

Data Aire Series Chilled Water 7 through 50 ton



DAI
DATA AIRE INC.

ISO 9001 Certified

Data Aire®

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

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

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

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

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

Data Aire Delivers!

Data Aire Chilled Water Series

(Separate brochure for DX version of products.)

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PRECISION COOLING

Data Aire Series chilled water units offer precision environmental control that brings a standard of reliable performance to meet today's market demands. Data Aire systems are designed for data centers, telecommunication sites, or anywhere process cooling is required. Chilled water units are available in 7 through 50 nominal tons with upflow or downflow air distribution. Each unit is factory run tested and put through a comprehensive quality control procedure.

COMFORT

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

DESIGN

Data Aire Series units 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.

The heart of the system is the **Date Alarm Processor-dap4**, a microprocessor based controller designed for precision environmental control. The **dap4** not only controls and monitors temperature, humidity, airflow, and cleanliness, it provides component runtimes, alarm history, and automatic self-test. All information is provided on a backlit liquid crystal display (LCD).

HIGH PERFORMANCE/LOW COST

Engineered for performance and reliability, each Data Aire Series unit comes with Data Aire's commitment to excellence. This commitment began with Data Aire's first process cooling unit and has continued for more than 40 years of building the industry's finest control equipment.

DATA AIRE DELIVERS

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



CABINET and FRAME

Data Aire chilled water series units are constructed with heliarc welded tubular steel frame providing for maximum strength and ease of access. Side and front panels can be easily removed with quarter-turn fasteners allowing full access to all unit components. All panels include 1 inch thick, 1½ pound density insulation for protection and sound attenuation.

COIL SECTION

Designed for draw through application, the computer selected A-frame coil provides greater efficiency in the cooling and dehumidification process. Air is drawn through both slabs at velocities that provide effective surface exposure with minimum turbulence. The chilled water flow is controlled by a 3-way modulating mixing valve for accurate and economical temperature and dehumidification control. Bypass air is provided to prevent saturated air from being introduced into the controlled space. The coil sits in a stainless steel drain pan.

FAN SECTION

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

FILTER SECTION

Units are provided with 4 inch deep, MERV 8, pleated filters. The filter section is accessible from the top or side on downflow units and both sides on upflow units.

REHEAT

Three stage electric reheat is standard. Low-watt density finned tubular sheathed coils provide ample capacity to maintain room conditions during dehumidification. Low-watt density coils eliminate ionization associated with open air electric resistance heating.

HUMIDIFICATION

Steam Generator Humidifier

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

SYSTEM CONTROL

Every Data Aire Series unit come equipped with a dap™ 4 control system, which is the fastest and most advance microprocessor controller available on the market today. The system is comprised of two components – a display module and a control module. The display module includes a backlit liquid crystal display and six buttons for easy programming and communication. All programming, status and alarm conditions are displayed on the module in easy to read verbiage. The control module is mounted inside the unit and connected to the display module via a special “telephone” like cable.

The display module will allow recall and display of the high and low temperature and high and low humidity for the last 24 hours; current percent of capacity and average percent of capacity for the last hour of operation for cool 1, cool 2, reheat, humidification, dehumidification, component runtimes for fan motor(s), cooling stages, reheat, humidification, dehumidification and chilled water valve. Programming will have multilevel password and accomplished entirely from the front of the unit. Programmable functions shall be entered on flash memory to ensure program retention should power fail. The historical database shall be maintained by rechargeable battery backup. Multiple messages shall be displayed by automatically by scrolling from each message to the next. Alarm conditions shall be displayed by automatically scrolling from each message to the next. Alarm conditions, in addition to being displayed, shall enunciate an audible alarm. Four programmable summary contacts shall be available for remote alarm monitoring. Additional test or service terminal shall not be required for any functions. The control shall include temperature anticipation, moisture level humidity control and automatic flush cycles.

An alarm condition shall continue to be displayed until the malfunction is corrected. Multiple alarms shall be displayed sequentially in order of occurrence and only those alarms, which have not been acknowledged, shall continue to sound an audible alarm. The dap4 panel shall perform an automatic self-test on system start-up. A user accessible diagnostic program shall aid in system component trouble shooting by displaying on the unit LCD screen the name of the controlled item, output relay number, terminal plug and pin number for each controlled item.

Automatic Control Functions

Humidity Anticipation	Auxiliary Chilled Water Operation*	Sequential Load Activation
Start Time Delay	Automatic Reheat Element Rotation	Automatic or Manual Restart
Temperature Anticipation	Energy Saver (Glycol Operation)*	Hot Water Coil Flush Cycle*
Dehumidification Lockout	Chilled Water Coil Flush Cycle*	Energy Saver Coil Flush Cycle*
Selectable Water Under Floor Alarm Action		Compressor Short Cycle

Condition and Data Routinely Displayed

Current Date and Time	Unit Status	Temperature Setpoint
Humidity Setpoint	Current Temperature	Cooling 1, 2, 3, 4*
Current Humidity	Dehumidification	Humidification
Current Fan Speed*	Reheat 1, 2, 3Current	Discharge Temperature*
Current Chilled Water Valve Position	Current Percent of Capacity Utilized	

Switching and Control functions

System On/Off/Esc Button	Menu Selection Buttons	Menu Exit Button
Select Buttons	Alarm Silence Button	Program Set Button
Manual Override for:		
Cool 1, Cool 2, Heat 1, Humidification, CW Valve and Fan Speed		

Alarms

High Temperature Warning	High Humidity Warning	Local Alarm
Low Temperature Warning	Low Humidity Warning	Manual Override
Low Pressure Compressor 1	Low Pressure Compressor 2	Humidifier Problem
High Pressure Compressor 1	High Pressure Compressor 2	Custom Message*
Dirty Filter	Under Floor Water Detection	Power Failure Restart
Firestat Tripped	Compressor Short Cycle	Maintenance Required
Temperature Sensor Error	Humidity Sensor Error	Discharge Sensor Error*
No Water Flow*	Smoke Detector*	High Condensate Water Level*
Fan Motor Overload*	Standby Pump On*	Person to Contact on Alarm*

Historical Data

High Temperature Last 24 Hours	Low Temperature Last 24 Hours	High Humidity Last 24 Hours
Low Humidity Last 24 Hours	Alarm History (Last 100 Alarms)	Hourly Average of Duty
Equipment Runtimes for: Blower, Compressor 1, Compressor 2, Reheat 1, 2, 3, Dehumidification, Energy Saver*, Humidifier, Condenser and Chilled Water		

