Data Temp Systems

Air Cooled, Water/Glycol Cooled and Chilled Water Cooled

2, 3, 4 and 5 Ton

DATA AIRE INC.

DATA AIRE INC.

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

Back in the late 1960's and early 70's with the advancement of the computer and computer rooms, precision environmental control equipment with high sensible cooling ratios became a necessity. Data Aire, a division of Supreme Aire, worked with leading computer facility engineers to develop one of the first down discharge air conditioning units for raised floor application.

Today, as one of the most experienced manufacturers of precision cooling equipment, Data Aire offers a wide range of precision cooling units with an array of options to meet the specific needs of owners and their projects.

Product innovation, to meet the needs of our customers and the industry, has always been a guiding principle at Data Aire. This is demonstrated by our continuous product improvements. In the mid 1980's we were the first to include the steam generator humidifier as standard equipment, eliminating standing water and high maintenance infrared lights. In 1989 Data Aire developed the first solid-state control panel and monitor used in precision cooling and holds the original patent. The Data Alarm Processor (DAP) is well into its second generation, DAP-II. Then in the early to mid 1990's Data Aire was the first to make scroll compressors standard, introducing them in smaller sizes then gradually across the entire product line. Today these type of compressors are recognized worldwide as the most efficient and reliable compressors available. In 2003 we were awarded an AHR Honorable Mention Innovation Award for our Intelli-DART - a site monitoring device that allows the owner to use the fax, telephone and/or e-mail to monitor their controlled spaces and provides for Internet access to both monitor and modify settings for each individual unit. In 2005 we introduced R-410A refrigerant into our product line to meet the 2010 EPA mandates. We are the only manufacturer of precision cooling equipment to make such an offering. Many of our earlier innovations are today's industry standards among modern manufacturers, and we expect our more recent changes to become industry standards as well.

Data Aire produces solutions. We have offered environmental 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. Our moderate size, housed in a single facility, allows us to accommodate your special needs quickly and efficiently.

Data Aire is committed to being the supplier of choice for precision cooling with the flexibility, reliability, and expertise required to meet our customer's needs. One of our actions to this commitment is being an ISO 9001 certified company. To be successful, it is essential to be creative and use our resources to their fullest capabilities. Data Aire's mission is to provide the reliable choice of products and services to our customers

Data Aire is a member of the C/S Group of Companies specializing in unique architectural products. The C/S Group of Companies, a private corporation, has been in business since 1949.

Data Aire Delivers!

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Data Temp

- R22 refrigerant
- 2, 3,4 and 5 ton
- Air, Water/Glycol Cooled
- Chilled Water

DATA TEMP SERIES

Data Temp Series units are precision environmental control systems that bring a standard of reliable performance required by today's market demands. Small to midsize data centers, telecommunication sites, or where access and/or floor space is limited, Data Temp units can meet these demands. Data Temp process cooling systems are available in 2, 3, 4, and 5 ton nominal capacities with upflow or downflow air distribution in air cooled, water/glycol cooled, or chilled water models. Each Data Temp unit is factory run tested and put through a vigorous quality control procedure.

COMFORT

Computer rooms and other mission critical spaces require air that is clean and properly distributed, with precisely controlled temperature and humidity. Building or "people comfort" systems are not designed to meet these demands. Data Temp systems are designed to satisfy these goals.

DESIGN

Data Temp systems feature a specially designed compact tubular steel frame which allows for minimum space requirement of air conditioning equipment in the controlled area. Although compact, all parts are easily accessible providing excellent serviceability. Units are finished with a furniture-grade insulated steel cabinet painted in your choice of color.

CONTROL

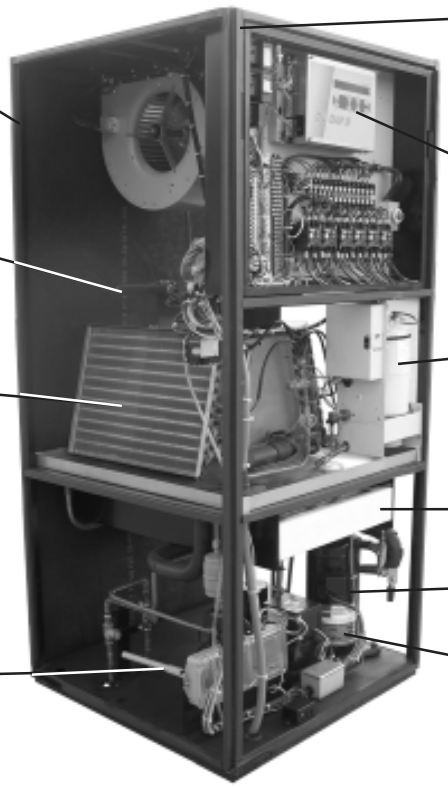
The heart of the Data Temp system is the ***Data Alarm Processor-II,*** a microprocessor based controller designed for precision environmental control. The ***DAP-II*** not only controls and monitors temperature, humidity, airflow, and cleanliness, it provides component runtimes, alarm history, and automatic self-tests. All information is provided on a 2 row, 80 character, backlit liquid crystal display.

HIGH PERFORMANCE

Engineered for high performance and reliability, each Data Temp 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 40 years of building the industry's finest precision control equipment.

DATA AIRE DELIVERS

Standard ship cycle is 30 days from date of order. With the optional premium ***"quick ship"*** program, units can be expedited to ship in as little as one week. All units are built to your specific order. Call your nearest Data Aire representative for more information or visit us on line at **www.dataaire.com.**



FRAME AND CABINET

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

COIL SECTION

Designed for draw through application, the computer selected coil offers greater efficiency in the cooling and dehumidification process. Air bypass is provided to prevent saturated air from being introduced into the controlled space. The coil section is provided with a stainless steel drain pan.

FAN SECTION

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

FILTER SECTION

Units are provided with 4 inch deep, 30% efficient filters (based on ASHRAE Std. 52.1-1992).

ELECTRIC REHEAT

Low-watt density finned tubular sheathed coils provide ample capacity to maintain room dry bulb conditions during a call for dehumidification. Low-watt density coils eliminate ionization associated with open air electric resistance heating. Three stages of reheat are standard.

HUMIDIFICATION

Data Temp units include an electric steam generator humidifier with a "quick change" disposable cylinder and an 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 the 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, thereby saving energy. The humidifier is designed to allow units at any voltage to produce full rated steam output at an optimum water level based on the design conductivity.

COMPRESSORIZED SYSTEMS

The single stage refrigeration circuit includes a hermetic scroll type compressor. These durable, heavy duty, fully welded compressors have no gaskets or seals, eliminating the possibility of refrigerant or oil leaking into the controlled space or environment. Scroll compressors also bring a combination of reliability, efficiency, and improved system sound performance. The 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 compressor short cycle timer.

Water/glycol cooled units include a counterflow plate-fin condenser sized to provide the required capacity for heat rejection with minimum water/glycol flow and low 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 Condenser -
A wide range of outdoor condensers are available. Condensers are manufactured by Data Aire and sized to meet the heat rejection and ambient conditions as required. The industrial duty design includes aluminum corrosion resistant housing, aluminum finned copper tube coils, coated fan guards, energy efficient thermally protected direct drive motors, and variable fan speed control on lead fan 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. Units include a forward curved, double width, double inlet blower engineered for quiet, reliable operation. The belt driven variable pitch drive provides adjustable air flow. 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 Outdoor Condensing Unit -
Data Temp units are also available with remote outdoor condensing units. The condensing unit includes a hermetic scroll compressor with built-in overload protection, crankcase heater, filter drier, sight-glass, and condenser coil. The coil is constructed with copper tubes and aluminum fins. The housing is aluminum with vertical air discharge. The condenser fan is a variable speed type for head pressure control down to -20° F.

Water/Glycol Cooled with Remote Outdoor Dry Cooler -
Remote outdoor dry coolers are available in a variety of sizes. Each dry cooler includes aluminum corrosion resistant housing, aluminum finned copper tube coil, coated fan guards, surge tank, pump contactor, and energy efficient thermally protected direct drive motors. Fan cycling is controlled by water sensing thermostats on dry coolers with more than one fan.

CHILLED WATER SYSTEMS

Chilled water systems include all the same features of the Data Temp product line. Designed for draw through application, the computer selected coil offers greater efficiency in the cooling and dehumidification process. Air bypass is provided to prevent saturated air from being introduced into the controlled space. Chilled water flow is controlled by a 3-way modulating valve for accurate and economical temperature control and dehumidification.

The microprocessor based ***Data Alarm Processor-II^{TM} (DAP-II)*** offers the definitive answer for precision environmental control. The ***DAP-II*** control system not only monitors temperature, humidity, airflow, and cleanliness, it provides component runtimes, alarm history, and an automatic self-test of the microprocessor on system start-up. All messages are presented in a clear vernacular format and are 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 passwords prevent 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
Stand alone panel
Database of unit and room conditions
Factory calibrated temperature sensor
All programmed functions saved in EEPROM
Multi-level password access
Automatic self-test diagnostics
All settings from face of panel
Factory calibrated humidity sensor
Battery back-up for historical data

OPERATIONAL FEATURES

Selectable control type
Temperature anticipation
Energy Saver operation
Dehumidification mode lockout
Automatic reheat element rotation
Compressor short cycle control
Supplemental compressor operation
Sequential load activation
Humidity anticipation
Auxiliary chilled water operation
Automatic compressor rotation
Start time delay
Automatic or manual restart
Chilled water, Energy Saver, hot water with Energy Saver coil flush cycle

DIAGNOSTIC AND SERVICE FEATURES

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

PROTECTIVE AND SAFETY FEATURES

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

PROGRAMMABLE FUNCTIONS - The user friendly Menu Selection switches permit step-by-step programming of the following selections:

Temperature setpoint
- 65-85°F/18.3 - 29.4°C

High temperature alarm limit
- 70-90°F/21.1 - 32.2°C

Humidity setpoint
- 30-70% RH

High humidity alarm limit
- 35-90% RH

Mode and stage response time
- 1 to 5 minutes

Audio alarm mode
- None
- Long
- Full
- Short beep

Automatic self-test acknowledgment
- On
- Off

Humidity anticipation
- On
- Off

Compressor supplements to Energy Saver
- Energy Saver not available
- Energy Saver with no compressor
- Energy Saver with compressor

Low discharge temperature alarm limit*
- 45-60°F/7.2-15.6°C
- Disable low discharge temperature alarm

System start delay
- 0-10 minutes in 5 second increments

Delay for optional alarm 1, 2, 3, and 4
- 0-900 seconds
- Off

Person to contact on alarm
- Contact message not used
- Data processing manager
- Maintenance engineer
- Service company
- 25 space custom message*

Humidifier auto-flush timer
- Auto-flush timer not used
- 6 hours
- 12-96 hours in 12 hour increments

Temperature scale
- Fahrenheit
- Centigrade

Unit and network ID number

Temperature deadband
- +/- 1-5°F/C

Low temperature alarm limit
- 55-75°F/12.8 - 23.9°C

Humidity deadband
- 1-15% RH

Low humidity alarm limit
- 10-65% RH

Reset equipment times for:
- blower,
- compressor,
- reheat 1,
- humidifier,
- dehumidification,
- reset all to zero

Manual diagnostics
- Stay in normal menu mode
- Change to diagnostic mode

Compressor short cycle alarm
- On
- Off

Dehumidification mode
- Compressor within reheat limits
- Compressor with no reheat limits
- Dehumidification Off

Power failure or restart mode
- Automatic
- Manual

Message for optional alarm 1, 2, 3, and 4
- Custom message*
- Fan motor overload*
- Local alarm
- Standby pump On*
- UPS/Alternate power On*
- Reheat inhibited
- Humidification inhibited
- Reheat and humidification inhibited

Define password
- 00-99

Firestat temperature alarm limit
- Unit shutdown and alarm at 100-150° F

Scheduled normal maintenance
- 1-1000 Hours

Control logic
- Smart logic
- PID
- Setpoint deviation

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

***PROGRAMMABLE FUNCTIONS**, continued*

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
- Compressor high pressure
- High temperature
- Humidifier problem
- Humidifier sensor problem
- Local alarm 1, 2, 3, and 4*
- Low humidity
- Compressor low pressure
- 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

System start delay
- 0-10 minutes in 5 second increments

Calibrate temperature sensor
- +9.9° F/C

Calibrate humidity sensor
- +30% RH

Calibrate discharge air sensor
- +9.9° F/C

Compressor
- Primary
- None

Reheat stages
- None
- 1
- 2
- 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 voltage range
- 0-10 VDC
- 4-7 VDC
- 6-9 VDC
- 7-10 VDC

Reverse acting valve
- Yes
- No

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

Temperature setpoint
Current temperature
Current percent of capacity utilized
Unit or network ID number
Cooling
Humidification
Energy Saver cooling
Humidity setpoint
Current humidity
Current discharge air temperature*
Zone number
Reheat
Dehumidification

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

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

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

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

High temperature, last 24 hours
High humidity, last 24 hours
Average percent of capacity last hour
Equipment runtimes
Low temperature, last 24 hours
Low humidity, last 24 hours
Alarm history, last 10 alarms

OPTIONAL FEATURES

Analog inputs
Humidifier flush rate
Remote wall mounting
Discharge temperature sensors
Standby pump operating alarm
Two additional remote alarms
Modulating humidifier control
Under floor water detection module
No water flow alarm
SCR control reheat

INTEROPERABILITY FEATURES

RS 485 2-wire network card - used with Modbus ASCII/RTU and N2 Metasys
RS 485 4-wire network card - used with Intelli-DART, DART or DANA 32
Ethernet Card - used for communication with Modbus TCP, SNMP and BACnet/IP
Lontalk Card - used for communication with Lonworks

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° F/7.2° C, *Energy Saver* cooling is available. *Energy Saver* mode operates in the following range: Return air setpoint plus deadband plus two 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 deadband 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 condenser water circuit, and a 3-way valve on the Energy Saver coil. Common piping for coil and condenser is provided.

Energy Saver/Compressor Supplement **-** Units with the *Energy Saver Coil* 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* mode 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° above setpoint plus deadband. The compressor will come on at setpoint plus deadband plus 1.0° (the valve is 100% open at this point). The compressor will go off at setpoint plus deadband plus 0.7°. The valve will close proportionally - 10% for each 0.1° 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 discharge air 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 in lieu of the standard return air sensors. Sensors are provided in a wall mounted 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 microprocessor 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.

Next Size Larger Motor - Should your installation require additional airflow or increased static pressure you can order a larger motor to meet these requirements.

Hot Water Reheat **-** Where hot water is available, a unit installed reheat coil can use hot water reheat. The coil is designed for 150 psi maximum water pressure and includes a 2-way valve (a 3-way valve is optional).

Hot Gas Reheat **-** Unit hot gas discharge is used for reheat and maximum system efficiency.
(***Note:*** Units with *Hot Gas Bypass* option are not available with hot gas reheat).

Steam Reheat - When your building already has steam lines this option may be a more beneficial way of providing reheat to your unit. When selected the unit comes with a steam coil and 2-way valve, replacing the standard electric reheat.

Compressor Rotalock Valves - These valves facilitate servicing and permit the changing of compressor without the complete loss of refrigerant.

Unit Mounted Disconnect **-** A unit mounted nonautomatic disconnect switch is installed in the high voltage electrical section. The operating mechanism prevents access to the high voltage electrical components until switched to the "OFF" position. The operating mechanism (handle) protrudes through the decorative door.

Hot Gas Bypass **-** Hot gas bypass may be ordered for changing load conditions. The hot gas bypass 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 on 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.

3-Way Water Regulating Valve **-** 3-way water regulating valve for pressure control may be ordered to replace standard 2-way valve installed in water/glycol unit. 3-way valves provide control of condensing temperature maintaining constant system capacity and condenser water flow.

Condensate Pump **-** Condensate pumps may be ordered as factory installed or for field installation. Condensate pumps are complete with sump, motor, and automatic control. The pumps are rated for 130 GPH at 20 foot maximum or 40 GPH at 20 feet with check valve. Pumps shipped loose are available in 115, 230, or 460 volt.

Upflow Plenum **-** Upflow plenums are fully insulated with front discharge air grille. Side grilles for both or one side are available. Standard plenums are 18 inches high and are painted to match the unit color.

Floorstand **-** Floorstands are adjustable -1/+3 inches and are available with a factory installed turning vane or with seismic construction.

Seismic Bases - When required you can order 12" to 24" seismic bases for your unit.

Vibration Isolation Pads - Ribbed neoprene cork filled pads installed between either the evaporator or condenser unit and the floor. These pads minimize the vibrations created with the operation of the unit resulting in quieter operation

Compressor Sound Jackets **-** Should you have a concern about the noise generated by the compressor one way to minimize the noise is by using this option. Jackets are shipped loose and must be installed in the field.

Extended Compressor Warranties - Data Aire offers either a two year or a four year extended compressor warranty in addition to the standard three parts parts warranty. These extended warranties cover parts only - not labor.

Site Monitoring Devices

DARA-4 - Data Aire Relay Auto Changeover controller allows for unit rotation and backup capabilities while interfacing via a summary alarm with BMS systems. This economical controller manages up to four Data Aire units.

DANA-32 - This controller is specifically designed to provide customized local control of up to 32 Data Aire precision cooling units. DANA-32 manages up to 16 distinct zones in a facility, with each zone containing one to 32 units but never a total of more than 32 units. (Zones can be areas of a room or distinct rooms.) Most importantly this controller guarantees temperature and humidity control by constantly monitoring conditions within each zone, and adding capacity when conditions in a zone require, if excess capacity is available.. The DANA 32 features two schedules for each unit that is connected. This ensures a more economical operation of your precision cooling equipment

DART - Has exactly the same functionality as the DANA-32 but adds telephonic capabilities and allows entry and configuration capabilities via a personal computer and software that is included.. With the telephonic capabilities when an alarm occurs on a unit(s) the DART will call out using either a primary, secondary telephone number or both that you enter into the DART's memory. Call outs will occur for up to three days. This ensures that your space is functioning properly or, if not, that you are aware of a problem immediately so you can take action to minimize or prevent serious damage.

Intelli-DART - The ultimate monitor in site protection. Intelli-DART can monitor and control up to 260 individual Data Aire units in up to 32 zones. The Intelli-DART allows you to monitor and change controls on every unit that is attached to it using the Internet. This means that no matter where you are, next door or half way around the world, you have control of your mission critical space. To provide routine monitoring the Intelli-DART can be programmed to fax or e-mail out a daily report of the condition of each unit, providing an excellent log on your equipment. Finally, the Intelli-DART notifies you when a problem occurs in your space either by phone, fax or e-mail - your choice. This allows you to take immediate action preventing any serious problems from getting out of hand.

AIR COOLED: Performance data at STANDARD AIRFLOW with remote air cooled condenser

MODEL NUMBER		*DTAD/U-02*	*DTAD/U-03*	*DTAD/U-04*	*DTAD/U-05*
CAPACITY in Btu/hr - *gross*					
80° DB/67° WB	Total	28,700	39,500	51,300	66,900
50% RH	Sensible	21,000	29,600	40,100	50,900
75° DB/62.5° WB	Total	26,000	36,400	47,000	61,600
50% RH	Sensible	20,400	29,100	39,300	50,000
75° DB/61° WB	Total	25,400	35,500	45,800	59,700
45% RH	Sensible	21,800	31,000	41,900	53,100
72° DB/60° WB	Total	24,800	34,800	44,800	58,500
50% RH	Sensible	20,000	28,600	38,400	48,900
72° DB/58.6° WB	Total	24,410	33,800	43,700	57,100
45% RH	Sensible	21,200	30,300	40,800	51,900
BLOWER SECTION					
Airflow - CFM		800	1,200	1,600	2,000
Standard motor - horsepower		1/2	3/4	1	1 1/2
External static pressure (E.S.P.) - inches of W.G.		0.5	0.5	0.5	0.5
Number of motors/fans		1/1	1/1	1/1	1/1
Maximum E.S.P.	(Standard Motor)	0.8	0.7	1.0	1.0
Minimum E.S.P.	(Next Size Motor)	0.8	1.0	1.2	1.2
Next size motor - horsepower		3/4	1	1 1/2	2
COMPRESSORS					
Type		Scroll	Scroll	Scroll	Scroll
Quantity		1	1	1	1
Refrigerant		R-22	R-22	R-22	R-22
EVAPORATOR COIL					
Face area - sq ft		4.2	4.2	6.25	6.25
Rows of coils		3	3	4	4
Face velocity - fpm		190	286	256	320
REHEAT SECTION					
Electric		Standard	Standard	Standard	Standard
kW		6	6	12	12
Capacity - Btu/hr	20,490	20,490	40,980	40,980	
HUMIDIFIER SECTION					
Steam generator		Standard	Standard	Standard	Standard
kW		3.4	3.4	3.4	3.4
Capacity - lb/hr		10	10	10	10

AIR COOLED: Performance data at STANDARD airflow with remote air cooled condenser

MODEL NUMBER		*DTAD/U-02*	*DTAD/U-03*	*DTAD/U-04*	*DTAD/U-05*
FILTER SECTION					
Quantity		2	2	2	2
Size - inches	*Downflow*	16x25x4	16x25x4	16x25x4	16x25x4
	Upflow	16x20x4	16x20x4	16x20x4	16x20x4
Efficiency - percent		30	30	30	30
(Note: Filter efficiency based on ASHRAE Std. 52.1-1992.)					
CONNECTION SIZES					
Liquid line - O.D. Copper		1/2	1/2	1/2	1/2
Hot gas line - O.D. Copper		1/2	1/2	1/2	1/2
Condensate drain		3/4	3/4	3/4	3/4
Humidifier supply		1/4	1/4	1/4	1/4
(Note: Refer to Operation and Maintenance manual for recommended pipe sizing between indoor/outdoor sections.)					
ELECTRICAL SECTION	**Standard Motor**				
Electrical data based on STANDARD unit, electric reheat - **YES**, steam generator humidifier - **YES**, and STANDARD MOTOR.					
208-230/1/60	FLA/MCA/MFS	43/52/60	79/97/100	88/109/110	96/117/125
208-230/3/60	FLA/MCA/MFS	26/32/35	47/58/60	50/62/70	56/69/70
460/3/60	FLA/MCA/MFS	12/15/20	22/27/30	24/30/35	27/33/35
575/3/60	FLA/MCA/MFS	N/A	N/A	19/24/25	21/26/30
Electrical data based on: electric reheat - **NO**, steam generator humidifier -**YES**, and STANDARD MOTOR.					
208-230/1/60	FLA/MCA/MFS	30/37/40	38/46/50	47/57/70	54/65/80
208-230/3/60	FLA/MCA/MFS	26/32/35	30/36/40	33/41/50	39/48/50
460/3/60	FLA/MCA/MFS	12/15/20	14/17/20	17/20/25	19/23/30
575/3/60	FLA/MCA/MFS	N/A	N/A	13/16/20	15/18/20
Electrical data based on: electric reheat - **YES**, steam generator humidifier - **NO**, and STANDARD MOTOR.					
208-230/1/60	FLA/MCA/MFS	43/52/60	79/97/100	88/109/110	95/117/125
208-230/3/60	FLA/MCA/MFS	26/32/35	47/58/60	50/62/70	56/69/70
460/3/60	FLA/MCA/MFS	12/15/20	22/27/30	24/30/35	27/33/35
575/3/60	FLA/MCA/MFS	N/A	N/A	19/24/25	21/26/30
Electrical data based on: electric reheat - **NO**, steam generator humidifier - **NO**, and STANDARD MOTOR.					
208-230/1/60	FLA/MCA/MFS	14/16/25	21/25/40	31/36/60	38/45/70
208-230/3/60	FLA/MCA/MFS	9/11/15	13/16/25	17/20/30	23/27/40
460/3/60	FLA/MCA/MFS	4.6/5.5/15	6.6/7.9/15	9/11/15	12/14/20
575/3/60	FLA/MCA/MFS	N/A	N/A	7.2/8.7/15	9/11/15
STANDARD MOTOR	*FLA - Full load amps*				
Horsepower		1/2	3/4	1	1 1/2
208-230/1/60		3.4	5.3	6.8	8.8
208-230/3/60		2.2	3.0	3.6	5.7
460/3/60		1.1	1.6	1.8	2.8
575/3/60		N/A	N/A	1.4	2.0

