105/127/150	120/145/150	129/154/175	170/203/225
460/3/60	FLA/MCA/MFS	27/33/35	30/37/40	34/41/45	36/43/45	50/60/70	55/66/70	63/75/80	81/97/110
575/3/60	FLA/MCA/MFS	22/27/30	24/29/30	30/34/35	30/35/40	39/47/50	47/56/60	50/60/70	66/78/90
Electrical data based on; electric reheat - **NO**, steam generator humidifier - **NO**, and STANDARD MOTOR.									
208-230/3/60	FLA/MCA/MFS	26/29/35	35/39/50	48/52/60	50/55/70	71/78/100	96/105/125	107/117/150	134/146/175
460/3/60	FLA/MCA/MFS	13/14/15	19/21/25	25/27/35	27/30/40	36/40/50	44/48/60	56/62/80	67/73/90
575/3/60	FLA/MCA/MFS	11/12/15	15/16/20	20/21/25	20/22/25	27/30/40	40/43/50	45/49/60	55/60/70

AUXILIARY CHILLED WATER COIL: Performance data at STANDARD airflow

CAPACITY in Btu/hr — **Downflow** units — *(based on 45° F Entering Fluid Temperature)*

MODEL NUMBER		*DA*D-06*	*DA*D-08*	*DA*D-10*	*DA*D-13*	*DA*D-16*	*DA*D-20*	*DA*D-26*	*DA*D-30*
75° DB/62.5° WB	Total	91,900	117,500	141,700	157,800	227,800	274,600	310,100	394,800
50% RH	Sensible	72,300	94,000	115,000	125,500	175,500	214,400	241,400	313,200
72° DB/60° WB	Total	78,700	100,800	121,800	134,800	193,700	234,000	263,700	337,600
50% RH	Sensible	66,800	86,900	106,400	115,800	161,200	197,300	221,900	288,900
Rows of coils		6	6	6	6	6	6	6	6
GPM		18.0	24.0	30.0	39.0	48.0	60.0	75.0	80.0
Pressure drop - psi		2.6	4.5	6.4	11.6	7.8	9.4	18.3	22.0

CAPACITY in Btu/hr — **Upflow** units — *(based on 45° F Entering Fluid Temperature)*

MODEL NUMBER		*DA*U-06*	*DA*U-08*	*DA*U-10*	*DA*U-13*	*DA*U-16*	*DA*U-20*	*DA*U-26*	*DA*U-30*
75° DB/62.5° WB	Total	83,900	106,500	127,600	141,800	217,800	261,600	294,600	353,400
50% RH	Sensible	68,100	88,000	106,900	116,500	169,800	206,300	231,700	291,000
72° DB/60° WB	Total	72,000	91,600	109,900	121,400	185,200	222,700	250,300	303,400
50% RH	Sensible	63,000	81,400	98,900	107,500	155,800	189,800	212,900	268,900
Rows of coils		4	4	4	4	4	4	4	4
GPM		18.0	24.0	30.0	39.0	48.0	60.0	75.0	80.0
Pressure drop - psi		2.7	4.6	7.2	11.8	9.9	15.1	18.3	13.8

* Insert “A” for air cooled, “W” for water cooled, or “G” for glycol cooled

BLOWER SECTION

Airflow - CFM		2,700	3,600	4,500	4,800	6,400	8,000	9,000	12,000
Standard motor - horsepower		1.5	13	5	5	5	7.5	10	5
External Static Pressure (E.S.P.) - inches of W.G.		0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Number of motors/fans		1/1	1/1	1/1	1/1	1/2	1/2	1/2	3/3
Maximum E.S.P.	*Downflow*	0.6	1.3	1.5	1.5	0.9	1.5	1.5	1.3
	Upflow	0.7	1.5	1.5	1.5	1.2	1.5	1.5	1.5

ELECTRICAL SECTION — **Standard Motor**

Electrical data based on STANDARD unit; electric reheat - **YES**, steam generator humidifier - **YES**, and STANDARD MOTOR.

208-230/3/60	FLA/MCA/MFS	57/70/80	64/77/80	76/88/90	79/90/100	105/127/150	120/145/150	129/154/175	170/203/225
460/3/60	FLA/MCA/MFS	27/33/35	30/37/40	37/43/45	40/46/50	50/60/70	55/66/70	69/78/90	81/97/110
575/3/60	FLA/MCA/MFS	21/26/30	24/29/30	30/34/35	30/35/40	39/47/50	50/56/60	55/62/70	66/78/90

Electrical data based on, electric reheat - **NO**, steam generator humidifier - **YES**, and STANDARD MOTOR.

208-230/3/60	FLA/MCA/MFS	54/63/70	64/74/80	76/88/90	79/90/100	99/113/125	124/140/150	135/153/175	163/182/200
460/3/60	FLA/MCA/MFS	26/30/35	32/37/40	37/43/45	40/46/50	49/56/60	57/66/70	69/78/90	80/89/100
575/3/60	FLA/MCA/MFS	21/24/25	25/29/30	30/34/35	30/35/40	37/42/50	50/56/60	55/62/70	65/73/80

Electrical data based on, electric reheat - **YES**, steam generator humidifier - **NO**, and STANDARD MOTOR.

208-230/3/60	FLA/MCA/MFS	57/70/80	64/77/80	72/87/90	73/89/90	105/127/150	120/145/150	129/154/175	170/203/225
460/3/60	FLA/MCA/MFS	27/33/35	30/37/40	34/41/45	36/43/45	50/60/70	55/66/70	63/75/80	81/97/110
575/3/60	FLA/MCA/MFS	21/26/30	24/29/30	30/34/35	28/33/35	39/47/50	47/56/60	50/60/70	66/78/90

Electrical data based on, electric reheat - **NO**, steam generator humidifier - **NO**, and STANDARD MOTOR.

208-230/3/60	FLA/MCA/MFS	25/28/35	35/39/50	48/52/60	50/55/70	71/78/100	96/105/125	107/117/150	134/146/175
460/3/60	FLA/MCA/MFS	13/14/15	19/21/25	25/27/35	27/30/40	36/40/50	44/48/60	56/62/80	67/73/90
575/3/60	FLA/MCA/MFS	10/11/15	15/16/20	20/21/25	20/22/25	27/30/40	40/43/50	45/49/60	55/60/70

AUXILIARY CHILLED WATER COIL: Performance data at OPTIONAL airflow

CAPACITY in Btu/hr — **Downflow** units (based on 45° F Entering Fluid Temperature)

MODEL NUMBER		*DA*D-06*	*DA*D-08*	*DA*D-10*	*DA*D-13*	*DA*D-16*	*DA*D-20*	*DA*D-26*	*DA*D-30*
75° DB/62.5° WB	Total	102,600	130,800	157,300	171,800	259,100	293,900	329,800	429,800
50% RH	Sensible	83,900	108,900	133,000	140,600	207,400	234,100	261,300	350,600
72° DB/60° WB	Total	88,600	113,200	136,300	147,600	222,400	251,500	281,500	369,600
50% RH	Sensible	77,900	101,200	123,500	130,100	191,700	216,100	240,800	324,400
Rows of coils		6	6	6	6	6	6	6	6
GPM		18.0	24.0	30.0	39.0	48.0	60.0	75.0	80.0
Pressure drop - psi		2.6	4.5	6.4	11.6	7.8	9.4	18.3	22.0

CAPACITY in Btu/hr — **Upflow** units (based on 45° F Entering Fluid Temperature)

MODEL NUMBER		*DA*U-06*	*DA*U-08*	*DA*U-10*	*DA*U-13*	*DA*U-16*	*DA*U-20*	*DA*U-26*	*DA*U-30*
75° DB/62.5° WB	Total	93,200	117,900	141,000	153,600	247,400	279,600	312,800	382,500
50% RH	Sensible	78,700	101,300	122,900	129,900	199,800	224,900	250,300	324,300
72° DB/60° WB	Total	80,700	102,300	122,400	132,300	212,000	239,100	266,700	330,400
50% RH	Sensible	73,000	94,000	113,900	120,200	184,500	207,300	230,400	300,200
Rows of coils		4	4	4	4	4	4	4	4
GPM		18.0	24.0	30.0	39.0	48.0	60.0	75.0	80.0
Pressure drop - psi		2.7	4.6	7.2	11.6	9.9	15.1	18.3	13.8

* Insert “A” for air cooled, “W” for water cooled, or “G” for glycol cooled

BLOWER SECTION

Airflow - CFM	3,300	4,400	5,500	5,600	8,000	9,000	10,000	14,000
Standard motor - horsepower	2	3	5	5	5	7.5	10	5
External Static Pressure (E.S.P.) - inches of W.G.	0.5	0.5	*	*	0.5	0.5	0.5	0.5
Number of motors/fans	1/1	1/1	1/1	1/1	1/2	1/2	1/2	3/3
Maximum E.S.P. *Downflow*	1.2	1.5	0.4	0.2	1.5	1.5	0.8	1.1
Upflow	1.4	1.5	0.5	0.6	1.5	1.5	1.0	1.5

* Limited External Static Pressure (see maximum E.S.P.)

ELECTRICAL SECTION — **Standard Motor**

Electrical data based on STANDARD unit; electric reheat - **YES**, steam generator humidifier - **YES**, and STANDARD MOTOR.

208-230/3/60	FLA/MCA/MFS	58/71/80	64/77/80	76/88/90	79/90/100	105/127/150	120/145/150	129/154/175	170/203/225
460/3/60	FLA/MCA/MFS	27/33/35	30/37/40	37/43/45	40/46/50	50/60/70	55/66/70	69/78/90	81/97/110
575/3/60	FLA/MCA/MFS	22/27/30	24/29/30	30/34/35	30/35/40	39/47/50	50/56/60	55/62/70	66/78/90

Electrical data based on, electric reheat - **NO**, steam generator humidifier - **YES**, and STANDARD MOTOR.

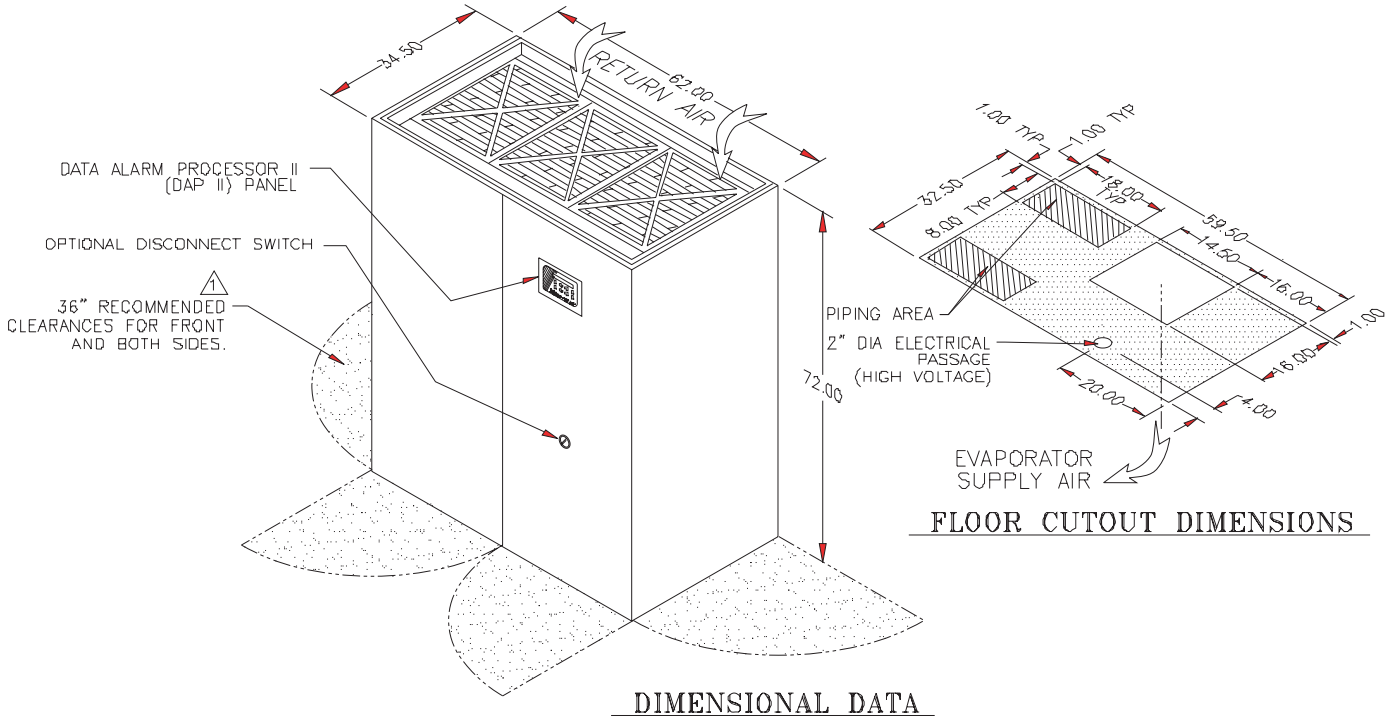
208-230/3/60	FLA/MCA/MFS	55/65/70	64/74/80	76/88/90	79/90/100	96/113/125	124/140/150	135/153/175	163/182/200
460/3/60	FLA/MCA/MFS	26/30/35	32/37/40	37/43/45	40/46/50	49/56/60	57/64/70	69/78/90	80/89/100
575/3/60	FLA/MCA/MFS	21/25/30	25/29/30	30/34/35	30/35/45	37/42/50	50/56/60	55/62/70	65/73/80

Electrical data based on, electric reheat - **YES**, steam generator humidifier - **NO**, and STANDARD MOTOR.

208-230/3/60	FLA/MCA/MFS	58/71/80	64/77/80	72/87/90	73/89/90	105/127/150	120/145/150	129/154/175	170/203/225
460/3/60	FLA/MCA/MFS	27/33/35	30/37/40	34/41/45	36/43/45	50/60/70	55/66/70	63/75/80	81/97/110
575/3/60	FLA/MCA/MFS	22/27/30	24/29/30	30/34/35	28/33/35	39/47/50	47/56/60	50/60/70	66/78/90

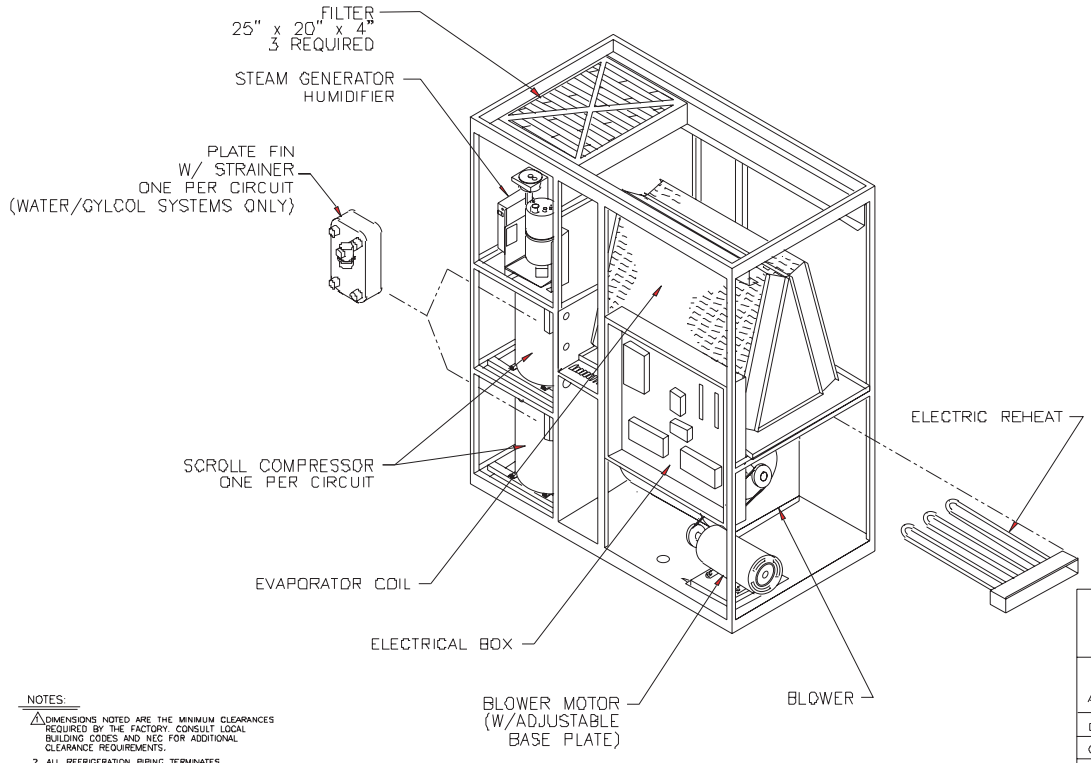
Electrical data based on, electric reheat - **NO**, steam generator humidifier - **NO**, and STANDARD MOTOR.

208-230/3/60	FLA/MCA/MFS	26/29/35	35/39/50	48/52/60	50/55/70	71/78/100	96/105/125	107/117/150	134/146/175
460/3/60	FLA/MCA/MFS	13/14/15	19/21/25	25/27/35	27/30/40	36/40/50	44/48/60	56/62/80	67/73/90
575/3/60	FLA/MCA/MFS	11/12/15	15/16/20	20/21/25	20/22/25	27/30/40	40/43/50	45/49/60	55/60/70



FLOOR CUTOUT DIMENSIONS

DIMENSIONAL DATA



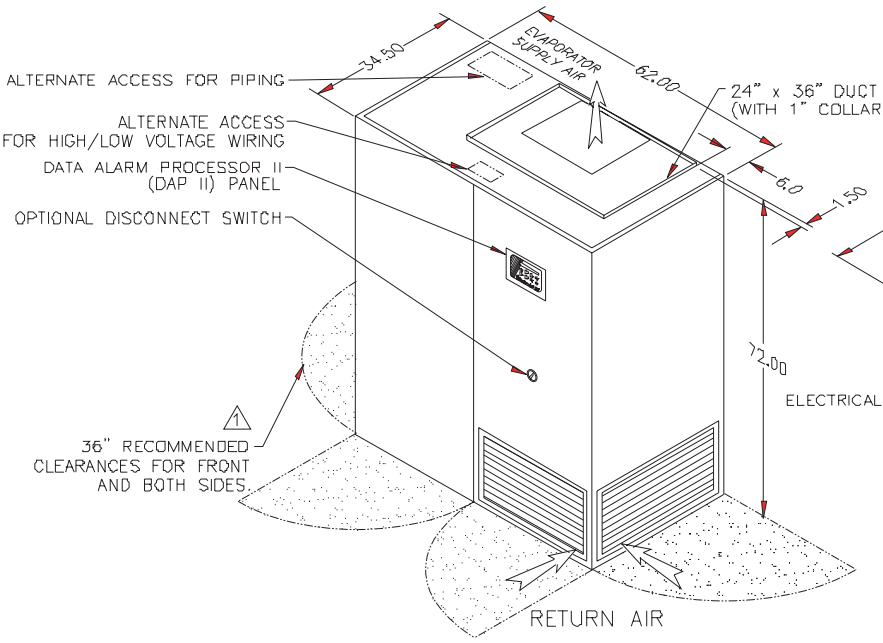
NOTES:

1. DIMENSIONS NOTED ARE THE MINIMUM CLEARANCES REQUIRED BY THE FACTORY. CONSULT LOCAL BUILDING CODES AND NEC FOR ADDITIONAL CLEARANCE REQUIREMENTS.
2. ALL REFRIGERATION PIPING TERMINATES INSIDE CABINET.
3. ALL COMPONENTS AND OPTIONS ARE NOT SHOWN.

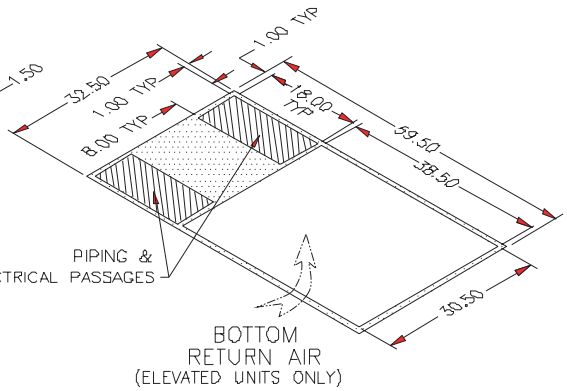
COMPONENT BREAKDOWN

REVISIONS			
REV	DESCRIPTION	DATE	BY
A	CHANGED COAXIAL CONDENSOR TO PLATE FIN	03-01-06	GS

6, 8, & 10 TON UNITS DATA AIRE DOWNFLOW	
DATA AIRE INC. A CONSTRUCTION SPECIALTIES INC. Company	
DRAWN BY : J.P.	SCALE : NONE
CHECKED BY :	DX 2-0DWNDX
DATE : 1-4-99	SHT. 1 OF 1
MATERIAL:	P/S NONE
2 DOOR DOWNFLOW DA UNIT PART OF	
6, 8, & 10 TON PART NO.	