Programmable Functions

Temperature Setpoint	Temperature Deadband	Fan Control Mode
System Start Delay	Low Temperature Alarm Limit	Humidity Deadband
Humidity Setpoint	High Humidity Alarm Limit	Low Humidity Alarm Limit
Define Password	Reset Equipment Runtimes	Audio Alarm Mode
Reverse Acting Water Valve	Compressor Short Cycle Alarm	Humidity Anticipation
Compressors(s)	Analog Module Sensor Setup*	Calibrate Temperature Sensor
Temperature Scale	High Temperature Alarm Limit	Fan Speed Settings
Water Valve Voltage Range	Delay for Optional Alarm 1, 2, 3, 4	Firestat Temperature Alarm Limit
Manual Diagnosis	Remote Alarm 1, 2, 3, 4 Selection	Calibrate Discharge Air Sensor*
Person to contact on Alarm	Compressor Lead/Lag Sequence	Dehumidification Mode
Humidifier Autoflush Timer*	Power Problem or Restart Mode	Scheduled Normal Maintenance
Reheat Stages	Water Valve Mode	Calibrate Humidity
Humidifier	Compressor Supplements to Energy Saver*	
Network Protocol	Low Discharge Temperature Alarm Limit*	
Calibrate Chilled Water Temperature Sensor*		

In addition, the dap4 control panel shall support the following network protocols for integration with a Building Management System (BMS) for Computer Room Air Conditioning (CRAC) system monitoring and control: Modbus RTU, TCP/IP, SNMP V1 or V2, BACnet IP or MS/TP and LonTalk SNVT.

Building Management System Interface: Unit(s) shall be furnished with an optional interface card to communicate directly with the Building Automation System (BAS) through a RS-485, Ethernet or LonTalk port. All alarms, set points, and operating parameters that are accessible from the unit mounted control panel shall also be made available through the BAS.

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

Site Control Option

DARA-4

This high function and economical site controller permits control of up to four units providing unit rotation, flexible backup capabilities, and communication with BMS systems that accept a dry set of alarm contact.

Unit Options

Remote Temperature and Humidity Sensors

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

Smoke Detector

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

Unit Mounted Disconnect

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

Condensate Pump

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

Floorstands

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

High Efficiency Filters

Standard filters are rated at MERV 8. Higher efficiency filters are available (consult factory regarding efficiency and unit static pressure).

Steam Generator Humidifier with Modulating Control

Modulating control may be added to the steam generator humidifier. Modulating control will allow the humidifier to automatically adjust steam output to match changing room conditions. Self-regulating auto flush is included.

Hot Water Reheat

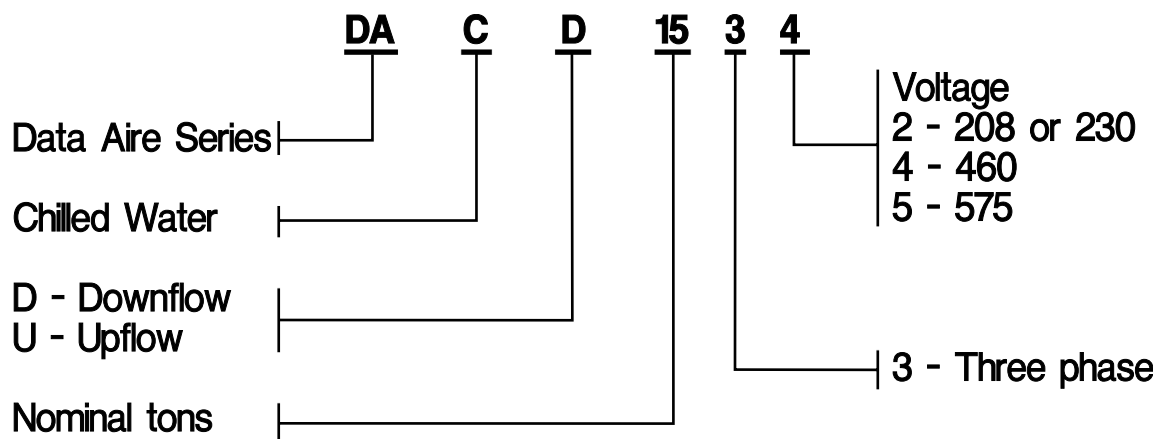
Where hot water is available, a water coil for reheat may be added. The coil is designed for 150 psi maximum water pressure and includes a 2-way valve (a 3-way is also available). Units with the hot water reheat do not include electric reheat. Supplemental reheat may be ordered.

2-Way Chilled Water Valve

A 2-way chilled water valve is available to replace the standard 3-way valve where required.

Upflow Plenum

Upflow plenums are fully insulated and have front discharge air grille. Side grilles for both or one side are available. Plenums are available in various heights and are painted to match the unit color.



CHILLED WATER PERFORMANCE DATA

**All capacity data is based on 45° F
entering water temperature.**

CHILLED WATER: Performance data at STANDARD airflow, 22 - 50 nominal tons

MODEL NUMBER	<i>DACD/U-22</i>	<i>DACD/U-26</i>	<i>DACD/U-30</i>	<i>DACD/U-40</i>	<i>DACD/U-45</i>	<i>DACD/U-50</i>
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CAPACITY* in Btu/hr - gross

80° F DB/67° F WB (50% RH)

Total	412,100	450,400	553,300	649,000	771,500	881,600
Sensible	276,300	299,300	368,000	451,600	524,000	589,800
Flow rate - GPM	72	92	100	125	140	150
Pressure drop - PSI	25.3	21.2	25.5	21.1	27.3	32.8

75° F DB/62.5° F WB (50% RH)

Total	305,700	337,200	417,800	476,900	564,300	647,900
Sensible	239,000	260,000	321,400	390,400	450,500	507,400
Flow rate - GPM	60	80	90	100	110	120
Pressure drop - PSI	18.5	16.5	21.1	14.1	17.8	22.0

75° F DB/61° F WB (45% RH)

Total	278,500	305,800	379,800	441,300	521,000	591,300
Sensible	244,300	265,100	328,100	402,300	464,200	519,400
Flow rate - GPM	55	73	83	95	105	110
Pressure drop - PSI	15.7	14.0	18.1	12.7	16.3	18.7

72° F DB/60° F WB (50% RH)

Total	250,000	274,800	342,200	392,800	459,900	529,500
Sensible	214,800	233,300	289,100	352,000	404,000	456,100
Flow rate - GPM	50	66	76	85	90	100
Pressure drop - PSI	13.0	11.5	15.3	10.1	12.0	15.4

72° F DB/58.6° F WB (45% RH)

Total	230,700	251,900	314,500	364,900	431,600	495,400
Sensible	220,000	238,800	296,400	357,900	416,700	471,300
Flow rate - GPM	45	59	69	75	85	95
Pressure drop - PSI	10.4	9.1	12.6	7.7	10.6	13.8

BLOWER SECTION

Airflow - CFM		9,000	9,500	11,700	16,000	17,500	19,000
Standard motor - horsepower		7.5	10	3	7.5	7.5	10
External static pressure - inches of W.G.		0.5	0.5	0.5	0.5	0.5	0.5
Number of motors/fans		1 / 2	1 / 2	3 / 3	2 / 4	2 / 4	2 / 4

Maximum external static pressure (Standard motor)	<i>Downflow</i>	1.3	1.5	1.3	1.2	1.5	1.5
	<i>Upflow</i>	0.9	1.4	1.2	1.1	1.5	1.2
Maximum external static pressure (Next size motor)	<i>Downflow</i>	1.5	N/A	1.5	1.5	1.5	N/A
	<i>Upflow</i>	1.4	N/A	1.5	1.5	1.5	N/A
Next size motor - horsepower		10	N/A	5	10	10	N/A

* Capacity data is based on 45° F entering water temperature.