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

AIR COOLED: Performance data at STANDARD airflow with remote air cooled condenser

MODEL NUMBER		*DTAD/U-02*	*DTAD/U-03*	*DTAD/U-04*	*DTAD/U-05*
ELECTRICAL SECTION		**Next Size Motor**			
Electrical data based on: electric reheat - **YES**, steam generator humidifier - **YES**, and NEXT SIZE MOTOR.					
208-230/1/60	FLA/MCA/MFS	44/54/60	80/99/100	90/111/125	96/117/125
208-230/3/60	FLA/MCA/MFS	27/33/35	47/58/60	53/64/70	57/69/70
460/3/60	FLA/MCA/MFS	13/15/20	22/27/30	25/31/35	27/33/35
575/3/60	FLA/MCA/MFS	N/A	N/A	20/24/25	22/26/30
Electrical data based on: electric reheat - **NO**, steam generator humidifier - **YES**, and NEXT SIZE MOTOR.					
208-230/1/60	FLA/MCA/MFS	32/39/40	39/47/50	49/59/70	54/66/90
208-230/3/60	FLA/MCA/MFS	26/32/35	30/37/40	35/42/50	40/48/60
460/3/60	FLA/MCA/MFS	12/15/20	14/17/20	18/21/25	19/23/30
575/3/60	FLA/MCA/MFS	N/A	N/A	14/17/20	16/19/20
Electrical data based on: electric reheat - **YES**, steam generator humidifier - **NO**, and NEXT SIZE MOTOR.					
208-230/1/60	FLA/MCA/MFS	44/54/60	80/99/100	90/111/125	96/117/125
208-230/3/60	FLA/MCA/MFS	27/33/35	47/58/60	53/64/70	57/69/70
460/3/60	FLA/MCA/MFS	13/15/20	22/27/30	25/31/35	27/33/35
575/3/60	FLA/MCA/MFS	N/A	N/A	20/24/25	22/26/30
Electrical data based on: electric reheat -**NO**, steam generator humidifier - **NO**, and NEXT SIZE MOTOR.					
208-230/1/60	FLA/MCA/MFS	16/18/25	23/27/40	33/38/60	38/45/70
208-230/3/60	FLA/MCA/MFS	10/12/15	14/16/25	18/22/35	23/28/40
460/3/60	FLA/MCA/MFS	5.0/5.9/15	6.9/8.2/15	10/12/15	12/14/20
575/3/60	FLA/MCA/MFS	N/A	N/A	7.8/9.3/15	10/11/15

NEXT SIZE MOTOR	*FLA - Full load amps*			
Horsepower	3/4	1	1 1/2	2
208-230/1/60	5.3	6.8	8.8	9.3
208-230/3/60	3.0	3.6	5.7	6.0
460/3/60	1.5	1.8	2.8	3.0
575/3/60	N/A	N/A	2.0	2.5

COMPRESSOR	*FLA - Full load amps*			
Nominal tons	2	3	4	5
208-230/1/60	10.3	16.0	23.7	28.8
208-230/3/60	7.1	10.3	13.5	17.3
460/3/60	3.5	5.1	7.4	9.0
575/3/60	N/A	N/A	5.8	7.1

CONDENSER	*Remote air cooled outdoor*			
Condenser selection at 95° F ambient	DARC-03	DARC-03	DARC-05	DARC-05
Condenser selection at 100° F ambient	DARC-03	DARC-03	DARC-05	DARC-06
Condenser selection at 105° F ambient	DARC-03	DARC-05	DARC-06	DARC-07

(Note: Condensers are not available in 575 volts. Condensers are selected at sea level. *Refer to page 63 for electrical data.)*

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

AIR COOLED: Performance data at OPTIONAL airflow with remote air cooled condenser

MODEL NUMBER		*DTAD/U-02*	*DTAD/U-03*	*DTAD/U-04*	*DTAD/U-05*
CAPACITY in Btu/hr - *gross*					
80° DB/67° WB	Total	29,500	41,000	52,600	69,100
50% RH	Sensible	23,600	33,500	45,600	57,800
75° DB/62.5° WB	Total	26,900	37,600	48,800	63,700
50% RH	Sensible	23,000	32,800	44,700	56,700
75° DB/61° WB	Total	26,300	36,700	47,500	61,700
45% RH	Sensible	24,700	35,100	47,300	60,500
72° DB/60° WB	Total	25,700	35,600	46,200	60,500
50% RH	Sensible	25,500	32,000	43,500	55,200
72° DB/58.6° WB	Total	25,200	35,100	45,100	59,200
45% RH	Sensible	24,100	34,100	44,800	59,000
BLOWER SECTION					
Airflow - CFM		1,000	1,500	2,000	2,500
Standard motor - horsepower		3/4	1	1 1/2	2
External static pressure (E.S.P.) - inches of W.G.		0.5	0.5	0.5	0.5
Number of motors/fans		1/1	1/1	1/1	1/1
Maximum E.S.P.	(Standard Motor)	0.8	0.7	1.0	1.2
Maximum E.S.P.	(Next Size Motor)	1.0	1.0	1.2	N/A
Next size motor - horsepower		1	1 1/2	2	N/A
COMPRESSORS					
Type		Scroll	Scroll	Scroll	Scroll
Quantity		1	1	1	1
Refrigerant		R-22	R-22	R-22	R-22
EVAPORATOR COIL					
Face area - sq ft		4.2	4.2	6.25	6.25
Rows of coils		3	3	4	4
Face velocity - fpm		238	357	320	400
REHEAT SECTION					
Electric		Standard	Standard	Standard	Standard
kW		6	6	12	12
Capacity - Btu/hr		20,490	20,490	40,980	40,980
HUMIDIFIER SECTION					
Stream generator		Standard	Standard	Standard	Standard
kW		3.4	3.4	3.4	3.4
Capacity - lb/hr		10	10	10	10

AIR COOLED: Performance Data at OPTIONAL airflow with remote air cooled condenser

MODEL NUMBER		*DTAD/U-02*	*DTAD/U-03*	*DTAD/U-04*	*DTAD/U-05*
FILTER SECTION					
Quantity		2	2	2	2
Size - inches	*Downflow*	16x25x4	16x25x4	16x25x4	16x25x4
	Upflow	16x20x4	16x20x4	16x20x4	16x20x4
Efficiency - percentage		30	30	30	30
(Note: Filter efficiency based on ASHRAE Std. 52.1-1992.)					
CONNECTION SIZES					
Liquid line - O.D. Copper		1/2	1/2	1/2	1/2
Hot gas line - O.D. Copper		1/2	1/2	1/2	1/2
Condensate drain		3/4	3/4	3/4	3/4
Humidifier supply		1/4	1/4	1/4	1/4
(Note: Refer to Operation and Maintenance Manual for recommended pipe sizing between indoor/outdoor sections.)					
ELECTRICAL SECTION	**Standard Motor**				
Electrical data based on STANDARD unit: electric reheat - **YES**, steam generator humidifier - **YES**, and STANDARD MOTOR.					
208-230/1/60	FLA/MCA/MFS	44/54/60	80/99/100	90/111/125	96/117/125
208-230/3/60	FLA/MCA/MFS	27/33/35	47/58/60	53/64/70	57/69/70
460/3/60	FLA/MCA/MFS	13/15/20	22/27/30	25/31/35	27/33/35
575/3/60	FLA/MCA/MFS	N/A	N/A	20/24/25	22/26/30
Electrical data based on: electric reheat - **NO**, steam generator humidifier **YES**, and STANDARD MOTOR.					
208-230/1/60	FLA/MCA/MFS	32/39/40	39/47/50	49/59/70	54/66/90
208-230/3/60	FLA/MCA/MFS	26/32/35	30/37/40	36/43/45	40/48/50
460/3/60	FLA/MCA/MFS	12/15/20	14/17/20	18/21/25	19/23/30
575/3/60	FLA/MCA/MFS	N/A	N/A	14/17/20	16/19/20
Electrical data based on: electric reheat - **YES**, steam generator humidifier -**NO**, and STANDARD MOTOR.					
208-230/1/60	FLA/MCA/MFS	44/54/60	80/99/100	90/111/125	96/117/125
208-230/3/60	FLA/MCA/MFS	27/33/35	47/58/60	53/64/70	57/69/70
460/3/60	FLA/MCA/MFS	13/15/20	22/27/30	25/31/35	27/33/35
575/3/60	FLA/MCA/MFS	N/A	N/A	20/24/25	22/26/30
Electrical data based on: electric reheat - **NO**, steam generator humidifier - **NO** and STANDARD MOTOR.					
208-230/1/60	FLA/MCA/MFS	16/18/25	23/27/40	33/38/60	38/45/70
208-230/3/60	FLA/MCA/MFS	10/12/15	14/16/25	18/22/35	23/28/40
460/3/60	FLA/MCA/MFS	5.0/5.9/15	6.9/8.2/15	10/12/15	12/14/20
575/3/60	FLA/MCA/MFS	N/A	N/A	7.8/9.3/15	10/11/15
STANDARD MOTOR	*FLA - full load amps*				
Horsepower		3/4	1	1 1/2	2
208-230/1/60		5.3	6.8	8.8	9.3
208-230/3/60		3.0	3.6	5.7	6.0
460/3/60		1.5	1.8	2.8	3.0
575/3/60		N/A	N/A	2.0	2.5

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

AIR COOLED: Performance data at OPTIONAL airflow with remote air cooled condenser

MODEL NUMBER		*DTAD/U-02*	*DTAD/U-03*	*DTAD/U-04*	*DTAD/U-05*
ELECTRICAL SECTION	**Next Size Motor**				
Electrical data based on: electric reheat -**YES**, steam generator humidifier - **YES**, and NEXT SIZE MOTOR.					
208-230/1/60	FLA/MCA/MFS	46/56/60	82/101/110	91/111/125	N/A
208-230/3/60	FLA/MCA/MFS	27/33/35	49/60/70	53/65/70	N/A
460/3/60	FLA/MCA/MFS	13/16/20	23/28/30	25/31/35	N/A
575/3/60	FLA/MCA/MFS	N/A	N/A	20/25/30	N/A
Electrical data based on: electric reheat - **NO**, steam generator humidifier - **YES**, and NEXT SIZE MOTOR.					
208-230/1/60	FLA/MCA/MFS	33/40/45	41/49/60	49/59/70	N/A
208-230/3/60	FLA/MCA/MFS	27/33/35	32/39/45	36/43/50	N/A
460/3/60	FLA/MCA/MFS	13/15/20	15/18/20	18/21/25	N/A
575/3/60	FLA/MCA/MFS	N/A	N/A	14/17/20	N/A
Electrical data based on: electric reheat - **YES**, steam generator humidifier - **NO**, and NEXT SIZE MOTOR.					
208-230/1/60	FLA/MCA/MFS	46/56/60	82/101/110	91/111/125	N/A
208-230/3/60	FLA/MCA/MFS	27/33/35	49/60/70	53/65/70	N/A
460/3/60	FLA/MCA/MFS	13/16/20	23/28/30	25/31/35	N/A
575/3/60	FLA/MCA/MFS	N/A	N/A	20/25/30	N/A
Electrical data based on: electric reheat - **NO**, steam generator humidifier - **NO**, and NEXT SIZE MOTOR.					
208-230/1/60	FLA/MCA/MFS	17/20/25	25/29/40	33/39/60	N/A
208-230/3/60	FLA/MCA/MFS	11/12/15	16/19/25	20/23/35	N/A
460/3/60	FLA/MCA/MFS	5.3/6.2/15	7.9/9.2/15	10/12/15	N/A
575/3/60	FLA/MCA/MFS	N/A	N/A	8.3/9.8/15	N/A

NEXT SIZE MOTOR	*FLA - full load amps*			
Horsepower	1	1 1/2	2	N/A
208-230/1/60	6.8	8.8	9.3	N/A
208-230/3/60	3.6	5.7	6.0	N/A
460/3/60	1.8	2.8	3.0	N/A
575/3/60	N/A	N/A	2.5	N/A

COMPRESSOR	*FLA - full load amps*			
Nominal tons	2	3	4	5
208-230/1/60	10.3	16.0	23.7	28.8
208-230/3/60	7.1	10.3	13.5	17.3
460/3/60	3.5	5.1	7.4	9.0
575/3/60	N/A	N/A	5.8	7.1

CONDENSER	*FLA - full load amps*			
Condenser selection at 95° F ambient	*DARC-03*	*DARC-03*	*DARC-05*	DARC-05
Condenser selection at 100° F ambient	*DARC-03*	*DARC-03*	*DARC-05*	*DARC-06*
Condenser selection at 105° F ambient	*DARC-03*	*DARC-05*	*DARC-06*	*DARC-07*

(Note: Condensers are not available in 575 volts. Condensers are selected at sea level. Refer to page 63 for electrical data.)

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

AIR COOLED: Performance data at STANDARD airflow with remote outdoor condensing unit

MODEL NUMBER		*DTAD/U-02*	*DTAD/U-03*	*DTAD/U-04*	*DTAD/U-05*
CAPACITY in Btu/hr - *gross*					
80° DB/67° WB	Total	25,000	37,500	53,900	65,400
50% RH	Sensible	19,600	28,900	41,100	50,400
75° DB/62.5° WB	Total	23,100	34,400	49,400	60,200
50% RH	Sensible	19,200	28,300	40,300	49,500
75° DB/61° WB	Total	22,400	33,500	48,100	58,600
45% RH	Sensible	20,500	30,200	42,900	52,700
72° DB/60° WB	Total	22,000	32,900	47,200	57,700
50% RH	Sensible	18,800	27,700	39,400	48,500
72° DB/58.6° WB	Total	21,200	31,800	46,200	56,200
45% RH	Sensible	20,000	29,400	42,000	51,500
BLOWER SECTION					
Airflow - CFM		800	1,200	1,600	2,000
Standard motor - horsepower		1/2	3/4	1	1 1/2
External static pressure (E.S.P.) - inches of W.G.		0.5	0.5	0.5	0.5
Number of motors/fans		1/1	1/1	1/1	1/1
Maximum E.S.P.	(Standard Motor)	0.8	0.7	1.0	1.0
Maximum E.S.P.	(Next Size Motor)	0.8	1.0	1.2	1.2
Next size motor		3/4	1	1 1/2	2
COMPRESSOR	*in Condensing Unit*				
Type		Scroll	Scroll	Scroll	Scroll
Quantity		1	1	1	1
Refrigerant		R-22	R-22	R-22	R-22
EVAPORATOR COIL					
Face area - sq ft		4.2	4.2	4.2	4.2
Rows of coils		3	3	4	4
Face velocity - fpm		190	286	256	320
REHEAT SECTION					
Electric		Standard	Standard	Standard	Standard
kW		6	6	12	12
Capacity - Btu/hr		20,490	20,490	40,980	40,980
HUMIDIFIER SECTION					
Steam generator		Standard	Standard	Standard	Standard
kW		3.4	3.4	3.4	3.4
Capacity - lb/hr		10	10	10	10

AIR COOLED: Performance data at STANDARD airflow with remote outdoor condensing unit

MODEL NUMBER		*DTAD/U-02*	*DTAD/U-03*	*DTAD/U-04*	*DTAD/U-05*
FILTER SECTION					
Quantity		2	2	2	2
Size - inches	*Downflow*	16x25x4	16x25x4	16x25x4	16x25x4
	Upflow	16x20x4	16x20x4	16x20x4	16x20x4
Efficiency - percentage		30	30	30	30
(Note: Filter efficiency based on ASHRAE Std. 52.1-1992.)					
CONNECTION SIZES					
Liquid line - O.D. Copper		1/2	1/2	1/2	1/2
Suction line - O.D. Copper		3/4	3/4	3/4	3/4
Condensate drain		3/4	3/4	3/4	3/4
Humidifier supply		1/4	1/4	1/4	1/4
(Note: Refer to Operation and Maintenance manual for recommended pipe sizing between indoor section and condensing unit.)					
ELECTRICAL SECTION	**Standard Motor**				
Electrical data based on STANDARD unit: electric reheat - **YES**, steam generator humidifier - **YES**, and STANDARD MOTOR.					
208-230/1/60	FLA/MCA/MFS	32/40/45	63/79/80	64/81/90	66/83/90
208-230/3/60	FLA/MCA/MFS	19/24/25	36/45/50	37/46/50	39/49/50
460/3/60	FLA/MCA/MFS	9/11/15	17/21/25	17/21/25	18/22/25
575/3/60	FLA/MCA/MFS	N/A	N/A	13/17/20	14/18/20
Electrical data based on: electric reheat - **NO**, steam generator humidifier - **YES**, and STANDARD MOTOR.					
208-230/1/60	FLA/MCA/MFS	20/25/30	22/37/30	23/29/30	25/31/35
208-230/3/60	FLA/MCA/MFS	19/23/25	36/45/50	37/46/50	38/48/50
460/3/60	FLA/MCA/MFS	9/11/15	17/21/25	17/21/25	18/22/25
575/3/60	FLA/MCA/MFS	N/A	N/A	13/17/20	14/18/20
Electrical data based on: electric reheat - **YES**, steam generator humidifier - **NO**, and STANDARD MOTOR.					
208-230/1/60	FLA/MCA/MFS	32/40/45	63/79/80	64/81/90	66/83/90
208-230/3/60	FLA/MCA/MFS	19/24/25	36/45/50	37/46/50	38/48/50
460/3/60	FLA/MCA/MFS	9/11/15	17/21/25	17/21/25	18/2/25
575/3/60	FLA/MCA/MFS	N/A	N/A	13/17/20	14/18/20
Electrical data based on: electric reheat - **NO**, steam generator humidifier - **NO**, and STANDARD MOTOR.					
208-230/1/60	FLA/MCA/MFS	3.4/4.3/15	5.3/6.6/15	6.8/8.5/15	9/11/15
208-230/3/60	FLA/MCA/MFS	2.2/2.8/15	3.0/3.8/15	3.6/4.5/15	4.8/6.0/15
460/3/60	FLA/MCA/MFS	1.1/1.4/15	1.5/1.9/15	1.8/2.3/15	2.8/3.5/15
575/3/60	FLA/MCA/MFS	N/A	N/A	1.4/1.8/15	2.0/2.5/15
STANDARD MOTOR	*FLA - Full load amps*				
Horsepower		1/2	3/4	1	1 1/2
208-230/1/60		3.4	5.3	6.8	8.8
208-230/3/60		2.2	3.0	3.6	5.7
460/3/60		1.1	1.6	1.8	2.8
575/3/60		N/A	N/A	1.4	2.0

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

AIR COOLED: Performance data at STANDARD airflow with remote outdoor condensing unit

MODEL NUMBER		*DTAD/U-02*	*DTAD/U-03*	*DTAD/U-04*	*DTAD/U-05*
ELECTRICAL SECTION	**Next Size Motor**				
Electrical data based on: electric reheat- **YES**, steam generator humidifier **YES**, and NEXT SIZE MOTOR.					
208-230/1/60	FLA/MCA/MFS	34/48/45	64/81/90	66/83/90	67/84/90
208-230/3/60	FLA/MCA/MFS	20/25/30	37/46/50	39/49/50	39/49/50
460/3/60	FLA/MCA/MFS	9/11/15	17/21/25	18/22/25	18/23/25
575/3/60	FLA/MCA/MFS	N/A	N/A	14/18/20	15/18/20
Electrical data based on: electric reheat - **NO**, steam generator humidifier - **YES**, and NEXT SIZE MOTOR.					
208-230/1/60	FLA/MCA/MFS	22/27/30	28/29/30	25/31/35	26/31/35
208-230/3/60	FLA/MCA/MFS	19/24/25	20/25/30	21/26/30	22/28/30
460/3/60	FLA/MCA/MFS	9/11/15	9/11/15	10/13/15	10/13/15
575/3/60	FLA/MCA/MFS	N/A	N/A	7.9/9.9/15	8.4/10.5/15
Electrical data based on: electric reheat - **YES**, steam generator humidifier - **NO**, and NEXT SIZE MOTOR.					
208-230/1/60	FLA/MCA/MFS	34/43/45	64/81/90	66/83/90	67/84/90
208-230/3/60	FLA/MCA/MFS	20/25/30	37/46/50	38/48/50	39/49/50
460/3/60	FLA/MCA/MFS	9/11/15	17/21/25	18/22/25	18/23/25
575/3/60	FLA/MCA/MFS	N/A	N/A	14/18/15	15/18/20
Electrical data based on: electric reheat - **NO**, steam generator humidifier - **NO**, and NEXT SIZE MOTOR.					
208-230/1/60	FLA/MCA/MFS	5.3/6.6/15	6.8/8.5/15	9/11/15	9/12/20
208-230/3/60	FLA/MCA/MFS	3.0/3.8/15	3.6/4.5/15	4.8/6.0/15	6.0/7.5/15
460/3/60	FLA/MCA/MFS	1.5/1.9/15	1.8/2.3/15	2.8/3.5/15	3.0/3.8/15
575/3/60	FLA/MCA/MFS	N/A	N/A	2.0/2.5/15	2.5/3.1/15

NEXT SIZE MOTOR	*FLA - Full load amps*			
Horsepower	3/4	1	1 1/2	2
208-230/1/60	5.3	6.8	8.8	9.3
208-230/3/60	3.0	3.6	5.7	6.0
460/3/60	1.5	1.8	2.8	3.0
575/3/60	N/A	N/A	2.0	2.5

COMPRESSOR	*FLA - Full load amps*			
Nominal tons	2	3	4	5
208-230/1/60	10.3	16.0	23.7	28.8
208-230/3/60	7.1	10.3	13.5	17.3
460/3/60	3.5	5.1	7.4	9.0
575/3/60	N/A	N/A	5.8	7.1

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

AIR COOLED: Performance data at STANDARD airflow with remote outdoor condensing unit

MODEL NUMBER		*DTAD/U-02*	*DTAD/U-03*	*DTAD/U-04*	*DTAD/U-05*
CONDENSING UNIT					
Condensing unit at 95° F ambient		***DRCU-03***	***DRCU-03***	***DRCU-05***	***DRCU-05***
208-230/1/60	FLA/MCA/MFS	18/21/30	20/24/40	28/34/50	33/40/60
208-230/3/60	FLA/MCA/MFS	13/15/20	15/17/25	18/21/30	22/26/40
460/3/60	FLA/MCA/MFS	6.6/7.7/15	7.2/8.5/15	10/11/15	11/13/20
Condensing unit at 100° F ambient		***DRCU-03***	***DRCU-03***	***DRCU-05***	***DRCU-06***
208-230/1/60	FLA/MCA/MFS	18/21/30	20/24/40	28/34/50	33/40/60
208-230/3/60	FLA/MCA/MFS	13/15/20	15/17/25	18/21/30	22/26/40
460/3/60	FLA/MCA/MFS	6.6/7.7/15	7.2/8.5/15	10/11/15	11/13/20
Condensing unit at 105° F ambient		***DRCU-03***	***DRCU--05***	***DRCU-06***	***DRCU-07***
208-230/1/60	FLA/MCA/MFS	18/21/30	20/24/40	28/34/50	33/40/60
208-230/3/60	FLA/MCA/MFS	13/15/20	15/17/25	18/21/30	22/26/40
460/3/60	FLA/MCA/MFS	6.6/7.7/15	7.2/8.5/15	10/11/15	11/13/20

Notes: Condensing units are not available in 575 volts.