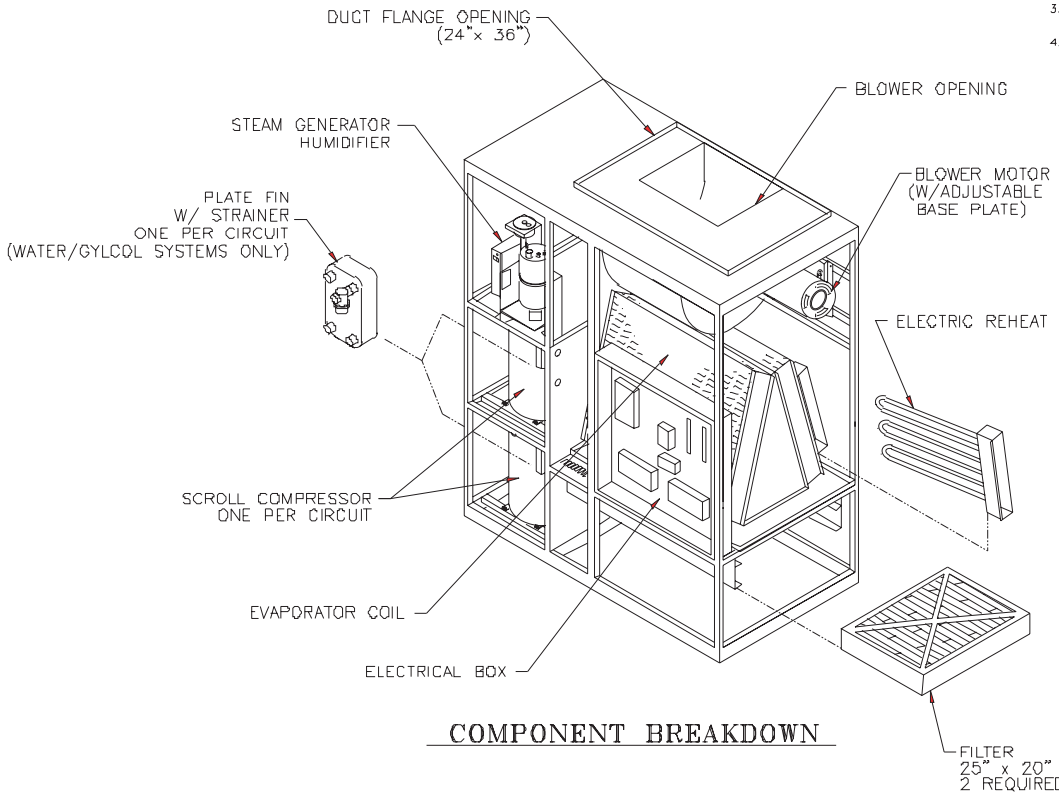
DIMENSIONAL DATA



FLOOR CUTOUT DIMENSIONS

NOTES:

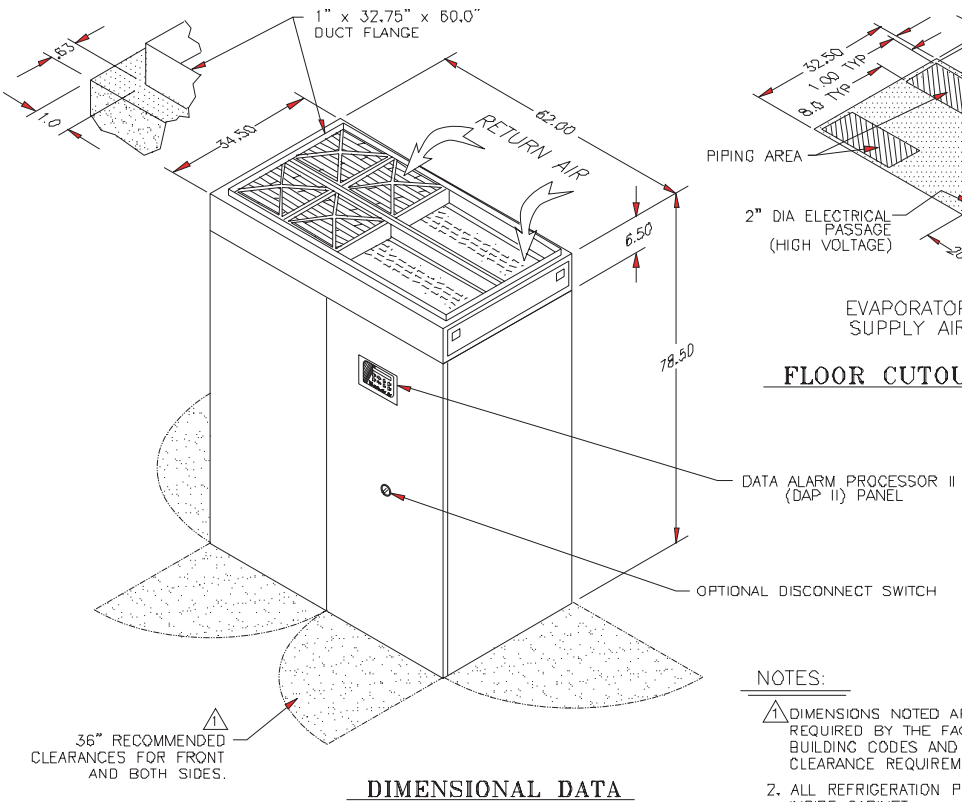
1. DIMENSIONS NOTED ARE THE MINIMUM CLEARANCES REQUIRED BY THE FACTORY. CONSULT LOCAL BUILDING CODES AND NEC FOR ADDITIONAL CLEARANCE REQUIREMENTS.
2. ALL REFRIGERATION PIPING TERMINATES INSIDE CABINET.
3. OPENINGS ARE NOT PROVIDED FOR ALTERNATE ACCESS LOCATIONS.
4. ALL COMPONENTS AND OPTIONS ARE NOT SHOWN.



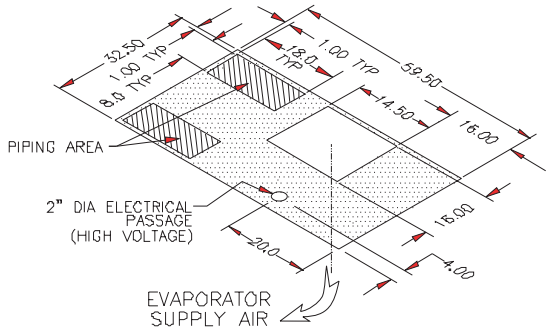
COMPONENT BREAKDOWN

REVISIONS			
REV	DESCRIPTION	DATE	BY
A	CHANGED SUPPLY AIR ARROW TO STRAIGHT CHANGED COAXIAL CONDENSOR TO PLATE FIN	03-01-06	GS

6, 8, & 10 TON UNITS DATA AIRE UPFLOW	
DATA AIRE INC. A CONSTRUCTION SPECIALTIES INC. Company	
DRAWN BY : G.SALDIVAR	SCALE : NONE
CHECKED BY :	DX 2-0UPDX_A
DATE : 03-01-06	SHT. 1 OF 1
MATERIAL:	P/S NONE
2 DOOR UPFLOW DA UNIT PART OF	
6, 8, & 10 TON PART NO.	



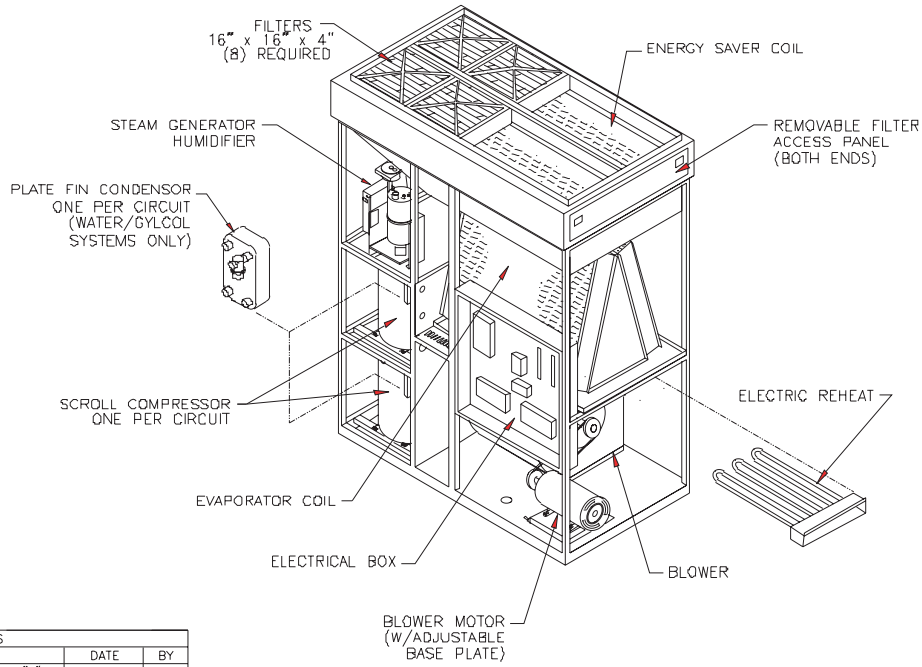
DIMENSIONAL DATA



FLOOR CUTOUT DIMENSIONS

NOTES:

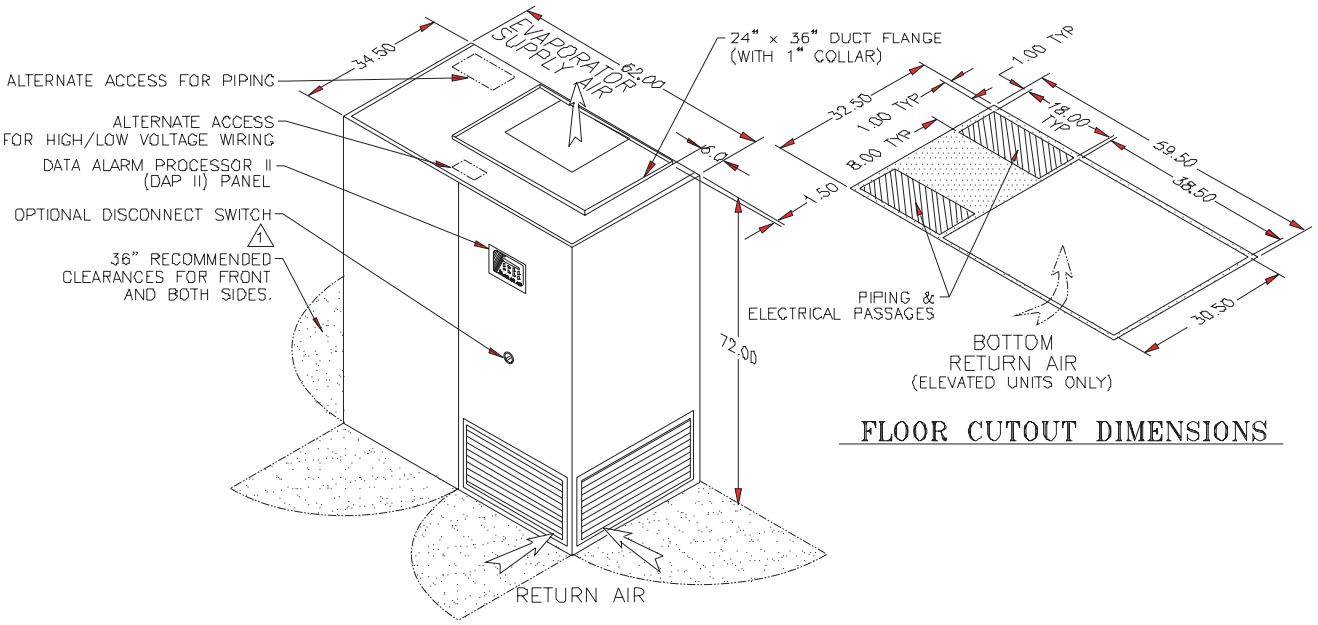
1. DIMENSIONS NOTED ARE THE MINIMUM CLEARANCES REQUIRED BY THE FACTORY. CONSULT LOCAL BUILDING CODES AND NEC FOR ADDITIONAL CLEARANCE REQUIREMENTS.
2. ALL REFRIGERATION PIPING TERMINATES INSIDE CABINET.
3. ALL COMPONENTS AND OPTIONS ARE NOT SHOWN.



COMPONENT BREAKDOWN

REVISIONS			
REV	DESCRIPTION	DATE	BY
A	CHANGED E/S COIL FROM SLAB TO "A", COAXIAL CONDENSOR TO PLATE FIN AND REDUCED UNIT HEIGHT BY 6.5"	01-10-06	GS
B	CHANGED E/S COIL FROM "A" TO SLAB INCREASED UNIT HEIGHT BY 6.5"	06-29-06	GS

6, 8, & 10 TON UNITS DATA AIRE DOWNFLOW WITH ENERGY SAVER COIL	
DATA AIRE INC. A CONSTRUCTION SPECIALTIES INC. Company	
DRAWN BY : G.SALDIVAR	SCALE : 1=52
CHECKED BY :	DX 2-00WDXE_B
DATE : 06-29-06	SHT. 1 OF 1
MATERIAL:	P/S NONE
2 DOOR DOWNFLOW DA UNIT PART OF	
6, 8, & 10 TON PART NO.	

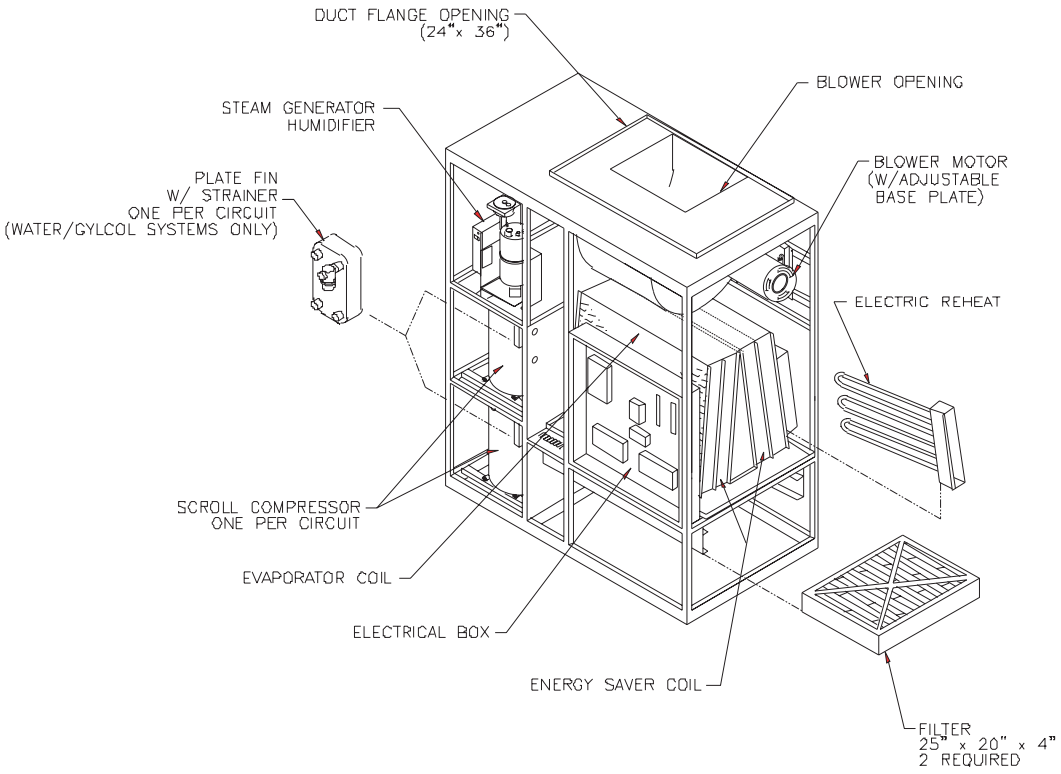


FLOOR CUTOUT DIMENSIONS

DIMENSIONAL DATA

NOTES:

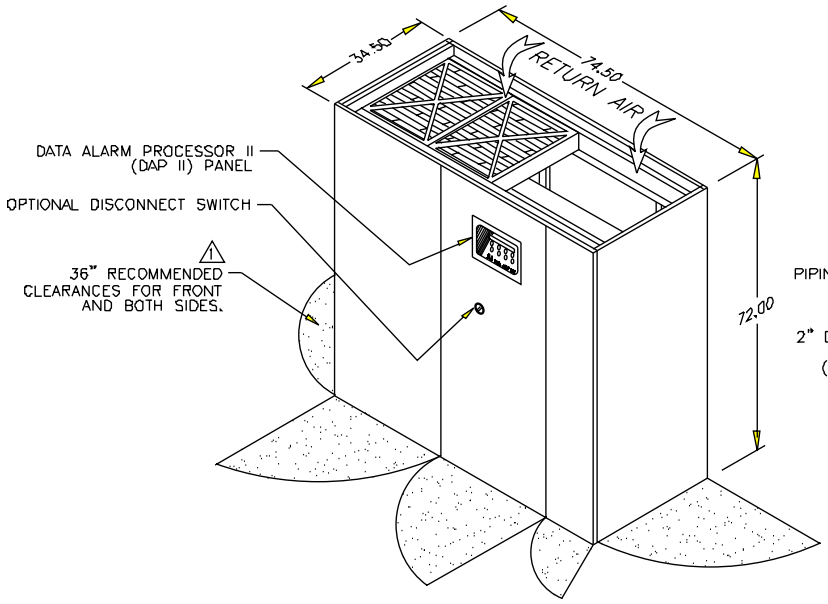
1. DIMENSIONS NOTED ARE THE MINIMUM CLEARANCES REQUIRED BY THE FACTORY. CONSULT LOCAL BUILDING CODES AND NEC FOR ADDITIONAL CLEARANCE REQUIREMENTS.
2. ALL REFRIGERATION PIPING TERMINATES INSIDE CABINET.
3. OPENINGS ARE NOT PROVIDED FOR ALTERNATE ACCESS LOCATIONS.
4. ALL COMPONENTS AND OPTIONS ARE NOT SHOWN.

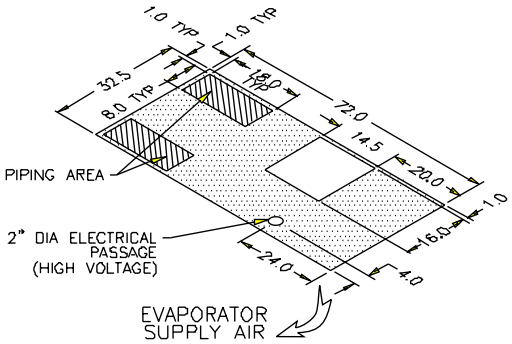


COMPONENT BREAKDOWN

REVISIONS			
REV	DESCRIPTION	DATE	BY
A	CHANGED SUPPLY AIR ARROW TO STRAIGHT CHANGED COAXIAL CONDENSOR TO PLATE FIN	03-01-06	GS

6, 8, & 10 TON UNITS DATA AIRE UPFLOW WITH ENERGY SAVER COIL	
DATA AIRE INC. A CONSTRUCTION SPECIALTIES INC. Company	
DRAWN BY : G.SALDIVAR	SCALE : NONE
CHECKED BY :	DX 2-0UPDXE_A
DATE : 03-01-06	SHT. 1 OF 1
MATERIAL:	P/S NONE
2 DOOR UPFLOW DA UNIT PART OF	
6, 8, & 10 TON PART NO.	





FLOOR CUTOUT DIMENSIONS

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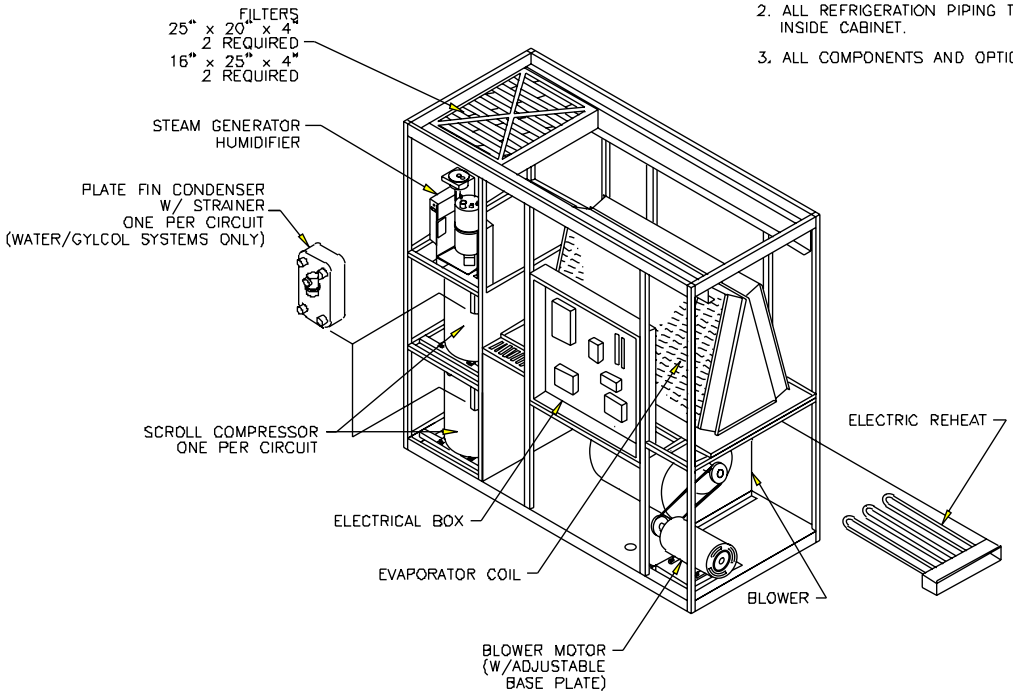
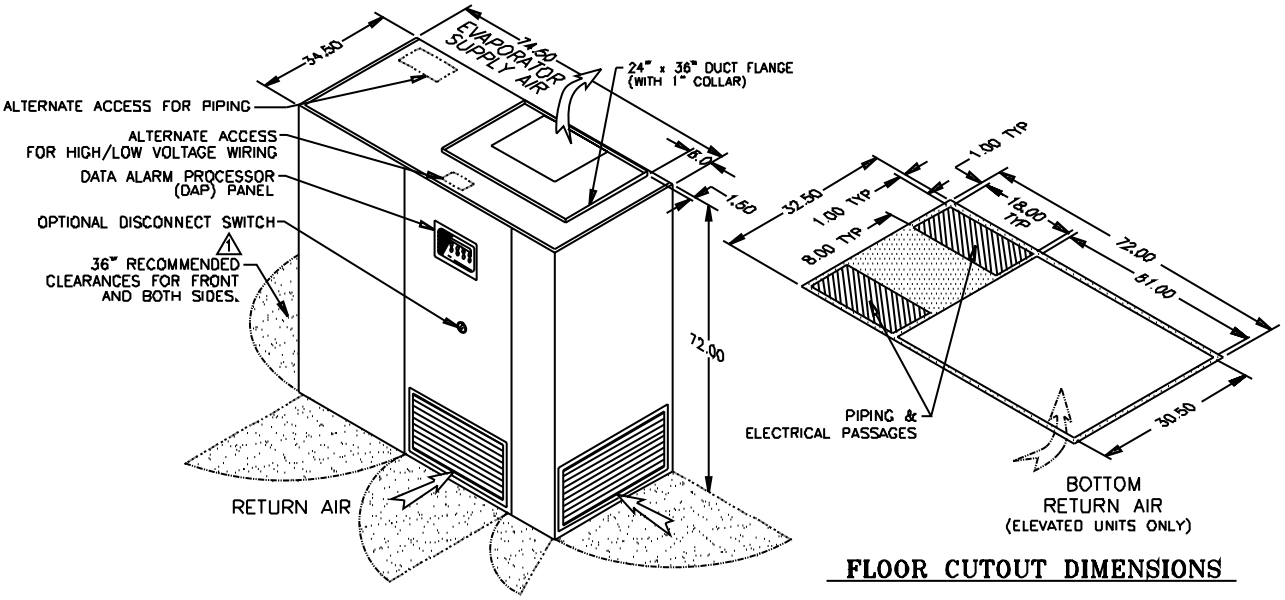