CHILLED WATER: Performance data at STANDARD airflow, 22 - 50 nominal tons

MODEL NUMBER	DACD/U-22	DACD/U-26	DACD/U-30	DACD/U-40	DACD/U-45	DACD/U-50
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COIL DATA

Face area in sq. ft.	24.4	24.4	30.9	42.8	42.8	42.8
Rows of coil	5	6	6	4	5	6
Face velocity in FPM	369	389	379	374	409	444

CONTROL VALVE

(Modulating control designed at 400 psi)

Valve body	3-WAY	3-WAY	3-WAY	3-WAY	3-WAY	3-WAY
Valve CV	46	46	46	46	46	46
Valve size - inches	2	2	2	2	2	2

CONNECTION SIZES (Inches)

Supply - O.D. copper	2-1/8	2-1/8	2-1/8	2-5/8	2-5/8	2-5/8
Return - O.D. copper	2-1/8	2-1/8	2-1/8	2-5/8	2-5/8	2-5/8
Condensate drain	3/4	3/4	3/4	3/4	3/4	3/4
Humidifier supply	1/4	1/4	1/4	1/4	1/4	1/4

REHEAT SECTION

Type	Electric 3-stage		Standard	Standard	Standard	Standard	Standard	Standard
Capacity	kW		22.5	22.5	22.5	30	30	30
	Btu/hr		76,835	76,835	76,835	102,360	102,360	102,360
Type	Steam		Optional	Optional	Optional	Optional	Optional	Optional
Capacity	Btu/hr	<i>Downflow</i>	217,000	222,000	276,000	278,000	286,000	298,000
		<i>Upflow</i>	159,000	164,000	202,000	207,000	216,000	223,000
Type	Hot water		Optional	Optional	Optional	Optional	Optional	Optional
Capacity	Btu/hr	<i>Downflow</i>	135,000	137,900	164,600	178,700	185,200	191,400
		<i>Upflow</i>	99,000	101,800	122,800	130,800	136,600	142,100
	GPM		8	8	10	10	10	10

HUMIDIFIER SECTION

Type	Steam generator		Standard	Standard	Standard	Standard	Standard	Standard
Capacity	kW		3.4-10.2	3.4-10.2	3.4-10.2	3.4-10.2	3.4-10.2	3.4-10.2
	lbs/hr		10-30*	10-30*	10-30*	10-30*	10-30*	10-30*

*(adjustable)

CHILLED WATER: Performance data at STANDARD airflow, 7 - 18 nominal tons

<i>MODEL NUMBER</i>		<i>DACD/U-07</i>	<i>DACD/U-09</i>	<i>DACD/U-11</i>	<i>DACD/U-13</i>	<i>DACD/U-15</i>	<i>DACD/U-18</i>
FILTER SECTION							
Quantity/size	Downflow	4-16x20	4-16x20	4-16x20	4-16x20	2-16x20 4-16x25	2-16x20 4-16x25
	Upflow	2-20x25	2-20x25	2-20x25	2-20x25	2-20x25 2-16x25	2-20x25 2-16x25
Efficiency - MERV		8	8	8	8	8	8
(Note: Efficiency based on ASHRAE Std. 52.2)							

ELECTRICAL SECTION							
<u>Electrical data based on STANDARD UNIT: electric reheat-YES, steam generator humidifier-YES, and STANDARD MOTOR.*</u>							
208-230/3/60	FLA/MCA/MOP	46/58/60	48/60/70	48/60/70	50/63/70	77/97/100	77/97/100
460/3/60	FLA/MCA/MOP	22/27/30	22/27/30	22/27/30	23/29/30	35/44/45	35/44/45
575/3/60	FLA/MCA/MOP	17/21/25	18/22/25	18/22/25	18/23/25	28/35/40	28/35/40
<u>Electrical data based on: electric reheat - NO, steam generator humidifier - YES, and STANDARD MOTOR.*</u>							
208-230/3/60	FLA/MCA/MOP	21/26/30	22/28/30	22/28/30	25/31/35	43/54/60	43/54/60
460/3/60	FLA/MCA/MOP	10/13/15	10/13/15	10/13/15	12/14/15	19/24/25	19/24/25
575/3/60	FLA/MCA/MOP	7.9/10/15	8.4/11/15	8.4/11/15	9.2/12/15	16/19/20	16/19/20
<u>Electrical data based on: electric reheat - YES, steam generator humidifier - NO, and STANDARD MOTOR.*</u>							
208-230/3/60	FLA/MCA/MOP	46/58/60	48/60/70	48/60/70	50/63/70	77/97/100	77/97/100
460/3/60	FLA/MCA/MOP	22/27/30	22/27/30	22/27/30	23/29/30	35/44/45	35/44/45
575/3/60	FLA/MCA/MOP	17/21/25	18/22/25	18/22/25	18/23/25	28/35/40	28/35/40
<u>Electrical data based on: electric reheat - NO, steam generator humidifier - NO, and STANDARD MOTOR.*</u>							
208-230/3/60	FLA/MCA/MOP	4.8/6.0/15	6.0/7.5/15	6.0/7.5/15	8.4/11/15	15/19/30	15/19/30
460/3/60	FLA/MCA/MOP	2.8/4.0/15	3.0/3.8/15	3.0/3.8/15	4.2/5.3/15	6.6/8.3/15	6.6/8.3/15
575/3/60	FLA/MCA/MOP	2.0/3.0/15	2.5/3.1/15	2.5/3.1/15	3.3/4.1/15	5.3/6.6/15	5.3/6.6/15

✧ STANDARD MOTOR							
Motor horsepower		1.5	2	2	3	5	5
Number of motors		1	1	1	1	1	1
208-230/3/60	FLA	4.8	6.2	6.2	9.0	14.6	14.6
460/3/60	FLA	2.4	3.1	3.1	4.4	6.6	6.6
575/3/60	FLA	2.0	2.5	2.5	3.3	5.3	5.3

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

CHILLED WATER: Performance data at STANDARD airflow, 22 - 50 nominal tons

<i>MODEL NUMBER</i>		<i>DACD/U-22</i>	<i>DACD/U-26</i>	<i>DACD/U-30</i>	<i>DACD/U-40</i>	<i>DACD/U-45</i>	<i>DACD/U-50</i>
FILTER SECTION							
Quantity/size	Downflow	2-16x20 4-16x25	2-16x20 4-16x25	3-20x25 3-16x25	10-16x25	10-16x25	10-16x25
	Upflow	2-20x25 2-16x25	2-20x25 2-16x25	4-20x25 4-16x25	6-20x25	6-20x25	6-20x25
Efficiency - MERV		8	8	8	8	8	8
(Note: Efficiency based on ASHRAE Std. 52.2)							