Condensing units are selected at sea level.

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

AIR COOLED: Performance data at OPTIONAL airflow with remote outdoor condensing unit

MODEL NUMBER		*DTAD/U-02*	*DTAD/U-03*	*DTAD/U-04*	*DTAD/U-05*
CAPACITY in Btu/hr - *gross*					
80° DB/67° WB	Total	26,000	38,600	55,700	67,500
50% RH	Sensible	22,300	32,600	46,700	57,200
75° DB/62.5° WB	Total	23,800	35,500	51,200	62,200
50% RH	Sensible	21,800	32,000	45,700	56,100
75° DB/61° WB	Total	23,100	34,600	50,000	60,200
45% RH	Sensible	22,900	34,300	49,000	59,900
72° DB/60° WB	Total	22,700	34,000	48,700	59,000
50% RH	Sensible	21,300	31,300	44,600	54,600
72° DB/58.6° WB	Total	22,100	32,900	47,400	57,900
45% RH	Sensible	22,000	32,800	47,100	57,600
BLOWER SECTION					
Airflow - CFM		1,000	1,500	2,000	2,500
Standard motor - horsepower		3/4	1	1 1/2	2
External static pressure (E.S.P.) - inches of W.G.		0.5	0.5	0.5	0.5
Number of motors/fans		1/1	1/1	1/1	1/1
Maximum E.S.P.	(Standard Motor)	0.8	0.7	1.0	1.2
Maximum E.S.P.	(Next Size Motor)	1.0	1.0	1.2	N/A
Next size motor		1	1 1/2	2	N/A
COMPRESSOR	*in Condensing Unit*				
Type		Scroll	Scroll	Scroll	Scroll
Quantity		1	1	1	1
Refrigerant		R-22	R-22	R-22	R-22
EVAPORATOR COIL					
Face area - sq ft		4.2	4.2	6.25	6.25
Rows of coils		3	3	4	4
Face velocity - fpm		238	357	320	400
REHEAT SECTION					
Electric		Standard	Standard	Standard	Standard
kW		6	6	12	12
Capacity - Btu/hr		20,490	20,490	40,980	40,980
HUMIDIFIER SECTION					
Steam generator		Standard	Standard	Standard	Standard
kW		3.4	3.4	3.4	3.4
Capacity - lb/hr		10	10	10	10

AIR COOLED: Performance data at OPTIONAL airflow with remote outdoor condensing unit

MODEL NUMBER		*DTAD/U-02*	*DTAD/U-03*	*DTAD/U-04*	*DTAD/U-05*
FILTER SECTION					
Quantity		2	2	2	2
Size - inches	*Downflow*	16x25x4	16x25x4	16x25x4	16x25x4
	Upflow	16x20x4	16x20x4	16x20x4	16x20x4
Efficiency - percentage		30	30	30	30
(Note: Filter efficiency based on ASHRAE Std. 52.1-1992.)					
CONNECTION SIZES					
Liquid line - O.D. Copper		1/2	1/2	1/2	1/2
Suction line - O.D. Copper		3/4	3/4	3/4	3/4
Condensate drain		3/4	3/4	3/4	3/4
Humidifier supply		1/4	1/4	1/4	1/4
(Note: Refer to Operation and Maintenance manual for recommended pipe sizing between indoor section and condensing unit.)					
ELECTRICAL	**Standard Motor**				
Electrical data based on STANDARD unit: electric reheat - **YES**, steam generator humidifier - **YES**, and STANDARD MOTOR.					
208-230/1/60	FLA/MCA/MFS	34/43/45	64/81/90	66/83/90	67/84/90
208-230/3/60	FLA/MCA/MFS	20/25/30	37/46/50	38/48/50	39/49/50
460/3/60	FLA/MCA/MFS	9/11/15	17/21/25	18/22/25	18/23/25
575/3/60	FLA/MCA/MFS	N/A	N/A	14/18/20	15/18/20
Electrical data based on: electric reheat - **NO**, steam generator humidifier - **YES**, and STANDARD MOTOR.					
208-230/1/60	FLA/MCA/MFS	22/27/30	23/29/30	25/31/35	26/32/35
208-230/3/60	FLA/MCA/MFS	19/24/25	20/25/30	21/26/30	22/28/30
460/3/60	FLA/MCA/MFS	9/11/15	9/11/15	10/13/15	10/13/15
575/3/60	FLA/MCA/MFS	N/A	N/A	7.9/9.9/15	8.4/10.5/15
Electrical data based on: electric reheat - **YES**, steam generator humidifier - **NO**, and STANDARD MOTOR.					
208-230/1/60	FLA/MCA/MFS	34/43/45	64/81/90	66/83/90	67/84/90
208-230/3/60	FLA/MCA/MFS	20/25/30	37/46/50	38/48/50	39/49/50
460/3/60	FLA/MCA/MFS	9/11/15	17/21/25	18/22/25	18/23/25
575/3/60	FLA/MCA/MFS	N/A	N/A	14/18/20	15/18/20
Electrical data based on: electric reheat - **NO**, steam generator humidifier - **NO**, and STANDARD MOTOR.					
208-230/1/60	FLA/MCA/MFS	5.3/6.6/15	6.8/8.5/15	8.8/11/15	9/12/15
208-230/3/60	FLA/MCA/MFS	3.0/3.8/15	3.6/4.5/15	5.7/7.1/15	6.0/7.5/15
460/3/60	FLA/MCA/MFS	1.5/1.9/15	1.8/2.3/15	2.8/3.5/15	3.0/3.8/15
575/3/60	FLA/MCA/MFS	N/A	N/A	2.0/2.5/15	2.5/3.1/15
STANDARD MOTOR					
Horsepower		3/4	1	1 1/2	2
208-230/1/60		5.3	6.8	8.8	9.3
208-230/3/60		3.0	3.6	5.7	6.0
460/3/60		1.5	1.8	2.8	3.0
575/3/60		N/A	N/A	2.0	2.5

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

AIR COOLED: Performance Data at OPTIONAL airflow with remote outdoor condensing unit

MODEL NUMBER		*DTAD/U-02*	*DTAD/U-03*	*DTAD/U-04*	*DTAD/U-05*
ELECTRICAL	**Next Size Motor**				
Electrical data based on: electric reheat - **YES**, steam generator humidifier - **YES**, and NEXT SIZE MOTOR.					
208-230/1/60	FLA/MCA/MFS	36/45/50	66/83/90	67/84/90	N/A
208-230/3/60	FLA/MCA/MFS	20/25/30	38/48/50	39/49/50	N/A
460/3/60	FLA/MCA/MFS	9/12/15	18/22/25	18/23/25	N/A
575/3/60	FLA/MCA/MFS	N/A	N/A	15/18/20	N/A
Electrical data based on: electric reheat - **NO**, steam generator humidifier - **YES**, and NEXT SIZE MOTOR.					
208-230/1/60	FLA/MCA/MFS	28/29/30	25/31/35	26/32/35	N/A
208-230/3/60	FLA/MCA/MFS	20/25/30	21/26/30	22/28/30	N/A
460/3/60	FLA/MCA/MFS	9/11/15	10/13/15	10/13/15	N/A
575/3/60	FLA/MCA/MFS	N/A	N/A	8.4/10.5/15	N/A
Electrical data based on: electric reheat - **YES**, steam generator humidifier - **NO**, and NEXT SIZE MOTOR.					
208-230/1/60	FLA/MCA/MFS	36/45/50	66/83/90	67/84/90	N/A
208-230/3/60	FLA/MCA/MFS	20/25/30	38/48/50	39/49/50	N/A
460/3/60	FLA/MCA/MFS	9/12/15	18/22/25	18/23/25	N/A
575/3/60	FLA/MCA/MFS	N/A	N/A	15/18/20	N/A
Electrical data based on: electric reheat - **NO**, steam generator humidifier - **NO**, and NEXT SIZE MOTOR.					
208-230/1/60	FLA/MCA/MFS	6.8/8.5/15	8.8/11/15	9/12/20	N/A
208-230/3/60	FLA/MCA/MFS	3.6/4.5/15	5.7/7.1/15	6.0/7.5/15	N/A
460/3/60	FLA/MCA/MFS	1.8/2.3/15	2.8/3.5/15	3.0/3.8/15	N/A
575/3/60	FLA/MCA/MFS	N/A	N/A	2.5/3.1/15	N/A

NEXT SIZE MOTOR	*FLA- Full load amps*			
Horsepower	1	1 1/2	2	N/A
208-230/1/60	6.8	8.8	9.3	N/A
208-230/3/60	3.6	5.7	6.0	N/A
460/3/60	1.8	2.8	3.0	N/A
575/3/60	N/A	N/A	2.5	N/A

COMPRESSOR	*FLA - Full load amps*			
Nominal tons	2	3	4	5
208-230/1/60	10.3	16.0	23.7	28.8
208-230/3/60	7.1	10.3	13.5	17.3
460/3/60	3.5	5.1	7.4	9.0
575/3/60	N/A	N/A	5.8	7.1

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

AIR COOLED: Performance data at OPTIONAL airflow with remote outdoor condensing unit

MODEL NUMBER		*DTAD/U-02*	*DTAD/U-03*	*DTAD/U-04*	*DTAD/U-05*
CONDENSING UNIT					
Condensing unit at 95° F ambient		***DRCU-03***	***DRCU-03***	***DRCU-05***	***DRCU-05***
208-230/1/60	FLA/MCA/MFS	18/21/30	20/24/40	28/34/50	33/40/60
208-230/3/60	FLA/MCA/MFS	13/15/20	15/17/25	18/21/30	22/26/40
460/3/60	FLA/MCA/MFS	6.6/7.7/15	7.2/8.5/15	10/11/15	11/13/20
Condensing unit at 100° F ambient		***DRCU-03***	***DRCU-03***	***DRCU-05***	***DRCU-06***
208-230/1/60	FLA/MCA/MFS	18/21/30	20/24/40	28/34/50	33/40/60
208-230/3/60	FLA/MCA/MFS	13/15/20	15/17/25	18/21/30	22/26/40
460/3/60	FLA/MCA/MFS	6.6/7.7/15	7.2/8.5/15	10/11/15	11/13/20
Condensing unit at 105° F ambient		***DRCU-03***	***DRCU-05***	***DRCU-06***	***DRCU-07***
208-230/1/60	FLA/MCA/MFS	18/21/30	20/24/40	28/34/50	33/40/60
208-230/3/60	FLA/MCA/MFS	13/15/20	15/17/25	18/21/30	22/26/40
460/3/60	FLA/MCA/MFS	6.6/7.7/15	7.2/8.5/15	10/11/15	11/13/20

Notes: Condensing units are not available in 575 volts.

Condensing units are selected at sea level.

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:		*DTWD/U-02*	*DTWD/U-03*	*DTWD/U-04*	*DTWD/U-05*
CAPACITY in Btu/hr - *gross*					
80° DB/67° WB	Total	26,200	41,100	56,200	68,300
50% RH	Sensible	20,000	30,200	42,000	51,400
75° DB/62.5° WB	Total	22,200	37,700	51,500	62,900
50% RH	Sensible	18,900	29,700	41,200	50,600
75° DB/61° WB	Total	23,400	36,800	50,200	61,200
45% RH	Sensible	20,900	31,600	43,800	53,800
72° DB/60° WB	Total	22,900	35,900	49,200	59,900
50% RH	Sensible	19,200	29,100	40,400	49,500
72° DB/58.6° WB	Total	22,100	35,100	48,200	58,700
45% RH	Sensible	20,300	30,900	42,900	52,600
BLOWER SECTION					
Airflow - CFM		800	1,200	1,600	2,000
Standard motor - horsepower		1/2	3/4	1	1 1/2
External static pressure (E.S.P.) - inches of W.G.		0.5	0.5	0.5	0.5
Number of motors/fans		1/1	1/1	1/1	1/1
Maximum E.S.P.	(Standard motor)	0.8	0.7	1.0	1.0
Maximum E.S.P.	(Next size motor)	0.8	1.0	1.2	1.2
Next size motor - horsepower		3/4	1	1 1/2	2
COMPRESSORS					
Type		Scroll	Scroll	Scroll	Scroll
Quantity		1	1	1	1
Refrigerant type		R-22	R-22	R-22	R-22
EVAPORATOR COIL					
Face area - sq ft		4.2	4.2	6.25	6.25
Rows of coils		3	3	4	4
Face velocity - fpm		190	286	256	320
REHEAT SECTION					
Electric		Standard	Standard	Standard	Standard
kW		6	6	12	12
Capacity - Btu/hr		20,490	20,490	40,980	40,980
HUMIDIFIER SECTION					
Steam generator		Standard	Standard	Standard	Standard
kW		3.4	3.4	3.4	3.4
Capacity - lb/hr		10	10	10	10

WATER COOLED: Performance data at STANDARD airflow

MODEL NUMBER:		*DTWD/U-02*	*DTWD/U-03*	*DTWD/U-04*	*DTWD/U-05*
FILTER SECTION					
Quantity		2	2	2	2
Size - inches	*Downflow*	16x25x4	16x25x4	16x25x4	16x25x4
	Upflow	16x20x4	16x20x4	16x20x4	16x20x4
Efficiency - percentage		30	30	30	30
(Note: Filter efficiency based on ASHRAE Std. 52.1-1992.)					
CONNECTION SIZES					
Condenser water supply - O.D. Copper		3/4	3/4	1 1/8	1 1/8
Condenser water return - O.D. Copper		3/4	3/4	1 1/8	1 1/8
Condensate drain		3/4	3/4	3/4	3/4
Humidifier supply		1/4	1/4	1/4	1/4
(Note: Refer to Operation and Maintenance Manual for piping information between indoor unit and water source.)					
ELECTRICAL SECTION	**Standard Motor**				
Electrical data based on STANDARD unit: electric reheat - **YES**, steam generator humidifier - **YES**, and STANDARD MOTOR.					
208-230/1/60	FLA/MCA/MFS	43/52/60	79/97/100	88/109/110	95/117/125
208-230/1/60	FLA/MCA/MFS	26/32/35	47/58/60	50/62/70	56/66/70
460/3/60	FLA/MCA/MFS	12/15/20	22/27/30	24/30/35	27/33/35
575/3/60	FLA/MCA/MFS	N/A	N/A	19/24/25	21/26/30
Electrical data based on: electric reheat - **NO**, steam generator humidifier - **YES**, and STANDARD MOTOR.					
208-230/1/60	FLA/MCA/MFS	30/37/40	37/45/50	46/56/70	54/65/80
208-230/3/60	FLA/MCA/MFS	26/32/35	30/36/40	33/41/50	39/48/50
460/3/60	FLA/MCA/MFS	12/15/20	14/17/20	17/20/25	19/23/30
575/3/60	FLA/MCA/MFS	N/A	N/A	13/16/20	15/18/20
Electrical data based on: electric reheat - **YES**, steam generator humidifier - **NO**, and STANDARD MOTOR.					
208-230/1/60	FLA/MCA/MFS	43/52/60	79/97/100	88/109/110	95/117/125
208-230/3/60	FLA/MCA/MFS	26/32/35	47/58/60	50/62/70	56/69/70
460/3/60	FLA/MCA/MFS	12/15/20	22/27/30	24/30/35	27/33/35
575/3/60	FLA/MCA/MFS	N/A	N/A	19/24/25	21/26/30
Electric data based on: electric reheat - **NO**, steam generator humidifier - **NO**, and STANDARD MOTOR.					
208-230/1/60	FLA/MCA/MFS	14/16/25	21/25/40	31/36/60	38/45/70
208-230/3/60	FLA/MCA/MFS	9/11/15	13/16/25	17/20/30	23/27/40
460/3/60	FLA/MCA/MFS	4.6/5.5/15	6.6/7.9/15	9/11/15	12/14/20
575/3/60	FLA/MCA/MFS	N/A	N/A	7.2/8.7/15	9/11/15
STANDARD MOTOR	*FLA - Full load amps*				
Horsepower		1/2	3/4	1	1 1/2
208-230/1/60	FLA	3.4	5.3	6.8	8.8
208-230/3/60	FLA	2.2	3.0	3.6	5.7
460/3/60	FLA	1.1	1.5	1.8	2.8
575/3/60	FLA	N/A	N/A	1.4	2.0

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:		*DTWD/U-02*	*DTWD/U-03*	*DTWD/U-04*	*DTWD/U-05*
ELECTRICAL SECTION	**Next Size Motor**				
Electrical data based on: electric reheat - **YES**, steam generator humidifier -**YES**, and NEXT SIZE MOTOR.					
208-230/1/60	FLA/MCA/MFS	44/54/60	80/99/100	90/111/125	96/117/125
208-230/3/60	FLA/MCA/MFS	27/33/35	47/58/60	53/64/70	57/69/70
460/3/60	FLA/MCA/MFS	13/15/20	22/27/30	25/31/35	27/33/35
575/3/60	FLA/MCA/MFS	N/A	N/A	20/24/25	22/26/30
Electrical data based on: electric reheat - **NO**, steam generator humidifier - **YES**, and NEXT SIZE MOTOR.					
208-230/1/60	FLA/MCA/MFS	32/39/40	39/47/50	49/59/70	4/66/90
208-230/3/60	FLA/MCA/MFS	26/32/35	30/37/45	35/42/50	40/48/60
460/3/60	FLA/MCA/MFS	12/15/20	14/17/20	18/21/25	19/23/30
575/3/60	FLA/MCA/MFS	N/A	N/A	14/17/20	16/19/20
Electrical data based on: electric reheat - **YES**, steam generator humidifier - **NO**, and NEXT SIZE MOTOR.					
208-230/1/60	FLA/MCA/MFS	44/54/60	80/99/100	90/111/125	96/117/125
208-230/3/60	FLA/MCA/MFS	27/33/35	47/58/60	53/64/70	57/69/70
460/3/60	FLA/MCA/MFS	13/15/20	22/27/30	25/31/35	27/33/35
575/3/60	FLA/MCA/MFS	N/A	N/A	20/24/25	22/26/30
Electrical data based on: electric reheat **- NO**, steam generator humidifier - **NO**, and NEXT SIZE MOTOR.					
208-230/1/60	FLA/MCA/MFS	16/18/25	23/27/40	33/38/60	38/45/70
208-230/3/60	FLA/MCA/MFS	10/12/15	14/16/25	18/22/35	23/28/40
460/3/60	FLA/MCA/MFS	5.0/5.9/15	6.9/8.2/15	10/12/15	12/14/20
575/3/60	FLA/MCA/MFS	N/A	N/A	7.8/9.3/15	10/11/15

NEXT SIZE MOTOR		*FLA - Full load amps*			
Horsepower		3/4	1	1 1/2	2
208-230/1/60	FLA	5.3	6.8	8.8	9.8
208-230/3/60	FLA	3.0	3.6	5.7	6.0
460/3/60	FLA	1.5	1.8	2.8	3.0
575/3/60	FLA	N/A	N/A	2.0	2.5

COMPRESSOR		*FLA - Full load amps*			
Nominal tons		2	3	4	5
208-230/1/60	FLA	10.3	16	23.7	28.8
208-230/3/60	FLA	7.1	10.3	13.5	17.3
460/3/60	FLA	3.5	5.1	7.4	9.0
575/3/60	FLA	N/A	N/A	5.8	7.1

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:		*DTWD/U-02*	*DTWD/U-03*	*DTWD/U-04*	*DTWD/U-05*
CONDENSER WATER					
Requirements at maximum design water pressure of 150 psi (high pressure optional).					
65° F entering fluid temperature	GPM	2.6	3.9	5.2	6.5
	PD in PSI	0.9	1.9	0.9	1.2
75° F entering fluid temperature	GPM	4.2	6.2	8.3	10.4
	PD in PSI	1.6	5.8	1.5	2.5
85° F entering fluid temperature	GPM	6.0	9.0	12.0	15.0
	PD in PSI	3.2	7.5	3.5	5.0
With fluid cooler	GPM	7.0	10.5	14	17.5
	PD in PSI	4.0	8.2	4.4	6.5
PUMP SELECTION			**At design flow**		
Horsepower		3/4	3/4	1	1
Pump electrical data					
208-230/1/60	FLA	4.8	4.8	5.8	.8
208-230/3/60	FLA	2.6	2.6	3.2	3.2
460/3/60	FLA	1.3	1.3	1.6	1.6

FLA - Full Load Amps

WATER COOLED: Performance data at OPTIONAL airflow

MODEL NUMBER:		*DTWD/U-02*	*DTWD/U-03*	*DTWD/U-04*	*DTWD/U-05*
CAPACITY in Btu/hr - *gross*					
80° DB/67° WB	Total	26,900	42,400	58,100	70,500
50% RH	Sensible	22,600	34,000	47,600	58,300
75° DB/62.5° WB	Total	24,800	39,300	53,400	65,000
50% RH	Sensible	22,200	33,500	46,600	57,200
75° DB/61° WB	Total	23,900	38,300	52,200	62,900
45% RH	Sensible	23,700	35,800	50,000	61,000
72° DB/60° WB	Total	23,700	37,300	50,800	61,700
50% RH	Sensible	21,700	32,700	45,500	55,700
72° DB/58.6° WB	Total	23,100	36,500	49,800	60,500
45% RH	Sensible	23,000	34,900	48,600	59,600
BLOWER SECTION					
Airflow - CFM		1,000	1,500	2,000	2,500
Standard motor - horsepower		3/4	1	1 1/2	2
External static pressure (E.S.P.) - inches of W.G.		0.5	0.5	0.5	0.5
Number motors/fans		1/1	1/1	1/1	1/1
Maximum E.S.P.	(Standard motor)	0.8	0.7	1.0	1.2
Maximum E.S.P.	(Next size motor)	1.0	1.0	1.2	N/A
Next size motor - horsepower		1	1 1/2	2	N/A
COMPRESSORS					
Type		Scroll	Scroll	Scroll	Scroll
Quantity		1	1	1	1
Refrigerant type		R-22	R-22	R-22	R-22
EVAPORATOR COIL					
Face area - sq ft	.	4.2	4.2	6.25	6.25
Rows of coils		3	3	4	4
Face velocity FPM		238	357	320	400
REHEAT SECTION					
Electric		Standard	Standard	Standard	Standard
kW		6	6	12	12
Capacity - Btu/hr		20,490	20,490	40,980	40,980
HUMIDIFIER SECTION					
Steam generator		Standard	Standard	Standard	Standard
kW		3.4	3.4	3.4	3.4
Capacity - lb/hr		10	10	10	10

WATER COOLED: Performance data at OPTIONAL airflow

MODEL NUMBER:		*DTWD/U-02*	*DTWD/U-03*	*DTWD/U-04*	*DTWD/U-05*
FILTER SECTION					
Quantity		2	2	2	2
Size - Inches	*Downflow*	16x25x4	16x25x4	16x25x4	16x25x4
	Upflow	16x20x4	16x20x4	16x20x4	16x20x4
Efficiency - percentage		30	30	30	30
(Note: Filter efficiency based on ASHRAE Std. 52.1-1992.)					
CONNECTION SIZES					
Condenser water supply - O.D. Copper		3/4	3/4	1 1/8	1 1/8
Condenser water return - O.D. Copper		3/4	3/4	1 1/8	1 1/8
Condensate drain		3/4	3/4	3/4	3/4
Humidifier supply		1/4	1/4	1/4	1/4
(Note: Refer to Operation and Maintenance Manual for piping information between indoor unit and water source.)					