COMPONENT BREAKDOWN



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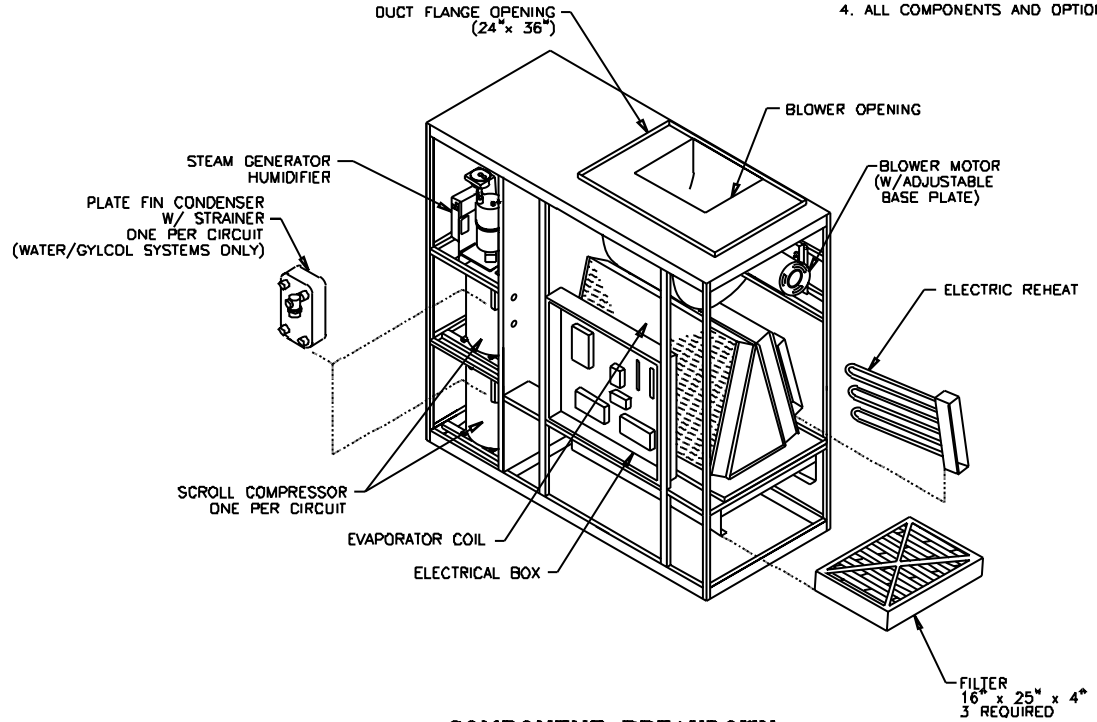
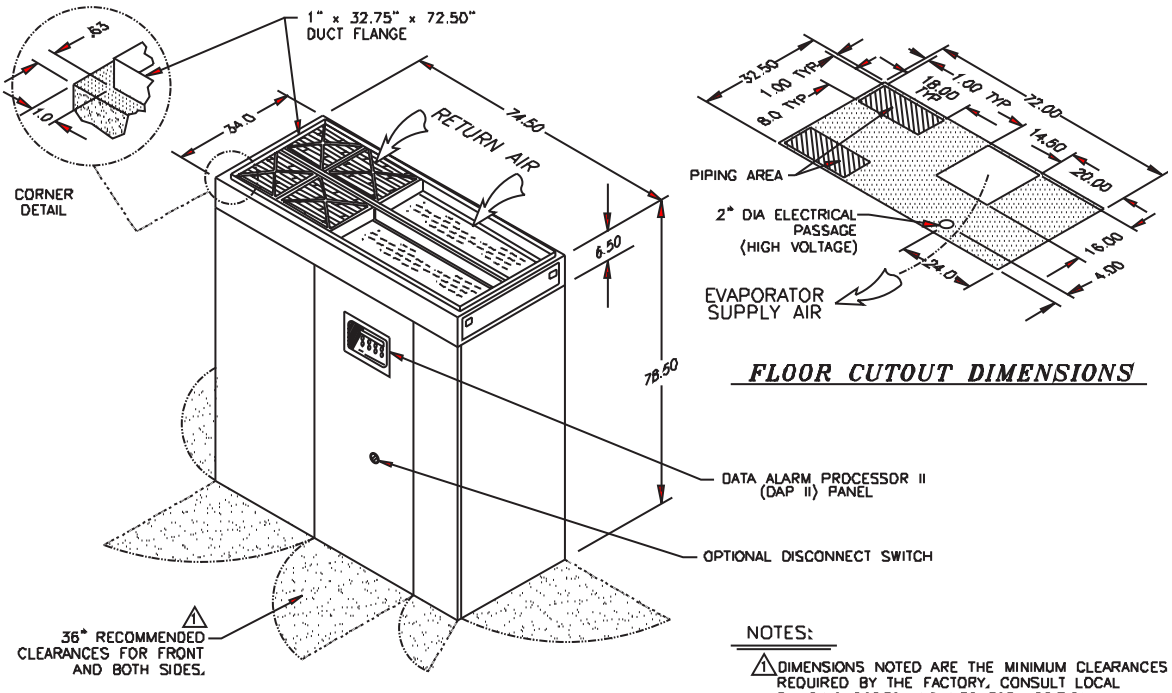


COMPONENT BREAKDOWN



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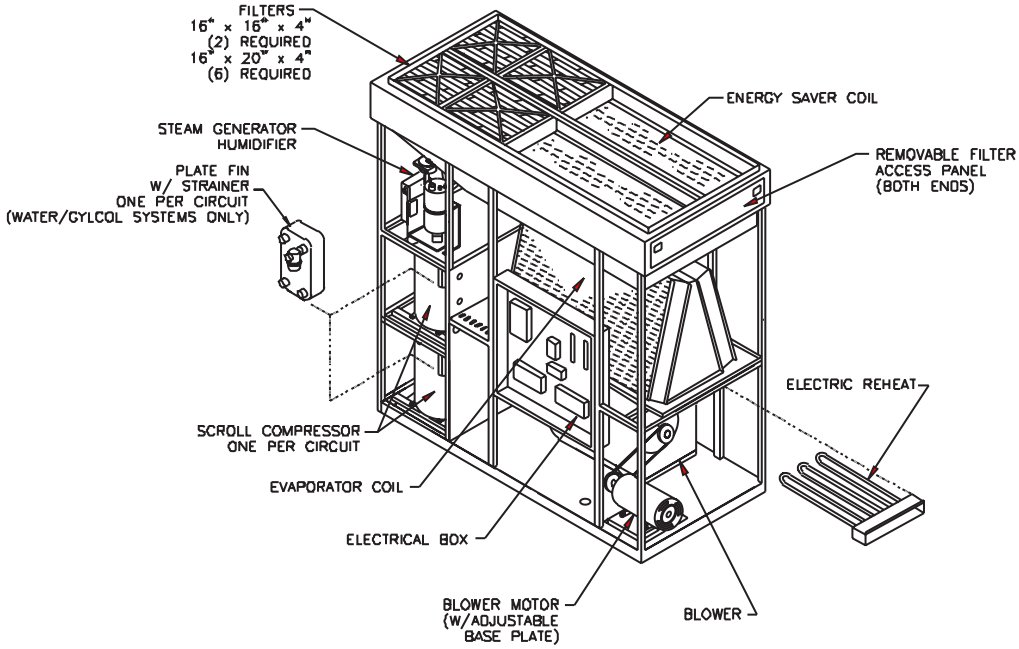

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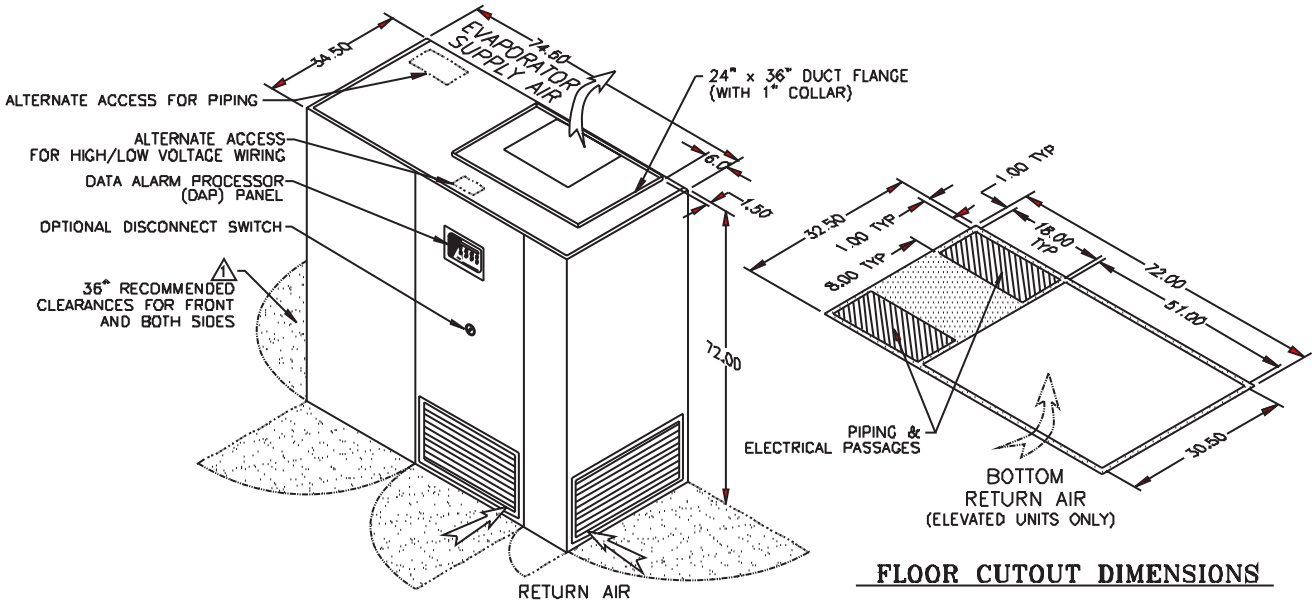

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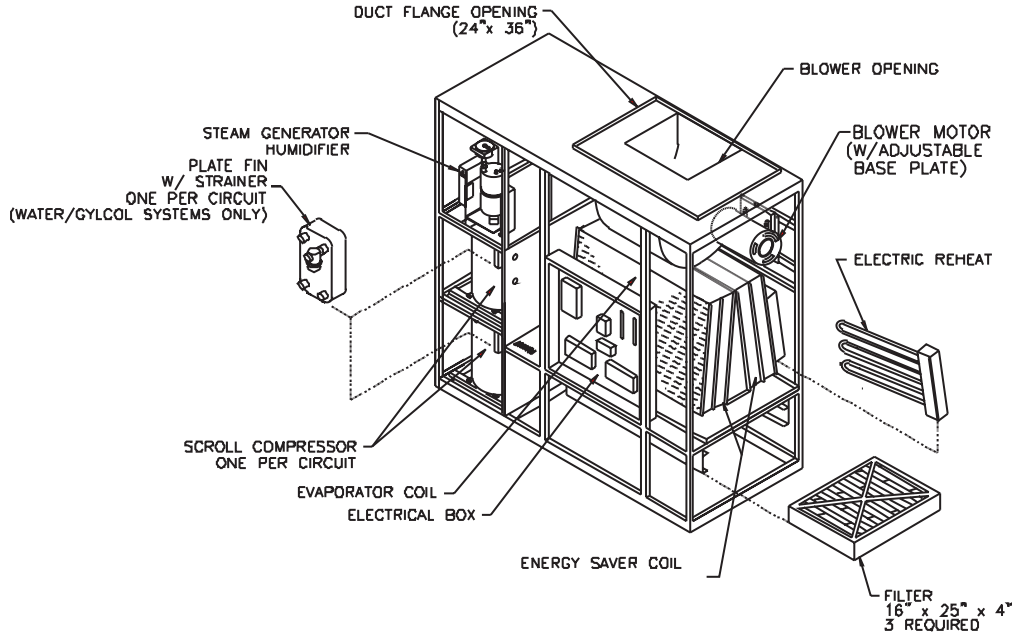

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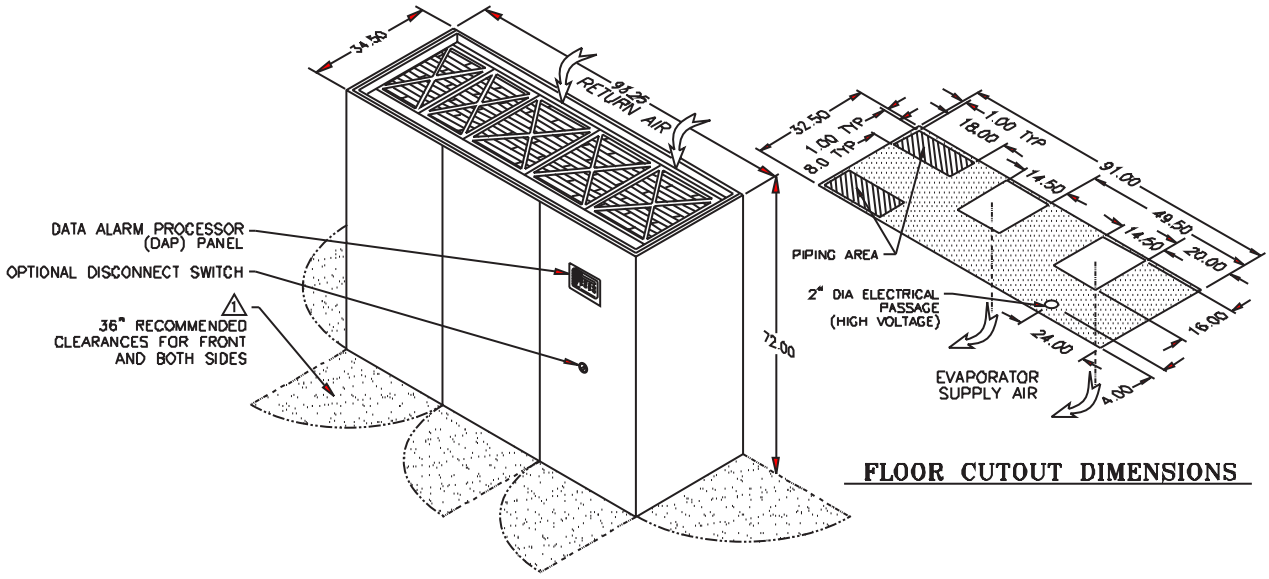

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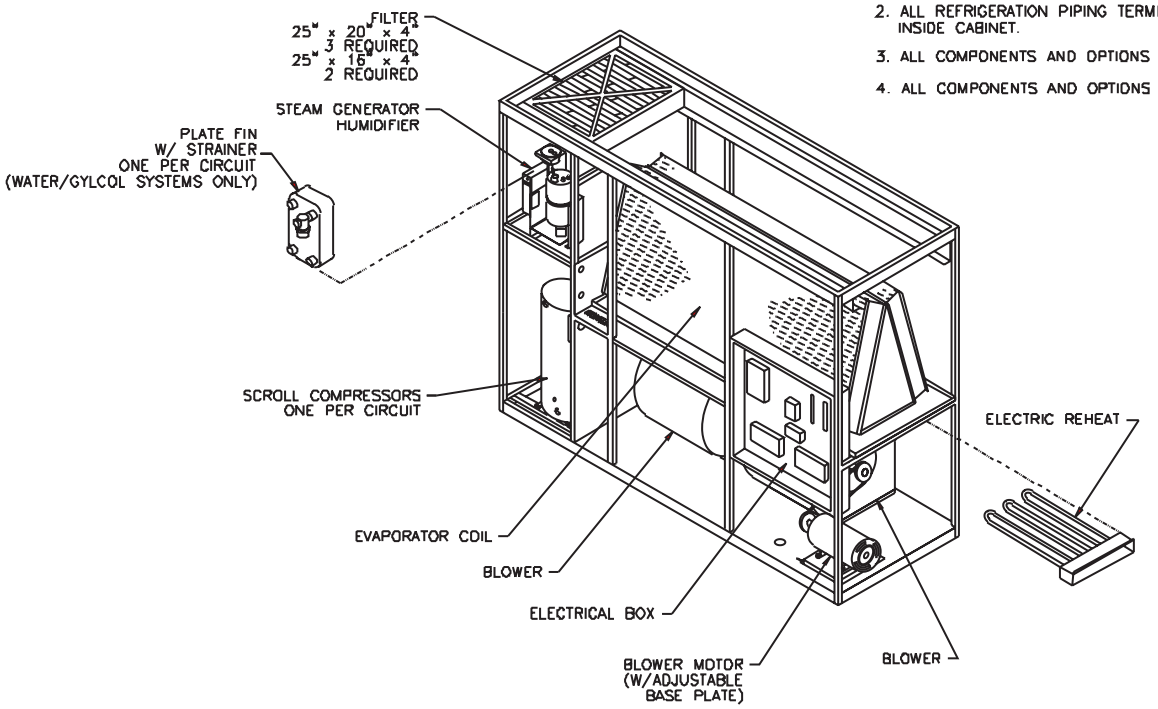

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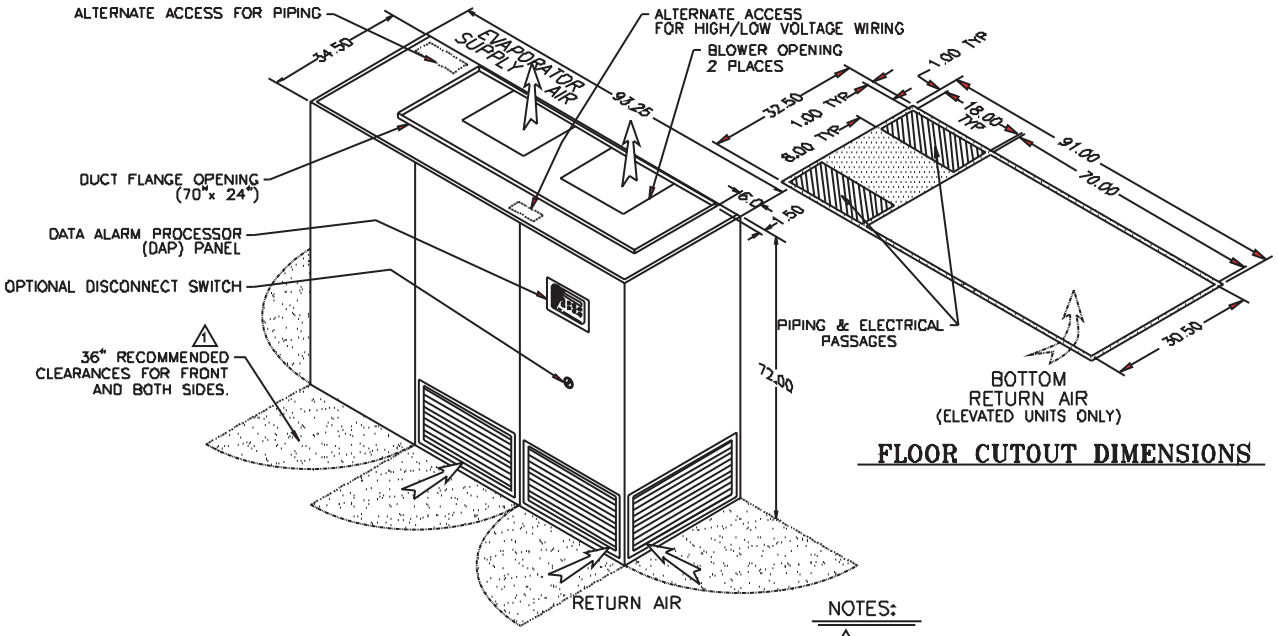