ELECTRICAL SECTION							
<u>Electrical data based on STANDARD UNIT: electric reheat-YES, steam generator humidifier-YES, and STANDARD MOTOR.*</u>							
208-230/3/60	FLA/MCA/MOP	83/103/110	93/116/125	88/105/110	123/149/150	123/149/150	143/172/175
460/3/60	FLA/MCA/MOP	38/48/50	42/53/60	41/49/50	58/70/80	58/70/80	66/79/80
575/3/60	FLA/MCA/MOP	31/39/40	33/41/45	33/39/40	47/57/60	47/57/60	50/60/70
<u>Electrical data based on: electric reheat - NO, steam generator humidifier - YES, and STANDARD MOTOR.*</u>							
208-230/3/60	FLA/MCA/MOP	48/60/70	58/73/90	54/63/70	68/80/90	68/80/90	88/103/125
460/3/60	FLA/MCA/MOP	23/29/35	27/34/40	25/30/35	33/39/45	33/39/45	41/48/50
575/3/60	FLA/MCA/MOP	19/24/25	20/25/30	20/24/25	27/32/35	27/32/35	30/35/40
<u>Electrical data based on: electric reheat - YES with and humidifier - NO, and STANDARD MOTOR.*</u>							
208-230/3/60	FLA/MCA/MOP	83/103/110	93/116/125	88/105/110	123/149/150	123/149/150	143/172/175
460/3/60	FLA/MCA/MOP	38/48/50	42/53/60	41/49/50	58/70/80	58/70/80	66/79/80
575/3/60	FLA/MCA/MOP	31/39/40	33/41/45	33/39/40	47/57/60	47/57/60	50/60/70
<u>Electrical data based on: electric reheat - NO, humidifier - NO, and STANDARD MOTOR.*</u>							
208-230/3/60	FLA/MCA/MOP	20/25/45	30/38/60	25/27/35	40/45/60	40/45/60	60/68/90
460/3/60	FLA/MCA/MOP	10/13/20	14/18/30	13/14/15	20/23/30	20/23/30	28/32/45
575/3/60	FLA/MCA/MOP	8.6/11/15	10/13/20	10/11/15	17/19/25	17/19/25	20/23/30

✱ STANDARD MOTOR							
Motor horsepower		7.5	10	3	7.5	7.5	10
Number of motors		1	1	3	2	2	2
208-230/3/60	FLA	23.0	29.0	9.0	23.0	23.0	29.0
460/3/60	FLA	11.0	14.0	4.4	11.0	11.0	14.0
575/3/60	FLA	8.6	10.0	3.3	8.6	8.6	10.0

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

CHILLED WATER: Performance data at OPTIONAL airflow - Option 1, 7 - 18 nominal tons

<i>MODEL NUMBER</i>	<i>DACD/U-07</i>	<i>DACD/U-09</i>	<i>DACD/U-11</i>	<i>DACD/U-13</i>	<i>DACD/U-15</i>	<i>DACD/U-18</i>
CAPACITY* in Btu/hr - gross						
80° F DB/67° F WB (50% RH)						
Total	115,200	146,200	183,100	216,700	276,700	347,900
Sensible	89,000	106,500	125,700	143,200	202,100	241,500
Flow rate in GPM	22	26	35	45	50	60
Pressure drop in PSI	8.5	13.5	7.2	10.2	11.9	16.6
75° F DB/62.5° F WB (50% RH)						
Total	88,900	112,500	136,800	158,100	210,800	258,500
Sensible	79,200	94,800	109,600	122,500	178,700	210,000
Flow rate in GPM	20	24	30	35	45	50
Pressure drop in PSI	7.1	11.5	5.4	6.5	9.8	11.9
75° F DB/61° F WB (45% RH)						
Total	82,700	104,000	124,600	143,600	195,700	237,400
Sensible	80,700	97,500	112,200	125,100	183,700	215,400
Flow rate in GPM	18	22	27	32	42	46
Pressure drop in PSI	5.7	9.3	4.4	5.4	8.6	10.2
72° F DB/60° F WB (50% RH)						
Total	72,300	92,200	110,600	127,700	173,900	212,200
Sensible	70,000	85,200	98,000	109,400	160,700	189,000
Flow rate in GPM	16	20	24	28	38	42
Pressure drop in PSI	4.5	7.4	3.4	4.1	7.1	8.5
72° F DB/ 58.6° F WB (45% RH)						
Total	70,100	88,100	103,400	117,500	163,500	198,000
Sensible	70,100	87,400	100,700	112,100	162,400	193,100
Flow rate in GPM	15	19	22	25	34	38
Pressure drop in PSI	3.9	6.4	2.8	3.1	5.6	6.8

BLOWER SECTION

Airflow - CFM		3,750	4,000	4,250	4,500	8,000	8,500
Standard motor - horsepower		2	3	3	5	5	7.5
External static pressure - inches of W.G.		0.5	0.5	0.5	0.5	0.5	0.5
Number of motors/fans		1 / 1	1 / 1	1 / 1	1 / 1	1 / 2	1 / 2
Maximum external static pressure	<i>Downflow</i>	0.9	1.5	1.2	0.7	1.1	1.5
(Standard motor)	<i>Upflow</i>	0.7	1.5	1.0	0.5	0.9	1.5
Maximum external static pressure	<i>Downflow</i>	1.5	1.5	1.5	1.5	1.5	1.5
(Next size motor)	<i>Upflow</i>	1.5	1.5	1.5	1.5	1.5	1.4
Next size motor - horsepower		3	5	5	7.5	7.5	10

* Capacity data is based on 45° F entering water temperature.

CHILLED WATER: Performance data at OPTIONAL airflow - Option 1, 22 - 50 nominal tons

<i>MODEL NUMBER</i>	<i>DACD/U-22</i>	<i>DACD/U-26</i>	<i>DACD/U-30</i>	<i>DACD/U-40</i>	<i>DACD/U-45</i>	<i>DACD/U-50</i>
CAPACITY* in Btu/hr - gross						
80° F DB/67° F WB (50% RH)						
Total	424,800	477,500	592,600	669,500	795,400	907,800
Sensible	287,100	321,900	401,400	470,800	545,000	612,000
Flow rate in GPM	72	92	100	125	140	150
Pressure drop in PSI	25.3	21.2	25.5	21.1	27.3	32.8
75° F DB/62.5° F WB (50% RH)						
Total	315,400	358,000	448,900	492,200	581,700	667,000
Sensible	248,800	280,600	352,100	407,400	469,100	527,100
Flow rate in GPM	60	80	90	100	110	120
Pressure drop in PSI	18.5	16.5	21.1	14.1	17.8	22.0
75° F DB/61° F WB (45% RH)						
Total	288,000	325,800	410,000	457,100	538,800	610,300
Sensible	254,700	286,900	360,800	420,400	484,100	540,400
Flow rate in GPM	55	73	83	95	105	110
Pressure drop in PSI	15.7	14.0	18.1	12.7	16.3	18.7
72° F DB/60° F WB (50% RH)						
Total	258,000	291,800	368,000	406,000	474,000	545,600
Sensible	223,700	252,000	317,200	367,400	420,700	474,100
Flow rate in GPM	50	66	76	85	90	100
Pressure drop in PSI	13.0	11.5	15.3	10.1	12.0	15.4
72° F DB/58.6° F WB (45% RH)						
Total	238,900	269,100	340,700	378,400	446,900	512,100
Sensible	229,100	258,200	325,800	372,900	434,000	490,200
Flow rate in GPM	45	59	69	75	85	95
Pressure drop in PSI	10.4	9.1	12.6	7.7	10.6	13.8