ELECTRICAL SECTION — **Standard Motor**

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

208-230/1/60	FLA/MCA/MFS	44/54/60	80/99/100	90/111/125	96/117/125
208-230/1/60	FLA/MCA/MFS	27/33/35	47/58/60	53/64/70	57/69/70
460/3/60	FLA/MCA/MFS	13/15/20	22/27/30	25/31/35	27/33/35
575/3/60	FLA/MCA/MFS	N/A	N/A	20/24/25	22/26/30

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

208-230/1/60	FLA/MCA/MFS	32/39/40	39/47/50	49/59/70	54/66/90
208-230/3/60	FLA/MCA/MFS	26/32/35	30/37/40	36/43/45	40/48/50
460/3/60	FLA/MCA/MFS	12/15/20	14/17/20	18/21/25	19/23/30
575/3/60	FLA/MCA/MFS	N/A	N/A	14/17/20	16/19/20

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

208-230/1/60	FLA/MCA/MFS	44/54/60	80/99/100	90/111/125	96/117/125
208-230/3/60	FLA/MCA/MFS	27/33/35	47/58/60	53/64/70	57/69/70
460/3/60	FLA/MCA/MFS	13/15/20	22/27/30	25/31/35	27/33/35
575/3/60	FLA/MCA/MFS	N/A	N/A	20/24/25	22/26/30

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

208-230/1/60	FLA/MCA/MFS	16/18/25	23/27/40	33/38/60	38/45/70
208-230/3/60	FLA/MCA/MFS	10/12/15	14/16/25	18/22/35	23/28/40
460/3/60	FLA/MCA/MFS	5.0/5.9/15	6.9/8.2/15	10/12/15	12/14/20
575/3/60	FLA/MCA/MFS	N/A	N/A	7.8/9.3/15	10/11/15

STANDARD MOTOR — *FLA - Full load amps*

Horsepower		3/4	1	1 1/2	2
208-230/1/60	FLA	5.3	6.8	8.8	9.3
208-230/3/60	FLA	3.0	3.6	5.7	6.0
460/3/60	FLA	1.5	1.8	2.8	3.0
575/3/60	FLA	N/A	N/A	2.0	2.5

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

WATER COOLED: Performance data at OPTIONAL airflow

MODEL NUMBER:		*DTWD/U-02*	*DTWD/U-03*	*DTWD/U-04*	*DTWD/U-05*
ELECTRICAL SECTION		**Next Size Motor**			
Electrical data based on: electric reheat - **YES**, steam generator humidifier - **YES**, and NEXT SIZE MOTOR.					
208-230/1/60	FLA/MCA/MFS	46/56/60	82/101/110	91/111/125	N/A
208-230/3/60	FLA/MCA/MFS	27/33/35	49/60/70	53/65/70	N/A
460/3/60	FLA/MCA/MFS	13/16/20	23/28/30	25/31/35	N/A
575/3/60	FLA/MCA/MFS	N/A	N/A	20/25/30	N/A
Electrical data based on: electric reheat - **NO**, steam generator humidifier - **YES**, and NEXT SIZE MOTOR.					
208-230/1/60	FLA/MCA/MFS	33/40/45	41/49/60	49/59/70	N/A
208-230/3/60	FLA/MCA/MFS	27/33/35	32/39/45	36/43/50	N/A
460/3/60	FLA/MCA/MFS	13/15/20	15/18/20	18/21/25	N/A
575/3/60	FLA/MCA/MFS	N/A	N/A	14/17/20	N/A
Electrical data based on: electric reheat - **YES**, steam generator humidifier - **NO**, and NEXT SIZE MOTOR.					
208-230/1/60	FLA/MCA/MFS	46/56/60	82/101/110	91/111/125	N/A
208-230/3/60	FLA/MCA/MFS	27/33/35	49/60/70	53/65/70	N/A
460/3/60	FLA/MCA/MFS	13/16/20	23/28/30	25/31/35	N/A
575/3/60	FLA/MCA/MFS	N/A	N/A	20/25/30	N/A
Electrical data based on: electric reheat - **NO**, steam generator humidifier - **NO**, and NEXT SIZE MOTOR.					
208-230/1/60	FLA/MCA/MFS	17/20/25	25/29/40	33/38/60	N/A
208-230/3/60	FLA/MCA/MFS	11/12/15	16/19/25	20/23/35	N/A
460/3/60	FLA/MCA/MFS	5.3/6.2/15	7.9/9.2/15	10/12/15	N/A
575/3/60	FLA/MCA/MFS	N/A	N/A	8.3/9.8/15	N/A
NEXT SIZE MOTOR		*FLA - Full load amps*			
Horsepower		1	1 1/2	2	N/A
208-230/1/60	FLA	6.8	8.8	9.3	N/A
208-230/3/60	FLA	3.6	5.7	6.0	N/A
460/3/60	FLA	1.8	2.8	3.0	N/A
575/3/60	FLA	N/A	N/A	2.5	N/A
COMPRESSOR		*FLA - Full load amps*			
Nominal tons		2	3	4	5
208-230/1/60	FLA	10.3	16.0	23.7	28.8
208-230/3/60	FLA	7.1	10.3	13.5	17.3
460/3/60	FLA	3.5	5.1	7.4	9.0
575/3/60	FLA	N/A	N/A	5.8	7.1

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

WATER COOLED: Performance data at OPTIONAL airflow

MODEL NUMBER:		*DTWD/U-02*	*DTWD/U-03*	*DTWD/U-04*	*DTWD/U-05*
CONDENSER WATER					
Requirements at maximum design water pressure of 150 psi (high pressure optional).					
65° F entering fluid temperature	GPM	2.6	3.9	5.2	6.5
	PD in PSI	0.9	1.9	0.9	1.2
75° F entering fluid temperature	GPM	4.2	6.2	8.3	10.4
	PD in PSI	1.6	5.8	1.5	2.5
85° F entering fluid temperature	GPM	6.0	9.0	12.0	15.0
	PD in PSI	3.2	7.5	3.5	5.0
With fluid cooler	GPM	7.0	10.5	14.0	17.5
	PD in PSI	4.0	8.2	4.4	6.5
PUMP SELECTION			**At design flow**		
Horsepower		3/4	3/4	1	1
PUMP ELECTRICAL DATA					
208-230/1/60	FLA	4.8	4.8	5.8	5.8
208-230/3/60	FLA	2.6	2.6	3.2	3.2
460/3/60	FLA	1.3	1.3	1.6	1.6

(Note: Pump selection is based on total available head pressure of 80 feet of water.)

FLA - Full Load Amps

GLYCOL COOLED: Performance data at STANDARD airflow

MODEL NUMBER:		*DTGD/U-02*	*DTGD/U-03*	*DTGD/U-04*	*DTGD/U-05*
CAPACITY in Btu/hr - *gross*					
80° DB/67° WB	Total	24,600	36,600	52,900	63,800
50% RH	Sensible	19,400	28,500	40,700	49,700
75° DB/62.5° WB	Total	22,500	33,600	48,500	58,700
50% RH	Sensible	19,000	28,000	39,900	48,800
75° DB/61° WB	Total	21,800	32,700	46,900	57,100
45% RH	Sensible	20,200	29,800	42,400	52,000
72° DB/60° WB	Total	21,500	32,100	46,000	56,300
50% RH	Sensible	18,600	27,400	38,900	47,900
72° DB/58.6° WB	Total	20,800	31,400	45,000	54,800
45% RH	Sensible	19,700	29,200	41,400	50,900
BLOWER SECTION					
Airflow - CFM		800	1,200	1,600	2,000
Standard motor - horsepower		1/2	3/4	1	1 1/2
External static pressure (E.S.P.) - inches of W.G.		0.5	0.5	0.5	0.5
Number of motors/fans		1/1	1/1	1/1	1/1
Maximum E.S.P.	(Standard Motor)	0.8	0.7	1.0	1.0
Maximum E.S.P.	(Next Size Motor)	0.8	1.0	1.2	1.2
Next size motor - horsepower		3/4	1	1 1/2	2
COMPRESSORS					
Type		Scroll	Scroll	Scroll	Scroll
Quantity		1	1	1	1
Refrigerant type		R-22	R-22	R-22	R-22
EVAPORATOR COIL					
Face area - sq ft		4.2	4.2	6.25	6.25
Rows of coils		3	3	4	4
Face velocity - fpm		190	286	256	320
REHEAT SECTION					
Electric		Standard	Standard	Standard	Standard
kW		6	6	12	12
Capacity - Btu/hr		20,490	20,490	40,980	40,980
HUMIDIFIER SECTION					
Steam generator		Standard	Standard	Standard	Standard
kW		3.4	3.4	3.4	3.4
Capacity - lb/hr		10	10	10	10

GLYCOL COOLED: Performance data at STANDARD airflow

MODEL NUMBER:		*DTGD/U-02*	*DTGD/U-03*	*DTGD/U-04*	*DTGD/U-05*
FILTER SECTION					
Quantity		2	2	2	2
Size - inches	*Downflow*	16x25x4	16x25x4	16x25x4	16x25x4
	Upflow	16x20x4	16x20x4	16x20x4	16x20x4
Efficiency - percent		30	30	30	30
(Note: Filter efficiency based on ASHRAE Std. 52.1-1992.)					
CONNECTION SIZES					
Condenser water supply - O.D. Copper		3/4	3/4	1 1/8	1 1/8
Condenser water return - O.D. Copper		3/4	3/4	1 1/8	1 1/8
Condensate drain		3/4	3/4	3/4	3/4
Humidifier supply		1/4	1/4	1/4	1/4
(Note: Refer to Operation and Maintenance Manual for piping information between indoor unit and dry cooler.)					
ELECTRICAL SECTION	**Standard Motor**				
Electrical data based on STANDARD unit: electric reheat - **YES**, steam generator humidifier - **YES**, and STANDARD MOTOR.					
208-230/1/60	FLA/MCA/MFS	43/52/60	79/97/100	88/109/110	95/117/125
208-230/1/60	FLA/MCA/MFS	26/32/35	47/58/60	50/62/70	56/66/70
460/3/60	FLA/MCA/MFS	12/15/20	22/27/30	24/30/35	27/33/35
575/3/60	FLA/MCA/MFS	N/A	N/A	19/24/25	21/26/30
Electrical data based on: electric reheat - **NO**, steam generator humidifier - **YES**, and STANDARD MOTOR.					
208-230/1/60	FLA/MCA/MFS	30/37/40	38/46/50	47/57/70	54/65/80
208-230/3/60	FLA/MCA/MFS	26/32/35	30/36/40	38/41/50	39/46/50
460/3/60	FLA/MCA/MFS	12/15/20	14/17/20	17/20/25	19/23/30
575/3/60	FLA/MCA/MFS	N/A	N/A	13/16/20	15/18/20
Electrical data based on: electric reheat - **YES**, steam generator humidifier - **NO**, and STANDARD MOTOR.					
208-230/1/60	FLA/MCA/MFS	43/52/60	79/97/100	88/109/110	95/117/125
208-230/3/60	FLA/MCA/MFS	26/32/35	47/58/60	50/62/70	56/69/70
460/3/60	FLA/MCA/MFS	12/15/20	22/27/30	24/30/35	27/33/35
575/3/60	FLA/MCA/MFS	N/A	N/A	19/24/25	21/26/30
Electrical data based on: electric reheat -**NO**, steam generator humidifier - **NO**, and STANDARD MOTOR.					
208-230/1/60	FLA/MCA/MFS	14/16/25	21/25/40	31/36/60	38/45/70
208-230/3/60	FLA/MCA/MFS	9/11/15	13/16/25	17/20/30	23/27/40
460/3/60	FLA/MCA/MFS	4.6/5.5/15	6.6/7.9/15	9/11/15	12/14/20
575/3/60	FLA/MCA/MFS	N/A	N/A	7.2/8.7/15	9/11/15
STANDARD MOTOR	*FLA - Full load amps*				
Horsepower		1/2	3/4	1	1 1/2
208-230/1/60	FLA	3.4	5.3	6.8	8.8
208-230/3/60	FLA	2.2	3.0	3.6	5.7
460/3/60	FLA	1.1	1.5	1.8	2.8
575/3/60	FLA	N/A	N/A	1.4	2.0

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:		*DTGD/U-02*	*DTGD/U-03*	*DTGD/U-04*	*DTGD/U-05*
ELECTRICAL SECTION		**Next Size Motor**			
Electrical data based on: electric reheat - **YES**, steam generator humidifier - **YES**, and NEXT SIZE MOTOR.					
208-230/1/60	FLA/MCA/MFS	44/54/60	80/99/100	90/111/125	96/117/125
208-230/3/60	FLA/MCA/MFS	27/33/35	47/58/60	53/64/70	57/69/70
460/3/60	FLA/MCA/MFS	13/15/20	22/27/30	25/31/35	27/33/35
575/3/60	FLA/MCA/MFS	N/A	N/A	20/24/25	22/26/30
Electrical data based on: electric reheat - **NO**, steam generator humidifier - **YES**, and NEXT SIZE MOTOR.					
208-230/1/60	FLA/MCA/MFS	32/39/40	39/47/50	49/59/70	54/66/90
208-230/3/60	FLA/MCA/MFS	26/32/35	30/37/40	35/42/50	40/48/60
460/3/60	FLA/MCA/MFS	12/15/20	14/17/20	18/21/25	19/23/30
575/3/60	FLA/MCA/MFS	N/A	N/A	14/17/20	16/19/20
Electrical data based on: electric reheat - **YES**, steam generator humidifier - **NO**, and NEXT SIZE MOTOR.					
208-230/1/60	FLA/MCA/MFS	44/54/60	80/99/100	90/111/125	96/117/125
208-230/3/60	FLA/MCA/MFS	27/33/35	47/58/60	53/64/70	57/69/70
460/3/60	FLA/MCA/MFS	13/15/20	22/27/30	25/31/35	27/33/35
575/3/60	FLA/MCA/MFS	N/A	N/A	20/24/25	22/26/30
Electrical data based on: electric reheat - **NO**, steam generator humidifier - **NO**, and NEXT SIZE MOTOR.					
208-230/1/60	FLA/MCA/MFS	16/18/25	23/27/40	33/38/60	38/45/70
208-230/3/60	FLA/MCA/MFS	10/12/15	14/16/25	18/22/35	23/28/40
460/3/60	FLA/MCA/MFS	5.0/5.9/15	6.9/8.2/15	10/12/15	12/14/20
575/3/60	FLA/MCA/MFS	N/A	N/A	7.8/9.3/15	10/11/15

NEXT SIZE MOTOR		*FLA - Full load amps*			
Horsepower		3/4	1	1 1/2	2
208-230/1/60	FLA	5.3	6.8	8.8	9.8
208-230/3/60	FLA	3.0	3.6	5.7	6.0
460/3/60	FLA	1.5	1.8	2.8	3.0
575/3/60	FLA	N/A	N/A	2.0	2.5

COMPRESSOR		*FLA - Full load amps*			
Nominal tons		2	3	4	5
208-230/1/60	FLA	10.3	16.0	23.7	28.8
208-230/3/60	FLA	7.1	10.3	13.5	17.3
460/3/60	FLA	3.5	5.1	7.4	9.0
575/3/60	FLA	N/A	N/A	5.8	7.1

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:		*DTGD/U-02*	*DTGD/U-03*	*DTGD/U-04*	*DTGD/U-05*
FLUID COOLER SELECTIONS					
Fluid cooler at 95° F ambient		**DAFC-06**	**DAFC-06**	**DAFC-06**	**DAFC-07**
208-230/1/60	FLA/MCA/MFS	4.2/5.3/15	4.2/5.3/15	4.2/5.3/15	4.2/5.3/15
208-230/3/60	FLA/MCA/MFS	4.2/5.3/15	4.2/5.3/15	4.2/5.3/15	4.2/5.3/15
460/3/60	FLA/MCA/MFS	2.1/2.6/15	2.1/2.6/15	2.1/2.6/15	2.1/2.6/15
Fluid cooler at 100° F ambient		**DAFC-06**	**DAFC-06**	**DAFC-09**	**DAFC-15**
208-230/1/60	FLA/MCA/MFS	4.2/5.3/15	4.2/5.3/15	4.2/5.3/15	8.4/9.5/15
208-230/3/60	FLA/MCA/MFS	4.2/5.3/15	4.2/5.3/15	4.2/5.3/15	8.4/9.5/15
460/3/60	FLA/MCA/MFS	2.1/2.6/15	2.1/2.6/15	2.1/2.6/15	4.2/4.7/15
CONDENSER WATER					
Requirements at maximum design water pressure of 150 psi (high pressure optional).					
65° F entering fluid temperature	GPM	2.6	3.9	5.2	6.5
	PD in PSI	0.9	1.9	0.9	1.2
75° F entering fluid temperature	GPM	4.2	6.2	8.3	10.4
	PD in PSI	1.6	5.8	1.5	2.5
85° F entering fluid temperature	GPM	6.0	9.0	12.0	15.0
	PD in PSI	3.2	7.5	3.5	5.0
With fluid cooler	GPM	7.0	10.5	14.0	17.5
	PD in PSI	4.0	8.2	4.4	6.5
PUMP SELECTION			**At design flow**		
Horsepower		3/4	3/4	1	1
PUMP ELECTRICAL DATA					
208-230/1/60	FLA	4.8	4.8	5.8	5.8
208-230/3/60	FLA	2.6	2.6	3.2	3.2
460/3/60	FLA	1.3	1.3	1.6	1.6

Notes: Fluid coolers are not available in 575 volts.
Fluid coolers are selected at sea level.
Pump selection is based on total available head pressure of 80 feet of water.

FLA - Full load amps

GLYCOL COOLED: Performance data at OPTIONAL airflow

MODEL NUMBER:	*DTGD/U-02*	*DTGD/U-03*	*DTGD/U-04*	*DTGD/U-05*
CAPACITY in Btu/hr - *gross*				
80° DB/67° WB Total	25,400	37,800	54,500	66,000
50% RH Sensible	22,100	32,400	46,300	56,600
75° DB/62.5° WB Total	23,200	34,800	50,100	60,800
50% RH Sensible	21,600	31,700	45,300	55,500
75° DB/61° WB Total	22,500	33,900	48,900	58,800
45% RH Sensible	22,400	33,700	48,600	58,500
72° DB/60° WB Total	22,200	33,100	47,600	57,700
50% RH Sensible	21,000	30,900	44,200	54,100
72° DB/58.6° WB Total	21,600	32,300	46,300	56,600
45% RH Sensible	21,500	32,100	46,100	56,300
BLOWER SECTION				
Airflow - CFM	1,000	1,500	2,000	2,500
Standard motor - horsepower	3/4	1	1 1/2	2
External static pressure (E.S.P.) - inches of W.G.	0.5	0.5	0.5	0.5
Number of motors/fans	1/1	1/1	1/1	1/1
Maximum E.S.P. (Standard Motor)	0.8	0.7	1.0	1.2
Maximum E.S.P. (Next Size Motor)	1.0	1.0	1.2	N/A
Next size motor - horsepower	1	1 1/2	2	N/A
COMPRESSORS				
Type	Scroll	Scroll	Scroll	Scroll
Quantity	1	1	1	1
Refrigerant type	R-22	R-22	R-22	R-22
EVAPORATOR COIL				
Face area - sq ft	4.2	4.2	6.25	6.25
Rows of coils	3	3	4	4
Face velocity - fpm	238	357	320	400
REHEAT SECTION				
Electric	Standard	Standard	Standard	Standard
kW	6	6	12	12
Capacity - Btu/hr	20,490	20,490	40,980	40,980
HUMIDIFIER SECTION				
Steam generator	Standard	Standard	Standard	Standard
kW	3.4	3.4	3.4	3.4
Capacity - lb/hr	10	10	10	10