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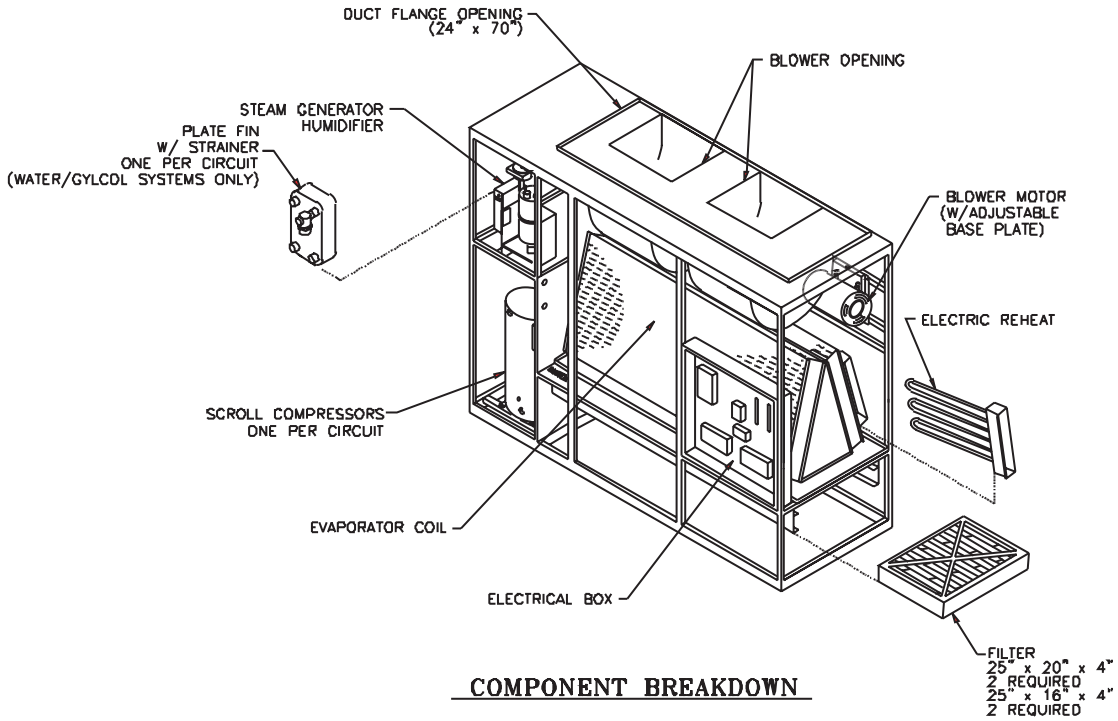

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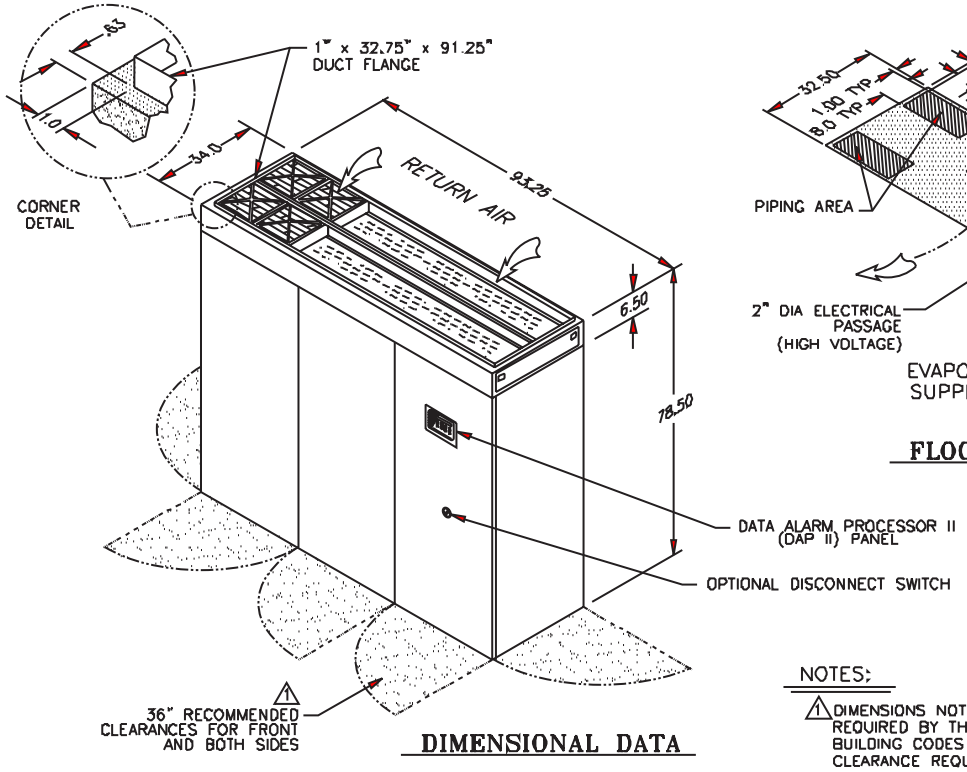
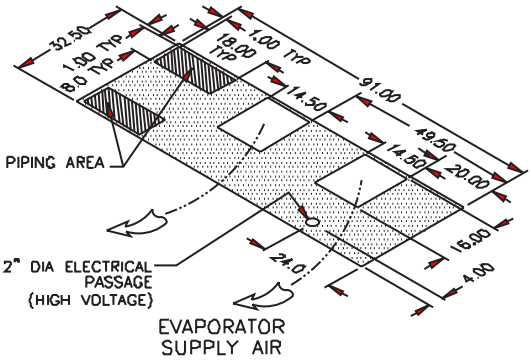


DIMENSIONAL DATA



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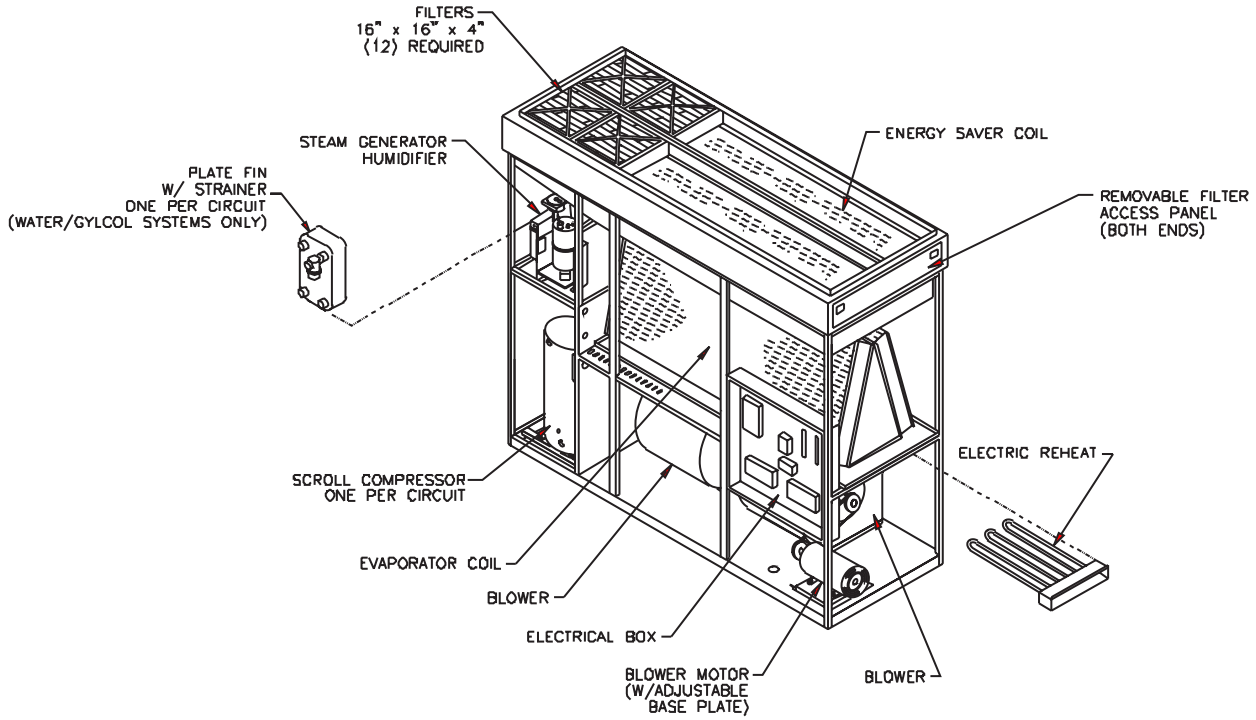

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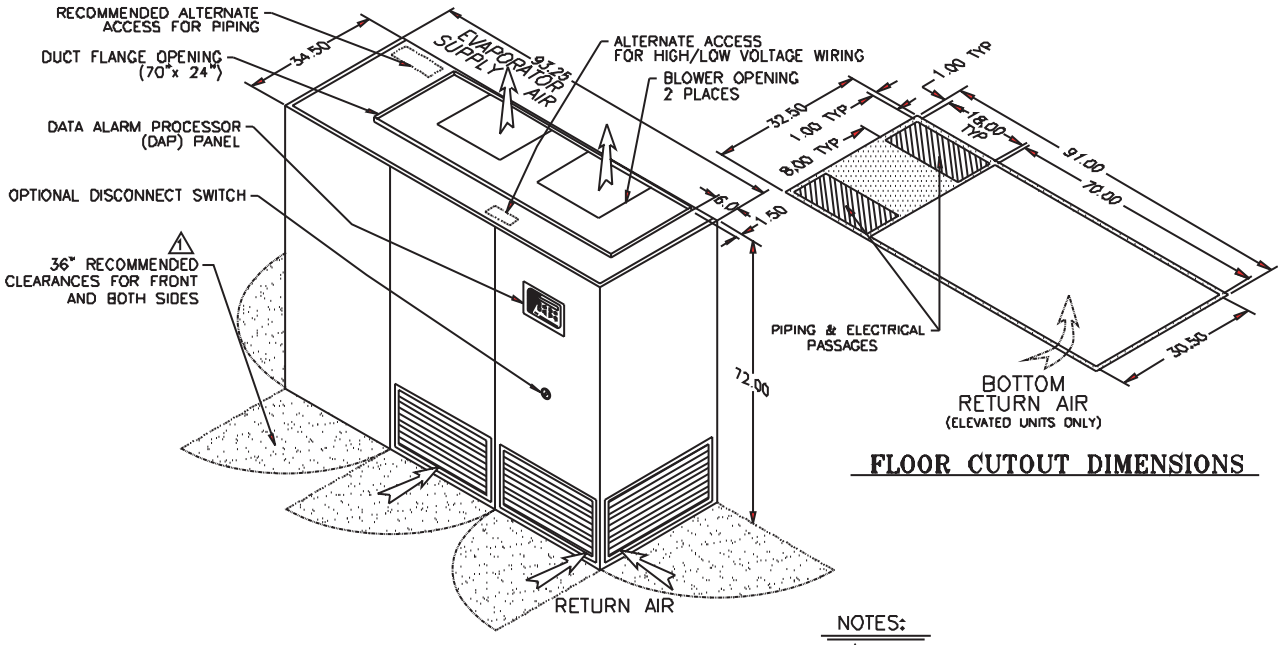

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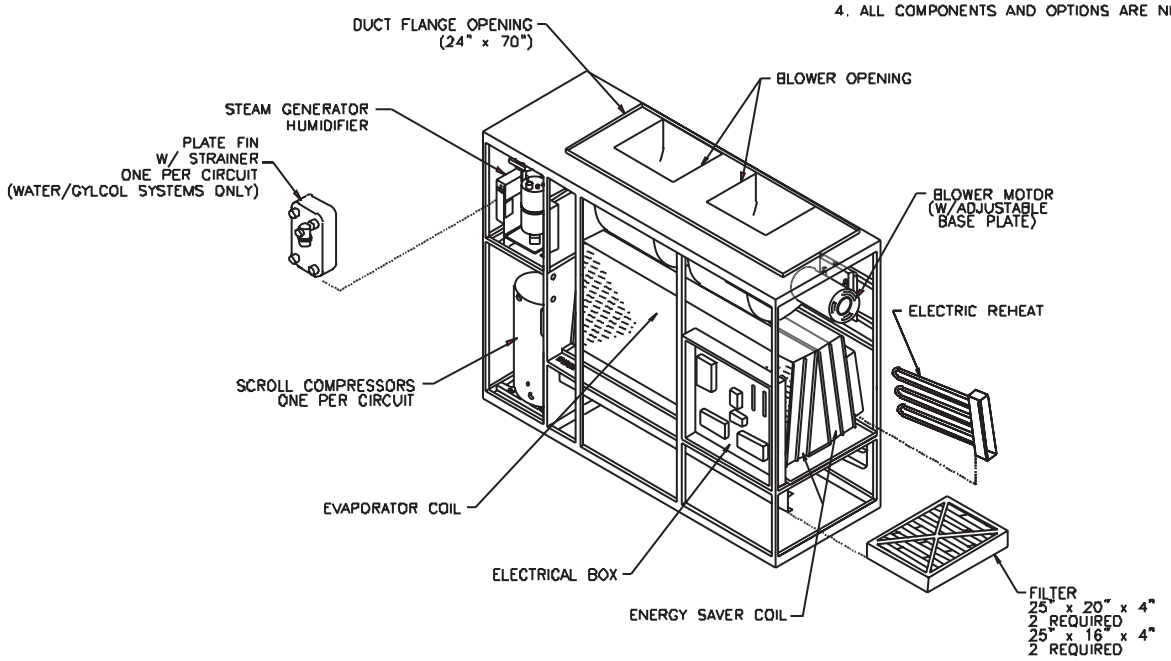

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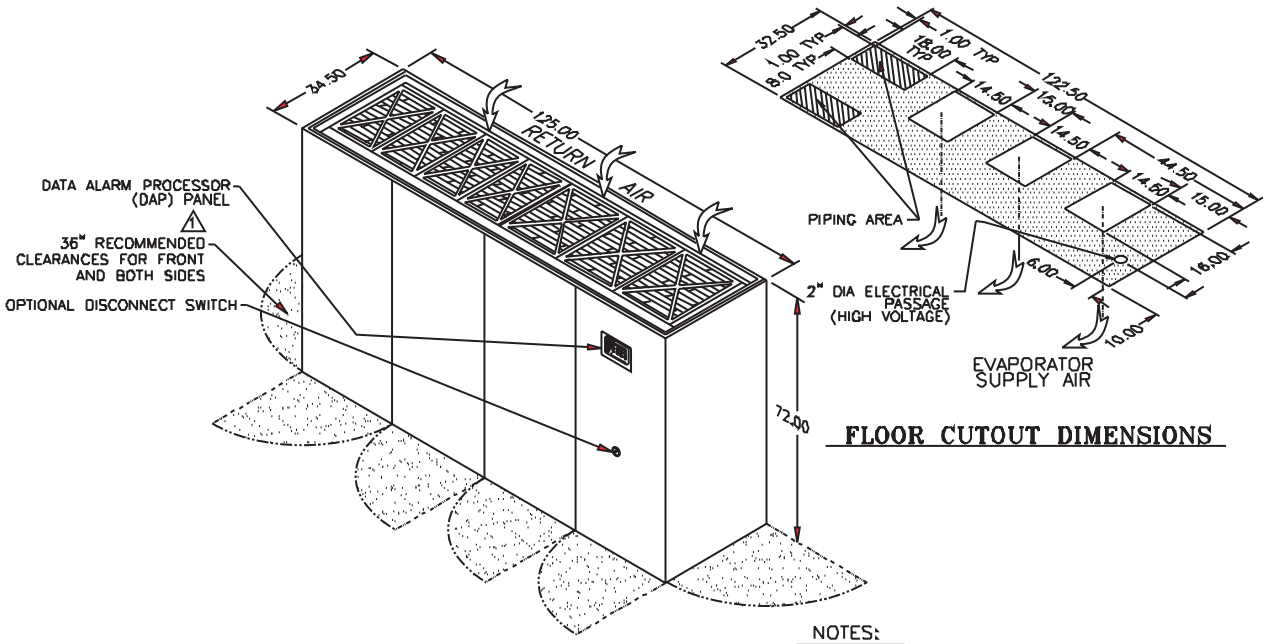

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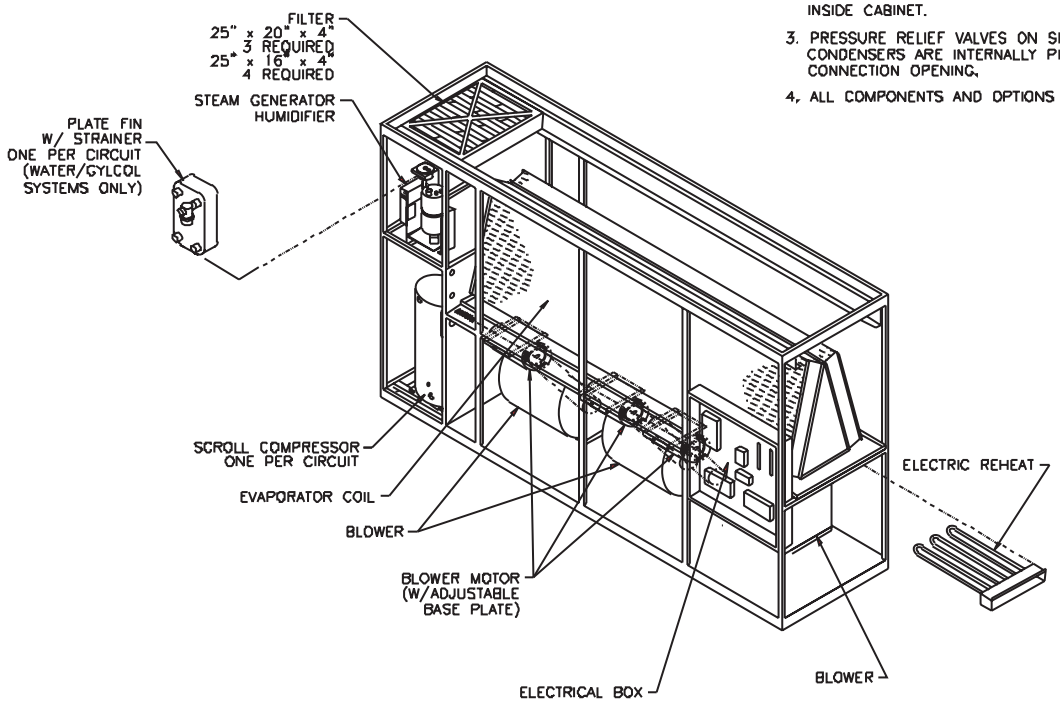

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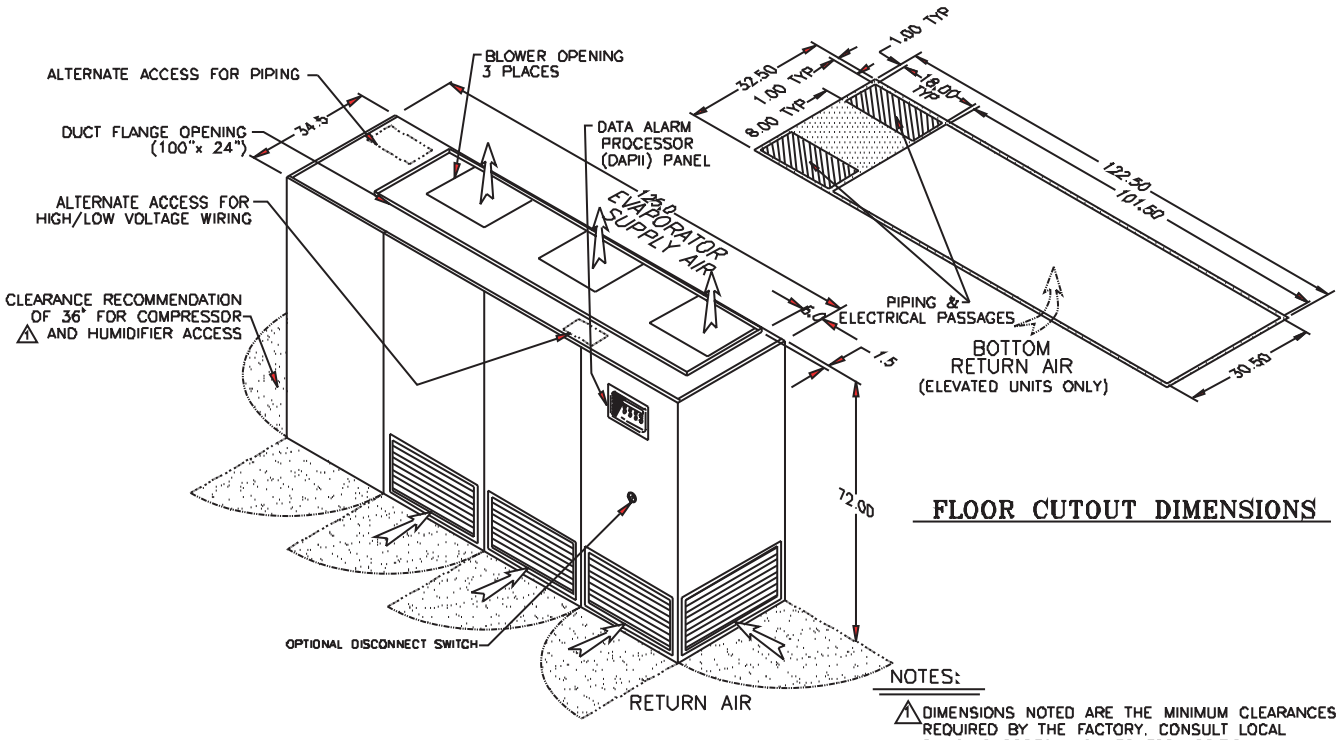