BLOWER SECTION

Airflow in CFM		9,500	10,000	13,200	17,000	18,500	20,000
Standard motor horsepower		10	10	5	7.5	10	10
External static pressure - inches of W.G.		0.5	0.5	0.5	0.5	0.5	0.5
Number of motors/fans		1 / 2	1 / 2	3 / 3	2 / 4	2 / 4	2 / 4
Maximum external static pressure (Standard motor)	<i>Downflow</i>	1.5	1.0	1.5	0.8	1.5	1.2
	<i>Upflow</i>	1.5	0.9	1.3	0.7	1.5	1.0
Maximum external static pressure (Next size motor)	<i>Downflow</i>	N/A	N/A	N/A	1.5	1.5	N/A
	<i>Upflow</i>	N/A	N/A	N/A	1.5	1.5	N/A
Next size motor horsepower		N/A	N/A	N/A	10	N/A	N/A

* Capacity data is based on 45° F entering water temperature.

CHILLED WATER: Performance data at OPTIONAL AIRFLOW - Option 1, 22 - 50 nominal tons

MODEL NUMBER	DACD/U-22	DACD/U-26	DACD/U-30	DACD/U-40	DACD/U-45	DACD/U-50
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COIL DATA

Face area - sq. ft.	24.4	24.4	30.9	42.8	42.8	42.8
Rows of coil	5	6	6	4	5	6
Face Velocity - fpm	389	410	427	397	432	467

CONTROL VALVE

(Modulating Control designed at 400 psi)

Valve body	3-WAY	3-WAY	3-WAY	3-WAY	3-WAY	3-WAY
Valve CV	46	46	46	46	46	46
Valve - inches	2	2	2	2	2	2

CONNECTION SIZES (Inches)

Supply - O.D. Copper	2-1/8	2-1/8	2-1/8	2-5/8	2-5/8	2-5/8
Return - O.D. Copper	2-1/8	2-1/8	2-1/8	2-5/8	2-5/8	2-5/8
Condensate drain	3/4	3/4	3/4	3/4	3/4	3/4
Humidifier supply	1/4	1/4	1/4	1/4	1/4	1/4

REHEAT SECTION

Type	Electric 3-stage	Standard	Standard	Standard	Standard	Standard	Standard
Capacity	kW	22.5	22.5	22.5	30	30	30
	Btu/hr	76,835	76,835	76,835	102,360	102,360	102,360
Type	Steam	Optional	Optional	Optional	Optional	Optional	Optional
Capacity	Btu/hr						
	<i>Downflow</i>	222,000	226,000	285,000	284,000	294,000	302,000
	<i>Upflow</i>	164,000	169,000	217,000	213,000	223,000	230,000
Type	Hot water	Optional	Optional	Optional	Optional	Optional	Optional
Capacity	Btu/hr						
	<i>Downflow</i>	137,900	140,800	172,100	183,200	189,400	195,100
	<i>Upflow</i>	101,800	104,200	129,700	134,800	140,400	145,600
	GPM	8	8	10	10	10	10

HUMIDIFIER SECTION

Type	Steam generator	Standard	Standard	Standard	Standard	Standard	Standard
Capacity	kW	3.4-10.2	3.4-10.2	3.4-10.2	3.4-10.2	3.4-10.2	3.4-10.2
	lbs/hr	10-30*	10-30*	10-30*	10-30*	10-30*	10-30*

*(adjustable)

CHILLED WATER: Performance at OPTIONAL AIRFLOW - Option 1, 7 - 18 nominal

<i>MODEL NUMBER</i>		<i>DACD/U-07</i>	<i>DACD/U-09</i>	<i>DACD/U-11</i>	<i>DACD/U-13</i>	<i>DACD/U-15</i>	<i>DACD/U-18</i>
FILTER SECTION							
Quantity/Size	Downflow	4-16x20	4-16x20	4-16x20	4-16x20	2-16x20 4-16x25	2-16x20 4-16x25
	Upflow	2-20x25	2-20x25	2-20x25	2-20x25	2-20x25 2-16x25	2-20x25 2-16x25
Efficiency - MERV		8	8	8	8	8	8
(Note: Efficiency based on ASHRAE Std. 52.2)							

ELECTRICAL SECTION

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

208-230/3/60	FLA/MCA/MOP	48/60/70	50/63/70	50/63/70	57/71/80	77/96/100	83/103/110
460/3/60	FLA/MCA/MOP	22/27/30	23/29/30	23/29/30	25/32/35	35/44/45	38/48/50
575/3/60	FLA/MCA/MOP	18/22/25	18/23/25	18/23/25	20/26/30	28/35/40	31/39/40

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

208-230/3/60	FLA/MCA/MOP	22/28/30	25/31/35	25/31/35	31/39/45	43/54/60	48/60/70
460/3/60	FLA/MCA/MOP	10/13/15	12/14/15	12/14/15	14/18/20	19/24/25	23/29/35
575/3/60	FLA/MCA/MOP	8.4/11/15	9.2/12/15	9.2/12/15	11/14/15	16/19/20	19/24/25

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

208-230/3/60	FLA/MCA/MOP	48/60/70	50/63/70	50/63/70	57/71/80	77/96/100	83/103/110
460/3/60	FLA/MCA/MOP	22/27/30	23/29/30	23/29/30	25/32/35	35/44/45	38/48/50
575/3/60	FLA/MCA/MOP	18/22/25	18/23/25	18/23/25	20/26/30	28/35/40	31/39/40

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

208-230/3/60	FLA/MCA/MOP	6/7.5/15	8.4/11/15	8.4/11/15	15/19/30	15/18/30	20/25/45
460/3/60	FLA/MCA/MOP	3/3.8/15	4.2/5.3/15	4.2/5.3/15	6.6/8.3/15	6.6/8.3/15	10/13/20
575/3/60	FLA/MCA/MOP	2.5/3.1/15	3.3/4.1/15	3.3/4.1/15	5.3/6.6/15	5.3/6.6/15	8.6/11/15

*** STANDARD MOTOR**

Motor horsepower		2	3	3	5	5	7.5
Number of motors		1	1	1	1	1	1
208-230/3/60	FLA	6.2	9.0	9.0	14.6	14.6	23.0
460/3/60	FLA	3.1	4.4	4.4	6.6	6.6	11.0
575/3/60	FLA	2.5	3.3	3.3	5.3	5.3	8.6