GLYCOL COOLED: Performance data at OPTIONAL airflow

MODEL NUMBER:		*DTGD/U-02*	*DTGD/U-03*	*DTGD/U-04*	*DTGD/U-05*
FILTER SECTION					
Quantity		2	2	2	2
Size - inches	*Downflow*	16x25x4	16x25x4	16x25x4	16x25x4
	Upflow	16x20x4	16x20x4	16x20x4	16x20x4
Efficiency - percentage		30	30	30	30
(Note: Filter efficiency based on ASHRAE Std. 52.1-1992.)					
CONNECTION SIZES					
Condenser water supply - O.D. Copper		3/4	3/4	1 1/8	1 1/8
Condenser water return - O.D. Copper		3/4	3/4	1 1/8	1 1/8
Condensate drain		3/4	3/4	3/4	3/4
Humidifier supply		1/4	1/4	1/4	1/4
(Note: Refer to Operation and Maintenance Manual for piping information between indoor unit and dry cooler.)					
ELECTRICAL SECTION	**Standard Motor**				
Electrical data based on STANDARD unit: electric reheat - **YES**, steam generator humidifier - **YES**, and STANDARD MOTOR.					
208-230/1/60	FLA/MCA/MFS	44/54/60	80/99/100	90/111/125	96/117/125
208-230/3/60	FLA/MCA/MFS	27/33/35	47/58/60	53/64/70	57/69/70
460/3/60	FLA/MCA/MFS	13/15/20	22/27/30	25/31/35	27/33/35
575/3/60	FLA/MCA/MFS	N/A	N/A	20/24/25	22/26/30
Electrical data based on: electric reheat - **NO**, steam generator humidifier - **YES**, and STANDARD MOTOR.					
208-230/1/60	FLA/MCA/MFS	32/39/40	39/47/50	49/59/70	54/66/90
208-230/3/60	FLA/MCA/MFS	26/32/35	30/37/40	36/43/45	40/48/50
460/3/60	FLA/MCA/MFS	12/15/20	14/17/20	18/21/25	19/23/30
575/3/60	FLA/MCA/MFS	N/A	N/A	14/17/20	16/19/20
Electrical data based on: electric reheat - **YES**, steam generator humidifier - **NO**, and STANDARD MOTOR.					
208-230/1/60	FLA/MCA/MFS	44/54/60	80/99/100	90/111/125	96/117/125
208-230/3/60	FLA/MCA/MFS	27/33/35	47/58/60	53/64/70	57/69/70
460/3/60	FLA/MCA/MFS	13/15/20	22/27/30	25/31/35	27/33/35
575/3/60	FLA/MCA/MFS	N/A	N/A	20/24/25	22/26/30
Electrical data based on: electric reheat - **NO**, steam generator humidifier - **NO**, and STANDARD MOTOR.					
208-230/1/60	FLA/MCA/MFS	16/18/25	23/27/40	33/38/60	38/45/70
208-230/3/60	FLA/MCA/MFS	10/12/15	14/16/25	18/22/35	23/28/40
460/3/60	FLA/MCA/MFS	5.0/5.9/15	6.9/8.2/15	10/12/15	12/14/20
575/3/60	FLA/MCA/MFS	N/A	N/A	7.8/9.3/15	10/11/15
STANDARD MOTOR	*FLA - Full load amps*				
Horsepower		3/4	1	1 1/2	2
208-230/1/60	FLA	5.3	6.8	8.8	9.3
208-230/3/60	FLA	3.0	3.6	5.7	6.0
460/3/60	FLA	1.5	1.8	2.8	3.0
575/3/60	FLA	N/A	N/A	2.0	2.5

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:		*DTGD/U-02*	*DTGD/U-03*	*DTGD/U-04*	*DTGD/U-05*
ELECTRICAL SECTION		**Next Size Motor**			
Electrical data based on: electric reheat - **YES**, steam generator humidifier - **YES**, and NEXT SIZE MOTOR.					
208-230/1/60	FLA/MCA/MFS	46/56/60	82/101/110	91/111/125	N/A
208-230/3/60	FLA/MCA/MFS	27/33/35	49/60/70	53/65/70	N/A
460/3/60	FLA/MCA/MFS	13/16/20	23/28/30	25/31/35	N/A
575/3/60	FLA/MCA/MFS	N/A	N/A	20/25/30	N/A
Electrical data based on: electric reheat - **NO**, steam generator humidifier - **YES**, and NEXT SIZE MOTOR.					
208-230/1/60	FLA/MCA/MFS	33/40/45	41/49/60	49/59/70	N/A
208-230/3/60	FLA/MCA/MFS	27/33/35	32/39/45	36/43/50	N/A
460/3/60	FLA/MCA/MFS	13/15/20	15/18/20	18/21/25	N/A
575/3/60	FLA/MCA/MFS	N/A	N/A	14/17/20	N/A
Electrical data based on: electrical reheat - **YES**, steam generator humidifier - **NO**, and NEXT SIZE MOTOR.					
208-230/1/60	FLA/MCA/MFS	46/56/60	82/101/110	91/111/125	N/A
208-230/3/60	FLA/MCA/MFS	27/33/35	49/60/70	53/65/70	N/A
460/3/60	FLA/MCA/MFS	13/16/20	23/28/30	25/31/35	N/A
575/3/60	FLA/MCA/MFS	N/A	N/A	20/25/30	N/A
Electrical data based on: electric reheat - **NO**, steam generator humidifier - **NO**, and NEXT SIZE MOTOR.					
208-230/1/60	FLA/MCA/MFS	17/20/25	25/29/40	33/38/60	N/A
208-230/3/60	FLA/MCA/MFS	11/12/15	16/19/25	20/23/35	N/A
460/3/60	FLA/MCA/MFS	5.3/6.2/15	7.9/9.2/15	10/12/15	N/A
575/3/60	FLA/MCA/MFS	N/A	N/A	8.3/9.8/15	N/A
NEXT SIZE MOTOR					
Horsepower		1	1 1/2	2	N/A
208-230/1/60	FLA	6.8	8.8	9.3	N/A
208-230/3/60	FLA	3.6	5.7	6.0	N/A
460/3/60	FLA	1.8	2.8	3.0	N/A
575/3/60	FLA	N/A	N/A	2.5	N/A
COMPRESSOR					
Nominal tons		2	3	4	N/A
208-230/1/60	FLA	10.3	16.0	23.7	N/A
208-230/3/60	FLA	7.1	10.3	13.5	N/A
460/3/60	FLA	3.5	5.1	7.4	N/A
575/3/60	FLA	N/A	N/A	5.8	N/A

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

GLYCOL COOLED: Performance data at OPTIONAL airflow

MODEL NUMBER:		*DTGD/U-02*	*DTGD/U-03*	*DTGD/U-04*	*DTGD/U-05*
FLUID COOLER SELECTION	Electrical Data				
Fluid cooler at 95° F ambient		**DAFC-06**	**DAFC-06**	**DAFC-06**	**DAFC-07**
208-230/1/60	FLA/MCA/MFS	4.2/5.3/15	4.2/5.3/15	4.2/5.3/15	4.2/5.3/15
208-230/3/60	FLA/MCA/MFS	4.2/5.3/15	4.2/5.3/15	4.2/5.3/15	4.2/5.3/15
460/3/60	FLA/MCA/MFS	2.1/2.6/15	2.1/2.6/15	2.1/2.6/15	2.1/2.6/15
Fluid cooler at 100° F ambient		**DAFC-06**	**DAFC-06**	**DAFC-09**	**DAFC-15**
208-230/1/60	FLA/MCA/MFS	4.2/5.3/15	4.2/5.3/15	4.2/5.3/15	8.4/9.5/15
208-230/3/60	FLA/MCA/MFS	4.2/5.3/15	4.2/5.3/15	4.2/5.3/15	8.4/9.5/15
460/3/60	FLA/MCA/MFS	2.1/2.6/15	2.1/2.6/15	2.1/2.6/15	4.2/4.7/15
CONDENSER WATER					
Requirements at maximum design water pressure of 150 psi (high pressure optional).					
65° F entering fluid temperature	GPM	2.6	3.9	5.2	6.5
	PD in PSI	0.9	1.9	0.9	1.2
75° F entering fluid temperature	GPM	4.2	6.2	8.3	10.4
	PD in PSI	1.6	5.8	1.5	2.5
85° F entering fluid temperature	GPM	6.0	9.0	12.0	15.0
	PD in PSI	3.2	7.5	3.5	5.0
With fluid cooler	GPM	7.0	10.5	14.0	17.5
	PD in PSI	4.0	8.2	4.4	6.5
PUMP SELECTION		**At design flow**			
Horsepower		3/4	3/4	1	1
PUMP ELECTRICAL DATA					
208-230/1/60	FLA	4.8	4.8	5.8	5.8
208-230/3/60	FLA	2.6	2.6	3.2	3.2
460/3/60	FLA	1.3	1.3	1.6	1.6

Notes: Fluid Coolers are not available in 575 volts.
Fluid Coolers are selected at sea level.
Pump selection is based on total available head pressure of 80 feet of water.

AUXILIARY CHILLED WATER: Performance data at STANDARD airflow

Based on 45° F entering fluid temperature - 0% glycol.

MODEL NUMBER		*DT*D/U-02*	*DT*D/U-03*	*DT*D/U-04*	*DT*D/U-05*
CAPACITY in Btu/hr - *gross*					
75° F DB/62.5° F WB	Total	28,000	39,500	54,400	65,300
50% RH	Sensible	21,700	31,200	42,400	51,600
72° F DB/62.5° F WB	Total	23,800	33,600	46,200	55,500
50% RH	Sensible	19,900	28,700	38,900	47,400
Rows of coils		4	4	4	4
GPM		7.0	10.5	14.0	17.5
Pressure drop in PSI		1.8	3.6	6.5	9.7
BLOWER SECTION					
Airflow - CFM		800	1,200	1,600	2,000
Standard motor - horsepower (with Auxiliary CW coil)		3/4	1	1 1/2	2
External static pressure (E.S.P.) - inches of W.G.		0.5	0.5	0.5	0.5
Number of motors/fans		1/1	1/1	1/1	1/1
Maximum E.S.P.		0.8	1.0	1.0	1.2
ELECTRICAL SECTION	**Standard Motor**				
Electrical data based on standard unit: electric reheat - **YES**, steam generator humidifier - **YES**, and STANDARD MOTOR.					
208-230/1/60	FLA/MCA/MFS	44/54/60	80/99/100	90/111/125	96/117/125
208-230/3/60	FLA/MCA/MFS	27/33/35	47/58/60	52/63/70	57/69/70
460/3/60	FLA/MCA/MFS	13/15/20	22/27/30	25/31/35	27/33/35
575/3/60	FLA/MCA/MFS	N/A	N/A	20/24/25	22/26/30
Electrical data based on: electric reheat - **NO**, steam generator humidifier - **YES**, and STANDARD MOTOR.					
208-230/1/60	FLA/MCA/MFS	32/39/40	39/47/50	49/59/70	54/66/90
208-230/3/60	FLA/MCA/MFS	26/32/35	30/37/40	35/42/50	40/48/60
460/3/60	FLA/MCA/MFS	12/15/20	14/17/20	18/21/25	19/23/30
575/3/60	FLA/MCA/MFS	N/A	N/A	14/17/20	16/19/20
Electrical data based on: electric reheat - **YES**, steam generator humidifier - **NO**, and STANDARD MOTOR.					
208-230/1/60	FLA/MCA/MFS	44/54/60	80/99/100	90/111/125	96/117/125
208-230/3/60	FLA/MCA/MFS	27/33/35	47/58/60	52/63/70	57/69/70
460/3/60	FLA/MCA/MFS	13/15/20	22/27/30	25/31/35	27/33/35
575/3/60	FLA/MCA/MFS	N/A	N/A	20/24/25	22/26/30
Electrical data based on: electric reheat - **NO**, steam generator humidifier - **NO**, and STANDARD MOTOR.					
208-230/1/60	FLA/MCA/MFS	16/18/25	23/27/40	33/38/60	38/45/70
208-230/3/60	FLA/MCA/MFS	10/12/15	14/16/25	18/22/35	23/28/40
460/3/60	FLA/MCA/MFS	5.0/5.9/15	6.9/8.2/15	10/12/15	12/14/20
575/3/60	FLA/MCA/MFS	N/A	N/A	7.8/9.3/15	10/11/15

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

AUXILIARY CHILLED WATER: Performance data at OPTIONAL airflow

Based on 45° F entering fluid temperature - 0% glycol.

MODEL NUMBER		*DT*D/U-02*	*DT*D/U-03*	*DT*D/U-04*	*DT*D/U-05*
CAPACITY in Btu/hr - *gross*					
75° F DB/62.5° F WB	Total	31,900	44,700	61,800	73,900
50% RH	Sensible	25,600	36,700	50,000	47,400
72° F DB/62.5° F WB	Total	27,300	38,300	52,800	63,400
50% RH	Sensible	23,700	28,700	46,100	56,000
Rows of coils		4	4	4	4
GPM		7.0	10.5	14.0	17.5
Pressure drop in PSI		1.8	3.6	6.5	9.7
BLOWER SECTION					
Airflow - CFM		1,000	1,500	2,000	2,500
Standard motor - horsepower (with Auxiliary CW coil)		1	1 1/2	2	2
External static pressure (E.S.P.) - inches of W.G.		0.5	0.5	0.5	0.5
Number of motors/fans		1/1	1/1	1/1	1/1
Maximum E.S.P.		0.7	0.9	1.0	1.0

ELECTRICAL SECTION — **Standard Motor**

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

208-230/1/60	FLA/MCA/MFS	46/56/60	82/101/110	91/111/125	96/117/125
208-230/3/60	FLA/MCA/MFS	27/33/35	48/59/60	53/65/70	57/69/70
460/3/60	FLA/MCA/MFS	13/16/20	25/31/35	25/31/35	27/33/35
575/3/60	FLA/MCA/MFS	N/A	N/A	20/25/30	22/26/30

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

208-230/1/60	FLA/MCA/MFS	33/40/45	41/49/60	49/56/70	54/66/90
208-230/3/60	FLA/MCA/MFS	27/33/35	31/38/40	36/43/50	40/48/60
460/3/60	FLA/MCA/MFS	13/15/20	15/18/20	18/21/25	19/23/30
575/3/60	FLA/MCA/MFS	N/A	N/A	14/17/20	16/19/20

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

208-230/1/60	FLA/MCA/MFS	46/56/70	82/101/110	91/111/125	96/117/125
208-230/3/60	FLA/MCA/MFS	27/33/35	48/59/60	53/65/70	57/69/70
460/3/60	FLA/MCA/MFS	13/16/20	23/28/30	25/31/35	27/33/35
575/3/60	FLA/MCA/MFS	N/A	N/A	20/25/30	22/26/30

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

208-230/1/60	FLA/MCA/MFS	17/20/25	25/29/40	33/39/60	38/45/70
208-230/3/60	FLA/MCA/MFS	11/12/15	15/18/25	20/23/35	23/28/40
460/3/60	FLA/MCA/MFS	5.3/6.2/15	7.9/9.2/15	10/12/15	12/14/20
575/3/60	FLA/MCA/MFS	N/A	N/A	8.3/9.8/15	10/11/15

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

ENERGY SAVER: Performance data at STANDARD airflow

Based on 45° F entering fluid temperature with 40% glycol solution - capacity in Btu/hr.

MODEL NUMBER		*DT*D/U-02*	*DT*D/U-03*	*DT*D/U-04*	*DT*D/U-05*
CAPACITY in Btu/hr- *gross*					
75° F DB/62.5° F WB	Total	23,300	31,700	46,800	56,300
50% RH	Sensible	19,600	27,600	39,000	47,500
72° F DB/62.5° F WB	Total	20,200	27,500	40,400	48,600
50% RH	Sensible	18,200	25,700	36,100	44,000
Rows of coils		4	4	4	4
GPM		7.0	10.5	14.0	17.5
Pressure drop - PSI		4.6	10.1	9.2	14.6
BLOWER SECTION					
Airflow - CFM		800	1,200	1,600	2,000
Standard motor - horsepower (with Energy Saver coil)		3/4	1	1 1/2	2
External static pressure (E.S.P.) - inches of W.G.		0.5	0.5	0.5	0.5
Number of motors/fans		1/1	1/1	1/1	1/1
Maximum E.S.P.		0.8	1.0	1.0	1.2
ELECTRICAL SECTION		**Standard Motor**			
Electrical data based on STANDARD unit: electric reheat - **YES**, steam generator humidifier - **YES**, and STANDARD MOTOR.					
208-230/1/60	FLA/MCA/MFS	44/54/60	80/99/100	90/111/125	96/117/125
208-230/3/60	FLA/MCA/MFS	27/33/35	47/58/60	52/63/70	57/69/70
460/3/60	FLA/MCA/MFS	13/15/20	22/27/30	25/31/35	27/33/35
575/3/60	FLA/MCA/MFS	N/A	N/A	20/24/25	22/26/30
Electrical data based on: electric reheat - **NO**, steam generator humidifier - **YES**, and STANDARD MOTOR.					
208-230/1/60	FLA/MCA/MFS	32/39/40	39/47/50	49/59/70	54/66/90
208-230/3/60	FLA/MCA/MFS	26/32/35	30/37/40	35/42/50	40/48/60
460/3/60	FLA/MCA/MFS	12/15/20	14/17/20	18/21/25	19/23/30
575/3/60	FLA/MCA/MFS	N/A	N/A	14/17/20	16/19/20
Electrical data based on: electric reheat - **YES**, steam generator humidifier - **NO**, and STANDARD MOTOR.					
208-230/1/60	FLA/MCA/MFS	44/54/60	80/99/100	90/111/125	96/117/125
208-230/3/60	FLA/MCA/MFS	27/33/35	47/58/60	52/63/70	57/69/70
460/3/60	FLA/MCA/MFS	13/15/20	22/27/30	25/31/35	27/33/35
575/3/60	FLA/MCA/MFS	N/A	N/A	20/24/25	22/26/30
Electrical data based on: electric reheat - **NO**, steam generator humidifier - **NO**, and STANDARD MOTOR.					
208-230/1/60	FLA/MCA/MFS	16/18/25	23/27/40	33/38/60	38/45/70
208-230/3/60	FLA/MCA/MFS	10/12/15	14/16/25	18/22/35	23/28/40
460/3/60	FLA/MCA/MFS	5.0/5.9/15	6.9/8.2/15	10/12/15	12/14/20
575/3/60	FLA/MCA/MFS	N/A	N/A	7.8/9.3/15	10/11/15

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

ENERGY SAVER: Performance data at OPTIONAL airflow

Based on 45° F entering fluid temperature with 40% glycol solution - capacity in Btu/hr.

MODEL NUMBER		*DT*D/U-02*	*DT*D/U-03*	*DT*D/U-04*	*DT*D/U-05*
CAPACITY in Btu/hr - *gross*					
75° F DB/62.5° F WB	Total	26,000	35,200	52,300	62,800
50% RH	Sensible	22,900	32,200	45,700	55,500
72° F DB/62.5° F WB	Total	22,700	30,900	45,500	54,700
50% RH	Sensible	21,300	29,800	42,400	51,500
Rows of coils		4	4	4	4
GPM		7.0	10.5	14.0	17.5
Pressure drop - PSI		4.6	10.1	9.2	14.6
BLOWER SECTION					
Airflow - CFM		1,000	1,500	2,000	2,500
Standard motor - horsepower (with Energy Saver coil)		1	1 1/2	2	2
External static pressure (E.S.P.) - inches of W.G.		0.5	0.5	0.5	0.5
Number of motors/fans		1/1	1/1	1/1	1/1
Maximum E.S.P.		0.7	0.9	1.0	1.0
ELECTRICAL SECTION	**Standard Motor**				
Electrical data based on STANDARD unit: electric reheat - **YES**, steam generator humidifier - **YES**, and STANDARD MOTOR.					
208-230/1/60	FLA/MCA/MFS	46/56/60	82/101/110	91/111/125	96/117/125
208-230/3/60	FLA/MCA/MFS	27/33/35	48/59/60	53/65/70	57/69/70
460/3/60	FLA/MCA/MFS	13/16/20	23/28/30	25/31/35	27/33/35
575/3/60	FLA/MCA/MFS	N/A	N/A	20/25/30	22/26/30
Electrical data based on: electric reheat - **NO**, steam generator humidifier - **YES**, and STANDARD MOTOR.					
208-230/1/60	FLA/MCA/MFS	33/40/45	41/49/60	49/59/70	54/66/90
208-230/3/60	FLA/MCA/MFS	27/33/35	31/38/40	36/43/50	40/48/60
460/3/60	FLA/MCA/MFS	13/15/20	15/18/20	18/21/25	19/23/30
575/3/60	FLA/MCA/MFS	N/A	N/A	14/17/20	16/19/20
Electrical data based on: electric reheat - **YES**, steam generator humidifier - **NO**, and STANDARD MOTOR.					
208-230/1/60	FLA/MCA/MFS	46/56/60	82/101/110	91/111/125	96/117/125
208-230/3/60	FLA/MCA/MFS	27/33/35	48/59/60	53/65/70	57/69/70
460/3/60	FLA/MCA/MFS	13/16/20	23/28/30	25/31/35	27/33/35
575/3/60	FLA/MCA/MFS	N/A	N/A	20/25/30	22/26/30
Electrical data based on: electric reheat - **NO**, steam generator humidifier - **NO**, and STANDARD MOTOR.					
208-230/1/60	FLA/MCA/MFS	17/20/25	25/29/40	33/39/60	38/45/70
208-230/3/60	FLA/MCA/MFS	11/12/15	15/18/25	20/23/35	23/28/40
460/3/60	FLA/MCA/MFS	5.3/6.2/15	7.9/9.2/15	10/12/15	12/14/20
575/3/60	FLA/MCA/MFS	N/A	N/A	8.3/9.8/15	10/11/15

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

CHILLED WATER: Performance data at STANDARD airflow

MODEL NUMBER:		*DTCD/U-02*	*DTCD/U-03*	*DTCD/U-04*	*DTCD/U-05*
CAPACITY in Btu/hr - *gross*			**Based on 45° F entering chilled water**		
80° DB/67° WB	Total	37,500	51,500	71,500	84,900
50% RH	Sensible	25,000	35,300	48,200	58,200
	Flow rate - GPM	8.0	11.0	15.0	18.0
	Pressure drop - PSI	2.2	3.9	7.3	10.3
75° DB/62.5° WB	Total	26,900	36,700	51,200	60,600
50% RH	Sensible	21,200	29,900	40,900	49,400
	Flow rate - GPM	6.0	8.0	11.0	13.0
	Pressure drop - PSI	1.3	2.3	4.2	5.6
75° DB/61° WB	Total	25,000	34,400	47,700	56,700
45% RH	Sensible	21,900	31,300	42,400	51,300
	Flow rate - GPM	6.0	8.0	11.0	13.0
	Pressure drop - PSI	1.3	2.3	4.2	5.6
72° DB/60° WB	Total	21,900	29,100	41,600	49,800
50% RH	Sensible	19,000	26,400	36,700	44,500
	Flow rate - GPM	5.0	6.0	9.0	11.0
	Pressure drop - PSI	0.9	2.3	2.8	3.9
72° DB/58.6° WB	Total	20,700	28,000	39,500	48,500
45% RH	Sensible	19,800	27,500	38,100	46,200
	Flow rate - GPM	5.0	6.0	9.0	11.0
	Pressure drop - PSI	0.9	1.3	2.8	3.9
BLOWER SECTION					
Airflow - CFM		800	1,200	1,600	2,000
Standard motor - horsepower		1/2	3/4	1	1 1/2
External static pressure (E.S.P.) - inches of W.G.		0.5	0.5	0.5	0.5
Number of motor/fans		1/1	1/1	1/1	1/1
Maximum E.S.P.	(Standard motor)	0.8	0.7	1.0	1.0
Maximum E.S.P.	(Next size motor)	0.8	1.0	1.2	1.2
Next size motor - horsepower		3/4	1	1 1/2	2
CHILLED WATER COIL					
Face area - sq ft		4.2	4.2	4.2	4.2
Rows of coils		3	3	4	4
Face velocity - fpm		190	286	256	320
CHILLED WATER CONTROL	*Design pressure 250 psi*				
Control method		Modulating	Modulating	Modulating	Modulating
Valve body		3-way	3-way	3-way	3-way
Valve CV		14	14	14	14
Valve size - inches		1	1	1	1
REHEAT SECTION					
Electric		Standard	Standard	Standard	Standard
kW		6	6	12	12
Capacity - Btu/hr		20,490	20,490	40,980	40,980