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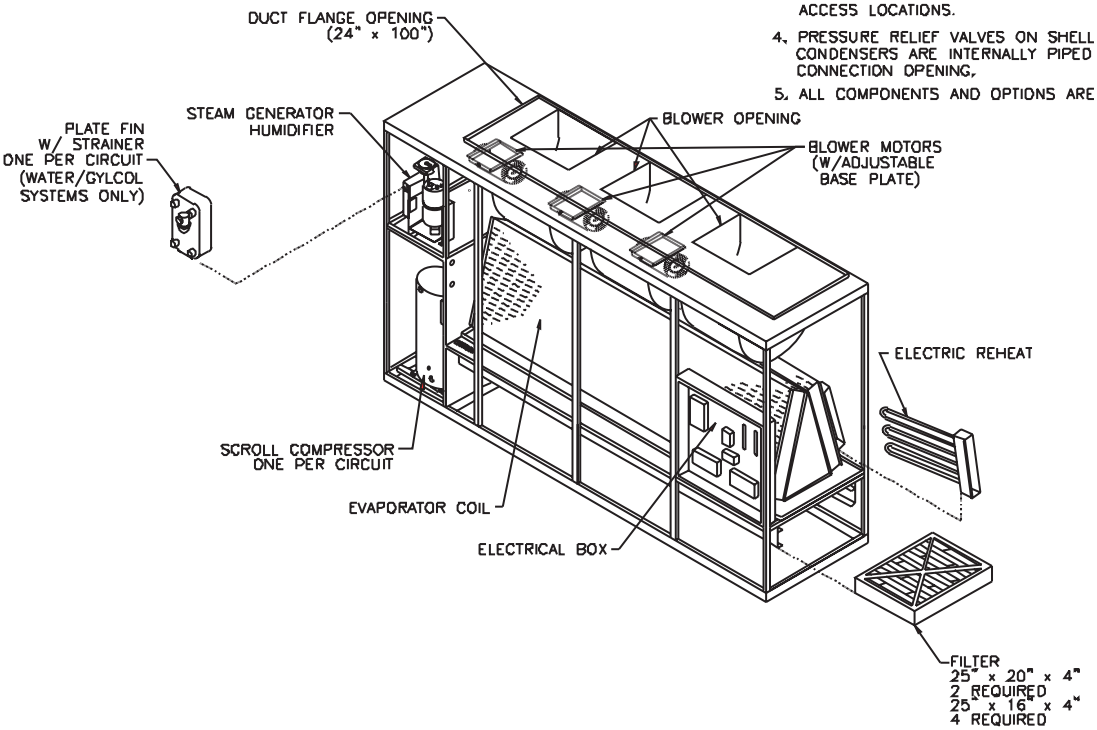

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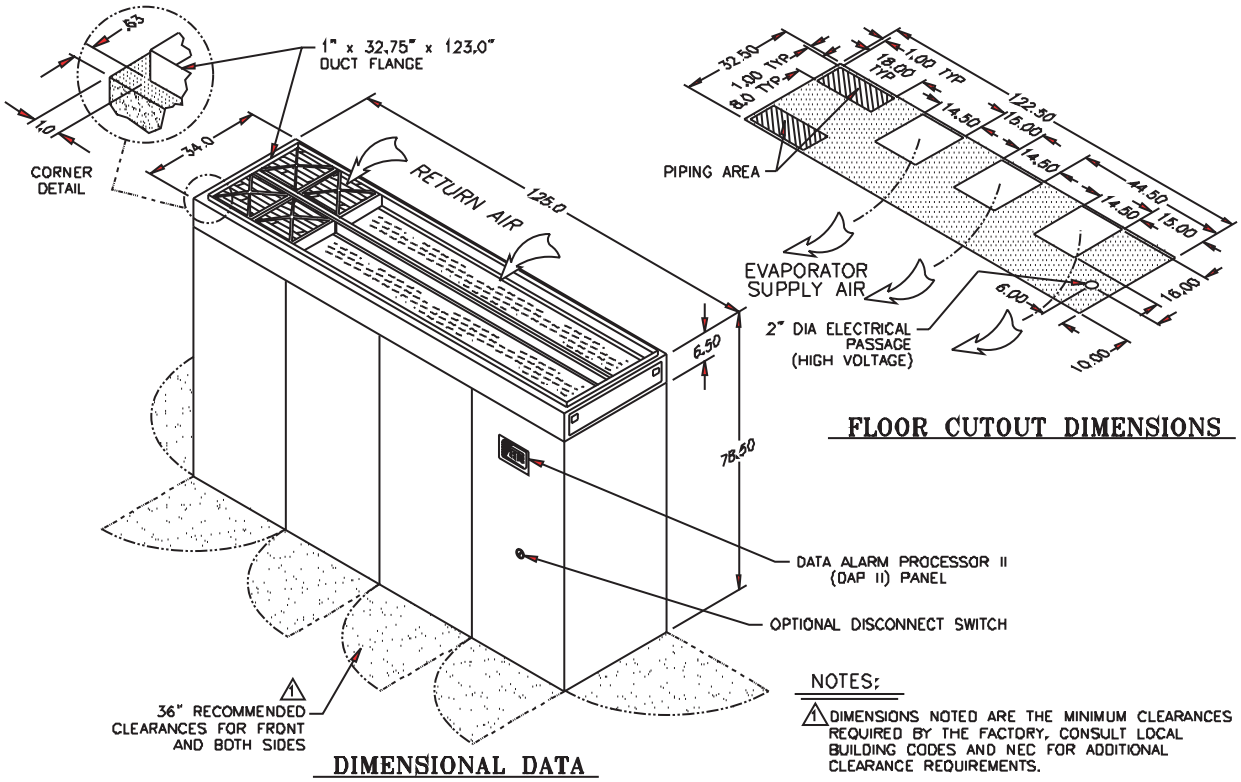

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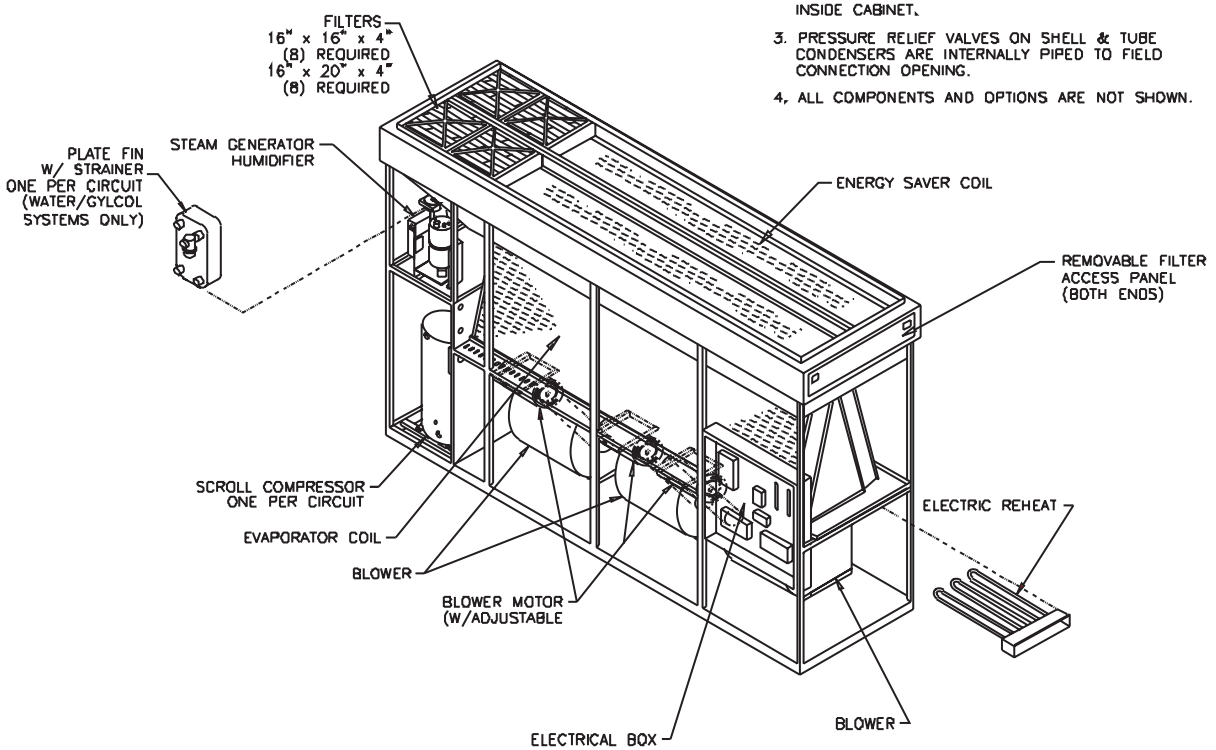

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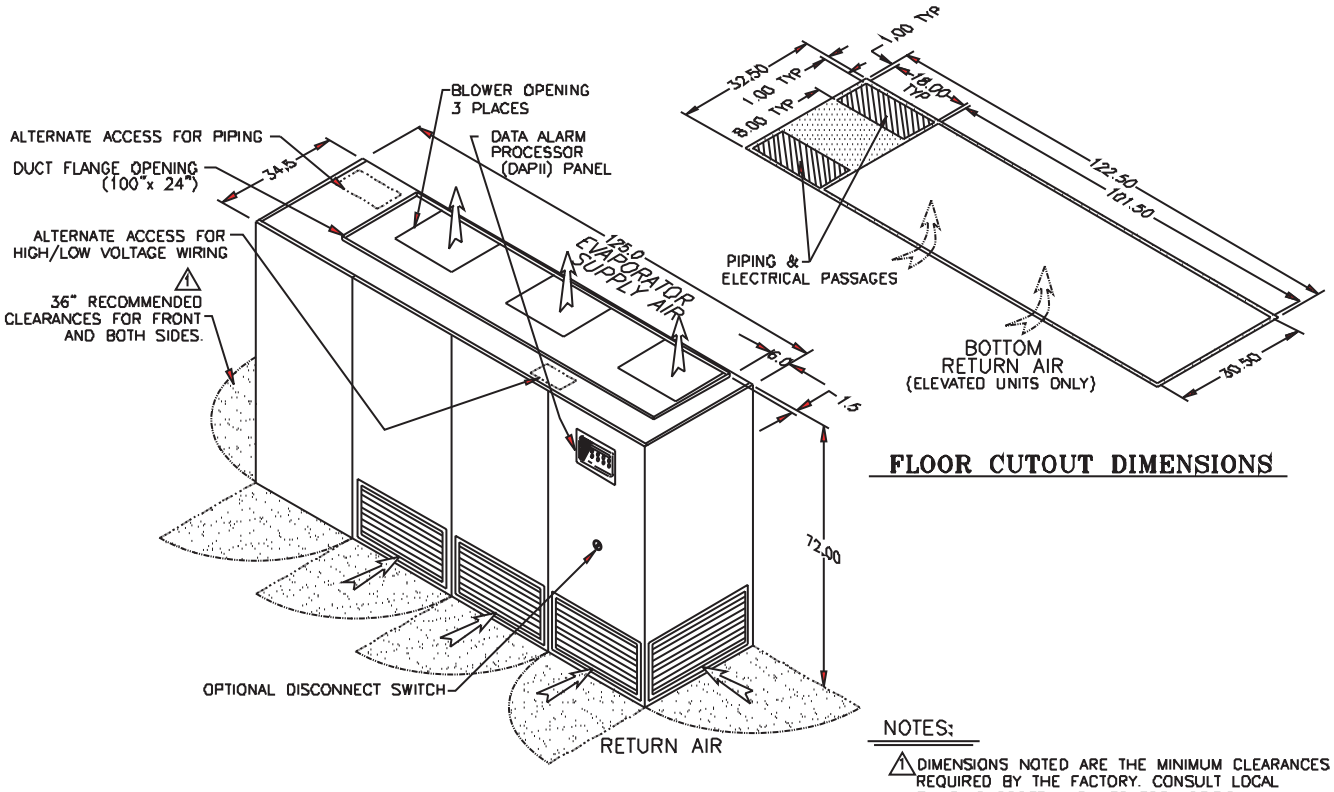

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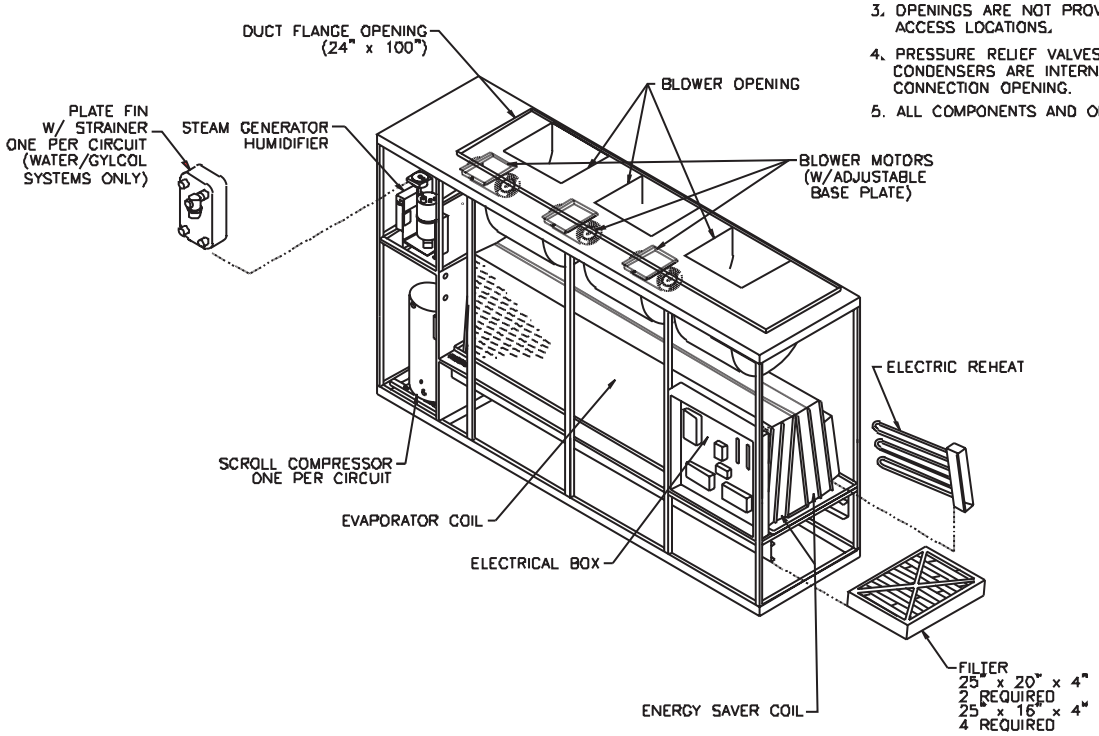
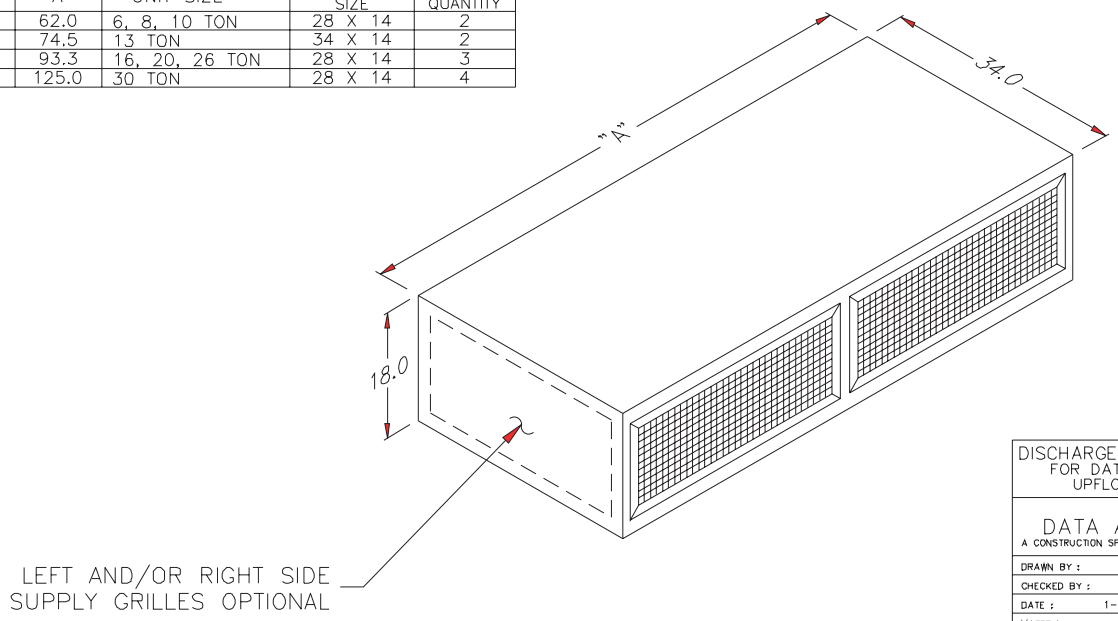


COMPONENT BREAKDOWN

Plenum

CAB. SIZE	"A"	UNIT SIZE	FRONT SUPPLY GRILLE	
			SIZE	QUANTITY
2 DOOR	62.0	6, 8, 10 TON	28 X 14	2
2-1/2 DOOR	74.5	13 TON	34 X 14	2
3 DOOR	93.3	16, 20, 26 TON	28 X 14	3
4 DOOR	125.0	30 TON	28 X 14	4



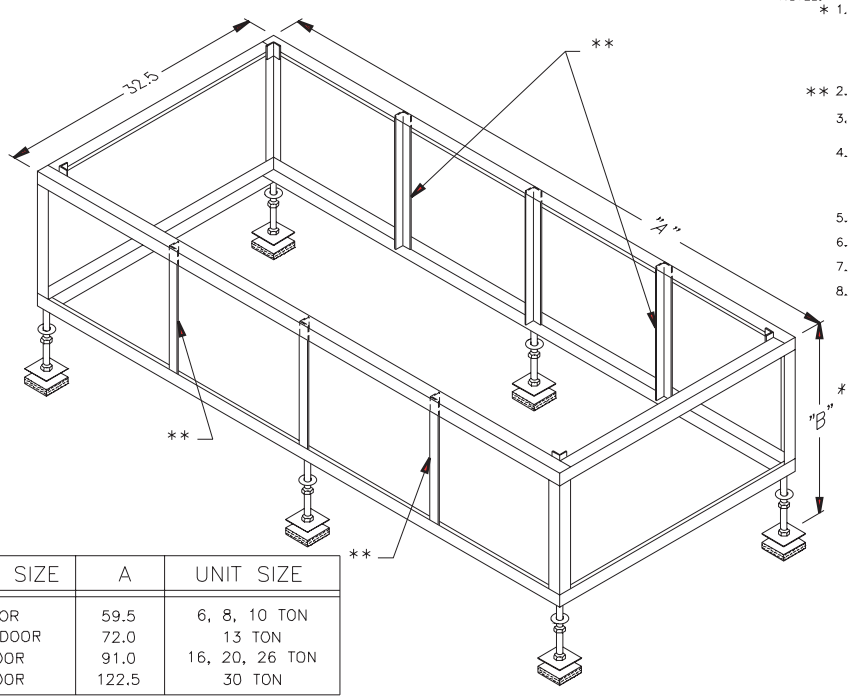
DISCHARGE AIR PLENUM
FOR DATA AIRE DX
UPFLOW UNITS

DATA AIRE INC.
A CONSTRUCTION SPECIALTIES INC. Company

DRAWN BY :	J.P.	SCALE :	0
CHECKED BY :		PL	PLENUM-DX
DATE :	1-29-99	SHT.	1 OF1
MATERIAL:			P/S 1 = 15

PLENUM-DX
PART NO.

Floorstand



NOTES:

* 1. DIMENSION "B" IS TOTAL HEIGHT SPECIFIED ON ORDER AND SHOULD EQUAL HEIGHT FROM BUILDING FLOOR TO RAISED FLOOR. THE STAND WILL BE BUILT 2 INCHES LESS THAN SPECIFIED AND HAVE ADJUSTABLE LEGS TO PROVIDE ±2 INCHES FROM THE SPECIFIED HEIGHT.

** 2. ONLY USED ON 4 DOOR UNIT

3. SPECIFIED HEIGHT MUST BE BETWEEN 12 AND 24 INCHES IN 2 INCH INCREMENTS. (12, 14, 16, 18, 20, 22, 24).

4. DOWNFLOW UNITS USING FLOORSTANDS OR JACKSTANDS ARE SUBJECTED TO ADDITIONAL STATIC PRESSURE LOSSES, DEPENDING ON THE AIRFLOW AND STAND HEIGHT. THE NEXT SIZE MOTOR OPTION MAY BE REQUIRED ON SOME FLOOR HEIGHTS.

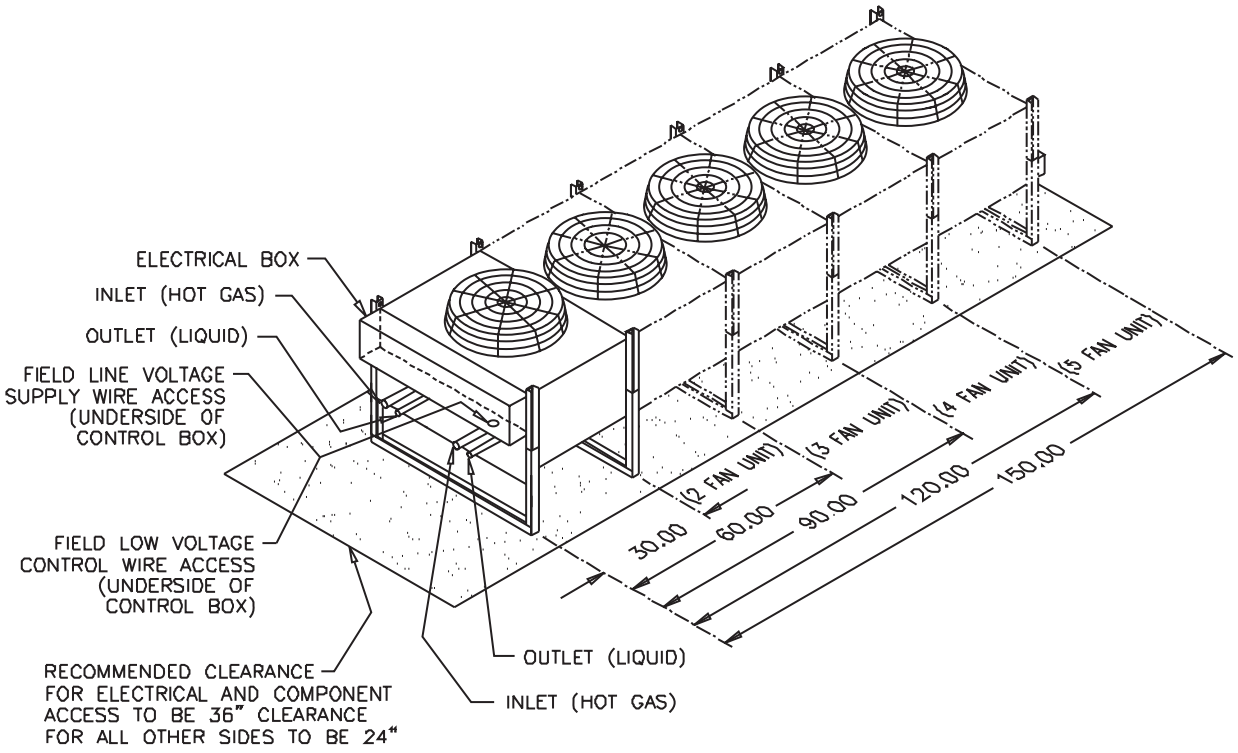
5. 1 1/2 x 1 1/2 x 1/8 ANGLE FRAME CONSTRUCTION

6. CENTER LEGS ONLY USED ON 3 & 4 DOOR UNITS

7. ADJUSTABLE LEGS HAVE A 3.5 SQ., 10 GAUGE PAD.

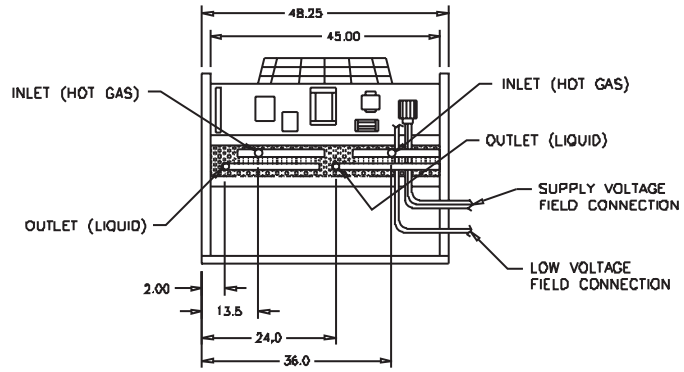
8. VIBRATION ISOLATION PADS ARE OPTIONAL.