FLA - Full load amps

MCA - Minimum circuit ampacity (wire sizing amps)

MOP - Maximum overcurrent protection device amp

CHILLED WATER: Performance data at OPTIONAL AIRFLOW - Option 1, 22 - 50 nominal tons

MODEL NUMBER		DACD/U-22	DACD/U-26	DACD/U-30	DACD/U-40	DACD/U-45	DACD/U-50
FILTER SECTION							
Quantity/size	Downflow	2-16x20 4-16x25	2-16x20 4-16x25	3-20x25 3-16x25	10-16x25	10-16x25	10-16x25
	Upflow	2-20x25 2-16x25	2-20x25 2-16x25	4-20x25 4-16x25	6-20x25	6-20x25	6-20x25
Efficiency - MERV		8	8	8	8	8	8
(Note: Efficiency based on ASHRAE Std. 52.2)							

ELECTRICAL SECTION							
<u>Electrical data based on STANDARD UNIT: electric reheat-YES, steam generator humidifier-YES, and STANDARD MOTOR.*</u>							
208-230/3/60	FLA/MCA/MOP	93/116/125	93/116/125	106/126/150	123/149/150	143/172/175	143/172/175
460/3/60	FLA/MCA/MOP	42/53/60	42/53/60	48/57/60	58/70/80	66/79/80	66/79/80
575/3/60	FLA/MCA/MOP	33/41/45	33/41/45	39/45/50	47/57/60	50/60/70	50/60/70
<u>Electrical data based on: electric reheat - NO, steam generator humidifier - YES, and STANDARD MOTOR.*</u>							
208-230/3/60	FLA/MCA/MOP	58/73/90	58/73/90	72/83/90	68/80/90	88/103/125	88/103/125
460/3/60	FLA/MCA/MOP	27/34/40	27/34/40	33/37/40	33/39/45	41/48/50	41/48/50
575/3/60	FLA/MCA/MOP	20/25/30	20/25/30	26/30/35	27/32/35	30/35/40	30/35/40
<u>Electrical data based on: electric reheat - YES, steam generator humidifier - NO, and STANDARD MOTOR.*</u>							
208-230/3/60	FLA/MCA/MOP	93/116/125	93/116/125	106/126/150	123/149/150	143/172/175	143/172/175
460/3/60	FLA/MCA/MOP	42/53/60	42/53/60	48/57/60	58/70/80	66/79/80	66/79/80
575/3/60	FLA/MCA/MOP	33/41/45	33/41/45	39/45/50	47/57/60	50/60/70	50/60/70
<u>Electrical data based on: electric reheat - NO, steam generator humidifier - NO, and STANDARD MOTOR.*</u>							
208-230/3/60	FLA/MCA/MOP	30/38/60	30/38/60	44/47/60	40/45/60	60/68/90	60/68/90
460/3/60	FLA/MCA/MOP	14/18/30	14/18/30	20/21/25	20/23/30	28/32/45	28/32/45
575/3/60	FLA/MCA/MOP	10/13/20	10/13/20	16/17/20	17/19/25	20/23/30	20/23/30

* STANDARD MOTOR							
Motor horsepower		10	10	5	7.5	10	10
Number of motors		1	1	3	2	2	2
208-230/3/60	FLA	29.0	29.0	14.6	23.0	29.0	29.0
460/3/60	FLA	14.0	14.0	6.6	11.0	14.0	14.0
575/3/60	FLA	10.0	10.0	5.3	8.6	10.0	10.0

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

CHILLED WATER: Performance data at OPTIONAL AIRFLOW - Option 2, 7 - 18 nominal tons

<i>MODEL NUMBER</i>	<i>DACD/U-07</i>	<i>DACD/U-09</i>	<i>DACD/U-11</i>	<i>DACD/U-13</i>	<i>DACD/U-15</i>	<i>DACD/U-18</i>
CAPACITY* in Btu/hr - gross						
80° F DB/67° F WB (50% RH)						
Total	121,200	154,100	199,100	255,300	291,700	368,000
Sensible	96,400	115,300	140,800	176,300	218,200	260,600
Flow rate - GPM	22	26	35	45	50	60
Pressure drop - PSI	8.5	13.5	7.2	10.2	11.9	16.6
75° F DB/62.5° F WB (50% RH)						
Total	94,100	119,200	149,400	177,400	233,300	274,000
Sensible	85,900	102,900	123,400	142,300	193,400	227,200
Flow rate - GPM	20	24	30	35	45	50
Pressure drop - PSI	7.1	11.5	5.4	6.5	9.8	11.9
75° F DB/61° F WB (45% RH)						
Total	88,200	110,900	137,000	162,500	208,500	253,000
Sensible	87,100	105,800	126,600	146,200	198,700	233,400
Flow rate - GPM	18	22	27	32	42	46
Pressure drop - PSI	5.7	9.3	4.4	5.4	8.6	10.2
72° F DB/60° F WB (50% RH)						
Total	76,800	98,000	120,900	143,400	184,700	225,400
Sensible	75,400	92,300	110,200	127,300	173,600	204,400
Flow rate - GPM	16	20	24	28	38	42
Pressure drop - PSI	4.5	7.4	3.4	4.1	7.1	8.5
72° F DB/ 58.6° F WB (45% RH)						
Total	74,700	94,300	114,100	133,500	174,700	211,600
Sensible	74,700	94,200	112,900	130,400	174,300	208,300
Flow rate - GPM	15	19	22	25	34	38
Pressure drop - PSI	3.9	6.4	2.8	3.1	5.6	6.8
BLOWER SECTION						
Airflow - CFM	4,250	4,500	5,000	5,500	9,000	9,500
Standard motor - horsepower	3	3	5	7.5	10	10
External static pressure - inches of W.G.	0.5	0.5	0.5	0.5	0.5	0.5
Number of motors/fans	1 / 1	1 / 1	1 / 1	1 / 1	1 / 2	1 / 2
Maximum external static pressure (Standard motor)	<i>Downflow</i> 1.4 <i>Upflow</i> 1.2	0.9 0.6	1.5 1.2	0.8 0.5	1.5 1.5	0.9 0.9
Maximum external static pressure (Next size motor)	<i>Downflow</i> 1.5 <i>Upflow</i> 1.5	1.5 1.5	1.5 1.2	0.9 0.6	1.5 1.5	1.4 1.4
Next size motor - horsepower	5	5	7.5	10	N/A	N/A

* Capacity data is based on 45° F entering water temperature

CHILLED WATER: Performance data at OPTIONAL AIRFLOW - Option 2, 22 - 50 nominal tons