CHILLED WATER: Performance data at STANDARD airflow

MODEL NUMBER:		*DTCD/U-02*	*DTCD/U-03*	*DTCD/U-04*	*DTCD/U-05*
FILTER SECTION					
Quantity		2	2	2	2
Size - inches	*Downflow*	16x25x4	16x25x4	16x25x4	16x25x4
	Upflow	16x20x4	16x20x4	16x20x4	16x20x4
Efficiency - percentage		30	30	30	30
(Note: Filter efficiency based on ASHRAE Std. 52.1-1992.)					
HUMIDIFIER SECTION					
Steam generator		Standard	Standard	Standard	Standard
kW		3.2	3.2	3.2	3.2
Capacity - lb/hr		10	10	10	10
ELECTRICAL SECTION		**Standard Motor**			
Electrical data based on STANDARD unit: electric reheat - **YES**, steam generator humidifier - **YES**, and STANDARD MOTOR.					
208-230/1/60	FLA/MCA/MFS	32/40/45	63/79/80	64/81/90	66/83/90
208-230/3/60	FLA/MCA/MFS	19/24/25	36/45/50	37/46/50	38/49/50
460/3/60	FLA/MCA/MFS	9/11/15	17/21/25	17/21/25	18/22/25
575/3/60	FLA/MCA/MFS	N/A	N/A	13/17/20	14/18/20
Electrical data based on: electric reheat - **NO**, steam generator humidifier - **YES**, and STANDARD MOTOR.					
208-230/1/60	FLA/MCA/MFS	20/25/30	22/27/30	23/29/30	25/31/35
208-230/3/60	FLA/MCA/MFS	19/23/25	19/24/25	20/25/30	21/26/30
460/3/60	FLA/MCA/MFS	9/11/15	9/11/15	9.0/11.5/15	10/13/15
575/3/60	FLA/MCA/MFS	N/A	N/A	7.3/9.1/15	7.9/9.9/15
Electrical data based on: electric reheat - **YES**, steam generator humidifier - **NO**, and STANDARD MOTOR.					
208-230/1/60	FLA/MCA/MFS	32/40/45	63/79/80	64/81/90	66/83/90
208-230/3/60	FLA/MCA/MFS	19/24/25	36/45/50	37/46/50	38/48/50
460/3/60	FLA/MCA/MFS	9/11/15	17/21/25	17/21/25	18/22/25
575/3/60	FLA/MCA/MFS	N/A	N/A	13/17/20	14/18/20
Electrical data based on: electric reheat - **NO**, steam generator humidifier - **NO**, and STANDARD MOTOR.					
208-230/1/60	FLA/MCA/MFS	3.4/4.3/15	5.3/6.6/15	6.8/8.5/15	9/11/15
208-230/3/60	FLA/MCA/MFS	2.2/2.8/15	3.0/3.8/15	3.6/4.5/15	5.7/7.1/15
460/3/60	FLA/MCA/MFS	1.1/1.4/15	1.5/1.9/15	1.8/2.3/15	2.8/3.5/15
575/3/60	FLA/MCA/MFS	N/A	N/A	1.4/1.8/15	2.0/2.5/15
STANDARD MOTOR		*FLA - Full load amps*			
Horsepower		1/2	3/4	1	1 1/2
208-230/1/60		3.4	5.3	6.8	8.8
208-230/3/60		2.2	3.0	3.6	5.7
460/3/60		1.1	1.5	1.8	2.8
575/3/60		N/A	N/A	1.4	2.0

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

CHILLED WATER: Performance data at STANDARD airflow

MODEL NUMBER:		*DTCD/U-02*	*DTCD/U-03*	*DTCD/U-04*	*DTCD/U-05*
ELECTRICAL SECTION	**Next Size Motor**				
Electrical data based on: electric reheat - **YES**, steam generator humidifier - **YES**, and NEXT SIZE MOTOR.					
208-230/1/60	FLA/MCA/MFS	34/43/45	64/81/90	66/83/90	67/84/90
208-230/3/60	FLA/MCA/MFS	20/25/30	37/46/50	38/48/50	39/49/50
460/3/60	FLA/MCA/MFS	9/11/15	17/21/25	18/22/25	18/23/25
575/3/60	FLA/MCA/MFS	N/A	N/A	14/18/20	15/18/20
Electrical data based on: electric reheat - **NO**, steam generator humidifier - **YES**, and NEXT SIZE MOTOR.					
208-230/1/60	FLA/MCA/MFS	22/27/30	23/29/30	25/31/35	26/32/35
208-230/3/60	FLA/MCA/MFS	19/24/25	20/25/30	21/26/30	22/28/30
460/3/60	FLA/MCA/MFS	9/11/15	9/11/15	10/13/15	10/13/15
575/3/60	FLA/MCA/MFS	N/A	N/A	7.9/9.9/15	8.4/10.5/15
Electrical data based on: electric reheat - **YES**, steam generator humidifier - **NO**, and NEXT SIZE MOTOR.					
208-230/1/60	FLA/MCA/MFS	34/43/45	64/81/90	66/83/90	67/84/90
208-230/3/60	FLA/MCA/MFS	20/25/30	37/46/50	38/48/50	39/49/50
460/3/60	FLA/MCA/MFS	9/11/15	17/21/25	18/22/25	18/23/25
575/3/60	FLA/MCA/MFS	N/A	N/A	14/18/20	15/18/20
Electrical data based on: electric reheat - **NO**, steam generator humidifier - **NO**, and NEXT SIZE MOTOR.					
208-230/1/60	FLA/MCA/MFS	5.3/6.6/15	6.8/8.5/15	9/11/15	9/12/20
208-230/3/60	FLA/MCA/MFS	3.0/3.8/15	3.6/4.5/15	4.8/6.0/15	6.0/7.5/15
460/3/60	FLA/MCA/MFS	1.5/1.9/15	1.8/2.3/15	2.8/3.5/15	3.0/3.8/15
575/3/60	FLA/MCA/MFS	N/A	N/A	2.0/2.5/15	2.5/3.1/15

NEXT SIZE MOTOR	*FLA - Full load amps*			
Horsepower	3/4	1	1 1/2	2
208-230/1/60	5.3	6.8	8.8	9.3
208-230/3/60	3.0	3.6	5.7	6.0
460/3/60	1.5	1.8	2.8	3.0
575/3/60	N/A	N/A	2.0	2.5

CONNECTION SIZES				
CW supply - O.D. Copper	1 1/8	1 1/8	1 1/8	1 1/8
CW return - O.D. Copper	1 1/8	1 1/8	1 1/8	1 1/8
Condensate drain	3/4	3/4	3/4	3/4
Humidifier supply	1/4	1/4	1/4	1/4

FLA - Full load amps
MCA - Minimum circuit amps
MFS - Maximum overcurrent protection device amps

CHILLED WATER: Performance data at OPTIONAL airflow

MODEL NUMBER:		*DTCD/U-02*	*DTCD/U-03*	*DTCD/U-04*	*DTCD/U-05*
CAPACITY in Btu/hr - *gross*			***Based on 45°F entering chilled water***		
80° DB/67° WB	Total	42,500	57,800	80,700	95,200
50% RH	Sensible	29,300	41,200	56,500	67,900
	Flow rate - GPM	8.0	11.0	15.0	18.0
	Pressure drop - PSI	2.2	3.9	7.3	10.3
75° DB/62.5° WB	Total	30,500	41,100	57,700	67,900
50% RH	Sensible	25,000	35,100	48,100	57,800
	Flow rate - GPM	6.0	8.0	11.0	13.0
	Pressure drop - PSI	1.3	2.3	4.2	5.6
75° DB/61° WB	Total	28,700	39,100	54,500	64,500
45% RH	Sensible	26,000	36,600	50,100	60,300
	Flow rate - GPM	6.0	8.0	11.0	13.0
	Pressure drop - PSI	1.3	2.3	4.2	5.6
72° DB/60° WB	Total	24,900	32,600	47,000	56,100
50% RH	Sensible	22,400	30,800	43,000	52,000
	Flow rate - GPM	5.0	6.0	9.0	11.0
	Pressure drop - PSI	0.9	2.3	2.8	3.9
72° DB/58.6° WB	Total	23,900	31,900	45,400	54,400
45% RH	Sensible	23,400	31,900	44,700	53,900
	Flow rate - GPM	5.0	6.0	9.0	11.0
	Pressure drop - PSI	0.9	1.3	2.8	3.9
BLOWER SECTION					
Airflow - CFM		1,000	1,500	2,000	2,500
Standard motor - horsepower		3/4	1	1 1/2	2
External static pressure (E.S.P.) - inches of W.G.		0.5	0.5	0.5	0.5
Number of motors/fans		1/1	1/1	1/1	1/1
Maximum E.S.P.	(Standard Motor)	.08	0.7	1.0	1.2
Maximum E.S.P.	(Next Size Motor)	1.0	1.0	1.2	N/A
Next size motor - horsepower		1	1 1/2	2	N/A
CHILLED WATER COIL					
Face area - sq ft		4.2	4.2	6.25	6.25
Rows of coils		3	3	4	4
Face velocity - fpm		238	357	320	400
CHILLED WATER CONTROL			***Design pressure 250 psi***		
Control method		Modulating	Modulating	Modulating	Modulating
Valve body		3-way	3-way	3-way	3-way
Valve CV		14	14	14	14
Valve size - inches		1	1	1	1
REHEAT SECTION					
Electric		Standard	Standard	Standard	Standard
kW		6	6	12	12
Capacity - Btu/hr		20,490	20,490	40,980	40,980

CHILLED WATER: Performance data at OPTIONAL airflow

MODEL NUMBER:		*DTCD/U-02*	*DTCD/U-03*	*DTCD/U-04*	*DTCD/U-05*
FILTER SECTION					
Quantity		2	2	2	2
Size - inches	*Downflow*	16x25x4	16x25x4	16x25x4	16x25x4
	Upflow	16x20x4	16x20x4	16x20x4	16x20x4
Efficiency - percentage		30	30	30	30
(Note: Filter efficiency based on ASHRAE Std. 52.1-1992.)					
HUMIDIFIER SECTION					
Steam generator		Standard	Standard	Standard	Standard
kW		3.2	3.2	3.2	3.2
Capacity - lb/hr		10	10	10	10
ELECTRICAL SECTION		**Standard Motor**			
Electrical data based on STANDARD unit: electric reheat - **YES**, steam generator humidifier - **YES**, and STANDARD MOTOR.					
208-230/1/60	FLA/MCA/MFS	33/42/45	64/80/90	66/83/90	67/84/90
208-230/3/60	FLA/MCA/MFS	20/25/30	37/46/50	39/49/50	39/49/50
460/3/60	FLA/MCA/MFS	9/11/15	17/21/25	18/22/25	18/23/25
575/3/60	FLA/MCA/MFS	N/A	N/A	14/18/20	15/18/20
Electrical data based on: electric reheat - **NO**, steam generator humidifier - **YES**, and STANDARD MOTOR.					
208-230/1/60	FLA/MCA/MFS	22/27/30	23/29/30	25/31/35	26/32/35
208-230/3/60	FLA/MCA/MFS	19/24/25	20/25/30	21/26/30	22/28/30
460/3/60	FLA/MCA/MFS	9/11/15	9/11/15	10/12.7/15	10/13/15
575/3/60	FLA/MCA/MFS	N/A	N/A	7.9/9.9/15	8.4/10.5/15
Electrical data based on: electric reheat - **YES**, steam generator humidifier - **NO**, and STANDARD MOTOR.					
208-230/1/60	FLA/MCA/MFS	34/43/45	64/81/90	66/83/90	67/84/90
208-230/3/60	FLA/MCA/MFS	20/25/30	37/46/50	38/48/50	39/49/50
460/3/60	FLA/MCA/MFS	9/11/15	17/21/25	18/22/25	18/22/26
575/3/60	FLA/MCA/MFS	N/A	N/A	14/18/15	15/18/20
Electrical data based on: electric reheat - **NO**, steam generator humidifier - **NO**, and STANDARD MOTOR.					
208-230/1/60	FLA/MCA/MFS	5.3/6.6/15	6.8/8.5/15	8.8/11/15	9/12/20
208-230/3/60	FLA/MCA/MFS	3.0/3.8/15	3.6/4.5/15	4.8/6.0/15	6.0/7.5/15
460/3/60	FLA/MCA/MFS	1.5/1.9/15	1.8/2.3/15	2.8/3.5/15	3.0/3.8/15
575/3/60	FLA/MCA/MFS	N/A	N/A	2.0/2.5/15	2.5/3.1/15

STANDARD MOTOR	*FLA - Full load amps*			
Horsepower	3/4	1	1 1/2	2
208-230/1/60	5.3	6.8	8.8	9.3
208-230/3/60	3.0	3.6	5.7	6.0
460/3/60	1.5	1.8	2.8	3.0
575/3/60	N/A	N/A	2.0	2.5

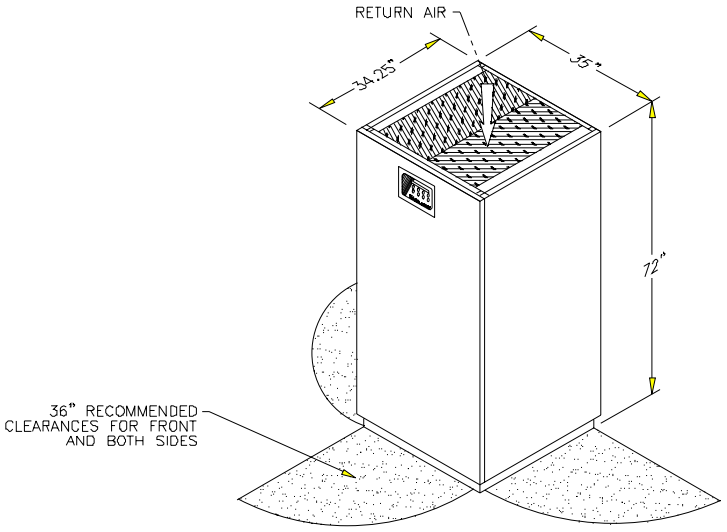
FLA - Full load amps
MCA - Minimum circuit amps (wire sizing amps)
MFS - Maximum overcurrent protection device amps

CHILLED WATER: Performance data at OPTIONAL airflow

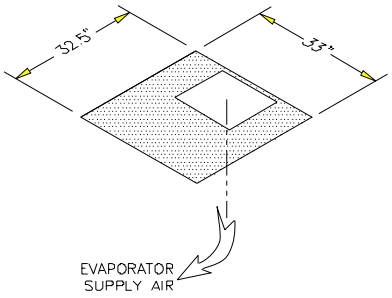
MODEL NUMBER:		*DTCD/U-02*	*DTCD/U-03*	*DTCD/U-04*	*DTCD/U-05*
ELECTRICAL SECTION	**Next Size Motor**				
Electrical data based on: electric reheat - **YES**, steam generator humidifier- **YES**, and NEXT SIZE MOTOR.					
208-230/1/60	FLA/MCA/MFS	36/45/50	66/83/90	67/84/90	N/A
208-230/3/60	FLA/MCA/MFS	20/25/30	38/48/50	39/49/50	N/A
460/3/60	FLA/MCA/MFS	9/12/15	18/22/25	18/23/25	N/A
575/3/60	FLA/MCA/MFS	N/A	N/A	15/18/20	N/A
Electrical data based on: electric reheat - **NO**, steam generator humidifier - **YES**, and NEXT SIZE MOTOR.					
208-230/1/60	FLA/MCA/MFS	23/29/30	25/31/35	26/32/35	N/A
208-230/3/60	FLA/MCA/MFS	20/25/30	21/26/30	22/28/30	N/A
460/3/60	FLA/MCA/MFS	9/11/15	10/13/15	10/13/15	N/A
575/3/60	FLA/MCA/MFS	N/A	N/A	8.4/10.5/15	N/A
Electrical data based on: electric reheat - **YES**, steam generator humidifier - **NO**, and NEXT SIZE MOTOR.					
208-230/1/60	FLA/MCA/MFS	36/45/50	66/83/90	67/84/90	N/A
208-230/3/60	FLA/MCA/MFS	20/25/30	38/48/50	39/49/50	N/A
460/3/60	FLA/MCA/MFS	9/12/15	18/22/25	18/23/25	N/A
575/3/60	FLA/MCA/MFS	N/A	N/A	15/18/20	N/A
Electrical data based on: electric reheat - **NO**, steam generator humidifier - **NO**, and NEXT SIZE MOTOR.					
208-230/1/60	FLA/MCA/MFS	6.8/8.5/15	8.8/11/15	9/12/15	N/A
208-230/3/60	FLA/MCA/MFS	3.6/4.5/15	5.7/7.1/15	6.0/7.5/15	N/A
460/3/60	FLA/MCA/MFS	1.8/2.3/15	2.8/3.5/15	3.0/3.8/15	N/A
575/3/60	FLA/MCA/MFS	N/A	N/A	2.5/3.1/15	N/A
NEXT SIZE MOTOR	*FLA - Full load amps*				
Horsepower		1	1 1/2	2	N/A
208-230/1/60		6.8	8.8	9.3	N/A
208-230/3/60		3.6	5.7	6.0	N/A
460/3/60		1.8	2.8	3.0	N/A
575/3/60		N/A	N/A	2.5	N/A
CONNECTION SIZES					
CW supply - O.D. Copper		1 1/8	1 1/8	1 1/8	1 1/8
CW return - O.D. Copper		1 1/8	1 1/8	1 1/8	1 1/8
Condensate drain		3/4	3/4	3/4	3/4
Humidifier supply		1/4	1/4	1/4	1/4

FLA - Full load amps
MCA - Minimum circuit amps
MFS - Maximum overcurrent protection device amps

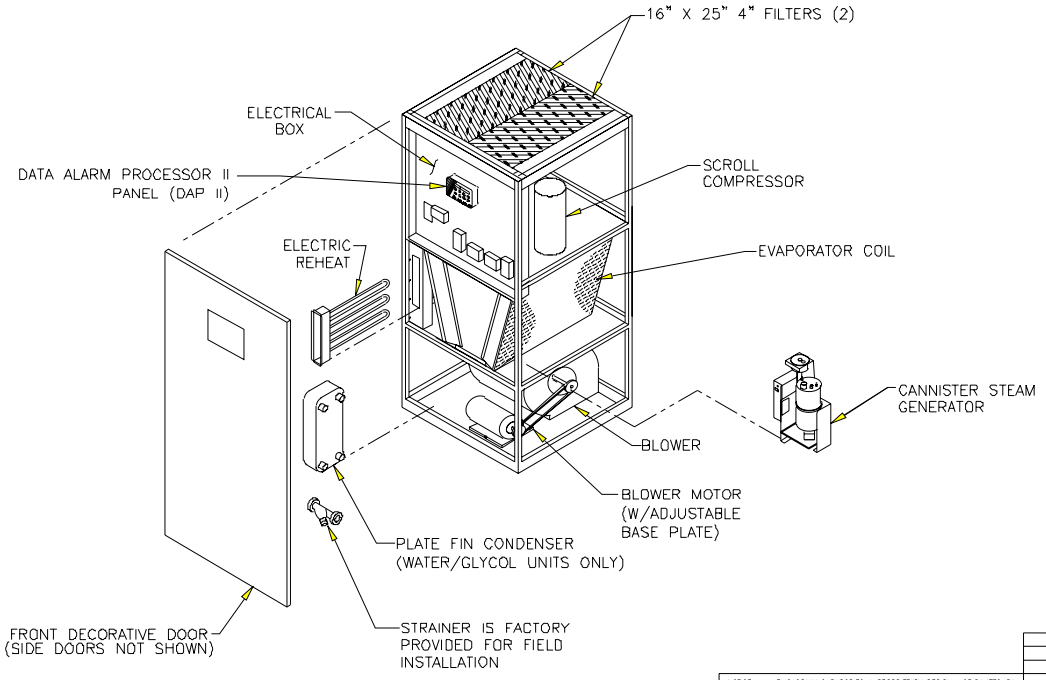
DATA TEMP 2–5 TON DOWNFLOW



DIMENSIONAL DATA



FLOOR CUTOUT DIMENSIONS



COMPONENT BREAKDOWN

REVISIONS			
REV	DESCRIPTION	DATE	BY
–	RELEASED TO PRODUCTION	6–17–05	ACR
A	ADDED COMPONENT BREAKDOWN	08–29–05	JH
B	ADDED COMPRESSOR	09–02–05	JH

NEXT ASSEMBLY	USED ON
	APPLICATION

UNLESS OTHERWISE SPECIFIED (DIMENSIONS ARE IN INCHES) .X ±/–.1 .XX ±/–.03 .XXX ±/–.010 ANGLES ±/– 1 DEG. MACHINED TOLERANCE: SURFACE FINISH 125 FILLET RADII .010–.030 SQUARENESS .005/INCH CONCENTRICITY .010 TIR BREAK EDGES .002–.015 DIMENSIONS AND TOLERANCES PER ANSI Y 14.5

DO NOT SCALE PRINT

DRAWN BY: J. HERNANDEZ	DATE: 09–02–05	
CHECKER:		
ENGINEER:		
FINISH:		

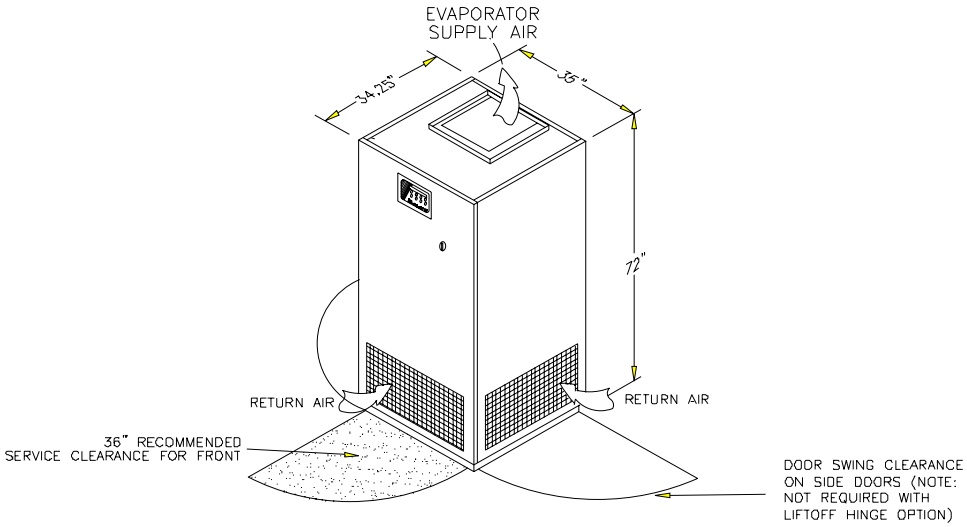
DATA AIRE INC
230 W. BLUERIDGE AVE. ORANGE, CA 92865