CABINET SIZE	A	UNIT SIZE
2 DOOR	59.5	6, 8, 10 TON
2-1/2 DOOR	72.0	13 TON
3 DOOR	91.0	16, 20, 26 TON
4 DOOR	122.5	30 TON

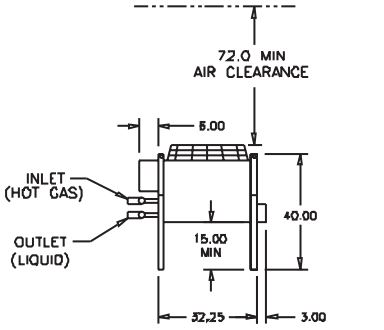


MODEL NUMBER	LENGTH	UNIT NET WT.,#	PIPE CONNECTION SIZES (COPPER STUB.OD) HOT GAS	LIQUID	QTY. MOTORS
DARC 06	32-1/4"	220	1-1/8	7/8	1
DARC 07	32-1/4"	250	1-1/8	7/8	1
DARC 09	32-1/4"	270	1-1/8	7/8	1
DARC 11	62-1/4"	300	1-1/8	7/8	2
DARC 15	62-1/4"	310	1-1/8	7/8	2
DARC 17	62-1/4"	320	1-3/8	7/8	2
DARC 21	92-1/4"	450	1-1/8	7/8	3
DARC 24	92-1/4"	520	1-3/8	7/8	3
DARC 28	92-1/4"	530	1-3/8	7/8	3
DARC 30	122-1/4"	610	1-3/8	7/8	4
DARC 37	122-1/4"	700	1-5/8	1-1/8	4
DARC 40	122-1/4"	920	1-5/8	1-1/8	4
DARC 44	152-1/4"	1270	1-5/8	1-1/8	5
DARC 50	152-1/4"	1350	1-5/8	1-1/8	5

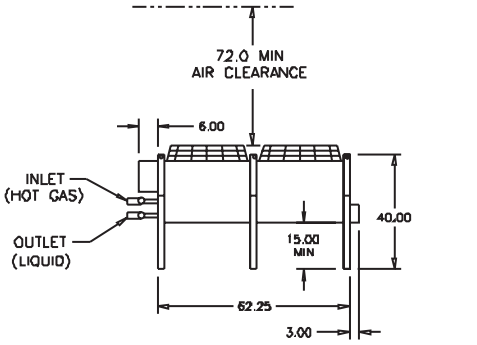
STANDARD CONDENSER					LOW DECIBEL CONDENSER				
H.P.	RPM	TOTAL CFM	MOTOR FLA 208/230V	460V	H.P.	RPM	TOTAL CFM	MOTOR FLA 208/230V	460V
3/4	1075	5000	4.2	2.1	1/2	850	4000	3.2	1.6
3/4	1075	4900	4.2	2.1	1/2	850	3900	3.2	1.6
3/4	1075	4800	4.2	2.1	1/2	850	3800	3.2	1.6
3/4	1075	10400	8.4	4.2	1/2	850	8300	6.4	3.2
3/4	1075	10000	8.4	4.2	1/2	850	8000	6.4	3.2
3/4	1075	9800	8.4	4.2	1/2	850	7800	6.4	3.2
3/4	1075	15000	12.6	6.3	1/2	850	12000	9.6	4.8
3/4	1075	14750	12.6	6.3	1/2	850	11800	9.6	4.8
3/4	1075	14500	12.6	6.3	1/2	850	11600	9.6	4.8
3/4	1075	20000	16.8	8.4	1/2	850	16000	12.8	6.4
3/4	1075	19500	16.8	8.4	1/2	850	15600	12.8	6.4
3/4	1075	19000	16.8	8.4	1/2	850	15200	12.8	6.4
3/4	1075	24500	21.0	10.5	1/2	850	19600	16.0	8.0
3/4	1075	24000	21.0	10.5	1/2	850	19200	16.0	8.0



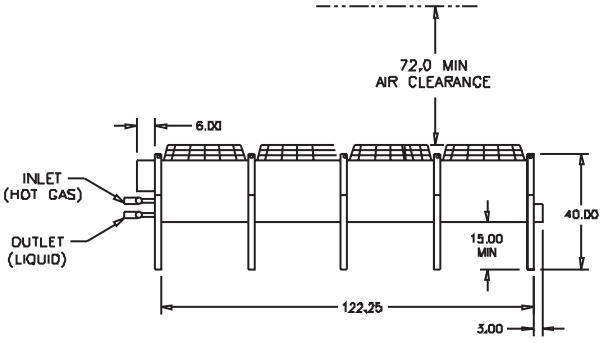
DUAL CIRCUIT CONNECTION LOCATION



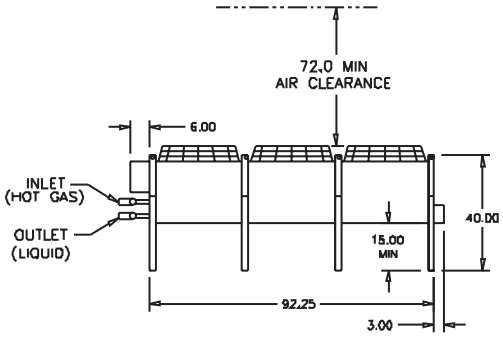
1 FAN UNIT, MODEL 6 THRU 9



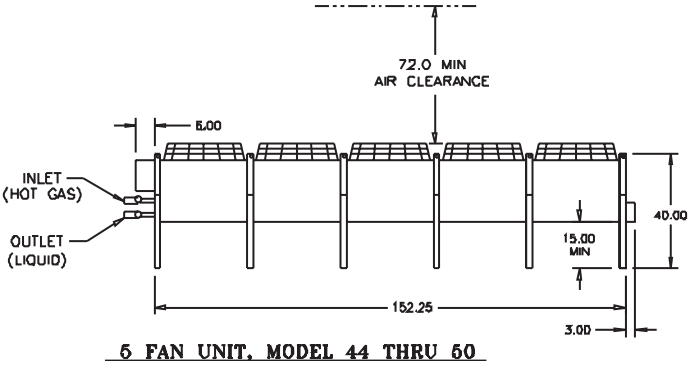
2 FAN UNIT, MODEL 11 THRU 17



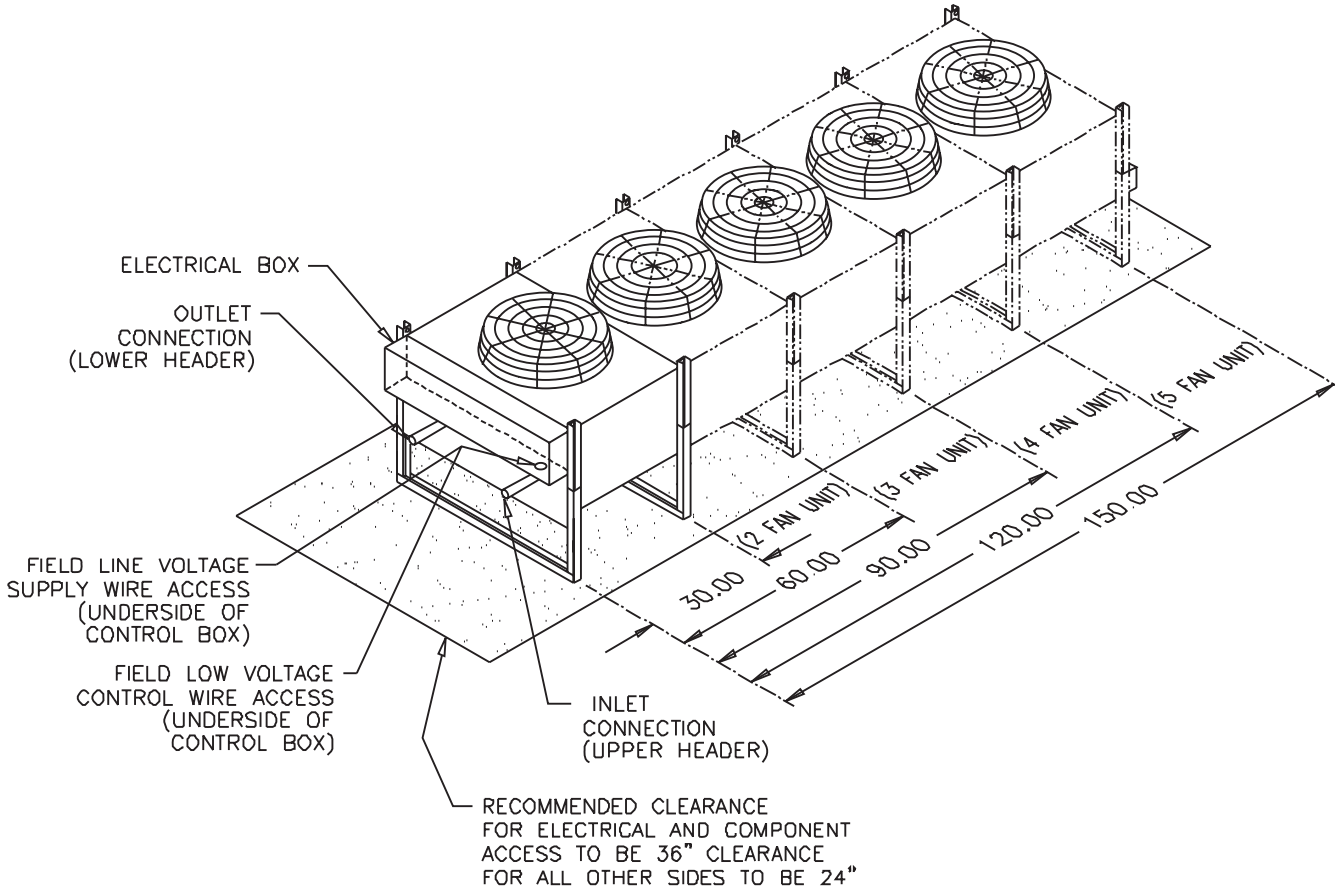
4 FAN UNIT, MODEL 30 THRU 40



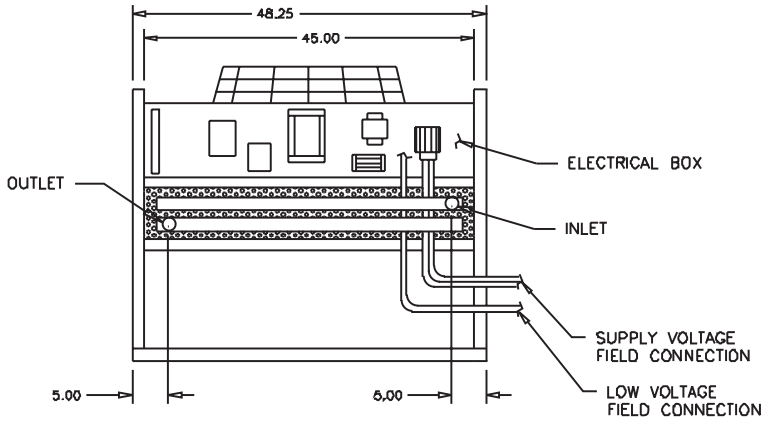
3 FAN UNIT, MODEL 21 THRU 28



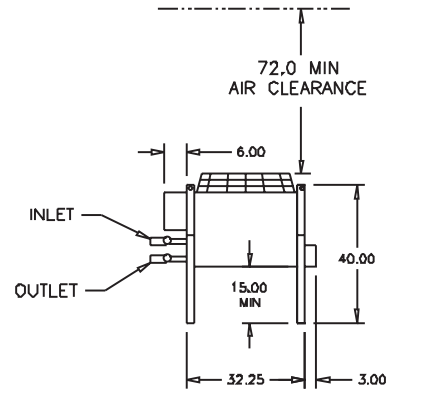
5 FAN UNIT, MODEL 44 THRU 50



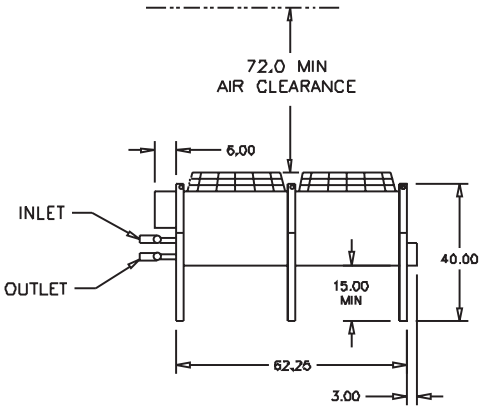
MODEL NUMBER	LENGTH	UNIT NET WT.#	PIPE CONNECTION SIZES (COPPER STUB.OD) INLET	PIPE CONNECTION SIZES (COPPER STUB.OD) OUTLET	QTY. MOTORS	STANDARD CONDENSER H.P.	RPM	TOTAL CFM	MOTOR FLA 208/230V	MOTOR FLA 460V	LOW DECIBEL CONDENSER H.P.	RPM	TOTAL CFM	MOTOR FLA 208/230V	MOTOR FLA 460V
DAFC 06	32-1/4"	260	1-5/8	1-5/8	1	3/4	1075	5000	4.2	2.1	1/2	850	4000	3.2	1.6
DAFC 07	32-1/4"	285	1-5/8	1-5/8	1	3/4	1075	4900	4.2	2.1	1/2	850	3900	3.2	1.6
DAFC 09	32-1/4"	310	1-5/8	1-5/8	1	3/4	1075	4800	4.2	2.1	1/2	850	3800	3.2	1.6
DAFC 11	62-1/4"	260	2-1/8	2-1/8	2	3/4	1075	10400	8.4	4.2	1/2	850	8300	6.4	3.2
DAFC 15	62-1/4"	370	2-1/8	2-1/8	2	3/4	1075	10000	8.4	4.2	1/2	850	8000	6.4	3.2
DAFC 17	62-1/4"	400	2-5/8	2-5/8	2	3/4	1075	9800	8.4	4.2	1/2	850	7800	6.4	3.2
DAFC 21	92-1/4"	560	2-1/8	2-1/8	3	3/4	1075	15000	12.6	6.3	1/2	850	12000	9.6	4.8
DAFC 24	92-1/4"	645	2-5/8	2-5/8	3	3/4	1075	14750	12.6	6.3	1/2	850	11800	9.6	4.8
DAFC 28	92-1/4"	665	2-5/8	2-5/8	3	3/4	1075	14500	12.6	6.3	1/2	850	11600	9.6	4.8
DAFC 30	122-1/4"	745	2-1/8	2-1/8	4	3/4	1075	20000	16.8	8.4	1/2	850	16000	12.8	6.4
DAFC 37	122-1/4"	845	2-5/8	2-5/8	4	3/4	1075	19500	16.8	8.4	1/2	850	15600	12.8	6.4
DAFC 40	122-1/4"	1100	2-5/8	2-5/8	4	3/4	1075	19000	16.8	8.4	1/2	850	15200	12.8	6.4
DAFC 44	152-1/4"	1460	2-5/8	2-5/8	5	3/4	1075	24500	21.0	10.5	1/2	850	19600	16.0	8.0
DAFC 50	152-1/4"	1560	2-5/8	2-5/8	5	3/4	1075	24000	21.0	10.5	1/2	850	19200	16.0	8.0