<i>MODEL NUMBER</i>	<i>DACD/U-22</i>	<i>DACD/U-26</i>	<i>DACD/U-30</i>	<i>DACD/U-40</i>	<i>DACD/U-45</i>	<i>DACD/U-50</i>
CAPACITY* in Btu/hr - gross						
80° F DB/67° F WB (50% RH)						
Total	437,000	495,000	634,400	688,800	828,900	932,700
Sensible	297,800	337,100	439,300	489,500	575,500	633,600
Flow rate - GPM	72	92	100	125	140	150
Pressure drop - PSI	25.3	21.2	25.5	21.1	27.3	32.8
75° F DB/62.5° F WB (50% RH)						
Total	324,700	371,600	482,400	506,900	606,500	685,500
Sensible	258,400	294,500	387,200	424,000	496,200	546,400
Flow rate - GPM	60	80	90	100	110	120
Pressure drop - PSI	18.5	16.5	21.1	14.4	17.8	22.0
75° F DB/61° F WB (45% RH)						
Total	297,200	339,100	443,300	472,200	564,100	628,600
Sensible	264,900	301,700	398,100	437,900	513,000	561,000
Flow rate - GPM	55	73	83	95	105	110
Pressure drop - PSI	15.7	14.0	18.1	12.7	16.3	18.7
72° F DB/60° F WB (50% RH)						
Total	265,800	303,000	396,200	418,600	494,700	561,000
Sensible	232,400	264,400	349,200	382,300	445,000	491,600
Flow rate - GPM	50	66	76	85	90	100
Pressure drop - PSI	13.0	11.5	15.3	10.1	12.0	15.4
72° F DB/58.6° F WB (45% RH)						
Total	246,700	280,600	369,600	391,300	468,700	528,300
Sensible	238,000	271,200	358,700	387,200	458,600	508,500
Flow rate - GPM	45	59	69	75	85	95
Pressure drop - PSI	10.4	9.1	12.6	7.7	10.6	13.8

BLOWER SECTION

Airflow - CFM		10,000	10,500	15,000	18,000	20,000	21,000
Standard motor - horsepower		10	10	5	7.5	10	10
External static pressure - inches of W.G.		0.5	0.5	0.5	0.5	0.5	0.5
Number of motors/fans		1 / 2	1 / 2	3 / 3	2 / 4	2 / 4	2 / 4
Maximum external static pressure (Standard motor)	<i>Downflow</i>	1.5	0.6	1.1	1.5	1.4	0.7
	<i>Upflow</i>	1.5	0.5	0.7	1.5	1.2	0.5
Maximum external static pressure (Next size motor)	<i>Downflow</i>	N/A	N/A	N/A	1.5	N/A	N/A
	<i>Upflow</i>	N/A	N/A	N/A	1.5	N/A	N/A
Next size motor - horsepower		N/A	N/A	N/A	10	N/A	N/A

* Capacity data is based on 45° F entering water temperature

CHILLED WATER: Performance data at OPTIONAL AIRFLOW - Option 2, 22 - 50 nominal tons

MODEL NUMBER	DACD/U-22	DACD/U-26	DACD/U-30	DACD/U-40	DACD/U-45	DACD/U-50
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COIL DATA

Face area - sq. ft.	24.4	24.4	30.9	42.8	42.8	42.8
Rows of coil	5	6	6	4	5	6
Face velocity - FPM	410	485	485	421	467	491

CONTROL VALVE

(Modulating Control designed at 400 psi)

Valve body	3-WAY	3-WAY	3-WAY	3-WAY	3-WAY	3-WAY
Valve CV	46	46	46	46	46	46
Valve size - inches	2	2	2	2	2	2

CONNECTION SIZES (Inches)

Supply - O.D. Copper	2-1/8	2-1/8	2-1/8	2-5/8	2-5/8	2-5/8
Return - O.D. Copper	2-1/8	2-1/8	2-1/8	2-5/8	2-5/8	2-5/8
Condensate drain	3/4	3/4	3/4	3/4	3/4	3/4
Humidifier supply	1/4	1/4	1/4	1/4	1/4	1/4

REHEAT SECTION

Type	Electric 3-Stage		Standard	Standard	Standard	Standard	Standard	Standard
Capacity	kW		22.5	22.5	22.5	30	30	30
	Btu/hr		76,835	76,835	76,835	102,360	102,360	102,360
Type	Steam		Optional	Optional	Optional	Optional	Optional	Optional
Capacity	Btu/hr	<i>Downflow</i>	226,000	229,000	302,000	290,000	302,000	309,000
		<i>Upflow</i>	169,000	173,000	230,000	219,000	230,000	236,000
Type	Hot water		Optional	Optional	Optional	Optional	Optional	Optional
Capacity	in Btu/hr	<i>Downflow</i>	140,800	143,500	180,100	187,300	195,100	198,800
		<i>Upflow</i>	104,200	106,700	137,300	138,600	145,600	149,000
	GPM		8	8	10	10	10	10

HUMIDIFIER SECTION

Type	Steam generator		Standard	Standard	Standard	Standard	Standard	Standard
Capacity	kW		3.4-10.2	3.4-10.2	3.4-10.2	3.4-10.2	3.4-10.2	3.4-10.2
	lbs/hr		10-30*	10-30*	10-30*	10-30*	10-30*	10-30*

*(adjustable)

CHILLED WATER: Performance data at OPTIONAL AIRFLOW - Option 2, 7 - 18 nominal tons

MODEL NUMBER		DACD/U-07	DACD/U-09	DACD/U-11	DACD/U-13	DACD/U-15	DACD/U-18
FILTER SECTION							
Quantity/size	Downflow	4-16x20	4-16x20	4-16x20	4-16x20	2-16x20 4-16x25	2-16x20 4-16x25
	Upflow	2-20x25	2-20x25	2-20x25	2-20x25	2-20x25 2-16x25	2-20x25 2-16x25
Efficiency - MERV		8	8	8	8	8	8
(Note: Efficiency based on ASHRAE Std. 52.2)							

ELECTRICAL SECTION							
<u>Electrical data based on STANDARD UNIT: electric reheat-YES, steam generator humidifier-YES, and STANDARD MOTOR.*</u>							
208-230/3/60	FLA/MCA/MOP	50/63/70	51/63/70	56/70/80	65/81/90	83/103/100	83/103/110
460/3/60	FLA/MCA/MOP	23/29/30	23/29/30	25/32/35	30/37/40	38/48/50	38/48/50
575/3/60	FLA/MCA/MOP	18/23/25	18/23/25	20/25/30	24/30/35	31/39/40	31/39/40
<u>Electrical data based on: electric reheat - NO, steam generator humidifier - YES, and STANDARD MOTOR.*</u>							
208-230/3/60	FLA/MCA/MOP	25/31/35	25/31/35	31/39/45	39/49/60	48/60/70	48/60/70
460/3/60	FLA/MCA/MOP	12/14/15	12/14/15	14/17/20	18/23/30	23/29/35	23/29/35
575/3/60	FLA/MCA/MOP	9.2/12/15	9.2/12/15	11/14/15	15/18/25	19/24/25	19/24/25
<u>Electrical data based on: electric reheat - YES, steam generator humidifier - NO, and STANDARD MOTOR.*</u>							
208-230/3/60	FLA/MCA/MOP	51/63/70	51/63/70	56/70/80	65/81/90	83/103/110	83/103/110
460/3/60	FLA/MCA/MOP	23/29/30	23/29/30	25/32/35	30/37/40	38/48/50	38/48/50
575/3/60	FLA/MCA/MOP	18/23/25	18/23/25	20/25/30	24/30/35	31/39/40	31/39/40
<u>Electrical data based on: electric reheat - NO, steam generator humidifier - NO, and STANDARD MOTOR.*</u>							
208-230/3/60	FLA/MCA/MOP	8.4/11/15	8.4/11/15	15/18/30	23/29/50	20/25/45	20/25/40
460/3/60	FLA/MCA/MOP	4.2/5.3/15	4.2/5.3/15	6.6/8.3/15	11/14/20	10/13/20	10/13/20
575/3/60	FLA/MCA/MOP	3.3/4.1/15	3.3/4.1/15	5.3/6.6/15	8.6/11/15	8.6/11/15	8.6/11/15