TITLE
2–5 TON DOWNFLOW DATA TEMP WITH V–TYPE COIL

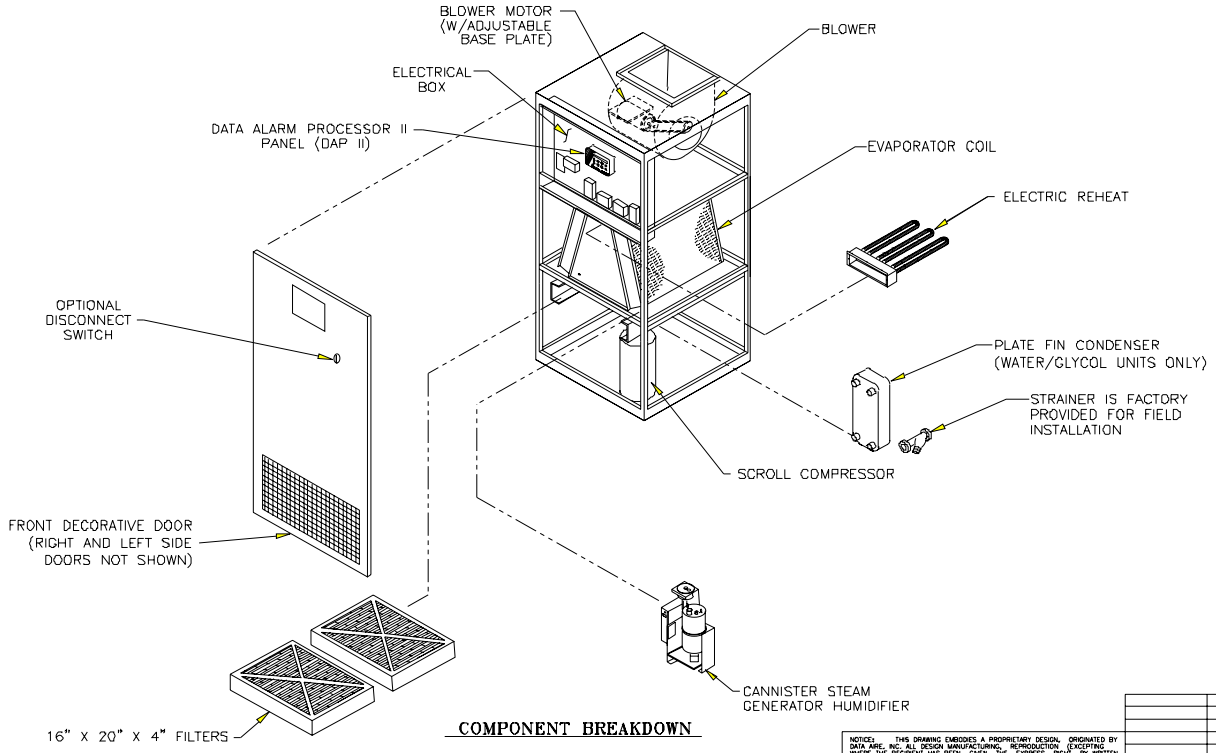
SIZE	DIR	FILE NO.	DRAWING NO.	REV.
B	SA 624	24900042B	524–900–042	B

SCALE NONE WT. SHEET 1 OF 1

DATA TEMP DX 2–5 TON UPFLOW



DIMENSIONAL DATA



COMPONENT BREAKDOWN

REVISIONS			
REV	DESCRIPTION	DATE	BY
–	RELEASED TO PRODUCTION	7-5-05	ACR
A	ADDED COMPONENT BREAKDOWN	08-25-05	JH
B	REVISED DRAWING TITLE	08-31-05	JH
C	REVISED TITLE AND ADDED FILTER WITH BRACKET CLARIFIED SIDE CLEARANCE	09-21-05	GS

NEXT ASSEMBLY	USED ON
APPLICATION	

UNLESS OTHERWISE SPECIFIED (DIMENSIONS ARE IN INCHES) .X ±.1/-.1 .XX ±.1/-.03 .XXX ±.1/-.010 ANGLES ±.1/- 1 DEG. MACHINED TOLERANCE: SURFACE FINISH 125 FILLET RADII .010-.030 SQUARENESS .005/INCH CONCENTRICITY .010 TIR BREAK EDGES .002-.015 DIMENSIONS AND TOLERANCES PER ANSI Y 14.5

DO NOT SCALE PRINT

DRAWN BY: C.SALDIVAR — DATE: 09-21-05

CHECKER:

ENGINEER:

FINISH:

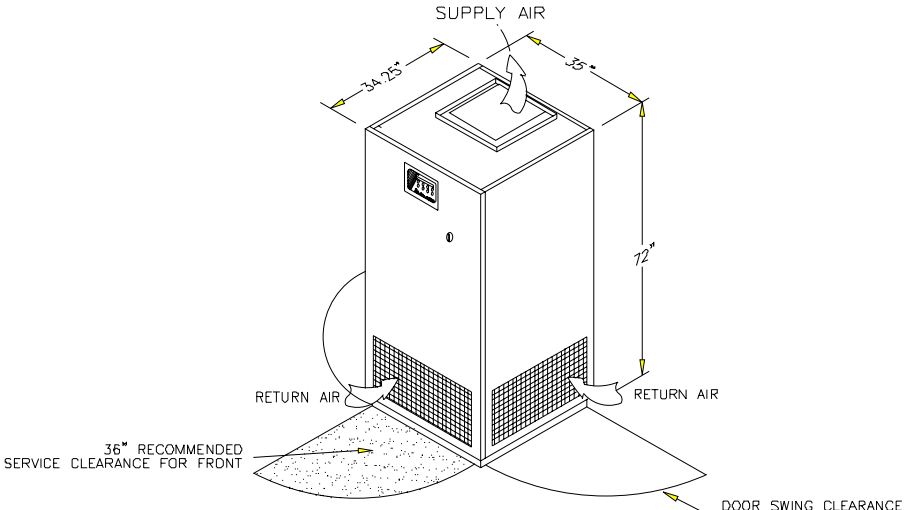
DATA AIRE INC
230 W. BLUERIDGE AVE.
ORANGE, CA 92865

TITLE
2-5 TON DX UPFLOW DATA TEMP
WITH A-TYPE COIL

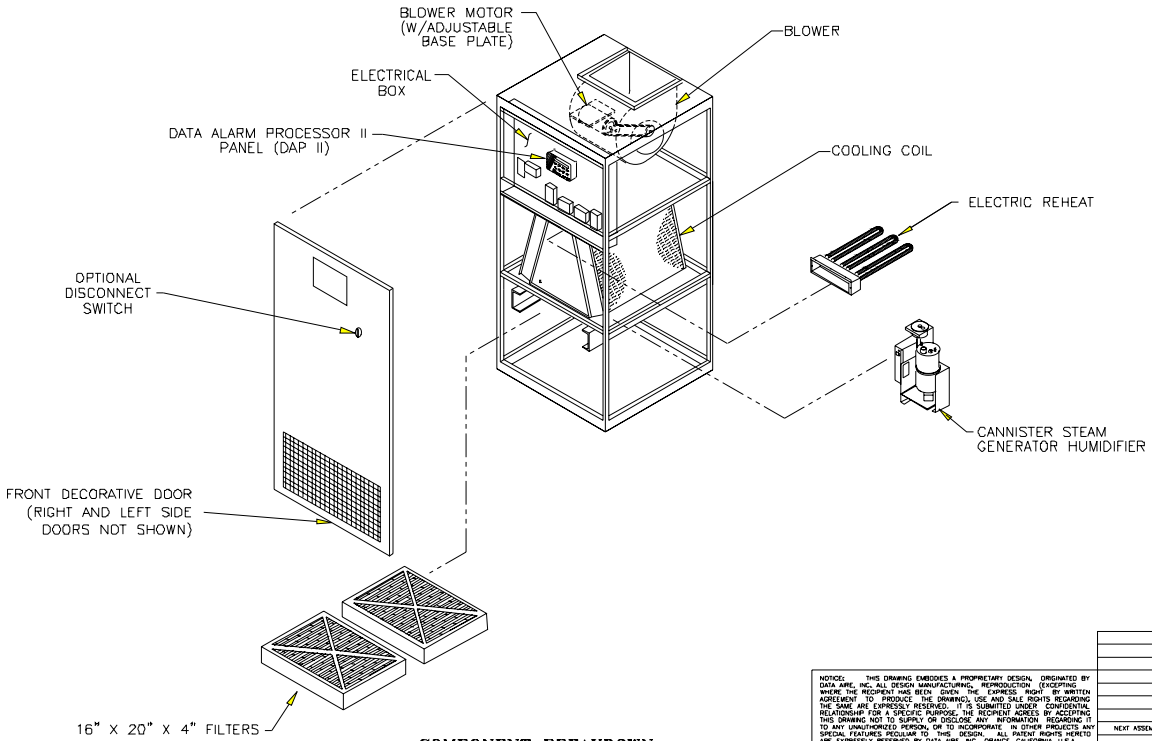
SIZE	DIR	FILE NO.	DRAWING NO.	REV.
B	SA 522	22900230C	522-900-230	C

SCALE NONE — WT. — SHEET 1 OF 1

DATA TEMP CW 2–5 TON UPFLOW



DIMENSIONAL DATA



COMPONENT BREAKDOWN

REVISIONS			
REV	DESCRIPTION	DATE	BY
–	RELEASED TO PRODUCTION	09–21–05	GS

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APPLICATION	

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DRAWN BY: G SALDIVAR DATE: 09–21–05
CHECKER:
ENGINEER:
FINISH:

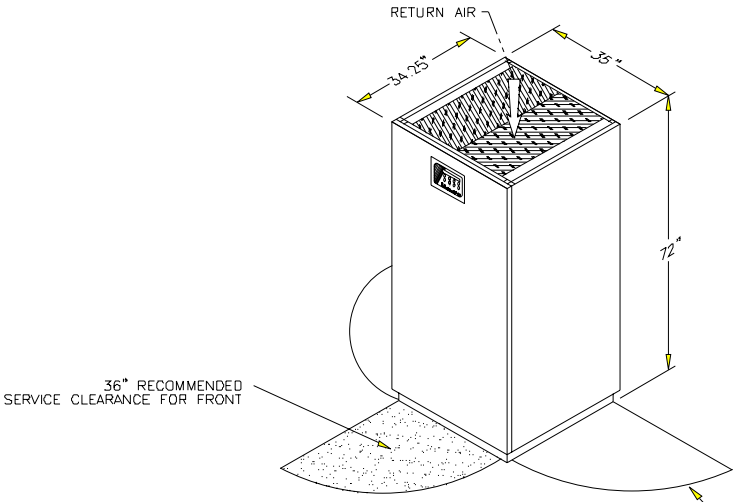
DATA AIRE INC 230 W. BLUERIDGE AVE. ORANGE, CA 92865

TITLE: 2–5 TON CW UPFLOW DATA TEMP WITH A–TYPE COIL

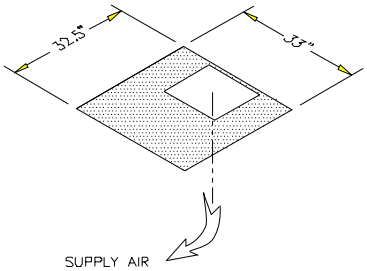
SIZE B | DWR SA 522 | FILE NO. 22900231 | DRAWING NO. 522–900–231 | REV. –

SCALE NONE | WT. | SHEET 1 OF 1

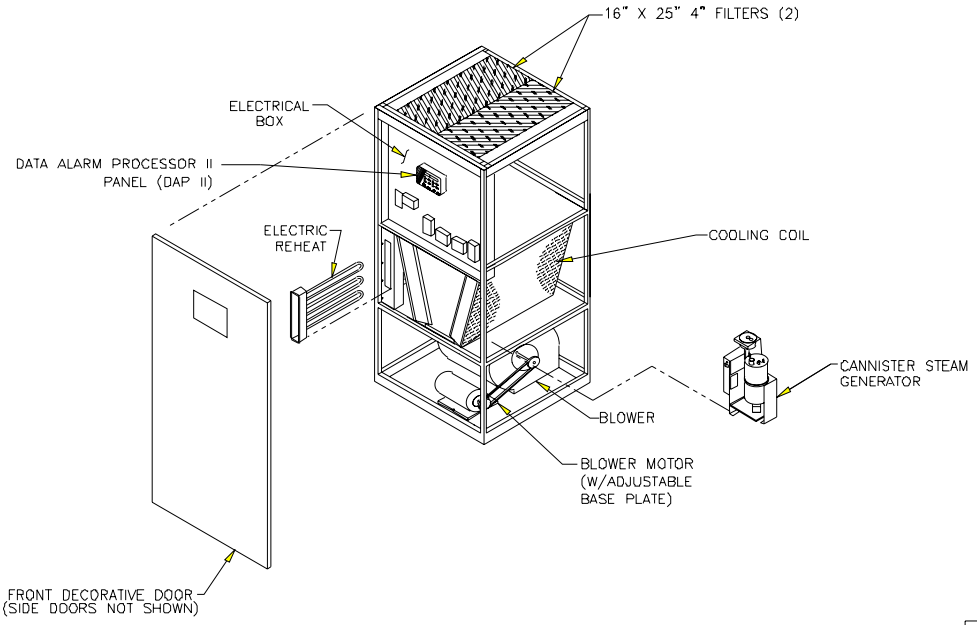
DATA TEMP CW 2-5 TON DOWNFLOW



DIMENSIONAL DATA



FLOOR CUTOUT DIMENSIONS



COMPONENT BREAKDOWN

REVISIONS			
REV	DESCRIPTION	DATE	BY
–	RELEASED TO PRODUCTION	09-21-05	GS

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NEXT ASSEMBLY	USED ON
	APPLICATION

UNLESS OTHERWISE SPECIFIED (DIMENSIONS ARE IN INCHES)
X ±/-1
.XX ±/-.01
.XXX ±/-.010
ANGLES ±/-1 DEG.
MACHINED TOLERANCE:
SURFACE FINISH 125
FILLET RADII .016-.030
SQUARENESS .005/INCH
CONCENTRICITY .010 TIR
BREAK EDGES .002-.015
DIMENSIONS AND TOLERANCES PER ANSI Y 14.5
DO NOT SCALE PRINT

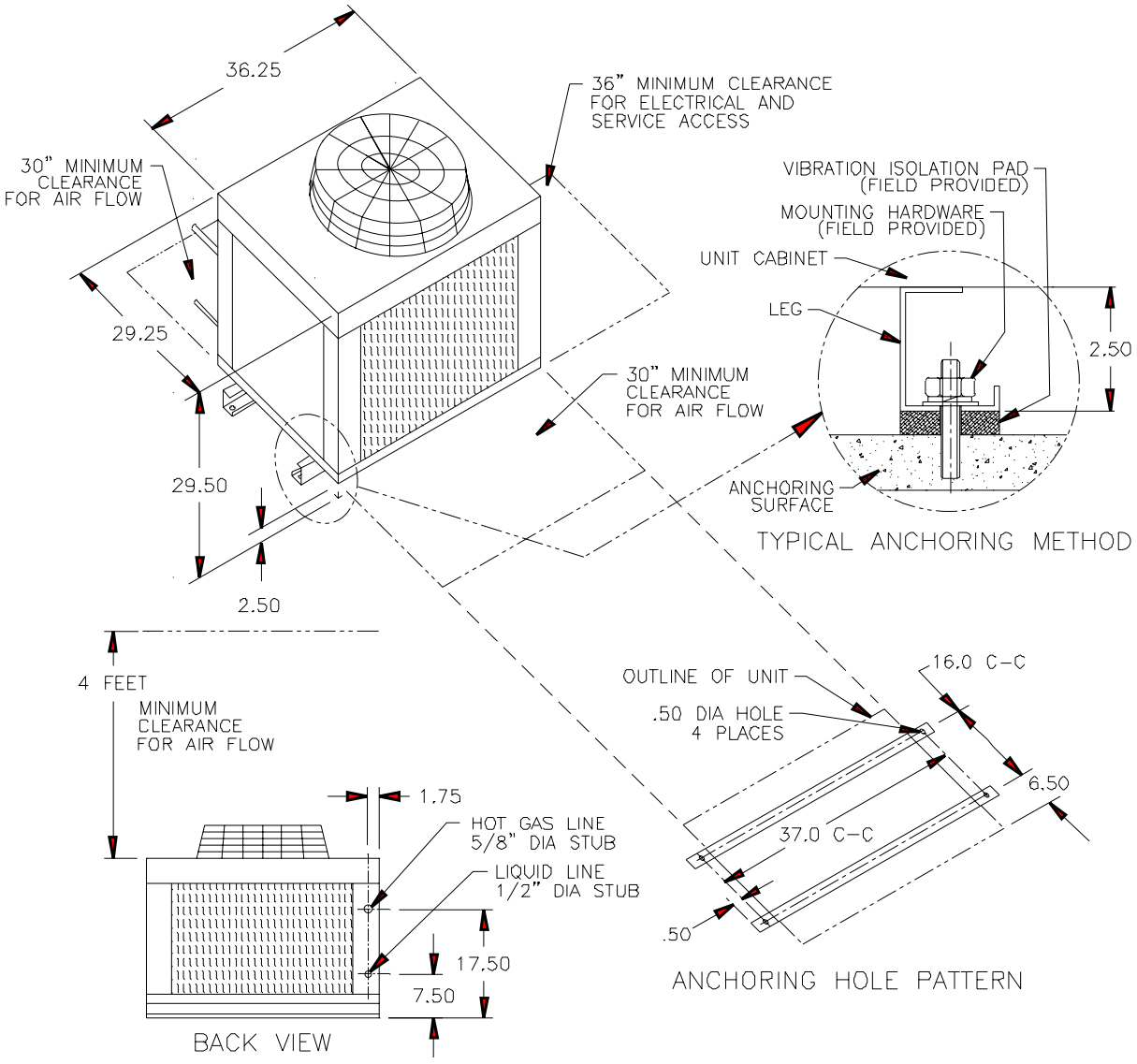
DRAWN BY: G.SALDIVAR — DATE: 09-21-05
CHECKER:
ENGINEER:
FINISH:

DATA AIRE INC
230 W. BLUERIDGE AVE.
ORANGE, CA 92865

TITLE
2-5 TON CW DOWNFLOW DATA
TEMP WITH V-TYPE COIL

SIZE	DWG	FILE NO.	DRAWING NO.	REV.
B	SA 524	24900043	524-900-043	–

SCALE NONE — WT. — SHEET 1 OF 1

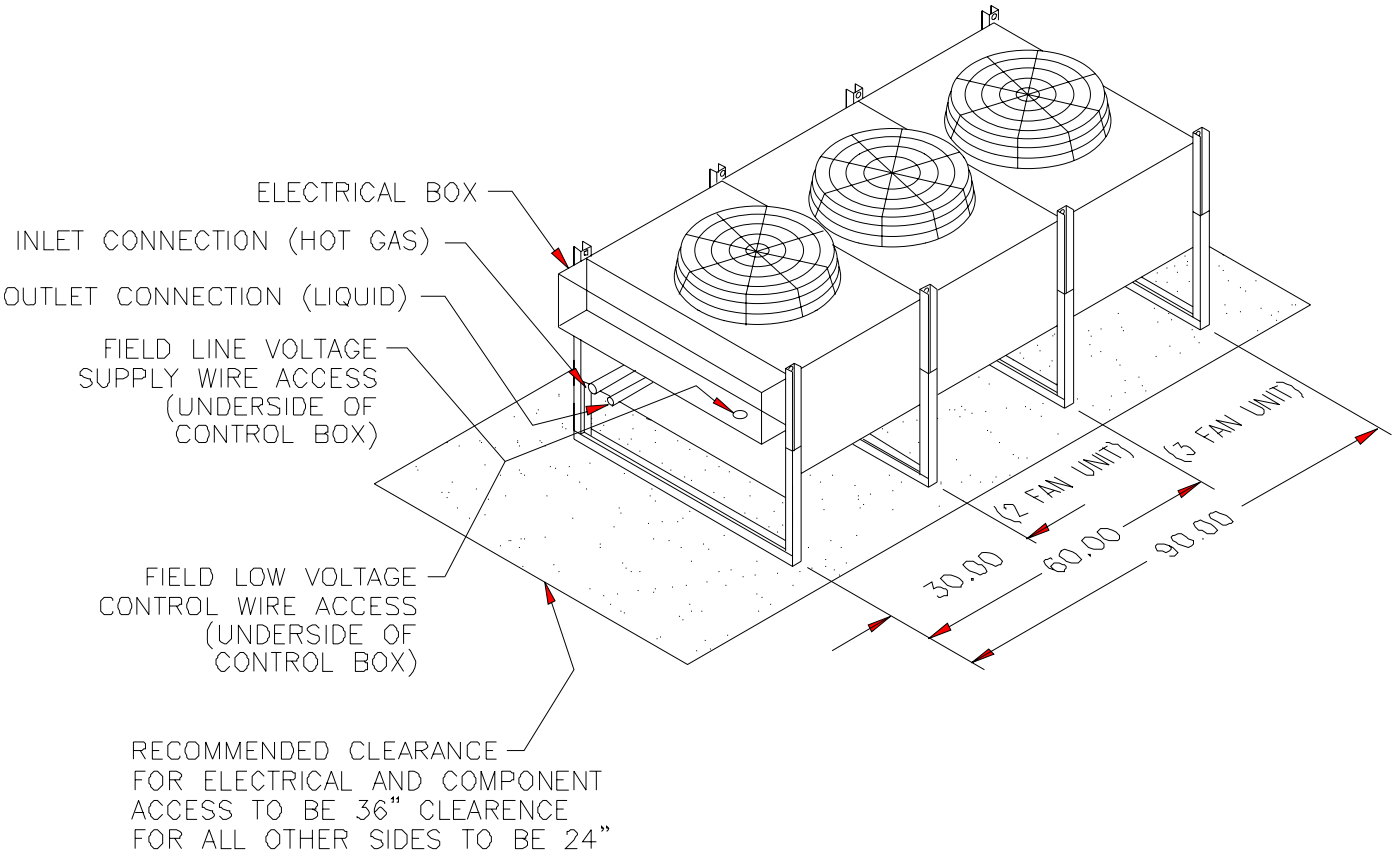


PHYSICAL DATA

MODEL NUMBER	FANS		UNIT
	QTY	TOTAL CFM	NET WT.#
DARC 3	1	5000	160
DARC 5	1	4800	180

ELECTRICAL DATA

MODEL NUMBER	QTY MOTORS	H.P.	RPM	MOTOR FLA	
				208/230V	460V
DARC 3	1	3/4	1075	4.2	2.1
DARC 5	1	3/4	1075	4.2	2.1



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

STANDARD CONDENSER				
H.P.	RPM	TOTAL CFM	MOTOR FLA 208/230V	460V
3/4	1075	5000	4.2	2.1
3/4	1075	4900	4.2	2.1
3/4	1075	4800	4.2	2.1
3/4	1075	10400	8.4	4.2
3/4	1075	10000	8.4	4.2
3/4	1075	9800	8.4	4.2
3/4	1075	15000	12.6	6.3

LOW DECIBEL CONDENSER				
H.P.	RPM	TOTAL CFM	MOTOR FLA 208/230V	460V
1/2	850	4000	3.2	1.6
1/2	850	3900	3.2	1.6
1/2	850	3800	3.2	1.6
1/2	850	8300	6.4	3.2
1/2	850	8000	6.4	3.2
1/2	850	7800	6.4	3.2
1/2	850	12000	9.6	4.8

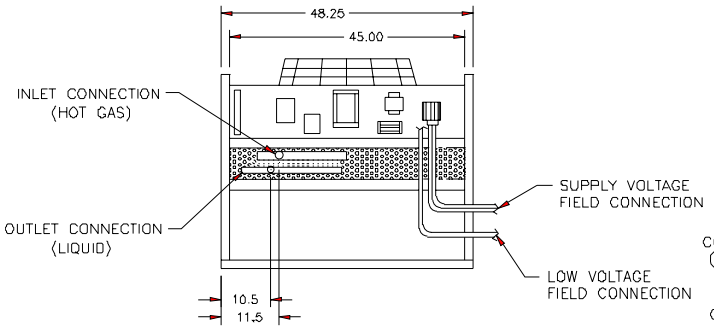
DARC 6-21 TON
SINGLE CIRCUIT CONDENSER

DATA AIRE INC.
A CONSTRUCTION SPECIALTIES INC. Company

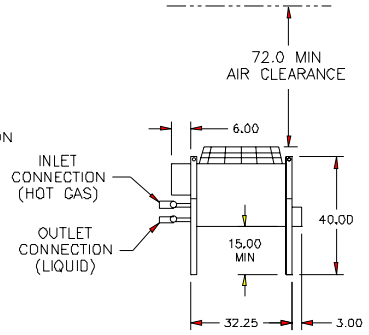
DRAWN BY : E. DIAZ	SCALE : 1/28
CHECKED BY :	SLS DARC6-21
DATE : 6-8-98	SHT. 1 OF 1
MATERIAL: -	

SINGLE CIRCUIT CONDENSER
PART OF

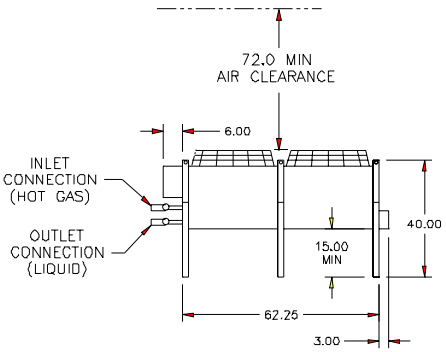
DARC 6-21 TON
PART NO.