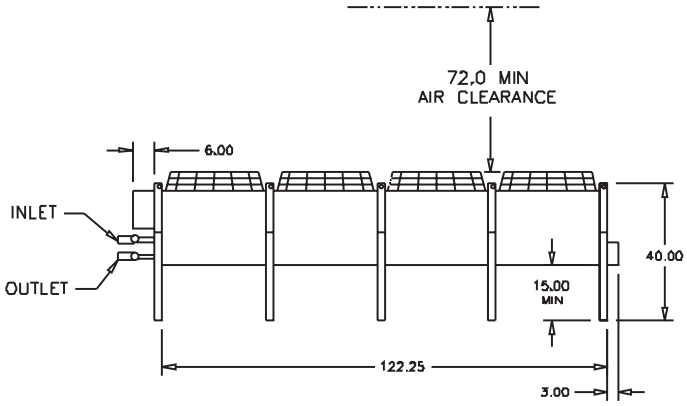
END VIEW CONNECTION LOCATION



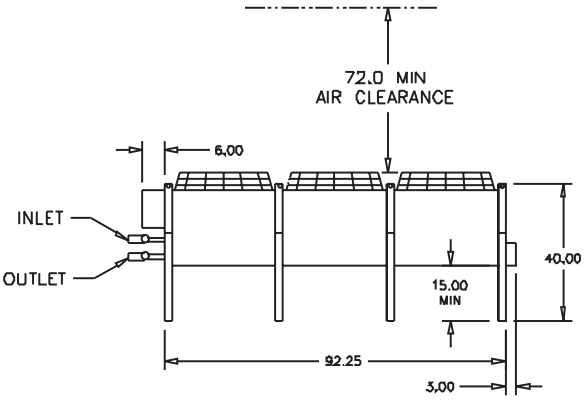
1 FAN UNIT, MODEL 6 THRU 9



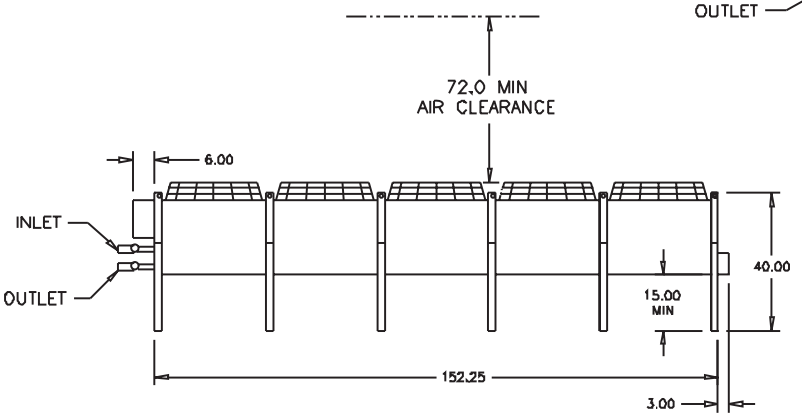
2 FAN UNIT, MODEL 11 THRU 17



4 FAN UNIT, MODEL 30 THRU 40

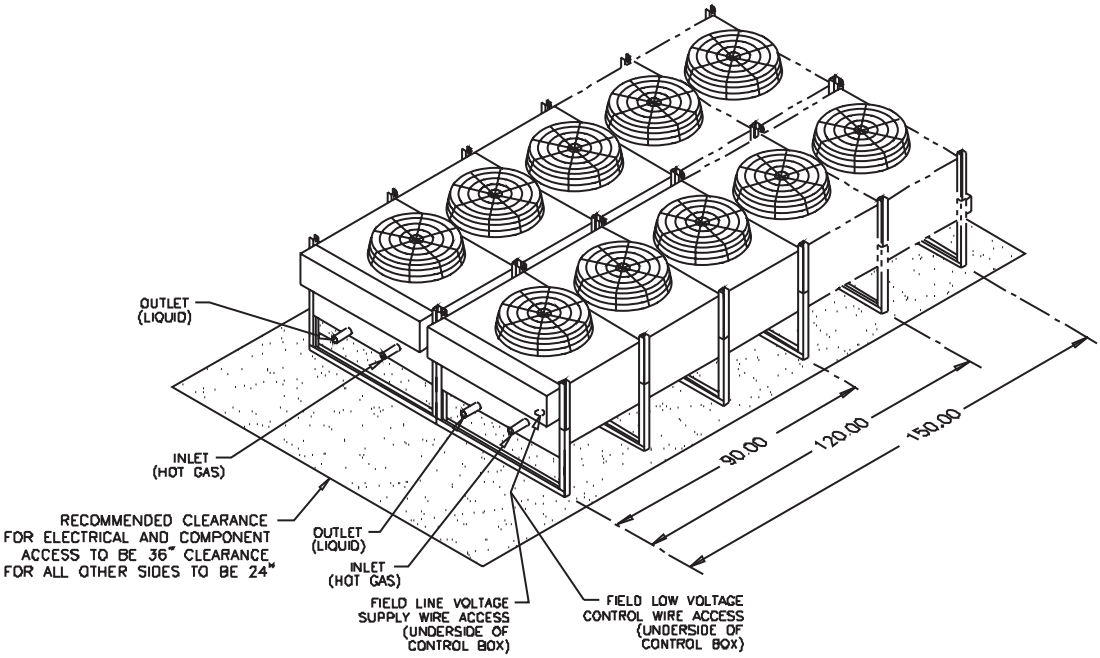


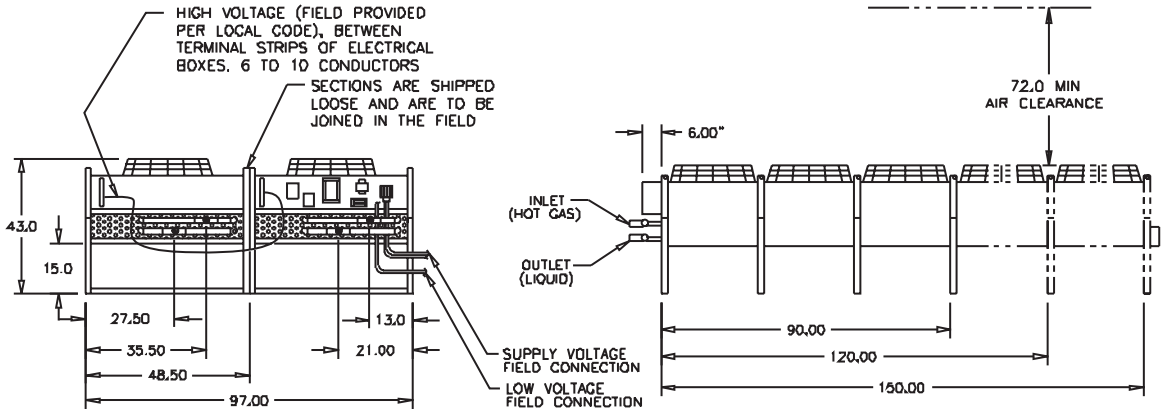
3 FAN UNIT, MODEL 21 THRU 28



5 FAN UNIT, MODEL 44 THRU 50

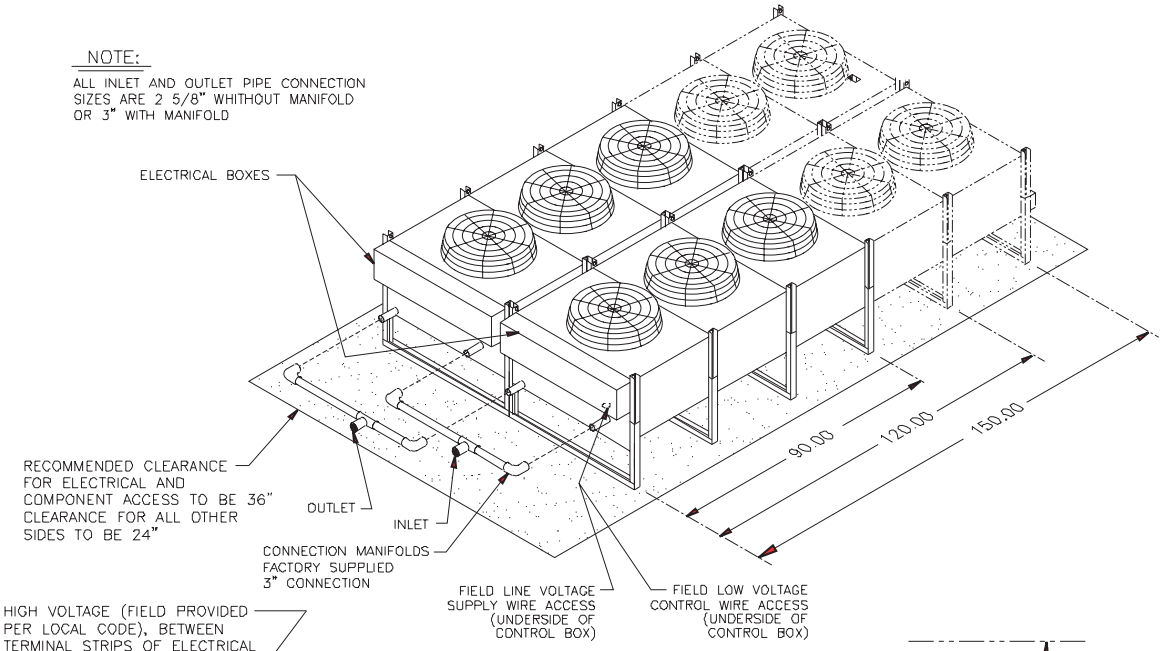
A DOUBLE WIDE CONDENSER SHIPS AS TWO EQUALLY SIZED SECTIONS THAT MUST BE MOUNTED SIDE BY SIDE AND RE-CONNECTED UPON INSTALLATION. A SINGLE SOURCE OF LINE VOLTAGE POWER IS REQUIRED. HIGH VOLTAGE WIRING FROM ONE ELECTRICAL BOX TO THE OTHER IS REQUIRED. THE SECTION ON THE RIGHT HAS A COMPLETE ELECTRICAL BOX. THE OTHER HAS AN ELECTRICAL BOX THAT ONLY HAS A TERMINAL BLOCK. WIRING MUST BE FIELD CONNECTED BETWEEN THE ELECTRICAL BOX OF THE RIGHT SECTION TO THE ELECTRICAL BOX ON THE LEFT. FANS WILL CYCLE IN BANKS OF TWO. REFER TO LOCAL ELECTRICAL CODES. LOW DECIBEL CONDENSERS HAVE "LD" AT END OF MODEL NUMBER.

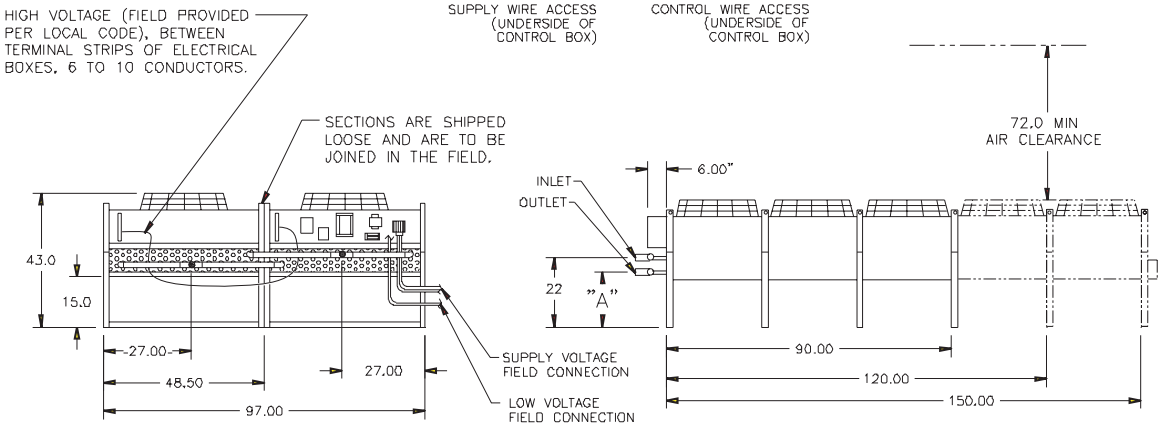




MODEL NUMBER	LENGTH	UNIT NET WT.,#	PIPE CONNECTION SIZES (COPPER STUB,OD) HOT GAS	PIPE CONNECTION SIZES (COPPER STUB,OD) LIQUID	QTY. MOTORS	STANDARD CONDENSER H.P.	RPM	TOTAL CFM	MOTOR FLA 208/230V	MOTOR FLA 460V	LOW DECIBEL CONDENSER H.P.	RPM	TOTAL CFM	MOTOR FLA 208/230V	MOTOR FLA 460V
DARC 57	92-1/4"	1060	1-3/8	7/8	6	3/4	1075	29,500	25.2	12.6	1/2	850	23,600	19.2	9.6
DARC 61	122-1/4"	1220	1-3/8	7/8	8	3/4	1075	39,500	33.6	16.8	1/2	850	32,000	25.6	12.8
DARC 75	122-1/4"	1400	1-5/8	1-1/8	8	3/4	1075	39,000	33.6	16.8	1/2	850	31,200	25.6	12.8
DARC 80	122-1/4"	1840	1-5/8	1-1/8	8	3/4	1075	38,000	33.6	16.8	1/2	850	30,400	25.6	12.8
DARC 88	152-1/4"	2540	1-5/8	1-1/8	10	3/4	1075	49,000	42.0	21.0	1/2	850	39,200	32.0	16.0
DARC 100	152-1/4"	2700	1-5/8	1-1/8	10	3/4	1075	48,000	42.0	21.0	1/2	850	38,400	32.0	16.0

A DOUBLE WIDE FLUID COOLER SHIPS AS TWO EQUALLY SIZED SECTIONS THAT MUST BE MOUNTED SIDE BY SIDE AND RE-CONNECTED UPON INSTALLATION. THE PIPING CAN BE JOINED USING A FACTORY PROVIDED MANIFOLD KIT. A SINGLE SOURCE OF LINE VOLTAGE POWER IS REQUIRED. HIGH VOLTAGE WIRING FROM ONE ELECTRICAL BOX TO THE OTHER IS REQUIRED. THE SECTION ON THE RIGHT HAS A COMPLETE ELECTRICAL BOX. THE OTHER HAS AN ELECTRICAL BOX THAT ONLY HAS A TERMINAL BLOCK. WIRING MUST BE FIELD CONNECTED BETWEEN THE ELECTRICAL BOX OF THE RIGHT SECTION TO THE ELECTRICAL BOX ON THE LEFT. FANS WILL CYCLE IN BANKS OF TWO. REFER TOLOCAL ELECTRICAL CODES. LOW DECIBEL FLUID CODLERS HAVE "LD" AT END OF MODEL NUMBER.





MODEL NUMBER	LENGTH	"A"	UNIT NET WT.	QTY. MOTORS	STANDARD FLUID COOLER H.P.	RPM	TOTAL CFM	MOTOR FLA 208/230V	MOTOR FLA 460V	LOW DECIBEL FLUID COOLER H.P.	RPM	TOTAL CFM	MOTOR FLA 208/230V	MOTOR FLA 460V
DAFC 57	92-1/4"		1330	6	3/4	1075	29,500	25.2	12.6	1/2	850	23,600	19.2	9.6
DAFC 61	122-1/4"		1490	8	3/4	1075	40,000	33.6	16.8	1/2	850	32,000	25.6	12.8
DAFC 75	122-1/4"		1690	8	3/4	1075	39,000	33.6	16.8	1/2	850	31,200	25.6	12.8
DAFC 80	122-1/4"	18	2200	8	3/4	1075	38,000	33.6	16.8	1/2	850	30,400	25.6	12.8
DAFC 88	152-1/4"	16.75	2920	10	3/4	1075	49,000	42.0	21.0	1/2	850	39,200	32.0	16.0
DAFC 100	152-1/4"		3120	10	3/4	1075	48,000	42.0	21.0	1/2	850	38,400	32.0	16.0

Standard Condenser Electrical Data

Model	208/1/60 FLA/MCA/MFS	208/3/60 FLA/MCA/MFS	460/3/60 FLA.MCA.MFS
DARC 03	4.2/5.3/15	4.2/5.3/15	2.1/2.6/15
DARC 05	4.2/5.3/15	4.2/5.3/15	2.1/2.6/15
DARC 06	4.2/5.3/15	4.2/5.3/15	2.1/2.6/15
DARC 07	4.2/5.3/15	4.2/5.3/15	2.1/2.6/15
DARC 09	4.2/5.3/15	4.2/5.3/15	2.1/2.6/15
DARC 11	8.4/9.5/15	8.4/9.5/15	4.2/4.7/15
DARC 15	8.4/9.5/15	8.4/9.5/15	4.2/4.7/15
DARC 17	8.4/9.5/15	8.4/9.5/15	4.2/4.7/15
DARC 21	13/14/15	13/14/15	6.3/6.8/15
DARC 24	13/14/15	13/14/15	6.3/6.8/15
DARC 28	13/14/15	13/14/15	6.3/6.8/15
DARC 30	17/15/25	17/18/25	8.4/8.9/15
DARC 37	17/15/25	17/18/25	8.4/8.9/15
DARC 40	17/15/25	17/18/25	8.4/8.9/15
DARC 44	21/22/25	21/22/25	11/11/15
DARC 50	21/22/25	21/22/25	11/11/15
DARC 57	25/26/30	25/26/30	13/13/15
DARC 61	34/35/40	34/35/40	17/14/20
DARC 75	34/35/40	34/35/40	17/14/20
DARC 80	34/35/40	34/35/40	17/14/20
DARC 88	42/43/45	34/35/40	21/22/25
DARC100	42/43/15	34/35/40	21/22/25

Air Cooled Downflow and Upflow Standard Units

Model	Length	Width	Height	Operating Weight	Shipping Weight
DAAD/U-06xx	62.00"	34.50"	72.00"	1060 lbs	1210 lbs
DAAD/U-08xx	62.00"	34.50"	72.00"	1075 lbs	1225 lbs
DAAD/U-10xx	62.00"	34.50"	72.00"	1090 lbs	1240 lbs
DAAD/U-13xx	74.50"	34.50"	72.00"	1345 lbs	1520 lbs
DAAD/U-16xx	93.25"	34.50"	72.00"	1520 lbs	1720 lbs
DAAD/U-20xx	93.25"	34.50"	72.00"	1560 lbs	1760 lbs
DAAD/U-26xx	93.25"	34.50"	72.00"	1605 lbs	1805 lbs
DAAD/U-30xx	125.00"	34.50"	72.00"	2050 lbs	2300 lbs

Air Cooled Downflow with Auxiliary Chilled Water Coil

Model	Length	Width	Height	Operating Weight	Shipping Weight
DAAD-06xx-C	62.00"	34.50"	78.00"	1160 lbs	1310 lbs
DAAD-08xx-C	62.00"	34.50"	78.00"	1200 lbs	1350 lbs
DAAD-10xx-C	62.00"	34.50"	78.00"	1240 lbs	1390 lbs
DAAD-13xx-C	74.50"	34.50"	78..00"	1525 lbs	1700 lbs
DAAD-16xx-C	93.25"	34.50"	78.00"	1720 lbs	1920 lbs
DAAD-20xx-C	93.25"	34.50"	78.00"	1785 lbs	1985 lbs
DAAD-26xx-C	93.25"	34.50"	78.00"	1880 lbs	2080 lbs
DAAD-30xx-C	125.00"	34.50"	78.00"	2350 lbs	2600 lbs

Air Cooled Upflow with Auxiliary Chilled Water Coil

Model	Length	Width	Height	Operating Weight	Shipping Weight
DAAU-06xx-C	62.00"	34.50"	72.00"	1160 lbs	1310 lbs
DAAU-08xx-C	62.00"	34.50"	72.00"	1200 lbs	1350 lbs
DAAU-10xx-C	62.00"	34.50"	72.00"	1240 lbs	1390 lbs
DAAU-13xx-C	74.50"	34.50"	72.00"	1525 lbs	1700 lbs
DAAU-16xx-C	93.25"	34.50"	72.00"	1720 lbs	1920 lbs
DAAU-20xx-C	93.25"	34.50"	72.00"	1785 lbs	1985 lbs
DAAU-26xx-C	93.25"	34.50"	72.00"	1880 lbs	2080 lbs
DAAU-30xx-C	125.00"	34.50"	72.00"	2350 lbs	2850 lbs

Water or Glycol Cooled Downflow and Upflow Standard Units

Model	Length	Width	Height	Operating Weight	Shipping Weight
DA*D/U-06xx	62.00"	34.50"	72.00"	1110 lbs	1260 lbs
DA*D/U-08xx	62.00"	34.50"	72.00"	1120 lbs	1275 lbs
DA*D/U-10xx	62.00"	34.50"	72.00"	1190 lbs	1340 lbs
DA*D/U-13xx	74.50"	34.50"	72.00"	1405 lbs	1580 lbs
DA*D/U-16xx	93.25"	34.50"	72.00"	1550 lbs	1850 lbs
DA*D/U-20xx	93.25"	34.50"	72.00"	1710 lbs	1910 lbs
DA*D/U-26xx	93.25"	34.50"	72.00"	1755 lbs	1955 lbs
DA*D/U-30xx	125.00"	34.50"	72.00"	2280 lbs	2530 lbs

Water or Glycol Cooled Downflow with Energy Saver or Auxiliary Chilled Water Coil

Model	Length	Width	Height	Operating Weight	Shipping Weight
DA*D-06xx-E or C	62.00"	34.50"	78.00"	1210 lbs	1360 lbs
DA*D-08xx-E or C	62.00"	34.50"	78.00"	1245 lbs	1396 lbs
DA*D-10xx-E or C	62.00"	34.50"	78.00"	1340 lbs	1490 lbs
DA*D-13xx-E or C	74.50"	34.50"	78.00"	1585 lbs	1760 lbs
DA*D-16xx-E or C	93.25"	34.50"	78.00"	1750 lbs	2050 lbs
DA*D-20xx-E or C	93.25"	34.50"	78.00"	1935 lbs	2135 lbs
DA*D-26xx-E or C	93.25"	34.50"	78.00"	2030 lbs	2230 lbs
DA*D-30xx-E or C	125.00"	34.50"	78.00"	2580 lbs	2830 lbs

Water or Glycol Cooled Upflow with Energy Saver or Auxiliary Chilled Water Coil

Model	Length	Width	Height	Operating Weight	Shipping Weight
DA*U-06xx-E or C	62.00"	34.50"	72.00"	1210 lbs	1360 lbs
DA*U-08xx-E or C	62.00"	34.50"	72.00"	1245 lbs	1395 lbs
DA*U-10xx-E or C	62.00"	34.50"	72.00"	1340 lbs	1490 lbs
DA*U-13xx-E or C	74.50"	34.50"	72.00"	1585 lbs	1760 lbs
DA*U-16xx-E or C	93.25"	34.50"	72.00"	1750 lbs	2060 lbs
DA*U-20xx-E or C	93.25"	34.50"	72.00"	1935 lbs	2135 lbs
DA*U-26xx-E or C	93.25"	34.50"	72.00"	2030 lbs	2230 lbs
DA*U-30xx-E or C	125.00"	34.50"	72.00"	2580 lbs	2830 lbs

*** W - Water Cooled G - Glycol Cooled**

GENERAL

The environmental control units shall be provided with a high sensible cooling system, factory assembled, piped, wired, and run tested prior to shipment and designed for the following air pattern:

___ Down Discharge
___ Top Discharge with Duct Connection
___ Top Discharge with Plenum

The system shall be designed for draw through air arrangement to insure even air distribution to the entire face of the coil.

Units shall be ETL or UL listed.

CABINET and FRAME

The frame shall be constructed of 14 gauge welded tubular steel and coated with a heavy corrosion inhibiting finish for long life. All internal fans shall be of high grade steel and shall be coated and sealed for utmost protection against corrosion. The unit shall have complete front and side access by means of high quality furniture grade steel doors with heavy duty hinges. The doors shall be lined with one inch thick, $1^1/_2$ pound density fiberglass insulation coated with neoprene. Each door shall be provided with sure close latches which shall be quickly removable for easy access and a polyurethane gasket to prevent air leakage. The doors shall be painted to match or contrast with other equipment in the space. Bypass air shall be provided around the cooling coil to preclude saturated air from being distributed to other equipment in the controlled space. The cooling coil shall sit in a stainless steel drain pan.

The unit shall be painted _____.

REFRIGERATION CIRCUIT

Air Cooled with Remote Outdoor Condenser - The refrigeration system shall be split type with an indoor evaporator section and remote outdoor condenser.

The indoor evaporator section shall include the cooling coil, compressors, humidifier, reheat, filters, and controls. The cooling coil shall be in a cross circuited or interlaced "A" frame arrangement to allow maximum coil surface in a small cabinet. The large faced coil area shall be constructed with $^1/_2$" O.D. copper tube with 12 fins per inch of corrugated aluminum for maximum heat transfer. Maximum face velocity shall be less than 500 feet per minute. The expansion valves shall be of the adjustable thermostatic type with external equalization. The compressors shall be of the hermetic scroll or semi-hermetic type, with complete overload protection on all three power lines, internal thermostat for winding protection, anti-slug device, crankcase heater, sight-glass, and low pressure override timer for positive starting at low temperatures. The filter drier shall be of the flare fitting type for non-torch servicing. The circuit shall contain high and low pressure safety switches. The high and low pressure safety switches shall be installed with shraeder type fittings with valve core.

Each system shall include a low profile, slow speed, direct drive propeller fan type air cooled condenser. The air discharge shall be vertical to minimize the effects of wind blowing through the coil at low ambient temperatures. The condenser shall be constructed of galvanized steel with a powder coated finish. The condenser shall contain a $^1/_2$" O.D. copper tube coil with corrugated aluminum fins for maximum heat transfer. The condenser shall have fan speed control with transducers to modulate the speed of the first condenser fan motor and provide positive start-up and operation at ambient temperatures to -20° F. Additional condenser fan motors are to be controlled by ambient thermostats. All controls including the fan speed controller shall be factory mounted in the air cooled condenser in an integral factory wired and tested control panel. The air cooled condenser shall be manufactured by the manufacturer of the indoor unit.

Air Cooled with Remote Outdoor Condenser - The refrigeration system shall be split type with an indoor evaporator section and remote outdoor condenser.

The indoor evaporator section shall include the cooling coil, humidifier, reheat, filters, compressors and controls. Compressors shall be hermetic scroll (standard) or semi-hermetic type with complete overload protection on all three power lines, internal thermostats for winding protection, anti-slug device, crankcase heater, sight-glass, and low pressure override timer for positive starting at low temperatures. The filter drier shall be of the flare fitting type for non-torch servicing. Circuits shall contain high and low pressure safety switches and suction accumulator. The high and low pressure safety switches shall be installed with shrader type fitting with valve core. The cooling coil shall be in a cross circuited or interlaced “A” frame arrangement to allow maximum coil surface in a small cabinet. The large faced area coil shall be constructed with ½” O.D. copper tube with 12 fins per inch of corrugated aluminum for maximum heat transfer. Maximum face velocity shall be less than 500 feet per minute. The expansion valves shall be of the adjustable thermostatic type with external equalization.