※ STANDARD MOTOR							
Motor horsepower		3	3	5	7.5	7.5	7.5
Number of motors		1	1	1	1	1	1
208-230/3/60	FLA	9.0	9.0	14.6	23.0	23.0	23.0
460/3/60	FLA	4.4	4.4	6.6	11.0	11.0	11.0
575/3/60	FLA	3.3	3.3	5.3	8.6	8.6	8.6

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

CHILLED WATER: Performance data at OPTIONAL AIRFLOW - Option 2, 22 - 50 nominal tons

<i>MODEL NUMBER</i>		<i>DACD/U-22</i>	<i>DACD/U-26</i>	<i>DACD/U-30</i>	<i>DACD/U-40</i>	<i>DACD/U-45</i>	<i>DACD/U-50</i>
FILTER SECTION							
Quantity/size	Downflow	2-16x20 4-16x25	2-16x20 4-16x25	3-20x25 3-16x25	10-16x25	10-16x25	10-16x25
	Upflow	2-20x25 2-16x25	2-20x25 2-16x25	4-20x25 4-16x25	6-20x25	6-20x25	6-20x25
Efficiency - MERV		8	8	8	8	8	8
(Note: Efficiency based on ASHRAE Std. 52.2)							

ELECTRICAL SECTION							
<u>Electrical data based on STANDARD UNIT: electric reheat-YES, steam generator humidifier-YES, and STANDARD MOTOR.*</u>							
208-230/3/60	FLA/MCA/MOP	93/116/125	93/116/125	106/126/150	129/156/175	143/172/175	143/172/175
460/3/60	FLA/MCA/MOP	42/53/60	42/53/60	48/57/60	60/72/80	66/79/80	66/79/80
575/3/60	FLA/MCA/MOP	33/41/45	33/41/45	39/45/50	47/57/60	50/60/70	50/60/70
<u>Electrical data based on: electric reheat - NO, steam generator humidifier - YES and STANDARD MOTOR.*</u>							
208-230/3/60	FLA/MCA/MOP	58/73/90	58/73/90	72/83/90	74/87/100	88/103/125	88/103/125
460/3/60	FLA/MCA/MOP	27/34/40	27/34/40	33/37/40	35/41/45	41/48/50	41/48/50
575/3/60	FLA/MCA/MOP	20/25/30	20/25/30	26/30/35	27/32/35	30/35/40	30/35/40
<u>Electrical data based on: electric reheat - YES, steam generator humidifier - NO and STANDARD MOTOR.*</u>							
208-230/3/60	FLA/MCA/MOP	93/116/125	93/116/125	106/126/150	129/156/175	143/172/175	143/172/175
460/3/60	FLA/MCA/MOP	42/53/60	42/53/60	48/57/60	60/72/80	66/79/80	66/79/80
575/3/60	FLA/MCA/MOP	33/41/45	33/41/45	39/45/50	47/57/60	50/60/70	50/60/70
<u>Electrical data based on: electric reheat - NO steam generator humidifier - NO and STANDARD MOTOR.*</u>							
208-230/3/60	FLA/MCA/MOP	30/38/60	30/38/60	44/47/60	46/52/70	60/68/90	60/68/90
460/3/60	FLA/MCA/MOP	14/18/30	14/18/30	20/21/25	22/25/35	28/32/45	28/32/45
575/3/60	FLA/MCA/MOP	10/13/20	10/13/20	16/17/20	17/19/25	20/23/30	20/23/30

* STANDARD MOTOR							
Motor horsepower		10	10	5	7.5	10	10
Number of motors		1	1	3	2	2	2
208-230/3/60	FLA	29.0	29.0	14.6	23.0	29.0	29.0
460/3/60	FLA	14.0	14.0	6.6	11.0	14.0	14.0
575/3/60	FLA	10.0	10.0	5.3	8.6	10.0	10.0

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

Weights and Dimensional Data

DOWNFLOW					
Model	Operating Weight	Shipping Weight	Length	Width	Height
DACD-07	725 lbs	860 lbs	43.00"	34.50"	78.00"
DACD-09	745 lbs	880 lbs	43.00"	34.50"	78.00"
DACD-11	805 lbs	940 lbs	43.00"	34.50"	78.00"
DACD-13	845 lbs	980 lbs	43.00"	34.50"	78.00"
DACD-15	955 lbs	1,190 lbs	74.50"	34.50"	78.00"
DACD-18	1,065 lbs	1,300 lbs	74.50"	34.50"	78.00"
DACD-22	1,215 lbs	1,450 lbs	74.50"	34.50"	78.00"
DACD-26	1,415 lbs	1,650 lbs	74.50"	34.50"	78.00"
DACD-30	1,865 lbs	2,160 lbs	93.25"	34.50"	78.00"
DACD-40	2,485 lbs	2,875 lbs	125.00"	34.50"	78.00"
DACD-45	2,685 lbs	3,075 lbs	125.00"	34.50"	78.00"
DACD-50	2,785 lbs	3,175 lbs	125.00"	34.50"	78.00"

UPFLOW					
Model	Operating Weight	Shipping Weight	Length	Width	Height
DACU-07	725 lbs	860 lbs	43.00"	34.50"	78.00"
DACU-09	745 lbs	880 lbs	43.00"	34.50"	78.00"
DACU-11	805 lbs	940 lbs	43.00"	34.50"	78.00"
DACU-13	845 lbs	980 lbs	43.00"	34.50"	78.00"
DACU-15	955 lbs	1,190 lbs	74.50"	34.50"	78.00"
DACU-18	1,065 lbs	1,300 lbs	74.50"	34.50"	78.00"
DACU-22	1,215 lbs	1,450 lbs	74.50"	34.50"	78.00"
DACU-26	1,415 lbs	1,650 lbs	74.50"	34.50"	78.00"
DACU-30	2,110 lbs	2,440 lbs	106.00"	34.50"	78.00"
DACU-40	2,485 lbs	2,825 lbs	125.00"	34.50"	78.00"
DACU-45	2,685 lbs	3,075 lbs	125.00"	34.50"	78.00"
DACU-50	2,785 lbs	3,175 lbs	125.00"	34.50"	78.00"



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