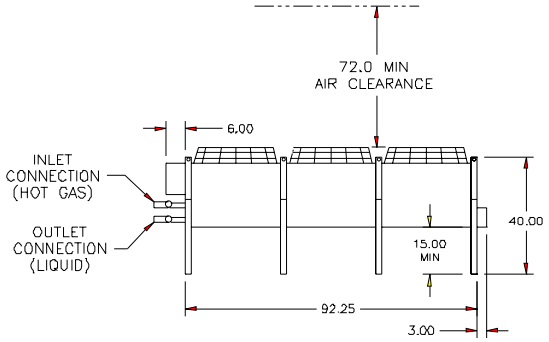
SINGLE CIRCUIT CONNECTION LOCATION



1 FAN UNIT, MODEL 6 THRU 9

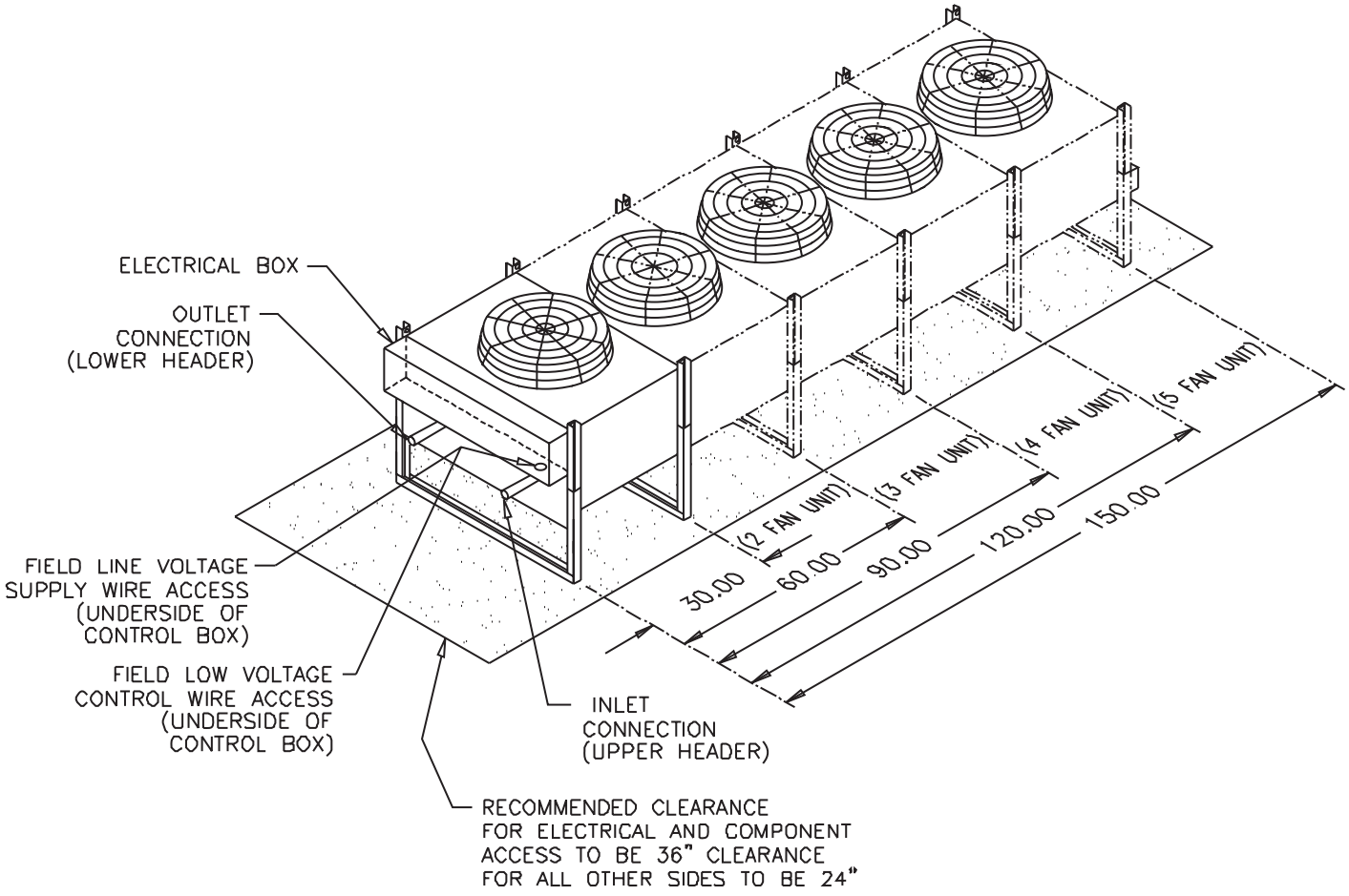


2 FAN UNIT, MODEL 11 THRU 17



3 FAN UNIT, MODEL 21

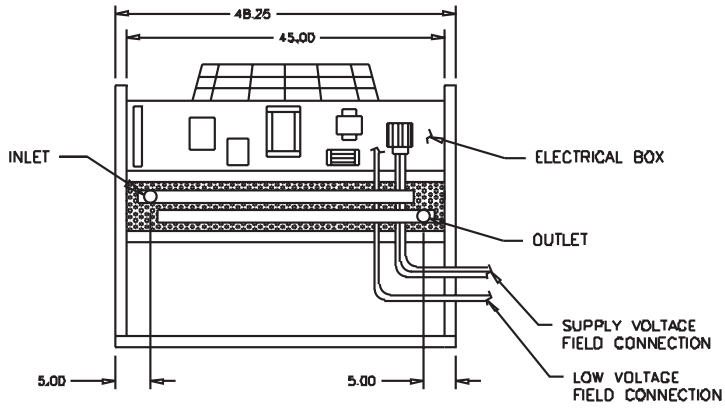
DARC 6-21 TON SINGLE CIRCUIT CONDENSERS	
DATA AIRE INC.	
DRAWN BY : E. DIAZ	SCALE : 1/20
CHECKED BY :	SLS CON DAR6_21P2
DATE : 6-8-98	SHT. 1 OF 1
MATERIAL: –	
SINGLE CIRCUIT CONDENSERS PART OF	
DARC 6-21 TON PART NO.	



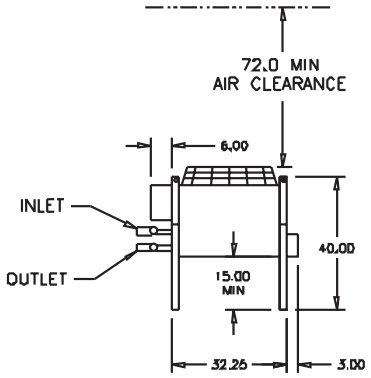
MODEL NUMBER	LENGTH	UNIT NET WT.#	PIPE CONNECTION SIZES (COPPER STUB.OD) INLET	PIPE CONNECTION SIZES (COPPER STUB.OD) OUTLET	QTY. MOTORS
DAFC 06	32-1/4"	260	1-5/8	1-5/8	1
DAFC 07	32-1/4"	285	1-5/8	1-5/8	1
DAFC 09	32-1/4"	310	1-5/8	1-5/8	1
DAFC 11	62-1/4"	260	2-1/8	2-1/8	2
DAFC 15	62-1/4"	370	2-1/8	2-1/8	2
DAFC 17	62-1/4"	400	2-5/8	2-5/8	2
DAFC 21	92-1/4"	560	2-1/8	2-1/8	3
DAFC 24	92-1/4"	645	2-5/8	2-5/8	3
DAFC 28	92-1/4"	665	2-5/8	2-5/8	3
DAFC 30	122-1/4"	745	2-1/8	2-1/8	4

STANDARD CONDENSER				
H.P.	RPM	TOTAL CFM	MOTOR FLA 208/230V	MOTOR FLA 460V
3/4	1075	5000	4.2	2.1
3/4	1075	4900	4.2	2.1
3/4	1075	4800	4.2	2.1
3/4	1075	10400	8.4	4.2
3/4	1075	10000	8.4	4.2
3/4	1075	9800	8.4	4.2
3/4	1075	15000	12.6	6.3
3/4	1075	14750	12.6	6.3
3/4	1075	14500	12.6	6.3
3/4	1075	20000	16.8	8.4

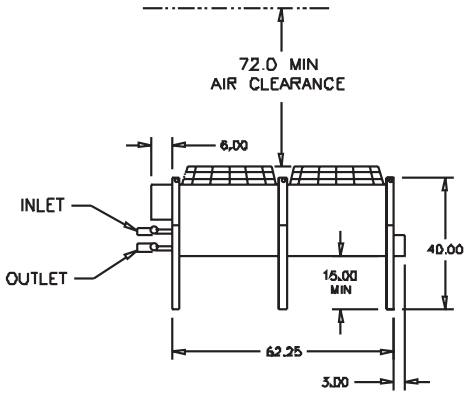
LOW DECIBEL CONDENSER				
H.P.	RPM	TOTAL CFM	MOTOR FLA 208/230V	MOTOR FLA 460V
1/2	850	4000	3.2	1.6
1/2	850	3900	3.2	1.6
1/2	850	3800	3.2	1.6
1/2	850	8300	6.4	3.2
1/2	850	8000	6.4	3.2
1/2	850	7800	6.4	3.2
1/2	850	12000	9.6	4.8
1/2	850	11800	9.6	4.8
1/2	850	11600	9.6	4.8
1/2	850	16000	12.8	6.4



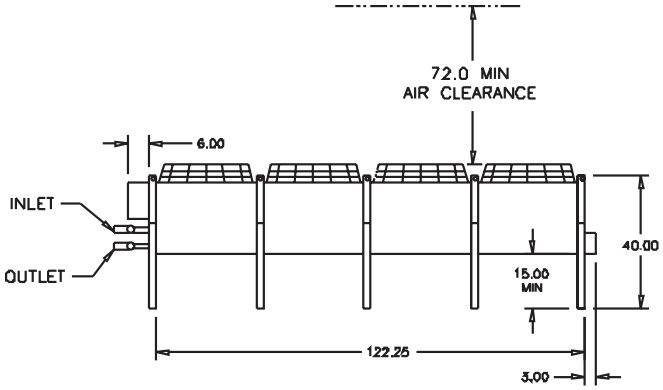
END VIEW CONNECTION LOCATION



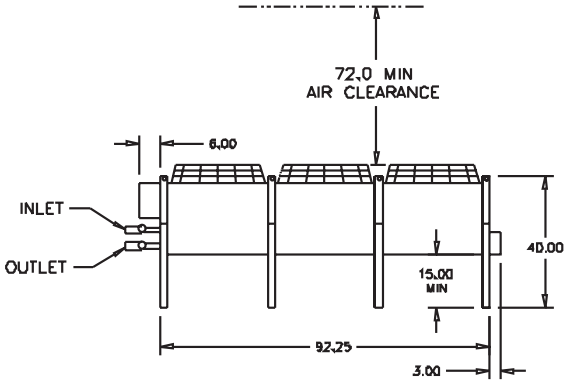
1 FAN UNIT, MODEL 6 THRU 9



2 FAN UNIT, MODEL 11 THRU 17



4 FAN UNIT, MODEL 30 THRU 40



3 FAN UNIT, MODEL 21 THRU 28

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 & DAFC 06	4.2/5.3/15	4.2/5.3/15	2.1/2.6/15
DARC & DAFC 07	4.2/5.3/15	4.2/5.3/15	2.1/2.6/15
DARC & DAFC 09	4.2/5.3/15	4.2/5.3/15	2.1/2.6/15
DARC & DAFC11	8.4/9.5/15	8.4/9.5/15	4.2/4.7/15
DARC & DAFC 15	8.4/9.5/15	8.4/9.5/15	4.2/4.7/15
DARC & DAFC 17	8.4/9.5/15	8.4/9.5/15	4.2/4.7/15
DARC & DAFC 21	13/14/15	13/14/15	6.3/6.8/15
DARC & DAFC 24	13/14/15	13/14/15	6.3/6.8/15
DARC & DAFC 28	13/14/15	13/14/15	6.3/6.8/15
DARC & DAFC 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

FLA - Full load amps
MCA - Minimum circuit amps
MFS - Maximum overcurrent protection device amps

Part 1.0- GENERAL

1.01 System Description

Environmental control system shall be provided with the capacity to handle high sensible heat ratio load requirements. The system shall be designed to control temperature and relative humidity levels within the room.

1.02 Design Requirements

The system shall be factory assembled, piped, wired, and run tested prior to shipment and designed for downflow or top discharge.
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 listed.

Part 2.0- PRODUCT

2.01 All Systems

A. CABINET and FRAME Construction

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 door shall be lined with one inch (1"), 1-1/2 pound density fiberglass insulation coated with a sound and water resistant composite treated with an antimicrobial agent. 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 in a color selected by the architect or owner.

B. BLOWER SECTION

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 mils in any plane. The blower wheel shall be a minimum of: 10 inches diameter with a maximum rotational speed at design airflow of 1200 rpm (2 and 3 ton Data Temps) or 12 inches with a maximum rotational speed at design airflow of 1100 rpm (4 and 5 ton Data Temps). 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 1750 rpm. The drive package shall be belt driven with 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.

C. FILTER CHAMBER

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

D. 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 ___ stages. Each stage shall be ___ kW. The total kW shall be ___ to operate on a supply of ___ volts.

E. STEAM GENERATOR HUMIDIFIER

The humidifier shall be a steam generator type. The steam generator humidifier shall be of the self-contained disposable cylinder type with electronic controls. The capacity shall be 10 pounds per hour. Power consumption shall be 3.4 kW. 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 rate shall automatically adapt, both in frequency and duration, to variations in the incoming water.

F. 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” when sensor is activated.

G. MICROPROCESSOR CONTROL

The environmental control system shall be furnished with a microprocessor based ***Data Alarm Processor-II***^{TM} panel. The panel shall include unit switching functions and display normal functions, malfunctions, and service diagnostics on a 2 row, 80 character, backlit 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, 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 non-volatile EEPROM to insure program retention should power fail. The historical database shall be maintained by battery back up. Multiple messages shall be displayed by automatically scrolling from one 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 terminals shall not be required for any function. The control shall include temperature anticipation, moisture level humidity control and automatic coil 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 name of controlled item, output relay number, terminal plug and pin number for each controlled item.

The following automatic control functions shall be included:

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

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

- Temperature setpoint
- Current temperature
- Cooling
- 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 selection button
- Menu exit button
- Select button
- Alarm silence button
- Program set button
- Manual override for:
  - Blower
  - Cool
  - Heat 1, heat 2, and heat 3
  - Humidification
- Chilled water valve

The following historical data shall be available:

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

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

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

The following functions shall be programmable:

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

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

H. OPTIONS

1. DISCONNECT - The environmental control unit shall include a non-automatic 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.

2. 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 smoke detector is activated, it shall immediately shut down the unit.

3. HIGH EFFICIENCY FILTERS - The environmental control unit shall include 60% efficient filters (based on ASHRAE Std. 52.1-1992). The filters shall be two-inch (4") deep pleated design.

4. PRE-FILTERS - The environmental control unit shall include one-inch (1") pre-filters.

5. FLOOR STAND - Each unit shall be provided with a floor stand and vibration isolation pads. The floor stand shall be a complete welded base engineered to support the operating unit. The floor stand height shall be ___ inches, adjustable – 1/+3 inches.

6. FLOOR STAND with TURNING VANE - Each unit shall be provided with a floor stand with factory installed turning vane and vibration isolation pads. The floor stand shall be a complete welded base engineered to support the operating unit. The floor stand height shall be ___ inches, adjustable –1/+3 inches.

7. LEVELING JACKSTANDS - Each unit shall be provided with adjustable length jackstands complete with base and locknuts capable of supporting the operating unit. Vibration isolation pads provided separately.

8. CONDENSATE PUMP - Each unit shall be provided with a unit mounted and wired condensate pump. The condensate pump shall be complete with sump, motor, and automatic control. The capacity shall be - 40 GPH minimum (including check valve) @ 20 feet head for the 230V motor or 50 GPH minimum (including check valve) @ 20 feet head for 460V.

2.02 Direct Expansion-Split Systems

REFRIGERATION CIRCUIT

A. *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 refrigeration system shall utilize R-22 refrigerant. All components within the refrigeration system shall be sized and selected for use with R22.

The indoor evaporator section shall include the cooling coil, humidifier, reheat, filter, and controls. The cooling coil shall be a large face area to allow maximum coil surface in a small cabinet. The large faced area coil 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 valve shall be of the adjustable thermostatic type with external equalization. The outdoor condensing unit shall be constructed of aluminum and contain a hermetic scroll type compressor 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 circuit shall contain high and low pressure safety switches. The high and low-pressure safety switches shall be installed with Schrader 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 lead condenser fan motor and provide positive start-up and operation at ambient temperatures to -20° F. Condensing units with additional condenser fan motors shall be controlled by ambient thermostats. All controls including the fan speed control shall be factory wired and mounted.

B. *Air Cooled with Remote Outdoor Condenser -* The refrigeration system shall be split type with an indoor evaporator section and remote outdoor condenser. The refrigeration system shall utilize R-22 refrigerant. All components within the refrigeration system shall be sized and selected for use with R-22.

The indoor evaporator section shall include the cooling coil, compressor, humidifier, reheat, filter and controls. The cooling coil shall be a large faced area to allow maximum coil surface in a small cabinet. The large faced area coil 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 valve shall be of the adjustable thermostatic type with external equalization. The compressor shall be hermetic scroll 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 switches safety switches. The high and low-pressure safety switches shall be installed with Schrader 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 aluminum and 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 control 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.

C. *Air Cooled with Floor Mounted Indoor Condenser -* The refrigeration system shall be split type with an indoor evaporator section and floor mounted indoor condenser. The refrigeration system shall utilize R-22 refrigerant. All components within the refrigeration system shall be sized and selected for use with R-22.

The indoor evaporator section shall include the cooling coil, compressor, humidifier, reheat, filter, and controls. The cooling coil shall be a large faced area to allow maximum coil surface in a small cabinet. The large faced area coil 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 valve shall be of the adjustable thermostatic type with external equalization. The compressor shall be hermetic scroll 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 contains high and low pressure safety switches. The high and low safety pressure switches shall be installed with Schrader 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 (1") thick, 1-1/2 pound density fiberglass coated with a sound and water resistant composite treated with an antimicrobial agent. Each door shall be provided with sure close latches, which shall be quickly removable for easy access and a 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 mils 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 2 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. A receiver shall be factory mounted with head pressure control and solenoid valve.

D. *Water/Glycol Cooled*

The cooling coil shall be a large faced area 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 valve shall be of the adjustable thermostatic type with external equalization. The compressor shall be hermetic scroll 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 circuit shall contain high and low pressure safety switches. The high and low-pressure safety switches shall be installed with Schrader type fittings with valve core.

The refrigeration system shall utilize R-22 refrigerant. All components within the refrigeration system shall be sized and selected for use with R-22.

Each system shall include a low profile, slow speed, and direct drive propeller fan type air cooled fluid cooler. Air discharge shall be vertical to prevent wind from blowing through the coil at 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 controls provided on fluid coolers with multiple fan motors. The fluid cooler shall include a 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.

Options:

1. WATER REGULATING VALVE - Water cooled units shall be provided with a 3-way head pressure actuated regulating valve. The maximum water pressure shall be ___ psi.

2. GLYCOL PUMP PACKAGE - Provide a centrifugal pump to circulate water or glycol solution. The pump shall be rated for ___ GPM @ ___ feet of head and operate on ___ volts, ___ phase, ___ hertz.

3. PUMP AUTO-CHANGEOVER - On dual pump packages provide a pump auto-changeover control and a NEMA rated flow switch. The pump auto-changeover control shall be factory mounted and wired 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, a message “Standby Pump On” shall be displayed on the indoor unit microprocessor. The NEMA rated flow switch shall be field installed.

4. PUMP ENCLOSURE - Provide an enclosure for pump(s). The enclosure shall be vented and weather resistant. Pumps shall be factory mounted in enclosure with for field piping and wiring.

2.04 CHILLED WATER CIRCUIT

The chilled water coil shall have a large face area to allow maximum coil surface in a small cabinet. The coil shall be constructed with 1/2” O.D. copper tube with 12 fins per inch of corrugated aluminum for maximum heat transfer. The chilled water flow shall be controlled by a 3-way modulating control valve for accurate and economical temperature and dehumidification.

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