The outdoor condenser unit shall be constructed of aluminum and include a low profile, slow speed, direct drive propeller fan air cooled condenser section. The air discharge shall be vertical to minimize the effects of wind blowing through the coil at low ambient temperatures. The condenser coil shall be constructed with copper tube and aluminum fin. The condenser shall have fan speed control with transducers to modulate the speed of the first condenser fan motor and provide positive start-up and operation at ambient temperatures to -20 degrees F. Ambient thermostats shall control additional condenser fan motors. All controls including the fan speed control shall be factory mounted in an integral factory wired and tested control panel. The condenser shall be manufactured by the manufacturer of the indoor unit.

Air Cooled with Floor Mounted Indoor Condenser - The refrigeration system shall be split type with an indoor evaporator section and floor mounted indoor condenser section.

The indoor evaporator section shall include the cooling coil, compressors, humidifier, reheat, filters, and controls. The cooling coil shall be a cross circuited or interlaced "A" frame arrangement to allow maximum coil surface in a small cabinet. The large faced coil area shall be constructed with 1/2" O.D. copper tube with 12 fins per inch of corrugated aluminum for maximum heat transfer. Maximum face velocity shall be less than 500 feet per minute. The expansion valves shall be of the adjustable type with external equalization. The compressors shall be of the hermetic scroll or semi-hermetic type, with complete overload protection on all three power lines, internal thermostat for winding protection, anti-slug device, crankcase heater, sight-glass, and low pressure override timer for positive starting at low temperatures. The filter drier shall be of the flare fitting type for non-torch servicing. The circuits shall contain high and low pressure safety switches. The high and low pressure switches shall be installed with shraeder type fittings with valve core.

Each system shall include a floor mounted, indoor air cooled condenser section. The condenser frame shall be constructed of 14 gauge welded tubular steel and be coated with a heavy corrosion inhibiting finish for long life. The unit shall have complete front and side access by means of high quality furniture grade steel doors with heavy duty hinges. The doors shall be lined with one inch thick, 1 1/2 pound density fiberglass coated with neoprene. Each door shall be provided with sure close latches which shall be quickly removable for easy access and a polyurethane gasket to prevent air leakage. The doors shall be painted to match or contrast with other room equipment.

The blower section shall be belt driven centrifugal type, double width, double inlet and shall be statically and dynamically balanced at the factory as a complete assembly to a maximum vibration level of two mills in any plane. The blower wheel shall be a minimum of 15 inches in diameter. The blower wheel shall be supported on a heavy steel shaft having self-aligning ball bearings with a minimum life span of 100,000 hours. The blower wheel shall be driven by a motor mounted on an adjustable slide base. The drive motor shall be 1750 rpm. The drive package shall be belt driven with two belts and a variable pitch sheave, sized for 200% of the fan motor horsepower.

The condenser coil shall be constructed of copper tubes and corrugated aluminum fins. The condenser coil shall be equally circuited for each refrigeration compressor. A receiver shall be factory mounted with head pressure control and solenoid valve for each circuit.

Air Cooled with Remote Outdoor Condensing Unit - The refrigeration system shall be split type with an indoor evaporator section and remote outdoor condensing unit.

The indoor evaporator section shall include the cooling coil, humidifier, reheat, filters, and controls. The cooling coil shall be in a cross circuited or interlaced "A" frame arrangement to allow maximum coil surface in a small cabinet. The large faced coil area shall be constructed with 1/2" O.D. copper tube with 12 fins per inch of corrugated aluminum for maximum heat transfer. Maximum face velocity shall be less than 500 feet per minute. The expansion valves shall be of the adjustable thermostatic type with external equalization.

The outdoor condensing unit shall be constructed of an aluminum housing and contain hermetic scroll or semi-hermetic type compressors with complete overload protection on all three power lines, internal thermostats for winding protection, anti-slug device, crankcase heater, sight-glass, and low pressure override timer for positive starting at low temperatures. The filter drier shall be of the flare fitting type for non-torch servicing. The circuits shall contain high and low pressure safety switches. The high and low pressure safety switches shall be installed with shraeder type fittings with valve core.

The condensing unit shall include a low profile, slow speed, direct drive propeller fan air cooled condenser section. The air discharge shall be vertical to minimize the effects of wind blowing through the coil at low ambient temperatures. The condenser coil shall be constructed with copper tube and aluminum fin. The condensing unit shall have fan speed control with transducers to modulate the speed of the first condenser fan motor and provide positive start-up and operation at ambient temperatures to -20° F. Additional condenser fan motors shall be controlled by ambient thermostats. All controls including the fan speed control shall be factory mounted in an integral factory wired and tested control panel. The condensing unit shall be manufactured by the manufacturer of the indoor unit.

Water/Glycol Cooled - The cooling coil shall be in a cross circuited or interlaced "A" frame arrangement to allow maximum coil surface in a small cabinet. The large face area coil shall be constructed of 1/2" O.D. copper tube with 12 fins per inch of corrugated aluminum for maximum heat transfer. Maximum face velocity shall be less than 500 feet per minute. The expansion valves shall be of the adjustable thermostatic type with external equalization. The compressors shall be of the hermetic scroll or semi-hermetic type with complete overload protection on all three power lines, internal thermostats for winding protection, anti-slug device, crankcase heater, sight-glass, condensers with sub-cooling and 2-way water regulating valve for head pressure control. The filter drier shall be of the flare fitting type for non-torch servicing. The circuits shall contain high and low pressure safety switches. The high and low pressure safety switches shall be installed with shraeder type fittings with valve core.

Each system shall include a low profile, slow speed, direct drive propeller fan type air cooled fluid cooler. Air discharge shall be vertical to prevent wind from blowing through the coil at low ambient temperatures. The fluid cooler shall be constructed of aluminum and contain a 1/2" O.D. copper tube coil with corrugated aluminum fins for maximum heat transfer. The fan motors shall have cycling control provided on fluid coolers with multiple fan motors. The fluid cooler shall include surge tank and fill valve, pump contactor, and fan cycling controls with integral factory wired and tested control panel. The fluid cooler shall be manufactured by the manufacturer of the indoor unit.

BLOWER SECTION

The blower shall be a belt driven centrifugal type, double width, double inlet and shall be statically and dynamically balanced at the factory as a complete assembly to a maximum vibration level of two mils in any plane. The blower wheel shall be a maximum of 15 inches in diameter.. The blower wheel shall be supported on a heavy steel shaft having self-aligning ball bearings with a minimum life span of 100,000 hours. The blower wheel shall be driven by a motor on an adjustable slide base. The drive motor shall be 1750 rpm. The drive package shall be belt driven with two (2) belts and variable pitch sheave sized for 200% of the fan motor horsepower. The blower shall be located to draw air over the coil to insure even air distribution and maximum coil performance.

FILTER CHAMBER

The filter chamber shall be an integral part of the system, designed within the frame and cabinet. The filters shall be four inch (4") deep pleated design, rated not less than 30% efficient (based on ASHRAE Std. 52.1-1992).

ELECTRIC REHEAT

The reheat shall be of the finned enclosed, sheath type, fabricated of stainless steel core sheath with plated fins to withstand moist conditions. The reheat shall be installed on the air discharge side of the cooling coil and shall have three (3) stages. Each stage shall be ___ kW. The total kW shall be ___ to operate on a supply of ____ volts.

HUMIDIFIER

The unit shall be provided with steam generator type humidifier. The steam generating humidifier shall be of the self-contained disposable cylinder type with electronic controls. The capacity shall be adjustable from 10 to 30 pounds per hour. Power consumption at 22 pounds per hour shall be 7.7 kW or less. The humidifier shall discharge pure steam with no material dust carry-over and have a self-regulating automatic flush cycle. Cylinders shall be disposable not requiring cleaning or maintenance. The humidifier fill level, water conductivity and flush rate shall automatically adapt, both in frequency and duration, to variations in the incoming water.

WATER SENSOR

Units shall be provided with one (1) water sensor. The solid state water sensor shall be mounted under the unit to sense the presence of water. The sensor shall be connected to the microprocessor panel and activate an audible alarm. The water detector shall become an integral part of the microprocessor panel and shall display "WATER DETECTED IN UNDER FLOOR AREA" message when the sensor is activated.

CONTROL PANEL

The environmental control system shall be furnished with a microprocessor based ***Data Alarm Processor-II*** panel. The panel shall include unit switching functions and display normal functions, malfunctions, and service diagnostics on a 2 row, 80 character, back-lit liquid crystal display (LCD) in a clear vernacular format. The panel shall allow recall and display of the high and low temperature for the last 24 hours, high and low humidity for the last 24 hours, current percent of capacity and average percent of capacity for the last hour of operation for cool 1, cool 2, reheat, humidification, and dehumidification, component runtimes for fan motor, reheat, humidification, and dehumidification. Programming shall have multilevel password access to prevent unauthorized access. Programming shall be accomplished entirely from the front of the unit without the need to access, set, or program switches inside the unit (front door of unit does not need to be opened). Programmable functions shall be entered on nonvolatile EEPROM to insure program retention should power fail. The historical data base shall be maintained by battery backup. Multiple messages shall be displayed by automatically scrolling from each message to the next. Alarm conditions, in addition to being displayed, shall enunciate an audible alarm. A summary alarm relay shall be available for remote alarms. Additional test or service terminal shall not be required for any functions.

The control shall include temperature anticipation, moisture level humidity control and automatic flush cycles.

An alarm condition shall continue to be displayed until the malfunction is corrected. Multiple alarms shall be displayed sequentially in order of occurrence and only those alarms which have not been acknowledged shall continue to sound an audible alarm. The Data Alarm Processor-II panel shall perform an automatic self-test on system start-up. A user accessible diagnostic program shall aid in system component trouble shooting by displaying on the unit LCD screen the name of the controlled item, output relay number, terminal plug and pin number for each controlled item.

The following automatic control functions shall be included:

Selectable control type
Temperature anticipation
Humidity anticipation
Compressor short cycle
Automatic or manual restart
Auxiliary chilled water operation
Chilled water coil flush cycle*
Start time delay
Sequential load activation
Dehumidification lockout
Automatic reheat element rotation
Energy saver (glycol operation)*
Hot water coil flush cycle*
Energy Saver coil flush cycle*

The following conditions, data and normal functions shall be monitored and displayed:

Temperature setpoint
Current temperature
Cooling 1, 2, 3, 4*
Reheat
Humidification
Humidity setpoint
Current humidity
Dehumidification
Current percentage of capacity utilized
Current discharge temperature*

The following switching and control functions shall be included:

System On/Off switch
Menu exit button
Alarm silence button
Manual override for:
blower; cool 1, 2; heat 1; humidification
Menu selection button
Select button
Program set button

The following historical data shall be available:

- High temperature last 24 hours
- Low temperature last 24 hours
- High humidity last 24 hours
- Low humidity last 24 hours
- Alarm history (Last ten alarms)
- Equipment runtimes
- Average percent of capacity

The following alarm functions shall be monitored and displayed when they occur in addition to enunciating an audible alarm:

- High temperature warning
- Low temperature warning
- High humidity warning
- Low humidity warning
- Compressor 1 high pressure
- Compressor 2 high pressure
- Compressor 1 low pressure
- Compressor 2 low pressure
- Under floor water detected
- No air flow
- Dirty filter
- Humidifier failure
- Manual override
- Compressor short cycle
- Low voltage warning
- Power failure restart
- Temperature sensor failure
- Humidity sensor failure
- Maintenance required
- Person to contact on alarm*
- Custom message*
- No water flow*
- Firestat tripped
- Smoke detected*
- Discharge air sensor failure*
- Fan motor overload*
- Local alarm*

The following functions shall be programmable:

- Temperature setpoint (65-85° F, 18.3-29.4° C)
- Humidity setpoint (30-70% RH)
- Temperature deadband (± 1-5° F/C)
- Humidity deadband (1-15% RH)
- High temperature alarm limit
- High humidity alarm limit
- Low temperature alarm limit
- Low humidity alarm limit
- Mode and stage response rime
- Compressor lead/lag sequence
- Reset equipment runtimes
- Audio alarm mode
- Manual diagnostics
- Compressor short cycle alarm
- Compressor supplements to Energy Saver*
- Define password
- Humidifier autoflush timer
- Firestat temperature alarm limit
- Scheduled maintenance
- Temperature scale
- Control logic
- Calibrate temperature sensor
- Calibrate humidity sensor
- Water valve mode
- Low discharge temperature alarm limit*
- Message for optional alarm limit*
- Delay for optional alarms
- Remote alarm 1, 2, 3 selection*
- Person to contact on alarm
- Automatic self-test
- Humidity anticipation
- Dehumidification mode
- Power problem or restart mode
- Calibrate discharge air sensor*
- Reheat stages
- Humidifier

** Some of the programmable selections, displays, or alarms may require additional components or sensors.*

Data Aire Remote Telecommunications System™

Provide the ***Data Aire Remote Telecommunications System (DART System 200)*** for comprehensive monitoring and control of the environmental control units via a phone modem to a host PC station. The environmental control units shall be interfaced with a communications module (DART-Board) with integral phone modem.

The ***DART System*** shall allow complete remote control, monitoring, and retrieval of all historical data of the Data Aire units through the unit mounted ***Data Alarm Processor-II™***. Upon alarm at the unit, the DART-Board shall automatically dial one or two pre-programmed numbers and transmit specific alarm information. All entry or configuration capabilities available at the ***Data Alarm Processor-II*** shall be accessible at the host station. The commands or requests for data from each unit shall processed through the DART-Board. A single DART-Board shall allow up to 32 Data Aire units to be connected and controlled. The ***DART System*** shall be capable of monitoring and controlling up to 200 DART-Boards.

The following system features shall be provided:

- Automaticscrolling of current status
- Sensor database
- Password access
- Automatic status log prints
- Automatic scrolling of sensor readings
- Sequential display of alarms
- Multiple audio alarm modes
- Custom "Help" messages for alarms

The following programmable functions shall be provided:

- Temperature setpoint
- Temperature high limit
- Temperature low limit
- Temperature sensitivity (Deadband)
- On/Off/Standby operation
- Unit identification number
- Password
- Humidity setpoint
- Humidity high limit
- Humidity low limit
- Humidity sensitivity (Deadband)
- Unit rotation
- Zone number

The following conditions shall be monitored:

- Specific alarms from unit(s)
- Programmed local alarms from unit(s)
- Current temperature sensor readings
- All standard alarms from unit(s)
- Current operating mode
- Current humidity sensor readings

The following historical data shall be provided:

- Alarm history for last 10 alarms in order of occurrence and time since detected
- Current and average percent of capacity for last hour
- High and low temperature last 24 hours
- High and low humidity last 24 hours
- Equipment runtimes for:
  - evaporator fan motors,
  - compressors,
  - reheat,
  - humidification,
  - dehumidification,
- Energy Saver Cooling*,
- Chilled Water Cooling*.

* Some programmable selections, displays, and alarms may require optional components or sensors.

Energy Saver Coil - The environmental control units shall be provided with an *Energy Saver Coil*. The Energy Saver Coil shall be an integral part of the unit and will be capable of providing the total cooling capacity. Whenever the incoming water/glycol temperature is below the setpoint of the water changeover thermostat, Energy Saver cooling shall be available.

The Energy Saver shall operate in the following range: Return air setpoint plus deadband plus 2 degrees.

The Energy Saver shall operate providing there is a need for cooling. The valve shall open at setpoint plus deadband. The valve shall modulate as long as the space is between setpoint plus deadband plus 2 degrees. If the temperature falls below the deadband minus setpoint, the valve shall close and the space shall be considered satisfied. While still in Energy Saver with the valve modulating, if the temperature goes beyond setpoint plus deadband plus 2 degrees, the Energy Saver valve shall close and mechanical (DX) cooling shall begin.

The *Energy Saver Coil* shall include 3-way pressure control valves on the condenser circuits and 3-way valve on the economy coil. Common piping for the energy coil and condensers shall be provided.

Energy Saver/Compressor Supplement - Units with Energy Saver shall be provided with compressor supplement if the Energy Saver is not sufficient as a stand alone system. When the incoming water/glycol temperature is below the setpoint of the water changeover thermostat, the Energy Saver shall be enabled (even if there is no call for cooling). Upon a call for cooling (setpoint plus deadband), the valve shall open proportionally - 10% for each 0.1° above setpoint plus deadband. The compressor shall come on at setpoint plus deadband plus 1.3° (the valve shall be 100% open at this point). The compressor shall go off at setpoint plus 1.3° The valve shall close proportionally - 10% for each 0.1° below setpoint. An air discharge sensor shall be factory mounted.

Auxiliary Chilled Water Coil - Units shall be provided with an Auxiliary Chilled Water Coil. The existing chilled water loop shall be utilized with the Auxiliary Chilled water coil. Units shall operate using the chilled water for cooling. Upon a loss of water flow or an increase in room temperature the system shall bring on compressor (DX) cooling. Separate piping shall be provided for the chilled water coil and refrigeration connections.

Remote Temperature and Humidity Sensors - Units shall be provided with remote temperature and humidity sensors. Sensors shall be provided in a plastic case for remote mounting. 25 feet of shielded cable shall be provided for field wiring.

Disconnect - The environmental control unit shall include a nonautomatic disconnect switch mounted in the high voltage section of the electrical panel. The operating mechanism shall prevent access to the high voltage electrical components until switched to the **"OFF"** position. The operating mechanism shall protrude through the decorative door.

Smoke Detector - The environmental control unit shall be provided with a smoke detector. The smoke detector shall be mounted with the sensing element in the return air stream. When the smoke detector is activated, it shall immediately shut down the unit.

Condensate Pump - Units shall be provided with condensate pumps. Pumps shall be factory mounted/wired or shipped loose for field installation and shall include sump, motor, and automatic control. The pumps shall be rated for 130 GPH @ 20 foot maximum head (40 GPH @ 20 feet with check valve).

Tandem Scroll Compressors - Provide units with tandem hermetic scroll compressors with two step modulation for stage control. Each circuit shall contain two scroll compressors. Modulation shall allow one or both compressors (per circuit) to run depending upon the load of the system, resulting in part-load efficiency equal to full load efficiency.

Semi-Hermetic Compressors - Units shall be provided with semi-hermetic compressors. Compressor shall have suction gas cooled motor, thermal overloads, vibration isolators, oil sight-glass, reversible oil pump, suction and discharge ports, manual reset high pressure switch, with a maximum operating speed of 1750 rpm. The compressors shall be installed with hot gas mufflers, liquid line solenoids, suction accumulators, and crankcase heater.

Four Step Control - Provide cylinder unloading on semi-hermetic compressors. The unit microprocessor shall control the solenoid valves which activate the unloaders in response to the return air temperature. Compressor staging shall be:

Step 1 - Lead compressor starts with unloader valve activated
Step 2 - Lead compressor running at full load condition
Step 3 - Lag compressor starts with unloader valve activated
Step 4 - Lag compressor running at full load condition

A minimum of one compressor shall be fully in response to a call from the unit microprocessor for dehumidification to maintain proper humidity control.

Hot Gas Bypass - Units shall be provided with hot gas bypass. The hot gas bypass valve shall be installed between the compressor discharge line and the leaving side of the expansion valve through a side outlet distributor. The system with the evaporator under full load shall maintain pressure on the leaving side of the hot gas bypass valve to keep the valve port closed. Should the load on the evaporator decrease to the point where the coil is below the desired setting, the pressure on the discharge of the hot gas bypass shall put pressure on the diaphragm overcoming the spring pressure of the seat allowing some hot gas to mix with the normal liquid discharge of the expansion valve raising the evaporator pressure.

3-Way Water Regulating Valves - Units shall be provided with a 3-way head pressure actuated regulating valve. The maximum water pressure shall be ___ psi. Recommended with dual pump package.

High Efficiency Filters - The environmental control unit shall include 60% efficient filters (based on ASHRAE Std. 52.1-1992). The filters shall be four inch (4") deep pleated design.

Pre-Filters - The environmental control unit shall have one inch (1") pre-filters in addition to the unit filters.

Upflow Plenum - Units with top (upflow) discharge shall be provided with plenum. The plenum shall have a front discharge air grille and be fully insulated with one inch (1") thick, $1^1/_2$ pound density fiberglass insulation coated with neoprene. The plenum height shall be 18 inches and shall be painted to match the unit color.

Floorstand - Units shall be provided with floorstands and vibration isolation pads. The floorstand shall be a complete welded base engineered to support the operating unit. The floorstand height shall be ___ inches and adjustable ± 2 inches.

Pump Package - A centrifugal pump shall be provided to circulate water or glycol solution. The pump shall be rated for ____ GPM at ___ feet of head and shall operate on ___ volts. On dual pump applications it is recommended that a 3-way water regulating valve be used in lieu of the standard 2-way valve.

Pump Auto-Changeover - Dual pump packages shall be provided with a pump auto-changeover control and NEMA 4 flow switch. The pump auto-changeover control shall be factory wired and mounted in the dry cooler control box. The pump auto-changeover control shall provide automatic pump changeover in the event of a pump failure. Upon pump changeover, an audible alarm shall sound at the indoor unit and a message ("STANDBY PUMP ON") shall be displayed on the indoor unit microprocessor. The NEMA 4 flow switch shall be field installed.

Pump Enclosure - A pump enclosure shall be provided for the centrifugal pumps(s). The enclosure shall be vented and weather resistant. Pumps shall be factory mounted in enclosure ready for field piping and wiring.

Extended Compressor Warranty-Extended compressor warranties are available from Data Aire. Contact your local representative for one that best suites your needs.

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